ASBESTOS QUANTITY SURVEY

FIELD WALKDOWN TAKE - OFF DATA

FOR

MAINE YANKEE NUCLEAR POWER PLANT

BY

GTS / DURATEK

DECEMBER 22, 1997

PERFORMED BY

TEAM ASSOCIATES
5935 BUFORD HIGHWAY, SUITE 200
NORCROSS, GEORGIA 30071

ASBESTOS QUANTITY SURVEY

FIELD WALKDOWN
TAKE - OFF DATA

INDEX

BREAKDOWN OF FIELD WALKDOWN DATA BY AREA
(ASBESTOS CONTAINING MATERIALS ONLY)

A ***CONTAINMENT BUILDING***
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C ***PRIMARY AUXILIARY BUILDING (PAB)***
D ***FUEL POOL BUILDING & ASSOCIATED AREAS***
E ***SERVICES BUILDING - HOT SIDE***
F ***SERVICES BUILDING - COLD SIDE***
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J ***OTHER BUILDINGS & AREAS OUTSIDE THE PROTECTED AREA***
K ***UNDERGROUND LINES & TUNNELS***
L ***FIRE PUMPHOUSE HOUSE***
M ***OTHER BUILDINGS OR AREAS NOT COVERED ABOVE***

BREAKDOWN OF WORK AREA

AREA	DESCRIPTION	BUILDINGS OR AREAS INCLUDED IN THE AREA DESCRIPTION
A	CONTAINMENT BUILDING	CONTAINMENT BUILDING ONLY (ALL LEVELS)
B	SPRAY BUILDING AND OTHER BUILDINGS AND TANKS ASSOCIATED WITH THE CONTAINMENT BUILDING	SPRAY BUILDING ; PERSONNEL HATCH ; STEAM VALVE BUILDING ; AUX MCC BUILDING ; PVS BUILDING ; FW PUMP ROOM ; TANK # 14A ; TANK # 14B ; STEAM BUILDING ; EQUIPMENT HATCH ; GAS HOUSE ; DWST TANK # TK - 21 ; RWST TANK # TK - 4 ; SCAT TANK # TK - 54 .
C	PRIMARY AUXILIARY BUILDING	PRIMARY AUXILIARY BUILDING ONLY (ALL LEVELS)
D	FUEL POOL BUILDING AND ASSOCIATED BUILDINGS AND TANKS	FUEL POOL BUILDING ; RCA BUILDING ; LSA BUILDING ; BWST TANK # TK - 13A ; BWST TANK # TK - 13B ; PWST TANK # TK - 16 .
E	SERVICE BUILDING - HOT SIDE	SERVICE BUILDING - HOT SIDE ONLY (confirm with AL BURNHAM)
F	SERVICE BUILDING - COLD SIDE	SERVICE BUILDING - COLD SIDE ONLY (confirm with AL BURNHAM)
G	TURBINE BUILDING	TURBINE BUILDING ONLY (ALL LEVELS)
H	CIRCULATING WATER PUMPHOUSE	CIRCULATING WATER PUMPHOUSE ONLY
I	OTHER BUILDINGS IN THE PROTECTED AREA NOT LISTED ABOVE (in A thru H)	
J	BUILDINGS OUTSIDE THE PROTECTED AREA (ON MAINE YANKEE PROPERTY)	STAFF BUILDING ; DRUG SCREENING ; TRAINING ANNEX BUILDING ; WAREHOUSE # 2 ; SWITCHYARD ; etc.(ANY OTHER STRUCTURES OR AREAS NOT IN THE PROTECTED AREA .
K	UNDERGROUND LINES OR TUNNELS	ALL UNDERGROUND PIPING THAT DOES NOT NEED EXCAVATION TO ABATE THE ASBESTOS AND ANY TUNNEL ACCESSABLE BEFORE DECOMMISSIONING ACTIVITIES COMMENCE .
L	FIRE PUMP HOUSE	FIRE PUMP HOUSE ONLY
M	OTHER AREAS NOT COVERED ABOVE	ALL OTHER AREAS NOT COVERED IN ANY OF THE ABOVE LISTED AREAS DESCRIBED IN THIS COLUMN.

AREA A CONTAINMENT BUILDING

AREA A CONTAINMENT BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	17			1											1	18
1.5	58	3	6	18											1.5	85
2	21	2	2	1									1		4	27
3.5	14	4	4	3											4	25
4	41	1	2	10											4	54
5																0
6	2														4	2
8	3	3													4	6
10	8		4												4	12
12	12	6	3	1											4	22
14	18	14	3												4	35
16																0
18																0
20																0
22																0
24																0
30	9	6	3	3											4	21
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	203	39	27	37	0	0	0		0	0	0	0	1	0		307

AREA A CONTAINMENT BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF	
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC	INSUL.	SUBTOTAL
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	1.11	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.24
1.5	11.31	0.39	0.59	7.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	19.31
2	8.30	0.53	0.40	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	4.00	10.67
3.5	12.86	2.45	1.84	5.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	22.66
4	53.71	0.87	1.31	26.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	82.09
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	6.30
8	15.72	10.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	26.20
10	62.80	0.00	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	78.50
12	132.12	44.04	16.52	22.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	214.70
14	264.60	137.20	22.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	423.85
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	583.20	259.20	97.20	388.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	1,328.40
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	1,152.02	455.16	155.59	450.47	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.66	0.00		2,213.91

AREA A CONTAINMENT BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF	
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER #	REDUCER TO	BLIND FLANGE	VALVE GLOBE	VALVE CHECK	VALVE GATE	VALVE ATTU	MISC	INSUL.	SUBTOTAL
PIPE SIZE	90	45	22 1/2													
(in INCHES)	(in INCHES)															
1	0.09	0.00	0.00	0.01	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.10
1.5	1.41	0.05	0.07	0.88	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.50	2.41
2	2.77	0.18	0.13	0.26	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.22	0.00	4.00	3.56
3.5	4.29	0.82	0.61	1.84	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	7.55
4	17.90	0.29	0.44	8.73	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	27.36
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	2.10	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	2.10
8	5.24	3.49	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	8.73
10	20.93	0.00	5.23	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	26.17
12	44.04	14.68	5.51	7.34	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	71.57
14	88.20	45.73	7.35	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	141.28
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	194.40	86.40	32.40	129.60	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	442.80
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	381.38	151.64	51.74	148.66	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.22	0.00		733.64

AREA B SPRAY BUILDING & TANKS

AREA B SPRAY BUILDING & TANKS

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(In INCHES)	(in INCHES)															
1	25	2	3	5											2	35
1.5	7			3											2	10
2	28	8		10								1			2	47
3.5	4			2								1			2	7
4	13	2	4	4								5			2	28
5															2	0
6	2														1	2
8		2													2	2
10	11	4													2	15
12	31	2										3			2	36
14	12	6													3	18
16	2														2	2
18	3			2											2	5
20	6									2					2	8
22																0
24																0
30	18				12										3	30
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	162	26	7	26	12	0	0		0	2	0	10	0	0		245

AREA B SPRAY BUILDING & TANKS

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF	
	ELBOW			TEE	REDUCED	CROSS	REDUCER		BLIND	VALVE				MISC		
PIPE SIZE	90	45	22 1/2		TEE	X	#	TO	FLANGE	GLOBE	CHECK	GATE	ATTU		INSUL.	SUBTOTAL
(in INCHES)	(in INCHES)															
1	1.63	0.09	0.10	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.46
1.5	1.37	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.54
2	11.06	2.11	0.00	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	2.00	21.59
3.5	3.68	0.00	0.00	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	0.00	0.00	2.00	8.58
4	17.03	1.75	2.62	10.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.73	0.00	0.00	2.00	40.61
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
6	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	6.30
8	0.00	6.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	6.99
10	86.35	20.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	107.28
12	341.31	14.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.04	0.00	0.00	2.00	400.03
14	176.40	58.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	235.20
16	37.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	37.68
18	70.74	0.00	0.00	94.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	165.06
20	188.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.73	0.00	0.00	0.00	0.00	2.00	272.13
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	1,166.40	0.00	0.00	0.00	1,296.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	2,462.40
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	2,108.34	105.34	2.72	118.20	1,296.00	0.00	0.00		0.00	83.73	0.00	54.53	0.00	0.00		3,768.85

AREA B SPRAY BUILDING & TANKS

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF	
	ELBOW			TEE	REDUCED	CROSS	REDUCER		BLIND	VALVE				MISC		
PIPE SIZE	90	45	22 1/2		TEE	X	#	TO	FLANGE	GLOBE	CHECK	GATE	ATTU		INSUL.	SUBTOTAL
(in INCHES)	(in INCHES)															
1	0.27	0.01	0.02	0.11	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.41
1.5	0.23	0.00	0.00	0.20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.42
2	1.84	0.35	0.00	1.32	0.00	0.00	0.00		0.00	0.00	0.00	0.09	0.00	0.00	2.00	3.60
3.5	0.61	0.00	0.00	0.61	0.00	0.00	0.00		0.00	0.00	0.00	0.20	0.00	0.00	2.00	1.43
4	2.84	0.29	0.44	1.75	0.00	0.00	0.00		0.00	0.00	0.00	1.46	0.00	0.00	2.00	6.77
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
6	0.53	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.53
8	0.00	1.16	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.16
10	14.39	3.49	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	17.88
12	56.89	2.45	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	7.34	0.00	0.00	2.00	66.67
14	44.10	14.70	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	3.00	58.80
16	6.28	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	6.28
18	11.79	0.00	0.00	15.72	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	27.51
20	31.40	0.00	0.00	0.00	0.00	0.00	0.00		0.00	13.96	0.00	0.00	0.00	0.00	2.00	45.36
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	291.60	0.00	0.00	0.00	324.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	3.00	615.60
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	462.76	22.46	0.45	19.70	324.00	0.00	0.00		0.00	13.96	0.00	9.09	0.00	0.00		852.42

AREA C PRIMARY AUXILIARY BUILDING

AREA C PRIMARY AUXILIARY BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF	SUBTOTAL
	ELBOW			TEE	REDUCED	CROSS	REDUCER		BLIND	VALVE				MISC		
PIPE SIZE	90	45	22 1/2		TEE	X	#	TO	FLANGE	GLOBE	CHECK	GATE	ATTU		INSUL.	
(in INCHES)	(in INCHES)															
1	93	13		2								2			2	110
1.5	49	1		2	4						3	2			2	61
2	133	37		10						2	1	9	3	4	2	199
3.5	34	2		9	1					1	6	4			2	57
4	23	2		16	1					2		1			2	45
5																0
6	11													4	2	15
8	16														2	16
10	2	4													1.5	6
12																0
14																0
16	6				3										2	9
18																0
20																0
22																0
24																0
30																0
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	367	59	0	39	9	0	0		0	5	10	18	3	8		518

AREA C PRIMARY AUXILIARY BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	6.05	0.56	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	2.00	7.04
1.5	9.56	0.13	0.00	0.78	1.30	0.00	0.00	0.00	0.00	0.00	0.78	0.52	0.00	0.00	2.00	13.07
2	52.54	9.74	0.00	7.90	0.00	0.00	0.00	0.00	0.00	1.05	0.53	4.74	1.98	3.16	2.00	81.63
3.5	31.24	1.23	0.00	16.54	1.53	0.00	0.00	0.00	0.00	1.23	7.35	4.90	0.00	0.00	2.00	64.01
4	30.13	1.75	0.00	41.92	2.18	0.00	0.00	0.00	0.00	3.49	0.00	1.75	0.00	0.00	2.00	81.22
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	34.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.40	2.00	43.05
8	83.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	83.84
10	15.70	20.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	36.63
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	113.04	0.00	0.00	0.00	94.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	207.24
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	376.73	34.34	0.00	67.40	99.21	0.00	0.00		0.00	5.77	8.66	12.08	1.98	11.56		617.73

AREA C PRIMARY AUXILIARY BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF	
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER #	REDUCER TO	BLIND FLANGE	VALVE GLOBE	VALVE CHECK	VALVE GATE	VALVE ATTU	MISC	INSUL.	SUBTOTAL
PIPE SIZE	90	45	22 1/2													
(in INCHES)	(in INCHES)															
1	1.01	0.09	0.00	0.04	0.00	0.00	0.00		0.00	0.00	0.00	0.03	0.00	0.00	2.00	1.17
1.5	1.59	0.02	0.00	0.13	0.22	0.00	0.00		0.00	0.00	0.13	0.09	0.00	0.00	2.00	2.18
2	8.76	1.62	0.00	1.32	0.00	0.00	0.00		0.00	0.18	0.09	0.79	0.33	0.53	2.00	13.61
3.5	5.21	0.20	0.00	2.76	0.26	0.00	0.00		0.00	0.20	1.23	0.82	0.00	0.00	2.00	10.67
4	5.02	0.29	0.00	6.99	0.36	0.00	0.00		0.00	0.58	0.00	0.29	0.00	0.00	2.00	13.54
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	5.78	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	1.40	2.00	7.18
8	13.97	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	13.97
10	1.96	2.62	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.50	4.58
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	18.84	0.00	0.00	0.00	15.70	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	34.54
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	62.13	4.85	0.00	11.23	16.54	0.00	0.00		0.00	0.96	1.44	2.01	0.33	1.93		101.43

AREA D FUEL POOL & ASSOCIATED BUILDINGS

AREA D FUEL POOL & ASSOCIATED BUILDINGS

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	19	2										2			1.5	23
1.5																0
2	11			1											2	12
3.5																0
4																0
5																0
6	2														2	2
8																0
10																0
12																0
14																0
16																0
18																0
20																0
22																0
24																0
30																0
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	32	2	0	1	0	0	0		0	0	0	2	0	0		37

AREA D FUEL POOL & ASSOCIATED BUILDINGS

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE (in INCHES)	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
	(in INCHES)															
1	1.24	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	1.50	1.50
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4.35	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	5.14
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	6.30
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	11.88	0.09	0.00	0.79	0.00	0.00	0.00		0.00	0.00	0.00	0.17	0.00	0.00		12.93

AREA D FUEL POOL & ASSOCIATED BUILDINGS

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	0.15	0.01	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.02	0.00	0.00	1.50	0.19
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.72	0.00	0.00	0.13	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.86
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1.05	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.05
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	1.93	0.01	0.00	0.13	0.00	0.00	0.00		0.00	0.00	0.00	0.02	0.00	0.00		2.09

AREA E SERVICE BUILDING - HOT SIDE

AREA E ***SERVICE BUILDING - HOT SIDE***

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	6														1.5	6
1.5	6														1.5	6
2																0
3.5																0
4	4														2	4
5																0
6	1														2	1
8																0
10																0
12																0
14																0
16																0
18																0
20																0
22																0
24																0
30																0
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	17	0	0	0	0	0	0		0	0	0	0	0	0		17

AREA E SERVICE BUILDING - HOT SIDE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.39
1.5	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.17
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	5.24
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	3.15
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	9.95	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		9.95

AREA E SERVICE BUILDING - HOT SIDE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	0.05	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.05
1.5	0.15	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.15
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.87	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.87
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.53	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.53
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	1.59	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		1.59

AREA F SERVICE BUILDING - COLD SIDE

AREA F SERVICE BUILDING - COLD SIDE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING															
	ELBOW			TEE	REDUCED	CROSS	REDUCER		BLIND	VALVE				MISC	THICK OF	SUBTOTAL
PIPE SIZE	90	45	22 1/2		TEE	X	#	TO	FLANGE	GLOBE	CHECK	GATE	ATTU		INSUL.	
(in INCHES)	(in INCHES)															
1	41	4		5								8			1	58
1.5																0
2		2													1	2
3.5																0
4																0
5																0
6	4														1.5	4
8																0
10		2		1					1						1.5	4
12																0
14	6														3	6
16																0
18																0
20	6														4	6
22																0
24																0
30																0
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	57	8	0	6	0	0	0		1	0	0	8	0	0		80

AREA F SERVICE BUILDING - COLD SIDE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER #	REDUCER TO	BLIND FLANGE	VALVE GLOBE	VALVE CHECK	VALVE GATE	VALVE ATTU	MISC		
PIPE SIZE	90	45	22 1/2													
(in INCHES)	(in INCHES)															
1	2.67	0.17	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.00	0.00	1.00	4.18
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.53
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	12.60
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	10.47	0.00	15.70	0.00	0.00	0.00	0.00	78.54	0.00	0.00	0.00	0.00	0.00	1.50	104.71
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	88.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	88.20
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	188.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	188.40
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	291.87	11.17	0.00	16.35	0.00	0.00	0.00		78.54	0.00	0.00	0.69	0.00	0.00		398.61

AREA F SERVICE BUILDING - COLD SIDE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING									VALVE					THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER #	REDUCER TO	BLIND FLANGE	GLOBE	CHECK	GATE	ATTU	MISC		
PIPE SIZE	90	45	22 1/2													
(in INCHES)	(in INCHES)															
1	0.22	0.01	0.00	0.05	0.00	0.00	0.00		0.00	0.00	0.00	0.06	0.00	0.00	1.00	0.35
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.04	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.04
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1.58	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.58
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	1.31	0.00	1.96	0.00	0.00	0.00		9.82	0.00	0.00	0.00	0.00	0.00	1.50	13.09
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	22.05	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	3.00	22.05
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	62.80	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	62.80
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	86.65	1.37	0.00	2.02	0.00	0.00	0.00		9.82	0.00	0.00	0.06	0.00	0.00		99.91

AREA G TURBINE BUILDING

AREA G TURBINE BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(In INCHES)	(in INCHES)															
1	82	13		4	1							10			2	110
1.5	42	8										1			2	51
2	98	42		7			2	1.5				11			2	160
3.5	13											2	1		2	16
4	32	5		5			1	2				6			2	49
5																0
6	122	13		7	4		1	4				6			2	153
8	27	16		7	4				2			4			2	60
10	13	31	2	2			1	6				2			2	51
12	7	6													2	13
14	6			3											2.5	9
16	6	2			14										2	22
18	1	3													2	4
20	26	3			2							1			2	32
22												1			2	1
24	3														2	3
30	13	7			12							1			4	33
36	3	4		10											4	17
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	494	153	2	45	37	0	5		2	0	0	45	1	0		784

AREA G TURBINE BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	5.33	0.56	0.00	0.52	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	2.00	7.39
1.5	8.19	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	2.00	9.49
2	38.71	11.06	0.00	5.53	0.00	0.00	0.00	1.50	0.00	0.00	0.00	5.79	0.00	0.00	2.00	61.09
3.5	11.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	1.84	0.00	2.00	16.23
4	41.92	4.37	0.00	13.10	0.00	0.00	0.00	2.00	0.00	0.00	0.00	10.48	0.00	0.00	2.00	69.87
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	384.30	27.30	0.00	44.10	21.00	0.00	0.00	4.00	0.00	0.00	0.00	25.20	0.00	0.00	2.00	501.90
8	141.48	55.89	0.00	73.36	34.93	0.00	0.00	0.00	100.53	0.00	0.00	27.95	0.00	0.00	2.00	434.14
10	102.05	162.23	7.85	31.40	0.00	0.00	0.00	6.00	0.00	0.00	0.00	20.93	0.00	0.00	2.00	324.47
12	77.07	44.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	121.11
14	88.20	0.00	0.00	88.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50	176.40
16	113.04	25.12	0.00	0.00	439.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	577.76
18	23.58	47.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	70.74
20	816.40	62.80	0.00	0.00	104.67	0.00	0.00	0.00	0.00	0.00	0.00	41.87	0.00	0.00	2.00	1,025.73
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.03	0.00	0.00	2.00	48.03
24	131.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	131.94
30	842.40	302.40	0.00	0.00	1,296.00	0.00	0.00	0.00	0.00	0.00	0.00	86.40	0.00	0.00	4.00	2,527.20
36	282.69	251.28	0.00	1,884.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	2,418.57
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	3,109.24	995.26	7.85	2,140.81	1,896.31	0.00	0.00		100.53	0.00	0.00	270.23	1.84	0.00		8,522.07

AREA G TURBINE BUILDING

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER #	REDUCER TO	BLIND FLANGE	VALVE GLOBE	VALVE CHECK	VALVE GATE	VALVE ATTU	MISC		
PIPE SIZE	90	45	22 1/2													
(in INCHES)	(in INCHES)															
1	0.89	0.09	0.00	0.09	0.02	0.00	0.00		0.00	0.00	0.00	0.14	0.00	0.00	2.00	1.23
1.5	1.37	0.17	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.04	0.00	0.00	2.00	1.58
2	6.45	1.84	0.00	0.92	0.00	0.00	0.00		0.00	0.00	0.00	0.97	0.00	0.00	2.00	10.18
3.5	1.99	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.41	0.31	0.00	2.00	2.71
4	6.99	0.73	0.00	2.18	0.00	0.00	0.00		0.00	0.00	0.00	1.75	0.00	0.00	2.00	11.64
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	64.05	4.55	0.00	7.35	3.50	0.00	0.00		0.00	0.00	0.00	4.20	0.00	0.00	2.00	83.65
8	23.58	9.32	0.00	12.23	5.82	0.00	0.00		16.75	0.00	0.00	4.66	0.00	0.00	2.00	72.36
10	17.01	27.04	1.31	5.23	0.00	0.00	0.00		0.00	0.00	0.00	3.49	0.00	0.00	2.00	54.08
12	12.85	7.34	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	20.19
14	18.38	0.00	0.00	18.38	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.50	36.75
16	18.84	4.19	0.00	0.00	73.27	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	96.29
18	3.93	7.86	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	11.79
20	136.07	10.47	0.00	0.00	17.44	0.00	0.00		0.00	0.00	0.00	6.98	0.00	0.00	2.00	170.96
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	8.01	0.00	0.00	2.00	8.01
24	21.99	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	2.00	21.99
30	280.80	100.80	0.00	0.00	432.00	0.00	0.00		0.00	0.00	0.00	28.80	0.00	0.00	4.00	842.40
36	94.23	83.76	0.00	628.20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	4.00	806.19
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	709.40	258.16	1.31	674.58	532.05	0.00	0.00		16.75	0.00	0.00	59.44	0.31	0.00		2,251.99

AREA H CIRCULATING WATER PUMPHOUSE

AREA H CIRCULATING WATER PUMPHOUSE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1																0
1.5																0
2																0
3.5																0
4																0
5																0
6																0
8	3	1		1					1			2		2	0.5	10
10		2		1			1	8				3			0.5	7
12																0
14																0
16																0
18																0
20																0
22																0
24				2											0.5	2
30																0
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	3	3	0	4	0	0	1		1	0	0	5	0	2		19

AREA H CIRCULATING WATER PUMPHOUSE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	15.72	3.49	0.00	10.48	0.00	0.00	0.00	0.00	50.26	0.00	0.00	13.97	0.00	5.24	0.50	99.17
10	0.00	10.47	0.00	15.70	0.00	0.00	0.00	8.00	0.00	0.00	0.00	31.40	0.00	0.00	0.50	57.57
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	175.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	175.92
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	15.72	13.96	0.00	202.10	0.00	0.00	0.00		50.26	0.00	0.00	45.37	0.00	5.24		332.66

AREA H CIRCULATING WATER PUMPHOUSE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.66	0.15	0.00	0.44	0.00	0.00	0.00		2.09	0.00	0.00	0.58	0.00	0.22	0.50	4.13
10	0.00	0.44	0.00	0.65	0.00	0.00	0.00		0.00	0.00	0.00	1.31	0.00	0.00	0.50	2.40
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	7.33	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.50	7.33
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	0.66	0.58	0.00	8.42	0.00	0.00	0.00		2.09	0.00	0.00	1.89	0.00	0.22		13.86

AREA I OTHER BUILDINGS / PROTECTED AREA

AREA I ***OTHER BUILDINGS / PROTECTED AREA***
ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1																0
1.5																0
2																0
3.5																0
4																0
5																0
6																0
8																0
10	3	1													2	4
12																0
14																0
16																0
18																0
20																0
22																0
24																0
30																0
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	3	1	0	0	0	0	0		0	0	0	0	0	0		4

AREA I OTHER BUILDINGS / PROTECTED AREA

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER #	REDUCER TO	BLIND FLANGE	VALVE GLOBE	VALVE CHECK	VALVE GATE	VALVE ATTU	MISC		
PIPE SIZE	90	45	22 1/2													
(in INCHES)	(in INCHES)															
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	23.55	5.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	28.78
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	23.55	5.23	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		28.78

AREA I OTHER BUILDINGS / PROTECTED AREA

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	3.93	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	4.80
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	3.93	0.87	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		4.80

AREA J BUILDINGS OUTSIDE PROTECTED AREA

AREA K UNDERGROUND LINES & TUNNELS

AREA L FIRE PUMP HOUSE

AREA L FIRE PUMP HOUSE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

QUANTITY TAKE - OFF of PIPE FITTINGS

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1																0
1.5																0
2																0
3.5																0
4																0
5																0
6																0
8																0
10																0
12																0
14																0
16				1			1	14				1		1	0.5	4
18																0
20				1			1	14	2		3	3		1	0.5	11
22																0
24									1		1				0.5	2
30																0
36																0
40																0
44																0
48																0
50																0
60																0
72																0
84																0
96																0
120																0
SUBTOTAL	0	0	0	2	0	0	2		3	0	4	4	0	2		17

AREA L FIRE PUMP HOUSE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

SQUARE FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(in INCHES)	(in INCHES)															
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	37.68	0.00	0.00	0.00	14.00	0.00	0.00	0.00	25.12	0.00	4.71	0.50	67.51
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	62.80	0.00	0.00	0.00	14.00	628.31	0.00	125.60	125.60	0.00	6.28	0.50	948.59
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	452.38	0.00	58.64	0.00	0.00	0.00	0.50	511.02
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	0.00	0.00	0.00	100.48	0.00	0.00	0.00		1,081	0.00	184.24	150.72	0.00	10.99		1,527.13

AREA L FIRE PUMP HOUSE

ASBESTOS PIPE FITTINGS INSULATION QUANTITY SURVEY

CUBIC FEET of PIPE FITTING INSULATION

(SEE CALCULATION NOTES for FORMULA VERIFICATIONS)

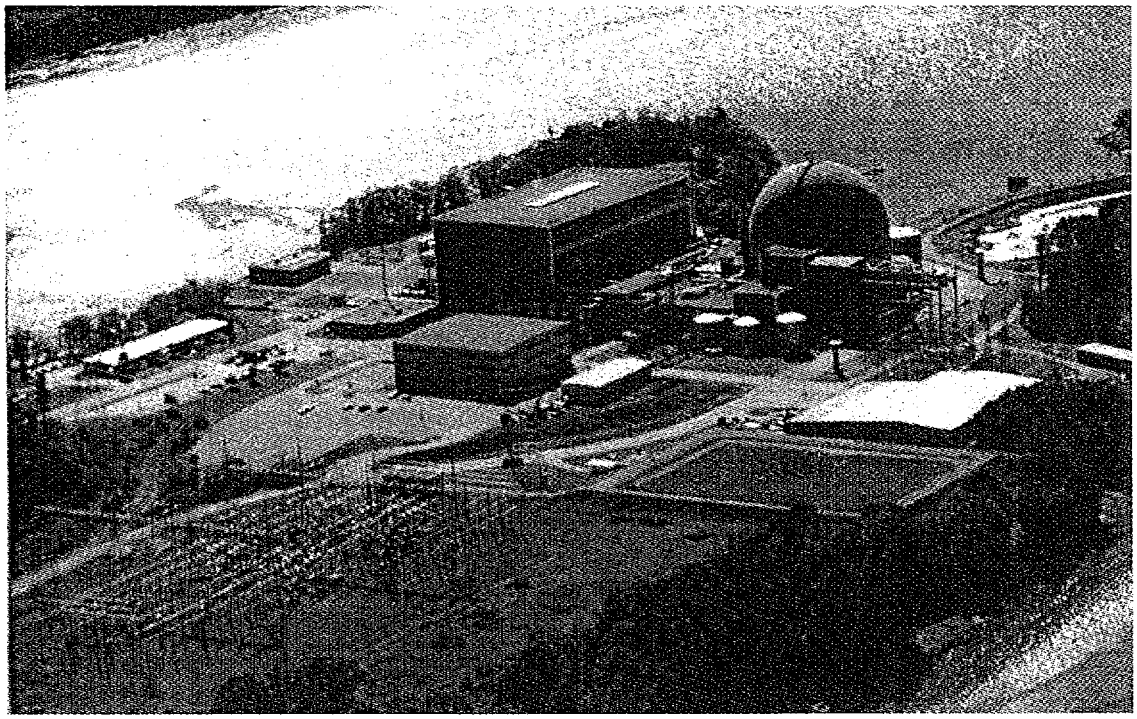
	FITTING														THICK OF INSUL.	SUBTOTAL
	ELBOW			TEE	REDUCED TEE	CROSS X	REDUCER		BLIND FLANGE	VALVE				MISC		
PIPE SIZE	90	45	22 1/2				#	TO		GLOBE	CHECK	GATE	ATTU			
(In INCHES)	(in INCHES)															
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.58	0.00	0.00	0.00	1.05	0.00	0.20	0.50	2.81
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	2.62	0.00	0.00	0.00	0.58	26.18	0.00	5.23	5.23	0.00	0.26	0.50	39.52
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.85	0.00	2.44	0.00	0.00	0.00	0.50	21.29
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL	0.00	0.00	0.00	4.19	0.00	0.00	0.00		45.03	0.00	7.68	6.28	0.00	0.46		63.63

AREA M OTHER AREAS NOT COVERED

DURATEK

CHARACTERIZATION SURVEY REPORT
for the
MAINE YANKEE ATOMIC POWER PLANT

VOLUME 6
RADIOLOGICAL CHARACTERIZATION RESULTS FOR AFFECTED AND UNAFFECTED ENVIRONS, INCLUDING ENVIRONS BACKGROUND STUDY



JUNE 1998
REVISION 3

Prepared By:

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GTS DURATEK

CHARACTERIZATION SURVEY REPORT

for the

MAINE YANKEE ATOMIC POWER PLANT

June 1998

REVISION 3

VOLUME 6:
RADIOLOGICAL CHARACTERIZATION RESULTS FOR AFFECTED AND UNAFFECTED ENVIRONS, INCLUDING ENVIRONS BACKGROUND SURVEY

Prepared by: GTS Duratek, Inc. Date 6-8-98

Reviewed by: Signature on File Date 6-8-98
Dave Lovett
Project Manager

Reviewed by: Date 6-8-98
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Manager, RE&DS Technical Department

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1.0 BACKGROUND INFORMATION

GTS Duratek prepared this Characterization Survey Report for the Maine Yankee Atomic Power Company (MYAPCO) to document the results of the characterization survey of the Maine Yankee Atomic Power Plant (MYAPP). The Characterization Survey Report comprises the nine volumes listed in Table 1-1 below. Volume 1 of the Report provides the programmatic information relevant to volumes 2 through 7. This volume (6) provides the characterization results for Group R, Affected and Unaffected Environs, and the results of the environs background survey.

Table 1-1
Characterization Survey Report Volumes

Volume No.	Description
1	Characterization Survey Description
2	Radiological Characterization Results for Unaffected Structures and Surfaces, including Structural Background Survey
3	Radiological Characterization Results for Affected Structures and Surfaces
4	Radiological Characterization Results for Unaffected Systems
5	Radiological Characterization Results for Affected Systems
6	Radiological Characterization Results for Affected and Unaffected Environs, including Environs Background Survey
7	Hazardous Materials Characterization
8	Maine Yankee Reactor Vessel Activation Analysis to Support Site Characterization
9	Asbestos Quantity Survey

2.0 SITE INFORMATION

Volume 1, Section 2 of this Characterization Survey Report describes the Maine Yankee Atomic Power Plant site.

3.0 CHARACTERIZATION SURVEY OVERVIEW

Volume 1, Section 3 of this Characterization Survey Report provides an overview of the general survey process, including objectives, organization and responsibilities, instrumentation, planning, survey techniques, survey package implementation, sample analysis and quality control, characterization data review and reporting, and quality assurance. This section (Volume 6 Section 3) provides an overview of the survey of affected and unaffected environs, and the environs background survey.

3.1 Survey of Affected and Unaffected Environs

The site map in Figure 1 shows the area locations. The survey package prepared for each area described the survey area, its history, and the quantity and type of measurements and samples to be collected. The environs radiological characterization survey included gamma scans, direct surface contamination measurements, removable alpha and beta activity measurements, exposure rate measurements and radiological analysis of biased and unbiased soil, sediment and water samples taken throughout the Maine Yankee property.

Exposure rate measurements taken over the entire property used a grid system to ensure adequate survey of all areas. Samples were from surface soils, sediments in the bays, and groundwater wells and surface waters on the Maine Yankee property. For both affected and unaffected areas, the project team based requirements for number and type of samples on the need to investigate elevated results from the gamma scans, and suspect areas based on physical characteristics or historical information.

Approximately one-third of the 820-acre site land area received a gamma scan.The survey team performed walk-over scans of some open land areas with a Ludlum 44-2 sodium iodide detector. In accessible open land areas, survey technicians performed drive-over scans using a computer-controlled large area plastic scintillator. The detector measured 1.5 inches by 3 inches by 33 inches and was mounted on a vehicle. Appendix B provides a detailed description of the drive-over survey. Suspect areas were marked for follow-up investigation. These areas received a 100% manual gamma scan with a Ludlum 44-2 sodium iodide detector.

3.2 Environs Background Survey

The purpose of the environs background study was to measure and document the levels of radionuclides, especially Cs-137, present in local soils and typical background exposure rates. The survey sampling and measurement techniques complied with approved procedures and applicable guidance provided in the *Background Study Plan*. Sample materials for the background study included surface soils, sediments and groundwater. The project team performed gamma spectroscopy for all samples, and analyzed groundwater for tritium. The average Cs-137 concentration in soils from the Merrymeeting Airfield hay field was 0.38 pCi/g with a range of 0.10 to 0.55 pCi/g, from the Woodland was 0.47 pCi/g with a range of 0.10 to 0.91 pCi/g, and from the scrub land was 0.48 pCi/g with a range of 0.09 to 1.40 pCi/g. The average Cs-137 concentration in marine sediments was 0.07 pCi/g at a depth of 0-3 inches and 0.06 pCi/g at a depth of 3-6 inches. No groundwater samples had detectable Cs-137 concentrations. The average tritium concentration in groundwater samples from the Eaton Barn and Days Ferry was 955 pCi/L.

The survey also included an *in situ* gamma spectrum with a MicroSpec multichannel analyzer/sodium iodide detector. Survey technicians measured background exposure rates with a sodium iodide detector. The average exposure rate was 11.4 μR/hr. Survey Package R2200 in Appendix A contains the results of the exposure rate measurements and MicroSpec measurement. Additionally, the survey team took both sodium iodide and pressurized ion chamber (PIC) measurements at each of the background soil sample locations in the hay field at Merrymeeting Airfield to observe the energy response of the PIC versus the sodium iodide detector. Appendix C contains the PIC results and the sodium iodide:PIC ratio calculations. The project team calculated the background exposure rate and PIC measurement ratio for information, and did not use the results to adjust any other measurements.

Soil and sediment background measurement locations were near the MYAPP ten mile Emergency Planning Zone to the extent practicable. MYAPCO pre-approved all measurement locations within the Emergency Planning Zone. These areas are unaffected (free from licensed radioactive materials) and believed to be representative of the site background.

The University of Maine performed a radiological soil and sediment background study prior to plant operations.[1] The study included analysis of eight soil and three marine sediment samples collected in the vicinity of Maine Yankee during 1972. The Cs-137 concentration in soil samples averaged 2.2 pCi/g, with a range of 0.87 to 4.96 pCi/g dry weight. The Cs-137 concentration in sediments averaged 0.93 pCi/g, with a range of 0.25 to 1.66 pCi/g dry weight. Since the half-life of Cs-137 is approximately 30 years, the current Cs-137 concentrations should be approximately one-half of those measured in 1972. The Cs-137 concentrations in background samples collected and analyzed for this site characterization are therefore consistent with the earlier study.

[1]U.S. Environmental Protection Agency, *Radioactive Isotopic Characterization of the Environment Near Wicasset, Maine Using Pre- and Post-Operational Surveys in the Vicinity of the Maine Yankee Nuclear Reactor*, May 1976.

4.0 SURVEY FINDINGS AND RESULTS

Table 4-2 lists the environs survey packages. Figure 1 depicts the locations of these survey packages, and Figures 4 through 10 are detailed maps for selected survey packages. Appendix A contains a characterization report for each survey package. The report for survey package R2200 contains the results of the environs background survey, with the exception of the pressurized ion chamber data. Appendix C presents the pressurized ion chamber data and the calculated sodium iodide:PIC ratios. The report for survey package R2800 contains the results of the 10 CFR 61 analysis sampling.

The characterization report for each survey package contains the following forms, which are described in more detail below:

- Characterization Summary,
- Summary of Survey Units,
- Statistical Summary and Graph for each measurement type,
- Results Listing Report for each measurement type, and
- Download File & Survey Instrumentation Calibration Summary for each measurement type.
- Water Sample Analysis - Tritium Activity Results Listing (if applicable)
- Gamma Spectral Analysis Results Listing (if applicable)

The **Characterization Summary** contains the survey package description and general historical information on the survey area, including past contamination incidents. The Characterization Summary also contains a summary of characterization activities, characterization survey results and, if available, references (e.g., documents, interviews).

The **Summary of Survey Units** contains the survey package description and lists the survey units, surfaces (e.g., grid numbers, subsurface soil samples) within each unit, if applicable, and the survey reason with code. The Summary of Survey Units also includes a list of materials in each survey area (e.g., concrete, asphalt) and the background values for each.

The **Statistical Summary and Graph** presents statistics and a graph of results for each measurement type (direct measurements for total beta activity, removable alpha and beta activity, exposure rate measurements) performed for the survey area. Statistics typically include: mean, maximum, minimum, standard deviation, minimum detectable activity calculated for the specified data set, number of samples reported, and number of samples prescribed. Various tests were performed for each data set.

A **Results Listing Report** is presented with each Statistical Summary and Graph for each applicable type of measurement (direct measurements for total beta activity, removable alpha and beta activity and exposure rate). The results of direct measurements for total beta activity are reported in net dpm per 100 cm^2 after subtracting the background value for the material of construction. The results of the smear samples for removable alpha and beta activity are reported in net dpm/100 cm^2 from the low background alpha and beta counter instrument. The results of exposure rate measurements are reported in μR/hr (micro R per hour). The exposure rates have not been corrected for background from materials of construction.

A **Download File & Survey Instrumentation Calibration Summary** is presented with each Statistical Summary and Graph. The Download File & Survey Instrumentation Calibration Summary provides survey date, file number (Download #- Station #), detector model number, instrument and detector serial numbers and calibration due date(s) and technician's identification number for each instrument and detector combination used to collect data.

For the surveys prescribing groundwater samples for tritium, the characterization report contains a **Water Sample Analysis - Tritium Activity Results Listing**. The results listing includes sample ID, sample type, unit number, surface code, measurement location, MDA and tritium activity in dpm/ml for each sample. An instrument calibration summary is presented with the results listing and provides survey date, instrument manufacturer, model number, serial number, calibration due date and technician's initials for the instrument used to analyze the sample.

For survey areas/packages where samples for gamma spectral analysis were prescribed, the characterization report contains a **Gamma Spectral Analysis Results Listing**. The results listing includes the sample survey location, Lab ID, Spectrum filename, sample mass, count time and the activity, MDA and associated 2 sigma error (counting uncertainty) for plant-derived radionuclides Mn-54, Co-57, Co-60, Cs-134, and Cs-137. For samples where the activity result is less than the MDA value, a "<" sign (less than) appears to the left of the value in the "Activity" column in units of pCi/g (picoCuries per gram) with a zero pCi/g value for the error. For samples with a positive (greater than MDA) activity pCi/g result, the report includes the associated counting error in units of $\pm$pCi/g. The activity of naturally-occurring K-40 with MDA and associated error is reported as a quality control check. Other naturally occurring radionuclides may be present, but are not reported. Table 4-1 describes the sample type and geometry as indicated by the three letter prefix of the sample spectrum filename.

Table 4-1
Sample Type and Geometry for Gamma Spectral Analysis

Spectrum Filename Prefix	Sample Type	Sample Geometry	Sample Volume
ENV	Soil	Marinelli Beaker	1 Liter
FAL	Debris, soil	Petri Dish	40 - 60 ml
H2O	Water	Marinelli Beaker	1 Liter
HDL	Debris, Soil	Marinelli Beaker	0.25 Liter

The drive-over gamma scan identified 24 areas with elevated count rates. Appendix B Table 1 provides the coordinates for these locations. The walk-over scan identified one additional elevated count rate location, survey package R1000 Grid 22. Figure 2 depicts the results of the drive-over gamma scans and the areas of the walk-over gamma scans. Figure 3 shows all 25 elevated count rate locations.

Survey Package R2500 consists of the follow-up surveys for the 24 elevated areas identified by drive-over scanning. Follow-up began with a 100% manual gamma scan of the 10 x 10 meter area surrounding the flagged elevated location using the Ludlum 44-2. Depending on the outcome of the gamma scanning survey, the survey team was instructed to relocate the flag to the grid location with the highest count rate, if necessary. At each flagged location, the survey technician took an *in situ* measurement with a MicroSpec multichannel analyzer/sodium iodide detector to obtain qualitative information on the potential presence of plant derived radionuclides. Additionally, the technician took a 60 second exposure rate measurement at one meter and five soil samples for gamma spectroscopy analysis at each location. The five soil samples were from the flagged location and four points equidistant from the grid corners to the grid center. Survey Package R2500 in Appendix A contains the measurement and analysis results.

Package R1000, woodland grid number 22, contains the follow-up evaluation of the only elevated location (area #25 on Figure 3) identified by walk-over gamma scanning. No samples showed detectable activity for plant derived radionuclides.

Survey Package R2501 provides further assessment of the radiological conditions at three locations. As shown on Figure 9, the first location was at the north end of the contractor parking lot. This was one of the 24 elevated locations described in package R2500. Gamma spectroscopy analysis of two of the five samples collected in this grid (samples 2 and 4) showed low levels of Co-60, approximately 0.4 pCi/g. Of the 27 additional surface and subsurface samples collected at the north end of the contractor parking lot, no samples showed detectable activity plant from derived radionuclides.

The other two locations were outside the restricted area fence, south of the Refueling Water Storage Tank (RWST), as shown on Figure 8. Package R0900, grid number 130, and package R1000, grid number 122, showed elevated levels of Cs-137. These two locations were identified by gamma spectroscopy of soil samples from these two grids. The project team collected approximately 70 surface and subsurface samples in the area south of the RWST. The results of these samples will serve to bound the contamination both laterally and vertically.

Table 4-2 designates each survey package area as affected or unaffected based on the results of this survey. Affected areas are those with Co-60 levels greater than the MDA and/or Cs-137 levels greater than typical background.

Table 4-2

PACKAGE#	GROUP "R" Environs Affected and Unaffected Survey Packages	Affected	Unaffected	N/A
R0100	RCA portion (West Side) of Protected Area Yard	✓		
R0200	Balance of Protected Area (East Side)	✓		
R0300	Roof and Yard Drains #006, #007, and #008	✓		
R0400	Forebay Area Shorelines			✓
R0500	Bailey Point	✓		
R0600	Ball Field		✓	
R0700	Construction Debris Landfill		✓	
R0800	Administration and Parking Areas		✓	
R0900	Balance of Plant Areas	✓		
R1000	Foxbird Island	✓		
R1100	Roof and Yard Drains #005, #009-12, #017 and N-12		✓	
R1200	Low Level Radioactive Waste (LLRW) Storage Building Yard		✓	
R1300	Proposed Dry Cask Storage Area	✓		
R1400	Westport, Montsweag Bay, Bailey Point Cove and Plant Area Shorelines			✓
R1500	Ash Road Area Rubble Piles		✓	
R1600	Owner Controlled Area West of Bailey Cove		✓	
R1700	Owner Controlled Area North of Old Ferry Road		✓	
R1800	Bailey House Area		✓	
R1900	Bailey Cove			✓
R2000	Diffusers			✓
R2100	Maintenance Yard (Stockyard)		✓	
R2200	Background			✓
R2300	SFPI Substation Slab			✓
R2400	IT Duplicate Samples			✓
R2500	Drive-over Elevated Areas			✓
R2501	Follow-up sampling at Elevated Soil Sample Locations (north of Forebay and Proposed Dry Cask Storage Area)			✓
R2800	10 CFR 61 Analysis Sampling			✓

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE,

THAT CAN BE VIEWED AT THE RECORD TITLED:

DRAWING NO. VOLUME 6, FIGURE 1, "MAINE YANKEE SITE CHARACTERIZATION LOCATIONS OF RADIOLOGICAL SURVEY PACKAGES & ELEVATED AREAS", REV 0, SHEET 1 OF 1 WITHIN THIS PACKAGE... OR BY SEARCHING USING THE DOCUMENT/REPORT NUMBER: VOLUME 6, FIGURE 1, REV 0, SHEET 1 OF 1

NOTE: Because of this page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE,

THAT CAN BE VIEWED AT THE RECORD TITLED:

MAP, "MAINE YANKEE SITE CHARACTERIZATION DRIVE OVER AND WALKOVER GAMMA SCANNING", VOLUME 6, FIGURE 2 MARCH 30, 1998

WITHIN THIS PACKAGE

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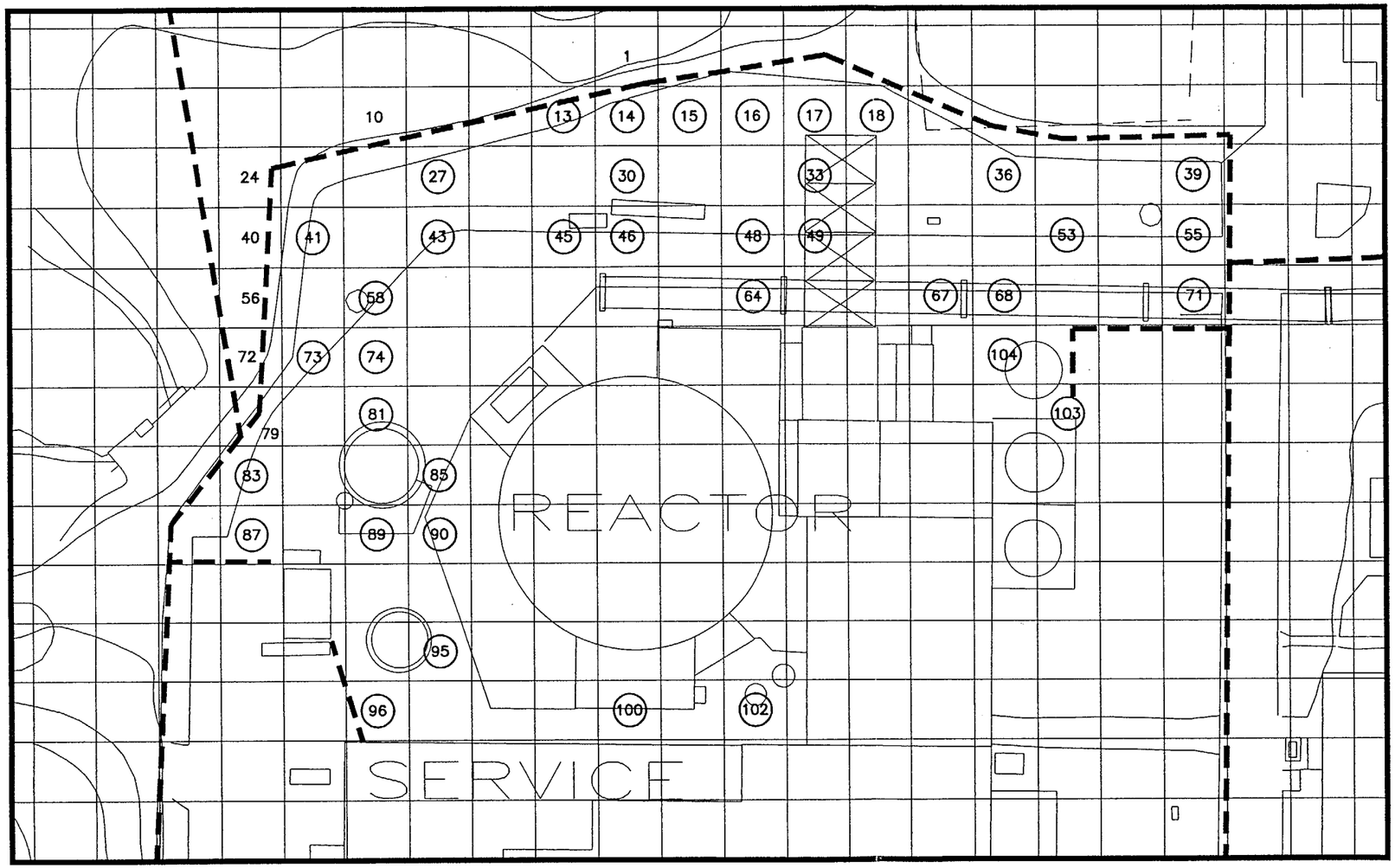
MAP, "MAINE YANKEE SITE CHARACTERIZATION SUSPECT AREAS IDENTIFIED BY DRIVE OVER AND WALK OVER GAMMA SCANNING", VOLUME 6, FIGURE 3 APRIL 10, 1998 WITHIN THIS PACKAGE

NOTE: Because of this page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.

D-3



LEGEND

(xxx) GRID NUMBERS SAMPLED

xxx REFERENCE GRID NUMBERS

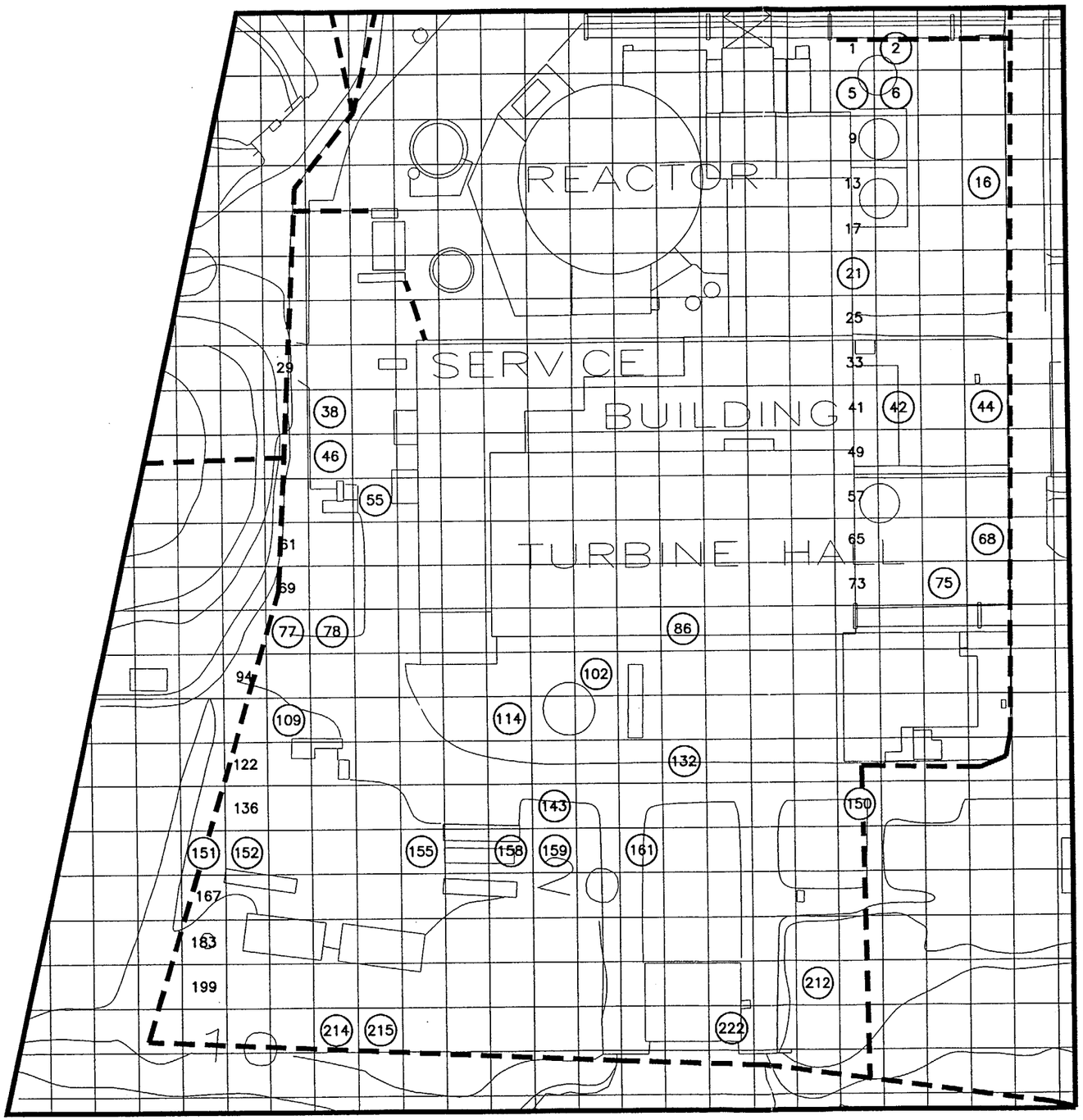
GTS DURATEK

Oak Ridge Engineering
628 Gallaher Road
Kingston, TN 37763

MAINE YANKEE SITE CHARACTERIZATION
PACKAGE R0100

SIZE	DWG NO	REV
B	VOLUME 6, FIGURE 4	0
	SCALE NONE	SHEET 1 OF 4

G9805501.DWG



LEGEND

(xxx) GRID NUMBERS SAMPLED

xxx REFERENCE GRID NUMBERS

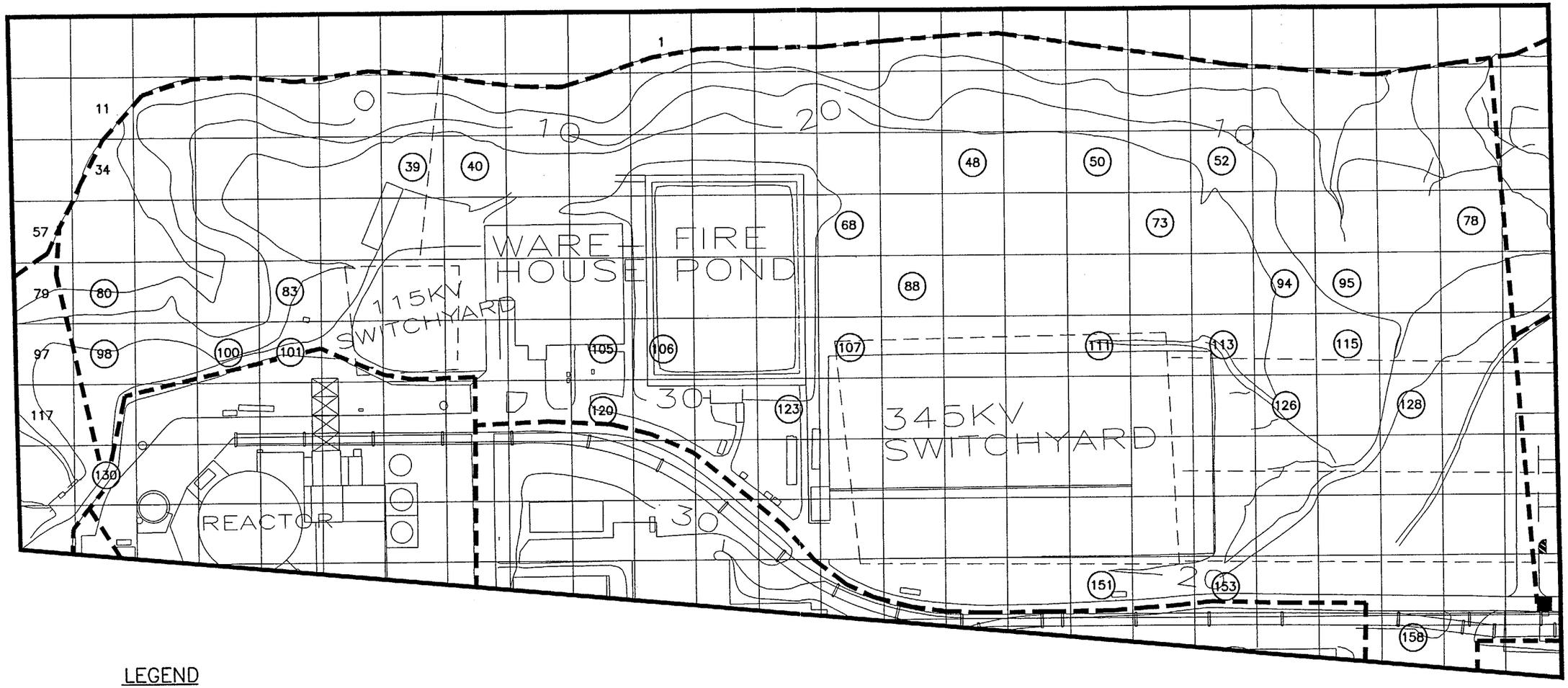
DURATEK

Oak Ridge Engineering
628 Gallaher Road
Kingston, TN 37763

MAINE YANKEE SITE CHARACTERIZATION
PACKAGE R0200

SIZE	DWG NO	REV
B	VOLUME 6, FIGURE 5	0
	SCALE NONE	SHEET 2 OF 4

G9805502.DWG



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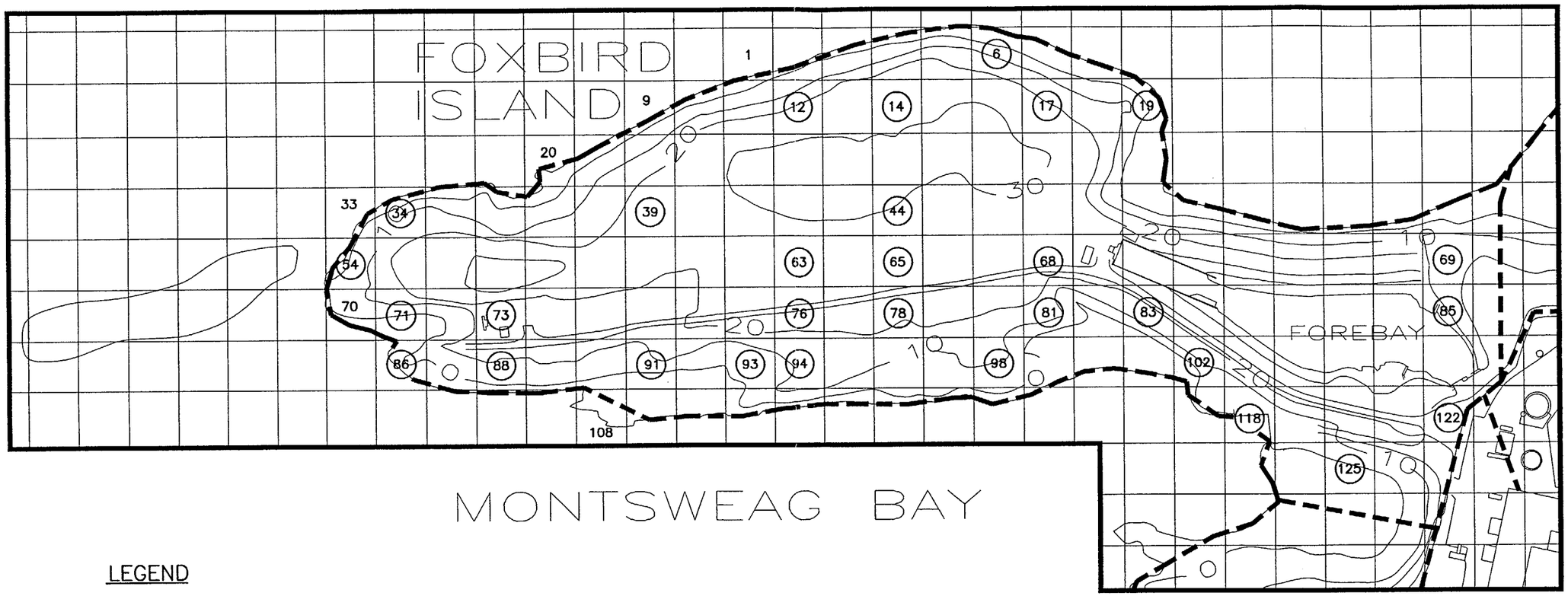
(xxx) GRID NUMBERS SAMPLED

xxx REFERENCE GRID NUMBERS

DURATEK	Oak Ridge Engineering 628 Gallaher Road Kingston, TN 37763
MAINE YANKEE SITE CHARACTERIZATION PACKAGE R0900	
SIZE B	DWG NO VOLUME 6, FIGURE 6
REV 0	
SCALE NONE	SHEET 3 OF 4

G9805503.DWG



LEGEND

(xxx) GRID NUMBERS SAMPLED

xxx REFERENCE GRID NUMBERS

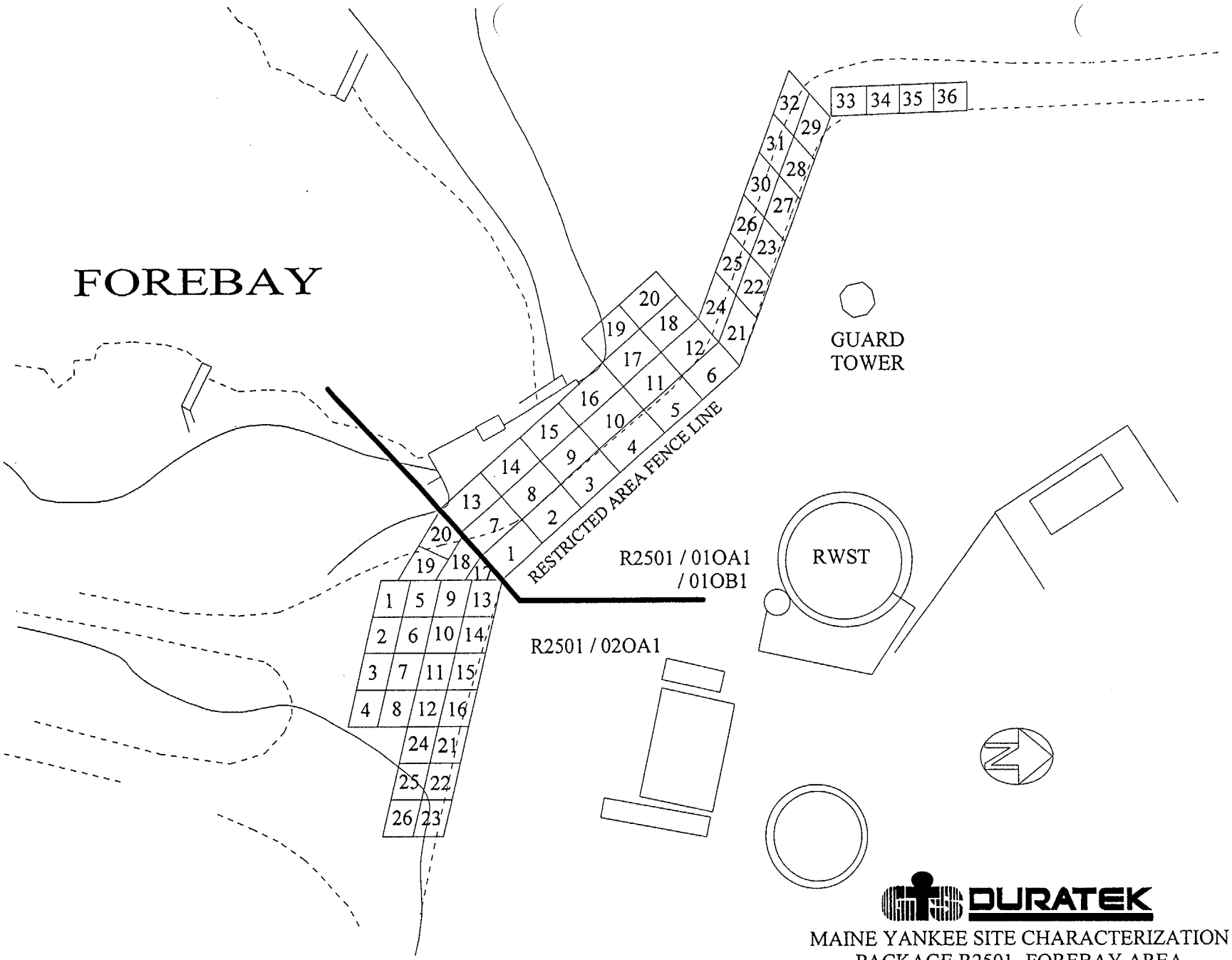
DURATEK

Oak Ridge Engineering
628 Gallaher Road
Kingston, TN 37763

MAINE YANKEE SITE CHARACTERIZATION
PACKAGE R1000

SIZE	DWG NO	REV
B	VOLUME C, FIGURE 7	0
	SCALE NONE	SHEET 4 OF 4

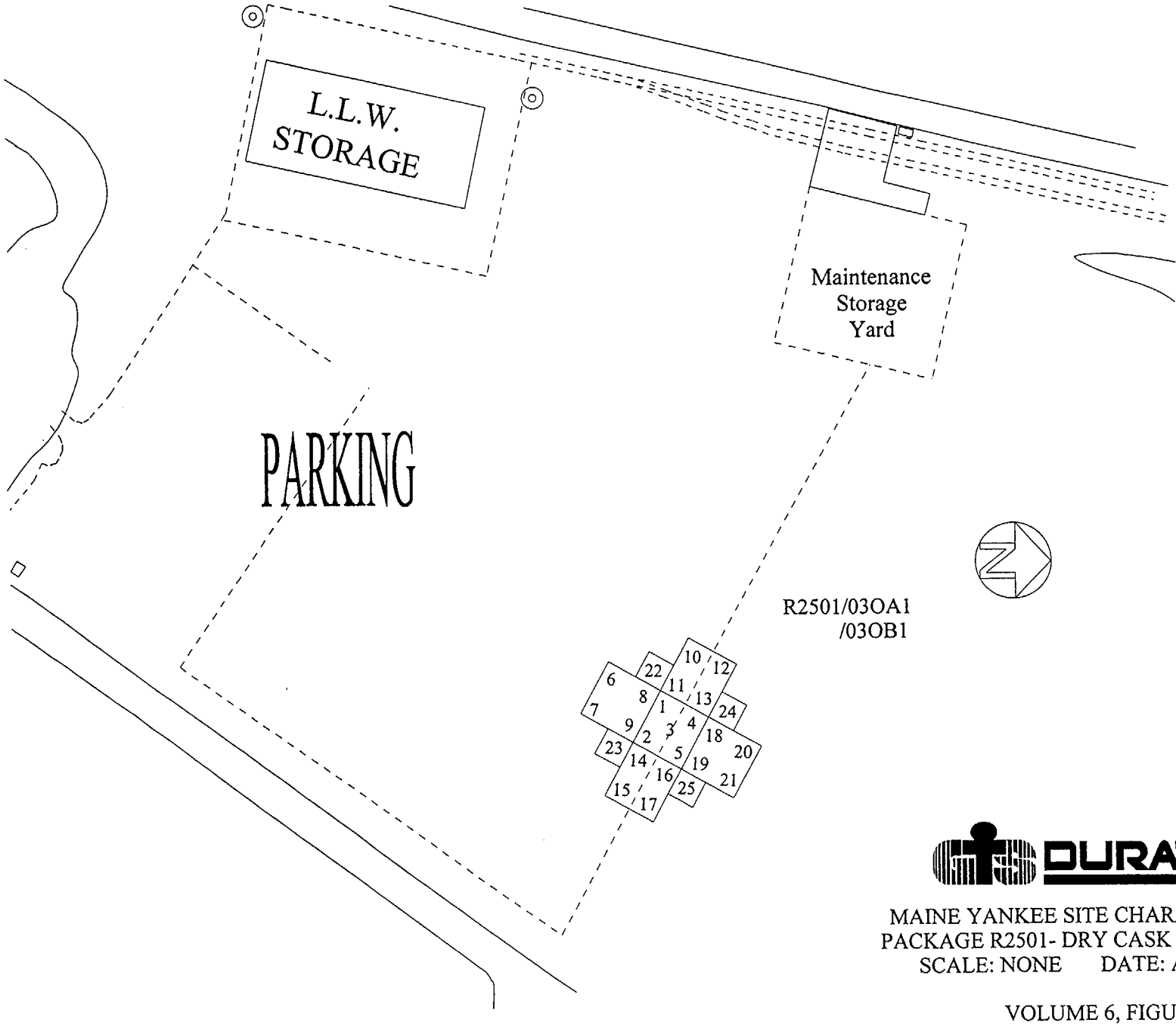
G9805504.DWG



DURATEK

MAINE YANKEE SITE CHARACTERIZATION
PACKAGE R2501- FOREBAY AREA
SCALE: NONE DATE: APRIL 7, 1998

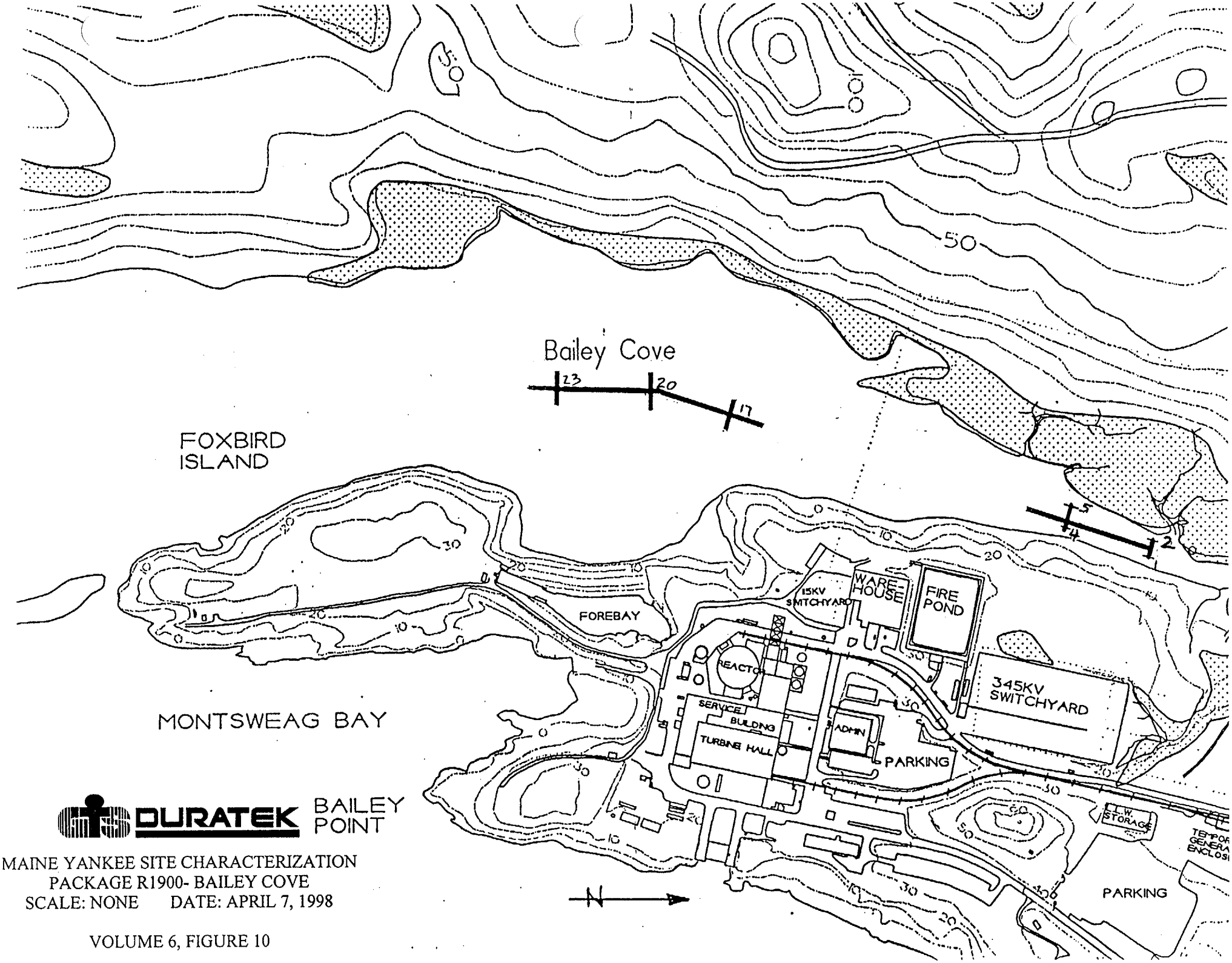
VOLUME 6, FIGURE 8



DURATEK

MAINE YANKEE SITE CHARACTERIZATION
PACKAGE R2501- DRY CASK STORAGE AREA
SCALE: NONE DATE: APRIL 7, 1998

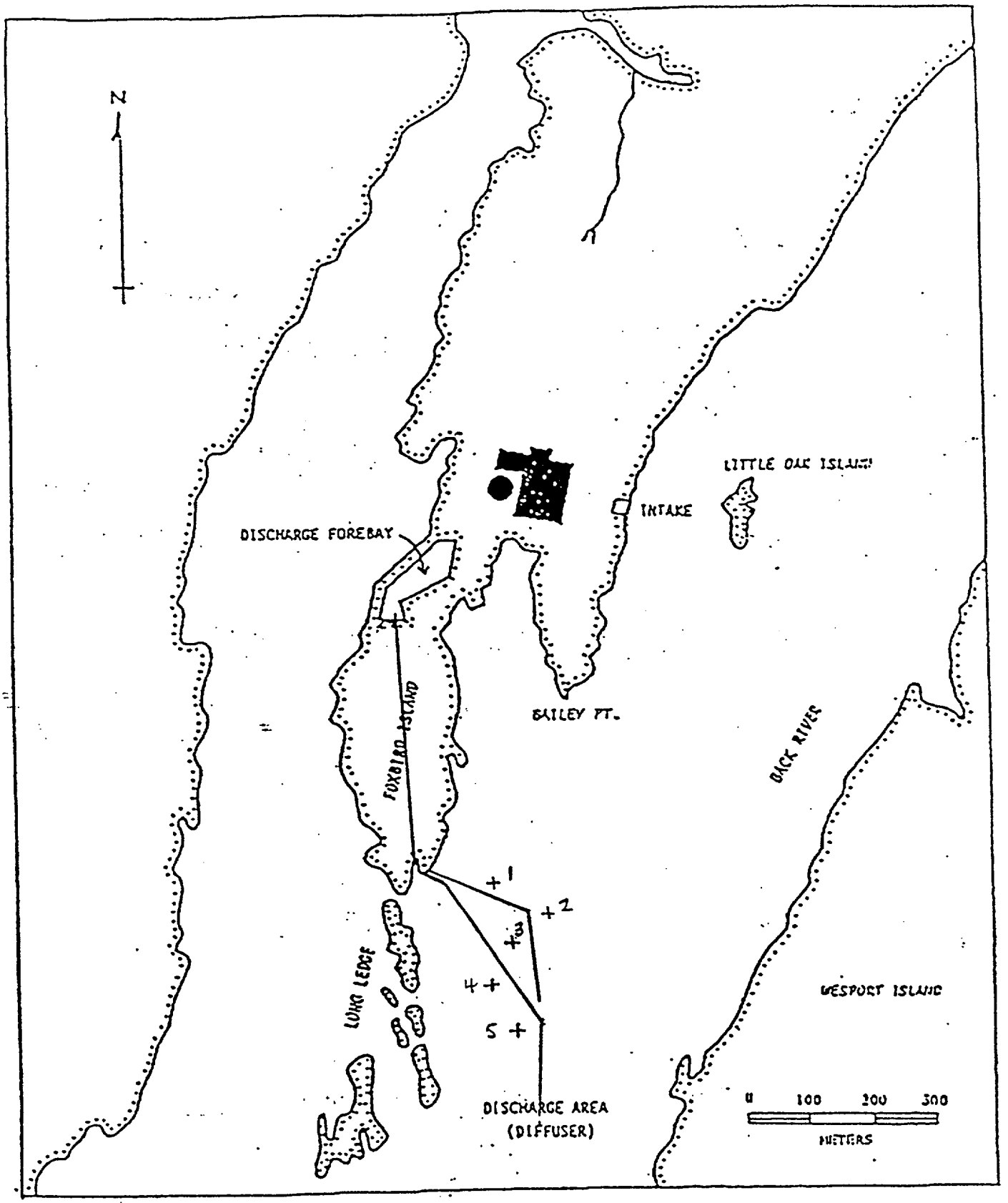
VOLUME 6, FIGURE 9



DURATEK BAILEY POINT

MAINE YANKEE SITE CHARACTERIZATION
PACKAGE R1900- BAILEY COVE
SCALE: NONE DATE: APRIL 7, 1998

VOLUME 6, FIGURE 10



DURATEK

MAINE YANKEE SITE CHARACTERIZATION
PACKAGE R2000- DIFFUSERS
SCALE: NONE DATE: APRIL 7, 1998

VOLUME 6, FIGURE 11

APPENDIX A
CHARACTERIZATION REPORTS FOR ENVIRONS

04/28/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER R0100 ENVIRONS

PACKAGE DESCRIPTION RCA Portion (West Side) of Protected Area Yard

SURVEY AREA DESCRIPTION

RCA Portion (westside) of Protected Area Yard

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

The RCA Portion (westside) of Protected Area Yard has experienced spills and pipe leaks, especially near RWST. The area was used to handle and store LLRW. It may have been used for mobile LLRW processing. A pile of concrete in the southwest corner of the RCA was floor material removed from the Containment Spray Room.

SUMMARY OF CHARACTERIZATION ACTIVITIES

(1) The RCA fence line was marked in approximately 10 meter increments.

(2) A general area gamma survey of the area was performed using a NaI(Tl) detector to provide dose rate information for selecting biased sampling locations.

(3) Direct measurements for total beta activity were performed on the pieces of asphalt removed and collected at each paved sampling location.

(4) Fourteen 6" depth soil samples were taken from paved areas.

(5) Twenty-six 6" depth soil samples were taken from unpaved areas.

(6) Direct gamma measurements were performed on each bag of soil sample to determine if a 6-12" depth soil sample was needed at any location.

(7) Due to past operating history and elevated readings, 6 locations were selected (grids # 67, 81, 85, 102, 103 and 104) for soil sampling down to 36".

(8) The concrete pile near guard tower at southwest corner of the Protected Area was investigated by collecting six samples for direct beta measurements in a low background area within the Protected Area and one overall beta scan.

(9) Groundwater samples from Monitoring Wells # 203, 205, 206, BK-1 and Chromate Well #1, and a Containment Sump water sample were obtained as splits under Package H10.

CHARACTERIZATION SURVEY RESULTS

(1) The general area gamma survey of the RCA yard recorded dose rates that ranged from 25 uR/hr to nearly 1 mR/hr. The dose rates for most of the yard were less than 100 uR/hr, with exceptions being noted near the RWST and fuel crane.

(2) The 14 surface contamination measurements performed on asphalt that was removed and collected from the 14 paved soil sample locations indicated that two areas near the RWST were contaminated. At grids # 74 and 81(refer to Figure 4), 11,375 and 10,778 net dpm/100 cm^2 were recorded.

(3) Of the forty 6-inch depth soil samples obtained, 16 gave elevated analytical results. Three of these results were under pavement (grids # 65, 67 and 81) near the Wiscasset Wall/fuel crane area and RWST area. The unpaved elevated areas were predominantly to the south and west of the RWST, around the RWST, and around the PWST.

(4) Contact gamma measurements were performed in the field on the 40 bags of 6-inch depth soil to determine if deeper soil samples were necessary. Because none of these gamma measurement results were twice background, no samples greater than 6 inches deep were obtained based on these measurements. However, because of past operating history, three paved and three unpaved locations were selected for subsurface, profiled sampling down to 36 inches where achievable. Also, the results of soil samples from the south and west of the RWST are clearly elevated, e.g., grids # 41, 43, 46, 58, and 73, and this surface contamination continues past the Protected Area fence and into areas surveyed under Packages R0900 and R1000. This contamination is predominantly Cs-137, which is accounted for by the leaks associated with the RWST.

The subsurface locations selected were near the RWST (grids # 81 and 85), Wiscasset Wall (grid # 67), PWST (grids # 103 and 104), and the alley between the Service and Containment Buildings (grid # 102). Eighteen subsurface samples were taken. Around the RWST, subsurface samples showed that the contamination, which is mostly Cs-137, did not extend below 24 inches. The results of the subsurface samples near the Wiscasset Wall showed only Cs-137 above background levels down to 12 inches. The alley area showed 0.15 pCi/g of Co-60 between 12 and 24 inches, with Cs-137 levels at typical background values.

Of all the areas, the PWST surface and subsurface soil samples gave the highest results by a wide margin. Surface concentrations of Co-60 and Cs-137 were 3.2 and 156 pCi/g, respectively, for grid # 103. Below 6", the Co-60 concentration was less than MDA, but the Cs-137 concentrations remained significantly above background levels until the 24-36" profile was reached. Grid # 104 gave similar surface and subsurface results. Additional surface and subsurface samples were taken from the PWST area, north and east sides, from grids # 2, 5, and 6, under Package R0200. The survey package and grid number sequence changed because of the perceived location of the RCA fence line at the time the packages were prepared. The surface sample results from grids # 2 and 5 were elevated with both Co-60 and Cs-137, with grid # 5 showing a high Cs-137 value of 133 pCi/g. Whereas the levels for grid # 6 declined to 0.19 and 0.82 pCi/g for Co-60 and Cs-137, respectively. The subsurface 6-12" profile showed significant declines in the Cs-137 concentrations at grids # 2 and 5, while the levels for grid #6 remained low.

(5) The beta scan and direct beta measurements of the concrete pile and samples near the southwest corner of the RCA yard gave no elevated readings. There were no direct measurements for total beta activity above MDA (1,030 dpm/100cm^2). The maximum measurement result was 160 dpm/100cm^2.

(6) The gamma spectroscopic results of the groundwater samples taken from Monitoring Wells # 203, 205, 206, and BK-1, Chromate Well # 1 (Cr-1) and Containment (foundation) Sump (CS) showed the absence of plant derived gamma emitters. The tritium analysis results, except for CS, were # 203: 1198 pCi/L; # 205: 928 pCi/L; # 206: 541 pCi/L; # BK-1: 4023 pCi/L; # Cr-1: 914 pCi/L; and CS: 6812pCi/L.

REFERENCES (Documents, Interviews)

SUMMARY OF SURVEY UNIT(S)

04/10/98 OUTPUT BATCH SN = 493

PACKAGE R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT(S)	SURFACE(S)
01 - Open land area	OA2 (Surface Soil Sample @ 0"-6" Depth) OB1 (Subsurface Soil Sample @ 6"-12" Depth, Grids 85, 103 and 104) OC1 (Subsurface Soil Sample @ 12"-18" Depth, Grid # 103.) OD1 (Subsurface Soil Sample @ 18"-24" Depth, Grid # 103.) OD2 (Grids # 85 & 104. Sample profile is actually 12" - 24") OE1 (Subsurface Soil Sample @ 24"-36" Depth, Grids 85, 103 and 104) OL1 (Open Land Areas)
02 - Paved area	OA2 (Surface Soil Sample @ 0"-6" Depth) OB1 (Subsurface Soil Sample @ 6"-12" Depth, Grids 67 and 102) OC1 (Subsurface Soil Sample @ 12"-18" Depth, Grid # 67) OD1 (Subsurface Soil Sample @ 18"-24" Depth, Grid # 67.) OD2 (Grids # 81 & 102. Sample profile is actually 12" - 24") OE1 (Subsurface Soil Sample @ 24"-36" Depth, Grids 81 and 102) OR1 (Roadways)
03 - Concrete Pile	MC1 (Construction Materials)
04 - Monitoring Well # 203	OW1 (Duplicate groundwater sample with Package H10)
05 - Monitoring Well # 205	OW1 (Duplicate groundwater sample with Package H10)
06 - Monitoring Well # 206	OW1 (Duplicate groundwater sample with Package H10)
07 - Monitoring Well # BK-1	OW1 (Duplicate groundwater sample with Package H10)
08 - Chromate Well # 1	OW1 (Duplicate groundwater sample with Package H10)
10 - Containment Sump	OW1 (Duplicate groundwater sample with Package H10)

REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS

MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm²)
B0016	ASPHALT	925.0
B0039	CONCRETE - BARE (EXTERIOR)	665.0

Version 3.0.8 - 4/3/98
JLM

DBACORR Documentation
:aProgDBACORR:R_TOC.RSL

04/09/98

Direct Measurements For Total Beta Activity

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

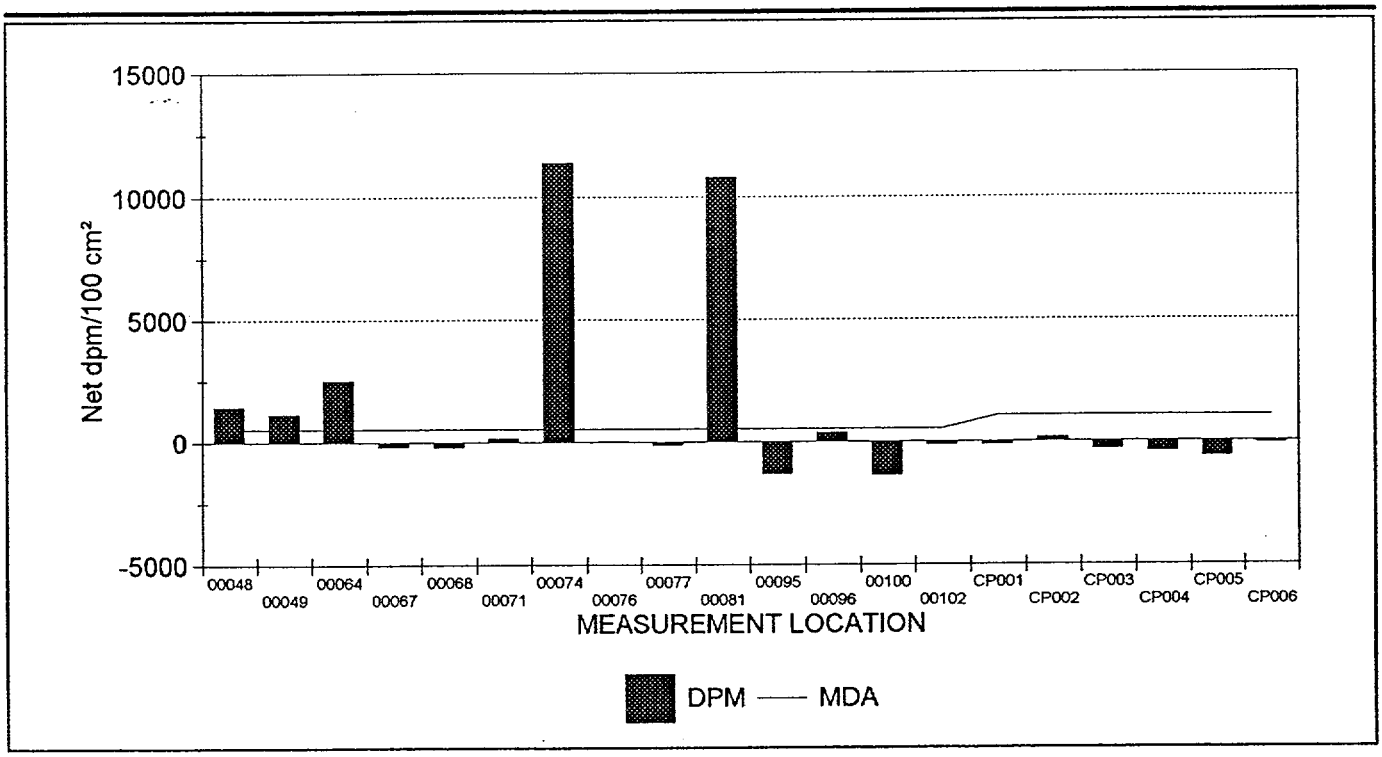
STATISTICAL SUMMARY

	Net dpm/100 cm²
Mean	1,155.87
Maximum	11,374.55
Minimum	-1,350.10
Standard Deviation	3,501.08
MDA	1,030.47

Samples Reported	20
Samples Prescribed	20

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES
MDA <2000 net dpm/100 cm²	YES
Results above 2000 net dpm/100 cm²	3
Number of results above MDA	5



20 RESULTS ARE GRAPHED

04/09/98

Direct Measurements For Total Beta Activity

Survey Package : R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	MDA	RESULT
199 (2)	02	OR1	B0016	C01	60	00048	526.69	1,436.82
199 (2)	02	OR1	B0016	C01	60	00049	526.69	1,130.30
199 (2)	02	OR1	B0016	C01	60	00064	526.69	**2,505.61**
199 (2)	02	OR1	B0016	C01	60	00067	526.69	-192.58
199 (2)	02	OR1	B0016	C01	60	00068	526.69	-196.61
199 (2)	02	OR1	B0016	C01	60	00071	526.69	158.31
199 (2)	02	OR1	B0016	C01	60	00074	526.69	**11,374.55**
199 (2)	02	OR1	B0016	C01	60	00076	526.69	29.25
199 (2)	02	OR1	B0016	C01	60	00077	526.69	-124.01
199 (2)	02	OR1	B0016	C01	60	00081	526.69	**10,777.64**
199 (2)	02	OR1	B0016	C01	60	00095	526.69	-1,293.63
199 (2)	02	OR1	B0016	C01	60	00096	526.69	368.03
199 (2)	02	OR1	B0016	C01	60	00100	526.69	-1,350.10
199 (2)	02	OR1	B0016	C01	60	00102	526.69	-119.98
199 (2)	03	MC1	B0039	C01	10	CP001	1,030.4	-130.20
199 (2)	03	MC1	B0039	C01	10	CP002	1,030.4	160.19
199 (2)	03	MC1	B0039	C01	10	CP003	1,030.4	-299.60
199 (2)	03	MC1	B0039	C01	10	CP004	1,030.4	-420.59
199 (2)	03	MC1	B0039	C01	10	CP005	1,030.4	-614.18
199 (2)	03	MC1	B0039	C01	10	CP006	1,030.4	-81.80

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.
20 results are listed.

Version 3.0.8 - 4/3/98

DBACORR Documentation
:aProgDBACORR:F_0130.FSL
OUTPUT BATCH SN = 643

JLM

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/09/98 Direct Measurements For Total Beta Activity

Survey Package : R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

SURVEY		M2350		DETECTOR			PRE	
DATE	FILE #	INST S/N	CAL DUE	MODEL	S/N	CAL DUE	EFF	TECHNICIAN
12/19/97	199 (2)	126206	3/27/98	43-106	133860	3/30/98	.20	LAC4593

CALIBRATION DATES VERIFIED AS ACCEPTABLE

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 64

04/09/98 OUTPUT BATCH SN = 643

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1029	ENV00249	1,600.00	1200	Co-57	< .08	0.08	0.00
				Co-60	.96	0.06	0.07
				Cs-134	< .09	0.09	0.00
				Cs-137	1.97	0.09	0.17
				K-40	24.50	0.56	2.05
				Mn-54	< .09	0.09	0.00

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1030	ENV00254	1,700.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.76	0.06	0.09
				K-40	20.50	0.56	1.95
				Mn-54	< .07	0.07	0.00

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1031	ENV00250	1,680.00	1200	Co-57	< .07	0.07	0.00
				Co-60	.06	0.04	0.03
				Cs-134	< .08	0.08	0.00
				Cs-137	1.56	0.09	0.14
				K-40	21.80	0.41	1.84
				Mn-54	< .07	0.07	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1033	ENV00252	1,580.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	3.65	0.10	0.29
				K-40	21.50	0.64	1.86
				Mn-54	< .07	0.07	0.00

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1034	ENV00254	1,610.00	3600	Co-57	< .07	0.07	0.00
				Co-60	.14	0.03	0.02
				Cs-134	< .05	0.05	0.00
				Cs-137	23.50	0.07	1.63
				K-40	23.00	0.34	1.66
				Mn-54	< .04	0.04	0.00

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1035	ENV00258	1,770.00	1200	Co-57	< .11	0.11	0.00
				Co-60	.12	0.07	0.05
				Cs-134	< .07	0.07	0.00
				Cs-137	16.20	0.09	1.21
				K-40	19.10	0.58	1.84
				Mn-54	< .07	0.07	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 01 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)
MY1038	ENV00258	1,690.00	3600	Co-57	< .06	0.06	0.00
				Co-60	1.37	0.04	0.07
				Cs-134	.04	0.04	0.01
				Cs-137	23.70	0.07	1.65
				K-40	22.70	0.31	1.64
				Mn-54	< .04	0.04	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)
MY1041	ENV00261	1,840.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	1.00	0.08	0.11
				K-40	20.20	0.68	1.92
				Mn-54	< .06	0.06	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)
MY1043	ENV00261	1,990.00	1200	Co-57	< .20	0.20	0.00
				Co-60	.62	0.06	0.05
				Cs-134	< .08	0.08	0.00
				Cs-137	114.00	0.23	7.88
				K-40	20.40	0.33	1.68
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 01 SURFACE : OA2 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)
MY1044	ENV00288	1,850.00	1800	Co-57	< .08	0.08	0.00
				Co-60	1.03	0.05	0.07
				Cs-134	< .07	0.07	0.00
				Cs-137	12.90	0.09	0.91
				K-40	20.90	0.40	1.64
				Mn-54	< .06	0.06	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)
MY1052	ENV00265	1,780.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.42	0.06	0.06
				K-40	20.40	0.35	1.92
				Mn-54	< .07	0.07	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)
MY1053	ENV00263	1,880.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.07	0.00
				Cs-137	.22	0.04	0.04
				K-40	20.40	0.53	1.72
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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)
MY1054	ENV00271	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	.12	0.06	0.04
				K-40	20.80	0.62	1.97
				Mn-54	< .06	0.06	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)
MY1056	ENV00267	1,930.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.62	0.06	0.08
				K-40	19.20	0.50	1.81
				Mn-54	< .06	0.06	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)
MY1057	ENV00264	1,920.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	1.14	0.08	0.11
				K-40	20.20	0.37	1.68
				Mn-54	< .05	0.05	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 01 SURFACE : OA2 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)
MY1058	ENV00273	1,710.00	1200	Co-57	< .06	0.06	0.00
				Co-60	.04	0.05	0.03
				Cs-134	< .07	0.07	0.00
				Cs-137	1.15	0.08	0.12
				K-40	20.20	0.51	1.93
				Mn-54	< .07	0.07	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)
MY1059	ENV00270	1,730.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.55	0.07	0.07
				K-40	21.70	0.50	1.83
				Mn-54	< .06	0.06	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)
MY1060	ENV00272	1,890.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	1.11	0.07	0.12
				K-40	19.80	0.62	1.87
				Mn-54	< .07	0.07	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 01 SURFACE : OA2 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)
MY1062	ENV00289	1,710.00	2000	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	18.20	0.10	1.34
				K-40	21.50	0.42	1.85
				Mn-54	< .05	0.05	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)
MY1063	ENV00271	1,820.00	1200	Co-57	< .06	0.06	0.00
				Co-60	.07	0.05	0.03
				Cs-134	< .07	0.07	0.00
				Cs-137	4.50	0.07	0.34
				K-40	19.70	0.40	1.67
				Mn-54	< .06	0.06	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)
MY1064	ENV00266	1,840.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.46	0.07	0.07
				K-40	20.40	0.49	1.91
				Mn-54	< .07	0.07	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00104-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1065	H2O00282	1,410.00	3600	Co-57	< .11	0.11	0.00
				Co-60	3.25	0.06	0.16
				Cs-134	.07	0.07	0.03
				Cs-137	69.10	0.15	4.31
				K-40	19.50	0.43	1.47
				Mn-54	< .07	0.07	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)
MY1073	ENV00282	1,670.00	3600	Co-57	< .14	0.14	0.00
				Co-60	3.29	0.04	0.15
				Cs-134	.07	0.06	0.02
				Cs-137	156.00	0.19	10.80
				K-40	22.30	0.32	1.61
				Mn-54	< .06	0.06	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)
MY1078	ENV00284	1,860.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.65	0.07	0.08
				K-40	21.00	0.53	1.89
				Mn-54	< .05	0.05	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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)
MY1079	ENV00285	1,640.00	3600	Co-57	< .06	0.06	0.00
				Co-60	.82	0.04	0.05
				Cs-134	< .05	0.05	0.00
				Cs-137	18.30	0.08	1.28
				K-40	20.20	0.32	1.48
				Mn-54	< .04	0.04	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)
MY1082	ENV00286	1,890.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.24	0.05	0.04
				K-40	23.10	0.45	1.82
				Mn-54	< .05	0.05	0.00

UNIT : 01 SURFACE : OB1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00104-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1066	ENV00277	1,600.00	3600	Co-57	< .08	0.08	0.00
				Co-60	.74	0.05	0.05
				Cs-134	< .06	0.06	0.00
				Cs-137	30.70	0.07	2.24
				K-40	20.30	0.38	1.66
				Mn-54	< .05	0.05	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 01 SURFACE : OB1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00103-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1083	ENV00288	1,760.00	2000	Co-57	< .12	0.12	0.00
				Co-60	.31	0.06	0.04
				Cs-134	< .06	0.06	0.00
				Cs-137	57.60	0.14	4.20
				K-40	21.70	0.65	1.89
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00085-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1084	ENV00287	1,760.00	1500	Co-57	< .06	0.06	0.00
				Co-60	.19	0.05	0.03
				Cs-134	< .07	0.07	0.00
				Cs-137	5.66	0.09	0.42
				K-40	21.70	0.47	1.75
				Mn-54	< .06	0.06	0.00

UNIT : 01 SURFACE : OC1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 12"-18" Depth
SAMPLE LOCATOR: 00103-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1070	ENV00278	1,880.00	1200	Co-57	< .09	0.09	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	14.60	0.08	1.09
				K-40	20.50	0.66	1.93
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 01 SURFACE : OD1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 18"-24" Depth
SAMPLE LOCATOR: 00103-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1071	ENV00277	1,910.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	2.86	0.06	0.23
				K-40	21.60	0.50	1.79
				Mn-54	< .06	0.06	0.00

UNIT : 01 SURFACE : OD2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 18"-24" Depth
SAMPLE LOCATOR: 00085

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1001	ENV00246	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	.24	0.07	0.05
				K-40	18.90	0.57	1.83
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 18"-24" Depth
SAMPLE LOCATOR: 00104

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1009	ENV00249	1,700.00	1200	Co-57	< .06	0.06	0.00
				Co-60	.10	0.08	0.05
				Cs-134	< .08	0.08	0.00
				Cs-137	.81	0.06	0.09
				K-40	21.90	0.54	2.06
				Mn-54	< .07	0.07	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 01 SURFACE : OE1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 24"-36" Depth
SAMPLE LOCATOR: 00085

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1002	ENV00241	1,820.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	1.32	0.06	0.12
				K-40	20.90	0.40	1.75
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 24"-36" Depth
SAMPLE LOCATOR: 00104

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1010	ENV00245	1,740.00	1200	Co-57	< .06	0.06	0.00
				Co-60	.06	0.05	0.04
				Cs-134	< .07	0.07	0.00
				Cs-137	.61	0.08	0.08
				K-40	22.80	0.55	1.90
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 24"-36" Depth
SAMPLE LOCATOR: 00103-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1072	ENV00280	1,950.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	1.00	0.06	0.10
				K-40	18.60	0.56	1.77
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00074-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1036	ENV00256	1,850.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.86	0.09	0.10
				K-40	22.20	0.51	1.84
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00077-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1037	ENV00259	1,860.00	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	19.70	0.59	1.86
				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)
MY1040	ENV00259	1,760.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	2.12	0.07	0.18
				K-40	21.50	0.49	1.81
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00100-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1045	ENV00262	1,890.00	1200	Co-57	< .05	0.05	0.00
				Co-60	.09	0.07	0.05
				Cs-134	< .06	0.06	0.00
				Cs-137	.30	0.06	0.05
				K-40	19.60	0.39	1.65
				Mn-54	< .06	0.06	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)
MY1046	ENV00268	1,830.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.40	0.07	0.06
				K-40	20.80	0.44	1.94
				Mn-54	< .06	0.06	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)
MY1047	ENV00265	1,900.00	1200	Co-57	< .05	0.05	0.00
				Co-60	.07	0.05	0.03
				Cs-134	< .07	0.07	0.00
				Cs-137	.40	0.07	0.06
				K-40	21.30	0.44	1.76
				Mn-54	< .05	0.05	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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

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)
MY1048	ENV00270	1,760.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.33	0.06	0.06
				K-40	20.50	0.47	1.94
				Mn-54	< .06	0.06	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)
MY1049	ENV00267	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	21.70	0.62	1.85
				Mn-54	< .06	0.06	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)
MY1050	ENV00269	1,690.00	1200	Co-57	< .07	0.07	0.00
				Co-60	.08	0.05	0.03
				Cs-134	< .07	0.07	0.00
				Cs-137	2.22	0.08	0.20
				K-40	22.10	0.69	2.09
				Mn-54	< .07	0.07	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 02 SURFACE : OA2 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)
MY1051	ENV00289	1,900.00	2000	Co-57	< .05	0.05	0.00
				Co-60	.62	0.05	0.05
				Cs-134	< .06	0.06	0.00
				Cs-137	2.62	0.06	0.20
				K-40	22.80	0.50	1.74
				Mn-54	< .05	0.05	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)
MY1061	ENV00269	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	< .06	0.06	0.00
				K-40	22.50	0.43	1.87
				Mn-54	< .06	0.06	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)
MY1076	ENV00283	1,720.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.03	0.06	0.03
				K-40	20.50	0.42	1.87
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

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

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)
MY1077	ENV00283	1,870.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.09	0.04	0.03
				K-40	21.10	0.45	1.69
				Mn-54	< .05	0.05	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)
MY1080	ENV00285	1,740.00	1500	Co-57	< .05	0.05	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.05	0.05	0.03
				K-40	22.00	0.65	1.99
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OB1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00067-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1067	ENV00274	1,800.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	5.11	0.08	0.38
				K-40	22.50	0.55	1.87
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 02 SURFACE : OB1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00102

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY998	ENV00245	1,800.00	1200	Co-57	< .05	0.05	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.29	0.05	0.05
				K-40	16.90	0.42	1.65
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OC1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 12"-18" Depth
SAMPLE LOCATOR: 00067-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1068	ENV00275	1,880.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.73	0.06	0.08
				K-40	19.90	0.40	1.67
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OD1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 18"-24" Depth
SAMPLE LOCATOR: 00067-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1069	ENV00276	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	1.03	0.08	0.11
				K-40	21.30	0.53	1.79
				Mn-54	< .06	0.06	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 02 SURFACE : OD2 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 18"-24" Depth
SAMPLE LOCATOR: 00081

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1003	ENV00247	1,950.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.21	0.05	0.05
				K-40	20.70	0.45	1.91
				Mn-54	< .06	0.06	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 18"-24" Depth
SAMPLE LOCATOR: 00102

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY999	ENV00240	1,650.00	1200	Co-57	< .06	0.06	0.00
				Co-60	.15	0.06	0.04
				Cs-134	< .07	0.07	0.00
				Cs-137	.48	0.06	0.07
				K-40	22.10	0.43	1.87
				Mn-54	< .06	0.06	0.00

UNIT : 02 SURFACE : OE1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 24"-36" Depth
SAMPLE LOCATOR: 00102

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1000	HDS00034	798.00	3600	Co-57	< .03	0.03	0.00
				Co-60	.04	0.03	0.02
				Cs-134	< .04	0.04	0.00
				Cs-137	.07	0.03	0.02
				K-40	19.00	0.26	1.41
				Mn-54	< .04	0.04	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 02 SURFACE : OE1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 24"-36" Depth
SAMPLE LOCATOR: 00081

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1004	ENV00242	1,820.00	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	0.07	0.04
				K-40	21.20	0.50	1.78
				Mn-54	< .06	0.06	0.00

UNIT : 04 SURFACE : OW1 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)
MYW07	H2O00077	1,000.00	1200	Co-57	< .04	0.04	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .05	0.05	0.00
				K-40	< .53	0.53	0.00
				Mn-54	< .05	0.05	0.00

UNIT : 05 SURFACE : OW1 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)
MYW05	H2O00076	1,000.00	1200	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .04	0.04	0.00
				K-40	< .42	0.42	0.00
				Mn-54	< .04	0.04	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 06 SURFACE : OW1 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)
MYW06	H2O00080	1,000.00	1200	Co-57	< .03	0.03	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .04	0.04	0.00
				K-40	< .32	0.32	0.00
				Mn-54	< .04	0.04	0.00

UNIT : 07 SURFACE : OW1 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)
MYW02	H2O00078	1,000.00	1200	Co-57	< .04	0.04	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	< .05	0.05	0.00
				K-40	< .48	0.48	0.00
				Mn-54	< .05	0.05	0.00

UNIT : 08 SURFACE : OW1 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)
MYW12	H2O00104	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	< .38	0.38	0.00
				Mn-54	< .03	0.03	0.00

Survey Package R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

UNIT : 10 SURFACE : OW1 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)
MYW13	H2O00080	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	< .26	0.26	0.00
				Mn-54	< .02	0.02	0.00

04/09/98

WATER SAMPLE ANALYSIS - TRITIUM ACTIVITY

Survey Package : R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

RESULTS LISTING - SORTED BY SURFACE CODE

SAMPLE ID	SAMPLE TYPE	UNIT	SURF	REASN	MSRMNT LOCATION	MDA	TRITIUM ACTIVITY
W02	Environmental water sample	07	OW1	C01	00001	1.65	8.93
W05	Environmental water sample	05	OW1	C01	00001	1.68	2.06
W06	Environmental water sample	06	OW1	C01	00001	1.76	1.20
W07	Environmental water sample	04	OW1	C01	00001	1.47	2.66
W12	Environmental water sample	08	OW1	C01	00001	3.78	2.03

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.

Version 3.0.8 - 4/3/98

DBACORR Documentation
:aProgDBACORR:F_0530.FSL
OUTPUT BATCH SN = 674

JLM

LIQUID SCINTILLATION COUNTER CALIBRATION SUMMARY

04/09/98

Survey Package : R0100 ENVIRONS
RCA Portion (West Side) of Protected Area Yard

SURVEYDATE	INSTRUMENT	MODEL	S/N	CAL DUE	LAB TECHNICIAN
2/1/98	Packard	2750	416221	6/16/98	LDT
				CALIBRATION DATE VERIFIED AS ACCEPTABLE	

04/10/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER :R0200 ENVIRONS

PACKAGE DESCRIPTION Balance of Protected Area (East Side)

SURVEY AREA DESCRIPTION

Balance of Protected Area (east side)

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

The CST on the North Side of the Protected Area overflowed before the high-high alarm was installed, but these overflows probably preceded the S/G tube leaks. Contaminated gravel and asphalt was taken from RCA yard to Bailey Point and then to contractor trailer yard (shown on drawing) in Protected Area (east side).

SUMMARY OF CHARACTERIZATION ACTIVITIES

(1) The fence line of the Turbine Building side of the Protected Area was marked in approximately 10 meter increments.

(2) An approximate 100% gamma scan of the accessible areas was performed using a NaI(Tl) detector with integrated 10 second count times.

(3) A total of thirty randomly-selected 6" depth soil samples from unpaved areas were obtained. No samples were taken from paved areas.

(4) Because gamma spectroscopy results for grids # 2 and 5 indicated additional sampling was necessary, four additional soil samples were obtained. At grid #6, a 6" depth sample was obtained and at grids # 2, 5 and 6, a 6-12" sample was obtained at each sampling point.

(5) Groundwater samples from Monitoring Wells # 202, 204 and MW-100 were obtained as splits under Package H10.

(6) Duplicates of surface and subsurface soil samples were obtained under Package R2400 from the five Geoprobe test bore locations in this area.

CHARACTERIZATION SURVEY RESULTS

(1) The walk-over gamma scanning survey did not identify any elevated locations in this area of the Protected Area yard, partially because of the high ambient dose rates near the adjoining RCA yard.

(2) Two of the 30 random surface soil samples from grids # 2 and 5 (refer to Figure 5) gave elevated results for Co-60 and Cs-137. These two grids are adjacent to the PWST. Because of these results, subsurface samples were taken from these two grids and surface and subsurface samples were also taken from the adjacent grid # 6. These results are discussed under Package R0100 because these three grids are actually located in or adjacent to the RCA yard.

Four samples taken near the south side of the Protected Area fence showed below MDA values for Co-60 and background levels of Cs-137 (grids # 38, 46, 109, and 152). Two samples taken generally east of the spare transformer (grids # 132 and 143) and one sample taken to the east of the spare transformer and Main Transformer 1B gave results similar to the fence line samples.

(3) The gamma spectroscopic results of the three groundwater samples taken from Monitoring Wells # 202, 204 and MW-100 did not show the presence of plant derived gamma emitters. The tritium analysis results for these water samples were # 202: 622 pCi/L; # 204: 441 pCi/L; and # MW-100: 788 pCi/L.

REFERENCES (Documents, Interviews)

SUMMARY OF SURVEY UNIT(S)

04/10/98 OUTPUT BATCH SN = 494

PACKAGE R0200 ENVIRONS
Balance of Protected Area (East Side)

UNIT(S)	SURFACE(S)
01 - Open land areas	OA1 (Surface Soil Sample @ 0"-6" Depth) OB1 (Subsurface Soil Sample @ 6"-12" Depth) OL3 (Open Land Area Gamma Scan)
02 - Paved areas	OR1 (Roadways Gamma Scan)
04 - Monitoring Well # 202	OW1 (Duplicate groundwater sample with Package H10)
05 - Monitoring Well # 204	OW1 (Duplicate groundwater sample with Package H10)
06 - Monitoring Well # MW-100	OW1 (Duplicate groundwater sample with Package H10)

REASON(S) CHARACTERIZATION SURVEY (C01)

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 38

OUTPUT BATCH SN = 644

04/09/98

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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

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)
MY001	001.CNF	1,200.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	.42	0.06	0.05
				K-40	22.00	0.32	1.64
				Mn-54	< .04	0.04	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)
MY002	002.CNF	1,430.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.12	0.03	0.02
				K-40	16.00	0.26	1.22
				Mn-54	< .03	0.03	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)
MY003	MY0003.CNF	1,225.00	3000	Co-57	< .04	0.04	0.00
				Co-60	.04	0.03	0.02
				Cs-134	< .05	0.05	0.00
				Cs-137	.64	0.03	0.06
				K-40	21.40	0.36	1.60
				Mn-54	< .04	0.04	0.00

DBACORR Documentation
:aProgDBACORR:R_GSPEC.RSL

Version 3.0.8 - 4/3/98

JLM

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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)
MY004	004.CNF	1,553.00	3000	Co-57	< .04	0.04	0.00
				Co-60	.02	0.03	0.02
				Cs-134	< .05	0.05	0.00
				Cs-137	.13	0.03	0.03
				K-40	21.40	0.29	1.59
				Mn-54	< .04	0.04	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)
MY005	ENV00212	1,550.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.11	0.05	0.03
				K-40	23.00	0.25	1.94
				Mn-54	< .07	0.07	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00077-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY006	006.CNF	1,785.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.07	0.03	0.02
				K-40	20.80	0.25	1.53
				Mn-54	< .04	0.04	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00214-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY007	MY007.CNF	1,900.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .03	0.03	0.00
				K-40	21.10	0.32	1.54
				Mn-54	< .03	0.03	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00215-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY008	MY008.CNF	1,720.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .04	0.04	0.00
				K-40	20.90	0.38	1.55
				Mn-54	< .03	0.03	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00222-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY009	MY009.CNF	1,020.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	.23	0.04	0.04
				K-40	18.50	0.41	0.01
				Mn-54	< .04	0.04	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00212-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY010	MY010.CNF	1,315.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.14	0.05	0.03
				K-40	18.30	0.31	1.39
				Mn-54	< .04	0.04	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00150-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY011	MY011.CNF	981.70	3000	Co-57	< .04	0.04	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.27	0.05	0.04
				K-40	20.40	0.48	1.60
				Mn-54	< .05	0.05	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)
MY012	MY012.CNF	1,394.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.11	0.03	0.02
				K-40	19.10	0.24	1.42
				Mn-54	< .04	0.04	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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)
MY013	MY013.CNF	1,849.00	3000	Co-57	< .03	0.03	0.00
				Co-60	.05	0.03	0.02
				Cs-134	< .04	0.04	0.00
				Cs-137	.06	0.03	0.02
				K-40	19.80	0.31	1.46
				Mn-54	< .03	0.03	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)
MY014	MY014.CNF	1,734.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.35	0.04	0.04
				K-40	19.60	0.28	1.45
				Mn-54	< .03	0.03	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)
MY015	MY015	1,271.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	.35	0.05	0.04
				K-40	17.20	0.26	1.32
				Mn-54	< .04	0.04	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

UNIT : 01 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)
MY015	MY015.CNF	1,271.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	.35	0.05	0.04
				K-40	17.20	0.26	1.32
				Mn-54	< .04	0.04	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)
MY016	MY016.CNF	1,272.00	3000	Co-57	< .05	0.05	0.00
				Co-60	.65	0.04	0.05
				Cs-134	< .05	0.05	0.00
				Cs-137	7.98	0.08	0.51
				K-40	19.90	0.30	1.50
				Mn-54	< .05	0.05	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)
MY017	MY017.CNF	2,046.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.13	0.03	0.02
				K-40	20.20	0.20	1.46
				Mn-54	< .03	0.03	0.00

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 38

OUTPUT BATCH SN = 644

ckage R0200 ENVIRONS
Balance of Protected Area (East Side)

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

MPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00005-00001

AB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
IY018	MY018A.CNF	1,770.00	3000	Co-57	< .15	0.15	0.00
				Co-60	1.94	0.04	0.10
				Cs-134	.09	0.06	0.02
				Cs-137	133.00	0.20	9.17
				K-40	20.60	0.29	1.52
				Mn-54	< .05	0.05	0.00

AMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00161-00001

ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
19	MY019.CNF	1,814.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.06	0.04	0.03
				K-40	17.00	0.36	0.01
				Mn-54	< .04	0.04	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00159-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY020	MY020.CNF	1,919.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.02	0.02	0.02
				K-40	19.20	0.27	1.41
				Mn-54	< .02	0.02	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00143-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY021	MY021.CNF	1,888.00	3000	Co-57	< .04	0.04	0.00
				Co-60	.02	0.03	0.02
				Cs-134	< .04	0.04	0.00
				Cs-137	.02	0.04	0.02
				K-40	21.40	0.24	1.56
				Mn-54	< .03	0.03	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)
MY022	MY022B.CNF	1,916.00	3000	Co-57	< .02	0.02	0.00
				Co-60	.01	0.02	0.01
				Cs-134	< .02	0.02	0.00
				Cs-137	.18	0.02	0.02
				K-40	19.30	0.13	1.31
				Mn-54	< .02	0.02	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00155-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY023	MY023.CNF	2,012.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.01	0.02	0.01
				K-40	19.40	0.24	1.42
				Mn-54	< .03	0.03	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00152-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY024	MY024.CNF	1,997.00	3000	Co-57	< .03	0.03	0.00
				Co-60	.09	0.03	0.02
				Cs-134	< .04	0.04	0.00
				Cs-137	.55	0.03	0.05
				K-40	19.70	0.24	1.44
				Mn-54	< .03	0.03	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00151-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY025	MY025.CNF	1,761.00	3000	Co-57	< .04	0.04	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.09	0.05	0.03
				K-40	21.30	0.38	1.57
				Mn-54	< .04	0.04	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)
MY026	MY026.CNF	1,880.00	3000	Co-57	< .03	0.03	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	.03	0.02	0.01
				K-40	18.90	0.26	1.40
				Mn-54	< .03	0.03	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

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

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)
MY027	MY027.CNF	2,019.00	3000	Co-57	< .03	0.03	0.00
				Co-60	.04	0.03	0.02
				Cs-134	< .04	0.04	0.00
				Cs-137	.02	0.02	0.01
				K-40	20.20	0.28	1.47
				Mn-54	< .03	0.03	0.00

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1007	HDS00031	594.00	3600	Co-57	< .04	0.04	0.00
				Co-60	.19	0.04	0.03
				Cs-134	< .06	0.06	0.00
				Cs-137	.82	0.05	0.07
				K-40	21.20	0.38	1.83
				Mn-54	< .05	0.05	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)
MY458	ENV00187	1,570.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.13	0.06	0.04
				K-40	19.50	0.36	1.72
				Mn-54	< .05	0.05	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

UNIT : 01 SURFACE : OA1 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)
MY460	H2O00005	1,480.00	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	0.08	0.06
				K-40	16.60	0.46	1.58
				Mn-54	< .06	0.06	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)
MY462	ENV00173	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	< .07	0.07	0.00
				K-40	20.30	0.48	1.89
				Mn-54	< .07	0.07	0.00

UNIT : 01 SURFACE : OB1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00002

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1005	ENV00248	1,530.00	1200	Co-57	< .07	0.07	0.00
				Co-60	.12	0.07	0.04
				Cs-134	< .09	0.09	0.00
				Cs-137	.59	0.07	0.08
				K-40	21.30	0.77	2.08
				Mn-54	< .08	0.08	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

UNIT : 01 SURFACE : OB1 REASON : C01 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00005

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1006	ENV00244	1,880.00	2400	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	8.69	0.07	0.61
				K-40	22.50	0.35	1.67
				Mn-54	< .04	0.04	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00006

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY1008	H2O00248	1,300.00	1200	Co-57	< .06	0.07	0.00
				Co-60	.20	0.07	0.04
				Cs-134	< .09	0.09	0.00
				Cs-137	.32	0.09	0.07
				K-40	21.00	0.68	1.96
				Mn-54	< .08	0.08	0.00

UNIT : 04 SURFACE : OW1 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)
MYW09	H2O00078	1,000.00	1200	Co-57	< .03	0.03	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .03	0.03	0.00
				Cs-137	< .03	0.03	0.00
				K-40	< .32	0.32	0.00
				Mn-54	< .03	0.03	0.00

Survey Package R0200 ENVIRONS
Balance of Protected Area (East Side)

UNIT : 05 SURFACE : OW1 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)
MYW22	H2O00094	1,000.00	1200	Co-57	< .03	0.03	0.00
				Co-60	< .02	0.02	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .04	0.04	0.00
				K-40	< .38	0.38	0.00
				Mn-54	< .03	0.03	0.00

UNIT : 06 SURFACE : OW1 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)
MYW17	H2O00088	1,000.00	1200	Co-57	< .04	0.04	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .05	0.05	0.00
				Cs-137	< .05	0.05	0.00
				K-40	< .53	0.53	0.00
				Mn-54	< .04	0.04	0.00

04/09/98

WATER SAMPLE ANALYSIS - TRITIUM ACTIVITY

Survey Package : R0200 ENVIRONS
Balance of Protected Area (East Side)

RESULTS LISTING - SORTED BY SURFACE CODE

SAMPLE ID	SAMPLE TYPE	UNIT	SURF	REASN	MSRMNT LOCATION	MDA	TRITIUM ACTIVITY
W08	Environmental water sample	04	OW1	C01	00001	1.53	2.30
W09	Environmental water sample	04	OW1	C01	00001	2.62	1.38
W17	Environmental water sample	06	OW1	C01	00001	1.87	1.75
W22	Environmental water sample	05	OW1	C01	00001	1.92	0.98

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.

LIQUID SCINTILLATION COUNTER CALIBRATION SUMMARY

04/09/98

Survey Package : R0200 ENVIRONS
Balance of Protected Area (East Side)

SURVEYDATE	INSTRUMENT	MODEL	S/N	CAL DUE	LAB TECHNICIAN
2/1/98	Packard	2750	416221	6/16/98	LDT
				CALIBRATION DATE VERIFIED AS ACCEPTABLE	

06/04/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER :R0300 ENVIRONS

PACKAGE DESCRIPTION Roof and Yard Drains #006, #007 and #008

SURVEY AREA DESCRIPTION

Roof and Yard Drains #006, #007 and #008

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

Drainage #006 services portions of the north side of the Protected Area, including portions of the RCA yard. Spills and leaks occurred at borated water storage tanks (BWST) and LLRW storage area. Drain #007 services portions of the south side of the Protected Area, including the RCA yard. Various leaks from RWST and CTMT Alleyway are expected to have entered Drain #007 system.

Drainage Ditch #008 runs along the southeast Protected Area fence line to the rock lined Outfall #008. Because of the earlier contamination of the grassy knoll on Bailey Point, which partially drains into Ditch #008, this ditch and its associated outfall may be contaminated.

SUMMARY OF CHARACTERIZATION ACTIVITIES

For Catch Basin 6A:

(1) The catch basin cover was removed under plant work order and a water sample was obtained.

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

For Outfall #006:

(3) At low tide, a 6" depth sediment sample consisting of two 3" segments for depth profiles was taken. This was repeated at 2 additional nearby locations for a total of 6 samples. Subsequently the three 3" segments of similar depth were composited to give a total of 2 samples (0-3" and 3-6") for analysis.

(4) A water sample from Outfall #006 was obtained.

For Catch Basins 7A, 7B and 7E:

(5) The catch basin covers were removed under plant work order and a water sample was obtained from each basin for a total of three samples.

(6) No sediment samples were obtained from these catch basins because insufficient sediment at the bottom of these catch basins was found.

For Outfall #007:

(7) Because insufficient water was draining from this outfall to obtain a sample, an essentially comparable sample was taken from Catch Basin 7A, which was split with Package H04.

(8) At low tide, two composite 0-6" depth sediment samples were taken from within the Forebay, one from the upper area and one from the lower.

For Ditch #008:

(9) A 0-6" depth soil/sediment sample was obtained from bottom of surface flow drainage ditch leading to Outfall #008.

For Outfall #008:

(10) At low tide, a 0-6" depth sediment sample consisting of two 3" segments for depth profiles was taken. This was repeated at 2 additional nearby locations for a total of 6 samples. The three 3" segments of similar depth

were composited to give a total of 2 samples (0-3" and 3-6") for analysis.

CHARACTERIZATION SURVEY RESULTS

(1) The gamma spectroscopic analysis of the surface water sample obtained from Catch Basin 6A did not show the presence of plant derived gamma emitters. The same sample gave a tritium analysis result of 2005 pCi/L.

(2) The gamma spectroscopic analysis for the Outfall #006 sediment (0-3" profile) sample gave Co-60 and Cs-137 concentrations of 0.05 and 0.30 pCi/g, respectively, and the results for the 3-6" profile were 0.04 and 0.32 pCi/g, respectively. The gamma spectroscopic analysis of the surface water sample obtained from Outfall #006 did not show the presence of plant derived gamma emitters. The same sample gave a tritium analysis result of 716 pCi/L.

(3) The gamma spectroscopic analysis of the surface water samples obtained from Catch Basins 7A, 7B and 7E did not show the presence of plant derived gamma emitters. The same samples gave tritium analysis results of 3266, 978 and 2712 pCi/L, respectively.

(4) The upper and lower Forebay sediment samples gave gamma spectroscopic analysis results for Co-60 of 5.08 and 11.20 pCi/g, respectively, and the Cs-137 concentrations were several times the range of marine sediment background sample concentrations.

(5) The gamma spectroscopic analysis of the surface soil sample obtained from Drainage Ditch #008 did not show the presence of Co-60 and the Cs-137 concentration was similar to background.

(6) The gamma spectroscopic analysis of the profiled sediment samples obtained from Outfall #008 did not show the presence of Co-60. The Cs-137 concentrations for the 0-3" and 3-6" samples were 0.15 and 0.00 pCi/g respectively.

REFERENCES (Documents, Interviews)

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 495

PACKAGE R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

UNIT(S)	SURFACE(S)
01 - Catch Basin 6A	OW1 (Surface water sample)
02 - Outfall 006	OS1 (0 - 3" Section Composite Sediment Sample) OS2 (3 - 6" Section Composite Sediment Sample) OW2 (Surface Water Sample)
03 - Catch Basin 7A	OW1 (Surface water sample)
04 - Catch Basin 7B	OW1 (Surface water sample)
05 - Catch Basin 7E	OW1 (Surface water sample)
06 - Outfall 007	OS1 (Sediment at Low Tide - upper and lower Forebay) OW2 (Surface Water Sample taken under Catch Basin 7A)
07 - Ditch 008	OS1 (Soil & Sediment Samples)
08 - Outfall 008	OS1 (0 - 3" Composite Sediment Sample) OS2 (3 - 6" Composite Sediment Sample)

REASON(S) CHARACTERIZATION SURVEY (C01)

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 12

04/09/98 OUTPUT BATCH SN = 645

Survey Package R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

UNIT : 01 SURFACE : OW1 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)
MYW19	H2O00096	1,000.00	1200	Co-57	< .02	0.02	0.00
				Co-60	< .03	0.03	0.00
				Cs-134	< .02	0.02	0.00
				Cs-137	< .03	0.03	0.00
				K-40	< .45	0.45	0.00
				Mn-54	< .04	0.04	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)
MY1356	BIO00037	959.80	3600	Co-57	< .03	0.03	0.00
				Co-60	.05	0.03	0.02
				Cs-134	< .04	0.04	0.00
				Cs-137	.28	0.04	0.04
				K-40	20.10	0.38	1.53
				Mn-54	< .04	0.04	0.00

Survey Package R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

UNIT : 02 SURFACE : OS2 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)
MY1357	H2O00330	1,008.00	3600	Co-57	< .03	0.03	0.00
				Co-60	.04	0.04	0.02
				Cs-134	< .05	0.05	0.00
				Cs-137	.32	0.05	0.04
				K-40	20.00	0.36	1.52
				Mn-54	< .04	0.04	0.00

UNIT : 02 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)
MYW18	H2O00084	1,000.00	1200	Co-57	< .03	0.03	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .04	0.04	0.00
				K-40	< .36	0.36	0.00
				Mn-54	< .04	0.04	0.00

UNIT : 03 SURFACE : OW1 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)
MYW03	H2O00075	1,000.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .03	0.03	0.00
				K-40	< .36	0.36	0.00
				Mn-54	< .07	0.07	0.00

Survey Package R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

UNIT : 04 SURFACE : OW1 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)
MYW20	H2O00089	1,000.00	1200	Co-57	< .02	0.02	0.00
				Co-60	< .02	0.02	0.00
				Cs-134	< .02	0.02	0.00
				Cs-137	< .04	0.04	0.00
				K-40	< .42	0.42	0.00
				Mn-54	< .03	0.03	0.00

UNIT : 05 SURFACE : OW1 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)
MYW04	H2O00079	1,000.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .04	0.04	0.00
				Cs-134	< .04	0.04	0.00
				Cs-137	< .02	0.02	0.00
				K-40	< .48	0.48	0.00
				Mn-54	< .07	0.07	0.00

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

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 0006L-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY909	H2O00175	1,040.00	3600	Co-57	< .05	0.05	0.00
				Co-60	5.08	0.08	0.23
				Cs-134	< .08	0.08	0.00
				Cs-137	.45	0.05	0.06
				K-40	19.50	0.36	1.48
				Mn-54	< .09	0.09	0.00

Survey Package R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

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

SAMPLE TYPE OR SURFACE SAMPLED: Soil & Sediment Samples
SAMPLE LOCATOR: 0006U-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY910	BIO00026	878.00	5000	Co-57	< .05	0.05	0.00
				Co-60	11.20	0.08	0.48
				Cs-134	< .09	0.09	0.00
				Cs-137	.53	0.06	0.09
				K-40	18.90	0.45	1.41
				Mn-54	< .10	0.10	0.00

UNIT : 07 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)
MY906	H2O00170	1,260.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.32	0.06	0.06
				K-40	17.00	0.50	1.58
				Mn-54	< .07	0.07	0.00

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

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)
MY915	H2O00159	1,120.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	< .09	0.09	0.00
				K-40	16.20	0.71	1.60
				Mn-54	< .08	0.08	0.00

Survey Package R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

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

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)
MY917	H2O00161	1,190.00	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	0.08	0.05
				K-40	18.40	0.52	1.81
				Mn-54	< .08	0.08	0.00

04/09/98

WATER SAMPLE ANALYSIS - TRITIUM ACTIVITY

Survey Package : R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

RESULTS LISTING - SORTED BY SURFACE CODE

SAMPLE ID	SAMPLE TYPE	UNIT	SURF	REASN	MSRMNT LOCATION	MDA	TRITIUM ACTIVITY
W03	Environmental water sample	03	OW1	C01	00001	1.68	7.25
W04	Environmental water sample	05	OW1	C01	00001	1.54	6.02
W18	Environmental water sample	02	OW2	C01	00001	2.02	1.59
W19	Environmental water sample	01	OW1	C01	00001	1.82	4.45
W20	Environmental water sample	04	OW1	C01	00001	1.53	2.17

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.

LIQUID SCINTILLATION COUNTER CALIBRATION SUMMARY

04/09/98

Survey Package : R0300 ENVIRONS
Roof and Yard Drains #006, #007 and #008

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

04/10/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER :R0400 ENVIRONS

PACKAGE DESCRIPTION Forebay Area Shorelines

SURVEY AREA DESCRIPTION
Forebay Area Shorelines

GENERAL HISTORICAL INFORMATION (Operational history, etc.)

The east shoreline of Bailey Cove at the Forebay was the cooling water discharge point until the Forebay and diffuser pipe system was installed in 1974. Early Maine Yankee environmental monitoring showed elevated Cs-137 in sediments. Roof and Yard Drain outfall #007 is located in Forebay (See R0300). Seepage occurs through both sides of the Forebay into Bailey Cove and Montsweag Bay.

SUMMARY OF CHARACTERIZATION ACTIVITIES

For Bailey Cove shoreline at Forebay :

(1) Five 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 a total of 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 sample location. From the five sample locations, a total of 10 composite sediment samples from this side of the Forebay were obtained.

(2) Three additional survey locations were selected for sampling. For each at low tide, an 18" depth sediment sample consisting of three 6" segments for depth profiles was taken. From the three sample locations, which corresponded to locations 1, 2, and 3 in step (1), a total of 9 additional sediment samples (0-6", 6-12" and 12-18") from this side of the Forebay were obtained.

Montsweag Bay shoreline at Forebay :

(3) Four 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 a total of 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 survey location. From the four survey locations, a total of 8 composite sediment samples from this side of the Forebay were obtained.

CHARACTERIZATION SURVEY RESULTS

(1) For the five 0-3" and 3-6" profiled sediment sample locations on the Bailey Cove side of the Forebay, the 3-6" sample from location # 2 gave a gamma spectroscopic result of 0.05 pCi/g of Co-60. All of the other nine profile samples did not show Co-60. The 10 samples gave a range of Cs-137 concentrations of 0.18 to 0.98 pCi/g.

(2) For the three 0-6", 6-12", and 12-18" profiled sediment sample locations on the Bailey Cove side of the Forebay, the 0-6" sample from location # 2 gave a gamma spectroscopic result of 0.08 pCi/g of Co-60. All of the other eight profile samples did not show Co-60. The nine samples gave a range of Cs-137 concentrations of 0.21 to 0.96 pCi/g.

(3) For the four 0-3" and 3-6" profiled sediment sample locations on the Montsweag Bay side of the Forebay, none of the eight samples were positive for Co-60. The eight samples gave a range of Cs-137 concentrations of 0.14 to 0.22 pCi/g.

REFERENCES (Documents, Interviews)

Maine Yankee Atomic Power Plant Site Characterization

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 496

PACKAGE R0400 ENVIRONS
Forebay Area Shorelines

UNIT(S)	SURFACE(S)
01 - Bailey Cove Shoreline at Forebay	OA1 (Sediment Samples from locations 1, 2 and 3) OB1 (Sediment Samples from locations 1, 2 and 3) OC1 (Sediment Samples from locations 1, 2 and 3) OS1 (0 - 3" Section of Sediment) OS2 (3" - 6" Section of Sediment)
02 - Montsweag Bay Shoreline at Forebay	OS1 (0 - 3" Section of Sediment) OS2 (3" - 6" Section of Sediment)

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

Maine Yankee Atomic Power Plant Site Characterization

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 27

04/09/98 OUTPUT BATCH SN = 702

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

UNIT : 01 SURFACE : OA1 REASON : C02 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)
MY843	H2O00145	974.00	1500	Co-57	< .06	0.06	0.00
				Co-60	.08	0.06	0.04
				Cs-134	< .08	0.08	0.00
				Cs-137	.33	0.07	0.06
				K-40	20.50	0.48	1.83
				Mn-54	< .08	0.08	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)
MY849	H2O00147	1,030.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.32	0.06	0.06
				K-40	20.30	0.64	1.91
				Mn-54	< .08	0.08	0.00

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)
MY869	H2O00144	1,070.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.80	0.07	0.09
				K-40	20.80	0.50	1.91
				Mn-54	< .08	0.08	0.00

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:aProgDBACORR:R_GSPEC.RSL

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

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

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY845	H2O00137	1,080.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.28	0.07	0.06
				K-40	19.60	0.41	1.93
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 6"-12" Depth
SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY854	H2O00140	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	.34	0.09	0.07
				K-40	19.20	0.61	1.95
				Mn-54	< .08	0.08	0.00

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

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY867	H2O00143	1,140.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.96	0.09	0.11
				K-40	18.10	0.58	1.81
				Mn-54	< .08	0.08	0.00

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

UNIT : 01 SURFACE : OC1 REASON : C02 ANALYSIS TYPE CODE : LAB06

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 12"-18" Depth
SAMPLE LOCATOR: 00002-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY847	H2O00148	1,020.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.31	0.07	0.06
				K-40	20.90	0.62	1.95
				Mn-54	< .08	0.08	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 12"-18" Depth
SAMPLE LOCATOR: 00003-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY855	H2O00151	1,050.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.34	0.08	0.07
				K-40	21.10	0.72	1.96
				Mn-54	< .09	0.09	0.00

SAMPLE TYPE OR SURFACE SAMPLED: Subsurface Soil Sample @ 12"-18" Depth
SAMPLE LOCATOR: 00001-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY871	H2O00145	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	.21	0.06	0.05
				K-40	21.20	0.81	2.07
				Mn-54	< .09	0.09	0.00

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

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

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)
MY822	H2O00135	1,150.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.98	0.09	0.11
				K-40	19.50	0.60	1.80
				Mn-54	< .08	0.08	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)
MY823	H2O00134	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	.18	0.08	0.06
				K-40	20.50	0.78	1.94
				Mn-54	< .09	0.09	0.00

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)
MY829	H2O00139	1,090.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.34	0.06	0.06
				K-40	20.20	0.40	1.86
				Mn-54	< .09	0.09	0.00

Survey Package R0400 ENVIRONS
Forebay 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)
MY831	H2O00141	1,090.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.27	0.07	0.05
				K-40	20.90	0.49	1.82
				Mn-54	< .07	0.07	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)
MY835	H2O00142	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	0.06	0.05
				K-40	21.80	0.60	2.01
				Mn-54	< .09	0.09	0.00

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

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)
MY817	H2O00131	1,170.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.67	0.07	0.08
				K-40	18.40	0.52	1.72
				Mn-54	< .08	0.08	0.00

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

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

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)
MY825	H2O00136	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	.20	0.07	0.05
				K-40	18.90	0.46	1.79
				Mn-54	< .09	0.09	0.00

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)
MY827	H2O00137	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	.48	0.07	0.07
				K-40	19.90	0.46	1.83
				Mn-54	< .08	0.08	0.00

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)
MY833	H2O00132	1,090.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.28	0.08	0.06
				K-40	20.00	0.42	1.95
				Mn-54	< .09	0.09	0.00

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

UNIT : 01 SURFACE : OS2 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)
MY837	H2O00143	1,100.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.25	0.06	0.05
				K-40	18.40	0.44	1.74
				Mn-54	< .08	0.08	0.00

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

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)
MY863	H2O00154	1,040.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.22	0.06	0.05
				K-40	22.80	0.51	1.97
				Mn-54	< .07	0.07	0.00

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)
MY865	H2O00153	1,040.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.21	0.07	0.05
				K-40	21.40	0.42	1.96
				Mn-54	< .07	0.07	0.00

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

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

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)
MY875	H2O00146	995.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.14	0.07	0.05
				K-40	17.90	0.42	1.74
				Mn-54	< .08	0.08	0.00

UNIT : 02 SURFACE : OS1 REASON : C02 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)
MY841	H2O00134	978.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.20	0.06	0.05
				K-40	19.90	0.66	1.91
				Mn-54	< .08	0.08	0.00

UNIT : 02 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)
MY859	H2O00141	1,100.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.21	0.06	0.05
				K-40	20.60	0.47	1.99
				Mn-54	< .09	0.09	0.00

Survey Package R0400 ENVIRONS
Forebay Area Shorelines

UNIT : 02 SURFACE : OS2 REASON : C01 ANALYSIS TYPE CODE : LAB06

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)
MY861	BIO00022	945.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.19	0.06	0.05
				K-40	22.30	0.66	2.07
				Mn-54	< .08	0.08	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)
MY873	H2O00147	1,070.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.19	0.06	0.05
				K-40	20.90	0.51	1.92
				Mn-54	< .08	0.08	0.00

UNIT : 02 SURFACE : OS2 REASON : C02 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)
MY839	H2O00133	982.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.21	0.08	0.06
				K-40	22.20	0.59	2.18
				Mn-54	< .10	0.10	0.00

06/04/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER :R0500 ENVIRONS

PACKAGE DESCRIPTION Bailey Point

SURVEY AREA DESCRIPTION
Bailey Point

GENERAL HISTORICAL INFORMATION (Operational history, etc.)
Soil, gravel and asphalt were removed from the Protected Area and placed on Bailey Point. Subsequently, it was found to be contaminated, with dose rates as high as 50 mR/hr. The material was then moved to the contractor trailer area in the Protected Area (refer to package #R0200 for details.).

SUMMARY OF CHARACTERIZATION ACTIVITIES
For Bailey Point (all):
(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 count rate, and it was marked in the field with a flag.

(2) The marked location was investigated with a NaI(Tl) detector to measure the dose rate of the elevated location and to identify the apparent extent of the potential contamination.

(3) Soil samples and exposure rate measurements from this marked location were obtained under Package R2500.

For Bailey Point (Grassy Knoll):
(4) The perimeter of the grassy knoll was marked in approximately 10 meter increments to assist in performing steps (5) and (6).

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

(6) Twenty-nine 6" depth soil samples were obtained from the random sample locations established in step (5), using a sample point offset value of 3 meters north and 7 meters west from the southeast grid corners. The analysis of one random sample was not reported.

(7) At each 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 2400 from the two Geoprobe test bore locations in this area.

For Bailey Point (except Grassy Knoll):
(9) The perimeter of the remainder of Bailey Point was marked in approximately 25 meter increments to establish the grids to be sampled. A total of 16 grids were identified.

(10) Sixteen 6" depth soil samples were obtained from the grids identified in step (9).

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

CHARACTERIZATION SURVEY RESULTS
(1) The Bailey Point drive-over gamma scanning survey identified one elevated location, which is labeled # 3 on

Figure 3. The follow-up manual gamma scan survey did not find any areas with higher readings. Of the seven 0-6" soil samples taken at this location under Package R2500, the gamma spectroscopic results showed three samples with 8.06, 47.50 and 33,600 pCi/g Co-60. The MicroSpec *in situ* gamma spectroscopic analysis of the flagged location also identified the presence of Co-60. The other surface samples did not show Co-60. The Cs-137 concentrations for these other samples were below typical background values. The one subsurface (6-12") soil sample taken did not show either Co-60 or Cs-137. At the location of the surface soil samples, the exposure rate measurements gave a mean value of 12.4 µR/hr and a range of 9.8 to 22.3 µR/hr.

(2) Forty-five random surface soil samples were obtained from Bailey Point. 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 45 samples did not show the presence of Co-60, and the Cs-137 concentrations ranged from 0.00 to 1.03 pCi/g.

(3) Forty-six 1-meter exposure rate measurements from the random grids gave a mean value of 13.3 uR/hr with a range of 10.6 to 19.8 uR/hr.

REFERENCES (Documents, Interviews)

SUMMARY OF SURVEY UNIT(S)

06/04/98 OUTPUT BATCH SN = 239

PACKAGE R0500 ENVIRONS
Bailey Point

UNIT(S)	SURFACE(S)
01 - Grassy Knoll Area	OA2 (Surface Soil Sample @ 0"-6" Depth) OL1 (Open Land Areas)
02 - Areas Except Grassy Knoll	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	0.00

06/04/98

Exposure Rate Measurements

Survey Package R0500 ENVIRONS
Bailey Point

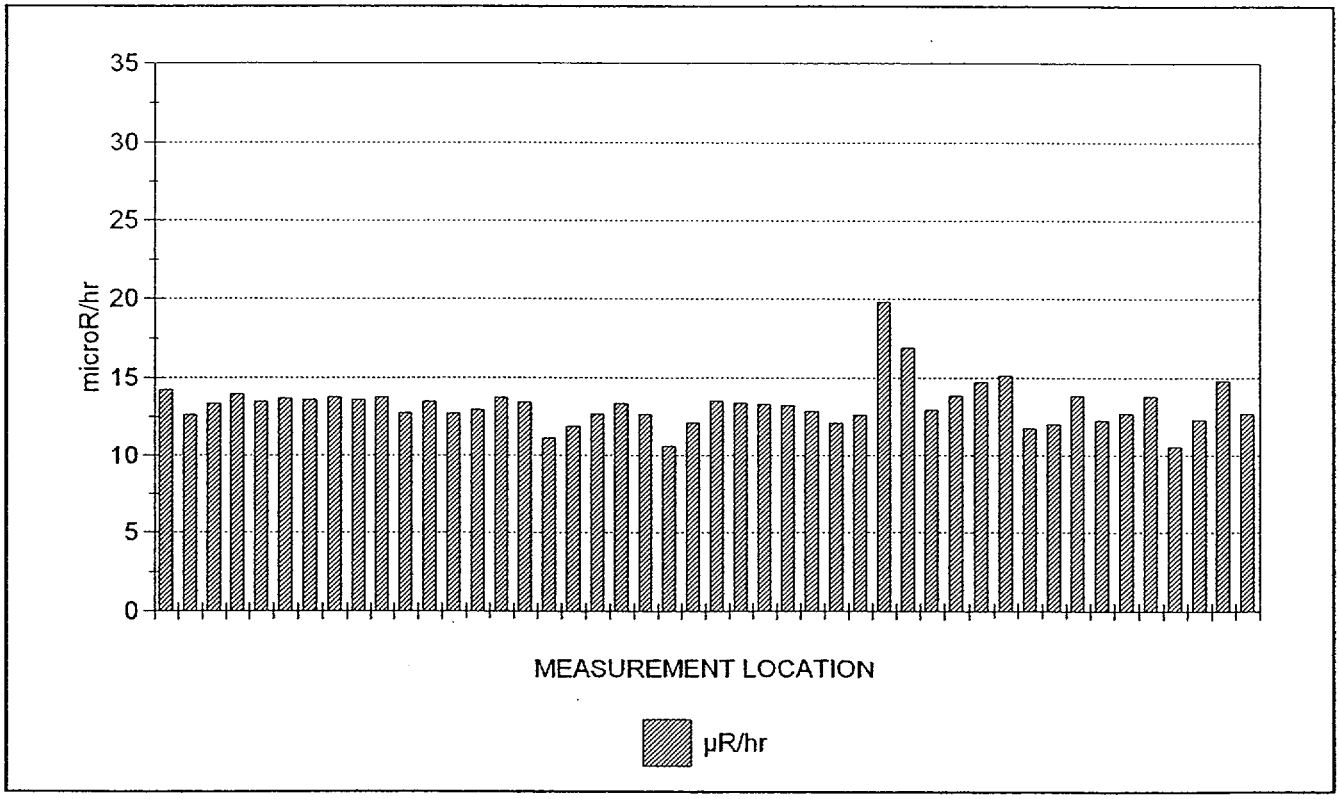
STATISTICAL SUMMARY

	µR/hr
Mean	13.27
Maximum	19.83
Minimum	10.58
Standard Deviation	1.49

Samples Reported	46
Samples Prescribed	46

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES



46 RESULTS ARE GRAPHED

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:aProgDBACORR:F_0221.FSL
OUTPUT BATCH SN = 239

06/04/98

Exposure Rate Measurements

Survey Package : R0500 ENVIRONS
Bailey Point

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
650 (2)	01	OL1	G0006	C01	60.00	00002	***14.22***
650 (2)	01	OL1	G0006	C01	60.00	00005	***12.65***
650 (2)	01	OL1	G0006	C01	60.00	00007	***13.32***
650 (2)	01	OL1	G0006	C01	60.00	00009	***13.92***
650 (2)	01	OL1	G0006	C01	60.00	00012	***13.45***
650 (2)	01	OL1	G0006	C01	60.00	00014	***13.67***
650 (2)	01	OL1	G0006	C01	60.00	00015	***13.57***
650 (2)	01	OL1	G0006	C01	60.00	00017	***13.73***
650 (2)	01	OL1	G0006	C01	60.00	00018	***13.57***
650 (2)	01	OL1	G0006	C01	60.00	00019	***13.75***
650 (2)	01	OL1	G0006	C01	60.00	00021	***12.74***
650 (2)	01	OL1	G0006	C01	60.00	00025	***13.46***
650 (2)	01	OL1	G0006	C01	60.00	00027	***12.70***
650 (2)	01	OL1	G0006	C01	60.00	00034	***12.94***
650 (2)	01	OL1	G0006	C01	60.00	00036	***13.68***
650 (2)	01	OL1	G0006	C01	60.00	00042	***13.43***
650 (2)	01	OL1	G0006	C01	60.00	00045	***11.12***
650 (2)	01	OL1	G0006	C01	60.00	00047	***11.88***
650 (2)	01	OL1	G0006	C01	60.00	00049	***12.66***
650 (2)	01	OL1	G0006	C01	60.00	00053	***13.35***
650 (2)	01	OL1	G0006	C01	60.00	00054	***12.66***
650 (2)	01	OL1	G0006	C01	60.00	00056	***10.62***
650 (2)	01	OL1	G0006	C01	60.00	00057	***12.12***

REMAINING RESULTS PRINTED ON NEXT PAGE

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

Version 3.0.8 - 4/3/98

DBACORR Documentation
:aProgDBACORR:F_0230.FSL
OUTPUT BATCH SN = 239

JLM

Survey Package : R0500 ENVIRONS
Bailey Point

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
650 (2)	01	OL1	G0006	C01	60.00	00059	***13.50***
650 (2)	01	OL1	G0006	C01	60.00	00060	***13.38***
650 (2)	01	OL1	G0006	C01	60.00	00062	***13.28***
650 (2)	01	OL1	G0006	C01	60.00	00063	***13.23***
650 (2)	01	OL1	G0006	C01	60.00	00064	***12.85***
650 (2)	01	OL1	G0006	C01	60.00	00065	***12.12***
650 (2)	01	OL1	G0006	C01	60.00	00066	***12.65***
650 (2)	02	OL1	G0006	C01	60.00	00004	***19.83***
650 (2)	02	OL1	G0006	C01	60.00	00010	***16.89***
650 (2)	02	OL1	G0006	C01	60.00	00013	***12.95***
650 (2)	02	OL1	G0006	C01	60.00	00014	***13.81***
650 (2)	02	OL1	G0006	C01	60.00	00015	***14.73***
650 (2)	02	OL1	G0006	C01	60.00	00016	***15.15***
650 (2)	02	OL1	G0006	C01	60.00	00017	***11.77***
650 (2)	02	OL1	G0006	C01	60.00	00018	***12.04***
650 (2)	02	OL1	G0006	C01	60.00	00020	***13.80***
650 (2)	02	OL1	G0006	C01	60.00	00021	***12.29***
650 (2)	02	OL1	G0006	C01	60.00	00022	***12.69***
650 (2)	02	OL1	G0006	C01	60.00	00023	***13.78***
650 (2)	02	OL1	G0006	C01	60.00	00024	***10.58***
650 (2)	02	OL1	G0006	C01	60.00	00025	***12.31***
650 (2)	02	OL1	G0006	C01	60.00	00026	***14.79***
650 (2)	02	OL1	G0006	C01	60.00	00028	***12.69***

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

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

06/04/98

Exposure Rate Measurements

Survey Package : R0500 ENVIRONS
Bailey Point

SURVEY DATE	FILE #	M2350 INST S/N	M2350 CAL DUE	DETECTOR MODEL	DETECTOR S/N	DETECTOR CAL DUE	TECHNICIAN
3/4/98	650 (2)	080498	4/8/98	44-2	PR075119	4/8/98	CWI5440

CALIBRATION DATES VERIFIED AS ACCEPTABLE

GAMMA SPECTRAL ANALYSIS RESULTS LISTING

NUMBER OF SAMPLES REPORTED = 45

06/04/98 OUTPUT BATCH SN = 239

Survey Package R0500 ENVIRONS
Bailey Point

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

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)
MY1310	ENV00334	1,273.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.26	0.06	0.05
				K-40	21.90	0.45	1.77
				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)
MY1314	H2O00323	1,145.00	2000	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.15	0.06	0.04
				K-40	20.90	0.50	1.70
				Mn-54	< .07	0.07	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)
MY1316	ENV00343	1,607.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.11	0.08	0.05
				K-40	20.60	0.52	1.98
				Mn-54	< .08	0.08	0.00

Survey Package R0500 ENVIRONS
Bailey Point

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

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)
MY1317	H2O00325	1,286.00	1800	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	0.04
				K-40	21.00	0.48	1.70
				Mn-54	< .07	0.07	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)
MY1318	ENV00347	1,726.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.09	0.06	0.04
				K-40	19.30	0.69	1.87
				Mn-54	< .07	0.07	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)
MY1322	H2O00326	1,248.00	1800	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.42	0.04	0.05
				K-40	16.00	0.41	1.38
				Mn-54	< .06	0.06	0.00

Survey Package R0500 ENVIRONS
Bailey Point

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

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)
MY1324	H2O00318	1,410.00	1800	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.13	0.05	0.04
				K-40	19.50	0.45	1.64
				Mn-54	< .07	0.07	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)
MY1326	H2O00328	1,139.00	1800	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.29	0.07	0.05
				K-40	20.30	0.45	1.69
				Mn-54	< .08	0.08	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)
MY1328	H2O00329	1,153.00	1800	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.19	0.05	0.04
				K-40	20.60	0.46	1.71
				Mn-54	< .07	0.07	0.00

Survey Package R0500 ENVIRONS
Bailey Point

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

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)
MY275	ENV00063	1,260.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.30	0.07	0.06
				K-40	20.40	0.49	1.91
				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)
MY276	ENV00063	1,090.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.14	0.05	0.04
				K-40	21.80	0.63	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)
MY277	ENV00064	1,370.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.16	0.08	0.05
				K-40	20.80	0.63	1.91
				Mn-54	< .08	0.08	0.00

Survey Package R0500 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: 00042-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY278	ENV00064	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	.16	0.06	0.05
				K-40	21.40	0.38	1.87
				Mn-54	< .08	0.08	0.00

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)
MY279	ENV00065	1,520.00	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	0.06	0.04
				K-40	22.40	0.60	2.14
				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)
MY280	ENV00066	1,150.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.62	0.06	0.08
				K-40	15.60	0.71	1.55
				Mn-54	< .07	0.07	0.00

Survey Package R0500 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: 00017-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY292	ENV00072	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	0.06	0.06
				K-40	22.20	0.59	1.96
				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)
MY293	ENV00073	989.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.26	0.07	0.06
				K-40	20.90	0.53	1.96
				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)
MY294	ENV00073	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	.16	0.07	0.05
				K-40	18.20	0.35	1.67
				Mn-54	< .07	0.07	0.00

Survey Package R0500 ENVIRONS
Bailey Point

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)
MY295	ENV00075	1,140.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.43	0.08	0.07
				K-40	19.70	0.62	1.92
				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)
MY296	ENV00075	1,410.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.12	0.05	0.04
				K-40	20.20	0.39	1.75
				Mn-54	< .07	0.07	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)
MY297	ENV00076	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	.20	0.05	0.04
				K-40	17.60	0.45	1.59
				Mn-54	< .07	0.07	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 01 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)
MY298	ENV00077	1,250.00	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	0.06	0.04
				K-40	18.50	0.62	1.70
				Mn-54	< .07	0.07	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)
MY299	ENV00076	1,300.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.18	0.07	0.05
				K-40	19.40	0.54	1.83
				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)
MY300	ENV00078	1,070.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.76	0.07	0.09
				K-40	13.70	0.64	1.45
				Mn-54	< .06	0.06	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 01 SURFACE : OA2 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)
MY301	ENV00077	1,020.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.52	0.08	0.08
				K-40	15.70	0.34	1.68
				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)
MY302	ENV00079	1,180.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.66	0.08	0.09
				K-40	16.50	0.59	1.68
				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)
MY303	ENV00079	964.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.85	0.06	0.09
				K-40	15.00	0.56	1.47
				Mn-54	< .06	0.06	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 01 SURFACE : OA2 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)
MY304	ENV00080	1,010.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.64	0.07	0.08
				K-40	17.00	0.44	1.68
				Mn-54	< .07	0.07	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)
MY305	ENV00081	1,340.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.14	0.07	0.05
				K-40	18.10	0.68	1.75
				Mn-54	< .07	0.07	0.00

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB02

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)
MY1334	H2O00334	1,016.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	1.09	0.09	0.12
				K-40	17.10	0.51	1.69
				Mn-54	< .08	0.08	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB02

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)
MY1335	H2O00324	1,125.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.82	0.09	0.11
				K-40	18.70	0.69	1.87
				Mn-54	< .09	0.09	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)
MY1337	H2O00325	1,048.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	1.09	0.10	0.12
				K-40	13.70	0.78	1.57
				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)
MY1338	H2O00336	1,237.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.22	0.05	0.05
				K-40	21.20	0.65	1.89
				Mn-54	< .09	0.09	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB02

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)
MY1341	H2O00338	1,298.00	1200	Co-57	< .07	0.07	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.50	0.08	0.07
				K-40	15.10	0.61	1.46
				Mn-54	< .07	0.07	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)
MY281	ENV00065	1,130.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .06	0.06	0.00
				Cs-137	.42	0.06	0.06
				K-40	21.50	0.50	1.84
				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)
MY282	ENV00067	1,440.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	.42	0.08	0.07
				K-40	18.20	0.49	1.70
				Mn-54	< .07	0.07	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB02

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)
MY283	ENV00068	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	.42	0.08	0.07
				K-40	20.40	0.58	1.88
				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)
MY284	ENV00067	938.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.87	0.08	0.10
				K-40	20.90	0.64	1.87
				Mn-54	< .08	0.08	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)
MY285	ENV00069	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	.19	0.05	0.05
				K-40	20.20	0.70	1.90
				Mn-54	< .08	0.08	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB02

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)
MY286	ENV00068	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	.40	0.07	0.06
				K-40	19.80	0.43	1.74
				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)
MY287	ENV00069	1,640.00	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	0.51	1.81
				Mn-54	< .07	0.07	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)
MY288	ENV00070	1,230.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.13	0.04	0.03
				K-40	13.70	0.57	1.38
				Mn-54	< .06	0.06	0.00

Survey Package R0500 ENVIRONS
Bailey Point

UNIT : 02 SURFACE : OA2 REASON : C01 ANALYSIS TYPE CODE : LAB02

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)
MY289	ENV00070	981.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	1.03	0.07	0.11
				K-40	14.90	0.44	1.54
				Mn-54	< .08	0.08	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)
MY290	ENV00071	972.00	1500	Co-57	< .06	0.06	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.51	0.06	0.07
				K-40	18.70	0.51	1.72
				Mn-54	< .06	0.06	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)
MY291	ENV00072	1,320.00	1200	Co-57	< .06	0.06	0.00
				Co-60	< .06	0.06	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.05	0.06	0.04
				K-40	15.80	0.35	1.56
				Mn-54	< .07	0.07	0.00

04/28/98

CHARACTERIZATION SUMMARY

SURVEY PACKAGE NUMBER R0600 ENVIRONS

PACKAGE DESCRIPTION Ball Field

SURVEY AREA DESCRIPTION
Ball Field

GENERAL HISTORICAL INFORMATION (Operational history, etc.)
Snow was removed from the Protected Area and dumped in the general area of the Ball Field. There is a concern that it may have been slightly contaminated. Also, the dugouts were constructed of concrete blocks that were free-released from the RCA.

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 and exposure rate measurements from each of these marked locations were obtained under Package R2500.

(4) The perimeter of the Ball Field 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 three marked elevated areas.

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

(7) An additional biased 6" depth soil sample was obtained from grid #12 because that grid was not randomly selected and because of the reported dumping of potentially contaminated snow in that area.

(8) At the 30 soil sample locations, a 1-meter exposure rate (micro-R/hr) measurement was performed.

(9) Duplicates of surface and subsurface soil samples were obtained under Package R2400 from the one Geoprobe test bore location in this area.

(10) Both dugouts at the Ball Field were surveyed by performing a total combined surface contamination scan of approximately 2 square meters at each survey measurement location. The measurement locations were evenly distributed on the inside and outside surfaces of the dugouts, with 15 measurement locations per dugout. A total and removable combined surface contamination measurement was performed at the area of highest activity identified by the scan for each scanned area.

(11) A small pile of sediment or sludge just northwest of the manhole behind home plate was investigated by performing a gamma scan of the pile using a NaI(Tl) detector. A sample of the sediment was obtained.

CHARACTERIZATION SURVEY RESULTS

(1) The Ball Field drive-over gamma scanning survey identified three elevated areas, which are labeled # 18, 19, and 20 on Figure 3. The follow-up manual gamma scan survey 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 results did not show the presence of Co-60 and gave Cs-137 concentrations that ranged from 0.00 to 0.29 pCi/g. At the locations of the surface soil samples, the exposure rate measurements gave a mean value of 12.3 uR/hr and a range of 11.5 to 12.9 uR/hr, which are consistent with background values. MicroSpec *in situ* spectra did not show the presence of Co-60 or any other plant derived gamma emitters at the three elevated areas.

(2) A total of 30 random and one biased soil samples of 0-6" depth were obtained from the Ball Field. 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 31 samples did not show the presence of Co-60, and the Cs-137 concentrations ranged from 0.00 to 0.06 pCi/g.

(3) The thirty 1 meter exposure rate measurements gave a mean value of 11.9 uR/hr with a range of 11.2 to 13.7 uR/hr, which is consistent with background values.

(4) The following results are based on 20 direct measuements for total beta activity and 20 smears for gross beta activity:

a) There were two direct measurements for total beta activity above MDA (330 dpm/100 cm^2) and no results greater than 2000 dpm/100 cm^2. The maximum measurement result was 730 dpm/100 cm^2.

b) There were no measurments for removable beta activity above MDA (35 dpm/100 cm^2). The maximum measurement result was 13.8 dpm/100 cm^2.

(5) The gamma scanning and sampling (sample # MY457) investigation of the small pile of sediment behind home plate showed the absence of plant derived gamma emitters.

(6) In summary, the qualitative results of the gamma scanning surveys, the quantitative gamma spectroscopic analyses of 30 random and one biased soil samples and 15 soil samples from the elevated areas, the results of 46 exposure rate (uR/hr) measurements, the results of investigating the dugouts and pile of sediment, and the results of the three qualitative MicroSpec spectra demonstrate that the Ball Field is unaffected by radioactive materials from the plant.

REFERENCES (Documents, Interviews)

SUMMARY OF SURVEY UNIT(S)

04/10/98

OUTPUT BATCH SN = 508

PACKAGE R0600 ENVIRONS
Ball Field

UNIT(S)	SURFACE(S)
01 - Ball Field	OA2 (Surface Soil Sample @ 0"-6" Depth) OL1 (Open Land Areas)
02 - Ball Field Dugouts	WE1 (Collect at measurement locations on inside and outside walls.)
03 - Area West of Home Plate	OS1 (Soil & Sediment Samples)
04 - Ball Field Grid # 12	OA1 (Biased sample)

REASON(S) CHARACTERIZATION SURVEY (C01)

MATERIALS

MAT'L CODE	MATERIAL DESCRIPTION	BETA BKGD (dpm/100 cm²)
B0038	CONCRETE - PAINTED (EXTERIOR)	478.0
B0039	CONCRETE - BARE (EXTERIOR)	665.0
G0006	SURFACE SOIL - GAMMA	0.0

04/10/98

Direct Measurements For Total Beta Activity

Survey Package R0600 ENVIRONS
Ball Field

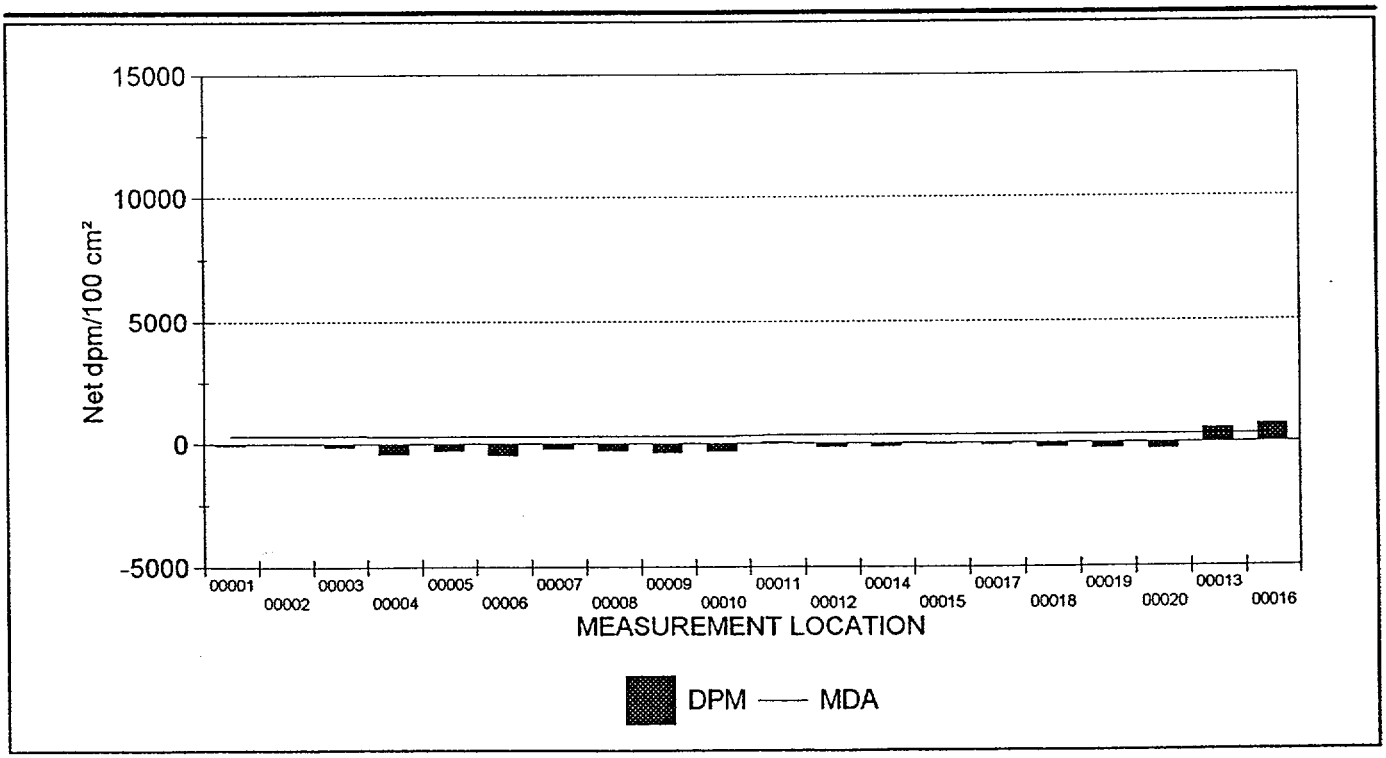
STATISTICAL SUMMARY

	Net dpm/100 cm²
Mean	-110.77
Maximum	729.47
Minimum	-459.33
Standard Deviation	296.80
MDA	330.25

Samples Reported	20
Samples Prescribed	20

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES
MDA <2000 net dpm/100 cm²	YES
Results above 2000 net dpm/100 cm²	0
Number of results above MDA	2



20 RESULTS ARE GRAPHED

Version 3.0.8 - 4/3/98

DBACORR Documentation
:aProgDBACORR:F_0111.FSL
OUTPUT BATCH SN = 749

PAJ

04/10/98

Direct Measurements For Total Beta Activity

Survey Package : R0600 ENVIRONS
Ball Field

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	MDA	RESULT
658 (2)	02	WE1	B0038	C01	60	00001	316.65	-51.19
658 (2)	02	WE1	B0038	C01	60	00002	316.65	19.54
658 (2)	02	WE1	B0038	C01	60	00003	316.65	-136.80
660 (2)	02	WE1	B0038	C01	60	00004	284.29	-410.78
660 (2)	02	WE1	B0038	C01	60	00005	284.29	-280.08
660 (2)	02	WE1	B0038	C01	60	00006	284.29	-459.33
660 (2)	02	WE1	B0038	C01	60	00007	284.29	-201.66
660 (2)	02	WE1	B0038	C01	60	00008	284.29	-298.75
660 (2)	02	WE1	B0038	C01	60	00009	284.29	-365.97
660 (2)	02	WE1	B0038	C01	60	00010	284.29	-324.89
657 (2)	02	WE1	B0038	C01	60	00011	330.25	61.01
657 (2)	02	WE1	B0038	C01	60	00012	330.25	-151.81
657 (2)	02	WE1	B0038	C01	60	00014	330.25	-122.60
657 (2)	02	WE1	B0038	C01	60	00015	330.25	-51.66
657 (2)	02	WE1	B0038	C01	60	00017	330.25	-80.87
657 (2)	02	WE1	B0038	C01	60	00018	330.25	-185.20
657 (2)	02	WE1	B0038	C01	60	00019	330.25	-231.10
657 (2)	02	WE1	B0038	C01	60	00020	330.25	-251.96
657 (2)	02	WE1	B0039	C01	60	00013	330.25	579.24
657 (2)	02	WE1	B0039	C01	60	00016	330.25	729.47

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.
20 results are listed.

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/10/98 Direct Measurements For Total Beta Activity

Survey Package : R0600 ENVIRONS
Ball Field

SURVEY		M2350		DETECTOR			PRE	
DATE	FILE #	INST S/N	CAL DUE	MODEL	S/N	CAL DUE	EFF	TECHNICIAN
3/6/98	657 (2)	129401	6/10/98	43-106	128924	6/8/98	.19	GLL9768
						CALIBRATION DATES VERIFIED AS ACCEPTABLE		
3/6/98	658 (2)	126201	4/15/98	43-106	133858	5/3/98	.21	BSM0490
						CALIBRATION DATES VERIFIED AS ACCEPTABLE		
3/6/98	660 (2)	129430	5/6/98	43-106	PR133886	5/7/98	.21	BSM0490
						CALIBRATION DATES VERIFIED AS ACCEPTABLE		

04/10/98

Removable Contamination - Gross Beta Activity

Survey Package R0600 ENVIRONS
Ball Field

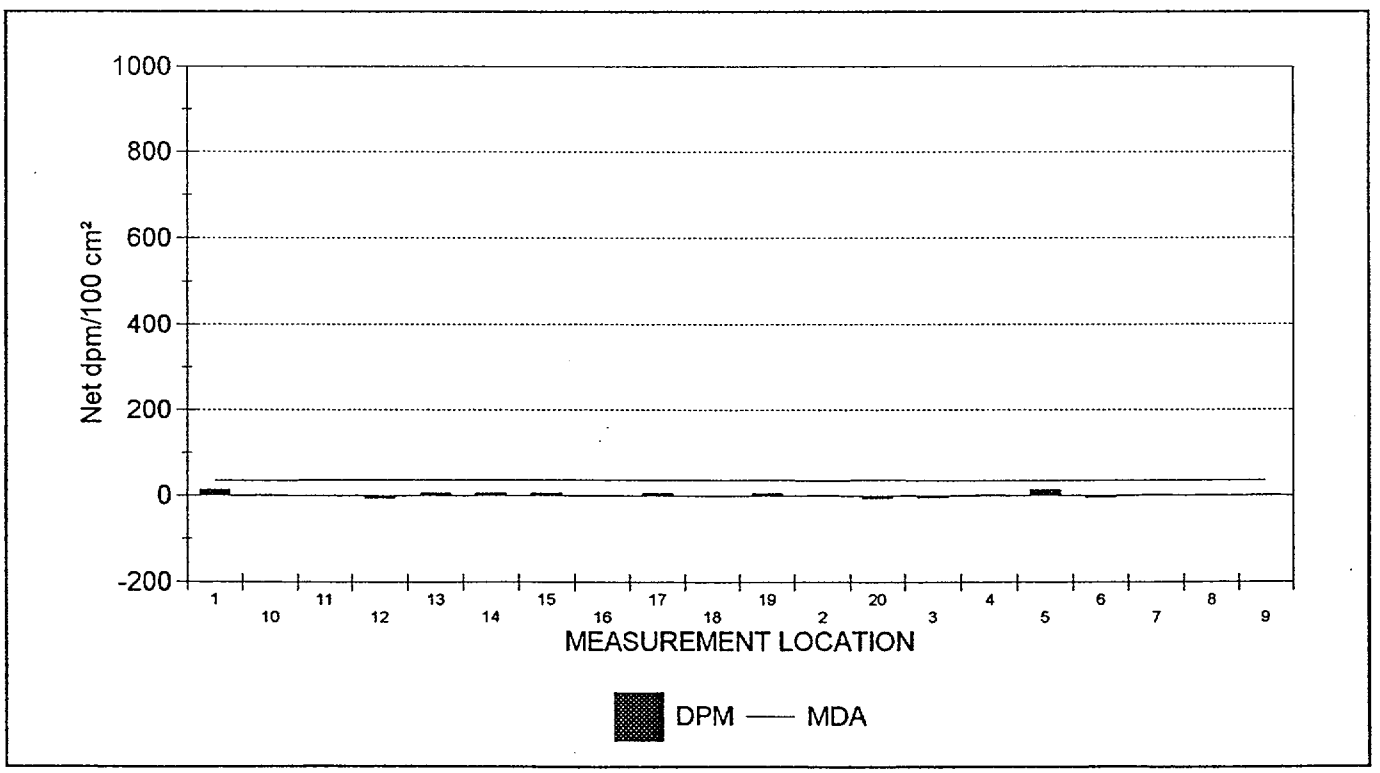
STATISTICAL SUMMARY

	Net dpm/100 cm²
Mean	2.63
Maximum	13.79
Minimum	-5.44
Standard Deviation	5.52
MDA	35.37

Samples Reported	20
Samples Prescribed	20

TESTS PERFORMED

MDA <100 net dpm/100 cm²	YES
Results above 100 net dpm/100 cm²	0
Number of results above MDA	0



20 RESULTS ARE GRAPHED

04/10/98

Removable Contamination - Gross Alpha Activity

Survey Package R0600 ENVIRONS
Ball Field

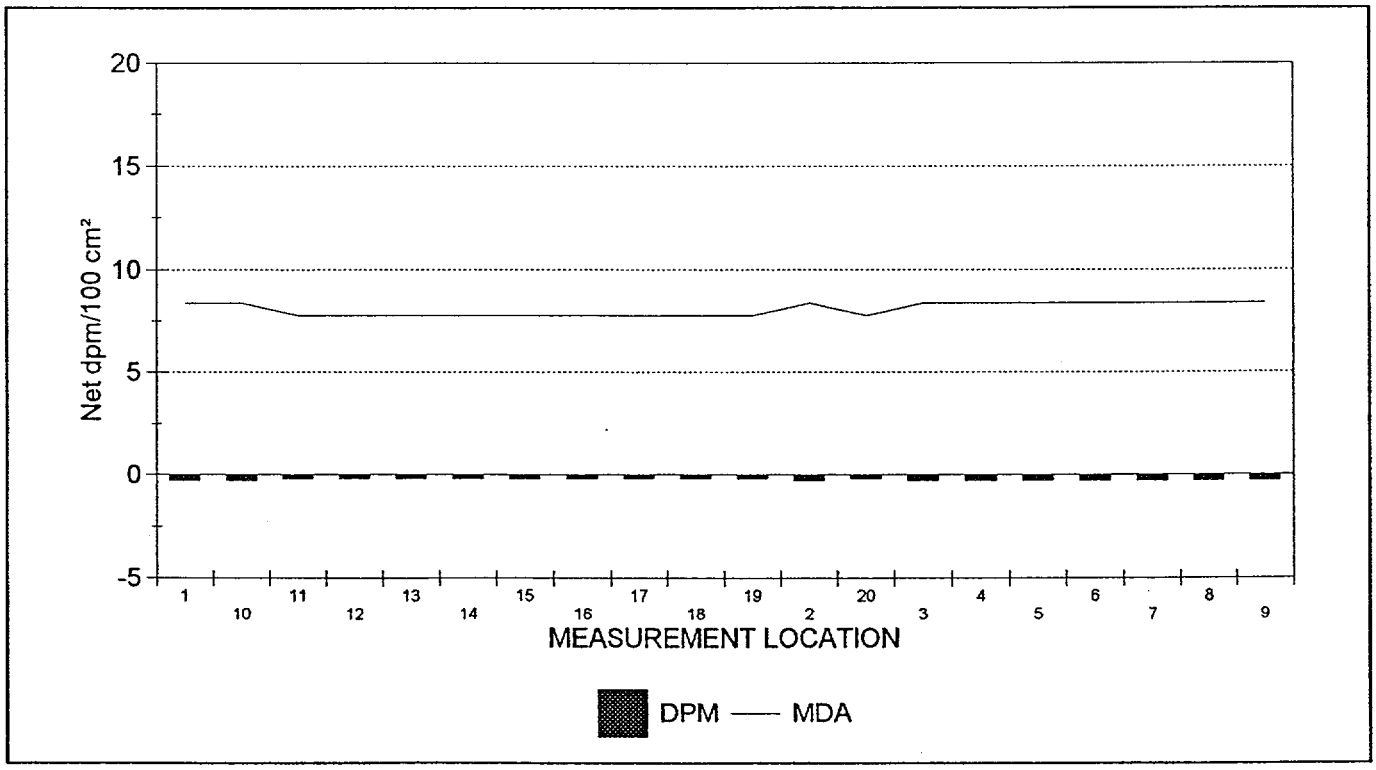
STATISTICAL SUMMARY

	Net dpm/100 cm²
Mean	-0.26
Maximum	-0.21
Minimum	-0.31
Standard Deviation	0.05
MDA	8.38

Samples Reported	20
Samples Prescribed	20

TESTS PERFORMED

MDA <10 net dpm/100 cm²	YES
Results above 20 net dpm/100 cm²	0
Number of results above MDA	0



20 RESULTS ARE GRAPHED

Survey Package : R0600 ENVIRONS
Ball Field

RESULTS LISTING - SORTED BY SURFACE CODE

XLS FILE	UNIT	SURFACE	REASON	MSRMNT LOCATION	ALPHA	BETA
SME1E100.XLS	02	WE1	C01	9	-0.3	1.6
SME1E100.XLS	02	WE1	C01	8	-0.3	1.6
SME1E100.XLS	02	WE1	C01	7	-0.3	1.6
SME1E100.XLS	02	WE1	C01	6	-0.3	-4.5
SME1E100.XLS	02	WE1	C01	5	-0.3	13.8
SME1E100.XLS	02	WE1	C01	4	-0.3	1.6
SME1E100.XLS	02	WE1	C01	3	-0.3	-4.5
SME1E139.XLS	02	WE1	C01	20	-0.2	-5.4
SME1E100.XLS	02	WE1	C01	2	-0.3	1.6
SME1E139.XLS	02	WE1	C01	19	-0.2	6.6
SME1E139.XLS	02	WE1	C01	18	-0.2	0.6
SME1E139.XLS	02	WE1	C01	17	-0.2	6.6
SME1E139.XLS	02	WE1	C01	16	-0.2	0.6
SME1E139.XLS	02	WE1	C01	15	-0.2	6.6
SME1E139.XLS	02	WE1	C01	14	-0.2	6.6
SME1E139.XLS	02	WE1	C01	13	-0.2	6.6
SME1E139.XLS	02	WE1	C01	12	-0.2	-5.4
SME1E139.XLS	02	WE1	C01	11	-0.2	0.6
SME1E100.XLS	02	WE1	C01	10	-0.3	1.6
SME1E100.XLS	02	WE1	C01	1	-0.3	13.8

NOTES: Activity reported in net dpm/100 cm².
Underlined values exceed the associated MDA.
Bold values exceed 100.00 dpm/100 cm² (beta activity) and/or 20.00 dpm/100 cm² (alpha activity).
20 results are listed.

Maine Yankee Atomic Power Plant Site Characterization

DATAFILE & TENNELEC CALIBRATION SUMMARY

04/10/98

Removable Contamination

Survey Package: R0600 ENVIRONS
Ball Field

SURVEYDATE	XLS FILE	INST ID	S/N	CAL DUE	LAB TECHNICIAN
3/16/98	SME1E100.XLS	1	15632	8/5/98	JWD
				CALIBRATION DATE VERIFIED AS ACCEPTABLE	
3/18/0099	SME1E139.XLS	1	15632	8/5/98	JWD
				CALIBRATION DATE VERIFIED AS ACCEPTABLE	

Maine Yankee Atomic Power Plant Site Characterization

04/10/98

Exposure Rate Measurements

Survey Package R0600 ENVIRONS
Ball Field

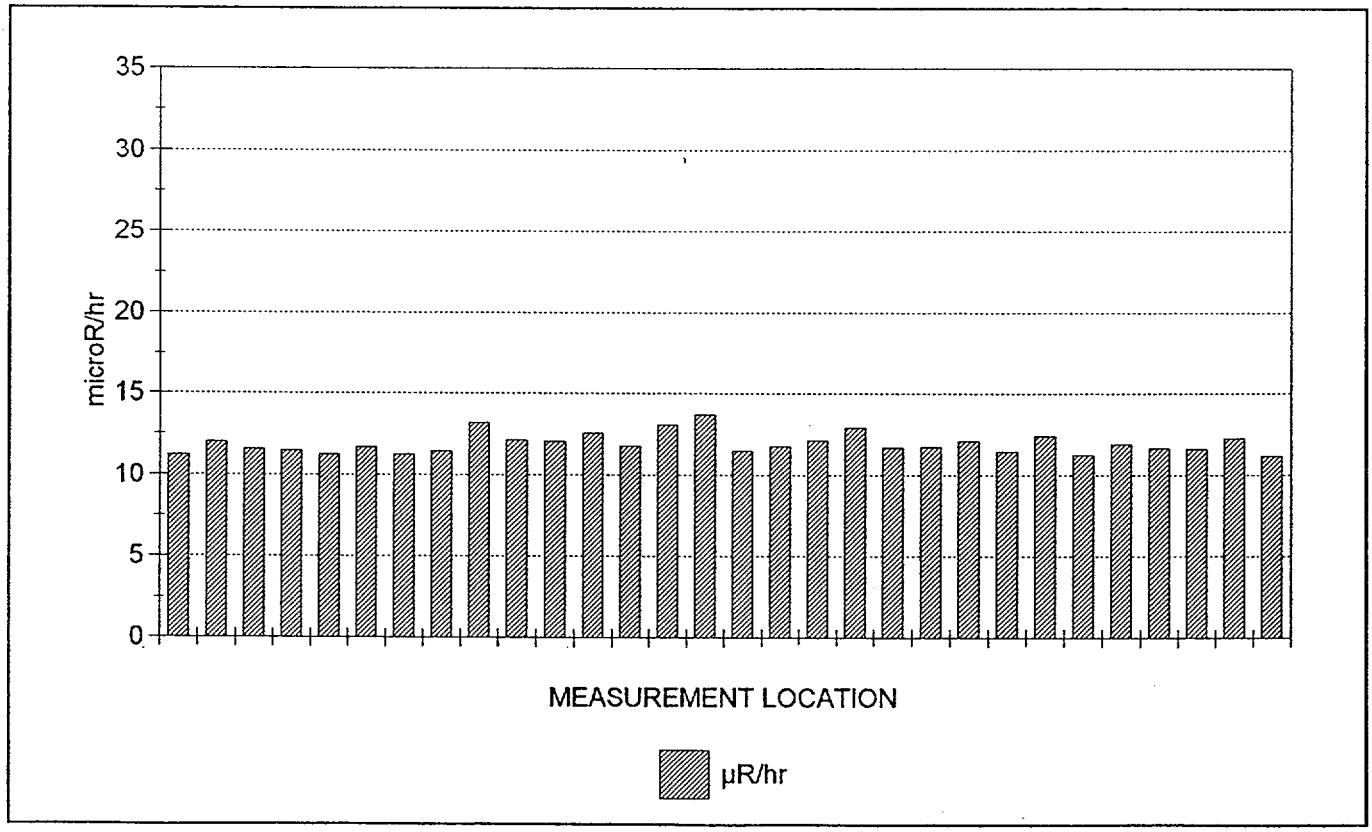
STATISTICAL SUMMARY

	µR/hr
Mean	11.92
Maximum	13.68
Minimum	11.18
Standard Deviation	0.63

Samples Reported	30
Samples Prescribed	30

TESTS PERFORMED

Samples reported satisfy samples prescribed	YES



30 RESULTS ARE GRAPHED

Survey Package : R0600 ENVIRONS
Ball Field

RESULTS LISTING - SORTED BY SURFACE CODE

FILE #	UNIT	SURFACE	MATERIAL	REASON	COUNT TIME	MSRMNT LOCATION	RESULT
649 (2)	01	OL1	G0006	C01	60.00	00004-00001	***11.19***
649 (2)	01	OL1	G0006	C01	60.00	00014-00001	***12.00***
649 (2)	01	OL1	G0006	C01	60.00	00015-00001	***11.56***
649 (2)	01	OL1	G0006	C01	60.00	00019-00001	***11.47***
649 (2)	01	OL1	G0006	C01	60.00	00024-00001	***11.26***
649 (2)	01	OL1	G0006	C01	60.00	00025-00001	***11.67***
649 (2)	01	OL1	G0006	C01	60.00	00026-00001	***11.24***
649 (2)	01	OL1	G0006	C01	60.00	00027-00001	***11.43***
649 (2)	01	OL1	G0006	C01	60.00	00030-00001	***13.19***
649 (2)	01	OL1	G0006	C01	60.00	00034-00001	***12.12***
649 (2)	01	OL1	G0006	C01	60.00	00036-00001	***12.02***
649 (2)	01	OL1	G0006	C01	60.00	00044-00001	***12.53***
649 (2)	01	OL1	G0006	C01	60.00	00049-00001	***11.77***
649 (2)	01	OL1	G0006	C01	60.00	00050-00001	***13.06***
649 (2)	01	OL1	G0006	C01	60.00	00051-00001	***13.68***
649 (2)	01	OL1	G0006	C01	60.00	00059-00001	***11.50***
649 (2)	01	OL1	G0006	C01	60.00	00061-00001	***11.76***
649 (2)	01	OL1	G0006	C01	60.00	00062-00001	***12.12***
649 (2)	01	OL1	G0006	C01	60.00	00063-00001	***12.92***
649 (2)	01	OL1	G0006	C01	60.00	00066-00001	***11.67***
649 (2)	01	OL1	G0006	C01	60.00	00071-00001	***11.71***
649 (2)	01	OL1	G0006	C01	60.00	00072-00001	***12.07***
649 (2)	01	OL1	G0006	C01	60.00	00074-00001	***11.43***
649 (2)	01	OL1	G0006	C01	60.00	00075-00001	***12.40***
649 (2)	01	OL1	G0006	C01	60.00	00078-00001	***11.26***
649 (2)	01	OL1	G0006	C01	60.00	00080-00001	11.87
649 (2)	01	OL1	G0006	C01	60.00	00085-00001	***11.63***
649 (2)	01	OL1	G0006	C01	60.00	00088-00001	***11.62***
649 (2)	01	OL1	G0006	C01	60.00	00096-00001	***12.24***
649 (2)	01	OL1	G0006	C01	60.00	00098-00001	***11.18***

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

DOWNLOAD FILE & SURVEY INSTRUMENTATION CALIBRATION SUMMARY

04/10/98

Exposure Rate Measurements

Survey Package : R0600 ENVIRONS
Ball Field

SURVEY		M2350		DETECTOR			
DATE	FILE #	INST S/N	CAL DUE	MODEL	S/N	CAL DUE	TECHNICIAN
3/4/98	649 (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 = 32

04/10/98 OUTPUT BATCH SN = 749

Survey Package R0600 ENVIRONS
Ball Field

UNIT : 01 SURFACE : OA2 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)
MY130	MY130.CNF	1,478.00	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	20.80	0.61	1.91
				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)
MY131	MY131.CNF	1,498.00	900	Co-57	< .09	0.09	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	.03	0.05	0.03
				K-40	25.40	0.60	2.27
				Mn-54	< .10	0.10	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)
MY132	MY132.CNF	1,445.00	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	21.00	0.59	1.93
				Mn-54	< .08	0.08	0.00

Survey Package R0600 ENVIRONS
Ball Field

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

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)
MY133	MY133.CNF	1,774.00	900	Co-57	< .09	0.09	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	25.20	0.57	2.17
				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)
MY134	MY134.CNF	1,435.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	.06	0.06	0.04
				K-40	20.20	0.60	1.88
				Mn-54	< .08	0.08	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)
MY135	MY135.CNF	1,724.00	900	Co-57	< .09	0.09	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	24.00	0.59	2.10
				Mn-54	< .09	0.09	0.00

Survey Package R0600 ENVIRONS
Ball Field

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

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)
MY136	MY136.CNF	1,366.00	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	22.30	0.67	2.05
				Mn-54	< .09	0.09	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)
MY137	MY137.CNF	1,477.00	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	20.30	0.68	1.88
				Mn-54	< .08	0.08	0.00

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)
MY138	MY138.CNF	1,451.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	< .08	0.08	0.00
				K-40	23.10	0.73	2.08
				Mn-54	< .08	0.08	0.00

Survey Package R0600 ENVIRONS
Ball Field

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00080-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY139	MY139.CNF	1,414.00	900	Co-57	< .07	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .06	0.06	0.00
				K-40	22.60	0.50	2.04
				Mn-54	< .09	0.09	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)
MY140	MY140.CNF	1,376.00	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	22.40	0.51	2.04
				Mn-54	< .08	0.08	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)
MY141	MY141.CNF	1,425.00	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	22.40	0.67	2.03
				Mn-54	< .08	0.08	0.00

Survey Package R0600 ENVIRONS
Ball Field

UNIT : 01 SURFACE : OA2 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)
MY142	MY142.CNF	1,441.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .08	0.08	0.00
				Cs-137	< .08	0.08	0.00
				K-40	22.80	0.54	2.04
				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)
MY143	MY143.CNF	1,401.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .08	0.08	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .07	0.07	0.00
				K-40	22.40	0.68	2.05
				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)
MY144	MY144.CNF	1,469.00	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	21.50	0.53	1.95
				Mn-54	< .08	0.08	0.00

Survey Package R0600 ENVIRONS
Ball Field

UNIT : 01 SURFACE : OA2 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)
MY145	MY145.CNF	1,531.00	900	Co-57	< .09	0.09	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	23.80	0.60	2.15
				Mn-54	< .08	0.08	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)
MY146	MY146.CNF	1,555.00	900	Co-57	< .09	0.09	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	24.10	0.55	2.15
				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)
MY147	MY147.CNF	1,495.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	20.20	0.50	1.85
				Mn-54	< .08	0.08	0.00

Survey Package R0600 ENVIRONS
Ball Field

UNIT : 01 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)
MY148	MY148.CNF	1,453.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .09	0.09	0.00
				K-40	22.20	0.63	2.01
				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)
MY149	MY149.CNF	1,193.00	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: 00044-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY150	MY150.CNF	1,281.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	< .09	0.09	0.00
				K-40	26.00	0.61	2.32
				Mn-54	< .09	0.09	0.00

Survey Package R0600 ENVIRONS
Ball Field

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

SAMPLE TYPE OR SURFACE SAMPLED: Surface Soil Sample @ 0"-6" Depth
SAMPLE LOCATOR: 00074-00001

LAB ID	SPECTRUM	MASS (grams)	COUNT TIME (seconds)	NUCLIDE	ACTIVITY (pCi/g)	MDA (pCi/g)	ERROR (± pCi/g)
MY151	MY151.CNF	1,298.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .10	0.10	0.00
				Cs-134	< .11	0.11	0.00
				Cs-137	< .08	0.08	0.00
				K-40	25.30	0.57	2.27
				Mn-54	< .09	0.09	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)
MY152	MY152.CNF	1,335.00	900	Co-57	< .08	0.08	0.00
				Co-60	< .09	0.09	0.00
				Cs-134	< .10	0.10	0.00
				Cs-137	< .08	0.08	0.00
				K-40	23.90	0.71	2.17
				Mn-54	< .10	0.10	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)
MY153	MY153.CNF	1,201.00	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	22.30	0.68	2.12
				Mn-54	< .10	0.10	0.00

Survey Package R0600 ENVIRONS
Ball Field

UNIT : 01 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)
MY154	H2O00087	1,140.00	2000	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	28.30	0.52	2.26
				Mn-54	< .08	0.08	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)
MY155	H2O00083	1,190.00	2000	Co-57	< .05	0.05	0.00
				Co-60	< .05	0.05	0.00
				Cs-134	< .07	0.07	0.00
				Cs-137	.04	0.04	0.03
				K-40	22.40	0.46	1.78
				Mn-54	< .06	0.06	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)
MY156	MY156.CNF	1,392.00	900	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	18.30	0.68	1.77
				Mn-54	< .08	0.08	0.00

Survey Package R0600 ENVIRONS
Ball Field

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)
MY464	ENV00174	1,620.00	1200	Co-57	< .08	0.08	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .09	0.09	0.00
				Cs-137	< .08	0.08	0.00
				K-40	26.40	0.54	2.41
				Mn-54	< .08	0.08	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)
MY466	H2O00006	1,330.00	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	21.70	0.71	2.00
				Mn-54	< .09	0.09	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)
MY468	H2O00007	1,400.00	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	21.20	0.58	1.92
				Mn-54	< .08	0.08	0.00

Survey Package R0600 ENVIRONS
Ball Field

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

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)
MY457	ENV00168	2,200.00	1200	Co-57	< .11	0.11	0.00
				Co-60	< .07	0.07	0.00
				Cs-134	< .12	0.12	0.00
				Cs-137	< .10	0.10	0.00
				K-40	1.52	0.93	0.61
				Mn-54	< .06	0.06	0.00

UNIT : 04 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)
MY471	ENV00218	1,720.00	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	21.10	0.69	2.01
				Mn-54	< .08	0.08	0.00