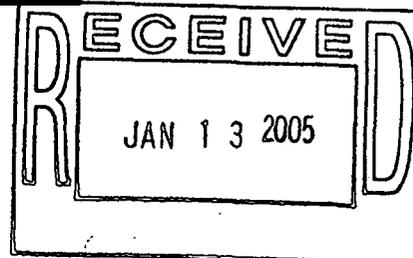


SURVEY PACKAGE COVER SHEET

Survey Area: C	Survey Unit: 707055B	Building/Structure: B707
Survey Unit/Area Description: Building 707, 1st floor, E module, 2nd 10% scan		
Building Information:		
Survey Type: Reconnaissance Level Characterization Survey <input type="checkbox"/> Pre-Demolition Survey <input checked="" type="checkbox"/>		
Building Type: Type 1 <input type="checkbox"/> Type 2 <input type="checkbox"/> Type 3 <input checked="" type="checkbox"/>		
Classification: Class 1 <input checked="" type="checkbox"/> Class 2 <input type="checkbox"/> Class 3 <input type="checkbox"/> Unknown <input type="checkbox"/>		
Contaminants of Concern: Plutonium <input checked="" type="checkbox"/> Uranium <input type="checkbox"/> Other <input type="checkbox"/>		
Types of Surveys Required: Alpha <input checked="" type="checkbox"/> Beta <input type="checkbox"/> Gamma <input type="checkbox"/>		
Justification for Classification: Area has been decontaminated and surveyed previously, it is not expected that contamination greater than the DCGLw will exist		
Special Support Requirements: A heated instrument storage location will need to be placed in B707. Natural lighting may not illuminate some areas of survey unit - temperature and/or lighting set-up required for these areas as needed.		
Special Safety Requirements:		
Isolation Controls:		No use, storage, or movement of radioactive material, with the exception of instrument check sources, is permitted in this survey unit.
LEVEL 1 <input type="checkbox"/> LEVEL 2 <input checked="" type="checkbox"/> N/A <input type="checkbox"/>		
Comments: Verification survey. Second random sampling to cover an additional 10% of the survey unit.		
Labeling Requirements: Survey area surfaces shall be labeled per the attached survey map(s). All areas surveyed will be marked on the surveyed surface with indelible ink pen or equivalent.		
Survey Package Implementation:		
		12-2-2004
		12-2-04
		Comments: Source checks documented on the sheets attached to the investigations are operability checks performed with the source attached to each instrument. These checks are documented to demonstrate that cold (below freezing) conditions in B707 did not affect the instruments adversely during the course of work.
Survey Package Closure:		
		12-6-04
		12/6/04
		12/6/04

(PRO-475-RSP-16.01, effective 05/22/01)



B707-A-000166

SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTION FORM

Survey Area: C	Survey Unit: 707065B	Building/Structure: B707	
Survey Unit/Area Description: Building 707 - 1st floor, E module, 2nd 10% scan			
Minimum Survey/Sampling Measurement Requirements			
Measurement	Number and Type	Comments	
Surface Activity Measurements	TOTAL SURFACE CONTAMINATION Any location identified by scanning that exceeds 300 dpm/100cm ²	60-second count time required	
RE Verification	Mattson [Redacted]	Matt [Signature]	12-6-04
	Print Name	Signature	Date
Surface Scanning	Scan 100% of each area marked in green (blocks 12 to 22) on the attached map.	Perform scans in accordance with the attached Flow chart. Note: All locations are denoted on survey package survey map.	
RE Verification	Mattson [Redacted]	Matt [Signature]	12-6-04
	Print Name	Signature	Date
Media Samples	N/A		
RE Verification	N/A		
	Print Name	Employee #	Date

(PRO-475-RSP-16.01, effective 05/22/01)

SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTION FORM (cont)

Survey Area: C	Survey Unit: 707065B	Building/Structure: B707
Survey Unit/Area Description: Building 707, 1st floor, E module, 2nd 10% scan		

Survey/Sampling Instructions

- ◆ **NOTE:** Any changes to the Survey Package must be logged in the "Survey Package Correction/Change History Form."
 - ◆ **RCT** – If not already completed, label the survey unit surfaces per the Survey Package Cover Sheet Grid Requirements Section and the attached survey map(s).
 - ◆ **RCT** – If not already completed, transpose sample numbers from attached survey maps onto each corresponding survey location on the survey unit surfaces.
- Note:** Work will be performed in cold conditions. Instrument operability may be affected. Increased operability checks are required.
- ◆ **RCT** – Perform pre-use performance checks of all instrumentation to be utilized in conjunction with this survey plan. Perform operational checks with sources attached to the instrument frequently, at least once every survey location. If operational check performed during work is 20% less than check performed prior to work, return instrument to the heated storage location. Obtain new instrument from heated storage location, perform operational check and re-survey the square meter where previous instrument failed operational check before proceeding to next area.
 - ◆ **RCT** – A priori Minimum Detectable Concentrations (MDCs) listed in the RFETS Pre-Demolition Survey Plan (PDSP) may be used. If MDCs are calculated, use the formula indicated below in the sampling instructions. Verify that computed MDCs are less than 50% of the applicable DCGL_w. Record all information on the Instrument Data Sheet.

$$MDC = \frac{3 + 3.29 \sqrt{R_b t_s (1 + \frac{t_s}{t_b})}}{E_t (A / 100) t_s}$$

Where,

- R_b = Background counting rate
- t_s = sample counting time interval
- t_b = background counting time
- E_t = total efficiency
- A = physical surface area of the detector (or area sampled for smears)

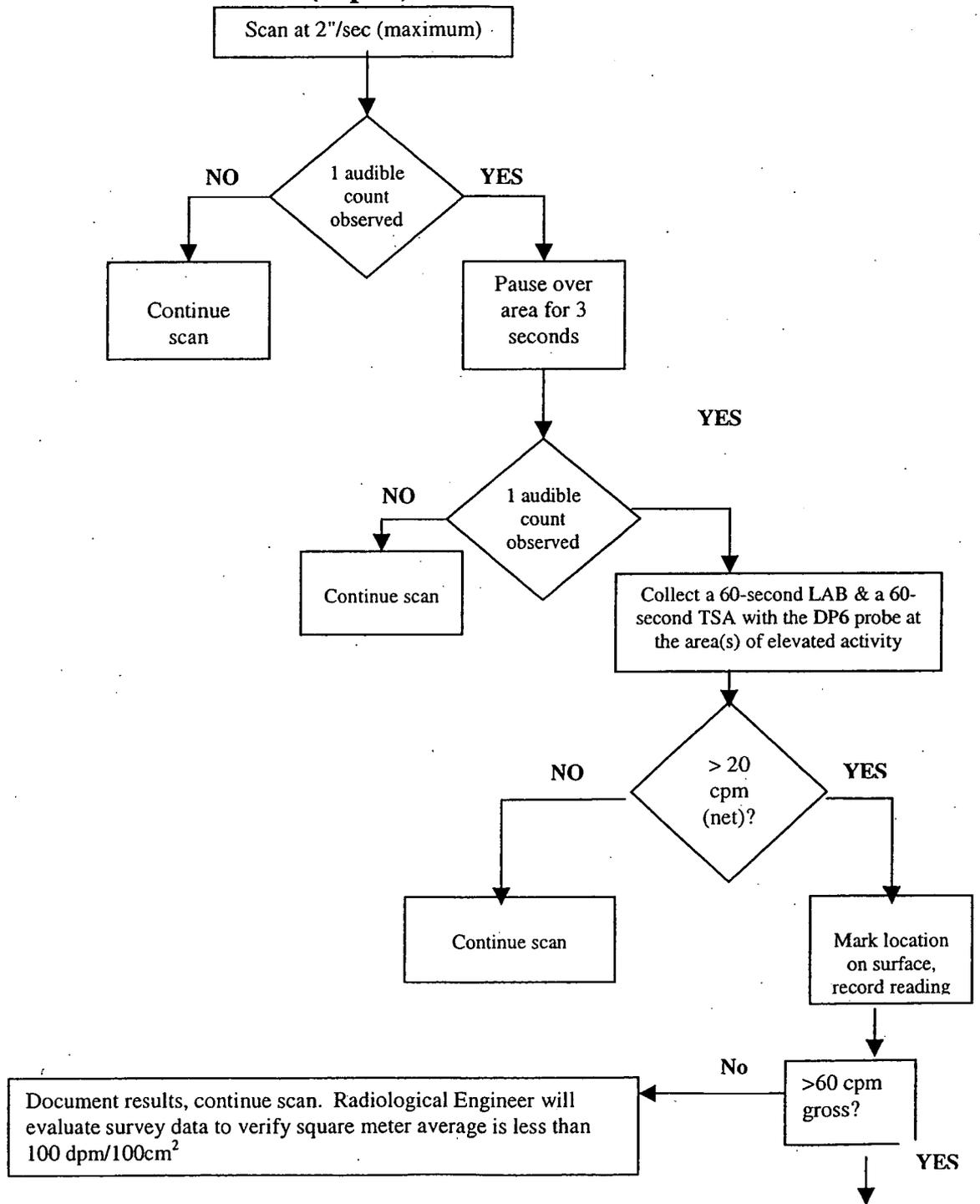
Note: Ensure that a 60 second count time is utilized when determining the MDC of the NE Electra.

- ◆ **RCT** – Local Area Background values should be obtained at each survey block either just before or just after obtaining the actual total surface activity. Only one LAB per survey block is required.

3

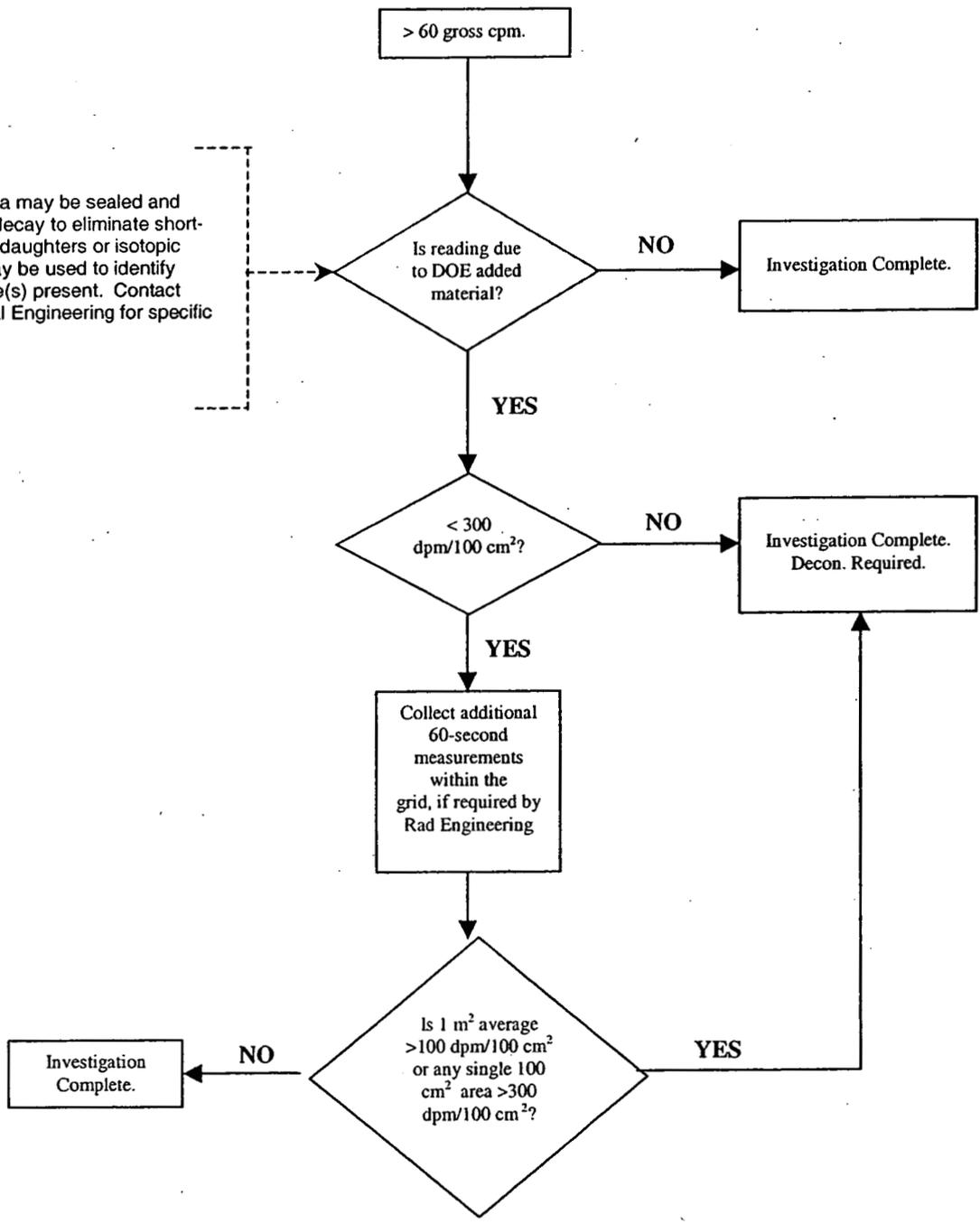
SCAN AND INVESTIGATION METHODS WITH SELECTED INSTRUMENTS

Scan Method with DP6 (example)
(Alpha)



Investigation Method with DP6 (verify no areas >300 dpm/100cm²) (Alpha)

NOTE: Area may be sealed and allowed to decay to eliminate short-lived radon daughters or isotopic analysis may be used to identify radionuclide(s) present. Contact Radiological Engineering for specific guidance.



RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: C

Survey Unit: 707065B

Classification: 1

Building: 707

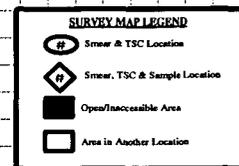
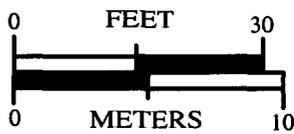
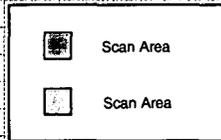
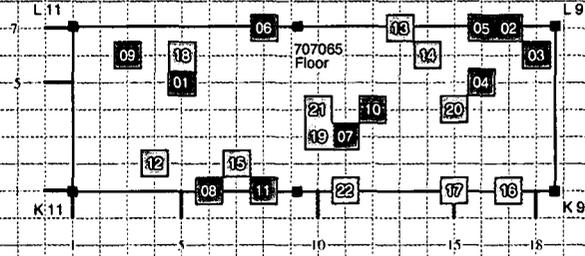
Survey Unit Description: First floor (E module)

Total Floor Area: 108 sq. m

Total Area: 108 sq. m

Block Size: 1 x 1 sq.m

SURVEY UNIT 707065B - MAP 1 OF 1



707065
Random-Scan Set

Location	Page	X-Coordinate	Y-Coordinate	Location	Page	X-Coordinate	Y-Coordinate
# 1	1	5	5	NA	1	14	7
#2	1	17	7	NA	1	12	2
#3	1	18	6	NA	1	8	2
#4	1	16	5	NA	1	10	5
#5	1	16	7	NA	1	7	3
#6	1	8	7	NA	1	2	5
#7	1	11	3	NA	1	4	5
#8	1	6	1	NA	1	1	5
#9	1	3	6	NA	1	2	6
#10	1	12	4	NA	1	12	6
#11	1	8	1	NA	1	2	6
#12	1	4	2	NA	1	18	3
#13	1	13	7	NA	1	8	6
#14	1	14	6	NA	1	17	4
#15	1	2	7	NA	1	1	3
#16	1	17	1	NA	1	8	3
NA	1	1	6	NA	1	2	4
#17	1	15	3	NA	1	3	1
#18	1	5	6	NA	1	3	4
#19	1	10	3	NA	1	14	5
#20	1	15	4	NA	1	5	7
#21	1	10	4	NA	1	10	5
#22	1	11	1	NA	1	5	3
NA	1	4	7	NA	1	11	7
NA	1	18	6	NA	1	6	3
NA	1	8	5	NA	1	18	7
NA	1	6	5	NA	1	13	2
NA	1	14	2	NA	1	10	5
NA	1	1	1	NA	1	17	3
NA	1	8	4	NA	1	6	7
NA	1	11	7	NA	1	7	3
NA	1	13	6	NA	1	4	3
NA	1	2	2	NA	1	17	5
NA	1	6	5	NA	1	10	2
NA	1	9	2	NA	1	12	3
NA	1	10	1	NA	1	9	1
NA	1	12	2	NA	1	17	4
NA	1	5	6	NA	1	8	2
NA	1	8	1	NA	1	4	3
NA	1	9	6	NA	1	3	7
NA	1	8	2	NA	1	9	7
NA	1	13	6	NA	1	4	2
NA	1	4	5	NA	1	6	6
NA	1	8	5	NA	1	18	4
NA	1	18	1	NA	1	16	3

LEGEND:

C-NA= UNPAINTED CEILING
X-NA=> NUMBER OF SAMPLES
REQUIRED

REVIEWED BY SIGNATURE



12/6/04

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01

(Alpha only)

Alpha beta

INST. TYPE/SERIAL #: ELECTRA/ 2166 CAL. DUE DATE: 01/22/05 INSTRUMENT EFFICIENCY: 21.3% / N/A

PROBE S/N: 1461 BLDG. 70 (Range, 2221 / 3006)

This form is used to record parameters noted during daily performance checks on NE Electra, Bicron Frisk-Tech, Portable instruments with gas proportional detector. Instruments that require additional repair or service are returned to Instrumentation Repair Facility.

TIME/DATE	IN CAL Yes No	BATT SAT Yes No	COUNT TYPE	BKG (cpm)	INSTRUMENT READING (Net cpm)	FLUSH/RE-CHARGE (N/A if not gas prop. det.) (Initials)
0800 12/2/04	yes	yes	Alpha	6.0	2719	N/A
			Beta	N/A	N/A	
1400 12/2/04	yes	yes	Alpha	6.0	2742	N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	

N/A

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01-04

SOURCE ISOTOPE (Alpha): PU-239 (CSL)/(S/N)/(Registry No.): 752692 Certification/Decay Chart Date: N/A
 Source (dpm): 12275 Range (cpm) ± 15%: 224-2614-3006
 (Circle One) (Circle One)

SOURCE ISOTOPE (Beta) N/A (CSL)/(S/N)/(Registry No.): N/A Certification/Decay Chart Date: N/A
 Source (dpm): N/A Range (cpm) ± 20%: N/A
 (Circle One) (Circle One)

Approved by: [Signature]
 RS Supervision: [Signature]
 Name (print) [Redacted] Signature [Redacted] Date 12-2-04

$$\%Error = \frac{(Net\ cpm + eff) - Source\ dpm}{Source\ dpm} \times (100)$$

Where $Net\ cpm = Source\ cpm - Background\ cpm$

GUIDANCE:

- The appropriate instrument data and building location is recorded on RSFORMS-02.01-04.
- Obtain an appropriate certified source or decay chart source for the instrument being tested.
- A general inspection is performed on the instrument for the following:
 - * Physical condition of the detector, cables, and instrument
 - * Instrument battery/power supply check is satisfactory
 - * Instrument audio check is satisfactory, as applicable
 - * Instrument light leak check is satisfactory, as applicable
- * Instrument background response check is within tolerances of expected values (typically 1 minute count)
- * Instrument corrected source count reading falls within an acceptable range (± 15% of source value typically using a 1 minute count)
- Performance test data is recorded (as applicable) to each portable contamination survey instrument with signature upon completion.

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01

(Alpha only)

Alpha Beta

INST. TYPE/SERIAL #: ELECTRA / 1259 CAL. DUE DATE: 04/11/05 INSTRUMENT EFFICIENCY: 223% / N/A

PROBE S/N: 1975 BLDG. 70 (Range, 2317, 3147)

This form is used to record parameters noted during daily performance checks on NE Electra, Bicon Frisk-Tech, Portable instruments with gas proportional detector. Instruments that require additional repair or service are returned to Instrumentation Repair Facility.

TIME/DATE	IN CAL Yes No	BATT SAT Yes No	COUNT TYPE	BKG (cpm)	INSTRUMENT READING (Net cpm)	FLUSH/RE-CHARGE (N/A if not gas prop. det.) (Initials)
0800 12/02/04	Yes	Yes	Alpha	2.0	2767	N/A
			Beta	N/A	N/A	
1400 12/02/04	Yes	Yes	Alpha	2.0	2673	N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01-04

SOURCE ISOTOPE (Alpha): PU-239 (CSL)/(S/N)/(Registry No.): 75 2692 Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): 12, 275 Range (cpm) ± 15%: 2317-2737-3147

SOURCE ISOTOPE (Beta) N/A (CSL)/(S/N)/(Registry No.): N/A Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): N/A Range (cpm) ± 20%: N/A

Approved by: _____
 RS Supervision: [Signature] _____
 Name (print) Signature _____ Date 12-2-03

$$\% \text{ Error} = \frac{(\text{Net cpm} + \text{eff}) - \text{Source dpm}}{\text{Source dpm}} \times (100)$$

Where $\text{Net cpm} = \text{Source cpm} - \text{Background cpm}$

GUIDANCE:

- The appropriate instrument data and building location is recorded on RSFORMS-02.01-04.
- Obtain an appropriate certified source or decay chart source for the instrument being tested.
- A general inspection is performed on the instrument for the following:
 - * Physical condition of the detector, cables, and instrument
 - * Instrument battery/power supply check is satisfactory
 - * Instrument audio check is satisfactory, as applicable
 - * Instrument light leak check is satisfactory, as applicable
- Instrument background response check is within tolerances of expected values (typically 1 minute count)
- Instrument corrected source count reading falls within an acceptable range (± 15% of source value typically using a 1 minute count)
- Performance test data is recorded (as applicable) to each portable contamination survey instrument with signature upon completion.

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01 ⁰⁴

(Alpha only)

Alpha beta

INST. TYPE/SERIAL #: ELECTRA / 4408 CAL. DUE DATE: 4-18-05 INSTRUMENT EFFICIENCY: .219 / N/A

PROBE S/N: 2154 BLDG. 70 (Range, 2284 / 3091)

This form is used to record parameters noted during daily performance checks on NE Electra, Bicon Frisk-Tech, Portable instruments with gas proportional detector. Instruments that require additional repair or service are returned to Instrumentation Repair Facility.

TIME/DATE	IN CAL Yes No	BATT SAT Yes No	COUNT TYPE	BKG (cpm)	INSTRUMENT READING (Net cpm)	FLUSH/RE-CHARGE (N/A if not gas prop. det.) (Initials)
1200 12/02/04	Y	Y	Alpha	4.0	2702	N/A
			Beta	N/A	N/A	
1430 12/02/04	Y	Y	Alpha	5.0	2724	N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	

91
PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG RSFORMS-02.01-04

SOURCE ISOTOPE (Alpha): PU-239 (CSL)/(S/N)/(Registry No.): 680138 Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): 12275 Range (cpm) ± 15%: 2284-3091

SOURCE ISOTOPE (Beta) N/A (CSL)/(S/N)/(Registry No.): N/A Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): N/A Range (cpm) ± 20%: N/A

Approved by: [Signature]
 RS Supervision: [Signature]
 Name (print) [Redacted] Signature [Redacted] Date 12-2-04

$$\%Error = \frac{(Net\ cpm + eff) - Source\ dpm}{Source\ dpm} \times (100)$$

Where **Net cpm = Source cpm - Background cpm**

GUIDANCE:

- The appropriate instrument data and building location is recorded on RSFORMS-02.01-04.
- Obtain an appropriate certified source or decay chart source for the instrument being tested.
- A general inspection is performed on the instrument for the following:
 - * Physical condition of the detector, cables, and instrument
 - * Instrument battery/power supply check is satisfactory
 - * Instrument audio check is satisfactory, as applicable
 - * Instrument light leak check is satisfactory, as applicable
- * Instrument background response check is within tolerances of expected values (typically 1 minute count)
- * Instrument corrected source count reading falls within an acceptable range (± 15% of source value typically using a 1 minute count)
- Performance test data is recorded (as applicable) to each portable contamination survey instrument with signature upon completion.

17

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01

(Alpha only)

Alpha beta

INST. TYPE/SERIAL #: ELECTRA / 3128 CAL. DUE DATE: 04/25/05 INSTRUMENT EFFICIENCY: 21.9% / N/A

PROBE S/N: 1990 BLDG. 70 (Range, 2284 / 3091)

This form is used to record parameters noted during daily performance checks on NE Electra, Bicron Frisk-Tech, Portable instruments with gas proportional detector. Instruments that require additional repair or service are returned to Instrumentation Repair Facility.

TIME/DATE	IN CAL Yes No	BATT SAT Yes No	COUNT TYPE	BKG (cpm)	INSTRUMENT READING (Net cpm)	FLUSH/RE-CHARGE (N/A if not gas prop. det.) (Initials)
0800 12/2/04	yes	yes	Alpha	4.0	2734	N/A
			Beta	N/A	N/A	
1800 12/2/04	yes	yes	Alpha	7.0	2672	N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

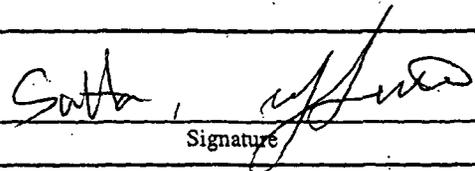
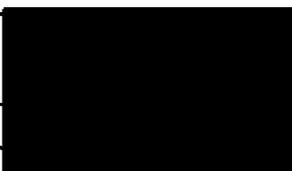
RSFORMS-02.01-04

SOURCE ISOTOPE (Alpha): PU-239 (CSL)/(S/N)/(Registry No.): 75 2692 Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): 12 275 Range (cpm) ± 15%: 2284-2688-3091

SOURCE ISOTOPE (Beta) N/A (CSL)/(S/N)/(Registry No.): N/A Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): N/A Range (cpm) ± 20%: N/A

Approved by: RS Supervision:			<u>12-2-04</u>
Name (print)	Signature		Date

$$\%Error = \frac{(Net\ cpm + eff) - Source\ dpm}{Source\ dpm} \times (100)$$

Where $Net\ cpm = Source\ cpm - Background\ cpm$

GUIDANCE:

- The appropriate instrument data and building location is recorded on RSFORMS-02.01-04.
- Obtain an appropriate certified source or decay chart source for the instrument being tested.
- A general inspection is performed on the instrument for the following:
 - * Physical condition of the detector, cables, and instrument
 - * Instrument battery/power supply check is satisfactory
 - * Instrument audio check is satisfactory, as applicable
 - * Instrument light leak check is satisfactory, as applicable
- * Instrument background response check is within tolerances of expected values (typically 1 minute count)
- * Instrument corrected source count reading falls within an acceptable range (± 15% of source value typically using a 1 minute count)
- Performance test data is recorded (as applicable) to each portable contamination survey instrument with signature upon completion.

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01

(Alpha only)

Alpha beta

INST. TYPE/SERIAL #: ELECTRA / 1266 CAL. DUE DATE: 01/28/05 INSTRUMENT EFFICIENCY: 269% / N/A

PROBE S/N: 1026 BLDG. 70 (Range, 2254 / 3091)

This form is used to record parameters noted during daily performance checks on NE Electra, Bicon Frisk-Tech, Portable instruments with gas proportional detector. Instruments that require additional repair or service are returned to Instrumentation Repair Facility.

TIME/ DATE	IN CAL Yes No	BATT SAT Yes No	COUNT TYPE	BKG (cpm)	INSTRUMENT READING (Net cpm)	FLUSH/RE- CHARGE (N/A if not gas prop. det.) (Initials)	[REDACTED]	
0800 12/2/04	yes	yes	Alpha	5.0	2800			
			Beta	N/A	N/A	N/A		
1400 12/2/04	yes	yes	Alpha	3.0	2771			
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		
			Alpha					
			Beta	N/A	N/A	N/A		

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01-04

SOURCE ISOTOPE (Alpha): PU-239 (CSL)/(S/N)/(Registry No.): TS2692 Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): 12,275 Range (cpm) ± 15%: 2284 - 2688 - 3091

SOURCE ISOTOPE (Beta) N/A (CSL)/(S/N)/(Registry No.): N/A Certification/Decay Chart Date: N/A
 (Circle One)

Source (dpm): N/A Range (cpm) ± 20%: N/A

Approved by: [Signature]
 RS Supervision: [Signature]
 Name (print) [Redacted] Signature [Redacted] Date 12-2-04

$$\%Error = \frac{(Net\ cpm + eff) - Source\ dpm}{Source\ dpm} \times (100)$$

Where $Net\ cpm = Source\ cpm - Background\ cpm$

GUIDANCE:

- The appropriate instrument data and building location is recorded on RSFORMS-02.01-04.
- Obtain an appropriate certified source or decay chart source for the instrument being tested.
- A general inspection is performed on the instrument for the following:
 - * Physical condition of the detector, cables, and instrument
 - * Instrument battery/power supply check is satisfactory
 - * Instrument audio check is satisfactory, as applicable
 - * Instrument light leak check is satisfactory, as applicable
- * Instrument background response check is within tolerances of expected values (typically 1 minute count)
- * Instrument corrected source count reading falls within an acceptable range (± 15% of source value typically using a 1 minute count)
- Performance test data is recorded (as applicable) to each portable contamination survey instrument with signature upon completion.

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01

(Alpha only)

Alpha beta

INST. TYPE/SERIAL #: ELECTRA/ 3973 CAL. DUE DATE: 12/22/04 INSTRUMENT EFFICIENCY: 21.4% / N/A

PROBE S/N: 2093 BLDG. 70 (Range, 2232, 3019)

This form is used to record parameters noted during daily performance checks on NE Electra, Bicon Frisk-Tech, Portable instruments with gas proportional detector. Instruments that require additional repair or service

TIME/DATE	IN CAL Yes No	BATT SAT Yes No	COUNT TYPE	BKG (cpm)	INSTRUMENT READING (Net cpm)	FLUSH/RE-CHARGE (N/A if not gas prop. det.) (Initials)
0800 12/2/04	Yes	Yes	Alpha	4.0	2739	N/A
			Beta	N/A	N/A	
1800 12/2/04	Yes	Yes	Alpha	2.0	2658	N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	
			Alpha			N/A
			Beta	N/A	N/A	

PORTABLE SCALER CONTAMINATION INSTRUMENT PERFORMANCE TEST LOG

RSFORMS-02.01-04

SOURCE ISOTOPE (Alpha): PU-239 (CSL)/(S/N)/(Registry No.): _____ Certification/Decay Chart Date: N/A
 (Circle One) (Circle One)

Source (dpm): 12275 Range (cpm) ± 15%: 2232-2626-3019

SOURCE ISOTOPE (Beta) N/A (CSL)/(S/N)/(Registry No.): N/A Certification/Decay Chart Date: N/A
 (Circle One)

Source (dpm): N/A Range (cpm) ± 20%: N/A

Approved by: RS Supervision:	<u>Satta, J</u>		<u>12-2-04</u>
Name (print)	Signature		Date

$$\%Error = \frac{(Net\ cpm + eff) - Source\ dpm}{Source\ dpm} \times (100)$$

Where $Net\ cpm = Source\ cpm - Background\ cpm$

GUIDANCE:

- The appropriate instrument data and building location is recorded on RSFORMS-02.01-04.
- Obtain an appropriate certified source or decay chart source for the instrument being tested.
- A general inspection is performed on the instrument for the following:
 - * Physical condition of the detector, cables, and instrument
 - * Instrument battery/power supply check is satisfactory
 - * Instrument audio check is satisfactory, as applicable
 - * Instrument light leak check is satisfactory, as applicable
 - * Instrument background response check is within tolerances of expected values (typically 1 minute count)
 - * Instrument corrected source count reading falls within an acceptable range (± 15% of source value typically using a 1 minute count)
- Performance test data is recorded (as applicable) to each portable contamination survey instrument with signature upon completion.

Survey unit 707065B
Grid # 12

< 94 dpm

Pre Source check 424 c/m
Post Source check 425 c/m
Post Source check for - 20% Yes No

Name 

Rct #

Date 12-2-04

Inst Electra

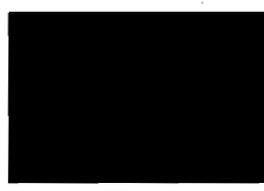
S/N 1266

Cal Date Due 1-28-05

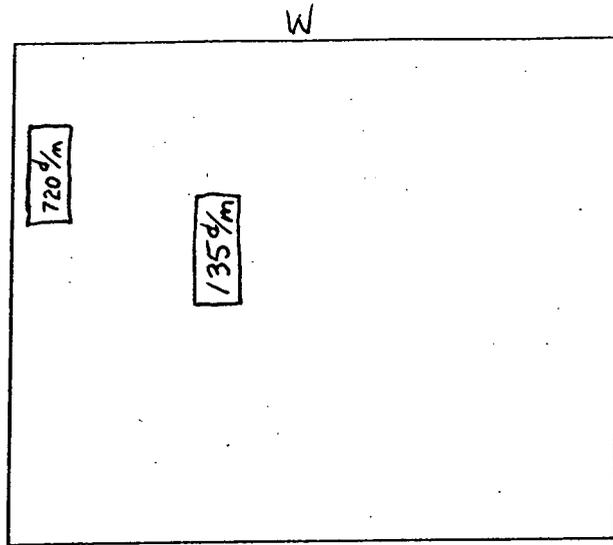
Eff 21.9%

LAB 6.0 CPM 300/m

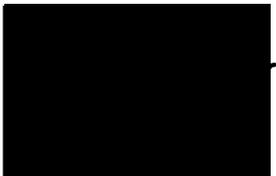
Reviewed by Sutter 



Survey unit 707065 B
Grid # 13



Pre Source check 424 c/m
Post Source check 435 c/m
Post Source check for - 20% Yes No

NAME 
Rct #

Date 12-2-04

Inst Electra
S/N 1266

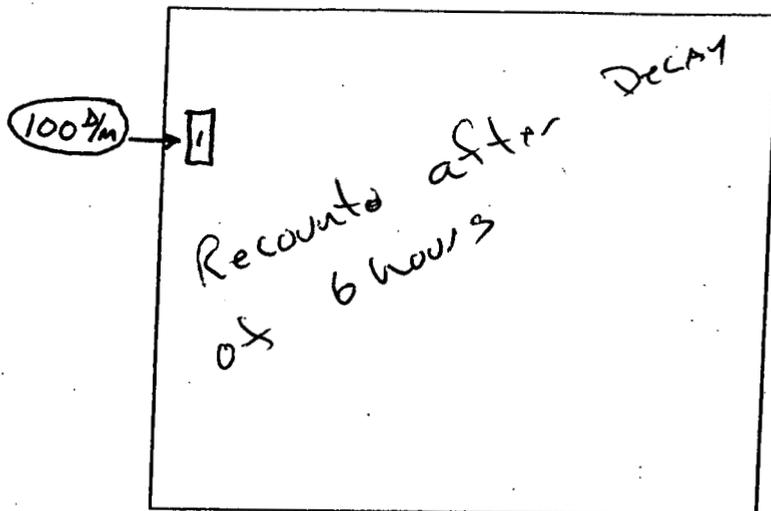
Cal Date Due 1-28-05

Eff 21.9%

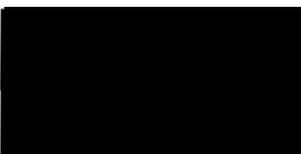
LAB 9.0 cpm 45D/m

Reviewed by Subr *uffur* 

Survey unit 707065 B
Grid # 13



Pre Source check 356 c/m
Post Source check 359 c/m
Post Source check for - 20% Yes No

Name 

Rct #

Date 12/02/04

TSA 20.0 c/m

LAB 6.0 c/m

Inst Electra

S/N 4408

Cal Date Due 04/18/05

Eff .219

LAB 6.0 c/m 300 c/m

Reviewed by Subt  

Reviewed by Sutter *[Signature]*



LAB 5.0 cpm 250lm

EAF 21.4%

CAI DATE Due 12/22/04

SIN 3973

Inst Electra

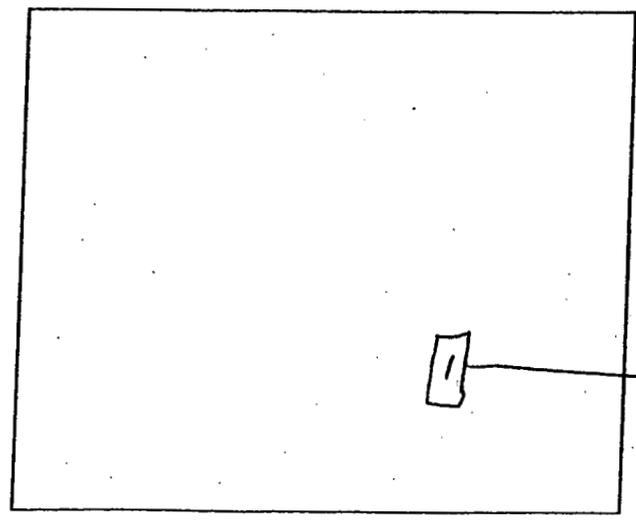
Date 12/22/04



Pct #
Name

TSA
1-38.0 cpm

Pre Source	check	586 c/m
Post Source	check	605 c/m
Post Source	check for	- 20%
	yes	↖
	no	↘



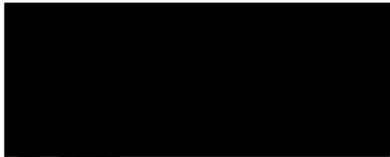
190 cpm

Survey unit 707065 B
Grid # 14

Survey unit 707065 B
Grid # 15

< 94 dpm

Pre Source check 424 c/m
Post Source check 417 c/m
Post Source check tol = 20% yes no

NAME 
Rct # 

Date 12-2-04

Inst Electra

S/N 1266

Cal Date Due 1-28-05

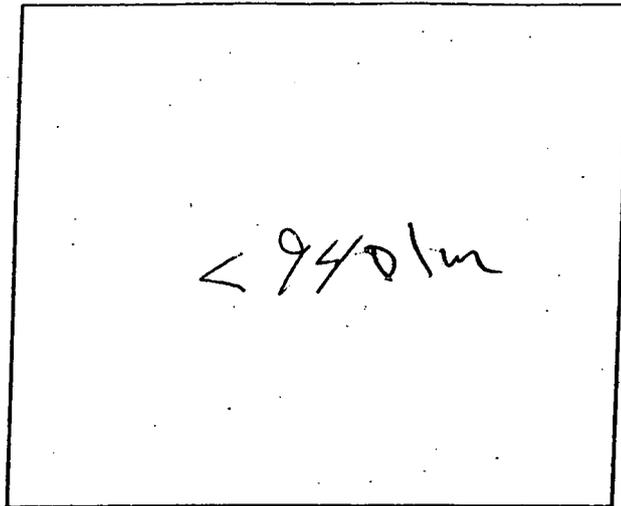
Eff 21.9%

LAB 5.0 cpm 25 D/m

Reviewed by Suth effus 

Survey unit 707065B

Grid # 16



Pre Source check 526 c/m

Post Source check ^{at 400} 526 c/m

Post Source check for ⁵⁵² 20% Yes/No
↓ -

Name 

Rct #

Date 12/2/04

Inst Electra

S/N 3973

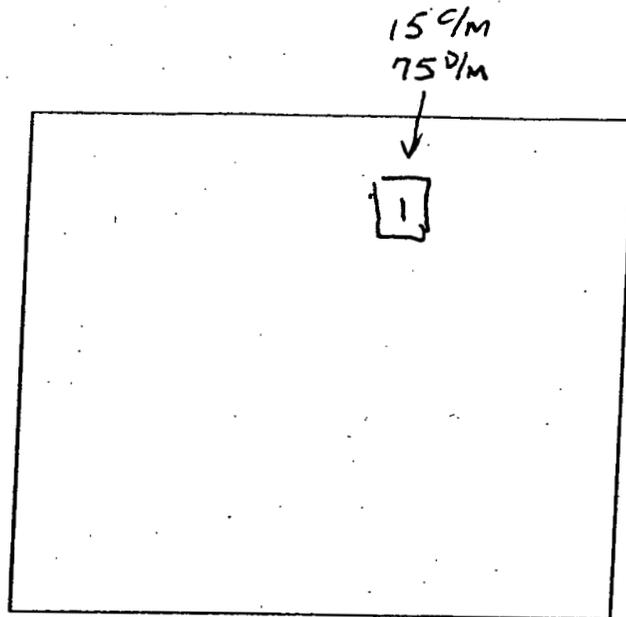
Cal Date Due 12/22/04

ESS 21.4%

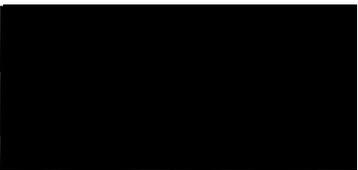
LAB 6.0 cpm 30D/m

Reviewed by Suth 12-2-04

Survey unit 707065 B
Grid # 17



Pre Source check 374 c/m
Post Source check 378 c/m
Post Source check for - 20% Yes No

Name 
Rct #

Date 12/02/04

Inst Electra
S/N 4408

Cal Date Due 04/18/04
Eff .219
LAB 6.0 %/m 30 d/m

Reviewed by Sutt  

Reviewed by *Sutton Wilson*

LAB 6.0 c/m 300m
 EST 219
 CAL DATE Due 4/18/04
 S/N 4408
 Inst Electra
 Date 12/2/04
 Pct # [Redacted]
 Name [Redacted]

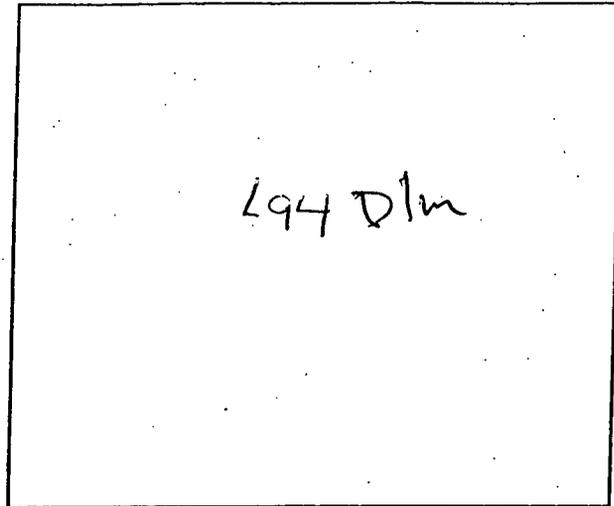
Pre Source check 374 c/m
 Post Source check 378 c/m
 Post Source check +/- 20% Yes No

> 94 d/m

Survey unit 7070653
 Grid # 18

Survey unit 707065 B

Grid # 19



Pre Source check 398 clm

Post Source check 458 clm

Post Source check for - 20% Yes No

Name

Rct #



Date 12-20-04

Inst Electra

S/N 3128

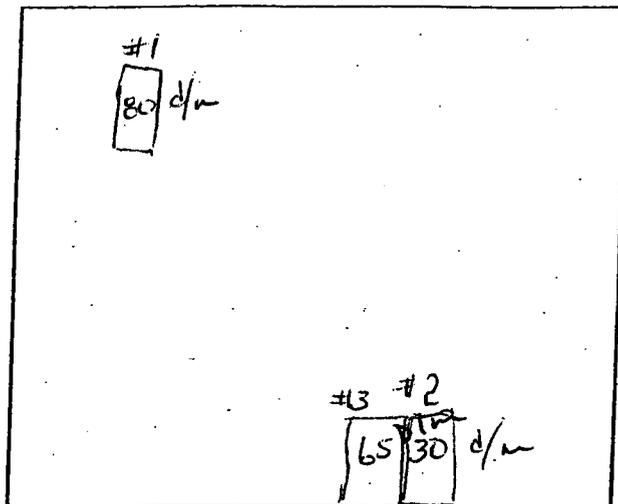
Cal Date Due 4-25-05

ESS 21.9%

LAB 3.0 c/m 150lm

Reviewed by Sutton *[Signature]*

Survey unit 707065 B
Grid # 20



Pre Source check 542 c/m
Post Source check 502 c/m
Post Source check for - 20% Yes No

Name 
Rct #

Date 12-2-04

Inst Electra

S/N 1259

Cal Date Due 4-11-05

Eff 22.3%

LAB 8.0 c/m 400m

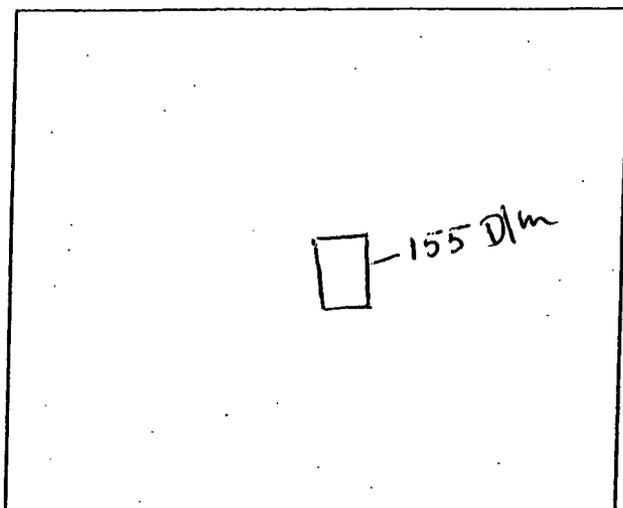
TSA

#1 = 16.0 cpm
#2 = 6.0 c/m
#3 = 13.0 c/m

Reviewed by *Suth*  

Survey unit 707065 B

Grid # 21



Pre Source check 398 clm

Post Source check 459 clm

Post Source check for - 20%

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

NAME

Rct #

Date

12/2/04

Inst

Electra

S/N

3128

Cal Date Due 4/25/05

ESS

21.970

LAB

4.0 cpm 20 D/m

Reviewed by *Subh* 

Survey Area: [] Survey Unit: 707065B Building: 707

Survey Unit/Area Description: Building 707 1st floor B module 2nd 10% scan

Investigation Documentation Sheet

Grid Location (X,Y (room))	Survey	RCT ID	ISA Measurements			RSA Measurements		Gross (cpm)	Comments	Date
			Inst ID	PAP (cpm)	ISA (cpm)	Net (cpm)	Net BK (cpm)			
21	1	1	1	4.0	21.0		NA	NA	12/02/04	
NA	NA	NA	NA	NA	NA		NA	NA	NA	
NA	NA	NA	NA	NA	NA		NA	NA	NA	

RCT ID #	Date
1	12/02/04
2	
3	NA
4	

Inst #	Serial #	Cal Due Date	Efficiency	Comments
1	3128	4/25/05	.219	
2				
3	NA	NA	NA	NA
4				

Comments

Supervisor (print) Sutter

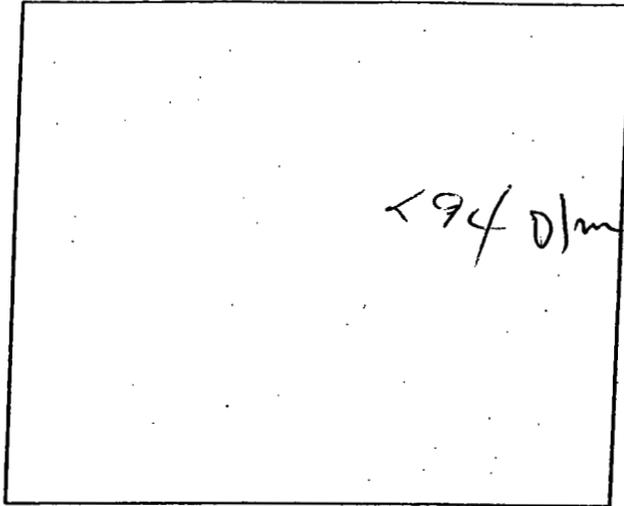
Supervisor (signature) [Signature]

Date 12-2-04

(PRO-475-RSP-16.01, effective 05/22/01)

Survey unit 707065 B

Grid # 22



Pre Source check 398 c/m

Post Source check 452 c/m

Post Source check for - 20% Yes No

Name

Rct #

Date 12-2-04

Inst Electra

S/N 3128

Cal Date Due 4-25-05

ESS 21.9%

LAB 4.0 g/m 20 dlm

Reviewed by Sutton 