

Ludlum Model 3 SN 306077
 Ludlum Model 44-9 SN PR329022
 Cal 9 Dec 2013
 Cal due 9 Dec 2014

DU efficiency (4pi) 0.22 cpm/dpm for DU (from TMDE)

Date 6/19/2014
 Background counts
 Ten 1-min counts

42
43
35
30
34
37
39
40
42
45

39 cpm	Average
31 cpm	Average - 20%
47 cpm	Average + 20% + 1

Source check counts
 Cs-137 10 µCi in February 2013 source "A"

Date 11/15/2013

45000 cpm	Average
36000 cpm	Average - 20%
54001 cpm	Average + 20% + 1

NOTE: Yellow face of check source towards detector

See MARSSIM section 6.7

Scanning MDC	1.02	d' (from MARSSIM Table 6.5)
	2 seconds	observation interval
	35 cpm	MDCR
	0.5	p
	15.5 cm ²	Area of probe
	0.22 cpm/dpm	Instrument efficiency
	0.5	Surveyor efficiency

2883 dpm/100 cm² Scanning MDC

Static MDC

C = 58.7 1/100 cm²
 Static MDC = 1873 dpm/100 cm² for one minute count

Static MDC = 794 dpm/100 cm² for 5-minute count

Static MDC = 554 dpm/100 cm² for 10-minute count

Action Levels for vehicles and equipment = MDC

Scanning (total contamination)	2883 dpm/100 cm ²
Static (swipes: removable contamination)	554 dpm/100 cm ²

Instrument Action Level for vehicles and equipment (includes background)
137 cpm
58 cpm 576 counts in ten minutes

Action Levels for personnel = Background + 20% + 1 cpm

Scanning (total contamination)	47 cpm	(including background)
Static (swipes: removable contamination)	47 cpm	474 counts in 10 minutes (including background)

Swipe counting (TEN-MINUTE COUNTS)

Background count rate	39 cpm
Swipe counts in TEN MINUTES	718 counts in ten minutes

Removable contamination 971 dpm/100 cm²

und) =



Ludlum Model 3 SN 305943
 Ludlum Model 44-9 SN PR329031
 Cal 9 Dec 2013
 Cal due 9 Dec 2014
 DU efficiency (4pi)

0.22 cpm/dpm (from TMDE)

Date 6/19/2014
 Background counts
 Ten 1-min counts

39
35
46
39
45
37
36
37
39
32

39 cpm	Average
31 cpm	Average - 20%
47 cpm	Average + 20% + 1

Source check counts
 Cs-137 10 µCi in February 2013 source "B"

Date	11/15/2013
40000 cpm	Average
32000 cpm	Average - 20%
48001 cpm	Average + 20% + 1

See MARSSIM section 6.7

Scanning MDC		
1.02	d'	(from MARSSIM Table 6.5)
2 seconds	observation interval	
35 cpm	MDCR	
0.5	p	
15.5 cm ²	Area of probe	
0.22 cpm/dpm	Instrument efficiency	
0.5	Surveyor efficiency	

2875 dpm/100 cm² Scanning MDC

Static MDC

C =	58.7	1/100 cm ²	
Static MDC =	1868	dpm/100 cm ²	for one minute count
Static MDC =	792	dpm/100 cm ²	for 5-minute count
Static MDC =	553	dpm/100 cm ²	for 10-minute count

Action Levels for vehicles and equipment = MDC

Scanning (total contamination)	2875 dpm/100 cm ²
Static (swipes: removable contamination)	553 dpm/100 cm ²

Instrument Action Level for vehicles and equipment (includes background)

137 cpm
57 cpm 573 counts in ten minutes

Action Levels for personnel = Background + 20% + 1 cpm

Scanning (total contamination)	47 cpm	(including background)
Static (swipes: removable contamination)	47 cpm	472 counts in 10 minutes (including background)

Swipe counting (TEN-MINUTE COUNTS)

Background count rate	39 cpm
Swipe counts in TEN MINUTES	726 counts in ten minutes

Removable contamination 1000 dpm/100 cm²

und) =