



Maine Yankee Atomic Power Plant Site Characterization

04/10/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER :R0700

ENVIRONS

PACKAGE DESCRIPTION

Construction Debris Landfill

SURVEY AREA DESCRIPTION

Construction Debris Landfill

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

The Construction Debris Landfill was once used to dispose of dredging spoils and possibly other construction debris. The surface dimensions and depth of the fill and cover are unknown. Consequently, the subsurface investigation will be rather extensive for hazardous materials. These subsurface soil and groundwater samples will also be analyzed by gamma spec. This area has been and is currently used as the "silt spreading area" to dispose of silt and debris from the cooling water intake structure. Gamma spec of the silt before disposal sometimes indicated low levels of Co-60 and Cs-137.

SUMMARY OF CHARACTERIZATION ACTIVITIES

- (1) An approximate 100% gamma scan of accessible areas was performed using a large plastic scintillator detector. The locations of the scanning results were identified using a global positioning system (GPS). Eight locations gave elevated count rates, and they were each marked in the field with a flag.
- (2) The marked locations were investigated by scanning with a NaI(Tl) detector to identify the apparent extent of the potential contamination.
- (3) Soil samples from each of these marked locations were obtained under Package R2500.
- (4) The perimeter of the Construction Debris Landfill was marked in approximately 25 meter increments to assist in performing step (5).
- (5) Thirty grid locations (approximately 25 x 25 meter) were identified by random selection. The locations of the 30 random sample points were in addition to the eight marked elevated areas.
- (6) Thirty 6" depth soil samples were obtained from the random sample locations established in step (5).
- (7) At each random soil sample location, a 1-meter gamma exposure rate (micro-R/hr) measurement was performed.
- (8) Duplicates of surface and subsurface soil samples were obtained under Package R2400 from the six Geoprobe test bore locations in this area.

CHARACTERIZATION SURVEY RESULTS

(1) The Construction Debris Landfill drive-over gamma scanning survey identified and flagged eight elevated areas, which are labeled # 13, 14, 15, 16, 17, 21, 22 and 23 on Figure 3. follow-up manual gamma scanning surveys did not identify any locations within these eight elevated areas that gave higher count rates than the flagged locations. Of the forty 0-6" depth soil samples taken at these eight locations under Package R2500, gamma spectroscopic analyses did not show the presence of Co-60 and gave Cs-137 concentrations that ranged from 0.00 to 0.06 pCi/g. At the locations of these surface soil samples, the exposure rate measurements gave a mean value of 12.2 uR/hr and a range of 10.2 to 14.5 uR/hr, which are consistent with background values. The eight *in situ* MicroSpec spectra did not show the presence of Co-60 at the eight elevated areas.

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(2) Thirty random soil samples of 0-6" depth were obtained from the landfill. These samples were in addition to the samples taken to evaluate the elevated locations identified by drive-over gamma scanning. The gamma spectroscopic analyses of the 30 samples did not show the presence of Co-60 and gave Cs-137 concentrations that ranged from 0.00 to 0.06 pCi/g.

(3) The thirty 1-meter exposure rate measurements gave a mean value of 12.0 uR/hr with a range of 10.1 to 14.5 uR/hr, which are consistent with background values.

(4) In summary, the qualitative results of gamma scanning surveys, the quantitative gamma spectroscopic analyses of 30 random soil samples and 40 soil samples from the elevated areas, the results of 70 exposure rate (uR/hr) measurements, and the results of eight qualitative *in situ* MicroSpec spectra demonstrate that the Construction Debris Landfill is unaffected by radioactive materials from the plant.

REFERENCES (Documents, Interviews)



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SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 500

PACKAGE R0700 ENVIRONS
Construction Debris Landfill

UNIT(S)

01 - Open land area

SURFACE(S)

OA2 (Surface Soil Sample @ 0"-6" Depth)
OL1 (Open Land Areas)

REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS	MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm²)
	G0006	SURFACE SOIL - GAMMA	0.0

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Exposure Rate Measurements

Survey Package R0700 ENVIRONS
Construction Debris Landfill

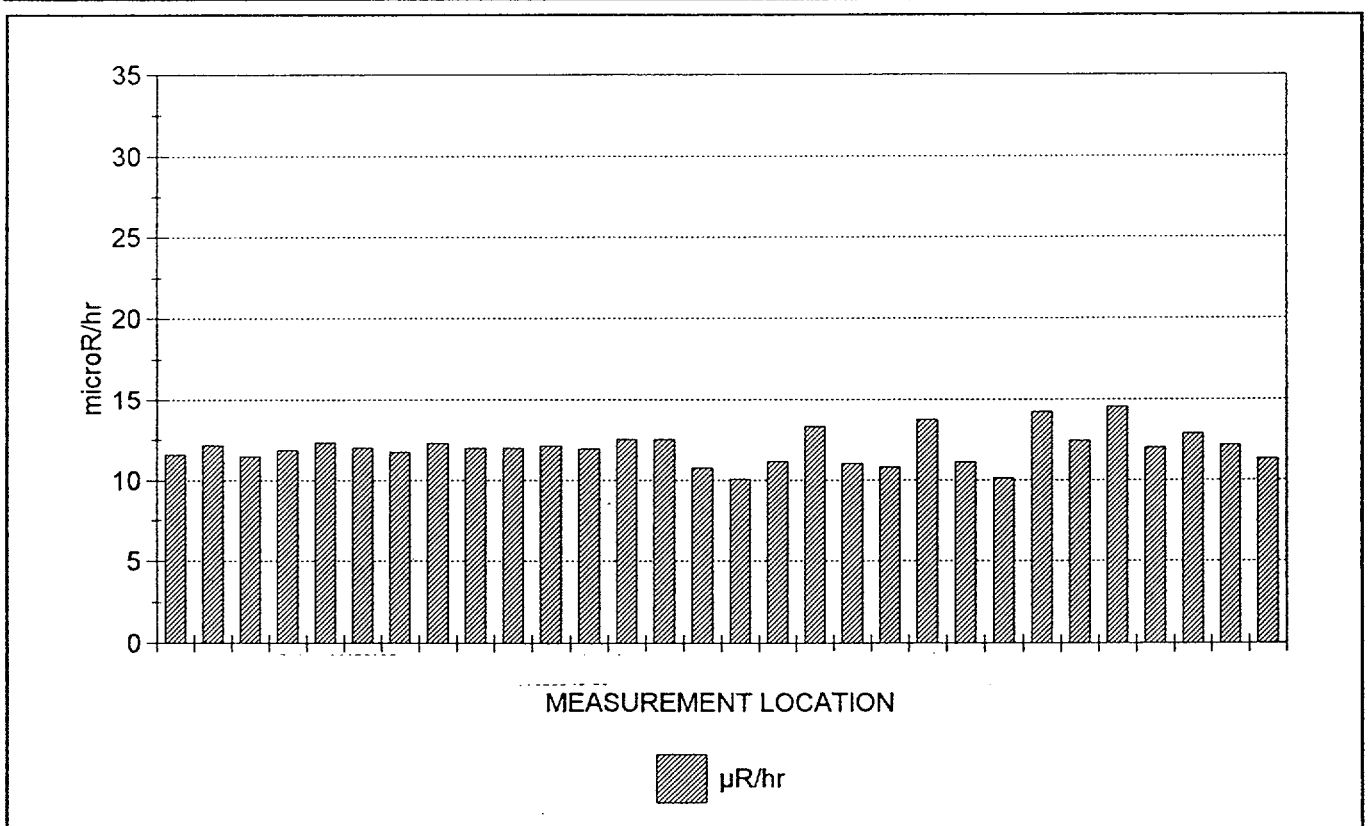
STATISTICAL SUMMARY

	$\mu\text{R/hr}$
Mean	11.99
Maximum	14.52
Minimum	10.08
Standard Deviation	1.05

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES
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Samples Reported	30
Samples Prescribed	30



30 RESULTS ARE GRAPHED



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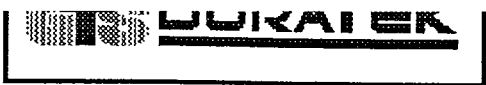
Exposure Rate Measurements

Survey Package : R0700 ENVIRONS
Construction Debris Landfill

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
679 (2)	01	OL1	G0006	C01	60.00	00002-00001	11.55
679 (2)	01	OL1	G0006	C01	60.00	00003-00001	12.17
679 (2)	01	OL1	G0006	C01	60.00	00004-00001	11.45
679 (2)	01	OL1	G0006	C01	60.00	00010-00001	11.82
679 (2)	01	OL1	G0006	C01	60.00	00014-00001	12.30
679 (2)	01	OL1	G0006	C01	60.00	00015-00001	11.98
679 (2)	01	OL1	G0006	C01	60.00	00025-00001	11.71
679 (2)	01	OL1	G0006	C01	60.00	00026-00001	12.26
679 (2)	01	OL1	G0006	C01	60.00	00027-00001	11.94
679 (2)	01	OL1	G0006	C01	60.00	00036-00001	11.95
679 (2)	01	OL1	G0006	C01	60.00	00037-00001	12.13
679 (2)	01	OL1	G0006	C01	60.00	00040-00001	11.93
679 (2)	01	OL1	G0006	C01	60.00	00045-00001	12.53
679 (2)	01	OL1	G0006	C01	60.00	00047-00001	12.52
679 (2)	01	OL1	G0006	C01	60.00	00051-00001	10.72
679 (2)	01	OL1	G0006	C01	60.00	00052-00001	10.08
679 (2)	01	OL1	G0006	C01	60.00	00056-00001	11.13
679 (2)	01	OL1	G0006	C01	60.00	00064-00001	13.31
679 (2)	01	OL1	G0006	C01	60.00	00067-00001	10.99
679 (2)	01	OL1	G0006	C01	60.00	00073-00001	10.78
679 (2)	01	OL1	G0006	C01	60.00	00078-00001	13.75
679 (2)	01	OL1	G0006	C01	60.00	00081-00001	11.08
679 (2)	01	OL1	G0006	C01	60.00	00084-00001	10.12
679 (2)	01	OL1	G0006	C01	60.00	00090-00001	14.22
679 (2)	01	OL1	G0006	C01	60.00	00092-00001	12.43
679 (2)	01	OL1	G0006	C01	60.00	00094-00001	14.52
679 (2)	01	OL1	G0006	C01	60.00	00095-00001	12.01
679 (2)	01	OL1	G0006	C01	60.00	00099-00001	12.85
679 (2)	01	OL1	G0006	C01	60.00	00101-00001	12.14
679 (2)	01	OL1	G0006	C01	60.00	00102-00001	11.30

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
Underlined results did not meet the minimum required count time.
Bold values exceed 10 μ R/hr.
30 results are listed.



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DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/09/98

Exposure Rate Measurements

Survey Package : R0700 ENVIRONS
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SURVEY DATE	FILE #	M2350		DETECTOR			TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	
3/29/98	679 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768

CALIBRATION DATES VERIFIED AS ACCEPTABLE



Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 31

04/09/98

OUTPUT BATCH SN = 648

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00027-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (\pm pCi/g)
MY054	MY054.CNF	1,227.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	24.80	0.40	2.11
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00026-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (\pm pCi/g)
MY055	MY055.CNF	1,384.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.70	0.50	1.99
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00037-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (\pm pCi/g)
MY056	MY056.CNF	1,211.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	24.90	0.61	2.14
				Mn-54	< .08	0.08	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00036-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY057	MY057.CNF	1,470.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.50	0.66	1.84
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY058	MY058.CNF	1,535.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	25.00	0.40	2.09
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00045-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY059	MY059.CNF	1,259.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	23.70	0.46	2.03
				Mn-54	< .07	0.07	0.00

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Survey Package R0700 ENVIRONS
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UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00092-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY060	MY060.CNF	1,348.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.60	0.57	1.87
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00052-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY061	MY061.CNF	1,112.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.90	0.49	1.97
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00051-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY062	MY062.CNF	1,472.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.50	0.57	1.77
				Mn-54	< .07	0.07	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00067-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY063	MY063.CNF	1,236.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.00	0.60	2.01
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00081-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY064	MY064.CNF	1,460.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.40	0.50	1.89
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00073-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY065	MY065.CNF	1,278.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .07	0.07	0.00
				K-40	24.40	0.51	2.07
				Mn-54	< .08	0.08	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00056-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY066	MY066.CNF	1,568.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	24.10	0.47	2.02
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00099-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY067	MY067.CNF	1,293.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	24.20	0.38	2.05
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00094-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY068	MY068.CNF	1,526.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	27.40	0.50	2.25
				Mn-54	< .08	0.08	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY069	MY069.CNF	1,442.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.20	0.56	1.82
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00004-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY070	MY070.CNF	1,735.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.30	0.46	1.73
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY071	MY071.CNF	1,340.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .07	0.07	0.00
				K-40	26.90	0.52	2.22
				Mn-54	< .08	0.08	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY072	MY072.CNF	1,542.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	25.30	0.55	2.12
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00064-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY217	ENV00013	1,310.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.06	0.00
				K-40	25.40	0.59	2.13
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00102-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY218	ENV00033	1,470.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.06	0.05	0.03
				K-40	19.20	0.72	1.78
				Mn-54	< .07	0.07	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00078-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY219	ENV00014	1,640.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.50	0.72	1.99
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00095-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY479	H2O00215	1,260.00	1200	Co-57	< .03	0.03	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.50	0.52	1.95
				Mn-54	< .04	0.04	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00040-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY481	H2O00216	1,400.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.80	0.45	1.93
				Mn-54	< .08	0.08	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00090-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY483	ENV00172	1,500.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .07	0.07	0.00
				K-40	24.50	0.50	2.07
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY485	ENV00219	1,600.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.40	0.73	1.99
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00025-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY487	H2O00217	1,350.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	26.00	0.57	2.16
				Mn-54	< .08	0.08	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00047-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY489	H2O00197	1,480.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	24.10	0.69	2.10
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00084-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY491	H2O00010	1,190.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.40	0.68	1.93
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00084-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY492	H2O00013	1,210.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.50	0.60	1.95
				Mn-54	< .08	0.08	0.00

Survey Package R0700 ENVIRONS
Construction Debris Landfill

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00101-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY493	H2O00218	1,160.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.04	0.05	0.03
				K-40	24.50	0.67	2.14
				Mn-54	< .09	0.09	0.00

Maine Yankee Atomic Power Plant Site Characterization

04/28/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER R0800

ENVIRONS

PACKAGE DESCRIPTION

Administration and Parking Areas

SURVEY AREA DESCRIPTION

Administration and Parking Area

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

There is no known contamination or reason to suspicion contamination in the Administration, Parking and Information Center areas outside the Protected Area.

SUMMARY OF CHARACTERIZATION ACTIVITIES

- (1) An approximate 100% gamma scan of accessible areas was performed using a large plastic scintillator detector. The locations of the scanning results were identified using a global positioning system (GPS). Three locations gave elevated count rates, and they were each marked in the field with a flag.
- (2) The marked locations were investigated by scanning with a NaI(Tl) detector to identify the apparent extent of the potential contamination.
- (3) Soil samples from each of these marked locations were obtained under Package R2500.
- (4) The perimeter of the survey area was marked in approximately 25 meter increments to assist in performing step (5).
- (5) Thirty grid locations (approximately 25 x 25 meters) were identified by random selection. The locations of the 30 random sample points were in addition to the three marked elevated areas.
- (6) Thirty 6" depth soil samples were obtained from the random sample locations established in step (5). No soil samples were taken from under paved surfaces.
- (7) At 60 random soil sample locations, a 1-meter gamma exposure rate (micro-R/hr) measurement was performed.
- (8) At 30 random paved or concrete surface locations, a direct measurements for total beta activity and a 1-meter gamma exposure rate (micro-R/hr) measurement were performed.

CHARACTERIZATION SURVEY RESULTS

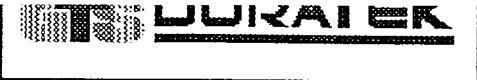
- (1) The administration and parking area drive-over gamma scanning survey identified three elevated areas, which are labeled # 4, 5, and 6 on Figure 3. The follow-up manual gamma scanning surveys did not identify any locations within these three elevated areas that gave higher count rates than the flagged locations. Of the fifteen 0-6" depth soil samples taken at these locations under Package R2500, the gamma spectroscopic analyses did not show the presence of Co-60 and gave Cs-137 concentrations that ranged from 0.00 to 0.33 pCi/g. At the locations of the fifteen surface soil samples, the exposure rate measurements gave a mean value of 9.6 uR/hr and a range of 8.3 to 10.8 uR/hr, which is consistent with background values. MicroSpec *in situ* spectra did not show the presence of Co-60 at the three elevated areas.
- (2) Thirty random soil samples of 0-6" depth were obtained from this survey unit. These samples were in addition to the samples taken to evaluate the elevated locations identified by drive-over gamma scanning. The gamma spectroscopic analyses of these 30 samples did not show the presence of Co-60 and the Cs-137 concentrations ranged from 0.00 to 0.83 pCi/g.

(3) The sixty 1-meter exposure rate measurements on paved and unpaved surfaces gave a mean value of 17.9 uR/hr and a range of 12.4 to 33.9 uR/hr. The relatively high values are attributed to the proximity of certain sampling locations to the north side of the RCA yard and the south end of the Low-Level Storage Building.

(4) At the 30 random paved surface locations where direct measurements for total beta activity were performed, none were above MDA (714 dpm/100cm²). The maximum measurement result was 539 dpm/100cm².

(5) In summary, the qualitative results of gamma scanning surveys, the quantitative gamma spectroscopic analyses of 30 random soil samples and 15 soil samples from the elevated areas, the results of 75 exposure rate (uR/hr) measurements, and the results of three qualitative MicroSpec spectra demonstrate that the Administration and Parking Area is unaffected by radioactive materials from the plant.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

04/09/98

OUTPUT BATCH SN = 649

PACKAGE R0800 ENVIRONS
Administration and Parking Areas

UNIT(S)	SURFACE(S)
01 - Open land areas	OA1 (Surface Soil Sample @ 0"-6" Depth)
02 - Parking areas	OR1 (Roadways)

REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS	MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm ²)
	B0016	ASPHALT	925.00
	G0006	SURFACE SOIL - GAMMA	0.00
	G0016	ASPHALT - GAMMA	0.00

04/09/98

Direct Measurements For Total Beta Activity

Survey Package R0800 ENVIRONS
Administration and Parking Areas

STATISTICAL SUMMARY

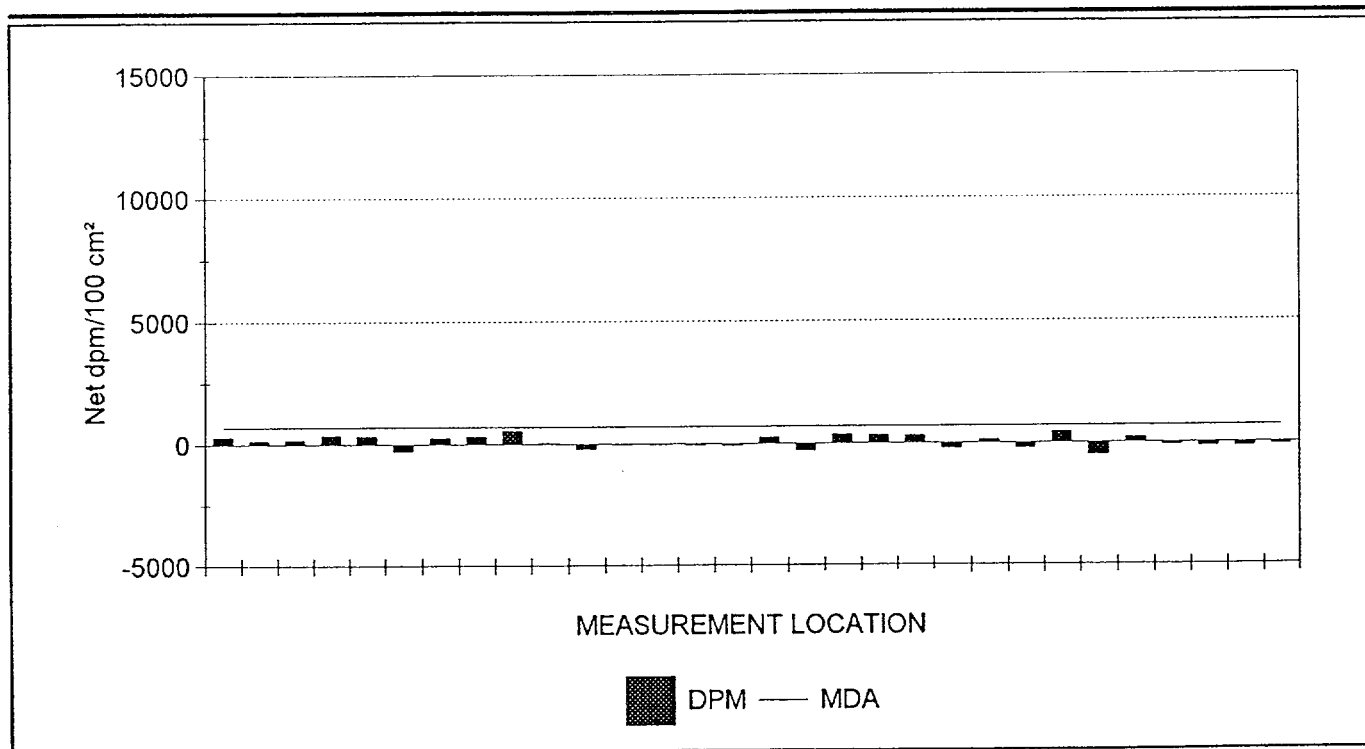
TESTS PERFORMED

	Net dpm/100 cm ²
Mean	73.48
Maximum	539.32
Minimum	-483.83
Standard Deviation	261.55
MDA	713.82

Samples reported satisfy samples prescribed	YES
MDA <2000 net dpm/100 cm ²	YES
Results above 2000 net dpm/100 cm ²	0
Number of results above MDA	0

Samples Reported 30

Samples Prescribed 30



30 RESULTS ARE GRAPHED

04/09/98

Direct Measurements For Total Beta Activity

Survey Package : R0800 ENVIRONS
Administration and Parking Areas

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	MDA	RESULT
11 (2)	02	OR1	B0016	C01	10	00002-00001	713.82	306.79
11 (2)	02	OR1	B0016	C01	10	00003-00001	713.82	167.27
11 (2)	02	OR1	B0016	C01	10	00004-00001	713.82	190.52
11 (2)	02	OR1	B0016	C01	10	00013-00001	713.82	376.55
11 (2)	02	OR1	B0016	C01	10	00020-00001	713.82	330.04
11 (2)	02	OR1	B0016	C01	10	00022-00001	713.82	-297.80
11 (2)	02	OR1	B0016	C01	10	00025-00001	713.82	260.28
11 (2)	02	OR1	B0016	C01	10	00026-00001	713.82	306.79
11 (2)	02	OR1	B0016	C01	10	00032-00001	713.82	539.32
11 (2)	02	OR1	B0016	C01	10	00033-00001	713.82	51.00
11 (2)	02	OR1	B0016	C01	10	00034-00001	713.82	-204.79
11 (2)	02	OR1	B0016	C01	10	00035-00001	713.82	-18.76
11 (2)	02	OR1	B0016	C01	10	00036-00001	713.82	-18.76
11 (2)	02	OR1	B0016	C01	10	00047-00001	713.82	-42.01
11 (2)	02	OR1	B0016	C01	10	00060-00001	713.82	-88.52
11 (2)	02	OR1	B0016	C01	10	00061-00001	713.82	260.28
11 (2)	02	OR1	B0016	C01	10	00062-00001	713.82	-274.55
11 (2)	02	OR1	B0016	C01	10	00063-00001	713.82	376.55
11 (2)	02	OR1	B0016	C01	10	00064-00001	713.82	330.04
11 (2)	02	OR1	B0016	C01	10	00074-00001	713.82	306.79
11 (2)	02	OR1	B0016	C01	10	00075-00001	713.82	-204.79
11 (2)	02	OR1	B0016	C01	10	00078-00001	713.82	120.76
11 (2)	02	OR1	B0016	C01	10	00079-00001	713.82	-204.79
11 (2)	02	OR1	B0016	C01	10	00082-00001	713.82	446.31
11 (2)	02	OR1	B0016	C01	10	00090-00001	713.82	-483.83
11 (2)	02	OR1	B0016	C01	10	00092-00001	713.82	213.78
11 (2)	02	OR1	B0016	C01	10	00094-00001	713.82	-111.77
11 (2)	02	OR1	B0016	C01	10	00097-00001	713.82	-158.28
11 (2)	02	OR1	B0016	C01	10	00098-00001	713.82	-158.28
11 (2)	02	OR1	B0016	C01	10	00099-00001	713.82	-111.77

NOTES: Activity reported in net dpm/100 cm². Count times are reported in seconds.
Underlined values exceed the MDA.
Bold values exceed 2000 dpm/100 cm².
30 results are listed.

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/09/98

Direct Measurements For Total Beta Activity

Survey Package : R0800 ENVIRONS
Administration and Parking Areas

SURVEY DATE	FILE #	M2350		DETECTOR			PRE	TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	EFF	
11/7/97	11 (2)	98620	3/20/98	43-106	128918	3/20/98	.20	DRK2986

CALIBRATION DATES VERIFIED AS ACCEPTABLE

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

Exposure Rate Measurements

Survey Package R0800 ENVIRONS
Administration and Parking Areas

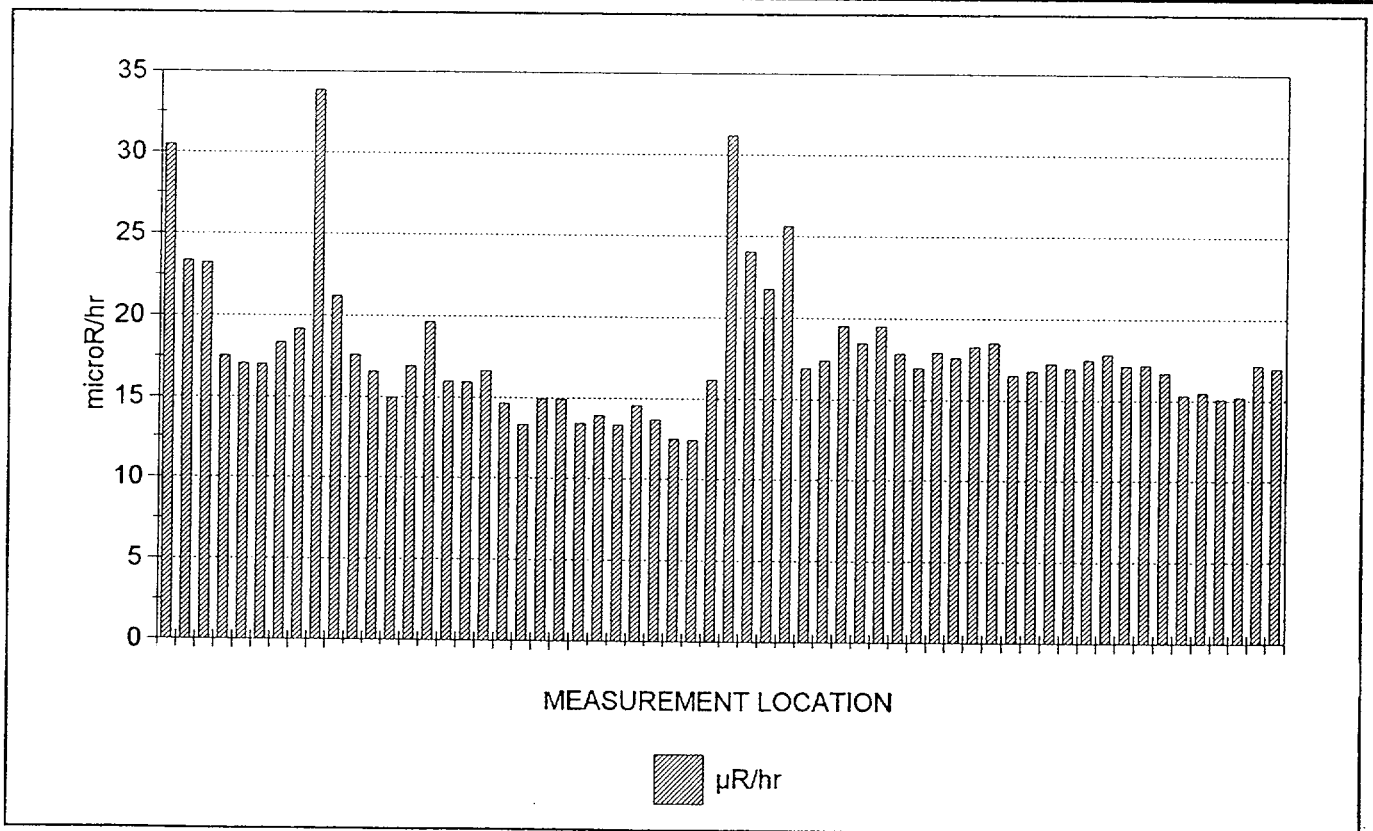
STATISTICAL SUMMARY

	$\mu\text{R/hr}$
Mean	17.90
Maximum	33.87
Minimum	12.38
Standard Deviation	4.20

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES
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Samples Reported	60
Samples Prescribed	60



60 RESULTS ARE GRAPHED

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

Exposure Rate Measurements

Survey Package : R0800 ENVIRONS
Administration and Parking Areas

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
14 (2)	01	OA1	G0006	C01	60.00	00002-00001	30.46
14 (2)	01	OA1	G0006	C01	60.00	00003-00001	23.34
14 (2)	01	OA1	G0006	C01	60.00	00004-00001	23.23
14 (2)	01	OA1	G0006	C01	60.00	00025-00001	17.51
14 (2)	01	OA1	G0006	C01	60.00	00026-00001	17.04
14 (2)	01	OA1	G0006	C01	60.00	00029-00001	17.01
14 (2)	01	OA1	G0006	C01	60.00	00041-00001	18.34
677 (2)	01	OA1	G0006	C01	60.00	00043-00001	19.20
14 (2)	01	OA1	G0006	C01	60.00	00044-00001	33.87
14 (2)	01	OA1	G0006	C01	60.00	00052-00001	21.21
14 (2)	01	OA1	G0006	C01	60.00	00060-00001	17.62
14 (2)	01	OA1	G0006	C01	60.00	00067-00001	16.57
14 (2)	01	OA1	G0006	C01	60.00	00068-00001	14.94
14 (2)	01	OA1	G0006	C01	60.00	00070-00001	16.94
14 (2)	01	OA1	G0006	C01	60.00	00072-00001	19.65
14 (2)	01	OA1	G0006	C01	60.00	00075-00001	16.00
14 (2)	01	OA1	G0006	C01	60.00	00081-00001	15.94
14 (2)	01	OA1	G0006	C01	60.00	00082-00001	16.67
14 (2)	01	OA1	G0006	C01	60.00	00089-00001	14.64
14 (2)	01	OA1	G0006	C01	60.00	00090-00001	13.31
14 (2)	01	OA1	G0006	C01	60.00	00097-00001	14.93
14 (2)	01	OA1	G0006	C01	60.00	00101-00001	14.90
14 (2)	01	OA1	G0006	C01	60.00	00108-00001	13.39
14 (2)	01	OA1	G0006	C01	60.00	00109-00001	13.88
14 (2)	01	OA1	G0006	C01	60.00	00110-00001	13.31
14 (2)	01	OA1	G0006	C01	60.00	00113-00001	14.56
14 (2)	01	OA1	G0006	C01	60.00	00119-00001	13.65
14 (2)	01	OA1	G0006	C01	60.00	00121-00001	12.46
14 (2)	01	OA1	G0006	C01	60.00	00122-00001	12.38
14 (2)	01	OA1	G0006	C01	60.00	00125-00001	16.19
14 (2)	02	OR1	G0016	C01	60.00	00002-00001	31.19
14 (2)	02	OR1	G0016	C01	60.00	00003-00001	24.05
14 (2)	02	OR1	G0016	C01	60.00	00004-00001	21.79
14 (2)	02	OR1	G0016	C01	60.00	00013-00001	25.64
14 (2)	02	OR1	G0016	C01	60.00	00020-00001	16.93
14 (2)	02	OR1	G0016	C01	60.00	00022-00001	17.42
14 (2)	02	OR1	G0016	C01	60.00	00025-00001	19.55
14 (2)	02	OR1	G0016	C01	60.00	00026-00001	18.47
14 (2)	02	OR1	G0016	C01	60.00	00032-00001	19.53
14 (2)	02	OR1	G0016	C01	60.00	00033-00001	17.85

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
Underlined results did not meet the minimum required count time.
Bold values exceed 10 μ R/hr.

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

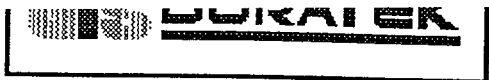
Exposure Rate Measurements

Survey Package : R0800 ENVIRONS
Administration and Parking Areas

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
14 (2)	02	OR1	G0016	C01	60.00	00034-00001	16.99
14 (2)	02	OR1	G0016	C01	60.00	00035-00001	17.93
14 (2)	02	OR1	G0016	C01	60.00	00036-00001	17.60
14 (2)	02	OR1	G0016	C01	60.00	00047-00001	18.27
14 (2)	02	OR1	G0016	C01	60.00	00060-00001	18.50
14 (2)	02	OR1	G0016	C01	60.00	00061-00001	16.52
14 (2)	02	OR1	G0016	C01	60.00	00062-00001	16.81
14 (2)	02	OR1	G0016	C01	60.00	00063-00001	17.24
14 (2)	02	OR1	G0016	C01	60.00	00064-00001	16.98
14 (2)	02	OR1	G0016	C01	60.00	00074-00001	17.48
14 (2)	02	OR1	G0016	C01	60.00	00075-00001	17.85
14 (2)	02	OR1	G0016	C01	60.00	00078-00001	17.11
14 (2)	02	OR1	G0016	C01	60.00	00079-00001	17.15
14 (2)	02	OR1	G0016	C01	60.00	00082-00001	16.71
14 (2)	02	OR1	G0016	C01	60.00	00090-00001	15.31
14 (2)	02	OR1	G0016	C01	60.00	00092-00001	15.49
14 (2)	02	OR1	G0016	C01	60.00	00094-00001	15.08
14 (2)	02	OR1	G0016	C01	60.00	00097-00001	15.19
14 (2)	02	OR1	G0016	C01	60.00	00098-00001	17.18
14 (2)	02	OR1	G0016	C01	60.00	00099-00001	16.96

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
Underlined results did not meet the minimum required count time.
Bold values exceed 10 μ R/hr.
60 results are listed.



Maine Yankee Atomic Power Plant Site Characterization

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/09/98

Exposure Rate Measurements

Survey Package : R0800 ENVIRONS
Administration and Parking Areas

SURVEY DATE	FILE #	M2350		DETECTOR			TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	
11/7/97	14 (2)	080498	4/8/98	44-2	PR075119	4/8/98	JJP1813
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
11/10/97	14 (2)	080498	4/8/98	44-2	PR075119	4/8/98	JJP1813.
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/28/98	677 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768
CALIBRATION DATES VERIFIED AS ACCEPTABLE							



Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 649

04/09/98

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00004-00001

Table with 8 columns: LAB ID, SPECTRUM, MASS (grams), COUNT TIME (seconds), NUCLIDE, ACTIVITY (pCi/g), MDA (pCi/g), ERROR (± pCi/g). Rows include MY201 and various nuclides like Co-57, Co-60, Cs-134, Cs-137, K-40, Mn-54.

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00052-00001

Table with 8 columns: LAB ID, SPECTRUM, MASS (grams), COUNT TIME (seconds), NUCLIDE, ACTIVITY (pCi/g), MDA (pCi/g), ERROR (± pCi/g). Rows include MY202 and various nuclides like Co-57, Co-60, Cs-134, Cs-137, K-40, Mn-54.

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00041-00001

Table with 8 columns: LAB ID, SPECTRUM, MASS (grams), COUNT TIME (seconds), NUCLIDE, ACTIVITY (pCi/g), MDA (pCi/g), ERROR (± pCi/g). Rows include MY203 and various nuclides like Co-57, Co-60, Cs-134, Cs-137, K-40, Mn-54.

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00070-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY204	ENV00025	1,050.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.56	0.07	0.08
				K-40	17.10	0.81	1.81
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00068-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY205	ENV00007	1,290.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.41	0.05	0.06
				K-40	17.70	0.54	1.63
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00067-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY206	ENV00026	1,200.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.06	0.06	0.04
				K-40	23.50	0.61	2.15
				Mn-54	< .09	0.09	0.00

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00082-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY207	ENV00008	1,100.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.23	0.06	0.05
				K-40	21.90	0.73	2.00
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00108-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY208	ENV00027	1,170.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.60	0.07	0.08
				K-40	16.80	0.65	1.72
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY209	ENV00009	763.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.54	0.08	0.08
				K-40	15.00	0.63	1.56
				Mn-54	< .08	0.08	0.00

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Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00109-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY210	ENV00029	1,300.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.17	0.07	0.05
				K-40	18.70	0.62	1.79
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00110-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY211	ENV00010	1,070.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.16	0.05	0.04
				K-40	19.20	0.56	1.81
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00029-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY212	ENV00030	1,570.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.05	0.07	0.04
				K-40	20.80	0.92	2.06
				Mn-54	< .08	0.08	0.00

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00081-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY213	ENV00011	1,090.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.10	0.06	4.08
				K-40	21.80	0.76	2.00
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00121-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY214	ENV00031	809.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.63	0.07	0.09
				K-40	16.00	0.44	1.70
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00101-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY227	ENV00037	1,170.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.37	0.08	0.07
				K-40	15.70	0.42	1.61
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 649

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Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00089-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY228	ENV00038	1,040.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.23	0.07	0.06
				K-40	20.00	0.63	2.00
				Mn-54	< .10	0.10	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY229	ENV00020	1,470.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.07	0.04	0.03
				K-40	19.10	0.35	1.66
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00119-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY230	ENV00039	1,060.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.49	0.07	0.08
				K-40	17.50	0.71	1.82
				Mn-54	< .08	0.08	0.00

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00060-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY231	ENV00021	1,440.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.02	0.04	0.03
				K-40	21.60	0.49	1.84
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00125-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY232	ENV00023	889.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.83	0.06	0.09
				K-40	14.20	0.46	1.42
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00113-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY233	ENV00025	1,080.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.20	0.07	0.05
				K-40	18.30	0.77	1.77
				Mn-54	< .08	0.08	0.00

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY234	ENV00024	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.17	0.07	0.05
				K-40	20.10	0.55	1.77
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY235	ENV00026	1,030.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.32	0.06	0.06
				K-40	21.80	0.63	2.01
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00043-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY236	ENV00027	1,180.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.30	0.75	1.93
				Mn-54	< .09	0.09	0.00

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00025-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY237	ENV00028	1,350.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.07	0.00
				K-40	24.70	0.43	2.06
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00026-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY238	ENV00029	1,590.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.50	0.49	1.91
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00044-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY239	ENV00030	1,130.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.04	0.07	0.04
				K-40	22.80	0.62	2.03
				Mn-54	< .08	0.08	0.00

Survey Package R0800 ENVIRONS
Administration and Parking Areas

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00072-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY472	H2O00007	1,240.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.11	0.05	0.04
				K-40	20.60	0.51	1.83
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00075-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY474	H2O00008	1,280.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.23	0.08	0.06
				K-40	16.80	0.96	1.64
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00097-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY476	H2O00009	1,270.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.09	0.06	0.04
				K-40	19.40	0.51	1.74
				Mn-54	< .08	0.08	0.00

Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

06/04/98

SURVEY PACKAGE NUMBER :R0900

ENVIRONS

PACKAGE DESCRIPTION

Balance of Plant Area

SURVEY AREA DESCRIPTION

Balance of Plant Area

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

There is no known contamination or reason to suspect contamination in the following areas: Warehouse yards, fire pond yard and berm, trailers outside Protected Area, spare generator building and storage facilities, etc.

SUMMARY OF CHARACTERIZATION ACTIVITIES

- (1) An approximate 100% gamma scan of accessible areas was performed using a plastic scintillator detector giving counts/sec. The locations of the scanning results were identified using a global positioning system (GPS). No locations gave elevated count rates in this survey area.
- (2) The perimeter of the survey area was marked in approximately 25 meter increments to assist in performing step (3).
- (3) Thirty grid locations (approximately 25 x 25 meter) were identified by random selection.
- (4) Thirty 6" depth soil samples were obtained from the random sample locations established in step (3). No soil samples were taken from under paved surfaces. The depth of soil samples with the code OA1 through OA4 is 0-6" and the depth for code OB1 is 6-12".
- (5) At each random soil sample location, a 1-meter gamma exposure rate (micro-R/hr) measurement was performed.
- (6) For each of the 11 grids covered with asphalt or concrete, a direct measurements for total beta activity and a 1-meter gamma exposure rate (micro-R/hr) measurement were performed. One paved measurement location near Warehouse #2 exhibited an elevated exposure rate reading, and this location was marked for further investigation.
- (7) Upon notification of the elevated reading observed near Warehouse #2, a Maine Yankee Radiation Control technician removed a small amount of dirt and asphalt from the affected area. A resurvey of the marked location revealed that the contamination had been removed during the sampling process. An enhanced survey of the immediate paved area at Warehouse #2 was implemented. This consisted of a 10% biased scan of the asphalt, in 1 meter increments, and the collection of 60 direct beta measurements.
- (8) A sediment sample was obtained from the asphalt surface of the Fire Pond. This sample consisted mostly of mossy material, which accounts for its relatively low density.
- (9) An elevated level of Cs-137 was identified in the surface soil sample taken from grid #130, which is located near the Forebay inlet-flow monitoring shed. An additional five soil samples were obtained from this grid, and each sample showed elevated Cs-137 concentrations. Additional characterization of this area was performed under Package R2501 to bound the depth and extent of the surface contamination, which is believed to have resulted from events involving the Refueling Water Storage Tank.

CHARACTERIZATION SURVEY RESULTS

- (1) The drive-over gamma scanning survey did not identify any elevated locations in the Balance of Plant Area,

CHARACTERIZATION SUMMARY

06/04/98

partially because of the relatively high ambient dose rates associated with the RCA yard.

(2) Of the 30 random 0-6" depth soil samples obtained from this area, the sample from grid # 130 (refer to Figure 6) gave elevated gamma spectroscopic results for Co-60 and Cs-137 at 0.11 and 27.20 pCi/g, respectively. An additional three 0-6" depth soil samples taken in three directions and approximately 10 ft away from the previous sample location, plus a repeat of the initial sample location, gave a range of Co-60 concentrations of 0.20 to 1.47 pCi/g and a range of Cs-137 concentrations of 11.00 to 85.60 pCi/g. A 6-12" depth soil sample taken from the initial sampling location gave Co-60 and Cs-137 concentrations of 5.11 and 3.46 pCi/g, respectively.

The area of investigation around grid # 130 was expanded (under Package R2501) to include thirty-six 5-meter x 5-meter grids, which yielded 36 surface soil and three subsurface soil samples. This area and the 36 follow-up grids are shown on Figure 8 with the code R2501/010A1, 010B1. The gamma spectroscopic analyses gave Co-60 concentrations above MDA at grids # 6, 8, 9, 11, 15, 22, and 32, with the highest result for grid # 6 at 0.126 pCi/g. Co-60 was not identified in the subsurface samples. The Cs-137 concentrations in the surface soil samples ranged from 0.33 pCi/g at grid # 32 to 66.40 pCi/g at grid # 22. The Cs-137 concentrations for the three subsurface soil samples from grids # 11, 15, and 21 were 5.95, 1.20 and 3.52 pCi/g, respectively. The follow-up evaluation of grid # 85 from Package R1000 was implicitly incorporated within the boundary of these 36 grids.

(3) Of the eleven grids covered with asphalt or concrete that were surveyed for total surface contamination, one measurement near Warehouse #2 gave an elevated reading. After a sample was taken by a Maine Yankee technician, a follow-up investigation consisting of scanning and 60 direct beta measurements did not identify any other elevated locations, including the original location, within this paved area at Warehouse # 2. An analysis of the sample at the Maine Yankee Chemistry Laboratory showed that the elevated reading was due to Co-60.

(4) The forty-one 1-meter exposure rate measurements gave a mean value of 25.9 uR/hr and a range of 11.6 to 77.7 uR/hr. The relatively high values tend to follow the Protected Area fence line from the Forebay to the warehouse area and are attributed to direct radiation from the RCA yard and perhaps from soil contamination in the general area of the Forebay. Of the 70 direct measurements for total beta activity, none were above MDA (739 dpm/100cm²). The maximum measurement result was 422 dpm/100cm².

(5) A gamma spectroscopic analysis of the mossy sediment sample obtained from the Fire Pond did not show the presence of Co-60 and gave a Cs-137 concentration of 0.80 pCi/g.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

OUTPUT BATCH SN = 242

06/04/98

PACKAGE R0900 ENVIRONS
Balance of Plant Area

UNIT(S)	SURFACE(S)
01 - Open land areas	OA1 (Area at grid stake # 130) OA2 (Area approximately 10' east of grid stake # 130) OA3 (Area approximately 10' south of grid stake # 130) OA4 (Area approximately 10' west of grid stake # 130) OB1 (Area at grid stake # 130) OL1 (Open Land Areas)
02 - Paved areas	OR1 (Roadways)
03 - Fire Pond	OS1 (Soil & Sediment Samples)

REASON(S) CHARACTERIZATION SURVEY (C01) (C02)

MATERIALS	MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm ²)
	B0016	ASPHALT	925.0
	G0006	SURFACE SOIL - GAMMA	0.0
	G0016	ASPHALT - GAMMA	0.0

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Direct Measurements For Total Beta Activity

Survey Package R0900 ENVIRONS
Balance of Plant Area

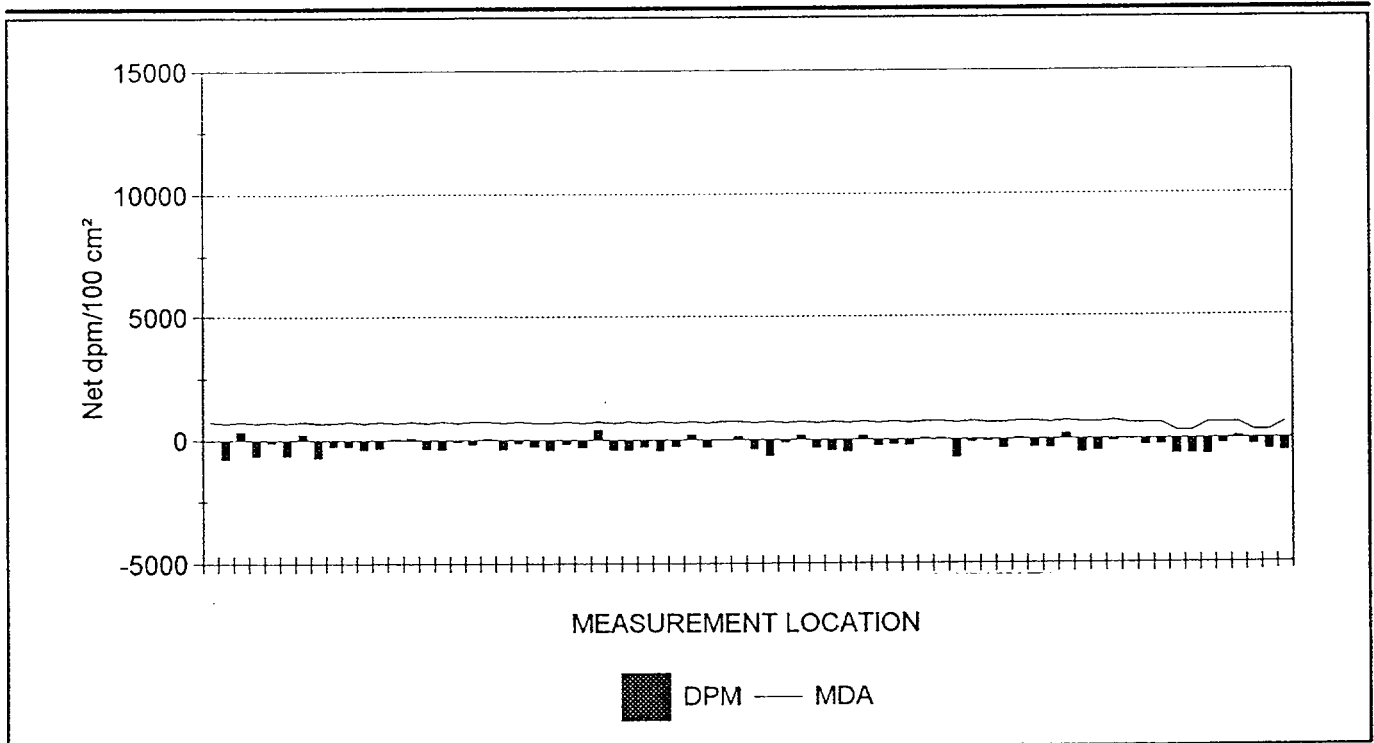
STATISTICAL SUMMARY

	Net dpm/100 cm ²
Mean	-241.12
Maximum	421.79
Minimum	-775.20
Standard Deviation	277.15
MDA	739.09

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES
MDA <2000 net dpm/100 cm ²	YES
Results above 2000 net dpm/100 cm ²	0
Number of results above MDA	0

Samples Reported	70
Samples Prescribed	70



70 RESULTS ARE GRAPHED

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Direct Measurements For Total Beta Activity

Survey Package : R0900 ENVIRONS
Balance of Plant Area

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	MDA	RESULT
135 (2)	02	OR1	B0016	C02	10	00001	739.09	-27.76
132 (2)	02	OR1	B0016	C02	10	00001	686.19	-775.20
135 (2)	02	OR1	B0016	C02	10	00002	739.09	331.88
132 (2)	02	OR1	B0016	C02	10	00002	686.19	-655.89
135 (2)	02	OR1	B0016	C02	10	00003	739.09	-95.20
132 (2)	02	OR1	B0016	C02	10	00003	686.19	-655.89
135 (2)	02	OR1	B0016	C02	10	00004	739.09	241.97
132 (2)	02	OR1	B0016	C02	10	00004	686.19	-727.47
132 (2)	02	OR1	B0016	C02	10	00005	686.19	-250.23
135 (2)	02	OR1	B0016	C02	10	00005	739.09	-252.54
132 (2)	02	OR1	B0016	C02	10	00006	686.19	-393.40
135 (2)	02	OR1	B0016	C02	10	00006	739.09	-342.45
132 (2)	02	OR1	B0016	C02	10	00007	686.19	59.98
135 (2)	02	OR1	B0016	C02	10	00007	739.09	84.63
132 (2)	02	OR1	B0016	C02	10	00008	686.19	-369.54
135 (2)	02	OR1	B0016	C02	10	00008	739.09	-387.41
135 (2)	02	OR1	B0016	C02	10	00009	739.09	-185.11
132 (2)	02	OR1	B0016	C02	10	00009	686.19	-83.19
135 (2)	02	OR1	B0016	C02	10	00010	739.09	62.15
132 (2)	02	OR1	B0016	C02	10	00010	686.19	-393.40
135 (2)	02	OR1	B0016	C02	10	00011	739.09	-117.67
132 (2)	02	OR1	B0016	C02	10	00011	686.19	-297.95
132 (2)	02	OR1	B0016	C02	10	00012	686.19	-417.26
135 (2)	02	OR1	B0016	C02	10	00012	739.09	-185.11
135 (2)	02	OR1	B0016	C02	10	00013	739.09	421.79
132 (2)	02	OR1	B0016	C02	10	00013	686.19	-321.81
132 (2)	02	OR1	B0016	C02	10	00014	686.19	-417.26
135 (2)	02	OR1	B0016	C02	10	00014	739.09	-409.88
132 (2)	02	OR1	B0016	C02	10	00015	686.19	-274.09
135 (2)	02	OR1	B0016	C02	10	00015	739.09	-432.36
132 (2)	02	OR1	B0016	C02	10	00016	686.19	-274.09
135 (2)	02	OR1	B0016	C02	10	00016	739.09	219.49
132 (2)	02	OR1	B0016	C02	10	00017	686.19	-321.81
135 (2)	02	OR1	B0016	C02	10	00017	739.09	-5.28
132 (2)	02	OR1	B0016	C02	10	00018	686.19	-393.40
135 (2)	02	OR1	B0016	C02	10	00018	739.09	129.58
135 (2)	02	OR1	B0016	C02	10	00019	739.09	-679.62
132 (2)	02	OR1	B0016	C02	10	00019	686.19	-107.05
135 (2)	02	OR1	B0016	C02	10	00020	739.09	174.54
132 (2)	02	OR1	B0016	C02	10	00020	686.19	-345.68

NOTES: Activity reported in net dpm/100 cm². Count times are reported in seconds.
Underlined values exceed the MDA.
Bold values exceed 2000 dpm/100 cm².



Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Direct Measurements For Total Beta Activity

Survey Package : R0900 ENVIRONS
Balance of Plant Area

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	MDA	RESULT
135 (2)	02	OR1	B0016	C02	10	00021	739.09	-432.36
132 (2)	02	OR1	B0016	C02	10	00021	686.19	-488.85
135 (2)	02	OR1	B0016	C02	10	00022	739.09	152.06
132 (2)	02	OR1	B0016	C02	10	00023	686.19	-226.37
135 (2)	02	OR1	B0016	C02	10	00023	739.09	-207.58
132 (2)	02	OR1	B0016	C02	10	00024	686.19	-226.37
135 (2)	02	OR1	B0016	C02	10	00024	739.09	62.15
135 (2)	02	OR1	B0016	C02	10	00025	739.09	39.67
132 (2)	02	OR1	B0016	C02	10	00025	686.19	-751.34
135 (2)	02	OR1	B0016	C02	10	00026	739.09	-95.20
132 (2)	02	OR1	B0016	C02	10	00026	686.19	-83.19
135 (2)	02	OR1	B0016	C02	10	00027	739.09	39.67
132 (2)	02	OR1	B0016	C02	10	00027	686.19	-369.54
135 (2)	02	OR1	B0016	C02	10	00028	739.09	-342.45
132 (2)	02	OR1	B0016	C02	10	00028	686.19	-369.54
135 (2)	02	OR1	B0016	C02	10	00029	739.09	197.02
132 (2)	02	OR1	B0016	C02	10	00029	686.19	-536.58
132 (2)	02	OR1	B0016	C02	10	00030	686.19	-488.85
135 (2)	02	OR1	B0016	C02	10	00030	739.09	-95.20
133 (2)	02	OR1	B0016	C01	10	00068-00001	618.75	-17.61
133 (2)	02	OR1	B0016	C01	10	00085-00001	618.75	-253.98
133 (2)	02	OR1	B0016	C01	10	00086-00001	618.75	-230.34
133 (2)	02	OR1	B0016	C01	60	00103-00001	307.17	-632.17
133 (2)	02	OR1	B0016	C01	60	00104-00001	307.17	-628.23
133 (2)	02	OR1	B0016	C01	10	00105-00001	618.75	-655.80
133 (2)	02	OR1	B0016	C01	10	00106-00001	618.75	-206.70
133 (2)	02	OR1	B0016	C01	10	00107-00001	618.75	76.94
133 (2)	02	OR1	B0016	C01	60	00119-00001	307.17	-257.92
133 (2)	02	OR1	B0016	C01	60	00120-00001	307.17	-466.71
133 (2)	02	OR1	B0016	C01	10	00123-00001	618.75	-513.98

NOTES: Activity reported in net dpm/100 cm². Count times are reported in seconds.
Underlined values exceed the MDA.
Bold values exceed 2000 dpm/100 cm².
70 results are listed.

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package R0900 ENVIRONS
Balance of Plant Area

STATISTICAL SUMMARY

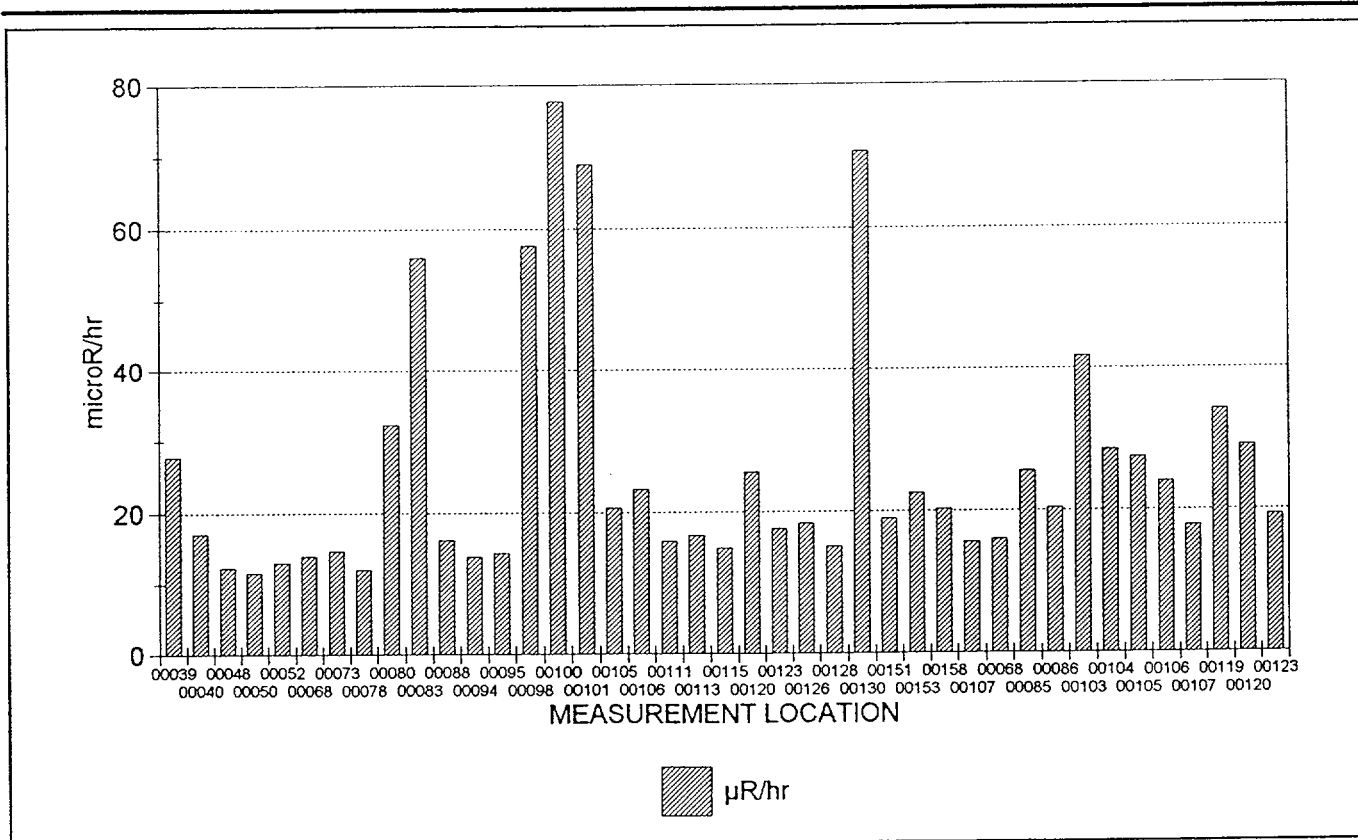
	$\mu\text{R/hr}$
Mean	25.85
Maximum	77.71
Minimum	11.65
Standard Deviation	16.80

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES
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Samples Reported	41
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Samples Prescribed	41
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Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package : R0900 ENVIRONS
Balance of Plant Area

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
680 (2)	01	OL1	G0006	C01	60.00	00039	27.79
680 (2)	01	OL1	G0006	C01	60.00	00040	17.15
680 (2)	01	OL1	G0006	C01	60.00	00048	12.37
680 (2)	01	OL1	G0006	C01	60.00	00050	11.65
680 (2)	01	OL1	G0006	C01	60.00	00052	13.07
680 (2)	01	OL1	G0006	C01	60.00	00068	14.00
680 (2)	01	OL1	G0006	C01	60.00	00073	14.68
680 (2)	01	OL1	G0006	C01	60.00	00078	12.12
680 (2)	01	OL1	G0006	C01	60.00	00080	32.29
680 (2)	01	OL1	G0006	C01	60.00	00083	56.00
680 (2)	01	OL1	G0006	C01	60.00	00088	16.27
680 (2)	01	OL1	G0006	C01	60.00	00094	13.90
680 (2)	01	OL1	G0006	C01	60.00	00095	14.35
680 (2)	01	OL1	G0006	C01	60.00	00098	57.62
680 (2)	01	OL1	G0006	C01	60.00	00100	77.71
680 (2)	01	OL1	G0006	C01	60.00	00101	68.88
680 (2)	01	OL1	G0006	C01	60.00	00105	20.63
680 (2)	01	OL1	G0006	C01	60.00	00106	23.25
680 (2)	01	OL1	G0006	C01	60.00	00111	15.99
680 (2)	01	OL1	G0006	C01	60.00	00113	16.75
680 (2)	01	OL1	G0006	C01	60.00	00115	14.99
680 (2)	01	OL1	G0006	C01	60.00	00120	25.53
680 (2)	01	OL1	G0006	C01	60.00	00123	17.66
680 (2)	01	OL1	G0006	C01	60.00	00126	18.43
680 (2)	01	OL1	G0006	C01	60.00	00128	15.19
680 (2)	01	OL1	G0006	C01	60.00	00130	70.66
680 (2)	01	OL1	G0006	C01	60.00	00151	18.99
680 (2)	01	OL1	G0006	C01	60.00	00153	22.51
680 (2)	01	OL1	G0006	C01	60.00	00158	20.28
680 (2)	01	OL1	G0016	C01	60.00	00107	15.69
680 (2)	02	OR1	B0016	C01	60.00	00068	16.07
680 (2)	02	OR1	G0016	C01	60.00	00085	25.49
680 (2)	02	OR1	G0016	C01	60.00	00086	20.42
680 (2)	02	OR1	G0016	C01	60.00	00103	41.78
680 (2)	02	OR1	G0016	C01	60.00	00104	28.45
680 (2)	02	OR1	G0016	C01	60.00	00105	27.33
680 (2)	02	OR1	G0016	C01	60.00	00106	24.00
680 (2)	02	OR1	G0016	C01	60.00	00107	17.85
680 (2)	02	OR1	G0016	C01	60.00	00119	34.02
680 (2)	02	OR1	G0016	C01	60.00	00120	28.94

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
Underlined results did not meet the minimum required count time.
Bold values exceed 10 μ R/hr.

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package : R0900 ENVIRONS
Balance of Plant Area

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
680 (2)	02	OR1	G0016	C01	60.00	00123	19.27

NOTES: Exposure rates reported in net $\mu\text{R/hr}$. Count times are reported in seconds.
Underlined results did not meet the minimum required count time.
Bold values exceed 10 $\mu\text{R/hr}$.
41 results are listed.



Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OA1 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00130-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY978	ENV00216	1,770.00	1200	Co-57	< .08	0.08	0.00
				Co-60	1.47	0.06	0.10
				Cs-134	< .08	0.08	0.00
				Cs-137	11.00	0.10	0.79
				K-40	21.50	0.55	1.81
				Mn-54	< .08	0.08	0.00

UNIT : 01 SURFACE : OA2 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00130-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY980	ENV00227	1,540.00	10800	Co-57	< .05	0.05	0.00
				Co-60	.20	0.02	0.02
				Cs-134	.02	0.02	0.01
				Cs-137	69.10	0.08	4.77
				K-40	22.00	0.18	1.50
				Mn-54	< .02	0.02	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OA3 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00130-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY981	H2O00209	1,230.00	10800	Co-57	< .05	0.05	0.00
				Co-60	.21	0.03	0.02
				Cs-134	.03	0.03	0.01
				Cs-137	62.50	0.08	3.89
				K-40	19.80	0.22	1.36
				Mn-54	< .03	0.03	0.00

UNIT : 01 SURFACE : OA4 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00130-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY982	ENV00228	1,620.00	10800	Co-57	< .06	0.06	0.00
				Co-60	.22	0.02	0.02
				Cs-134	.05	0.03	0.02
				Cs-137	85.60	0.08	6.22
				K-40	20.40	0.17	1.54
				Mn-54	< .02	0.02	0.00

UNIT : 01 SURFACE : OB1 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00130-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY983	ENV00221	1,730.00	2400	Co-57	< .06	0.06	0.00
				Co-60	5.11	0.07	0.24
				Cs-134	< .07	0.07	0.00
				Cs-137	3.46	0.10	0.26
				K-40	21.80	0.35	1.64
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00068-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY028	MY028.CNF	1,195.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.06	0.07	0.04
				K-40	19.40	0.65	1.78
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00088-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY029	MY029.CNF	1,691.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.06	0.06	0.04
				K-40	24.00	0.43	1.99
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00048-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY030	MY030.CNF	987.20	1200	Co-57	< .07	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.74	0.07	0.09
				K-40	19.70	0.78	1.90
				Mn-54	< .09	0.09	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00050-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY031	MY031A.CNF	981.80	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.49	0.06	0.07
				K-40	19.20	0.49	1.84
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00073-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY032	MY032.CNF	1,603.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.50	0.61	1.99
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00094-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY033	MY033.CNF	1,462.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.30	0.47	1.88
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00111-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY034	MY034.CNF	1,592.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.06	0.04	0.03
				K-40	19.30	0.45	1.69
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00113-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY035	MY035.CNF	1,139.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .09	0.09	0.00
				K-40	27.50	0.75	2.35
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00126-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY036	MY036.CNF	1,311.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	24.60	0.52	2.08
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

OUTPUT BATCH SN = 748

04/10/98

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00107-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY046	MY046.CNF	1,355.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.70	0.66	1.82
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00123-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY047	MY047.CNF	1,028.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.25	0.07	0.06
				K-40	20.10	0.52	1.89
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00106-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY048	MY048.CNF	933.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.26	0.06	0.06
				K-40	18.60	0.57	1.81
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00039-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY049	MY049.CNF	1,306.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.10	0.49	1.98
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00100-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY050	ENV00213.CNF	1,518.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .09	0.09	0.00
				K-40	20.30	0.56	1.99
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00098-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY051	MY051A.CNF	1,659.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.50	0.08	0.14
				K-40	20.70	0.41	1.77
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

OUTPUT BATCH SN = 748

04/10/98

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00080-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY052	MY052.CNF	861.20	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.72	0.07	0.09
				K-40	14.70	0.61	1.58
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00083-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY053	MY053.CNF	1,296.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.90	0.61	1.98
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00095-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY171	MY171.CNF	1,072.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.36	0.08	0.07
				K-40	15.30	0.48	1.67
				Mn-54	< .09	0.09	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00151-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY172	ENV00013	1,617.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.20	0.54	1.95
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00128-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY173	MY173.CNF	1,208.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	< .09	0.09	0.00
				K-40	18.30	0.62	1.84
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00078-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY174	MY174.CNF	1,173.00	900	Co-57	< .09	0.09	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .11	0.11	0.00
				Cs-137	.27	0.07	0.06
				K-40	28.00	0.67	2.51
				Mn-54	< .10	0.10	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00158-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY513	ENV00180	1,620.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.10	0.53	1.75
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00105-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY516	ENV00181	1,750.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.12	0.03	0.03
				K-40	21.40	0.46	1.80
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00130-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY517	ENV00185	1,690.00	2000	Co-57	< .10	0.10	0.00
				Co-60	.08	0.04	0.02
				Cs-134	< .06	0.06	0.00
				Cs-137	27.30	0.12	1.90
				K-40	20.90	0.36	1.63
				Mn-54	< .05	0.05	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

OUTPUT BATCH SN = 748

04/10/98

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00120-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY519	ENV00183	1,580.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.28	0.05	0.05
				K-40	21.60	0.50	1.85
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00040-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY521	ENV00182	1,820.00	1200	Co-57	< .03	0.03	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .03	0.03	0.00
				Cs-137	< .04	0.04	0.00
				K-40	.97	0.25	0.29
				Mn-54	< .02	0.02	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00153-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY523	H2O00018	1,370.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.03	0.06	0.04
				K-40	23.30	0.58	2.08
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00101-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY525	ENV00183	1,620.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.33	0.06	0.06
				K-40	20.30	0.56	1.96
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00052-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY527	H2O00021	1,220.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.06	0.05	0.03
				K-40	22.40	0.40	1.84
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00115-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY529	H2O00014	1,200.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.11	0.06	0.04
				K-40	22.20	0.58	1.96
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 36

04/10/98

OUTPUT BATCH SN = 748

Survey Package R0900 ENVIRONS
Balance of Plant Area

UNIT : 03 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: FIREP-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY911	HDS00039	200.30	7200	Co-57	< .02	0.02	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	.80	0.07	0.84
				K-40	15.60	0.58	1.41
				Mn-54	< .03	0.03	0.00



Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

06/05/98

SURVEY PACKAGE NUMBER :R1000

ENVIRONS

PACKAGE DESCRIPTION

Foxbird Island

SURVEY AREA DESCRIPTION

Foxbird Island

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

Discharge piping for the Circulation Water System is buried on Foxbird Island. This piping connects the discharge points in the Forebay to the diffuser pipes in Montsweag Bay. These pipes (fiberglass) rest on bedrock and there has been no reported leakage; therefore, these pipes are not expected to have leaked.

SUMMARY OF CHARACTERIZATION ACTIVITIES

For Pipeline ROW:

(1) An Approximate 100% gamma scan of accessible areas was performed using a large plastic scintillator detector. The locations of the scanning results were identified using a global positioning system (GPS). Two locations gave elevated indications, and they were each marked in the field with a flag.

(2) The marked locations were investigated by scanning with a NaI(Tl) detector to identify the apparent extent of the potential contamination.

(3) Soil samples from each of these marked locations were obtained under Package R2500.

(4) The perimeter of the diffuser piping right of way (ROW) was marked in approximately 10 meter increments to assist in performing step (5).

(5) Thirty grid locations (approximately 10 x 10 meter) were identified by random selection. The locations of the 30 random sample points were in addition to the two marked elevated areas.

(6) Thirty 6" depth soil samples were obtained from the random sample locations established in step (5) using a sample point offset value of 4 meters north and 2 meters west from the southeast grid corners.

(7) At each random soil sample location, a 1-meter gamma exposure rate (micro-R/hr) measurement was performed.

For Foxbird Island (Except ROW):

(8) The perimeter of the remainder of Foxbird Island was marked in approximately 25 meter increments to assist in performing steps (9) and (10).

(9) A manual gamma scan was performed using a NaI(Tl) detector with 20 second count times. With the assistance of a compass, the 25 meter grid lines were generally used for the scanning directions. No locations with elevated counts were identified. When gamma scanning the woodlands, the idea was to generally walk in east-west directions from the marked tree lines, going around steep or otherwise difficult areas that may be unsafe or unusually slow to walk over. Wetlands, shorelines and rocky outcrops were avoided. In addition to scanning for elevated locations, the purpose was to look for disturbed areas, e.g., past presence of heavy equipment, that may indicate the placement of plant derived materials. No disturbed areas were identified.

(10) Thirty grid locations (approximately 25 x 25 meter) were identified by random selection.

(11) Thirty 6" depth soil samples were obtained from the random sample locations established in step (10).

CHARACTERIZATION SUMMARY

06/05/98

(12) At each random soil sample location a 1-meter gamma exposure rate (micro-R/hr) measurement was performed.

(13) The analytical results for the surface soil sample from grid #7 in the pipeline ROW showed a Co-60 concentration below the *a priori* MDA. An additional six soil samples were obtained from this grid, and the analyses of these samples gave no Co-60 indications. The Cs-137 concentrations on all seven samples were below average background levels.

(14) The analytical results for the surface soil sample from grid #122 showed a Co-60 concentration of 0.2 pCi/g. An additional six soil samples were obtained from this grid under this package, and further investigations were conducted under Package R2501. The analytical results for the surface soil sample from grid #85 gave Co-60 and Cs-137 concentrations of 0.38 and 1.49 pCi/g, respectively. Because of the proximity of grid #85 to grid #130 in Package R0900, further evaluation of grid #85 was considered to be encompassed within the extended evaluation of grid #130 under Package R2501.

(15) One 0-6" biased soil sample was obtained from grid #22 as a follow-up to the high count rate recorded at the grid during the walk-over gamma scan survey.

CHARACTERIZATION SURVEY RESULTS

(1) The Foxbird Island diffuser pipeline right-of-way (ROW) drive-over gamma scanning survey identified two elevated areas, which are labeled # 1 and 2 on Figure 3. follow-up manual gamma scanning surveys did not identify any locations within these two elevated areas that gave higher count rates than the flagged locations. For the ten 0-6" depth soil samples taken at these locations under Package R2500, the gamma spectroscopic analyses did not show the presence of Co-60 and gave Cs-137 concentrations that ranged from 0.00 to 0.21 pCi/g. At the locations of these surface soil samples, the exposure rate measurements gave a mean value of 9.9 uR/hr and a range of 9.4 to 10.6 uR/hr, which is consistent with background values. MircoSpec *in situ* spectra did not show the presence of Co-60 at the two elevated areas.

(2) The Foxbird Island woodland (non-ROW) walk-over gamma scanning survey identified one elevated area located within grid # 22, which is labeled # 25 on Figure 3. For the one 0-6" depth soil sample taken at this location, the gamma spectroscopic analyses did not show the presence of Co-60 and gave Cs-137 concentration of 0.44 pCi/g. Bedrock was apparent at about 6" under the surface soil. No disturbed areas in the woodland were observed.

(3) Sixty random soil samples of 0-6" depth were obtained from the ROW and woodland on Foxbird Island. These samples were in addition to the samples taken to evaluate the three elevated locations identified by drive-over and walk-over gamma scanning. Based on the gamma spectroscopic result of 0.21 pCi/g of Co-60 for the random sample (MY # 676) from grid # 122 (woodland), an additional five 0-6" depth soil samples and one 6-12" depth sample were obtained from this grid (refer to Figure 7). The analytical results of these six samples did not show the presence of Co-60, but gave a range of Cs-137 of 0.65 to 1.63 pCi/g, which appears to be elevated compared to other nearby results.

The area of investigation around grid # 122 was expanded to include twenty-six 5-meter x 5-meter grids, which yielded 26 additional samples. This area and the 26 follow-up grids are shown on Figure 8 with the code R2501/02OA1. The gamma spectroscopic analyses for grids # 9, 14, and 23 gave Co-60 concentrations of 0.211, 0.051 and 0.106 pCi/g, respectively, and the results for the other 23 samples did not show Co-60. The Cs-137 results for these 26 samples ranged from 0.00 to 10.00 pCi/g, with the highest value associated with grid # 14.

The gamma spectroscopic analysis of the random surface soil sample taken from grid # 85 (MY # 674) gave Co-60 and Cs-137 concentrations of 0.38 and 1.49 pCi/g, respectively. Due to the proximity of this grid to grid # 130 in Package R0900, the follow-up evaluation of grid # 85 was incorporated into the follow-up evaluation of grid # 130 in Package R2501. The results of this follow-up work are provided in Package R0900.

The gamma spectroscopic analyses of the other 58 random soil samples did not show the presence of Co-60 and gave a range of Cs-137 concentrations of 0.00 to 1.63 pCi/g.

CHARACTERIZATION SUMMARY

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(4) The sixty 1-meter exposure rate measurements gave a mean value of 11.5 uR/hr with a range of 7.0 to 42.8 uR/hr. The highest value recorded is associated with grid # 85, and two values of 23.2 and 25.5 uR/hr are associated with grids # 69 and 122, respectively, which show the influence of the RWST area.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

06/05/98

OUTPUT BATCH SN = 243

PACKAGE R1000 ENVIRONS
Foxbird Island

UNIT(S)

SURFACE(S)

01 - Pipeline ROW

OA1 (Area at grid stake # 7, Surface Soil Sample @ 0"-6" Depth)
 OA2 (Random Surface Soil Sample @ 0"-6" Depth)
 OA3 (Area approximately 10' north of grid stake # 7, Surface Soil Sample @ 0"-6" Depth)
 OA4 (Area approximately 10' east of grid stake # 7, Surface Soil Sample @ 0"-6" Depth)
 OA5 (Area approximately 10' south of grid stake # 7, Surface Soil Sample @ 0"-6" Depth)
 OA6 (Area approximately 10' west of grid stake # 7, Surface Soil Sample @ 0"-6" Depth)
 OB1 (Area at grid stake # 7, Subsurface Soil Sample @ 6-12" Depth)
 OL1 (Open Land Areas)

02 - Foxbird Island (Except ROW)

OA1 (Area at grid stake # 122, Surface Soil Sample @ 0"-6" Depth)
 OA2 (Random Surface Soil Sample @ 0"-6" Depth)
 OA3 (Area approximately 10' north of grid stake # 122, Surface Soil Sample @ 0"-6" Depth)
 OA4 (Area approximately 10' east of grid stake # 122, Surface Soil Sample @ 0"-6" Depth)
 OA5 (Area approximately 10' south of grid stake # 122, Surface Soil Sample @ 0"-6" Depth)
 OA6 (Area approximately 10' west of grid stake # 122, Surface Soil Sample @ 0"-6" Depth)
 OB1 (Area at grid stake # 122, Subsurface Soil Sample @ 6-12" Depth)
 OL1 (Open Land Area, one biased 0-6" depth soil sample at grid #22)

REASON(S) CHARACTERIZATION SURVEY (C01) (C02)

MATERIALS	MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm ²)
	G0006	SURFACE SOIL - GAMMA	0.00

Maine Yankee Atomic Power Plant Site Characterization

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Exposure Rate Measurements

Survey Package R1000 ENVIRONS
 Foxbird Island

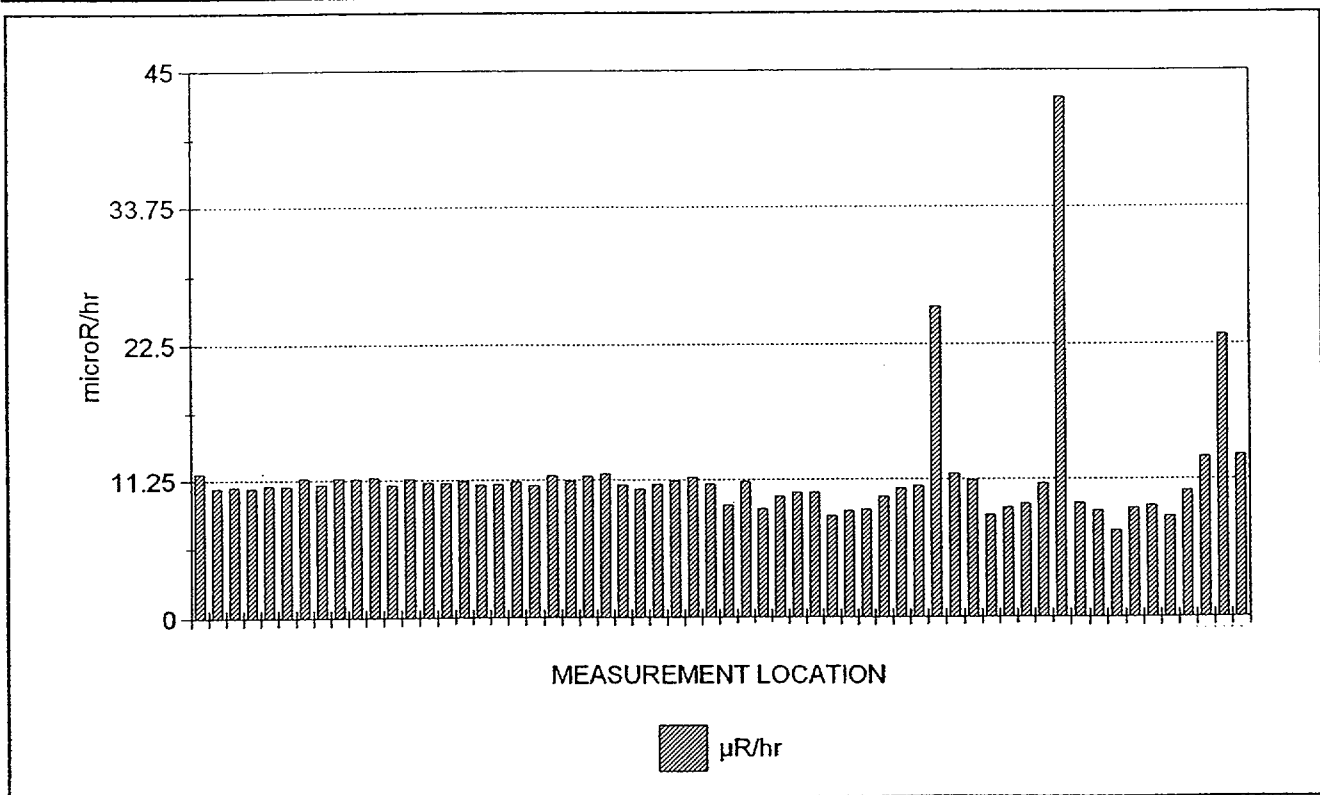
STATISTICAL SUMMARY

TESTS PERFORMED

	$\mu\text{R/hr}$
Mean	11.48
Maximum	42.76
Minimum	6.99
Standard Deviation	4.97

Samples reported satisfy samples prescribed	YES
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Samples Reported	60
Samples Prescribed	60



60 RESULTS ARE GRAPHED

Maine Yankee Atomic Power Plant Site Characterization

06/05/98

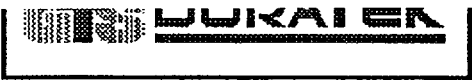
Exposure Rate Measurements

Survey Package: R1000 ENVIRONS
 Foxbird Island

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
652 (2)	01	OL1	G0006	C01	60.00	00004	11.83
652 (2)	01	OL1	G0006	C01	60.00	00007	10.61
652 (2)	01	OL1	G0006	C01	60.00	00009	10.72
652 (2)	01	OL1	G0006	C01	60.00	00010	10.60
652 (2)	01	OL1	G0006	C01	60.00	00011	10.80
652 (2)	01	OL1	G0006	C01	60.00	00012	10.78
652 (2)	01	OL1	G0006	C01	60.00	00014	11.42
652 (2)	01	OL1	G0006	C01	60.00	00015	10.91
652 (2)	01	OL1	G0006	C01	60.00	00016	11.42
652 (2)	01	OL1	G0006	C01	60.00	00018	11.34
652 (2)	01	OL1	G0006	C01	60.00	00020	11.48
652 (2)	01	OL1	G0006	C01	60.00	00022	10.87
652 (2)	01	OL1	G0006	C01	60.00	00023	11.36
652 (2)	01	OL1	G0006	C01	60.00	00025	11.08
652 (2)	01	OL1	G0006	C01	60.00	00027	11.01
652 (2)	01	OL1	G0006	C01	60.00	00030	11.14
652 (2)	01	OL1	G0006	C01	60.00	00032	10.83
652 (2)	01	OL1	G0006	C01	60.00	00038	10.91
652 (2)	01	OL1	G0006	C01	60.00	00039	11.12
652 (2)	01	OL1	G0006	C01	60.00	00046	10.80
652 (2)	01	OL1	G0006	C01	60.00	00047	11.60
652 (2)	01	OL1	G0006	C01	60.00	00048	11.15
652 (2)	01	OL1	G0006	C01	60.00	00049	11.57
652 (2)	01	OL1	G0006	C01	60.00	00050	11.78
652 (2)	01	OL1	G0006	C01	60.00	00054	10.87
652 (2)	01	OL1	G0006	C01	60.00	00057	10.50
652 (2)	01	OL1	G0006	C01	60.00	00058	10.91
652 (2)	01	OL1	G0006	C01	60.00	00059	11.15
652 (2)	01	OL1	G0006	C01	60.00	00065	11.47
652 (2)	01	OL1	G0006	C01	60.00	00066	10.89
652 (2)	02	OL1	G0006	C01	60.00	00006	9.18
652 (2)	02	OL1	G0006	C01	60.00	00012	11.12
652 (2)	02	OL1	G0006	C01	60.00	00014	8.89
652 (2)	02	OL1	G0006	C01	60.00	00017	9.91
652 (2)	02	OL1	G0006	C01	60.00	00019	10.21
652 (2)	02	OL1	G0006	C01	60.00	00034	10.18
652 (2)	02	OL1	G0006	C01	60.00	00039	8.25
652 (2)	02	OL1	G0006	C01	60.00	00044	8.68
652 (2)	02	OL1	G0006	C01	60.00	00054	8.77
652 (2)	02	OL1	G0006	C01	60.00	00063	9.86

NOTES: Exposure rates reported in net $\mu\text{R/hr}$. Count times are reported in seconds.
 Underlined results did not meet the minimum required count time.
 Bold values exceed 10 $\mu\text{R/hr}$.



Maine Yankee Atomic Power Plant Site Characterization

06/05/98

Exposure Rate Measurements

Survey Package : R1000 ENVIRONS
Foxbird Island

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
652 (2)	02	OL1	G0006	C01	60.00	00065	10.51
652 (2)	02	OL1	G0006	C01	60.00	00068	10.71
652 (2)	02	OL1	G0006	C01	60.00	00069	25.55
652 (2)	02	OL1	G0006	C01	60.00	00071	11.72
652 (2)	02	OL1	G0006	C01	60.00	00073	11.19
652 (2)	02	OL1	G0006	C01	60.00	00076	8.32
652 (2)	02	OL1	G0006	C01	60.00	00078	8.95
652 (2)	02	OL1	G0006	C01	60.00	00081	9.24
652 (2)	02	OL1	G0006	C01	60.00	00083	10.90
652 (2)	02	OL1	G0006	C01	60.00	00085	42.76
652 (2)	02	OL1	G0006	C01	60.00	00086	9.27
652 (2)	02	OL1	G0006	C01	60.00	00088	8.65
652 (2)	02	OL1	G0006	C01	60.00	00091	6.99
652 (2)	02	OL1	G0006	C01	60.00	00093	8.87
652 (2)	02	OL1	G0006	C01	60.00	00094	9.08
652 (2)	02	OL1	G0006	C01	60.00	00098	8.20
652 (2)	02	OL1	G0006	C01	60.00	00102	10.29
652 (2)	02	OL1	G0006	C01	60.00	00118	13.10
652 (2)	02	OL1	G0006	C01	60.00	00122	23.25
652 (2)	02	OL1	G0006	C01	60.00	00125	13.26

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
 Underlined results did not meet the minimum required count time.
 Bold values exceed 10 μ R/hr.
 60 results are listed.

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

06/05/98

Exposure Rate Measurements

Survey Package: R1000 ENVIRONS
Foxbird Island

SURVEY DATE	FILE #	M2350		DETECTOR			TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	
3/4/98	652 (2)	126201	4/15/98	44-2	129300	5/12/98	DRK2986

CALIBRATION DATES VERIFIED AS ACCEPTABLE

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

OUTPUT BATCH SN = 243

06/05/98

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00022-00002

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1358	H2O00321	1,155.00	1800	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	41.00	0.94	3.15
				Mn-54	< .09	0.09	0.00

UNIT : 01 SURFACE : OA1 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY984	H2O00204	1,490.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.00	0.68	1.89
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

OUTPUT BATCH SN = 243

06/05/98

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00027-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1342	ENV00350	1,404.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.09	0.06	0.04
				K-40	24.80	0.42	2.11
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00004-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY413	ENV00144	1,610.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	22.20	0.42	1.88
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00039-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY414	ENV00151	1,200.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .11	0.11	0.00
				Cs-137	< .09	0.09	0.00
				K-40	28.30	0.69	2.48
				Mn-54	< .10	0.10	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY415	ENV00145	1,410.00	1200	Co-57	< .06	0.06	0.00
				Co-60	.06	0.05	0.04
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.00	0.51	1.88
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY416	ENV00152	1,270.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	23.70	0.78	2.16
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY417	ENV00146	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.00	0.49	1.96
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY418	ENV00153	1,530.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.70	0.60	2.09
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY419	ENV00147	1,230.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	24.00	0.67	2.08
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00047-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY420	ENV00154	1,150.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.08	0.08	0.05
				K-40	24.90	0.84	2.30
				Mn-54	< .09	0.09	0.00

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY421	ENV00148	1,190.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	24.90	0.63	2.15
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00016-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY422	ENV00155	1,190.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	< .09	0.09	0.00
				K-40	24.00	0.75	2.21
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00049-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY423	ENV00149	1,360.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.60	0.49	1.86
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

OUTPUT BATCH SN = 243

06/05/98

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00050-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY424	ENV00156	1,200.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.05	0.06	0.04
				K-40	24.10	0.71	2.21
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00020-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY425	ENV00150	1,420.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.80	0.46	1.99
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00054-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY426	ENV00157	1,380.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.03	0.07	0.04
				K-40	22.80	0.43	2.03
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00022-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY427	ENV00152	1,280.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	24.40	0.47	2.07
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00023-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY428	ENV00160	1,290.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .09	0.09	0.00
				K-40	21.30	0.70	1.98
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00057-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY429	ENV00153	1,320.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.05	0.07	0.04
				K-40	20.00	0.53	1.77
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

OUTPUT BATCH SN = 243

06/05/98

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00058-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY430	ENV00161	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.10	0.05	0.04
				K-40	21.60	0.50	1.96
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00059-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY431	ENV00154	1,380.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.50	0.73	1.94
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00032-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY432	ENV00162	1,560.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.60	0.51	2.06
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00065-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY433	ENV00155	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.30	0.60	1.99
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00066-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY434	ENV00163	1,610.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.15	0.06	0.04
				K-40	21.70	0.54	2.06
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00048-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY672	H2O00060	1,260.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	22.00	0.49	2.02
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00018-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY677	H2O00063	1,430.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.10	0.52	1.94
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00025-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY679	H2O00065	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.05	0.07	0.04
				K-40	24.50	0.62	2.07
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00046-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY681	ENV00203	1,530.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.07	0.07	0.04
				K-40	21.30	0.49	1.84
				Mn-54	< .07	0.07	0.00

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00030-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY973	H2O00198	1,430.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.40	0.57	2.06
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY975	H2O00219	1,280.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	23.90	0.60	2.05
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00038-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY977	H2O00201	1,150.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.15	0.09	0.06
				K-40	22.30	0.46	2.08
				Mn-54	< .09	0.09	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA3 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY985	H2O00205	1,440.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.50	0.56	1.86
				Mn-54	< .07	0.07	0.00

UNIT : 01 SURFACE : OA4 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY986	H2O00206	1,380.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.50	0.60	1.95
				Mn-54	< .07	0.07	0.00

UNIT : 01 SURFACE : OA5 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY987	H2O00222	1,440.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.90	0.46	1.79
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 01 SURFACE : OA6 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY988	H2O00207	1,400.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.00	0.56	1.84
				Mn-54	< .08	0.08	0.00

UNIT : 01 SURFACE : OB1 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY989	H2O00208	1,470.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.80	0.57	1.88
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00094-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY669	BIO00009	1,230.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.20	0.07	0.05
				K-40	16.80	0.61	1.59
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

OUTPUT BATCH SN = 243

06/05/98

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 02 SURFACE : OA1 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY990	ENV00222	1,660.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.31	0.08	0.13
				K-40	23.70	0.46	1.97
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00019-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY435	ENV00164	1,400.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.26	0.08	0.06
				K-40	18.90	0.51	1.77
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00034-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY436	BIO00005	823.00	2400	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.68	0.08	0.08
				K-40	17.10	0.60	1.57
				Mn-54	< .07	0.07	0.00

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Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00069-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY437	ENV00165	1,000.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.64	0.06	0.09
				K-40	16.10	0.53	1.74
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00054-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY438	BIO00007	368.00	2000	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.73	0.06	0.10
				K-40	1.97	0.70	0.65
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00039-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY439	ENV00166	1,120.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.38	0.07	0.07
				K-40	15.10	0.85	1.65
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY440	ENV00157	959.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.38	0.09	0.07
				K-40	15.10	0.48	1.47
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00006-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY441	BIO00003	545.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.82	0.08	0.11
				K-40	11.40	0.47	1.41
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00017-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY442	ENV00168	1,180.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.29	0.07	0.06
				K-40	17.90	0.32	1.76
				Mn-54	< .07	0.07	0.00

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Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00044-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY443	BIO00008	854.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.55	0.06	0.07
				K-40	15.00	0.56	1.50
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00088-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY444	ENV00169	1,140.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.15	0.07	0.05
				K-40	18.60	0.63	1.85
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00091-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY445	ENV00158	1,130.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.12	0.05	0.04
				K-40	20.00	0.44	1.83
				Mn-54	< .08	0.08	0.00

06/05/98

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00078-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY446	ENV00170	987.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.43	0.10	0.08
				K-40	15.60	0.47	1.59
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00073-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY447	ENV00159	1,140.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.09	0.06	0.04
				K-40	23.50	0.58	2.13
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00098-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY448	ENV00171	842.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.25	0.09	0.07
				K-40	19.70	0.78	1.97
				Mn-54	< .08	0.08	0.00

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00102-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY450	ENV00161	1,670.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.18	0.05	0.04
				K-40	22.70	0.45	1.90
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00063-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY451	H2O00003	1,410.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.50	0.59	1.92
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00083-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY452	ENV00162	1,730.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.07	0.05	0.03
				K-40	21.30	0.47	1.80
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00118-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY453	ENV00163	1,670.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .05	0.05	0.00
				K-40	19.90	0.55	1.73
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY659	BIO00008	744.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.86	0.07	0.11
				K-40	18.20	0.46	2.04
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00071-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY661	H2O00046	1,090.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.42	0.06	0.06
				K-40	26.10	0.70	2.07
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00068-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY663	H2O00048	1,490.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.60	0.48	1.85
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00125-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY667	ENV00197	1,980.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.07	0.06	0.04
				K-40	18.00	0.46	1.70
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00093-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY671	ENV00198	1,510.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.09	0.06	0.04
				K-40	20.00	0.63	1.97
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00085-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY674	ENV00204	1,550.00	1200	Co-57	< .08	0.08	0.00
				Co-60	.38	0.09	0.06
				Cs-134	< .09	0.09	0.00
				Cs-137	1.49	0.09	0.15
				K-40	24.00	0.72	2.27
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY676	ENV00205	1,920.00	1200	Co-57	< .06	0.06	0.00
				Co-60	.21	0.06	0.04
				Cs-134	< .07	0.07	0.00
				Cs-137	.36	0.07	0.06
				K-40	19.30	0.41	1.81
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00076-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY683	H2O00067	1,160.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.25	0.07	0.06
				K-40	18.40	0.64	1.73
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00081-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY685	ENV00213	1,900.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.11	0.06	0.04
				K-40	15.90	0.44	1.41
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00086-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY687	ENV00215	1,350.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.14	0.08	0.06
				K-40	19.00	0.51	1.78
				Mn-54	< .08	0.08	0.00

UNIT : 02 SURFACE : OA3 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY992	ENV00223	1,720.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.63	0.08	0.15
				K-40	22.90	0.47	1.91
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
 Foxbird Island

UNIT : 02 SURFACE : OA4 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY993	ENV00223	1,600.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.13	0.07	0.12
				K-40	22.90	0.65	2.17
				Mn-54	< .07	0.07	0.00

UNIT : 02 SURFACE : OA5 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY994	ENV00225	1,930.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	1.59	0.07	0.14
				K-40	21.30	0.47	1.77
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OA6 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY995	ENV00224	1,850.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.66	0.06	0.08
				K-40	20.80	0.50	1.94
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 73

06/05/98

OUTPUT BATCH SN = 243

Survey Package R1000 ENVIRONS
Foxbird Island

UNIT : 02 SURFACE : OB1 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00122-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY996	H2O00223	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.05	0.07	0.10
				K-40	24.70	0.57	2.08
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00022

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1364	H2O00327	1,076.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.44	0.06	0.07
				K-40	19.00	0.49	1.90
				Mn-54	< .08	0.08	0.00

Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

04/10/98

SURVEY PACKAGE NUMBER :R1100

ENVIRONS

PACKAGE DESCRIPTION

Roof and Yard Drains 005, 009-12, 017 and N-12

SURVEY AREA DESCRIPTION

Roof and Yard Drains 005, 009-012, 017 and N-12

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

These drains should not have experienced contamination. Even though overflows from CST partially drain through Catch Basin 10H, the installation of high-high alarm on the CST effectively stopped overflows. Steam generator tube leaks occurred after installation of the alarm.

SUMMARY OF CHARACTERIZATION ACTIVITIES

For Outfall #005:

(1) Sediment samples for Outfalls #005 and 006 were obtained as the same sample (same time and place) under Package R0300 because both Outfalls 005 and 006 discharge to the same little cove.

For Ditch near 5B:

(2) A 6" depth sediment sample was obtained from this surface flow drainage ditch leading to Outfall #005.

For Catch Basins 9A and 11A:

(3) The catch basin covers were removed under plant work order and water samples were obtained.

(4) A sediment sample was obtained from the bottom of each catch basin.

For Catch Basin 10A:

The cover for Catch Basin 10A was removed under plant work order and a water sample was obtained.

(6) No sediment sample was obtained because insufficient sediment was found at the bottom of this catch basin.

For Catch Basin 12A:

(7) A sediment sample was obtained from the bottom of this catch basin.

(8) No water was available to be sampled because of drainage from this catch basin.

For Outfalls 009, 010, 011, 012 and N12:

(9) At each of the five outfalls, a 6" depth sediment sample consisting of two 3" segments for depth profiles was taken. This procedure was repeated at two additional nearby locations to give a total of six samples for each outfall. Subsequently, the three 3" segments of similar depth were composited, giving two samples (0-3" and 3-6") for each outfall, or a total of 10 samples for all five outfalls.

For Outfall 017:

(10) Three nearby 6" depth sediment samples were obtained below this outfall and were composited into a single sample.

CHARACTERIZATION SURVEY RESULTS

(1) The gamma spectroscopic analysis of the surface soil sample obtained from Drainage Ditch #005 showed Co-60 to be absent and found a Cs-137 concentration of 0.05 pCi/g.

CHARACTERIZATION SUMMARY

04/10/98

(2) The gamma spectroscopic analyses of the surface water samples obtained from Catch Basins 9A, 10A and 11A did not find plant derived gamma emitters. The same samples gave tritium analysis results of 833, 815, and 581 pCi/L for Catch Basins 9A, 10A, and 11A, respectively.

(3) The gamma spectroscopic analyses of the sediment samples obtained from Catch Basins 9A, 11A and 12A did not show Co-60 and found Cs-137 concentrations of 0.09, 0.00, and 0.00 pCi/g, respectively.

(4) For the five 0-3" and 3-6" profiled sediment sample locations at Outfalls #009, 010, 011, 012 and N12, the gamma spectroscopic analysis did not identify Co-60 in all 10 samples and found Cs-137 with a range of 0.00 to 0.09 pCi/g. For the sediment sample taken at Outfall 017, the gamma spectroscopic analysis did not identify either Co-60 or Cs-137.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 505

PACKAGE R1100 ENVIRONS

Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT(S)	SURFACE(S)
02 - Ditch near 5B	OS1 (0 - 6" Sediment Sample)
03 - Catch Basin 9A	OS1 (Sediment Sample) OW2 (Water Sample)
04 - Outfall 009	OS1 (0 - 3" Composite Sediment Sample) OS2 (3 - 6" Composite Sediment Sample)
05 - Catch Basin 10A	OW2 (Water Samples)
06 - Outfall 010	OS1 (0 - 3" Composite Sediment Sample) OS2 (3 - 6" Composite Sediment Sample)
07 - Catch Basin 11A	OS1 (0 - 6" Sediment Sample) OW2 (Water Sample)
08 - Outfall 011	OS1 (0 - 3" Composite Sediment Sample) OS2 (3 - 6" Composite Sediment Sample)
09 - Outfall 012	OS1 (0 - 3" Composite Sediment Sample) OS2 (3 - 6" Composite Sediment Sample)
10 - Outfall 017	OS1 (0 - 6" Composite Sediment Sample)
11 - Outfall N12	OS1 (0 - 3" Composite Sediment Sample) OS2 (3 - 6" Composite Sediment Sample)
12 - Catch Basin 12A	OS1 (Sediment sample)

REASON(S) CHARACTERIZATION SURVEY (C01)

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 18

OUTPUT BATCH SN = 651

04/09/98

Survey Package R1100 ENVIRONS
Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT : 02 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY908	H2O00172	1,360.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.05	0.05	0.03
				K-40	22.10	0.54	1.90
				Mn-54	< .07	0.07	0.00

UNIT : 03 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY969	HDS00031	562.00	3600	Co-57	< .03	0.03	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	.09	0.04	0.03
				K-40	17.50	0.32	1.40
				Mn-54	< .05	0.05	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 18

OUTPUT BATCH SN = 651

04/09/98

Survey Package R1100 ENVIRONS
Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT : 03 SURFACE : OW2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Water Samples
SAMPLE LOCATOR: 00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MYW15	H2O00085	1,000.00	1200	Co-57	< .02	0.02	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .03	0.03	0.00
				Cs-137	< .03	0.03	0.00
				K-40	< .50	0.50	0.00
				Mn-54	< .03	0.03	0.00

UNIT : 04 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY747	H2O00097	1,310.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.06	0.06	0.04
				K-40	17.10	0.56	1.58
				Mn-54	< .06	0.06	0.00

UNIT : 04 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY750	H2O00098	1,370.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	19.30	0.40	1.70
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 18

OUTPUT BATCH SN = 651

04/09/98

Survey Package R1100 ENVIRONS
Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT : 05 SURFACE : OW2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Water Samples
SAMPLE LOCATOR: 00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MYW14	H2O00084	1,000.00	1200	Co-57	< .02	0.02	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .03	0.03	0.00
				Cs-137	< .03	0.03	0.00
				K-40	< .45	0.45	0.00
				Mn-54	< .03	0.03	0.00

UNIT : 06 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY729	ENV00210	1,690.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .05	0.05	0.00
				K-40	16.00	0.42	1.61
				Mn-54	< .07	0.07	0.00

UNIT : 06 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY731	ENV00205	1,700.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.70	0.28	1.76
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 18

04/09/98

OUTPUT BATCH SN = 651

Survey Package R1100 ENVIRONS
Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT : 07 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY970	HDS00029	547.00	3600	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	< .04	0.04	0.00
				K-40	19.40	0.37	1.70
				Mn-54	< .04	0.04	0.00

UNIT : 07 SURFACE : OW2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Water Samples
SAMPLE LOCATOR: 00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MYW16	H2O00081	1,000.00	1200	Co-57	< .02	0.02	0.00
				Co-60	< .02	0.02	0.00
				Cs-134	< .03	0.03	0.00
				Cs-137	< .03	0.03	0.00
				K-40	< .38	0.38	0.00
				Mn-54	< .03	0.03	0.00

UNIT : 08 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY733	ENV00211	1,660.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	18.00	0.38	1.77
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 18

04/09/98

OUTPUT BATCH SN = 651

Survey Package **R1100 ENVIRONS**
 Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT : 08 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY735	ENV00206	1,610.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	18.70	0.39	1.65
				Mn-54	< .06	0.06	0.00

UNIT : 09 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY737	ENV00212	1,530.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	17.40	0.53	1.76
				Mn-54	< .07	0.07	0.00

UNIT : 09 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY739	ENV00207	1,510.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	19.00	0.43	1.69
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 18

OUTPUT BATCH SN = 651

04/09/98

Survey Package R1100 ENVIRONS
Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT : 10 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY907	H2O00171	1,170.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	23.90	0.58	2.09
				Mn-54	< .08	0.08	0.00

UNIT : 11 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY741	H2O00102	1,450.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	17.60	0.39	1.65
				Mn-54	< .07	0.07	0.00

UNIT : 11 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY743	H2O00096	1,410.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	18.20	0.45	1.62
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 18

04/09/98

OUTPUT BATCH SN = 651

Survey Package R1100 ENVIRONS
 Roof and Yard Drains 005, 009-12, 017 and N-12

UNIT : 12 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY971	HDS00032	507.00	3600	Co-57	< .04	0.04	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	< .04	0.04	0.00
				K-40	20.20	0.44	1.61
				Mn-54	< .05	0.05	0.00

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

WATER SAMPLE ANALYSIS - TRITIUM ACTIVITY

Survey Package : R1100 ENVIRONS
 Roof and Yard Drains 005, 009-12, 017 and N-12

RESULTS LISTING - SORTED BY SURFACE CODE

SAMPLE ID	SAMPLE TYPE	UNIT	SURF	REASN	MSRMNT LOCATION	MDA	TRITIUM ACTIVITY
W14	Environmental water sample	05	OW2	C01	00001	2.09	1.81
W15	Environmental water sample	03	OW2	C01	00001	2.08	1.85
W16	Environmental water sample	07	OW2	C01	00001	3.15	1.29

NOTES: Activity reported in net dpm/ml.
 Underlined values exceed the associated MDA.
 Bold values exceed 75 dpm/ml,
 Italic values exceed 100 dpm/ml.



Maine Yankee Atomic Power Plant Site Characterization

LIQUID SCINTILLATION COUNTER CALIBRATION SUMMARY

04/09/98

Survey Package : R1100 ENVIRONS
Roof and Yard Drains 005, 009-12, 017 and N-12

SURVEYDATE	INSTRUMENT	MODEL	S/N	CAL DUE	LAB TECHNICIAN
2/1/98	Packard	2750	416221	6/16/98	LDT

CALIBRATION DATE VERIFIED AS ACCEPTABLE

Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

04/10/98

SURVEY PACKAGE NUMBER :R1200

ENVIRONS

PACKAGE DESCRIPTION

LLRW Storage Building Yard

SURVEY AREA DESCRIPTION

LLRW Storage Building Yard

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

The LLRW Storage Building Area has no reported occurrences of spills or other possible means of becoming contaminated. No processing occurs in this storage facility. The outside surfaces of all packages are smeared before being released for transportation to this building.

SUMMARY OF CHARACTERIZATION ACTIVITIES

- (1) A general area gamma survey of the yard around the storage building was performed using a NaI(Tl) detector. The results showed that the contents of the building gave high ambient dose rates in the yard, which precluded gamma scanning and gamma exposure measurements. This finding was consistent with the drive-over gamma scan results.
- (2) The perimeter of the yard was marked in approximately 10 meter increments to assist in performing step (3).
- (3) Thirty grid locations (approximately 10 x 10 meter) were selected by random selection.
- (4) Thirty 6" depth soil samples were obtained from the random sample locations established in step (3) using a sample point offset value of 1 meter north and 7 meters west from the southeast grid corners.

CHARACTERIZATION SURVEY RESULTS

- (1) The gamma spectroscopic results of the 30 random 0-6" depth soil samples obtained from the fenced yard around the Low-Level Radioactive Waste Storage Building did not show Co-60 and results for Cs-137 concentrations were in the range from 0.00 to 0.13 pCi/g.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 510

PACKAGE R1200 ENVIRONS
LLRW Storage Building Yard

UNIT(S)	SURFACE(S)
01 - Open land area	OL1 (Open Land Areas)

REASON(S) CHARACTERIZATION SURVEY (C01)

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/09/98

OUTPUT BATCH SN = 652

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY307	ENV00082	1,590.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.40	0.55	1.84
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00013-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY308	ENV00082	1,540.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.40	0.52	1.98
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY309	ENV00083	1,400.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.10	0.60	1.92
				Mn-54	< .06	0.06	0.00

04/09/98

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00024-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY310	ENV00084	1,450.00	1200	Co-57	< .06	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	22.70	0.71	2.02
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00030-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY311	ENV00085	1,560.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.40	0.55	1.98
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00031-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY312	ENV00087	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.60	0.79	1.99
				Mn-54	< .09	0.09	0.00

04/09/98

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00038-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY313	ENV00088	1,530.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.30	0.44	1.97
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00036-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY314	ENV00089	1,760.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.10	0.56	1.99
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00029-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY315	ENV00090	1,410.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	22.90	0.45	2.02
				Mn-54	< .08	0.08	0.00

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00027-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY316	ENV00087	1,430.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.70	0.46	1.78
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00026-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY317	ENV00091	1,620.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.07	0.05	0.04
				K-40	19.50	0.59	1.91
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00032-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY318	ENV00088	1,240.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.12	0.06	0.04
				K-40	21.30	0.58	1.80
				Mn-54	< .07	0.07	0.00

04/09/98

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00022-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY319	ENV00092	1,490.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.20	0.67	2.04
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY320	ENV00093	1,510.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .09	0.09	0.00
				K-40	22.70	0.45	2.16
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00016-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY321	ENV00091	1,680.00	2000	Co-57	< .04	0.04	0.00
				Co-60	< .04	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	< .05	0.05	0.00
				K-40	20.40	0.43	1.60
				Mn-54	< .05	0.05	0.00

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00008-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY322	ENV00095	1,660.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.10	0.46	2.15
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY323	ENV00096	1,710.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.00	0.47	1.91
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY324	ENV00097	1,530.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	19.30	0.67	1.92
				Mn-54	< .06	0.06	0.00

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY325	ENV00098	1,570.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.20	0.75	1.98
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00017-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY326	ENV00099	1,490.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.13	0.07	0.05
				K-40	20.40	0.49	1.84
				Mn-54	< .06	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00018-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY327	ENV00093	1,360.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.09	0.06	0.04
				K-40	20.40	0.62	1.80
				Mn-54	< .07	0.07	0.00

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY328	ENV00100	1,350.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	22.90	0.42	2.04
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00023-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY623	ENV00198	1,600.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	22.90	0.53	1.94
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00028-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY625	ENV00201	1,810.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	18.50	0.36	1.77
				Mn-54	< .06	0.06	0.00

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00033-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY627	ENV00200	1,570.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.40	0.52	1.98
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00006-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY629	ENV00193	1,680.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.30	0.42	1.81
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00020-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY631	H2O00041	1,470.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.06	0.00
				K-40	22.00	0.48	1.95
				Mn-54	< .08	0.08	0.00

Survey Package R1200 ENVIRONS
LLRW Storage Building Yard

UNIT : 01 SURFACE : OL1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00037-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY633	ENV00194	1,640.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.00	0.43	1.93
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00025-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY635	ENV00196	1,550.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.08	0.07	0.05
				K-40	20.70	0.65	2.02
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Open Land Areas
SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY637	ENV00196	1,590.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.30	0.34	1.95
				Mn-54	< .07	0.07	0.00



Maine Yankee Atomic Power Plant Site Characterization

04/28/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER R1300

ENVIRONS

PACKAGE DESCRIPTION

Proposed Dry Cask Storage Area

SURVEY AREA DESCRIPTION

Proposed Dry Cask Storage Area

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

The contractor parking lot just east of the LLRW Storage Building is proposed as a site for the storage of spent fuel. This area has no history or physical appearance of being used for any radiological purposes.

SUMMARY OF CHARACTERIZATION ACTIVITIES

- (1) An approximate 100% gamma scan of accessible areas was performed using a large plastic scintillator detector. The locations of the scanning results were identified using a global positioning system (GPS). Two locations gave elevated count rates, and they were each marked in the field with a flag.
- (2) Additional scanning of these two marked locations was performed using a NaI(Tl) detector and soil samples were obtained under Package R2500.
- (3) The perimeter of the potential Dry Cask Storage Area was marked in approximately 10 meter increments to assist in performing step (4).
- (4) Thirty grid locations (approximately 10 x 10 meter) were identified by random selection. The locations of the 30 random sample points were in addition to the two marked elevated areas.
- (5) Thirty 6" depth soil samples were obtained from the random sample locations established in step (4), using a sample point offset value of 8 meters north and 8 meters west from the southeast grid corners.
- (6) At each soil sample location, a 1-meter gamma exposure rate (micro-R/hr) measurement was performed.
- (7) The piles of soil near the northwest corner of the area were investigated by an approximate 100% gamma scan using a NaI(Tl) detector, a 1-meter gamma exposure rate (micro-R/hr) measurement at each soil pile, and a composite soil sample comprised of four 6" depth samples from the piles.
- (8) Duplicates of surface and subsurface soil samples were obtained under Package R2400 from the two Geoprobe test bore locations in this area.

CHARACTERIZATION SURVEY RESULTS

(1) The Dry Cask Storage Area drive-over gamma scanning survey identified two elevated locations, which are labeled # 7 and # 8 on Figure 3. follow-up manual gamma scanning surveys did not identify any locations within these two elevated areas that gave higher count rates than the flagged locations. For the five 0-6" depth soil samples taken at location # 7 under Package R2500, the gamma spectroscopic analysis gave a range of Co-60 concentrations of 0.00 to 0.45 pCi/g and a range of Cs-137 concentrations of 0.00 to 0.14 pCi/g. For location # 8, the gamma spectroscopic analysis did not show the presence of Co-60 and gave a range of Cs-137 concentrations of 0.00 to 0.09 pCi/g. At the locations of these ten surface soil samples, the exposure rate measurements gave a mean value of 10.9 uR/hr and a range of 10.0 to 12.2 uR/hr, which is consistent with background levels. MicroSpec *in situ* spectra did not show the presence of Co-60 at the two elevated areas.

CHARACTERIZATION SUMMARY

04/28/98

(2) A total of 30 random soil samples of 0-6" depth were obtained from the parking area. These samples were in addition to the samples taken to evaluate the elevated locations identified by drive-over gamma scanning. The gamma spectroscopic analyses of these 30 samples did not show the presence of Co-60 and gave a range of Cs-137 concentrations of 0.00 to 0.28 pCi/g.

(3) The thirty-four 1-meter exposure rate measurements gave a mean value of 12.9 uR/hr with a range of 10.3 to 31.2 uR/hr. The highest value recorded is for grid # 11, which is adjacent to the Low Level Storage Building.

(4) The gamma scanning and sampling (sample # MY 1220) investigation of the soil piles showed the absence of plant derived gamma emitters.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 511

PACKAGE R1300 ENVIRONS
Dry Cask Storage Area

UNIT(S)

SURFACE(S)

01 - Gravel Parking Area

OA2 (Surface Soil Sample @ 0"-6" Depth)
OR1 (Roadways, gamma scans and exposure rates)

02 - Soil Pile

OS1 (Soil & Sediment Samples)

REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS	MAT'L	MATERIAL DESCRIPTION	BETA BKGD
	CODE		(dpm/100 cm ²)
	G0006	SURFACE SOIL - GAMMA	0.0

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

Exposure Rate Measurements

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

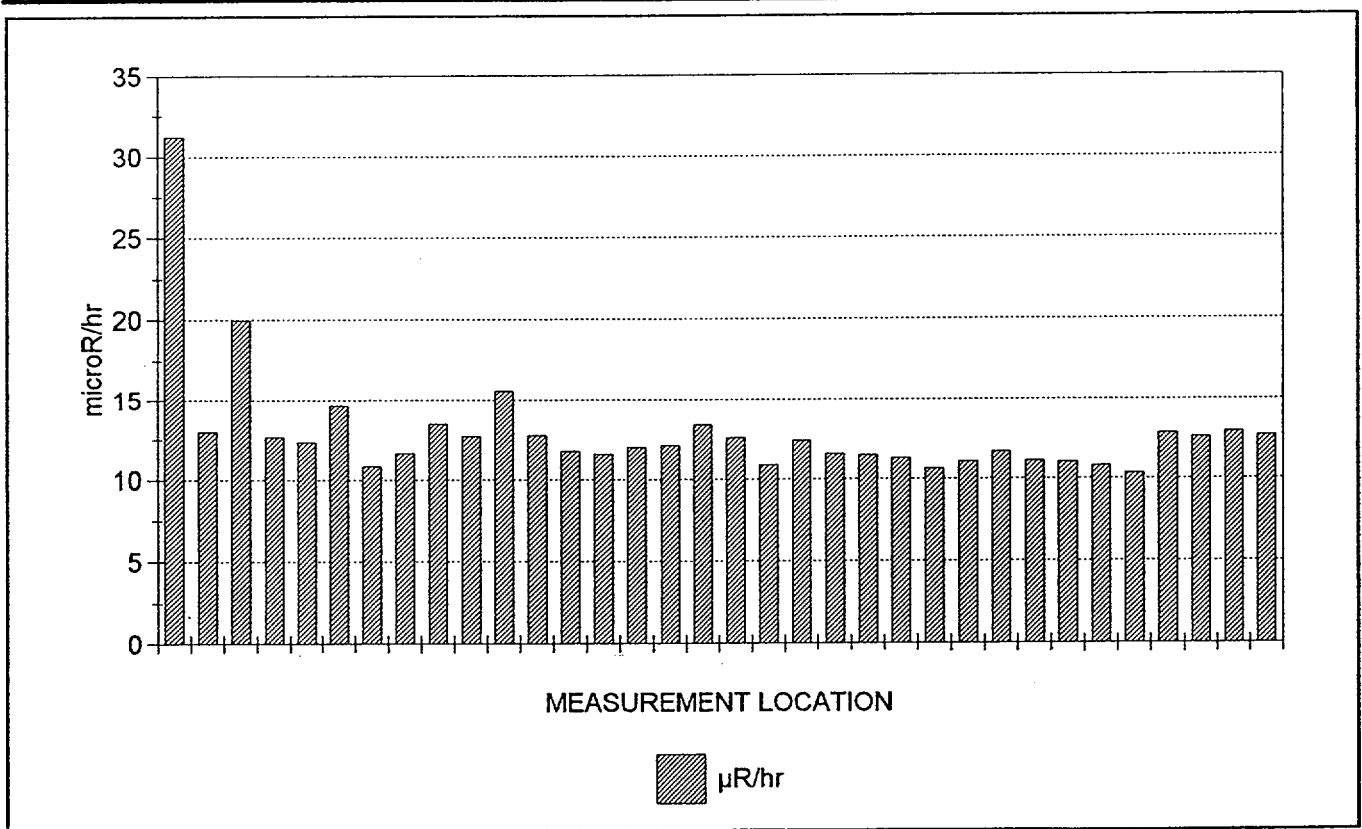
STATISTICAL SUMMARY

TESTS PERFORMED

	$\mu\text{R/hr}$
Mean	12.92
Maximum	31.20
Minimum	10.31
Standard Deviation	3.68

Samples reported satisfy samples prescribed	YES
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Samples Reported	34
Samples Prescribed	34



34 RESULTS ARE GRAPHED



Maine Yankee Atomic Power Plant Site Characterization

04/09/98

Exposure Rate Measurements

Survey Package : R1300 ENVIRONS
Dry Cask Storage Area

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
654 (2)	01	OR1	G0006	C01	60.00	00011-00001	31.20
134 (2)	01	OR1	G0006	C01	60.00	00015-00001	12.99
134 (2)	01	OR1	G0006	C01	60.00	00022-00001	19.96
134 (2)	01	OR1	G0006	C01	60.00	00027-00001	12.67
134 (2)	01	OR1	G0006	C01	60.00	00028-00001	12.35
134 (2)	01	OR1	G0006	C01	60.00	00039-00001	14.63
654 (2)	01	OR1	G0006	C01	60.00	00045-00001	10.79
654 (2)	01	OR1	G0006	C01	60.00	00046-00001	11.64
134 (2)	01	OR1	G0006	C01	60.00	00053-00001	13.45
134 (2)	01	OR1	G0006	C01	60.00	00055-00001	12.72
676 (2)	01	OR1	G0006	C01	60.00	00061-00001	15.59
134 (2)	01	OR1	G0006	C01	60.00	00068-00001	12.74
134 (2)	01	OR1	G0006	C01	60.00	00072-00001	11.76
134 (2)	01	OR1	G0006	C01	60.00	00073-00001	11.56
134 (2)	01	OR1	G0006	C01	60.00	00079-00001	11.98
676 (2)	01	OR1	G0006	C01	60.00	00088-00001	12.12
676 (2)	01	OR1	G0006	C01	60.00	00094-00001	13.37
134 (2)	01	OR1	G0006	C01	60.00	00095-00001	12.57
654 (2)	01	OR1	G0006	C01	60.00	00102-00001	10.85
134 (2)	01	OR1	G0006	C01	60.00	00103-00001	12.38
134 (2)	01	OR1	G0006	C01	60.00	00107-00001	11.55
134 (2)	01	OR1	G0006	C01	60.00	00110-00001	11.47
134 (2)	01	OR1	G0006	C01	60.00	00113-00001	11.27
134 (2)	01	OR1	G0006	C01	60.00	00115-00001	10.61
134 (2)	01	OR1	G0006	C01	60.00	00126-00001	11.05
134 (2)	01	OR1	G0006	C01	60.00	00127-00001	11.67
134 (2)	01	OR1	G0006	C01	60.00	00128-00001	11.11
134 (2)	01	OR1	G0006	C01	60.00	00134-00001	11.00
134 (2)	01	OR1	G0006	C01	60.00	00137-00001	10.77
134 (2)	01	OR1	G0006	C01	60.00	00142-00001	10.31
676 (2)	02	OS1	G0006	C01	60.00	00001-00001	12.82
676 (2)	02	OS1	G0006	C01	60.00	00001-00002	12.59
676 (2)	02	OS1	G0006	C01	60.00	00001-00003	12.91
676 (2)	02	OS1	G0006	C01	60.00	00001-00004	12.67

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
Underlined results did not meet the minimum required count time.
Bold values exceed 10 μ R/hr.
34 results are listed.



Maine Yankee Atomic Power Plant Site Characterization

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/09/98

Exposure Rate Measurements

Survey Package: R1300 ENVIRONS
Dry Cask Storage Area

SURVEY DATE	FILE #	M2350		DETECTOR			TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	
12/12/97	134 (2)	126175	5/7/98	44-2	126809	5/12/98	GLL9768
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/4/98	654 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/5/98	654 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/28/98	676 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768
CALIBRATION DATES VERIFIED AS ACCEPTABLE							

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 653

04/09/98

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00072-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY037	MY037.CNF	1,588.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.00	0.57	1.95
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00073-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY038	MY038.CNF	1,876.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .05	0.05	0.00
				K-40	19.60	0.52	1.67
				Mn-54	< .05	0.05	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00068-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY039	MY039.CNF	1,730.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	19.60	0.39	1.68
				Mn-54	< .06	0.06	0.00

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00039-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY040	MY040.CNF	1,696.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	22.20	0.39	1.86
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00028-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY041	MY041.CNF	1,689.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.80	0.45	1.77
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00045-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY042	MY042.CNF	1,826.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	19.70	0.38	1.67
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/09/98

OUTPUT BATCH SN = 653

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00046-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY043	MY043A.CNF	1,252.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.20	0.06	0.05
				K-40	22.80	0.46	1.97
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00126-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY044	MY044.CNF	1,659.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.40	0.38	1.75
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00107-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY045	ENV00214	1,860.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	19.40	0.59	1.85
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/09/98

OUTPUT BATCH SN = 653

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY108	MY108.CNF	1,471.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.20	0.68	1.94
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00094-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY109	MY109.CNF	1,556.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .09	0.09	0.00
				K-40	25.60	0.54	2.26
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00134-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY110	H2O00074	1,250.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.03	0.04	0.02
				K-40	28.50	0.65	2.37
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/09/98

OUTPUT BATCH SN = 653

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00137-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY111	MY111.CNF	1,610.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.70	0.54	1.97
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00115-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY126	MY126.CNF	1,785.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.70	0.51	1.93
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00061-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY127	MY127.CNF	1,698.00	900	Co-57	< .07	0.07	0.00
				Co-60	< 7.48	7.48	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.03	0.05	0.03
				K-40	22.60	0.69	2.02
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/09/98

OUTPUT BATCH SN = 653

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00088-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY128	MY128.CNF	1,819.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.10	0.50	1.81
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00127-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY129	MY129.CNF	1,428.00	900	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.30	0.52	1.95
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY184	MY184.CNF	1,680.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.40	0.57	1.87
				Mn-54	< .07	0.07	0.00

Survey Package R1300 ENVIRONS
 Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00022-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY185	MY185.CNF	1,692.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.60	0.62	1.95
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00102-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY186	ENV00014	1,810.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .06	0.06	0.00
				K-40	19.00	0.54	1.82
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00128-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY187	ENV00015	1,390.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.30	0.54	1.86
				Mn-54	< .07	0.07	0.00

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00055-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY531	ENV00186	1,670.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.07	0.04	0.03
				K-40	22.40	0.46	1.89
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00053-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY533	ENV00187	1,780.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.40	0.39	1.79
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00110-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY535	ENV00191	1,910.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	18.70	0.56	1.78
				Mn-54	< .06	0.06	0.00

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00103-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY537	ENV00189	1,990.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .05	0.05	0.00
				K-40	20.60	0.45	1.70
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00095-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY540	ENV00190	1,720.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.30	0.36	1.93
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00142-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY542	ENV00191	1,620.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.03	0.05	0.03
				K-40	21.30	0.38	1.81
				Mn-54	< .07	0.07	0.00

Survey Package R1300 ENVIRONS
Dry Cask Storage Area

UNIT : 01 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00113-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY543	ENV00192	1,770.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	22.70	0.49	1.89
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00079-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY545	ENV00193	1,780.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.28	0.07	0.06
				K-40	20.80	0.53	1.96
				Mn-54	< .07	0.07	0.00

UNIT : 02 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1220	ENV00290	1,950.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	< .05	0.05	0.00
				K-40	19.60	0.56	1.66
				Mn-54	< .05	0.05	0.00



Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

04/10/98

SURVEY PACKAGE NUMBER :R1400

ENVIRONS

PACKAGE DESCRIPTION Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area Shorelines

SURVEY AREA DESCRIPTION

Bailey Cove West Shoreline

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

Direct surface discharges of the plant's cooling water were made into Bailey Cove before the diffuser pipes were installed in 1974. This design change was made in response to high water temperatures in Bailey Cove. Plant related radionuclides from liquid effluents were detected in sediments at Bailey Cove before the Forebay was constructed. Sediment and clam samples taken from Bailey Cove in recent years have not had detectable plant related radionuclides. The State of Maine has approved Bailey Cove for clamming.

Detectable levels of cobalt-60 have been detected from time-to-time in silt collected by the cooling water intake structure. These observations have occurred when the silt is removed from the structure. The presence of plant related radionuclides in these silt samples is probably due to liquid radioactive effluents discharged through the plant cooling water diffuser discharge system.

SUMMARY OF CHARACTERIZATION ACTIVITIES

(1) Fifteen survey locations were selected for sampling. For each at low tide, a 6" depth sediment sample consisting of two 3" segments for depth profiles was taken. This was repeated at two additional nearby locations for each of the survey locations, giving six samples per survey location. Subsequently, the three nearby 3" segments of similar depth were composited to give two samples (0-3" and 3-6") for each shoreline sample location. From the 15 sample locations, 30 composite sediment samples were obtained for the entire package.

CHARACTERIZATION SURVEY RESULTS

(1) For the thirty 0-3" and 3-6" profiled sediment samples taken at 15 locations along the shorelines, none of the gamma spectroscopic results were greater than the *a priori* MDA for Co-60. The range of the Cs-137 concentrations was 0.09 to 0.35 pCi/g. Two locations (# 8 at the west shore of Bailey Point and # 11 at the west shore of Foxbird Island) exhibited Co-60 concentrations in the 0-3" samples of 0.05 and 0.07 pCi/g, respectively.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

OUTPUT BATCH SN = 514

04/10/98

PACKAGE R1400 ENVIRONS

Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area Shorelines

UNIT(S)

01 - Shoreline Areas (all)

SURFACE(S)

OS1 (0 - 3" Section of Sediment)
OS2 (3 - 6" Section of Sediment)

REASON(S) CHARACTERIZATION SURVEY (C01)



Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

04/10/98

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY751	H2O00111	1,150.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.21	0.07	0.06
				K-40	18.50	0.48	1.83
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY759	H2O00108	1,160.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.14	0.06	0.04
				K-40	18.70	0.59	1.75
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00004-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY763	H2O00110	1,150.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.14	0.06	0.04
				K-40	17.00	0.52	1.62
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

04/10/98

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00005-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY767	H2O00114	1,120.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.12	0.07	0.05
				K-40	17.70	0.44	1.78
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY771	H2O00112	1,030.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.18	0.07	0.05
				K-40	20.00	0.59	1.88
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY775	H2O00115	1,010.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.28	0.05	0.05
				K-40	20.70	0.32	1.82
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

04/10/98

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY781	H2O00119	1,070.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.26	0.08	0.07
				K-40	17.90	0.60	1.83
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00008-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY785	H2O00118	1,040.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.26	0.09	0.06
				K-40	22.80	0.58	2.07
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00001-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY789	H2O00120	1,170.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.29	0.06	0.05
				K-40	19.10	0.45	1.75
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

04/10/98

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY793	H2O00121	1,050.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.19	0.07	0.05
				K-40	21.70	0.54	1.99
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY797	H2O00125	1,020.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.13	0.06	0.05
				K-40	15.40	0.61	1.68
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00006-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY801	H2O00126	1,380.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.13	0.06	0.04
				K-40	15.90	0.54	1.57
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

04/10/98

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY805	H2O00123	1,130.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.19	0.09	0.06
				K-40	17.30	0.55	1.65
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00013-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY809	H2O00129	996.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.30	0.08	0.06
				K-40	21.10	0.54	1.97
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY813	H2O00128	1,060.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.18	0.07	0.06
				K-40	19.80	0.61	1.97
				Mn-54	< .09	0.09	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

04/10/98

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY753	H2O00105	1,130.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.21	0.06	0.05
				K-40	19.60	0.42	1.80
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY761	H2O00109	1,120.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.19	0.06	0.05
				K-40	19.20	0.54	1.78
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00004-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY765	H2O00111	1,180.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.14	0.05	0.04
				K-40	17.60	0.64	1.67
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

04/10/98

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00005-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY769	H2O00115	1,090.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.15	0.08	0.05
				K-40	18.30	0.48	1.84
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY773	H2O00116	1,070.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.25	0.07	0.06
				K-40	20.10	0.68	1.99
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY777	H2O00118	1,020.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.35	0.08	0.07
				K-40	18.00	0.40	1.74
				Mn-54	< .08	0.08	0.00

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY783	H2O00117	1,100.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.22	0.09	0.06
				K-40	20.30	0.56	1.87
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00008-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY787	H2O00122	1,060.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.19	0.06	0.05
				K-40	18.70	0.50	1.88
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00001-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY791	H2O00124	1,140.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.12	0.07	0.05
				K-40	18.40	0.44	1.71
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

04/10/98

NUMBER OF SAMPLES REPORTED = 30

OUTPUT BATCH SN = 750

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY795	H2O00122	1,090.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.18	0.06	0.05
				K-40	19.10	0.53	1.70
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY799	BIO00019	937.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.13	0.07	0.05
				K-40	16.10	0.58	1.64
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00006-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY803	ENV00216	1,670.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.09	0.05	0.03
				K-40	18.80	0.54	1.84
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/10/98

OUTPUT BATCH SN = 750

Survey Package R1400 ENVIRONS
 Westport, Montsweag Bay, Bailey Point, Bailey Cove and Plant Area
 Shorelines

UNIT : 01 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY807	H2O00124	1,130.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.16	0.06	0.05
				K-40	20.80	0.54	1.89
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00013-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY811	H2O00125	1,040.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.26	0.06	0.05
				K-40	19.70	0.64	1.87
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
 SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY815	BIO00020	821.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.29	0.05	0.05
				K-40	21.10	0.62	1.92
				Mn-54	< .09	0.09	0.00

Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

04/10/98

SURVEY PACKAGE NUMBER :R1500

ENVIRONS

PACKAGE DESCRIPTION

Ash Road Area Rubble Piles

SURVEY AREA DESCRIPTION

Ash Road Rubble Piles

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

Document reviews and interviews have not identified any reason to suspect radionuclide contamination of this area.

SUMMARY OF CHARACTERIZATION ACTIVITIES

- (1) The perimeter of the area was marked in approximate 10 meter increments to assist in performing steps (2) and (3).
- (2) An approximate 25% manual gamma scan of accessible areas was performed using a NaI(Tl) detector with 10 second count times. No locations of elevated counts were identified.
- (3) Thirty grid locations (approximately 10 x 10 meter) were identified by random selection.
- (4) Thirty samples were obtained by compositing two 6" depth samples from different piles or soil locations within each random grid selected in step (3).
- (5) At one random soil sample location per grid, a 1-meter gamma exposure rate (micro-R/hr) measurement was performed.

CHARACTERIZATION SURVEY RESULTS

- (1) The walk-over gamma scanning survey did not identify any elevated locations within the area.
- (2) Thirty random, composited soil samples of 0-6" depth were obtained from the piles. The gamma spectroscopic analyses of the 30 samples did not show Co-60 and gave a range of Cs-137 concentration of 0.00 to 0.21 pCi/g.
- (3) The thirty 1-meter exposure rate measurements gave a mean value of 11.3 uR/hr with a range of 9.8 to 12.6 uR/hr, which is consistent with background values.
- (4) In summary, the qualitative results of the gamma scanning surveys, the quantitative gamma spectroscopic analyses of 30 random soil samples, and the results of 30 exposure rate (uR/hr) measurements demonstrate that the Ash Road Rubble Pile Area is unaffected by radioactive material from the plant.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 515

PACKAGE R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT(S)	SURFACE(S)
01 - Rubble Piles	OA1 (Surface Soil Sample @ 0"-6" Depth) OL2 (Open Land Areas)

REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS	MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm ²)
	G0006	SURFACE SOIL - GAMMA	0.0

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

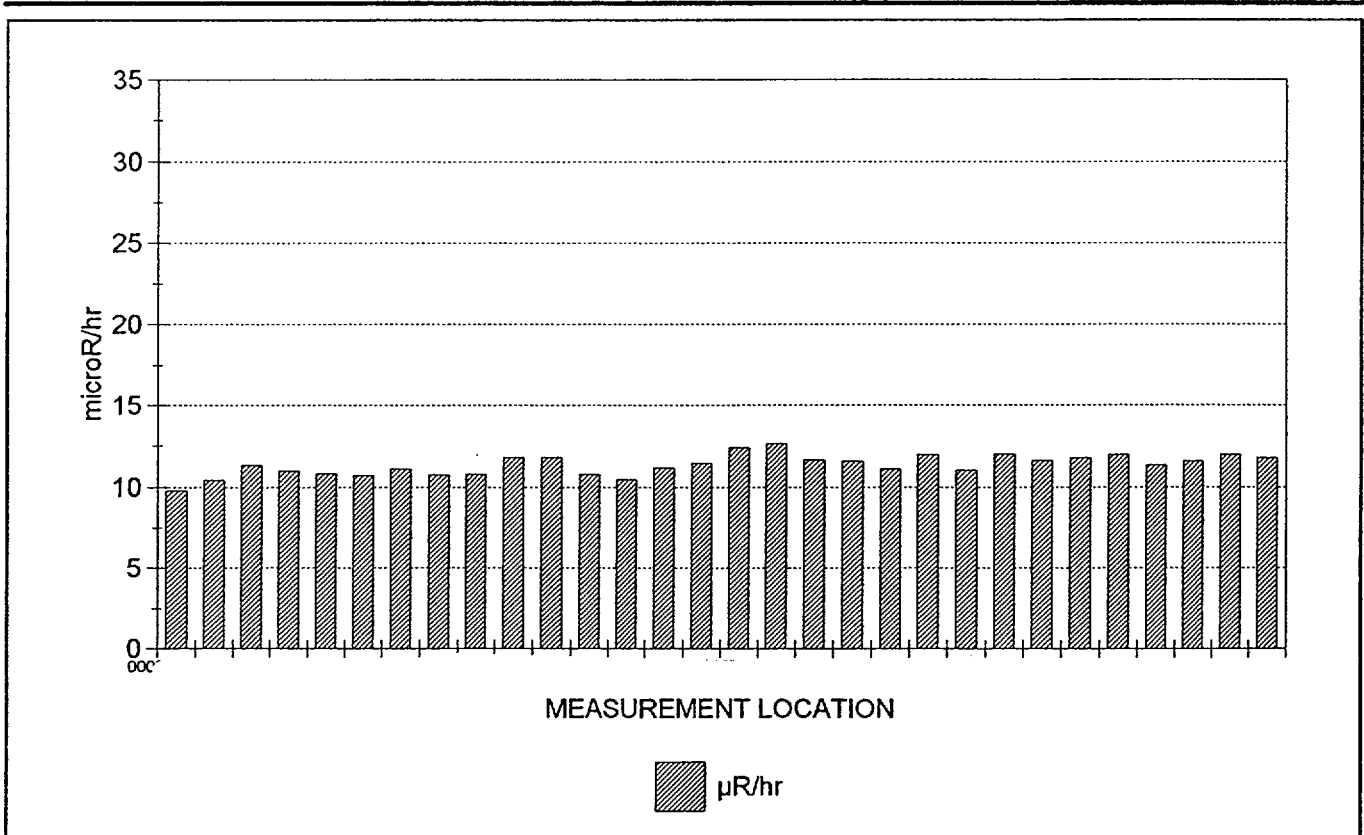
STATISTICAL SUMMARY

TESTS PERFORMED

	$\mu\text{R/hr}$
Mean	11.34
Maximum	12.63
Minimum	9.80
Standard Deviation	0.63

Samples reported satisfy samples prescribed	YES
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Samples Reported	30
Samples Prescribed	30



30 RESULTS ARE GRAPHED

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

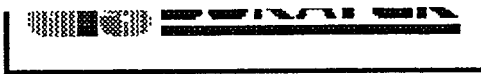
Exposure Rate Measurements

Survey Package : R1500 ENVIRONS
Ash Road Area Rubble Piles

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
678 (2)	01	OL2	G0006	C01	60.00	00001-00001	9.80
678 (2)	01	OL2	G0006	C01	60.00	00002-00001	10.40
678 (2)	01	OL2	G0006	C01	60.00	00003-00001	11.31
678 (2)	01	OL2	G0006	C01	60.00	00005-00001	10.99
678 (2)	01	OL2	G0006	C01	60.00	00006-00001	10.80
678 (2)	01	OL2	G0006	C01	60.00	00007-00001	10.68
678 (2)	01	OL2	G0006	C01	60.00	00008-00001	11.09
678 (2)	01	OL2	G0006	C01	60.00	00009-00001	10.73
678 (2)	01	OL2	G0006	C01	60.00	00010-00001	10.76
678 (2)	01	OL2	G0006	C01	60.00	00011-00001	11.78
678 (2)	01	OL2	G0006	C01	60.00	00012-00001	11.82
678 (2)	01	OL2	G0006	C01	60.00	00013-00001	10.78
678 (2)	01	OL2	G0006	C01	60.00	00014-00001	10.46
678 (2)	01	OL2	G0006	C01	60.00	00015-00001	11.18
678 (2)	01	OL2	G0006	C01	60.00	00016-00001	11.45
678 (2)	01	OL2	G0006	C01	60.00	00017-00001	12.41
678 (2)	01	OL2	G0006	C01	60.00	00018-00001	12.63
678 (2)	01	OL2	G0006	C01	60.00	00019-00001	11.62
678 (2)	01	OL2	G0006	C01	60.00	00020-00001	11.55
678 (2)	01	OL2	G0006	C01	60.00	00022-00001	11.07
678 (2)	01	OL2	G0006	C01	60.00	00023-00001	11.97
678 (2)	01	OL2	G0006	C01	60.00	00024-00001	11.00
678 (2)	01	OL2	G0006	C01	60.00	00025-00001	11.98
678 (2)	01	OL2	G0006	C01	60.00	00026-00001	11.58
678 (2)	01	OL2	G0006	C01	60.00	00027-00001	11.77
678 (2)	01	OL2	G0006	C01	60.00	00028-00001	11.94
678 (2)	01	OL2	G0006	C01	60.00	00030-00001	11.34
678 (2)	01	OL2	G0006	C01	60.00	00033-00001	11.57
678 (2)	01	OL2	G0006	C01	60.00	00034-00001	11.95
678 (2)	01	OL2	G0006	C01	60.00	00035-00001	11.74

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
Underlined results did not meet the minimum required count time.
Bold values exceed 10 μ R/hr.
30 results are listed.



Maine Yankee Atomic Power Plant Site Characterization

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/10/98

Exposure Rate Measurements

Survey Package: R1500 ENVIRONS
Ash Road Area Rubble Piles

SURVEY DATE	FILE #	M2350		DETECTOR			TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	
3/28/98	678 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768

CALIBRATION DATES VERIFIED AS ACCEPTABLE



Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/10/98

OUTPUT BATCH SN = 751

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY073	MY073.CNF	1,620.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.80	0.57	2.00
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00019-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY074	MY074.CNF	1,384.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.40	0.48	1.97
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00026-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY075	MY075.CNF	1,336.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	21.70	0.59	1.89
				Mn-54	< .07	0.07	0.00

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00028-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY076	MY076.CNF	1,475.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.06	0.00
				K-40	22.80	0.68	1.93
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00035-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY077	H2O00077	1,190.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.60	0.67	2.00
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00018-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY078	MY078.CNF	1,405.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.04	0.06	0.04
				K-40	23.00	0.68	1.96
				Mn-54	< .07	0.07	0.00

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00017-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY079	MY079.CNF	1,575.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.70	0.28	1.90
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00024-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY080	MY080.CNF	1,324.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.07	0.06	0.04
				K-40	24.40	0.55	2.06
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00025-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY081	MY081.CNF	1,401.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.02	0.05	0.03
				K-40	22.40	0.60	1.91
				Mn-54	< .06	0.06	0.00

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00027-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY082	MY082.CNF	1,534.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	23.50	0.63	2.01
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00030-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY083	MY083.CNF	1,474.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.40	0.49	1.75
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00023-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY084	MY084.CNF	1,357.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.06	0.04	0.03
				K-40	21.80	0.65	1.89
				Mn-54	< .07	0.07	0.00

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00022-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY085	MY085.CNF	1,368.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.50	0.45	1.92
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00016-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY086	MY086.CNF	1,445.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.02	0.04	0.03
				K-40	21.00	0.54	1.80
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY087	MY087.CNF	1,561.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.03	0.06	0.03
				K-40	21.30	0.64	1.97
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/10/98

OUTPUT BATCH SN = 751

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY088	MY088.CNF	1,747.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.10	0.39	1.78
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY089	MY089.CNF	1,668.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.40	0.54	1.82
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY090	MY090.CNF	1,699.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	21.50	0.41	1.81
				Mn-54	< .06	0.06	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/10/98

OUTPUT BATCH SN = 751

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00001-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY091	MY091.CNF	1,749.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.40	0.48	1.85
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00008-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY092	MY092.CNF	1,523.00	900	Co-57	< .09	0.09	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	< .09	0.09	0.00
				K-40	22.50	0.69	2.07
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00010-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY093	MY093.CNF	1,666.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .09	0.09	0.00
				K-40	22.00	0.55	1.98
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 30

04/10/98

OUTPUT BATCH SN = 751

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00005-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY094	MY094.CNF	1,905.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	20.60	0.44	1.82
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY095	MY095.CNF	1,350.00	900	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.15	0.07	0.05
				K-40	16.40	0.42	1.63
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00006-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY096	MY096.CNF	1,252.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.21	0.10	0.07
				K-40	18.70	0.60	1.84
				Mn-54	< .09	0.09	0.00

04/10/98

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00020-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY502	ENV00178	1,590.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.40	0.52	1.98
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00013-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY503	H2O00016	1,400.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.14	0.10	0.06
				K-40	17.50	0.52	1.67
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00009-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY505	ENV00177	1,590.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	< .08	0.08	0.00
				K-40	17.90	0.48	1.78
				Mn-54	< .07	0.07	0.00

Survey Package R1500 ENVIRONS
Ash Road Area Rubble Piles

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth

SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY507	ENV00179	1,600.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.04	0.05	0.03
				K-40	21.20	0.50	1.82
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth

SAMPLE LOCATOR: 00034-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY509	H2O00011	1,450.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	23.70	0.40	1.97
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth

SAMPLE LOCATOR: 00033-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY511	H2O00022	1,490.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .05	0.05	0.00
				K-40	23.30	0.41	1.84
				Mn-54	< .05	0.05	0.00



Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

04/10/98

SURVEY PACKAGE NUMBER :R1600

ENVIRONS

PACKAGE DESCRIPTION

Owner Controlled Area West of Baily Cove

SURVEY AREA DESCRIPTION

Open land areas and woodland

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

Other than grass land in the vicinity of the Eaton homestead and some other relatively small areas indicated as NF (non-forest) on reference 1, this large area is heavily wooded with trees that predate construction of the plant. There is no known contamination, or reason to suspect contamination, in this large area west of Bailey Cove. Reference 1. "Forest Type Maine Yankee Land Use," by Robert G. Gerber, Inc., February 6, 1997.

SUMMARY OF CHARACTERIZATION ACTIVITIES

For open land areas :

- (1) An approximate 100% gamma scan of accessible areas was performed using a large plastic scintillator detector. The locations of the scanning results were identified using a global positioning system (GPS). One location gave an elevated indication, and it was marked in the field with a flag.
- (2) Additional scanning of the marked location was performed using a NaI(Tl) detector and soil samples were obtained under Package R2500.
- (3) The tree lines of the perimeters of the open areas were marked in approximately 50 meter increments to assist in performing step (4).
- (4) Thirty grid locations (approximately 50 x 50 meter) were identified by random selection. The locations of the 30 random sample points were in addition to the marked elevated area.
- (5) Thirty 6" depth soil samples were obtained from the random sample locations established in step (4).
- (6) At each of the 30 random sample locations, a 1-meter gamma exposure rate measurement was performed.

For woodland areas :

- (7) The tree lines or equivalent were marked in approximately 100 meter increments to assist in performing steps (8) and (9).
- (8) A manual gamma scan was performed using a NaI(Tl) detector with 20 second count times. With the assistance of a compass, the 100 meter grid lines were generally followed during the scanning. No locations with elevated counts were identified. When gamma scanning woodlands, the idea was to generally walk in east-west directions from the marked tree lines, going around steep or otherwise difficult areas that were otherwise unsafe or unusually slow to walk over. Wetlands, shorelines, and rocky outcrops were avoided. In addition to scanning for potentially contaminated locations, the purpose was to look for disturbed areas, e.g., past presence of heavy equipment, that may indicate the placement of plant derived materials. No disturbed areas were identified.
- (9) Thirty grid locations (approximately 100 x 100 meter) were identified by random selection.
- (10) Thirty 6" depth soil samples were obtained from the random sample locations established in step (9).
- (11) At each of the 30 random sample locations, a 1-meter exposure rate (micro-R/hr) measurement was performed.

CHARACTERIZATION SUMMARY

04/10/98

CHARACTERIZATION SURVEY RESULTS

(1) For the area west of Bailey Cove, the grassland and transmission right-of-way (ROW) drive-over gamma scanning survey identified one elevated area, which is labeled # 24 on Figure 3. The follow-up manual gamma scans did not find any other higher elevated areas. Five 0-6" depth soil samples were taken at this location under Package R2500. The gamma spectroscopic results did not show the presence of Co-60 and gave Cs-137 concentrations that ranged from 0.00 to 0.29 pCi/g.

(2) The woodland walk-over gamma scanning survey did not identify any elevated locations. Other than past activities related to logging or farming, no disturbed areas in the woodland were observed.

(3) Sixty random soil samples of 0-6" depth were obtained from the grassland, ROW, and woodland. These samples were in addition to the samples taken to evaluate the elevated location identified by drive-over gamma scanning. The gamma spectroscopic analyses of these samples did not show Co-60 and gave a range of Cs-137 concentrations from 0.00 to 1.43 pCi/g.

REFERENCES (Documents, Interviews)



Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 775

PACKAGE R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT(S)

01 - Open Land Areas

02 - Woodland Areas

SURFACE(S)
 OA1 (Surface Soil Sample @ 0"-6" Depth)
 OL2 (Open Land Areas)

 OA1 (Surface Soil Sample @ 0"-6" Depth)
 OL2 (Open Land Areas)
REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS	MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm²)
	G0006	SURFACE SOIL - GAMMA	0.00

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

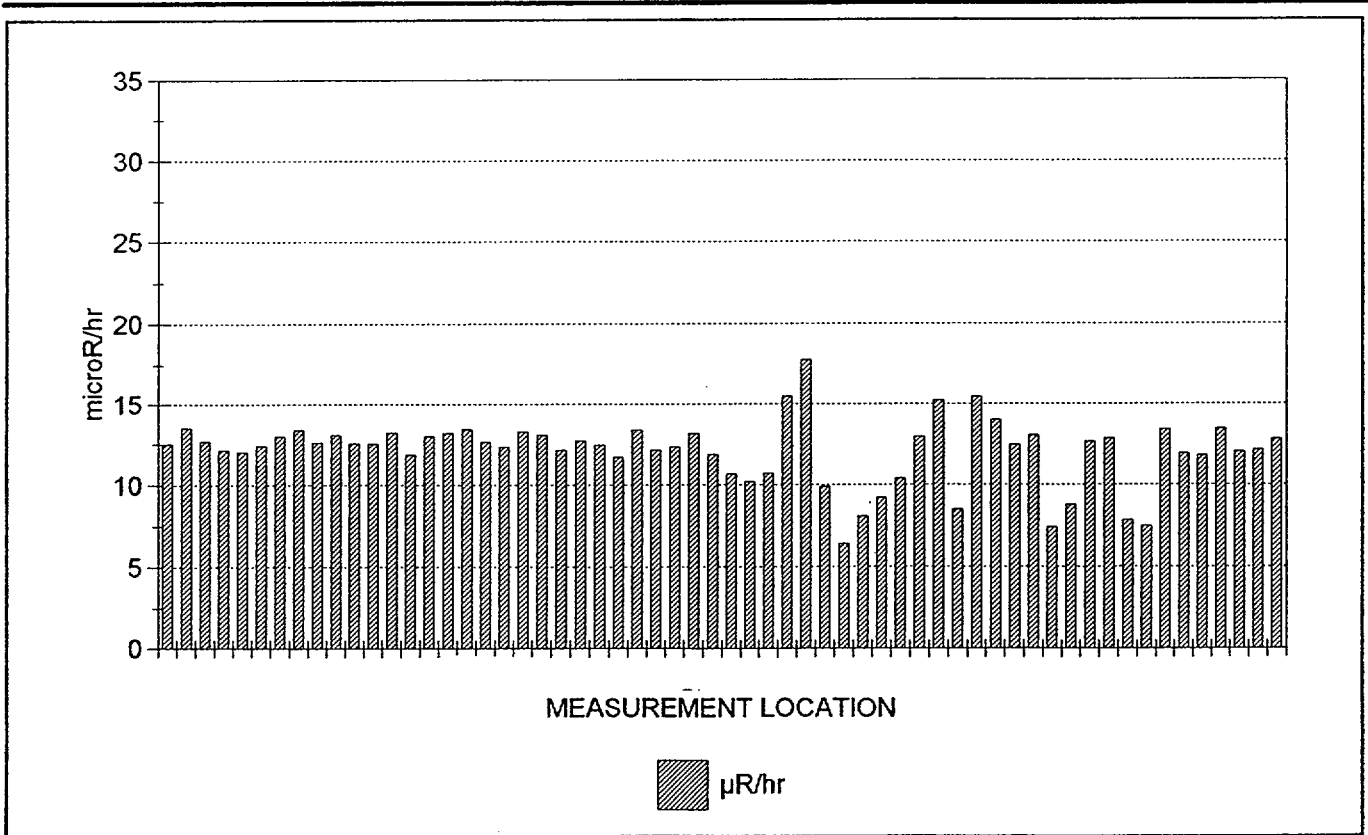
STATISTICAL SUMMARY

TESTS PERFORMED

	$\mu\text{R/hr}$
Mean	12.07
Maximum	17.80
Minimum	6.39
Standard Deviation	2.06

Samples reported satisfy samples prescribed	YES
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Samples Reported	60
Samples Prescribed	60



60 RESULTS ARE GRAPHED

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package : R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
13 (2)	01	OL2	G0006	C01	60.00	00001-00001	12.51
13 (2)	01	OL2	G0006	C01	60.00	00005-00001	13.50
13 (2)	01	OL2	G0006	C01	60.00	00008-00001	12.65
13 (2)	01	OL2	G0006	C01	60.00	00011-00001	12.13
13 (2)	01	OL2	G0006	C01	60.00	00014-00001	12.00
13 (2)	01	OL2	G0006	C01	60.00	00017-00001	12.40
13 (2)	01	OL2	G0006	C01	60.00	00023-00001	12.97
13 (2)	01	OL2	G0006	C01	60.00	00024-00001	13.40
13 (2)	01	OL2	G0006	C01	60.00	00027-00001	12.59
13 (2)	01	OL2	G0006	C01	60.00	00028-00001	13.04
13 (2)	01	OL2	G0006	C01	60.00	00029-00001	12.54
13 (2)	01	OL2	G0006	C01	60.00	00030-00001	12.51
13 (2)	01	OL2	G0006	C01	60.00	00031-00001	13.23
13 (2)	01	OL2	G0006	C01	60.00	00033-00001	11.83
13 (2)	01	OL2	G0006	C01	60.00	00039-00001	12.99
13 (2)	01	OL2	G0006	C01	60.00	00040-00001	13.18
13 (2)	01	OL2	G0006	C01	60.00	00041-00001	13.41
13 (2)	01	OL2	G0006	C01	60.00	00045-00001	12.62
13 (2)	01	OL2	G0006	C01	60.00	00046-00001	12.30
13 (2)	01	OL2	G0006	C01	60.00	00049-00001	13.26
13 (2)	01	OL2	G0006	C01	60.00	00050-00001	13.06
13 (2)	01	OL2	G0006	C01	60.00	00051-00001	12.12
13 (2)	01	OL2	G0006	C01	60.00	00054-00001	12.72
13 (2)	01	OL2	G0006	C01	60.00	00056-00001	12.45
13 (2)	01	OL2	G0006	C01	60.00	00061-00001	11.70
13 (2)	01	OL2	G0006	C01	60.00	00063-00001	13.37
13 (2)	01	OL2	G0006	C01	60.00	00067-00001	12.13
13 (2)	01	OL2	G0006	C01	60.00	00069-00001	12.33
13 (2)	01	OL2	G0006	C01	60.00	00070-00001	13.15
13 (2)	01	OL2	G0006	C01	60.00	00073-00001	11.84
16 (2)	02	OL2	G0006	C01	60.00	00003-00001	10.64
16 (2)	02	OL2	G0006	C01	60.00	00005-00001	10.17
13 (2)	02	OL2	G0006	C01	60.00	00014-00001	10.70
13 (2)	02	OL2	G0006	C01	60.00	00026-00001	15.51
13 (2)	02	OL2	G0006	C01	60.00	00027-00001	17.80
674 (2)	02	OL2	G0006	C01	60.00	00034-00001	9.86
674 (2)	02	OL2	G0006	C01	60.00	00035-00001	6.39
674 (2)	02	OL2	G0006	C01	60.00	00036-00001	8.08
674 (2)	02	OL2	G0006	C01	60.00	00037-00001	9.21
674 (2)	02	OL2	G0006	C01	60.00	00042-00001	10.39

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
 Underlined results did not meet the minimum required count time.
 Bold values exceed 10 μ R/hr.



Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package : R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
16 (2)	02	OL2	G0006	C01	60.00	00045-00001	12.92
13 (2)	02	OL2	G0006	C01	60.00	00053-00001	15.24
674 (2)	02	OL2	G0006	C01	60.00	00061-00001	8.50
13 (2)	02	OL2	G0006	C01	60.00	00068-00001	15.49
13 (2)	02	OL2	G0006	C01	60.00	00069-00001	13.96
13 (2)	02	OL2	G0006	C01	60.00	00071-00001	12.41
13 (2)	02	OL2	G0006	C01	60.00	00073-00001	13.00
674 (2)	02	OL2	G0006	C01	60.00	00076-00001	7.42
674 (2)	02	OL2	G0006	C01	60.00	00083-00001	8.75
13 (2)	02	OL2	G0006	C01	60.00	00090-00001	12.63
13 (2)	02	OL2	G0006	C01	60.00	00091-00001	12.84
674 (2)	02	OL2	G0006	C01	60.00	00102-00001	7.84
674 (2)	02	OL2	G0006	C01	60.00	00103-00001	7.48
13 (2)	02	OL2	G0006	C01	60.00	00109-00001	13.38
13 (2)	02	OL2	G0006	C01	60.00	00110-00001	11.87
13 (2)	02	OL2	G0006	C01	60.00	00111-00001	11.75
13 (2)	02	OL2	G0006	C01	60.00	00114-00001	13.40
13 (2)	02	OL2	G0006	C01	60.00	00117-00001	11.99
13 (2)	02	OL2	G0006	C01	60.00	00118-00001	12.10
13 (2)	02	OL2	G0006	C01	60.00	00120-00001	12.77

NOTES: Exposure rates reported in net $\mu\text{R/hr}$. Count times are reported in seconds.
 Underlined results did not meet the minimum required count time.
 Bold values exceed 10 $\mu\text{R/hr}$.
 60 results are listed.

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/10/98

Exposure Rate Measurements

Survey Package : R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

SURVEY DATE	FILE #	M2350		DETECTOR			TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	
11/11/97	13 (2)	080498	4/8/98	44-2	PR075119	4/8/98	JJP1813
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
11/12/97	13 (2)	080498	4/8/98	44-2	PR075119	4/8/98	JJP1813
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
11/13/97	13 (2)	080498	4/8/98	44-2	PR075119	4/8/98	JJP1813
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
11/14/97	16 (2)	117578	4/29/98	44-2	PR113221	5/12/98	JJP1813
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/27/98	674 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768
CALIBRATION DATES VERIFIED AS ACCEPTABLE							



Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 60

OUTPUT BATCH SN = 775

04/10/98

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00046-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY113	MY113.CNF	1,114.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .11	0.11	0.00
				Cs-137	.39	0.07	0.07
				K-40	18.40	0.69	1.89
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00050-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY114	BIO00013	895.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.46	0.09	0.08
				K-40	22.70	0.53	2.11
				Mn-54	< .10	0.10	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00056-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY115	MY115.CNF	983.40	900	Co-57	< .09	0.09	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .11	0.11	0.00
				Cs-137	.51	0.10	0.09
				K-40	19.50	0.66	2.03
				Mn-54	< .10	0.10	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00061-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY157	MY157.CNF	930.10	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .11	0.11	0.00
				Cs-137	.54	0.09	0.09
				K-40	16.60	0.47	1.82
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00051-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY166	MY166.CNF	1,064.00	900	Co-57	< .09	0.09	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.50	0.06	0.08
				K-40	20.00	0.67	2.03
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00070-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY188	ENV00016	1,090.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.27	0.07	0.06
				K-40	18.00	0.78	1.85
				Mn-54	< .08	0.08	0.00

04/10/98

Survey Package R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00067-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY189	ENV00017	1,230.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.32	0.06	0.06
				K-40	18.40	0.68	1.81
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY190	ENV00018	1,320.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.22	0.06	0.05
				K-40	18.40	0.64	1.77
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00023-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY191	ENV00019	1,130.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.28	0.08	0.06
				K-40	15.80	0.63	1.66
				Mn-54	< .08	0.08	0.00

Survey Package R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00033-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY192	ENV00020	1,200.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.24	0.07	0.06
				K-40	14.10	0.40	1.49
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00040-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY193	ENV00022	1,190.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.39	0.09	0.07
				K-40	17.80	0.55	1.77
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00031-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY194	ENV00056	1,060.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.55	0.08	0.08
				K-40	17.30	0.57	1.69
				Mn-54	< .08	0.08	0.00

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Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00030-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY195	ENV00056	1,090.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.38	0.09	0.07
				K-40	15.90	0.69	1.70
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00028-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY196	ENV00057	1,010.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.49	0.08	0.07
				K-40	20.60	0.69	1.85
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00008-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY197	ENV00057	977.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.45	0.07	0.07
				K-40	20.70	0.71	1.97
				Mn-54	< .09	0.09	0.00

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Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00001-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY198	ENV00058	961.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.61	0.07	0.08
				K-40	21.20	0.54	1.89
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00011-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY199	ENV00058	1,200.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.25	0.09	0.07
				K-40	17.40	0.66	1.75
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00024-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY200	ENV00023	1,210.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.30	0.06	0.06
				K-40	17.60	0.70	1.76
				Mn-54	< .07	0.07	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00027-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY220	ENV00034	1,000.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.26	0.08	0.07
				K-40	16.40	0.85	1.79
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00029-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY221	ENV00015	1,080.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.33	0.07	0.06
				K-40	16.80	0.56	1.64
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00054-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY222	ENV00035	929.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.37	0.10	0.08
				K-40	19.40	0.53	1.99
				Mn-54	< .10	0.10	0.00

Survey Package R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00069-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY223	ENV00017	1,030.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.33	0.12	0.08
				K-40	18.90	0.63	1.81
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00063-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY224	ENV00036	1,380.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	19.50	0.63	1.82
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00005-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY225	ENV00018	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.10	0.05	0.03
				K-40	22.00	0.53	1.90
				Mn-54	< .06	0.06	0.00

Survey Package R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00041-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY226	ENV00019	1,050.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.11	0.07	0.05
				K-40	21.90	0.61	2.00
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00045-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY376	ENV00130	936.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.44	0.07	0.07
				K-40	18.80	0.31	1.81
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00049-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY551	H2O00049	1,180.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.27	0.07	0.06
				K-40	18.30	0.51	1.80
				Mn-54	< .09	0.09	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00073-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY553	H2O00015	1,190.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.05	0.07	0.04
				K-40	23.00	0.59	2.02
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00017-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY557	H2O00016	1,100.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.48	0.07	0.07
				K-40	16.50	0.50	1.61
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00039-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY567	H2O00041	1,070.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.60	0.07	0.08
				K-40	16.40	0.50	1.61
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 60

04/10/98

OUTPUT BATCH SN = 775

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY105	MY105.CNF	883.70	900	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	1.26	0.08	0.14
				K-40	19.00	0.70	2.04
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00005-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY107	MY107.CNF	1,151.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.17	0.08	0.06
				K-40	17.90	0.59	1.83
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY112	BIO00015	898.00	3000	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.21	0.06	0.05
				K-40	16.60	0.58	1.44
				Mn-54	< .07	0.07	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00111-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY158	BIO00012	519.00	3000	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.25	0.06	0.12
				K-40	15.70	0.75	1.59
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00068-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY159	MY159.CNF	882.50	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	1.43	0.08	0.15
				K-40	11.90	0.66	1.51
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00118-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY160	BIO00014	862.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.50	0.06	0.07
				K-40	19.10	0.55	1.89
				Mn-54	< .10	0.10	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 60

04/10/98

OUTPUT BATCH SN = 775

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00061-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY161	MY161.CNF	1,071.00	900	Co-57	< .09	0.09	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .11	0.11	0.00
				Cs-137	.32	0.08	0.07
				K-40	20.90	0.85	2.10
				Mn-54	< .10	0.10	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00117-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY162	ENV00010	899.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.46	0.08	0.08
				K-40	17.40	0.43	1.74
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00036-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY163	ENV00086	1,140.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.35	0.05	0.05
				K-40	15.70	0.39	1.35
				Mn-54	< .05	0.05	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 60

OUTPUT BATCH SN = 775

04/10/98

Survey Package R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00035-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY164	ENV00012	1,285.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.22	0.07	0.05
				K-40	12.90	0.53	1.39
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00103-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY165	H2O00076	1,020.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.34	0.06	0.05
				K-40	19.90	0.59	1.76
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00037-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY167	H2O00075	1,031.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.48	0.07	0.07
				K-40	21.00	0.56	1.83
				Mn-54	< .07	0.07	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 60

04/10/98

OUTPUT BATCH SN = 775

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00083-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY168	MY168.CNF	912.30	900	Co-57	< .09	0.09	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .12	0.12	0.00
				Cs-137	.66	0.06	0.09
				K-40	18.80	0.69	2.01
				Mn-54	< .10	0.10	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00027-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY169	H2O00074	984.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	1.01	0.06	0.10
				K-40	18.00	0.66	1.68
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00026-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY170	H2O00070	1,050.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.46	0.10	0.08
				K-40	26.30	0.80	2.31
				Mn-54	< .10	0.10	0.00

Survey Package R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00053-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY270	ENV00074	907.00	1800	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.98	0.09	0.11
				K-40	17.90	0.61	1.70
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00075-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY271	ENV00061	1,160.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.30	0.06	0.06
				K-40	19.60	0.68	1.81
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00110-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY272	ENV00060	1,000.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.40	0.07	0.06
				K-40	17.40	0.54	1.62
				Mn-54	< .07	0.07	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00109-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY273	ENV00061	936.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.08	0.00
				Cs-137	1.28	0.07	0.12
				K-40	20.20	0.34	1.80
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00120-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY274	ENV00062	955.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.73	0.09	0.09
				K-40	21.00	0.78	1.91
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00073-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY555	H2O00025	1,320.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.46	0.09	0.08
				K-40	13.10	0.49	1.38
				Mn-54	< .07	0.07	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00076-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY559	H2O00017	1,200.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.29	0.08	0.06
				K-40	14.10	0.56	1.42
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00042-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY561	H2O00039	1,270.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.24	0.05	0.05
				K-40	14.20	0.49	1.39
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00102-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY563	H2O00018	1,140.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.33	0.07	0.06
				K-40	21.20	0.67	1.92
				Mn-54	< .08	0.08	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00069-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY565	H2O00028	1,140.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.47	0.09	0.08
				K-40	13.90	0.58	1.52
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00091-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY569	H2O00029	1,090.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.35	0.08	0.07
				K-40	14.10	0.64	1.56
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00090-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY573	H2O00020	1,150.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.44	0.06	0.06
				K-40	16.90	0.76	1.65
				Mn-54	< .07	0.07	0.00

Survey Package R1600 ENVIRONS
 Owner Controlled Area West of Baily Cove

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00034-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY575	H2O00031	1,180.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.49	0.07	0.07
				K-40	15.40	0.73	1.63
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00114-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY577	H2O00021	1,220.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.37	0.08	0.07
				K-40	23.00	0.52	2.00
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00045-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY579	H2O00042	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.52	0.06	0.07
				K-40	14.80	0.44	1.41
				Mn-54	< .07	0.07	0.00



Maine Yankee Atomic Power Plant Site Characterization

DATA ANALYSIS ERROR LOG

04/10/98

OUTPUT BATCH SN = 775

PACKAGE R1600 ENVIRONS
Owner Controlled Area West of Baily Cove

QUERY REMARKS No direct beta results were located
 No direct alpha results were located
 No smear sample results were located
 No tritium smear results were located
 No liquid tritium results were located

PROBLEMS NONE

Maine Yankee Atomic Power Plant Site Characterization

CHARACTERIZATION SUMMARY

04/10/98

SURVEY PACKAGE NUMBER :R1700

ENVIRONS

PACKAGE DESCRIPTION

Owner Controlled Area North of Old Ferry Road

SURVEY AREA DESCRIPTION

Open land areas, two transmission corridors and woodland

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

Other than the two transmission corridors, the railroad ROW, and the Ash Road rubble piles, this large area is heavily wooded with trees that predate construction of the plant. There is no known contamination, or reason to suspect contamination, in this large area north of Old Ferry Road.

SUMMARY OF CHARACTERIZATION ACTIVITIES

For open land areas :

(1) An approximate 100% gamma scan of accessible areas was performed using a large plastic scintillator detector. The locations of the scanning results were identified using a global positioning system (GPS). No locations gave indications of elevated count rates.

(2) The tree lines and railroad right of way of the perimeters of the open areas were marked in approximately 50 meter increments to assist in performing step (3).

(3) Thirty grid locations (approximately 50 x 50 meter) were identified by random selection.

(4) Thirty 6" depth soil samples were obtained from the random sample locations established in step (3).

(5) At each of the random sample locations, a 1-meter gamma exposure rate measurement was performed.

For woodland areas :

(6) The tree lines or equivalent were marked in approximately 100 meter increments to assist in performing steps (7) and (8).

(7) A manual gamma scan was performed using a NaI(Tl) detector with 20 second count times. With the assistance of a compass, the 100 meter grid lines were generally followed during the scanning. No locations with elevated counts were identified. When gamma scanning woodlands, the idea was to generally walk in east-west directions from the marked tree lines, going around steep or otherwise difficult areas that were otherwise unsafe or unusually slow to walk over. Wetlands, shorelines, and rocky outcrops were avoided. In addition to scanning for potentially contaminated locations, the purpose was to look for disturbed areas, e.g., past presence of heavy equipment, that may indicate the placement of plant derived materials. No disturbed areas were identified.

(8) Thirty grid locations (approximately 100 x 100 meter) were identified by random selection.

(9) Thirty 6" depth soil samples were obtained from the random sample locations established in step (8).

(10) At each of the random sample locations, a 1-meter exposure rate (micro-R/hr) measurement was performed.

CHARACTERIZATION SURVEY RESULTS

(1) For the area north of Old Ferry Road, the transmission and railroad rights-of-way (ROW) and Ash Road drive-over gamma scanning survey did not identify any elevated locations.

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Version 3.0.8 - 4/3/98

JLM

DBACORR Documentation

:aProgDBACORR:C_HISTRY.RSL

OUTPUT BATCH SN = 516

CHARACTERIZATION SUMMARY

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(2) The woodland walk-over gamma scanning survey did not identify any elevated locations. Other than past activities related to logging, farming, ROW construction, or the soil piles addressed in Package R1500, no disturbed areas in the woodland were observed.

(3) Sixty random soil samples of 0-6" depth were obtained from the ROWs, and woodland. The gamma spectroscopic analyses of these samples did not show the presence of Co-60 and gave Cs-137 concentrations that ranged from 0.00 to 1.32 pCi/g.

(4) The sixty 1-meter exposure rate measurements gave a mean value of 9.6 uR/hr with a range of 6.4 to 13.7 uR/hr, which is consistent with background values.

(5) In summary, the qualitative results of gamma scanning surveys, the quantitative gamma spectroscopic analyses of 60 random soil samples, and the results of 60 exposure rate (uR/hr) measurements demonstrate that the area north of Old Ferry Road is unaffected by radioactive materials from the plant.

REFERENCES (Documents, Interviews)

Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

OUTPUT BATCH SN = 664

04/09/98

PACKAGE R1700 ENVIRONS
Owner Controlled Area North of Old Ferry Road

UNIT(S)	SURFACE(S)
01 - Opened land areas including transmission corridors and RR	OA1 (Surface Soil Sample @ 0"-6" Depth)
02 - Woodland areas	OA1 (Surface Soil Sample @ 0"-6" Depth)

REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS	MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm ²)
	G0006	SURFACE SOIL - GAMMA	0.00

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

Exposure Rate Measurements

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

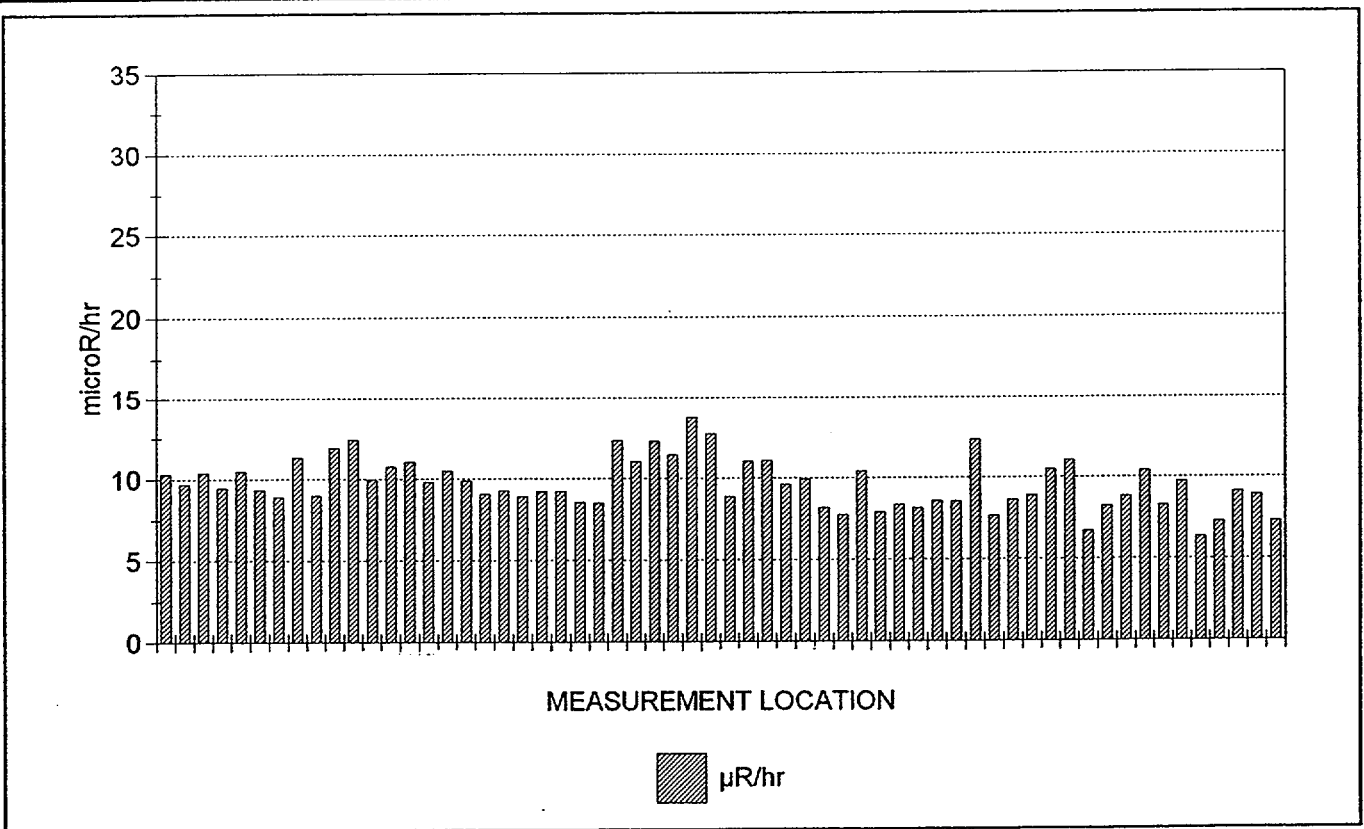
STATISTICAL SUMMARY

TESTS PERFORMED

	$\mu\text{R/hr}$
Mean	9.65
Maximum	13.74
Minimum	6.36
Standard Deviation	1.56

Samples reported satisfy samples prescribed	YES
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Samples Reported	60
Samples Prescribed	60



60 RESULTS ARE GRAPHED

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

Exposure Rate Measurements

Survey Package : R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
655 (2)	01	OA1	G0006	C01	60.00	00004	10.30
655 (2)	01	OA1	G0006	C01	60.00	00007	9.67
655 (2)	01	OA1	G0006	C01	60.00	00015	10.39
655 (2)	01	OA1	G0006	C01	60.00	00018	9.41
655 (2)	01	OA1	G0006	C01	60.00	00021	10.44
655 (2)	01	OA1	G0006	C01	60.00	00022	9.33
675 (2)	01	OA1	G0006	C01	60.00	00023-00001	8.90
655 (2)	01	OA1	G0006	C01	60.00	00025	11.30
655 (2)	01	OA1	G0006	C01	60.00	00028	8.98
653 (2)	01	OA1	G0006	C01	60.00	00031	11.89
653 (2)	01	OA1	G0006	C01	60.00	00032	12.39
655 (2)	01	OA1	G0006	C01	60.00	00035	9.94
653 (2)	01	OA1	G0006	C01	60.00	00038	10.75
653 (2)	01	OA1	G0006	C01	60.00	00039	11.03
653 (2)	01	OA1	G0006	C01	60.00	00041	9.80
653 (2)	01	OA1	G0006	C01	60.00	00043	10.47
655 (2)	01	OA1	G0006	C01	60.00	00045	9.85
655 (2)	01	OA1	G0006	C01	60.00	00052	9.05
655 (2)	01	OA1	G0006	C01	60.00	00054	9.23
655 (2)	01	OA1	G0006	C01	60.00	00055	8.88
655 (2)	01	OA1	G0006	C01	60.00	00056	9.21
655 (2)	01	OA1	G0006	C01	60.00	00057	9.21
655 (2)	01	OA1	G0006	C01	60.00	00059	8.51
655 (2)	01	OA1	G0006	C01	60.00	00060	8.48
653 (2)	01	OA1	G0006	C01	60.00	00061	12.31
653 (2)	01	OA1	G0006	C01	60.00	00062	11.03
653 (2)	01	OA1	G0006	C01	60.00	00063	12.26
653 (2)	01	OA1	G0006	C01	60.00	00071	11.41
653 (2)	01	OA1	G0006	C01	60.00	00073	13.74
653 (2)	01	OA1	G0006	C01	60.00	00075	12.71
656 (2)	02	OA1	G0006	C01	60.00	00009	8.86
656 (2)	02	OA1	G0006	C01	60.00	00012	11.00
653 (2)	02	OA1	G0006	C01	60.00	00014	11.04
675 (2)	02	OA1	G0006	C01	60.00	00017-00001	9.58
656 (2)	02	OA1	G0006	C01	60.00	00018	9.90
656 (2)	02	OA1	G0006	C01	60.00	00020	8.16
656 (2)	02	OA1	G0006	C01	60.00	00023	7.72
653 (2)	02	OA1	G0006	C01	60.00	00025	10.38
656 (2)	02	OA1	G0006	C01	60.00	00034	7.90
656 (2)	02	OA1	G0006	C01	60.00	00042	8.32

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
 Underlined results did not meet the minimum required count time.
 Bold values exceed 10 μ R/hr.

Maine Yankee Atomic Power Plant Site Characterization

04/09/98

Exposure Rate Measurements

Survey Package : R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
656 (2)	02	OA1	G0006	C01	60.00	00045	8.14
656 (2)	02	OA1	G0006	C01	60.00	00051	8.55
656 (2)	02	OA1	G0006	C01	60.00	00062	8.52
656 (2)	02	OA1	G0006	C01	60.00	00064	12.32
656 (2)	02	OA1	G0006	C01	60.00	00072	7.66
656 (2)	02	OA1	G0006	C01	60.00	00075	8.59
656 (2)	02	OA1	G0006	C01	60.00	00076	8.88
656 (2)	02	OA1	G0006	C01	60.00	00078	10.46
656 (2)	02	OA1	G0006	C01	60.00	00083	11.00
656 (2)	02	OA1	G0006	C01	60.00	00087	6.70
656 (2)	02	OA1	G0006	C01	60.00	00092	8.19
656 (2)	02	OA1	G0006	C01	60.00	00096	8.80
656 (2)	02	OA1	G0006	C01	60.00	00103	10.38
656 (2)	02	OA1	G0006	C01	60.00	00120	8.23
656 (2)	02	OA1	G0006	C01	60.00	00121	9.70
656 (2)	02	OA1	G0006	C01	60.00	00132	6.36
656 (2)	02	OA1	G0006	C01	60.00	00133	7.24
656 (2)	02	OA1	G0006	C01	60.00	00141	9.10
656 (2)	02	OA1	G0006	C01	60.00	00144	8.88
656 (2)	02	OA1	G0006	C01	60.00	00158	7.30

NOTES: Exposure rates reported in net μ R/hr. Count times are reported in seconds.
 Underlined results did not meet the minimum required count time.
 Bold values exceed 10 μ R/hr.
 60 results are listed.

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/09/98

Exposure Rate Measurements

Survey Package : R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

SURVEY DATE	FILE #	M2350		DETECTOR			TECHNICIAN
		INST S/N	CAL DUE	MODEL	S/N	CAL DUE	
3/5/98	653 (2)	080498	4/8/98	44-2	PR075119	4/8/98	CWI5440
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/6/98	655 (2)	126201	4/15/98	44-2	129300	5/12/98	BSM0490
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/6/98	656 (2)	98620	3/20/98	44-2	129304	4/19/98	DRK2986
CALIBRATION DATES VERIFIED AS ACCEPTABLE							
3/27/98	675 (2)	129401	6/10/98	44-2	129298	6/11/98	GLL9768
CALIBRATION DATES VERIFIED AS ACCEPTABLE							



Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 60

OUTPUT BATCH SN = 664

04/09/98

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00022

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1350	H2O00317	1,259.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.17	0.07	0.05
				K-40	19.80	0.39	1.66
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00060-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY329	ENV00095	1,070.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.07	0.06	0.04
				K-40	16.30	0.45	1.60
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00031-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY330	ENV00096	1,460.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	16.60	0.47	1.50
				Mn-54	< .06	0.06	0.00

04/09/98

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00015-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY331	ENV00101	1,410.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.50	0.65	1.88
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00007-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY332	ENV00102	1,320.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .07	0.07	0.00
				K-40	18.30	0.61	1.76
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00023-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY333	ENV00097	1,080.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.30	0.06	0.06
				K-40	16.50	0.42	1.61
				Mn-54	< .07	0.07	0.00

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00054-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY334	ENV00103	1,200.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.15	0.06	0.04
				K-40	17.40	0.74	1.76
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00075-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY335	ENV00098	1,470.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	20.70	0.52	1.77
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00043-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY336	ENV00104	1,050.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.28	0.08	0.07
				K-40	17.30	0.66	1.80
				Mn-54	< .09	0.09	0.00

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00039-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY337	ENV00099	1,080.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.40	0.07	0.07
				K-40	20.10	0.48	1.86
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00041-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY338	ENV00105	1,060.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.31	0.08	0.07
				K-40	18.40	0.87	1.91
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00073-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY339	ENV00101	1,410.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.30	0.63	1.91
				Mn-54	< .07	0.07	0.00

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00045-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY340	ENV00107	1,240.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.30	0.07	0.06
				K-40	20.90	0.54	1.96
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00052-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY341	ENV00102	1,100.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.26	0.06	0.05
				K-40	17.20	0.45	1.65
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00021-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY342	ENV00108	1,360.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	21.70	0.76	1.99
				Mn-54	< .08	0.08	0.00

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00028-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY343	ENV00103	948.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.49	0.05	0.06
				K-40	15.00	0.58	1.47
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00057-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY344	ENV00109	1,230.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	19.70	0.69	1.89
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00055-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY345	ENV00104	1,290.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	16.20	0.71	1.55
				Mn-54	< .07	0.07	0.00

04/09/98

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00025-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY346	ENV00110	1,290.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	< .08	0.08	0.00
				K-40	24.40	0.62	2.18
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00056-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY347	ENV00105	1,290.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .07	0.07	0.00
				K-40	15.80	0.53	1.50
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00059-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY348	ENV00117	1,020.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.27	0.04	0.04
				K-40	15.20	0.41	1.35
				Mn-54	< .06	0.06	0.00

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00062-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY349	ENV00106	955.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.30	0.07	0.06
				K-40	12.60	0.56	1.40
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00063-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY350	ENV00112	1,080.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.12	0.06	0.05
				K-40	18.40	0.50	1.86
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00032-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY351	ENV00107	1,080.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.22	0.07	0.05
				K-40	13.40	0.62	1.41
				Mn-54	< .08	0.08	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 60

04/09/98

OUTPUT BATCH SN = 664

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00061-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY352	ENV00113	934.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.07	0.06	0.04
				K-40	13.90	0.69	1.50
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00035-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY549	ENV00194	1,510.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.60	0.61	2.02
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00038-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY651	H2O00059	1,290.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.27	0.05	0.05
				K-40	16.60	0.42	1.54
				Mn-54	< .07	0.07	0.00

04/09/98

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 01 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00071-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY653	H2O00061	1,210.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.23	0.06	0.05
				K-40	21.90	0.74	1.96
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00018-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY655	H2O00063	1,400.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.04	0.06	0.04
				K-40	16.30	0.69	1.61
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00004-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY657	H2O00210	1,330.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .06	0.06	0.00
				K-40	25.90	0.48	1.98
				Mn-54	< .06	0.06	0.00

04/09/98

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00025-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY353	ENV00109	1,160.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.27	0.07	0.06
				K-40	15.70	0.56	1.54
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00051-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY354	ENV00111	955.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.30	0.05	0.05
				K-40	11.20	0.45	1.20
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00023-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY355	ENV00115	1,020.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.15	0.09	0.06
				K-40	17.80	0.54	1.85
				Mn-54	< .09	0.09	0.00

Survey Package R1700 ENVIRONS
 Owner Controlled Area North of Old Ferry Road

UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00009-0001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY356	ENV00112	1,100.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.22	0.06	0.05
				K-40	18.10	0.50	1.71
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00020-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY357	ENV00116	1,050.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.33	0.10	0.08
				K-40	15.80	0.68	1.70
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00034-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY358	ENV00113	939.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.49	0.06	0.07
				K-40	16.30	0.50	1.55
				Mn-54	< .06	0.06	0.00

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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00064-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY359	ENV00117	850.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.48	0.09	0.08
				K-40	13.40	0.69	1.51
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00083-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY360	ENV00115	807.00	1500	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.77	0.12	0.11
				K-40	15.70	0.78	1.61
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00017-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY361	ENV00118	1,020.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.81	0.09	0.11
				K-40	18.40	0.58	1.89
				Mn-54	< .10	0.10	0.00

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Survey Package R1700 ENVIRONS
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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00045-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY362	ENV00119	1,110.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.59	0.10	0.09
				K-40	17.60	0.81	1.82
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00092-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY363	ENV00116	926.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.75	0.05	0.08
				K-40	16.80	0.50	1.59
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00075-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY364	ENV00121	888.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.91	0.07	0.10
				K-40	16.80	0.40	1.58
				Mn-54	< .07	0.07	0.00

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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00087-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY365	BIO00004	840.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.69	0.08	0.09
				K-40	23.00	0.57	2.06
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00103-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY366	ENV00118	1,080.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.40	0.05	0.06
				K-40	17.60	0.48	1.60
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00121-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY367	BIO00005	787.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.95	0.05	0.09
				K-40	19.10	0.56	1.70
				Mn-54	< .06	0.06	0.00

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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00133-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY368	ENV00125	906.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.22	0.08	0.06
				K-40	18.60	0.60	1.83
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00144-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY369	ENV00119	908.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.75	0.06	0.08
				K-40	16.40	0.42	1.46
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00158-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY370	ENV00126	991.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.42	0.07	0.07
				K-40	17.60	0.56	1.74
				Mn-54	< .07	0.07	0.00

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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00141-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY371	ENV00120	1,170.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.65	0.07	0.08
				K-40	14.80	0.51	1.38
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00076-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY372	ENV00128	913.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.59	0.07	0.07
				K-40	25.10	0.61	2.13
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00096-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY373	ENV00122	820.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	1.55	0.08	0.14
				K-40	20.80	0.65	1.81
				Mn-54	< .06	0.07	0.00

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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00042-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY374	ENV00129	1,080.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.48	0.07	0.07
				K-40	20.60	0.50	1.89
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00062-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY375	ENV00123	867.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.32	0.06	0.11
				K-40	17.20	0.48	1.53
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00078-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY547	H2O00032	1,050.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.76	0.06	0.08
				K-40	15.80	0.43	1.45
				Mn-54	< .06	0.06	0.00

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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00120-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY639	BIO00012	944.00	2000	Co-57	< .04	0.04	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.33	0.05	0.05
				K-40	14.60	0.38	1.32
				Mn-54	< .05	0.05	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00132-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY641	H2O00054	1,000.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.42	0.04	0.06
				K-40	9.99	0.48	1.18
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
 SAMPLE LOCATOR: 00012-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY643	H2O00057	1,410.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.20	0.07	0.05
				K-40	19.50	0.55	1.71
				Mn-54	< .07	0.07	0.00

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UNIT : 02 SURFACE : OA1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00072-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY645	BIO00006	792.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	1.00	0.08	0.12
				K-40	16.60	0.38	1.88
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00014-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY647	H2O00036	1,050.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.60	0.08	0.08
				K-40	16.30	0.77	1.64
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00018-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY649	BIO00007	924.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.77	0.08	0.10
				K-40	19.40	0.52	1.99
				Mn-54	< .08	0.08	0.00