

Instrument Field Response Check Log

1. Instrument Information¹

Ratemeter: Make/Model: LUDLUM 2241-2 Serial No. 262737 Cal. Due Date: 9/2/16
 Detector 1: Make/Model: LUDLUM 44-10 Serial No. 1811127
 Bicon MicroRem Meter: Serial No. A2744 Cal. Due Date: 8/4/16

2. Check Source Information:

Source 1 Isotope: Th232 Serial No.: 116 Activity: 0.1 units: uci Assay Date: 12/30/10
 Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% _____ net cpm -20% _____

Source 2 Isotope: Cs137 Serial No.: 87E13-48 Activity: 0.2 units: uci Assay Date: 1/20/10
 Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% _____ net cpm -20% _____

3. Technician/Worker Performing Checks:

Name: STEVE KINSMAN Title: _____ Date: 10/23/15 Time: 0900

4. Site or Location:

Site/Job: 2.1 Location Description: _____
 GPS Coordinates (when required): X-Coord: N42.48316 Y-Coord: W 78.70142

Instrument Field Response ²					Use Acceptance Criteria					Remarks
Meter	Bkg Cnt Time	Bkg Counts (cpm) or uRem/hr	Source Cnt Time	Source Response (gross cpm or uRem/hr)	+/- 20% source gross cpm or uRem/hr (Y/N)	Inst. Calib. current (Y/N)	Battery Check (Y/N)	Time Of check	Ambient Temp. (°F)	Initials and Comments (add'l info: inst. Condition, etc.)
Ratemeter	1min	7407	1min	18526		Y	Y	0900	37.9	Th232
Ratemeter	1min	7407	1min	10965		Y	Y	0900	37.9	Cs137
Ratemeter	1min	8606	1min	19166		Y	Y	1230	49.4	Th232
Ratemeter	1min	8606	1min	12192		Y	Y	1230	49.4	Cs137
Ratemeter	1min	7523	1min	11171		Y	Y	1510	52.8	Th232 Cs137
Ratemeter	1min	7523	1min	19582		Y	Y	1510	52.8	Cs137 Th232
Bicon	NA	6	NA	16		Y	Y	0900	37.9	
Bicon	NA	7	NA	18		Y	Y	1230	49.4	
Bicon	NA	6	NA	18		Y	Y	1510	52.8	

- Instrument designated check source is listed on calibration sticker. Record check source response (net cpm) prior to field deployment for all check sources being used.
- Source and Background count rate should be determined from the average of three static counts at the same location. Repeat counts should be within 20%. If count rate diverges significantly, perform additional counts to evaluate instrument stability



Instrument Field Response Check Log

1. Instrument Information¹

Ratemeter: Make/Model: Ludlum 2241-J Serial No. 206898 Cal. Due Date: 09/01/16
 Detector 1: Make/Model: Ludlum 44-10 Serial No. PR12642
 Bicon MicroRem Meter: Serial No. _____ Cal. Due Date: _____

2. Check Source Information:

Source 1 Isotope: Th-232 Serial No.: 111 Activity: 4.1 units: uCi Assay Date: 12/30/10
 Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 53798 net cpm -20% 35866
 Source 2 Isotope: Cs-137 Serial No.: 119023-12 Activity: 0.02 units: uCi Assay Date: NA
 Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 15273 net cpm -20% 8049

3. Technician/Worker Performing Checks:

Name: J. Edwards Title: RCT Date: 10/23/15 Time: 0902

4. Site or Location:

Site/Job: Area 2.1 Location Description: Sobby Stream
 GPS Coordinates (when required): X-Coord: N 42.48212° Y-Coord: W 078.70197°

Instrument Field Response ²					Use Acceptance Criteria				Remarks	
Meter	Bkg Cnt Time	Bkg Counts (cpm) or uRem/hr	Source Cnt Time	Source Response (gross cpm or uRem/hr)	+/- 20% source gross cpm or uRem/hr (Y/N)	Inst. Calib. current (Y/N)	Battery Check (Y/N)	Time Of check	Ambient Temp. (°F)	Initials and Comments (add'l Info: Inst. Condition, etc.)
Ratemeter	1 min	8728 cpm	1 min	41841 cpm	Y	Y	Y	0907	34.7	Th-232 J.E.
Ratemeter			1 min	10549 cpm	Y	Y	Y	0912	34.9	Cs-137 J.E.
Ratemeter										
Ratemeter										
Bicon	NA		NA							
Bicon	NA		NA							
Bicon	NA		NA							
Bicon	NA		NA							

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- Source and Background count rate should be determined from the average of three static counts at the same location. Repeat counts should be within 20%. If count rate diverges significantly, perform additional counts to evaluate instrument stability



Instrument Field Response Check Log

1. Instrument Information¹

Ratemeter: Make/Model: Ludlum 224-2 Serial No. 206098 Cal. Due Date: 09/01/16
 Detector 1: Make/Model: Ludlum 44-10 Serial No. PE112642
 Bicron MicroRem Meter: Serial No. _____ Cal. Due Date: _____

2. Check Source Information:

Source 1 Isotope: Th-232 Serial No.: 111 Activity: 40.1 units: µCi Assay Date: 12/30/10
 Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 53798 net cpm -20% 35866
 Source 2 Isotope: Cs-137 Serial No.: V9E23-12 Activity: 0.02 units: µCi Assay Date: NA
 Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 13273 net cpm -20% 8849

3. Technician/Worker Performing Checks:

Name: J. Edwards Title: RCT Date: 10/23/15 Time: 12:29

4. Site or Location:

Site/Job: Area 2.1 Location Description: Scooby Dam
 GPS Coordinates (when required): X-Coord: N42.48217° Y-Coord: W078.70197°

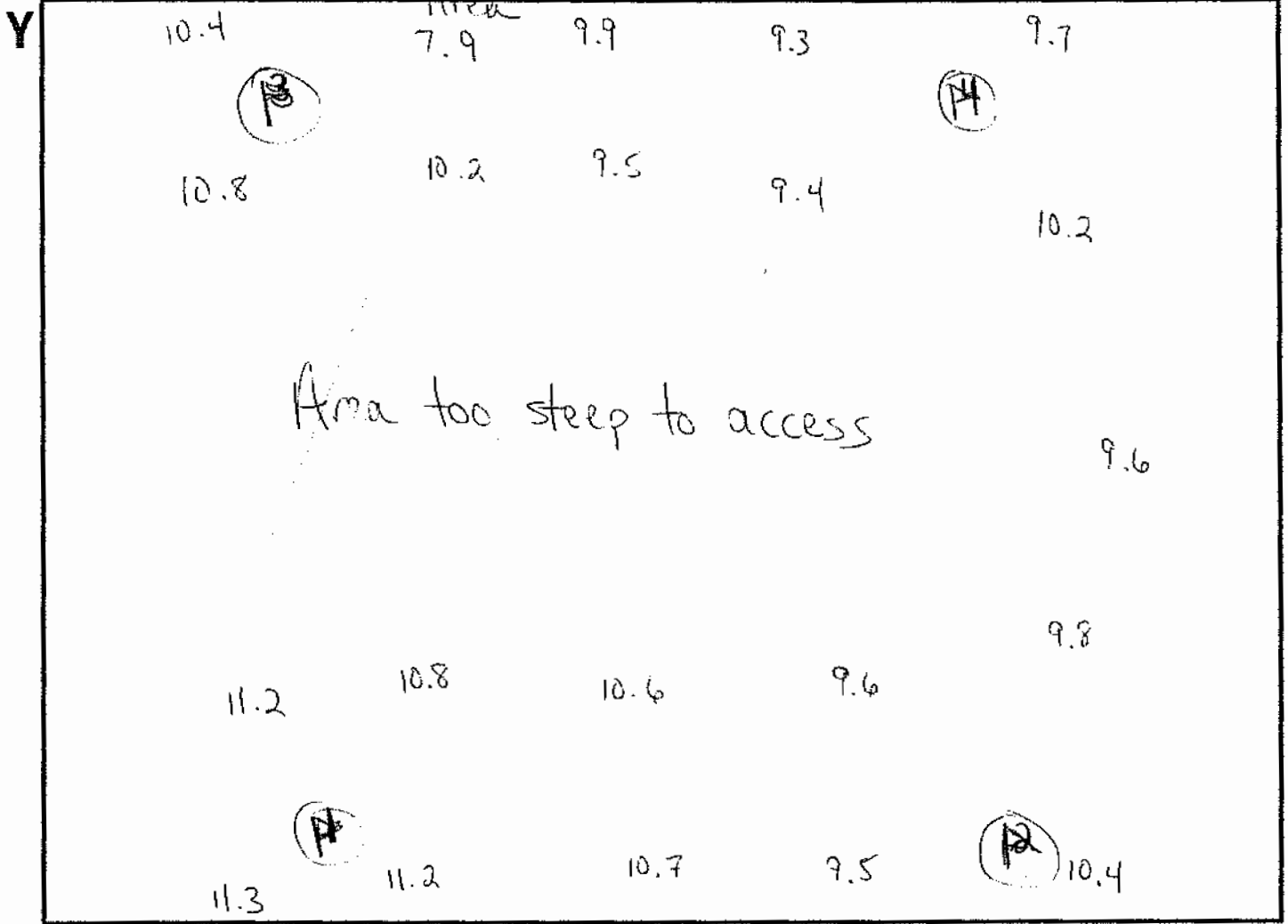
Instrument Field Response ²					Use Acceptance Criteria				Remarks	
Meter	Bkg Cnt Time	Bkg Counts (cpm) or uRem/hr	Source Cnt Time	Source Response (gross cpm or uRem/hr)	+/- 20% source gross cpm or uRem/hr (Y/N)	Inst. Calib. current (Y/N)	Battery Check (Y/N)	Time Of check	Ambient Temp. (°F)	Initials and Comments (add'l info: inst. Condition, etc.)
Ratemeter	1min	9314 cpm	1min	46913 cpm	Y	Y	Y	1234	50.1	Th-232 JE
Ratemeter			1min	11552 cpm	Y	Y	Y	1239	50.3	Cs-137 JE
Ratemeter										
Ratemeter										
Bicron	NA		NA							
Bicron	NA		NA							
Bicron	NA		NA							
Bicron	NA		NA							

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Three

Swampy Area 2.1

Four



(X,0)

All readings in Kcpm and at 2cm

From ground → X

One

Two

(P) - flags marking

One ^{Lon} Lat. N 42° 28' 48.05" ^{Lat} Lon. W 78° 42' 03.12" corners of 2.1

Up = N S (E) W

(circle)

Two ^{Lon} Lat. N 42° 28' 47.53" ^{Lat} Lon. W 78° 42' 03.12"

Three ^{Lon} Lat. N 42° 28' 48.05" ^{Lat} Lon. W 78° 42' 02.35"

Dimension (1 to 2) 12 Meters

Four ^{Lon} Lat. N 42° 28' 47.53" ^{Lat} Lon. W 78° 42' 02.35"

Dimensions (1 to 3) 15 Meters