NAS Jacksonville Administrative Record
Document Index Number

32212-000
20.02.00.0007

PSC 3

RADIOLOGICAL SURVEY REPORT

FOR

THE NAVAL AIR STATION JACKSONVILLE, FLORIDA

Under Contract No. N62467-93-D-0936

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OCTOBER 1995

REVISION 0

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EXECUTIVE SUMMARY

In February 1995, a team of Bechtel Environmental, Inc. and PTS radiological safety specialists conducted a survey to characterize the radiological levels and distribution over the surface of Potential Source of Contamination (PSC) 3 at Naval Air Station Jacksonville, Florida. The principal radiological contaminant had been previously determined to be radium-226, used in the 1940-1950s time frame as a luminous dial marker for aircraft instrumentation. The radium-226 contamination resulted from operation of an instrument repair and maintenance operation on the base that utilized the luminous paint as part of the facility operations.

The radiation survey consisted of a 30 ft by 30 ft grid-line gamma scan survey to locate elevated activity in excess of twice the background. This grid pattern results in approximately 10 percent of the total area being scanned. These elevated locations (hot spots) were then characterized to determine radiation level and size as well as location within the pre-established grid system on the site. Radiation levels were determined at the point of highest reading and consisted of beta, gamma, alpha, and dose rate readings. The size of the elevated reading found was defined by the four compass points at which the gamma reading fell to 20 percent above background. The hot spot characterization was supplemented by recording the average gamma dose rate reading at each grid intersection point to provide a general gamma profile over the site. Soil samples were taken on the site at selected locations chosen to be representative of areal extent and level of activity encountered over the site.

The characterization identified seven locations over the 15 acre with elevated readings. Three of these elevated areas were identified as hot spots (Nos. 52-01, 49-01, and 01-01A) that exceeded the twice-background designation criteria. These hot spots were found to vary in size from several feet in diameter to areas as large as a total grid (33 ft by 33 ft). Dose rates were measured as high as 12 μR/hr. The average background at the grid intersections onsite is approximately 6.7 μR/hr. Radioisotope concentrations in the soil samples from PSC 3 ranged from approximately 0.4 pCi/g to 1.1 pCi/g with an average of 0.7 pCi/g. Radium-226 concentration in all cases was below the site release criteria of 5.4 pCi/g.

1.0 INTRODUCTION

The U.S. Department of Navy, Southern Division, Naval Facilities Engineering Command intends to conduct radiological remedial actions at Naval Air Station (NAS) Jacksonville, Florida in compliance with federal regulations. Based on the operating history of the site, a total of 45 areas were identified as requiring further investigation to determine whether remediation would be required to meet state and federal guidelines.

Eighteen of the 45 specific areas within the NAS (Figure 1-1) have been identified as radiological potential sources of contamination (PSCs). Of these areas, PSC 3, an approximately 15-acre area, has been identified as a lower priority based on potential for contamination, estimated to be minimal based on prior history. Detailed radiological characterization of PSC 3 was performed to determine whether the extent and magnitude of radioactive contamination remaining onsite would require further remedial actions. The radiological characterization entailed determination of the natural background radiation level, identification of contaminants at NAS Jacksonville, and investigation of specific elevated radiation zones on PSC 3.

Bechtel Environmental, Inc. (Bechtel), the Environmental Response Action Contractor, performed these radiological characterizations in support of the remedial investigation being performed by ABB-Environmental Services, Inc. (ABB-ES).

2.0 SITE HISTORY

The operating history of NAS Jacksonville has included handling and disposing of materials containing low levels of radioactivity. Onsite activities involving such materials included:

- Aircraft instrument maintenance and repair (radium-226)
- Sandblasting and cleaning (thorium-232)

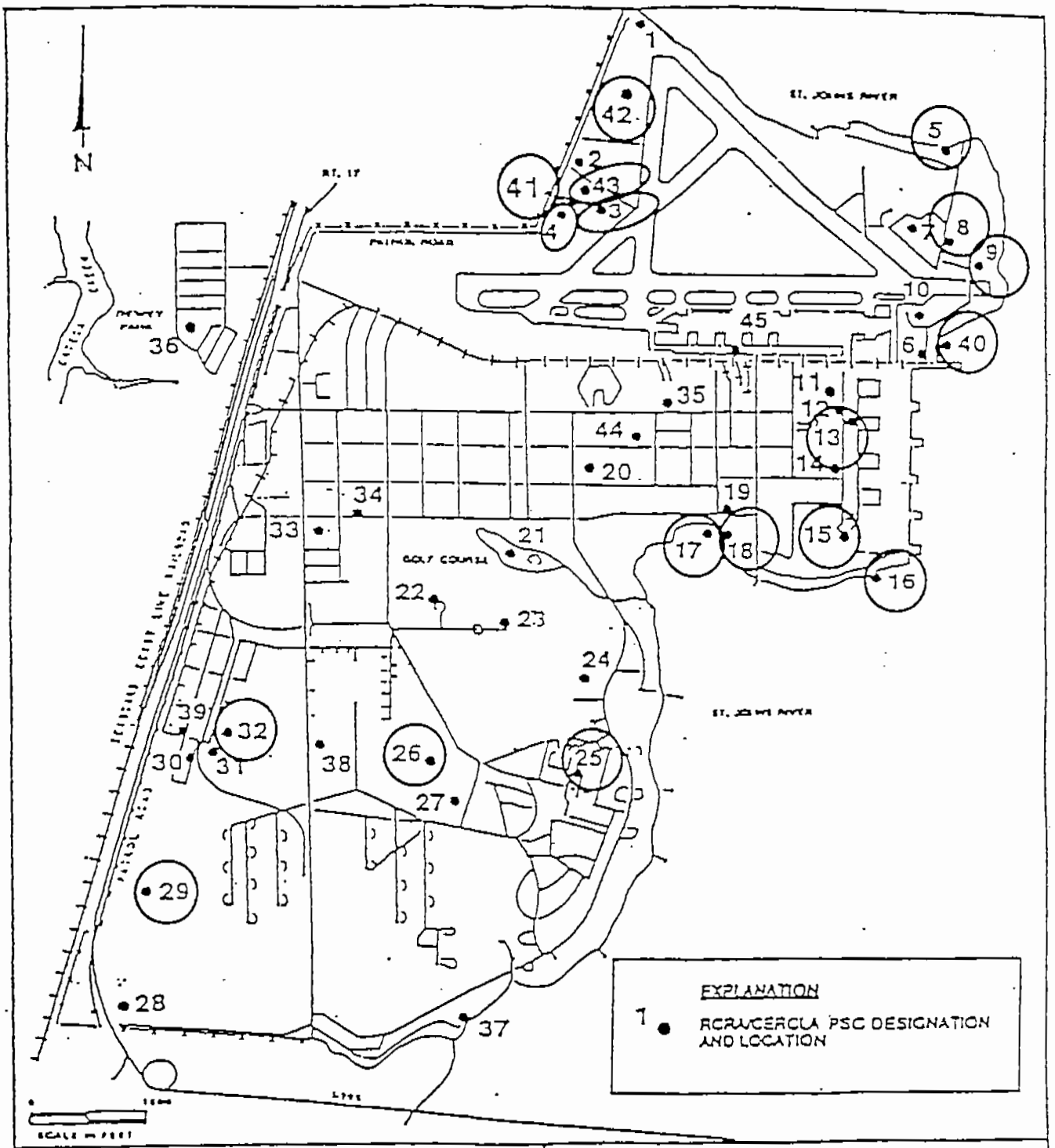
From June 28 to July 2, 1982, the onsite phase of a preliminary assessment (PA) was conducted as the first phase of the Naval Assessment and Control of Installation Pollutants program. This program has now been incorporated into the Navy and Marine Corps Installation Restoration (MCIR) program. The purpose of the PA was to identify, assess, and control environmental contamination from past hazardous materials storage, transfer, processing, and disposal operations. The PA identified 38 PSCs, of which 10 posed a potential threat to human health and the environment based on their Confirmation Study Ranking System (CSRS) scores. Currently there are 45 PSCs identified within NAS Jacksonville, of which 18 have potential for radiological contamination.

2.1 PSC 3

PSC 3 is an approximate 15-acre area located just east of the sewage treatment plant (Figure 2-1). This area is the wastewater treatment plant (WWTP) Ex-Sludge Disposal Area in which the Navy dumped approximately 20,000 tons of sewage sludge containing metals and organics from 1962 to 1980.

This PSC may have been exposed to sources of low-level radioactive material or radioactive contamination over the past 50 years. Sources of low-level ionizing radiation in the form of luminous instruments and abrasive grits are known to have been used at the site. Radium-226 was used as the source of luminescence in aircraft electrical components. Abrasive grits used to clean aircraft components contain elevated levels of radium-226 and thorium-232.

Figure 1-1 PSC Locations

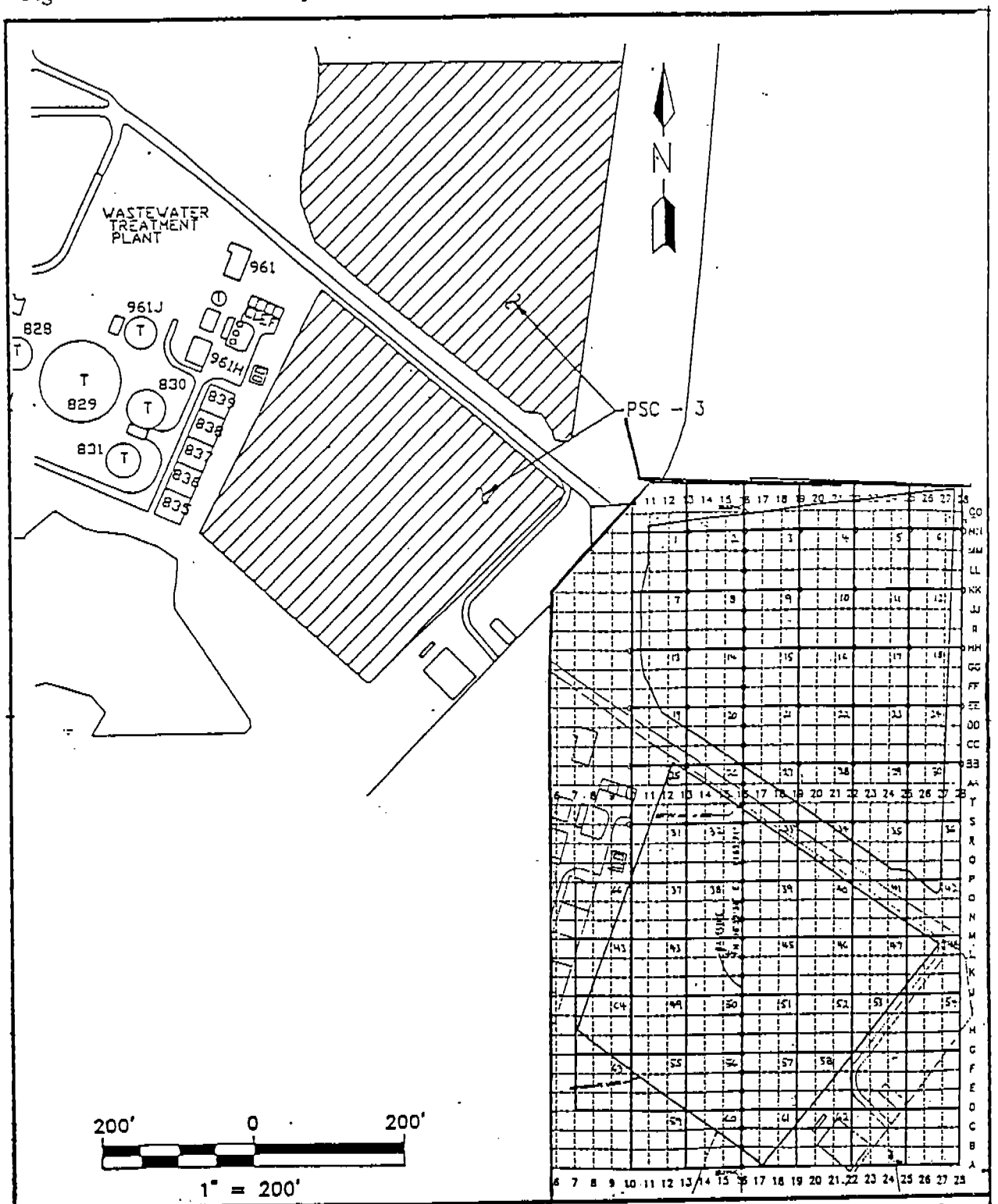


PSC Locations

RI/FS WORK PLAN FOR OU1

NAS JACKSONVILLE

Figure 2-1 PSC 3 Grid System



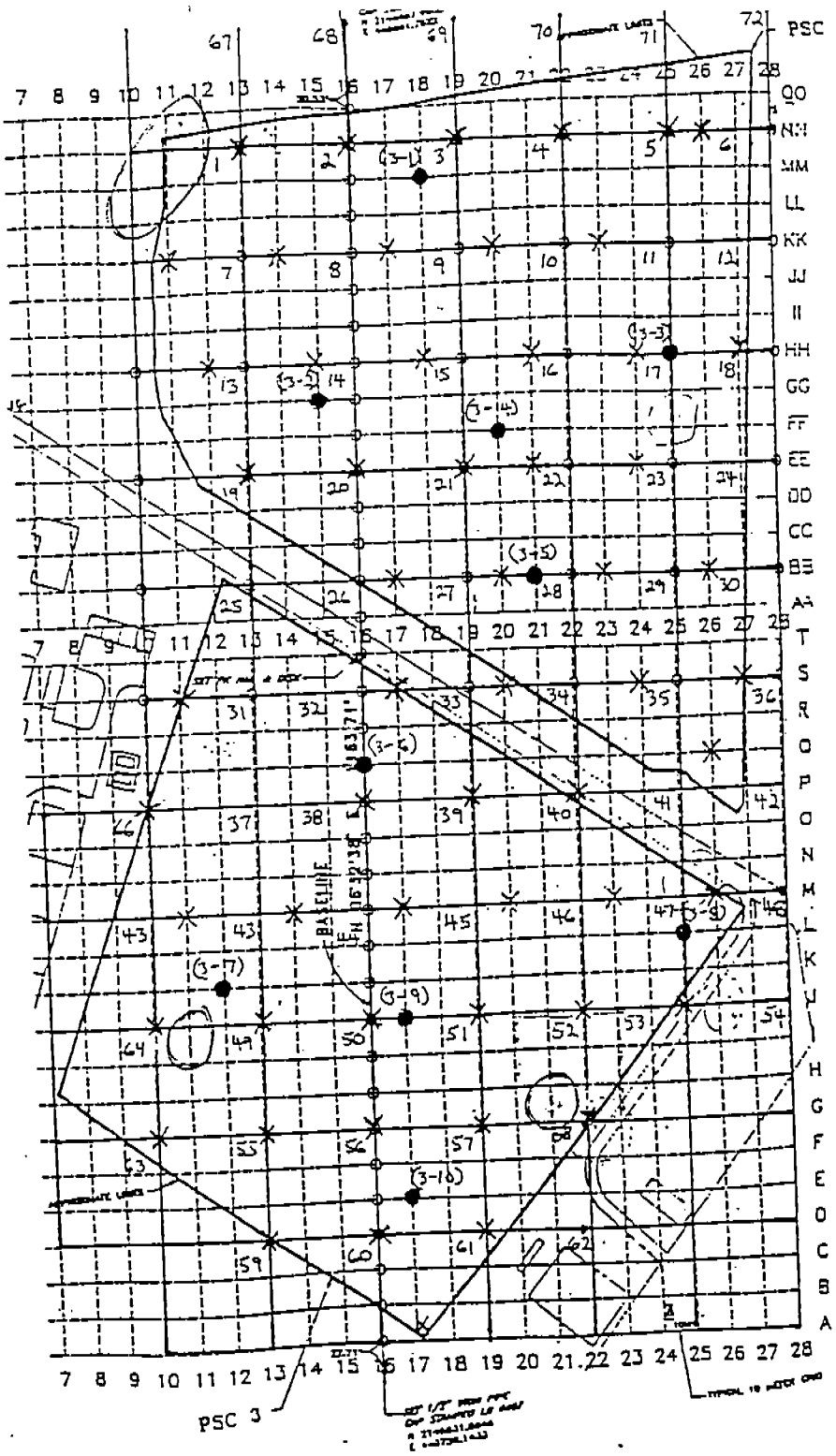
PSC – 3

WWTP EX-SLUDGE DISPOSAL AREA

PROGRAM ORGANIZATION AND PLANNING

NAS JACKSONVILLE
SEPTEMBER 1991

Figure 5-1 PSC 3 Hot Spot Locations



3.0 RADIATION SURVEY PLAN

PSC 3 has been designated as a nonsuspect area with possible residual radioactivity above background levels attributable to prior operations at NAS. Bechtel developed a radiological survey plan that provides for radiation monitoring of each grid-line and grid-line intersect of PSC 3 to identify areas exhibiting radiation levels that may be in excess of accepted cleanup standards. This plan also provides for the identification of radioisotopic concentrations in soil and sediment samples from PSC 3 through analytical investigations to assist in the design of remedial actions. The baseline for determining the significance of elevated radiation readings was derived from background radiological assessments in and around NAS Jacksonville[1]. The radiological cleanup standard to be applied at NAS Jacksonville is 5 pCi/g above background for radium-226 in soil [2]. This will be confirmed by in situ surface measurements and surface soil samples.

3.1 PSC 3 PREPARATION

In order that a systematic method of radiation surveying could be employed and a convenient process of location identification be established, it was necessary to develop a grid system on PSC 3 from which work efforts and study findings could be related. The entire 15 acres of PSC 3 were surveyed and marked into a 33-ft (10 m) grid pattern by a licensed civil survey subcontractor. This grid, shown in Figure 2-1, was located to a Florida State benchmark that ties it to the state grid system. As the grid was established, stakes with the proper identification notation were positioned at each grid intersection, thereby providing appropriate markers to assist the radiation survey operation. Each grid intersect was assigned an identification number that assisted data collection and provided markers to which specific findings could be located.

The performance of grid-line scan surveys required that the surface of PSC 3 be cleared of shrubs, trees, and grass to a height no greater than 2 in. The areas covered with grass, small shrubs, and bushes were cut to an acceptable length using a farm tractor equipped with a bush hog. In the event that an area of PSC 3 was covered with very thick forest the area was landscaped using a subcontractor for removal. In this effort, all trees with trunks less than 5 in. in diameter were removed and all undergrowth was cut at ground level. The performance of radiation survey operations and landscape clearing was systematically scheduled so that clearing operations resulted in a minimal impact on the survey efforts.

3.2 RADIOLOGICAL CHARACTERIZATION PROTOCOLS

The primary purpose for radiologically characterizing PSC 3 was to determine its radiological conditions compared to background levels at NAS Jacksonville and to identify the extent and magnitude of radioactive contaminants and sources that were excluded in previous cleanup efforts. The protocol based on a grid-line survey is applicable to an area designated as "nonsuspect" from a radiological standpoint. The information from these studies may be used as a verification and final survey in future decisions pertaining to free release of PSC 3.

3.2.1 Methods of Detection

The detection of radiation-emitting sources and contaminants is normally achieved through either direct reading surveys with appropriate radiation detection instruments or by analytically determining radioisotopic concentrations in media using specific laboratory protocols. The methods used for characterizing PSC 3 involved both of these processes.

3.2.1.1 Direct radiation reading surveys

Four specific direct reading survey operations were performed that accurately defined the radiological conditions of PSC 3. Initially, a gamma scan survey and a grid-line intersect gamma survey were conducted using a 2" by 2" sodium iodide (NaI) detector to identify locations where radiation levels exceeded twice the background levels. In this survey, general area radiation levels were noted and "hot spots" were located, identified, and marked. The second survey involved the detailed characterization of hot spots by defining their radiological contours and measuring their peak radiation emissions. The measurements included gamma emissions, using a 2" by 2" NaI detector; gamma dose rates, using a μR meter; beta emissions, using a thin window pancake GM detector; and alpha emissions, using a zinc sulfide (ZnS) alpha scintillator detector. The description of the instruments used is summarized in Table 3-1. A third survey consisted of direct gamma emission and gamma dose rates near ground surface at each grid intersect location to characterize the average radiation status of PSC 3. A final survey was performed consisting of gamma dose rate measurements one meter above the surface at five random grid intersects using a highly accurate pressurized ion chamber (PIC) detector.

3.2.1.2 Analytical investigations

Radiation detection on PSC 3 was only intended to verify that the site is not contaminated. The survey was not intended to develop detailed characterization of site media. Therefore, soil sampling and analytical study was limited to obtaining radiation information for areas where direct surveying was not possible and for identifying the radioisotopes present in the media of potential hot spots. Radiological surveys were performed of the underlying soil where soil samples were collected. These surveys were intended to identify whether contaminants from the source area have migrated into the surrounding soil during the period of exposure. The information developed in these studies may also provide an order-of-magnitude comparison of radioisotopic concentrations with direct radiation readings.

3.2.2 Methods of Operation

The performance of grid-line radiation scans of large land areas required the implementation of operational methods that ensure total survey coverage and thorough collection of relevant data. The radiation surveys on PSC 3 were performed using the 33 ft by 33 ft grid pattern that had been established to organize the survey methodology and to identify exact locations of findings. Each east-west grid-line was assigned a specific letter and north-south grid-line a specific number, then arrays of 3 by 3 grid-lines were further defined by a grid block number to assist worker operations by providing a simple system for collecting and recording the field data.

Survey operations were conducted by radiation workers equipped with NaI detectors and gamma count rate meters following a prescribed method of monitoring. The instrument workers walked a specific pattern on each grid-line accompanied by a helper who recorded data, mapped surface features, marked hot spot locations, and obtained supportive radiation measurements.

The survey method involved starting at a corner of the grid to be surveyed. The NaI detector was moved from side to side while walking at a pace of about 2 ft per second. The detector was swung in a serpentine pattern approximately 3 ft in width at a height of approximately 2 in. above the ground surface. In using this procedure, the detection capability of the radiation instruments provided a high

Table 3-1
Portable Survey Instruments

Activity	Detector type	Model	Readout
Dose rate	pressurized ion chamber	Reuter-Stokes	μR/hr
Dose rate	1"x1" NaI detector	Ludlum 19	μR/hr
Gamma flux	2"x2" NaI detector	Ludlum 44-10	cpm
Beta flux	thin window pancake GM detector	Ludlum 44-9	cpm
Alpha flux	ZnS (Ag) alpha scintillator	Ludlum 43-65	cpm

probability for the detection of elevated gamma radiation emissions. This type of walkover survey was performed along each grid-line.

During the performance of these surveys, locations that exhibited elevated gamma emissions (hot spots) greater than 2 times the background radiation level, determined for each instrument as part of the daily source check, were marked with flags and assigned specific identification numbers. The gamma radiation levels for these locations were noted on data sheets and detailed characterization surveys were conducted at a later date. Each hot spot was precisely located by measuring its distance from the southeast corner of the grid within which it was present. These measurements were recorded as *(x,y)* coordinates.

Hot spot characterization involved developing a radiation contour by defining the boundaries that exhibited radiation levels 20 percent higher than background levels and precisely locating the point within each hot spot which had the peak gamma, beta, and alpha radiation levels. Separate data sheets for the hot spot information were generated to emphasize the size and radiation features of the various hot spots.

The normal background radiation characteristics of PSC 3 were evaluated daily by measuring the local site background gamma, beta, and alpha radiation before the start of characterization. The intent of these daily background checks was to identify the range of the local "apparent" site background.

4.0 BACKGROUND DETERMINATION

Standards for both radium-226 and thorium-232 in soil are provided in regulations from the U.S. Environmental Protection Agency (EPA), in 40 CFR 192, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings." For concentrations in soil, this value is:

$$\leq 5.0 \text{ pCi/gram above background}^{(2)}$$

Past cleanup and disposal activities involving these materials were based on regulatory standards that have been superseded by standards that are more directly applicable to the radioisotopes of interest and, in many cases, more restrictive than the previously applied standards. NAS Jacksonville is being resurveyed to evaluate the existing levels of residual activity for determining the needs of and planning the actions for further remediation.

To support remediation, it is necessary to determine the background activity against which the release criteria will be applied. The background levels for this site have been determined and reported in "*Radiological Background determination for the NAS Jacksonville site*"[1] in detail. These results are adopted to be applicable for PSC 3.

The background characterization consisted of a series of in situ measurements and soil samples at each selected location. The in situ measurements consisted of the following:

- PIC detector — μR/hr
- μR meter — μR/hr
- Gamma flux using 2"x2" NaI detector — cpm
- Beta activity — cpm
- Alpha activity — cpm

The soil samples were analyzed at an offsite radiochemistry laboratory for the following activities:

- Total uranium
- Uranium-238 and daughters (naturally occurring)
- Radium-226 and daughters (naturally occurring)
- Thorium-232 and daughters (naturally occurring)
- Potassium-40 (naturally occurring)
- Cesium-137 (fallout)

Since radium-226 and thorium-232 were the radioisotopes associated with past site activities, accurate determination of the background contribution was important. During remediation and final gamma clearance surveys, reliance will be placed on the in situ measurements using the μR meter and the 2" by 2" NaI detector. The PIC, used in this background study, will be employed as a secondary measurement standard for background level measurements, in addition to being the primary background dose rate measurement. The performance of the other instruments will be corrected for future application onsite, using the PIC as the secondary standard.

The findings of the "*Radiological Background determination for the NAS Jacksonville site*"[1] report regarding background information could be summarized as follows:

The criteria for unrestricted release (≤ 5 pCi/g) would be met for 2"x2" NaI detector response of:

$$R_O < 4{,}750 \text{ cpm above background}$$

4.2 RESULTS - IN SITU MEASUREMENTS

The radium-226 that represents background at NAS Jacksonville is given as:

Maximum = 0.99 pCi/g
Minimum = 0.37 pCi/g
Average = 0.58 pCi/g

For conservatism, use the low value, above which the release criteria is added. This implies that remediation has satisfied the criteria for unrestricted release when the residual activity for radium or thorium is:

$$S_R \leq 5.4 \text{ pCi/g}$$

The exposure rate corresponding to the site background was determined to be 6.4 μR/hr.

5.0 DATA ACQUISITION

The radiological characterization of PSC 3 is based upon in situ measurements of gamma, beta, and alpha emissions, and on gamma dose rate measurements. These in situ measurements were supplemented with sample analysis for isotopic identification and quantification.

5.1 SURVEY INSTRUMENT PERFORMANCE VERIFICATION

At the beginning of each daily characterization effort, each survey instrument was performance checked using a fixed source of radioactivity. This source check was performed using the following NIST traceable sources:

- 2"x2" NaI detector: 1 μCi and 2 μCi cesium-137
- μR meter: 1 μCi and 2 μCi cesium-137
- Pancake GM detector: 4,016 dpm strontium-90
- Alpha scintillator: 16,800 dpm thorium-230

The daily response for each detector was plotted on a control chart prepared for each individual instrument. If the instrument response was within the ±20 percent of the initial baseline, the instrument was acceptable for use. If the response fell outside the ±20 percent band, the instrument was removed from service.

5.2 GRID-LINE SCAN SURVEY RESULTS

PSC 3 grid-lines were surveyed by scanning the accessible surface area. Prior to initiating the scan survey, the grids established by ARCs Surveying using ABB-ES work plans were numbered sequentially. The scan was performed as described in Section 3 using a 2"x2" NaI detector and ratemeter. Local background was noted for each grid and compared with background values recorded offsite during daily source check to insure the grid survey was not starting over a hot spot. As the grid scan progressed, elevated readings greater than 20 percent of the start point background were noted. If the scan exceeded twice the start point background, the location was noted on a survey map for further detailed characterization. The field survey logs for the grid-line and intersects surveys are provided in Appendix A.

During this survey seven suspect locations were identified to have elevated readings (Table. 5-1). Three of these elevated areas were identified as suspected hot spots (Nos. 52-01, 49-01, and 01-01A, which are designated by a "*" in the comment column of Table 5-1. They were further investigated and will be discussed in Section 5.3. The remaining surveyed areas indicated no elevated readings.

5.3 HOT SPOT CHARACTERIZATION

Upon completion of the grid-line scan survey described in Section 5.2, each elevated activity location that exceeded twice the start point background was further characterized. This characterization consisted of the following measurements:

- gamma emission rate on the ground surface : 2"x2" NaI detector
- beta emission rate on the ground surface: thin-window pancake GM detector
- alpha emission rate on ground surface: alpha scintillation detector
- gamma dose rate on ground surface: μR meter

A map showing locations of hot spots encountered during this survey is shown on Figure 5-1. A summary of the hot spot activity levels is provided in Table 5-2. The *(x,y)* coordinates starting as (0,0) are located in the southeast corner of each grid block. The highest gamma activity among the hot spots were observed at Location 01-01A. These levels were 12,000 cpm and 12 μR/hr, with corresponding background levels of 2,400 cpm and 6.4 μR/hr, respectively. Appendix B provides the survey data sheets for hot spots.

Table 5-1
PSC 3 Elevated Readings Summary

No.	Location ID	γ counts (cpm)	Background (cpm)	Comments	
1	01-01A	9,000-15,000	2,700	multi-hit area	*
2	17-01	8,000	2,700		
3	42-01	8,300	2,700		
4	18091	8,000	2,700		
5	49-01	8,200	2,700		*
6	52-01	8,300	2,700		*
7	53-01A	8,000	2,700		

* Characterized further.

Figure 5-1 PSC 3 Hot Spot Locations

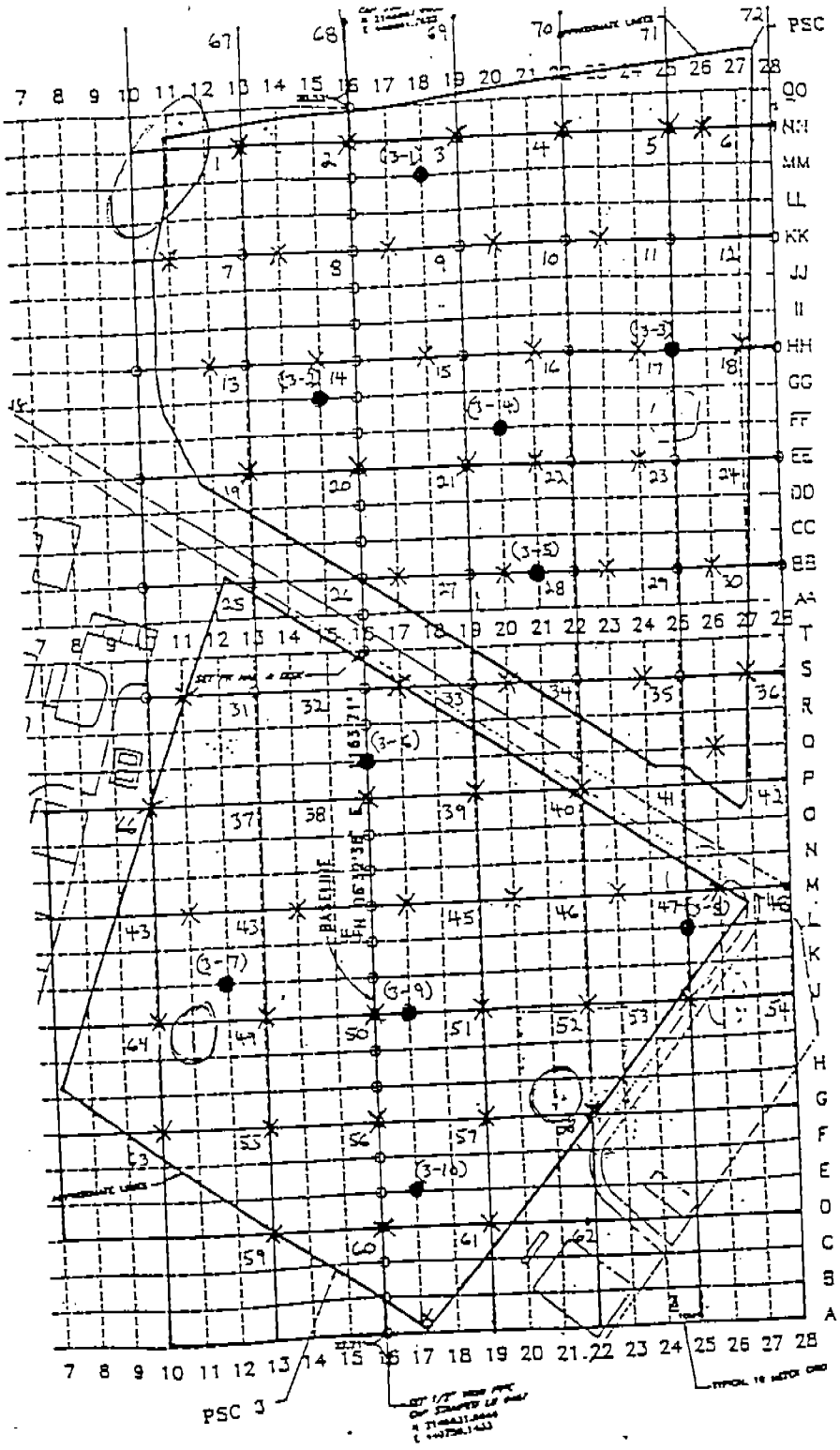


Table 5-2
PSC 3 Hot Spot Characterization

Hot spot coordinates (*x,y*)	Hot spot ID	Reading results (cpm)						Exposure rate (μR/h)
		α		δ		γ		
		bkg	m	bkg	m	bkg	m	
(-4'0",25'0")	01-01A	0.5	2	32.2	90	2,700	12,000	12
(-0'6",22'0")	49-01	0.5	0	32.2	55	2,700	7,400	10
(-1'0",1'0")	52-01	0.6	3	34	59	2,700	7,400	10

bkg = Background reading
m = Field measurement reading
PSC average background dose rate = 6.8 μR/hr
NAS-JAX average background dose rate = 6.4 μR/hr

5.4 SOIL SAMPLE RESULTS

A total of ten surface (0- to 6-in. depth) soil samples were obtained on PSC 3. These samples were analyzed for radioisotopic content to confirm the identity of the primary contaminant(s). The results of the radiochemistry analysis for radium-226 are provided in Table 5-3. The location of these sample points is shown on Figure 5-2. The laboratory analysis reports and sampling data sheets are provided in Appendix C. The radium-226 activity from the samples ranges from approximately 0.54 pCi/g to 1.05 pCi/g, with an average concentration of 0.674 pCi/g. None of the samples analyzed exhibited radium-226 concentrations greater than the 5.4 pCi/g release criteria established for this site.

5.5 PIC MEASUREMENT RESULTS

A total of 57 PIC readings were obtained on PSC 3. A summary of the results for these readings is provided in Table 5-4. The location of these points is shown on Figure 5-3. The PIC survey data sheets are provided in Appendix D. The PIC average reading within PSC 3 ranges from approximately 6.1 μR/h to 8.9 μR/h, with an average reading of 6.6 μR/h.

6.0 SUMMARY OF RESULTS

The grid-line scan surveys were intended to locate areas of elevated activity (hot spots) that had potential to exceed release criteria. Areas that exceeded twice the background of the start point of the grid were marked for further characterization. At each grid intersection, the local gamma background was noted. Along each of the grid-lines and at each grid-line intersection in PSC 3, the local background varied from 6.1 μR/hr to 8.9 μR/hr (compared to NAS Jacksonville background that varies from 5.7 μR/hr to 7.8 μR/hr).

As a result of the walkover survey, three areas were noted that exceeded twice local background. In situ characterization of these hot spots indicated a maximum surface dose rate of 12 μR/hr (Location 01-01A).

None of the soil samples taken from randomly selected locations in PSC 3 contained elevated radium-226 concentrations >5.4 pCi/g; however, no soil samples were obtained at the suspected hot spot locations. Because of the limited (10%) coverage, and the elevated surface readings, it is not possible to conclude that PSC 3 can be designated as available for unrestricted radiological release. A more detailed survey protocol to define the level and composition of the elevated areas noted here will be required before additional decisions regarding the need for remediation can be made.

Figure 5-2 PSC 3 Soil Sample Locations

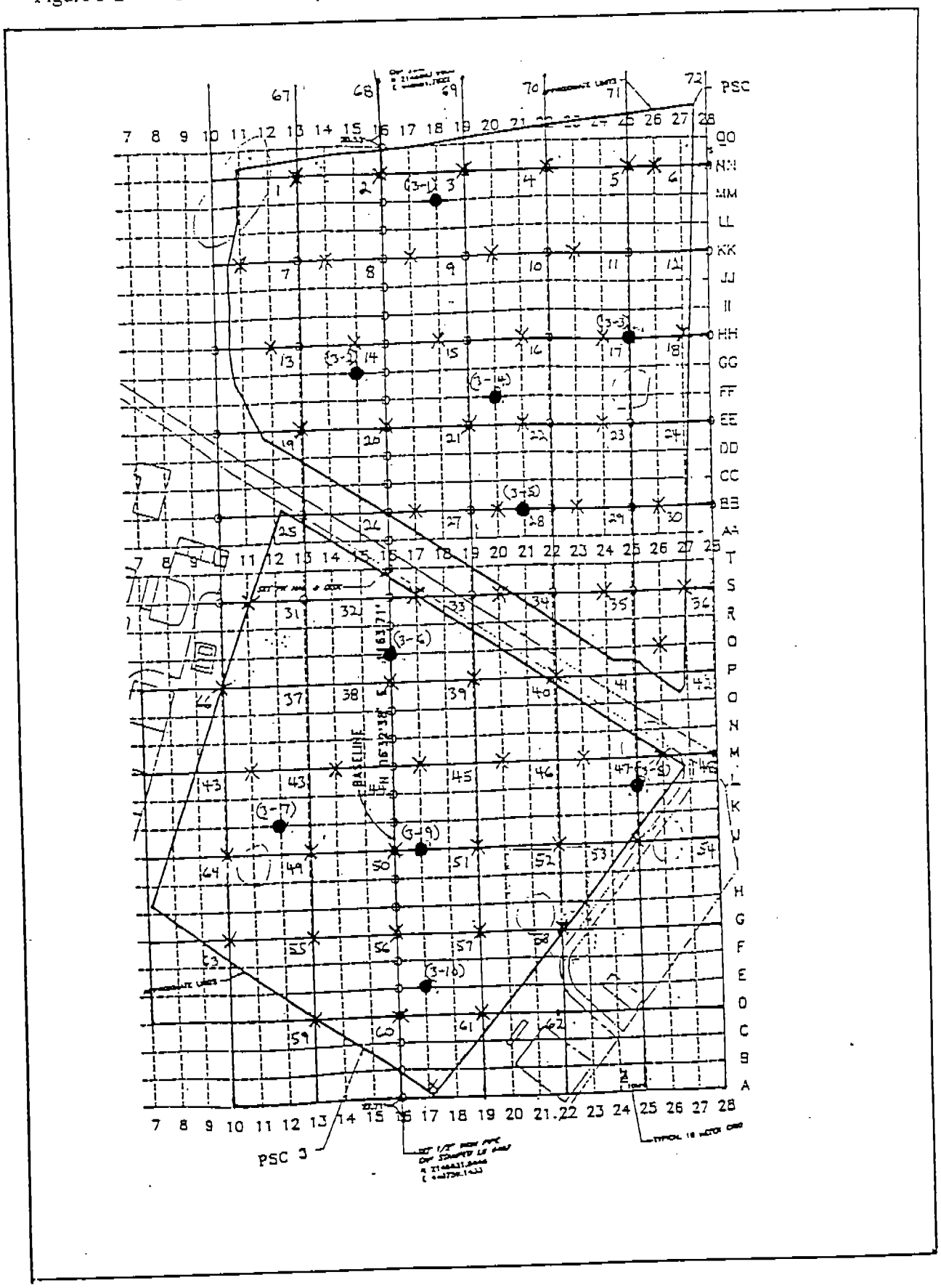


Table 5-3
PSC 3 Analytical Results of Soil Samples for ^{226}Ra

Sample location	γ count at sample location (cpm)	^{226}Ra concentration (pCi/g)
MM18	6,055	0.702
GG15	5,617	0.468
HH25	5,886	0.502
FF20	5,099	0.537
BB21	5,889	0.654
Q16	5,668	0.738
K12	4,985	1.05
L25	6,340	0.754
J17	5,257	0.766
E17	5,493	0.568
	Average	0.674

Figure 5-3 PSC 3 PIC Measurement Locations

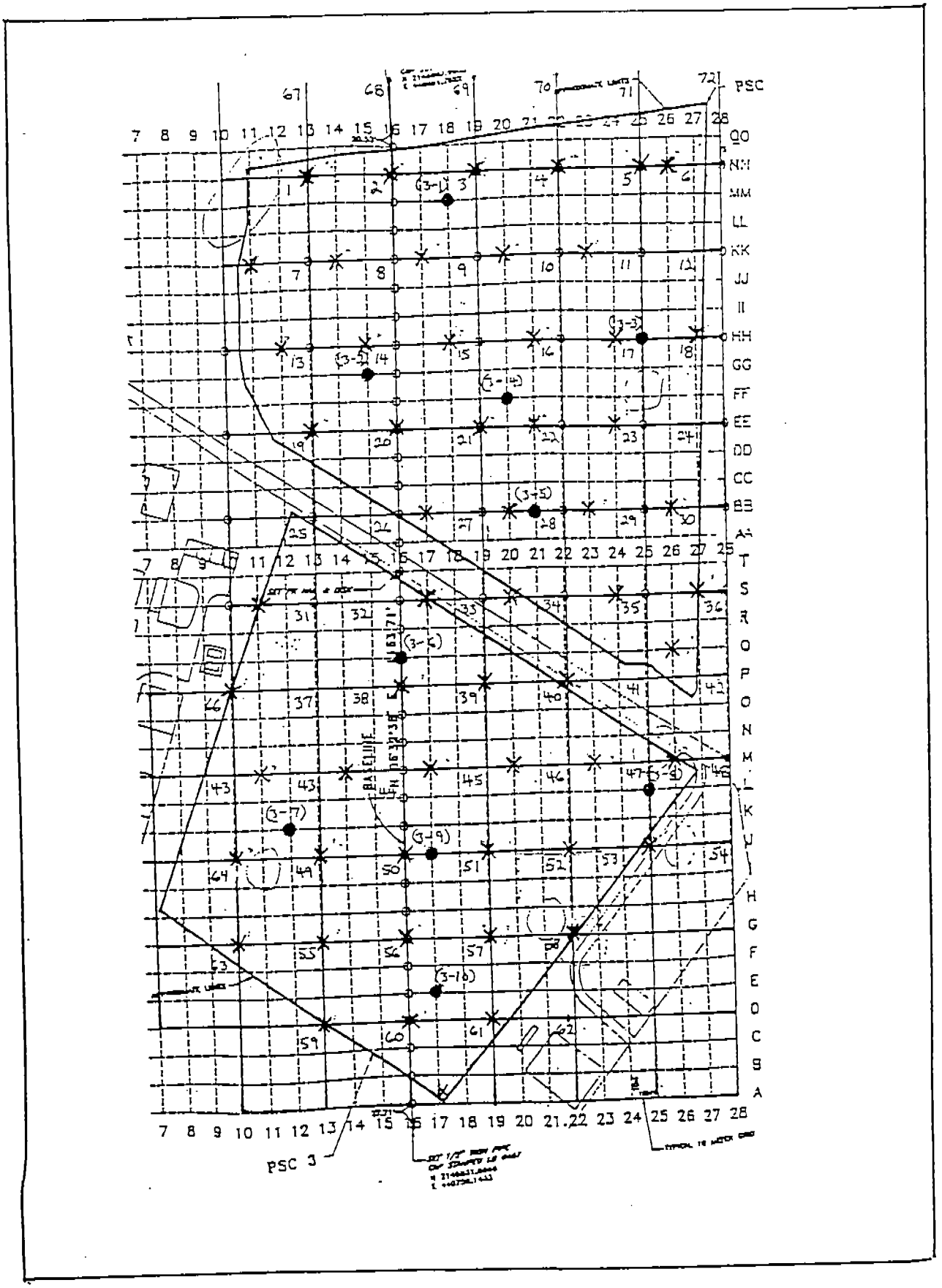


Table 5-4
PSC 3 PIC Measurement Results

Location	PIC Reading (μR/h)		
	Avg	Max	Min
BB17	6.2	9.7	5.1
BB2-	6.4	7.6	5.6
BB23	6.4	7.7	5.3
BB26	6.4	9.0	5.6
EE13	6.8	8.0	5.6
EE16	6.5	7.6	5.6
EE19	6.2	8.0	5.2
EE21	6.6	7.6	5.6
EE24	6.6	8.1	5.7
HH12	6.8	8.2	5.8
HH15	6.5	7.8	5.6
HH18	6.6	8.2	5.7
HH21	6.2	7.8	5.0
HH24	6.5	7.8	5.3
HH27	7.0	8.8	6.1
KK11	6.8	8.3	5.6
KK14	6.7	8.1	5.6
KK17	6.7	8.2	5.7
KK20	6.6	8.2	5.7
KK27	6.8	9.3	5.8
NN13	6.7	7.7	6.2
NN16	6.7	7.7	6.2
NN19	6.9	8.1	6.0
NN22	6.7	8.3	5.3
NN25	6.7	8.3	5.3
NN26	6.4	7.7	5.5
A17	6.8	8.0	5.7
D13	6.3	8.5	5.7
D16	6.6	7.8	5.8
D19	6.8	8.5	5.8

Table 5-4 (continued)

Location	PIC Reading (μR/h)		
	Avg	Max	Min
G10	6.1	7.7	5.1
G13	6.3	7.7	5.1
G16	6.9	8.0	6.0
G19	7.2	8.3	5.8
G22	8.7	10.0	8.0
J10	6.2	7.8	5.1
J13	6.6	7.4	5.6
J16	6.5	8.0	5.6
J19	6.8	8.5	5.7
J22	7.0	9.0	6.0
J25	7.0	9.0	6.0
M11	6.2	7.7	5.2
M14	6.9	8.5	5.7
M17	6.6	9.7	5.7
M20	6.8	8.2	5.7
M23	7.0	8.1	6.0
M26	7.7	9.7	6.3
P10	6.2	7.9	4.8
P16	6.6	8.5	5.8
P19	6.8	8.0	5.8
P22	6.3	7.8	5.5
Q26	6.7	8.5	5.7
S11	6.2	7.1	5.1
S17	6.6	8.0	5.8
S21	6.7	8.3	5.6
S24	6.6	8.1	5.6
S27	7.8	9.2	6.7
NAS-JAX background	6.4	7.8	5.7

REFERENCES

1. Bauer, V. Hermann (Bechtel) to B. K. Moring (SOUTHDIV), "Radiological Background Determination for the NAS Jacksonville Site," Jan. 11, 1995.

2. USEPA, 40 CFR 192, "Health and Environmental Standards for Uranium and Thorium Mill Tailings," January 5, 1983.

APPENDIX A

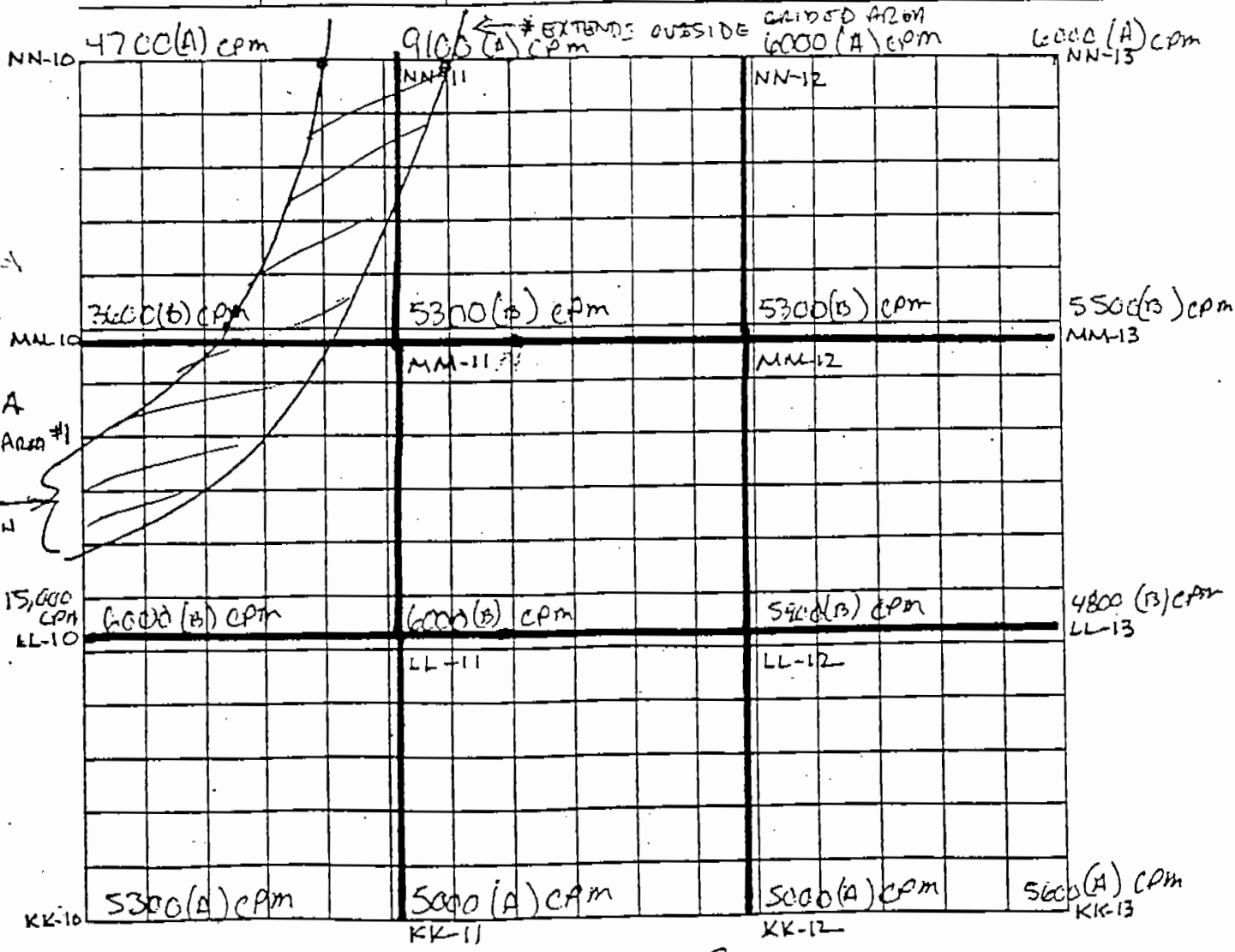
FIELD DATA ACQUISITION FORMS:

GRID-LINE AND GRID-LINE INTERSECTION WALKOVER SURVEY DATA

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

		INSTRUMENTS				
DATE/TIME:	23JAN95	Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
SITE:	PSC-3					
LOCATION:	fo ~~GRID~~ #1					
TECHNICIANS:	J. Shawen	LiDLum 2221	99136 (A)	44-10	165	4/20/95
	G. Shawen	LiDLum 2221	94954 (B)	44-10	118370	4/20/95
	W. Comey			N/A		
	R. Parrish					
	S. Haese					



SCALE: 6'x2' x 6'x2'

REVIEWED BY: 1-23-95

REMARKS (Notes): ① One MULTI-HIT area high of 15k. 1/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

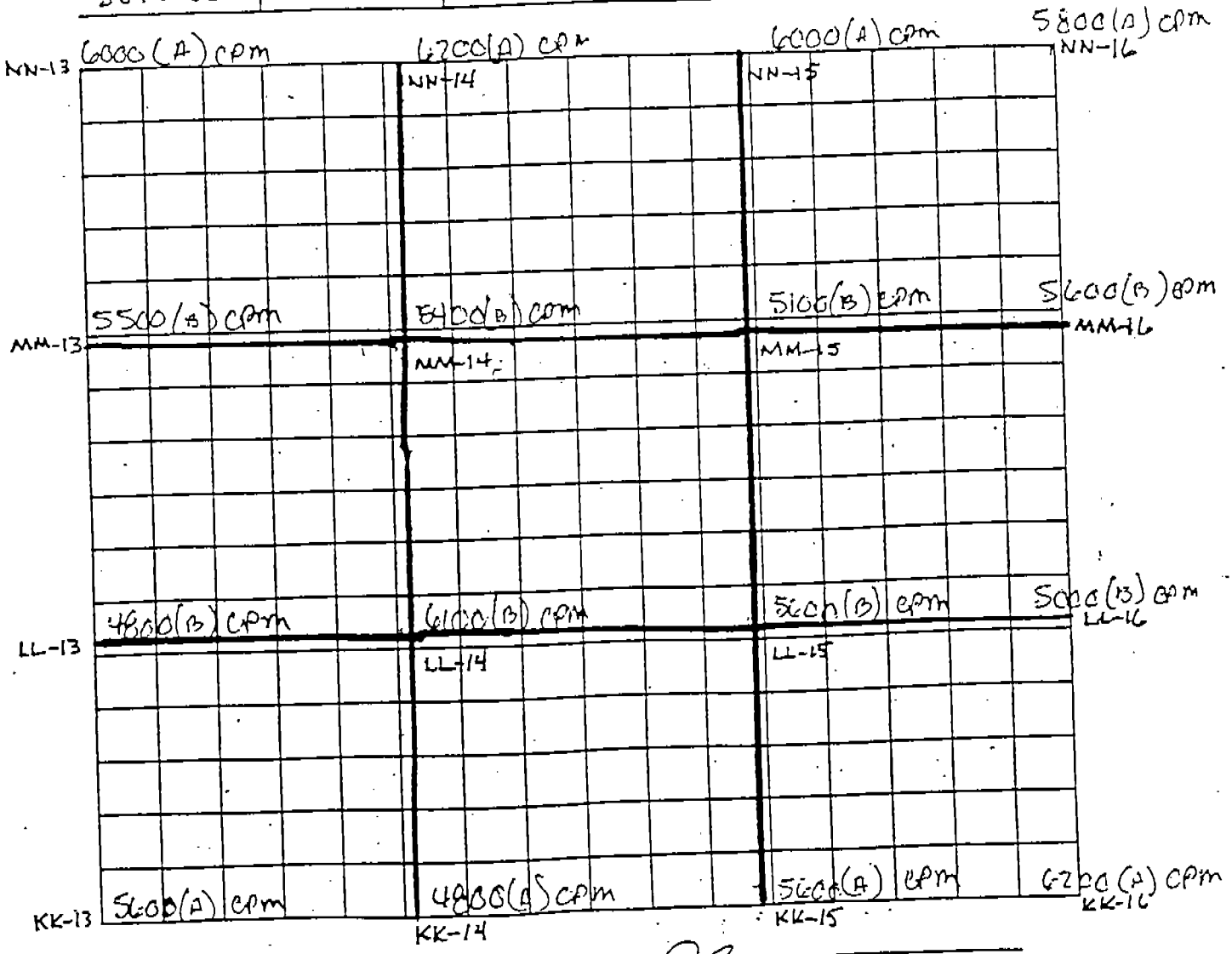
DATE/TIME: 23 JAN 95

SITE: PSC-3

LOCATION: ~~SWMU~~ GP102

TECHNICIANS: J. Shawers, G. Shawers, W.C. May, R. Farnish, S. Hause

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
LUDLUM 2221	99136 (A)	44-10	165	4/20/95
LUDLUM 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-23-95

[signature] 3/1/95

REMARKS (Notes): ① No hits.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

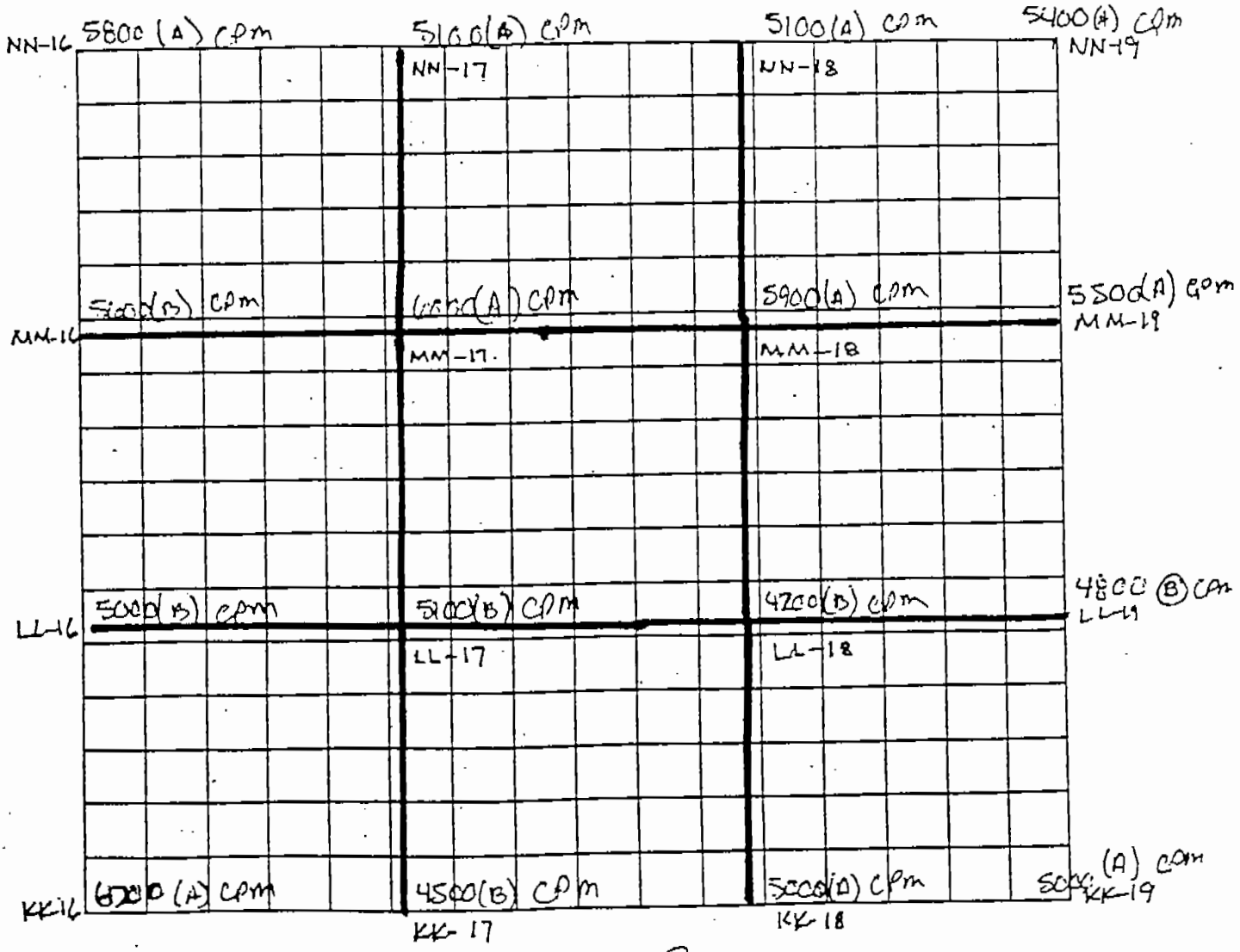
DATE/TIME: 23JAN95 4pm

SITE: PSC-3

LOCATION: ~~S N/A~~ GRID 3

TECHNICIANS:

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
J. Shanley	Lio Lim 2221	99136 (B)	44-10	165	4/20/95
G. Shanley	Lio Lim 2221	97826 (A)	44-10	118371	4/21/95
W. C. May					
R. Amish			N/A		
S. Haese					



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-23-95

REMARKS (Notes): ① No hits. ① HF 2/1/95

PAGE 4

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

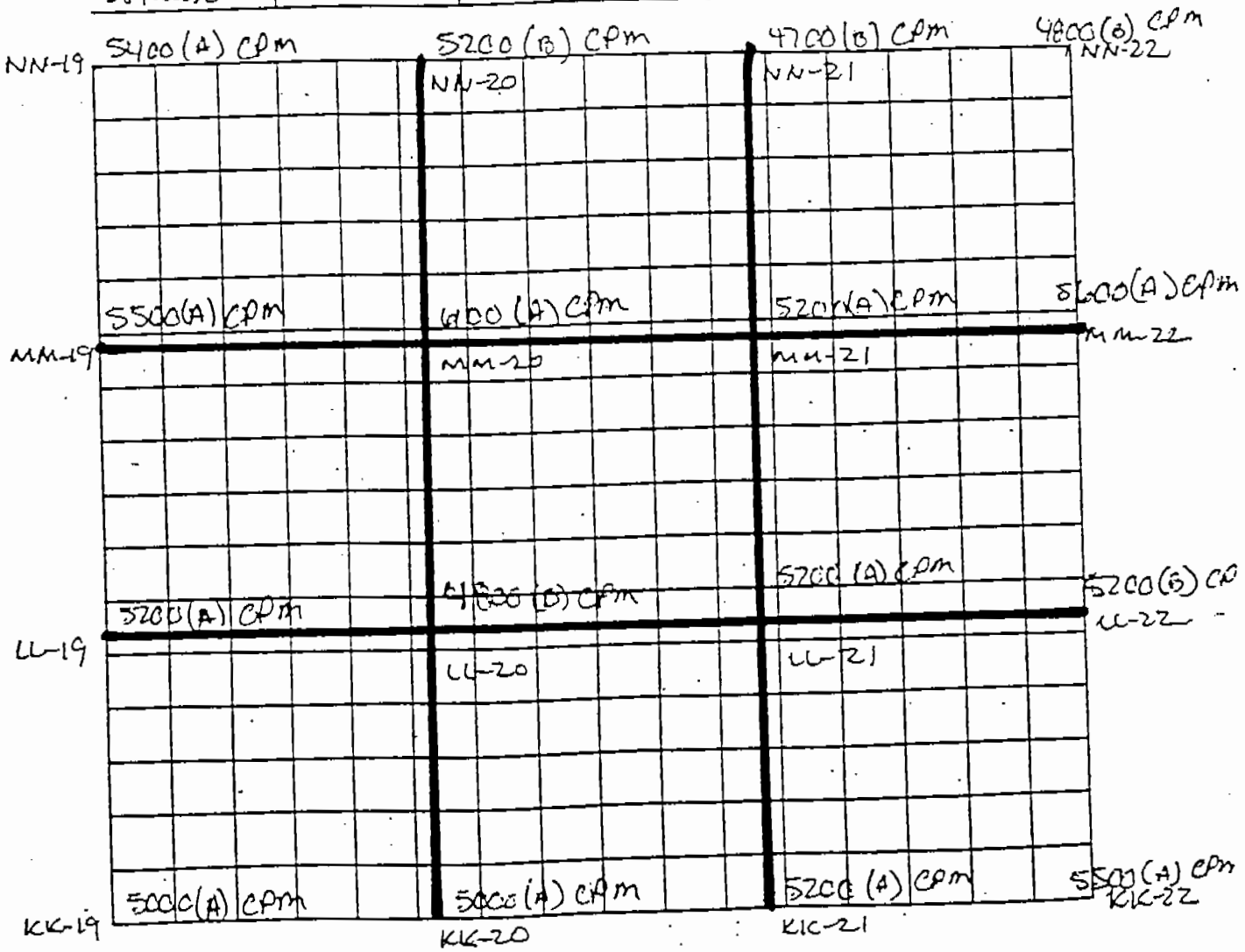
DATE/~~TIME~~ 23 JAN 95

SITE: PSC-3

LOCATION: ~~SE NE GRID~~ #4

TECHNICIANS: J. Shawers, G. Shawers, W. G. May, R. Parish, S. Hesse

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
LUDLUM 2221	99136 (A)	44-10	165	4/20/95
LUDLUM 2221	94954	44-10	118370	4/20/95
	N/A			



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-23-95

REMARKS (Notes): ① No hits.

[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

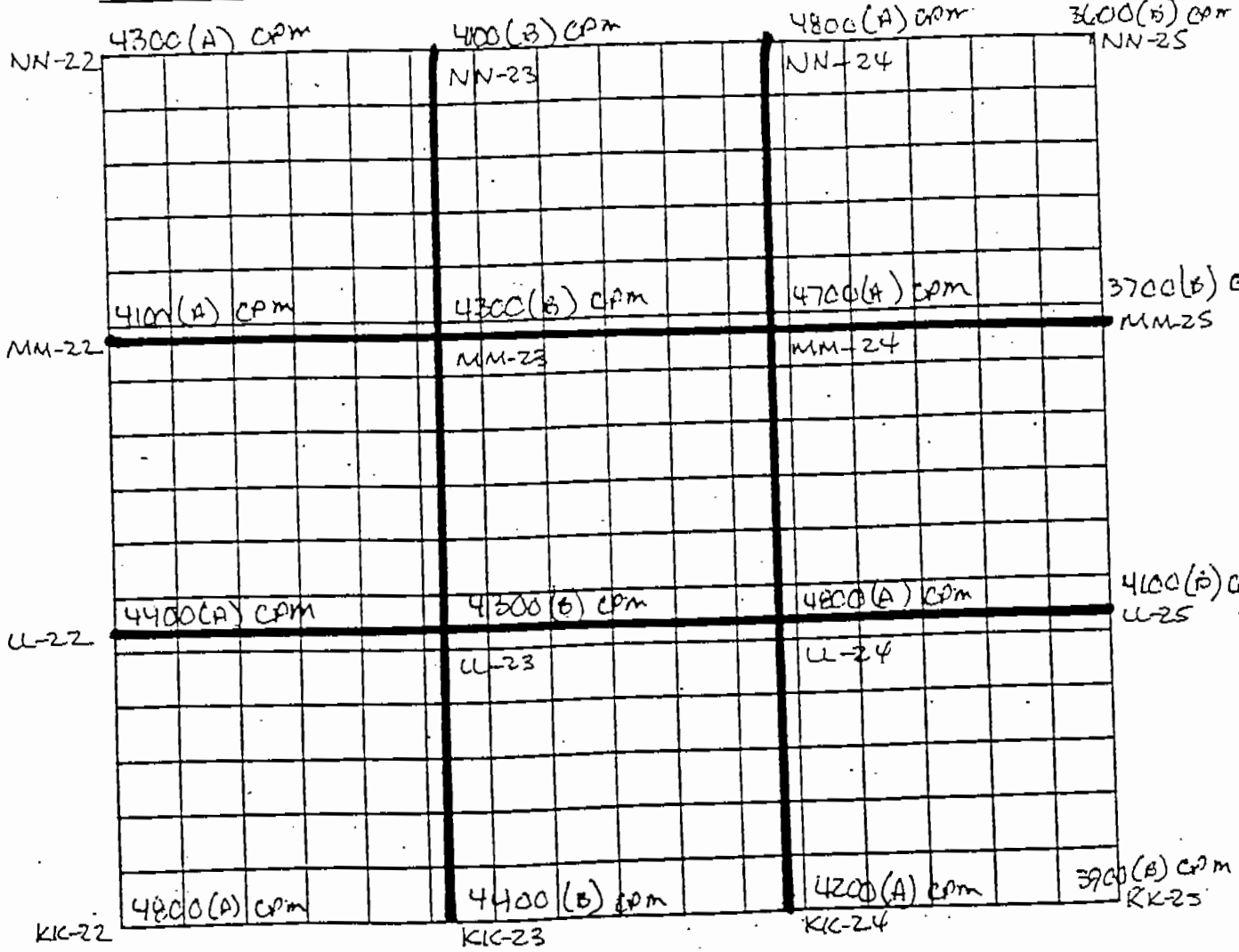
DATE/~~TIME~~: 23JAN95

SITE: PSC-3

LOCATION: ~~NTAGR05~~

TECHNICIANS: W. C. May, J. Sherry, G. Shows, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
Ludlum 2221	99106(A)	44-10	165	4/20/95
Ludlum 2221	94954(B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-23-95

DWP 2/1/95

REMARKS (Notes): ① No hits

~~MAP 5~~ 1-24-95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

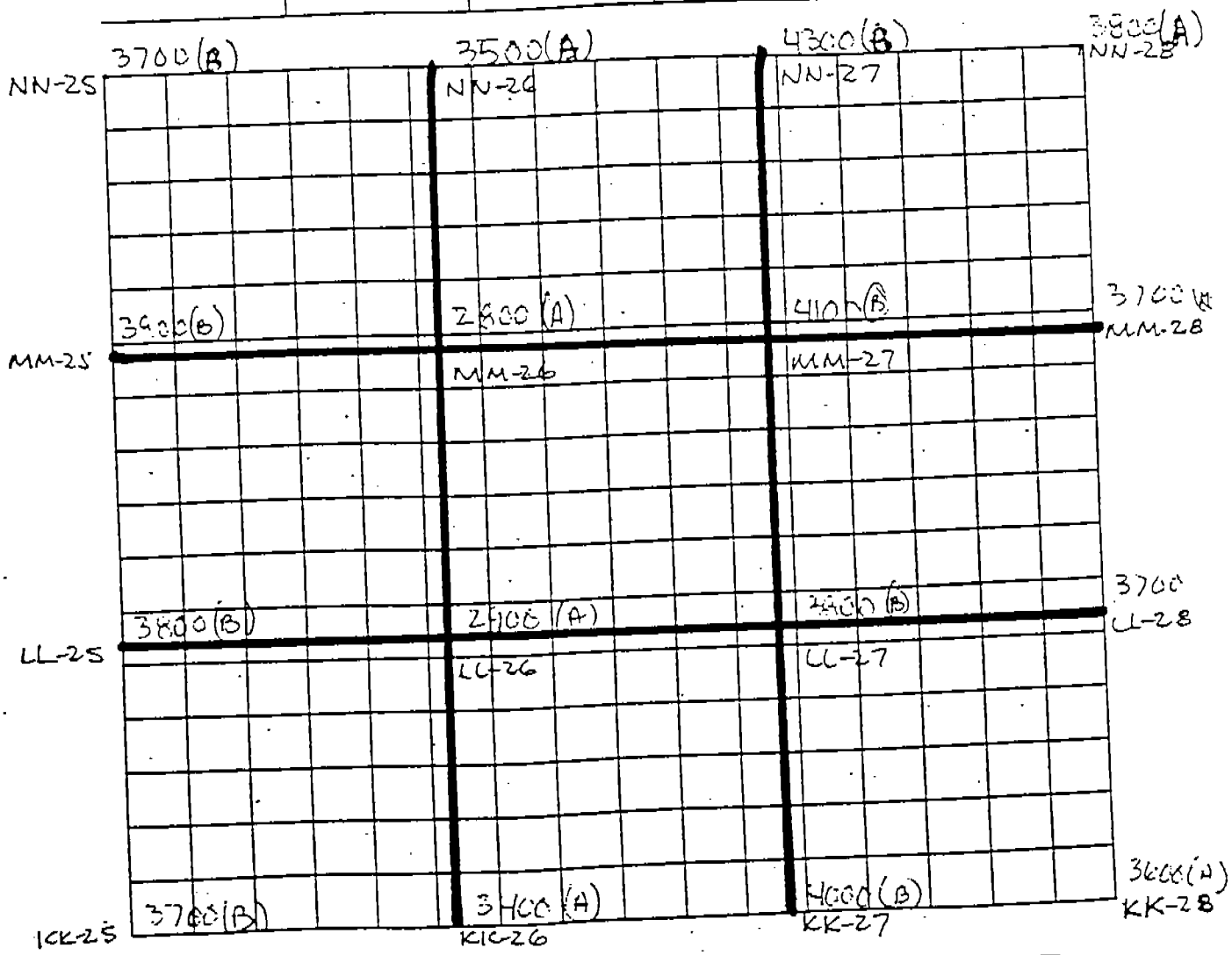
DATE/TIME: 24JAN95 (ucm) 23JAN95

SITE: DSC-03

LOCATION: GRID #6

TECHNICIANS: J. Shown, G. Shown, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Lum 2221	94136 (A)	44-10	165	4/20/95
Lum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 60' X 60'

REVIEWED BY: [signature] 1-24-95

[signature] 31.1.95

REMARKS (Notes): (1) No hits (2) All readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

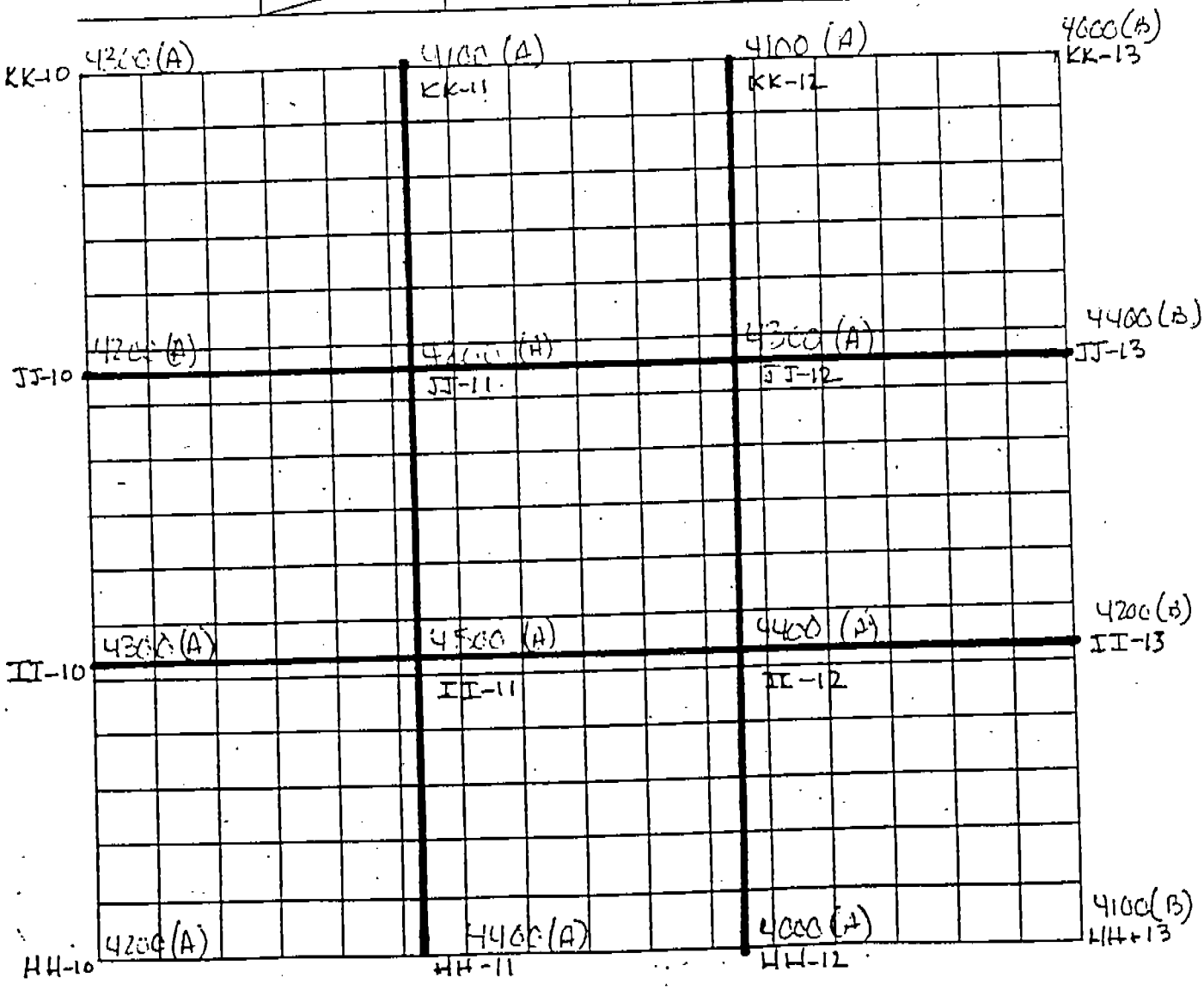
DATE/TIME: ~~23 Jan 95~~ 24JAN95

SITE: PSC-03

LOCATION: G210 #7

TECHNICIANS: J. Shaw, W. Comay

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	9/20/95
Ludlum 2221	94954 (B)	44-10	118370	9/20/95
		N/A		



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-24-95

[signature] 2/1/95

REMARKS (Notes): (1) No hits (2) All readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/TIME: 24 JAN 95

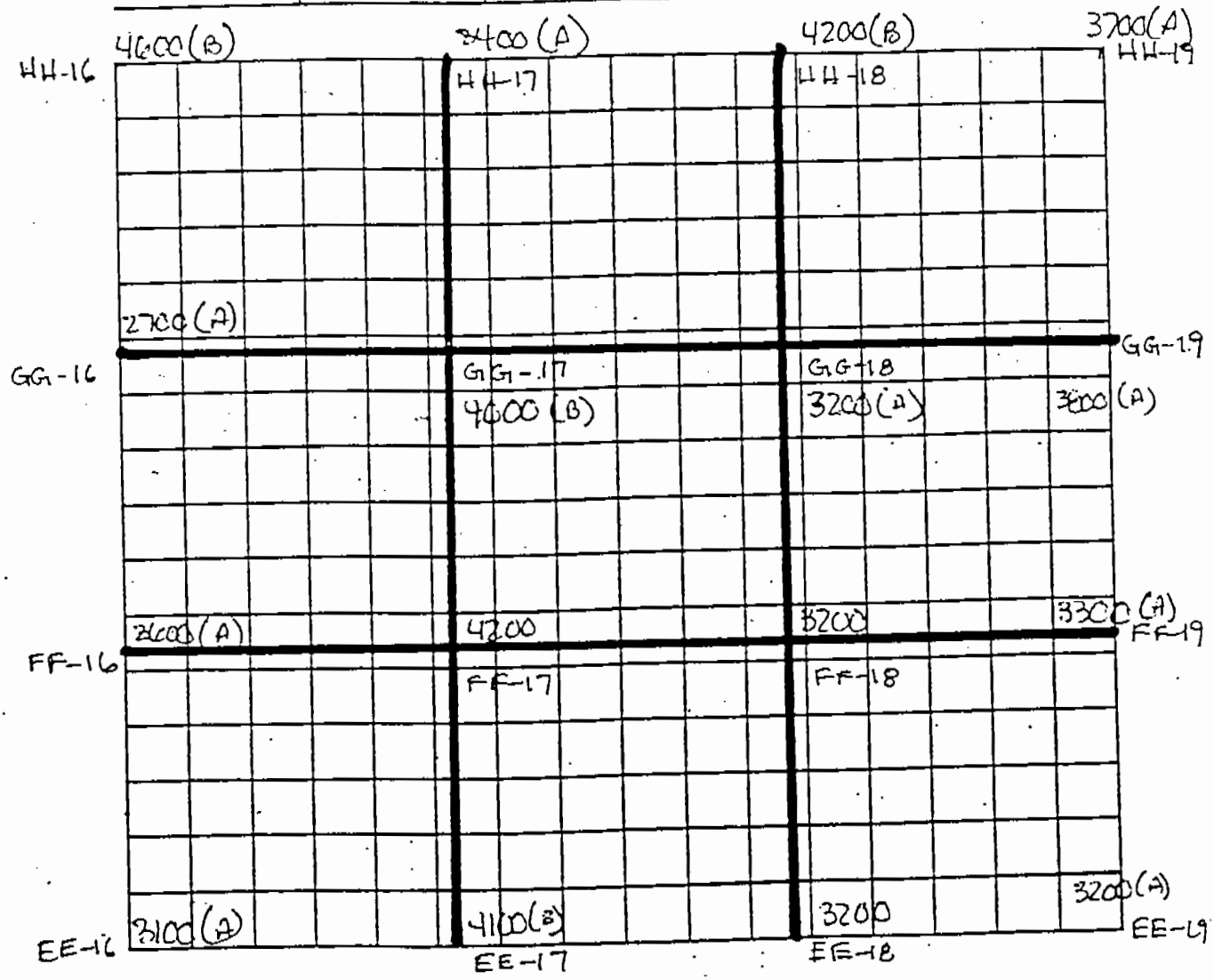
SITE: PSC-03

LOCATION: GRID #15

TECHNICIANS: J. Shewell, G. Shewell, W. Carney

INSTRUMENTS

Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 60' X 60'

REVIEWED BY: [signature] 1-24-95

REMARKS (Notes): (1) No hits, (2) all readings in CPM

[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

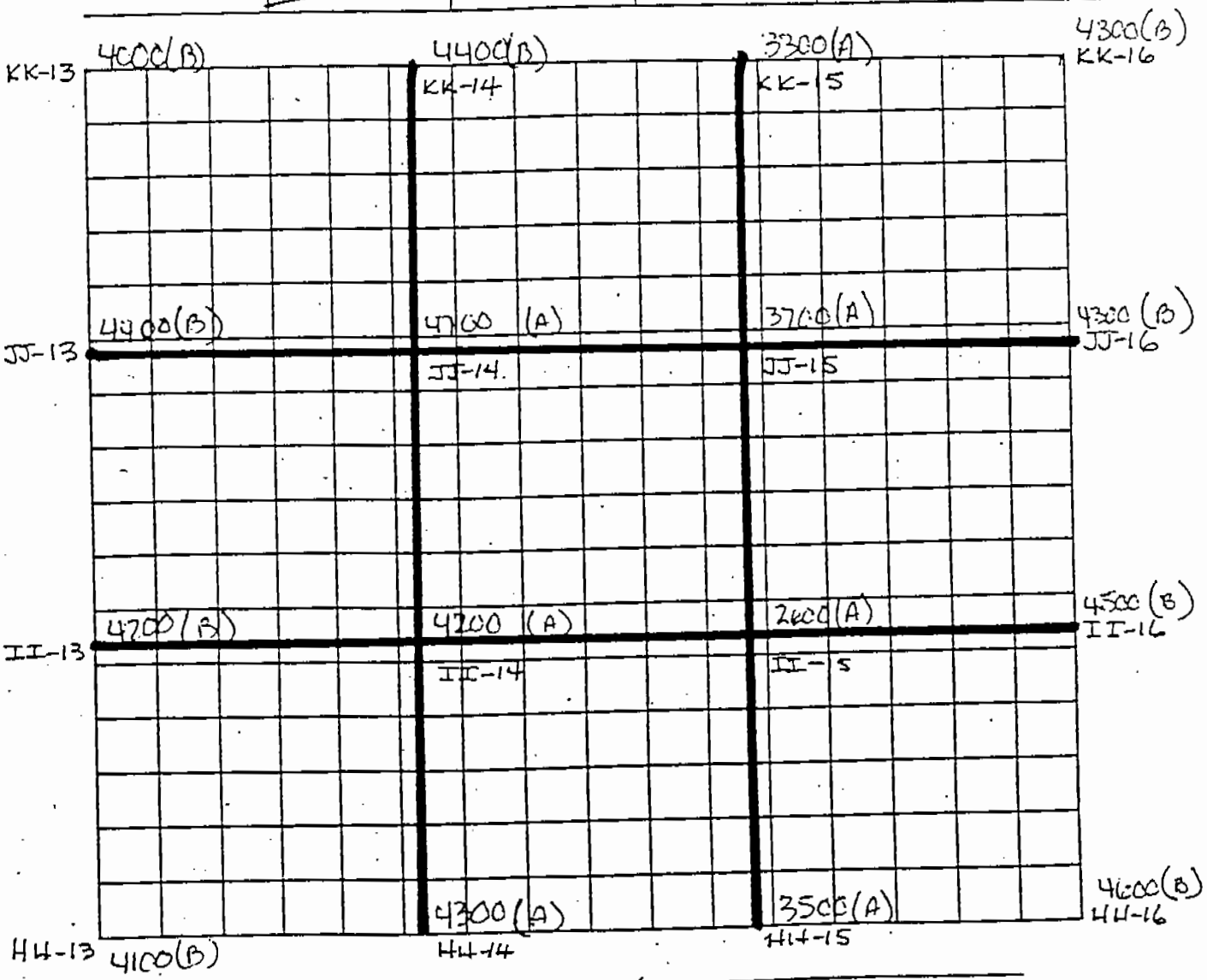
DATE/TIME: 24 Jan 95

SITE: PSC-03

LOCATION: Grid #8

TECHNICIANS: J. Sherwin, G. Sherwin, K.C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
LudLum 2221	99136 (A)	44-10	165	4/20/95
LudLum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 60' x 60'

REVIEWED BY: [signature] 1-24-95

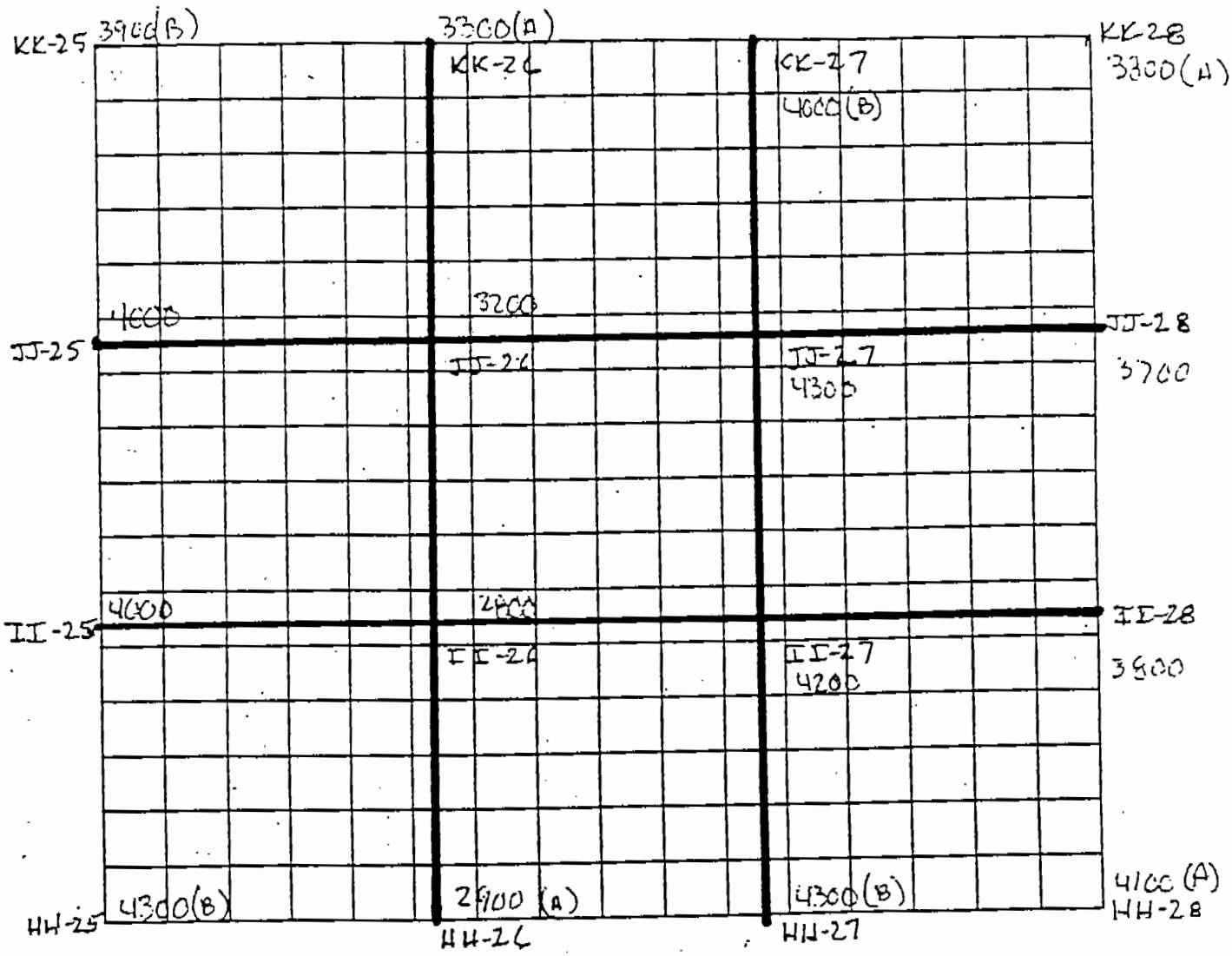
[signature] 3/1/95

REMARKS (Notes): (1) No hits. (2) readings are in cpm

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

		INSTRUMENTS				
DATE ~~TIME~~	24 JAN 95	Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
TE:	PSC-3					
LOCATION:	Bldg # R					
ECHNICIANS:	J. Showers	Ludlum 2221	99136(A)	44-10	165	4/20/95
	G. Showers	Ludlum 2221	99954(B)	44-10	118370	4/20/95
	W. C. May					
			N/A			



SCALE: 6.2' x 6.2'

REVIEWED BY: G. Showers 1-24-95

2/1/95

REMARKS (Notes): ① No hits ② all readings in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

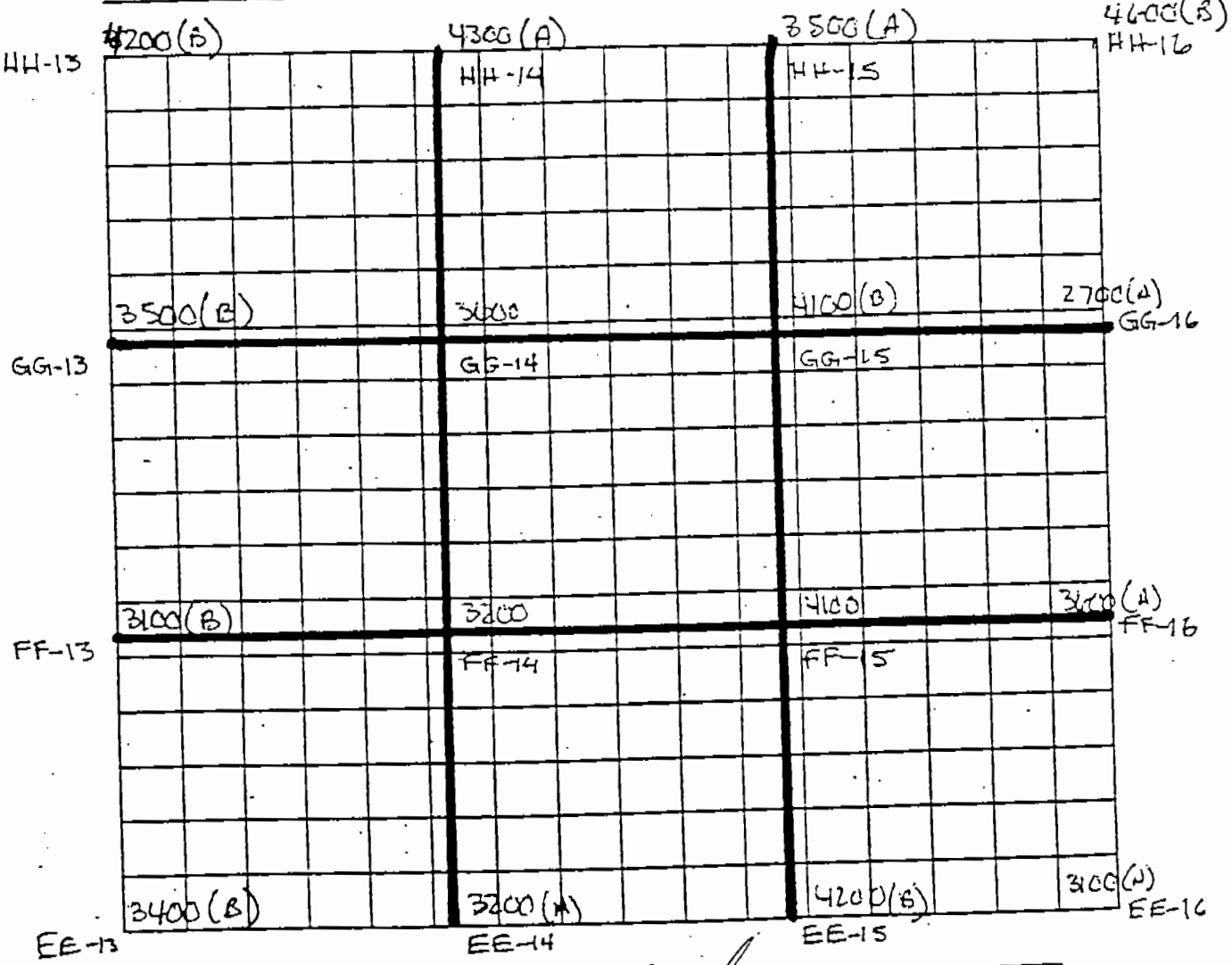
DATE ~~TIME~~ wom: 24 JAN 95

SITE: PSC-03

LOCATION: Grid #14

TECHNICIANS: J. Shawers, G. Shawers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ wom Serial #	Calibration Date
LiDLum 2221	99136 (A)	44-10	165	4/20/95
LiDLum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 10.21 x 10.21

REVIEWED BY: E. Shawers 1-24-95

REMARKS (Notes): (1) No hits. (2) all readings are in cpm.

DJP 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

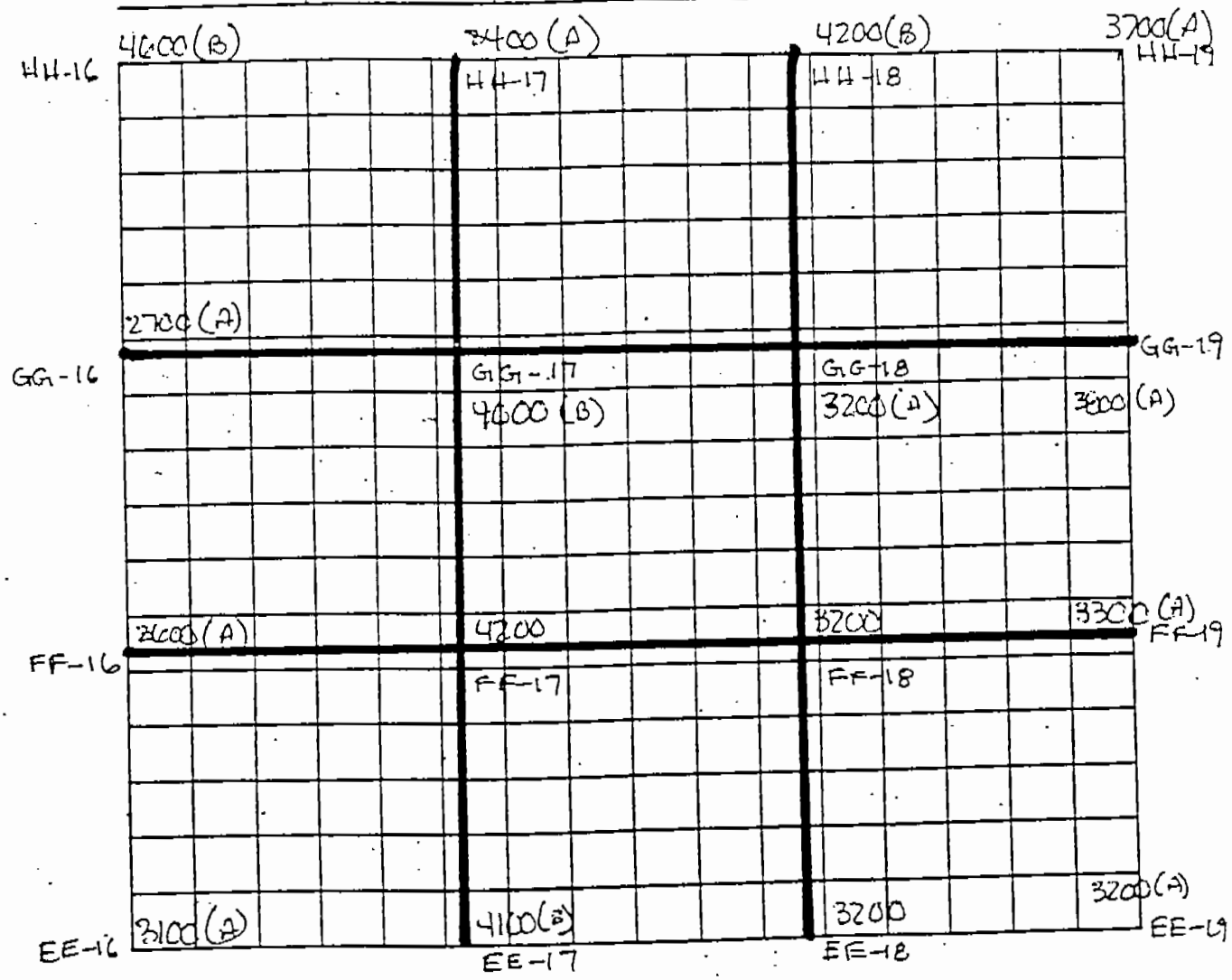
DATE/TIME: 24 Jan 95

SITE: PSC-03

LOCATION: Grid #15

TECHNICIANS: J. Shewell, G. Shewell, W. Carney

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ cpm Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 60' X 60'

REVIEWED BY: [signature] 1-24-95

[signature] 2/1/95

REMARKS (Notes): (1) No hits, (2) all readings in CPM

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

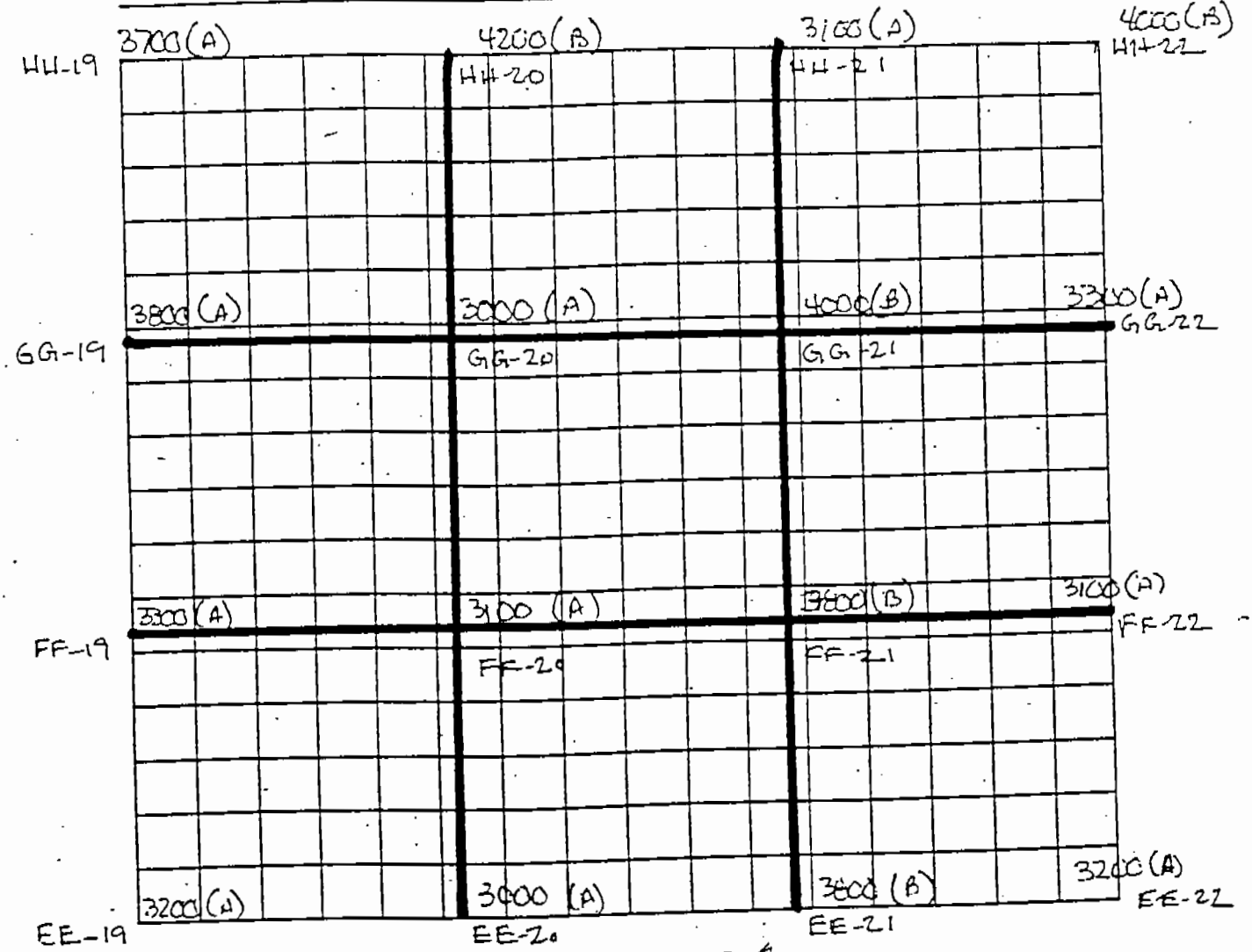
DATE/~~TIME~~ WSM 24 Jan 95

SITE: PSC-03

LOCATION: Grid #16

TECHNICIANS: J. Shewey, G. Shewey, W. Co May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ WSM Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-24-95

DJR 2/1/95

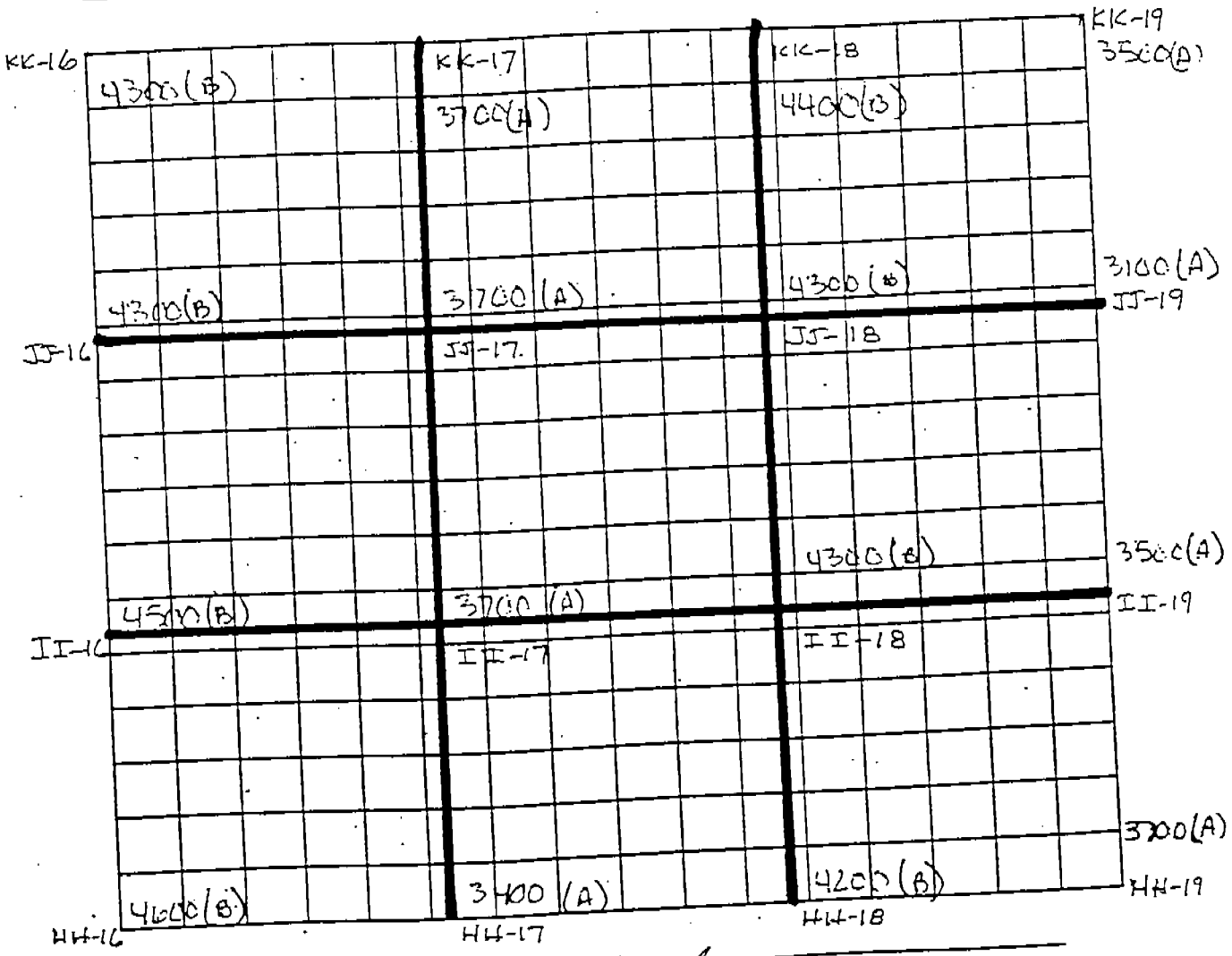
REMARKS (Notes): ① No hits. ② all readings in cpm

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~ w/m: 24 Jan 95
SITE: PSC-03
LOCATION: GZ10 #9
TECHNICIANS: J. Shaver, G. Shaver, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe w/m ~~(type/model)~~ Serial #	Calibration Date
LiDLum 2221	99136 (A)	44-10	165	4/20/95
LiDLum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 6.0' x 6.0'

REVIEWED BY: G. Shaver 1-24-95 DJ 2/1/95

REMARKS (Notes): (1) No hit (2) all readings in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

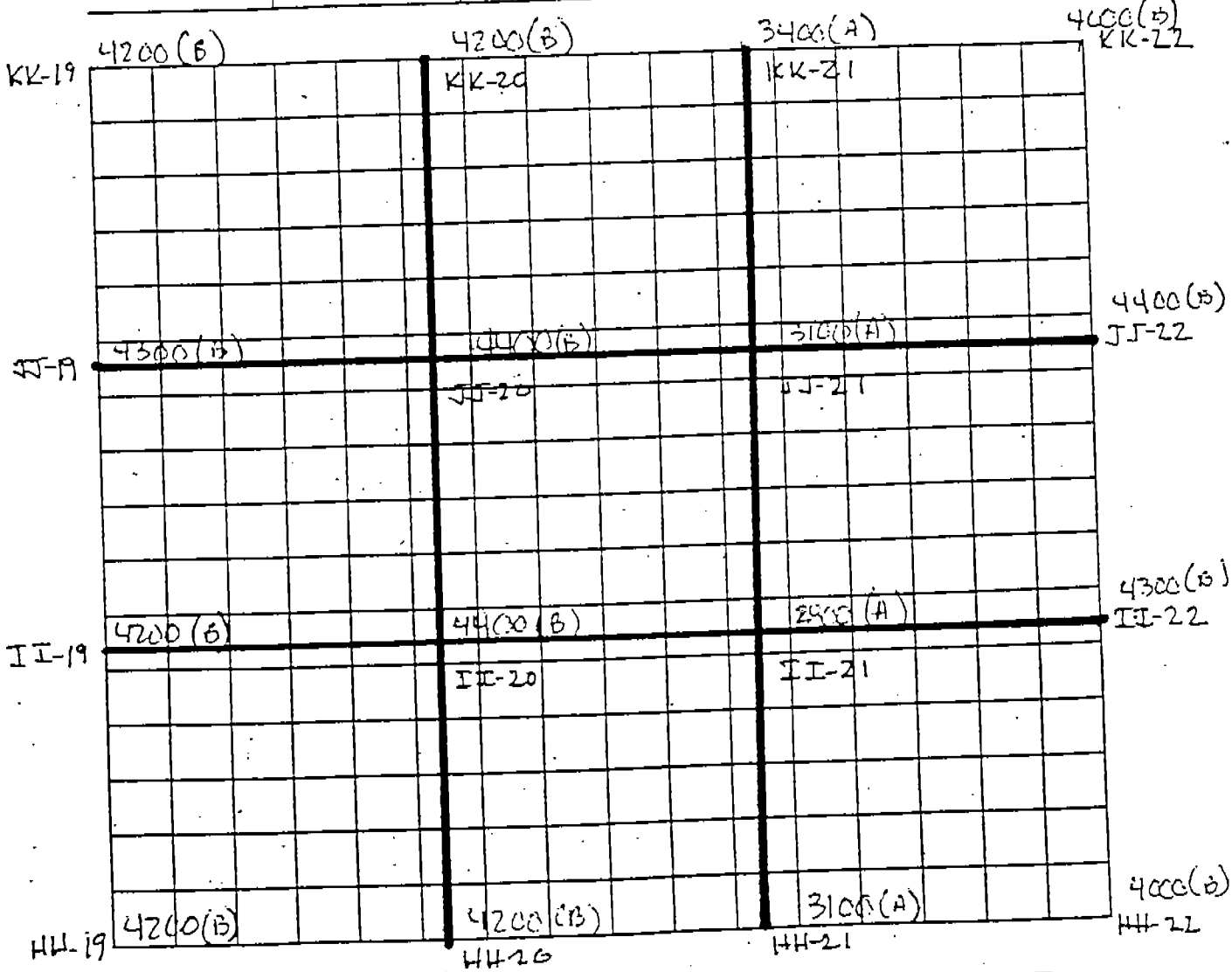
DATE/~~TIME~~: 24 JAN 95

SITE: PSC-3

LOCATION: GRID #10

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	1665	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' X 6.2'

REVIEWED BY: J. Showers 1-24-95

2/1/95

REMARKS (Notes): (1) No hits. (2) all readings in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

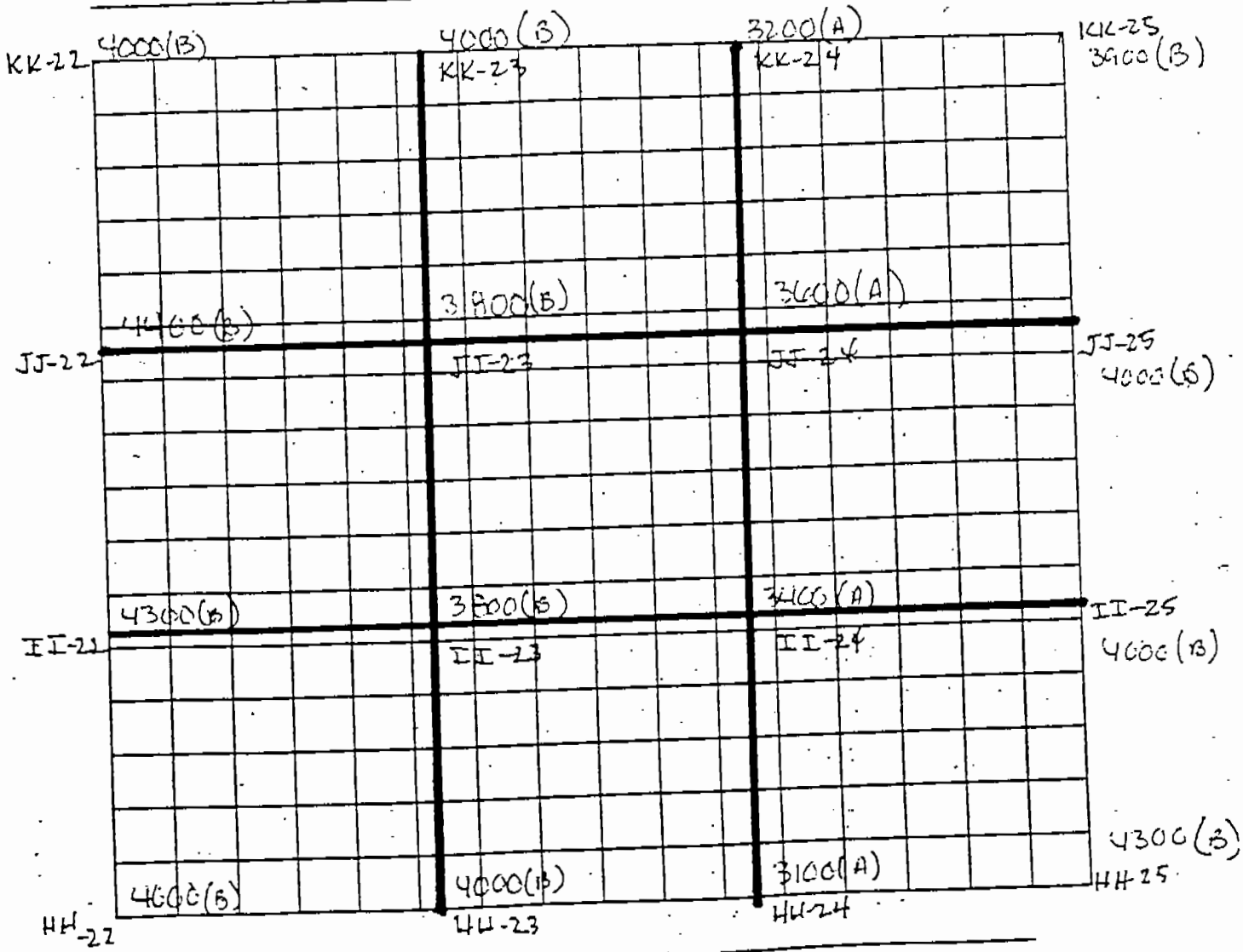
DATE ~~TIME~~ 24 JAN 95

SITE: PSC-03

LOCATION: GZ10 #11

TECHNICIANS: J. Showers, G. Showers, W. Co May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
LUDLUM 2221	99136 (A)	44-10	165	4/20/95
LUDLUM 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: G. Showers 1-24-95

2/1/95

REMARKS (Notes): ① No hits ② all readings in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

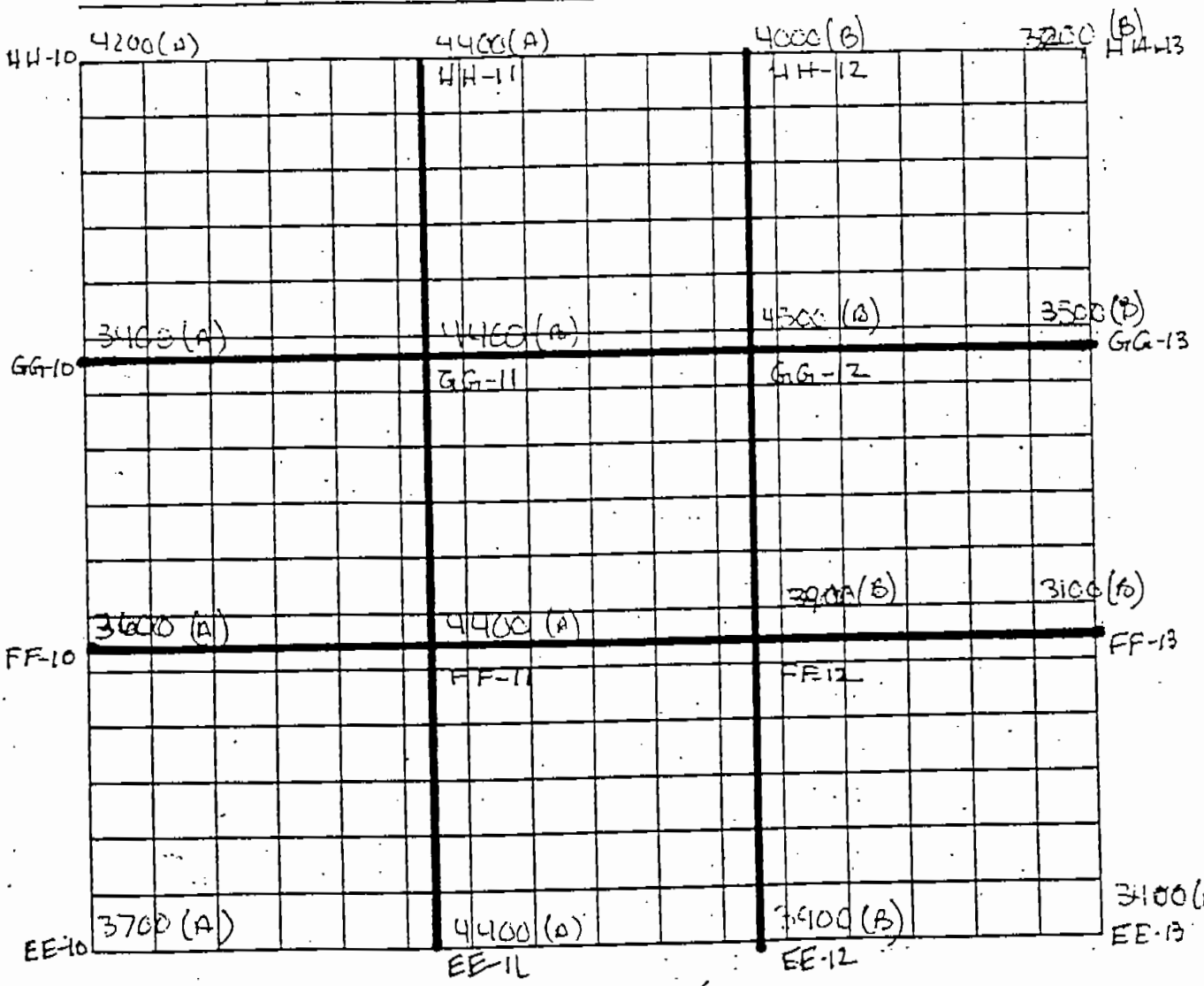
DATE ~~TIME~~ 24 Jan 95

TE: DSC-03

LOCATION: Grid #13

ECHNICIANS: J. Shewers, G. Shewers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' x 6.2'

REVIEWED BY: G. Shewers 1-24-95

REMARKS (Notes): ① No hits ② all readings in cpm.

DOH 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

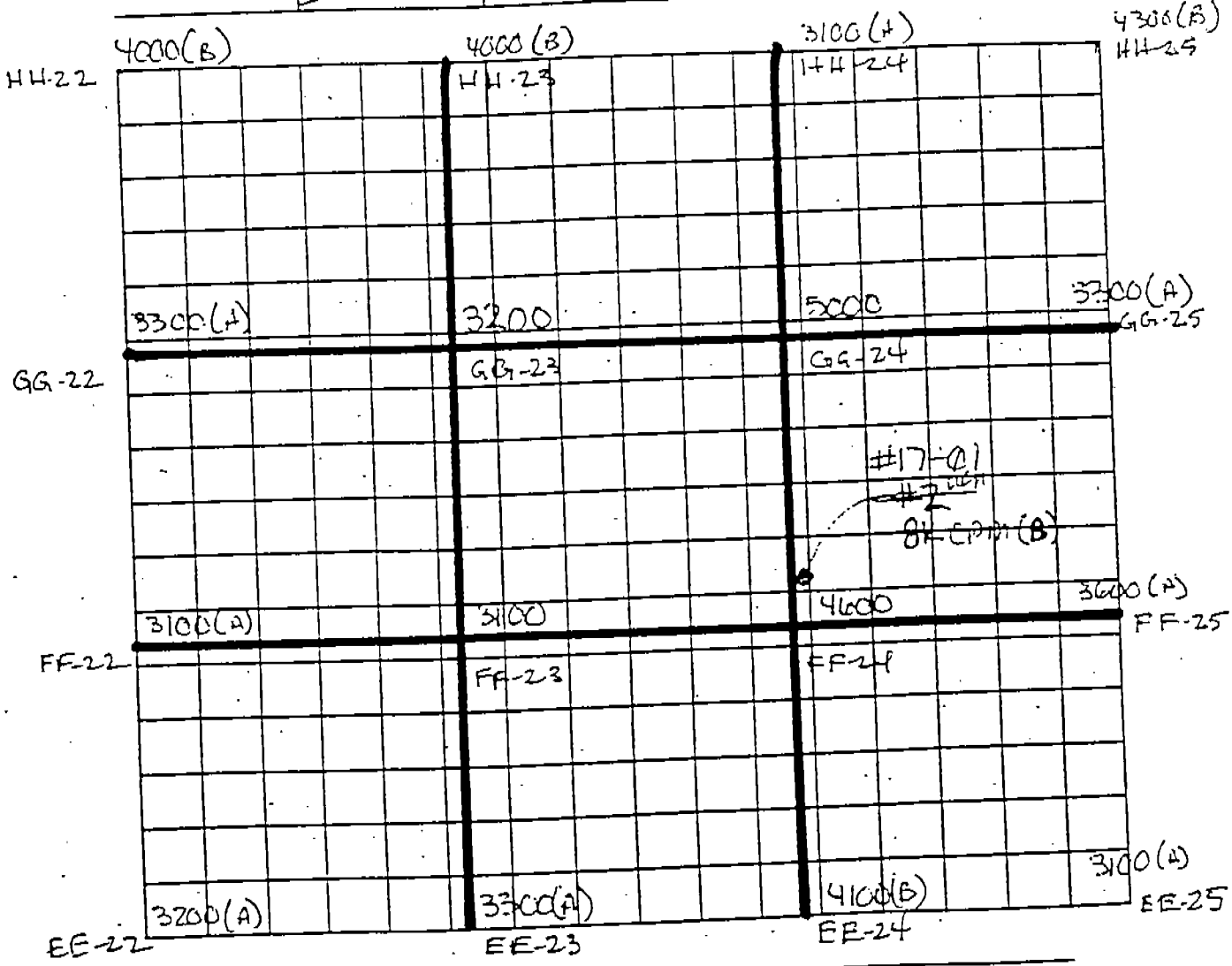
DATE ~~TIME~~ 24 JAN 95

SITE: PSC-03

LOCATION: GRID #17

TECHNICIANS: J. Shaver, G. Shaver, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
Ludlum 2221	94954(B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-24-95

REMARKS (Notes): (1) 1" hit (2) all readings are in CPM.

[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

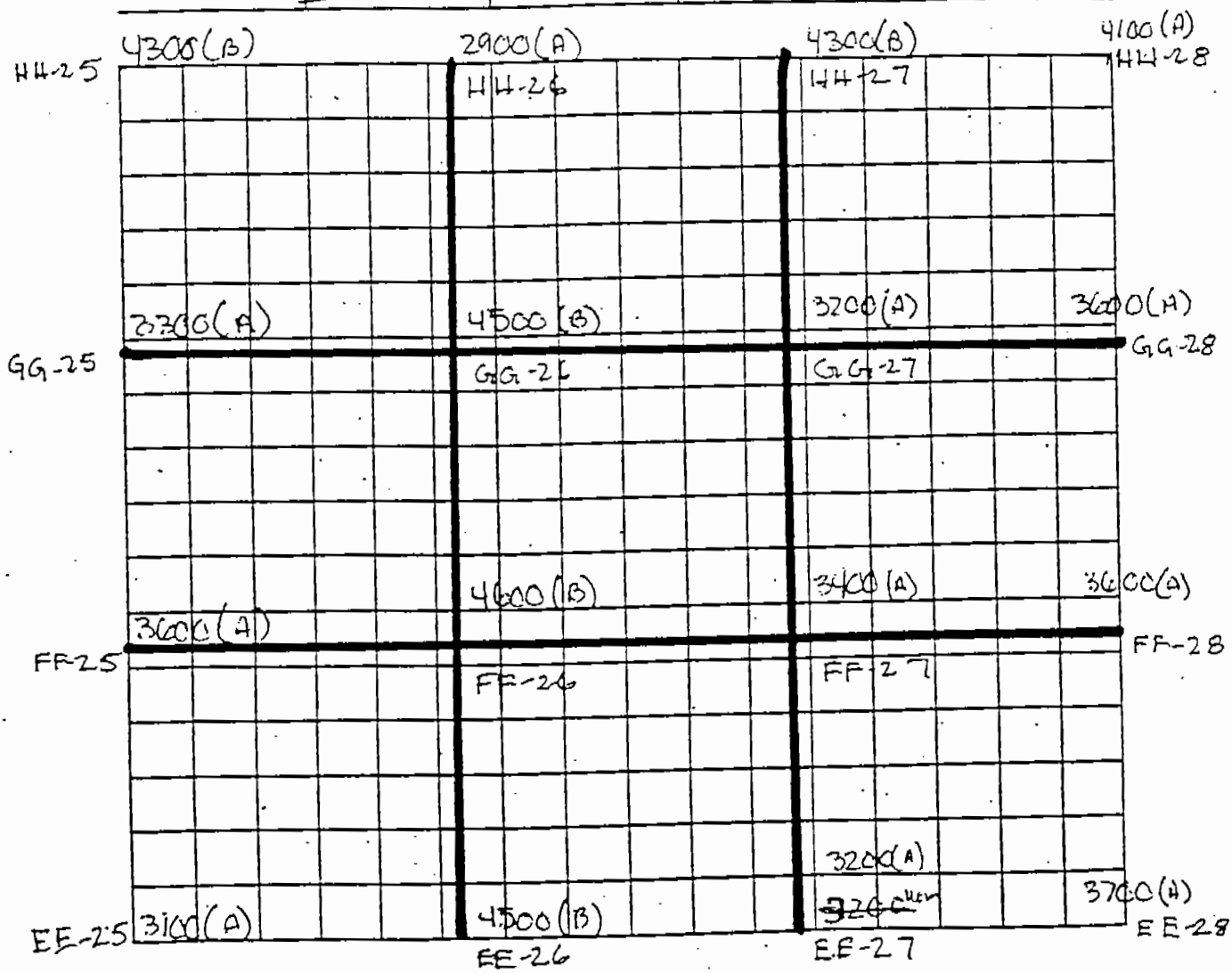
DATE ~~TIME~~ 24 Jan 95

SITE: PSC-03

LOCATION: Grid #18

TECHNICIANS: J. Shewen, G. Shewen, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-24-95

REMARKS (Notes): ① NO HITS. ② all readings are in CPM.

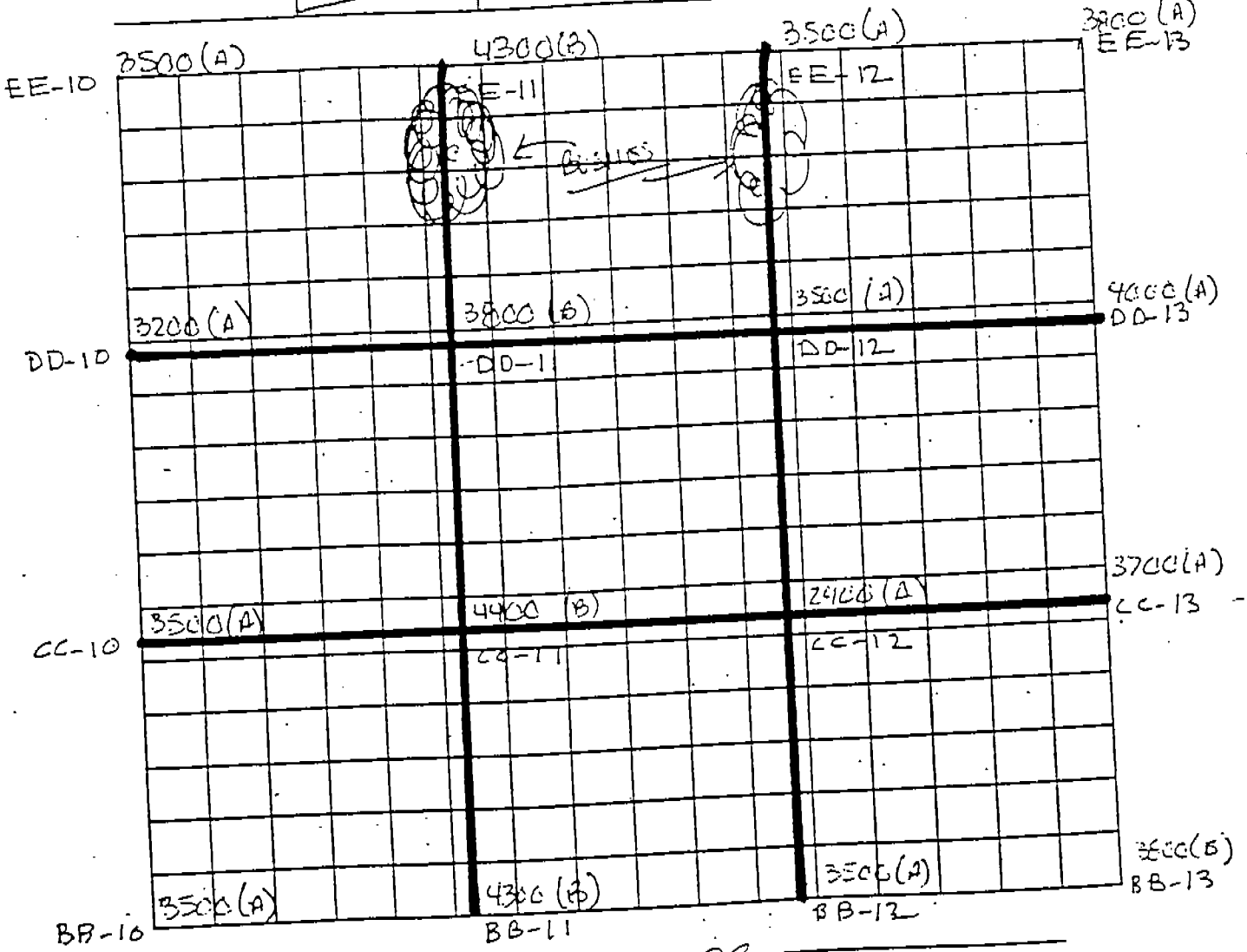
[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~ Date: 24 Jan 95
SITE: PEC-3
LOCATION: Grid #19
TECHNICIANS: J. Shawn, G. Shawn, W. C. May

INSTRUMENTS Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
LuLum 2221	99136 (A)	44-10	165	4/20/95
LuLum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-24-95

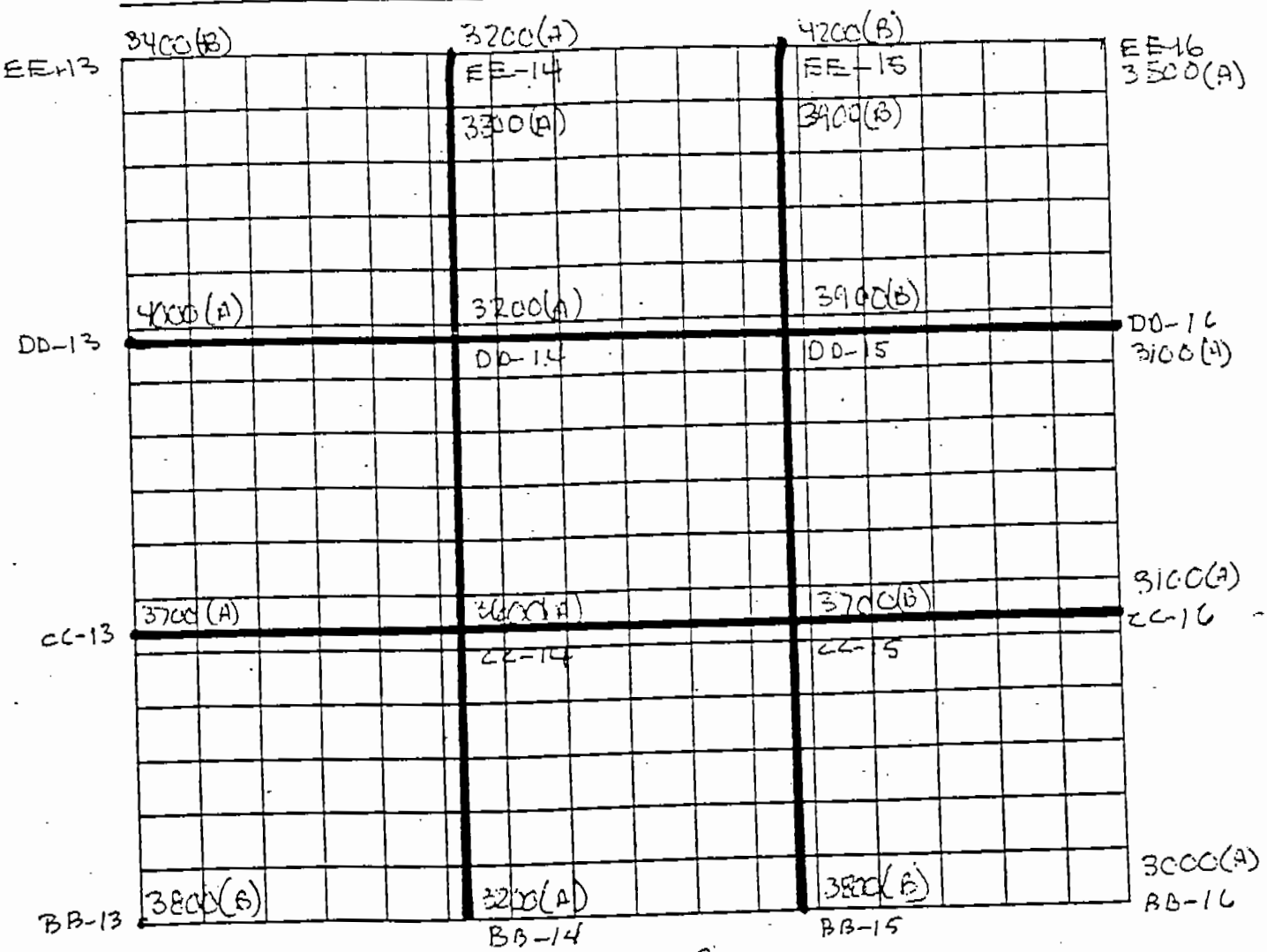
REMARKS (Notes): (1) No hits (2) all readings are cpm.

DWH 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

		INSTRUMENTS				
DATE/~~TIME~~	24 Jan 95	Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
SITE:	PSC-03					
LOCATION:	Grid #20					
TECHNICIANS:	J. Shawver	LUDLUM 2221	99136 (A)	44-10	165	4/20/95
	G. Shawver	LUDLUM 2221	94954 (B)	44-10	118370	4/20/95
	W. C. May					



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-24-95

REMARKS (Notes): (1) No hits. (2) all readings are in CPM. [signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

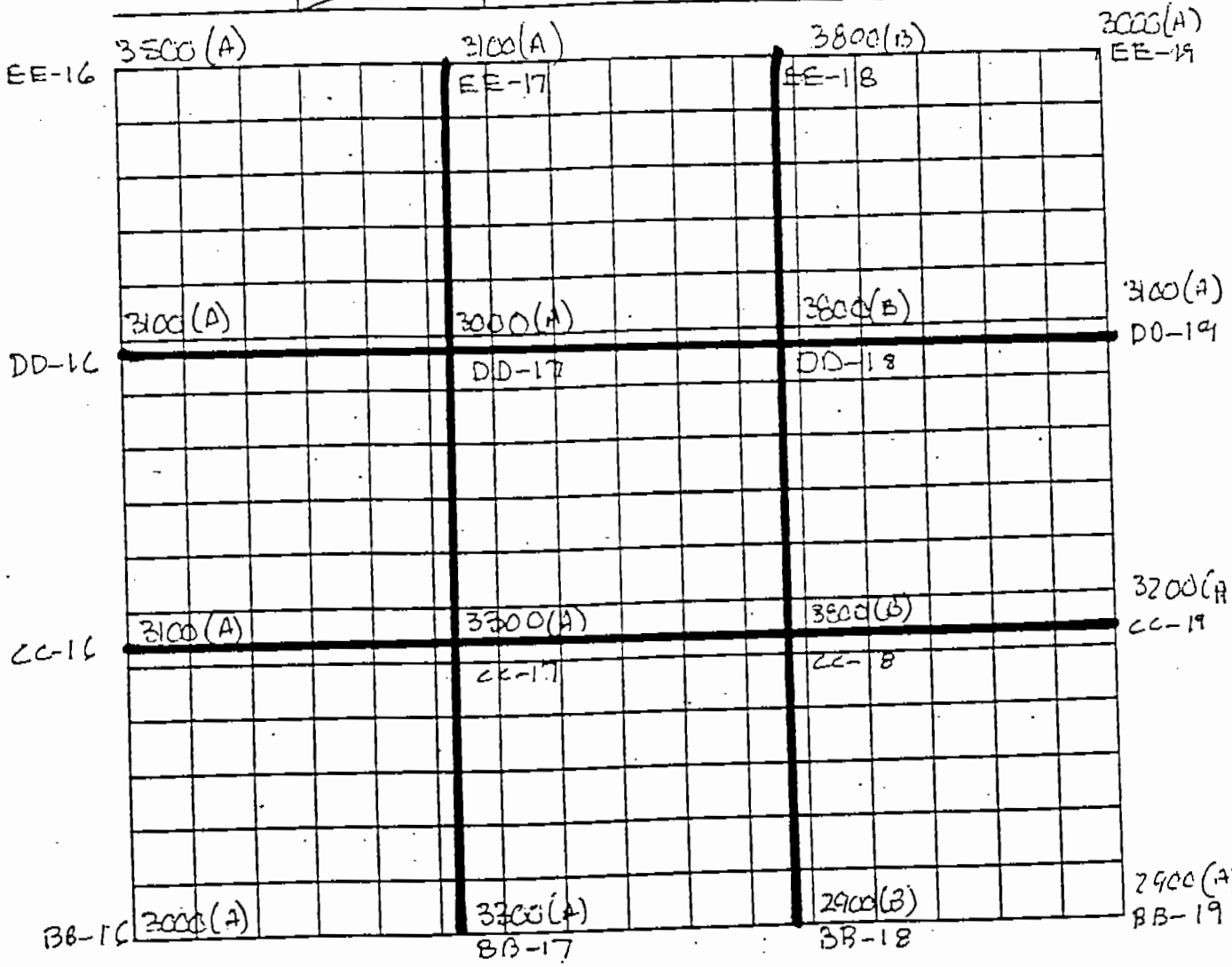
DATE ~~TIME~~ 24 JAN 95

SITE: PSC-03

LOCATION: GRID #21

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 60.2' x 60.2'

REVIEWED BY: [signature] 1-24-95

REMARKS (Notes): (1) No hits (2) all readings are in CPM.

[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

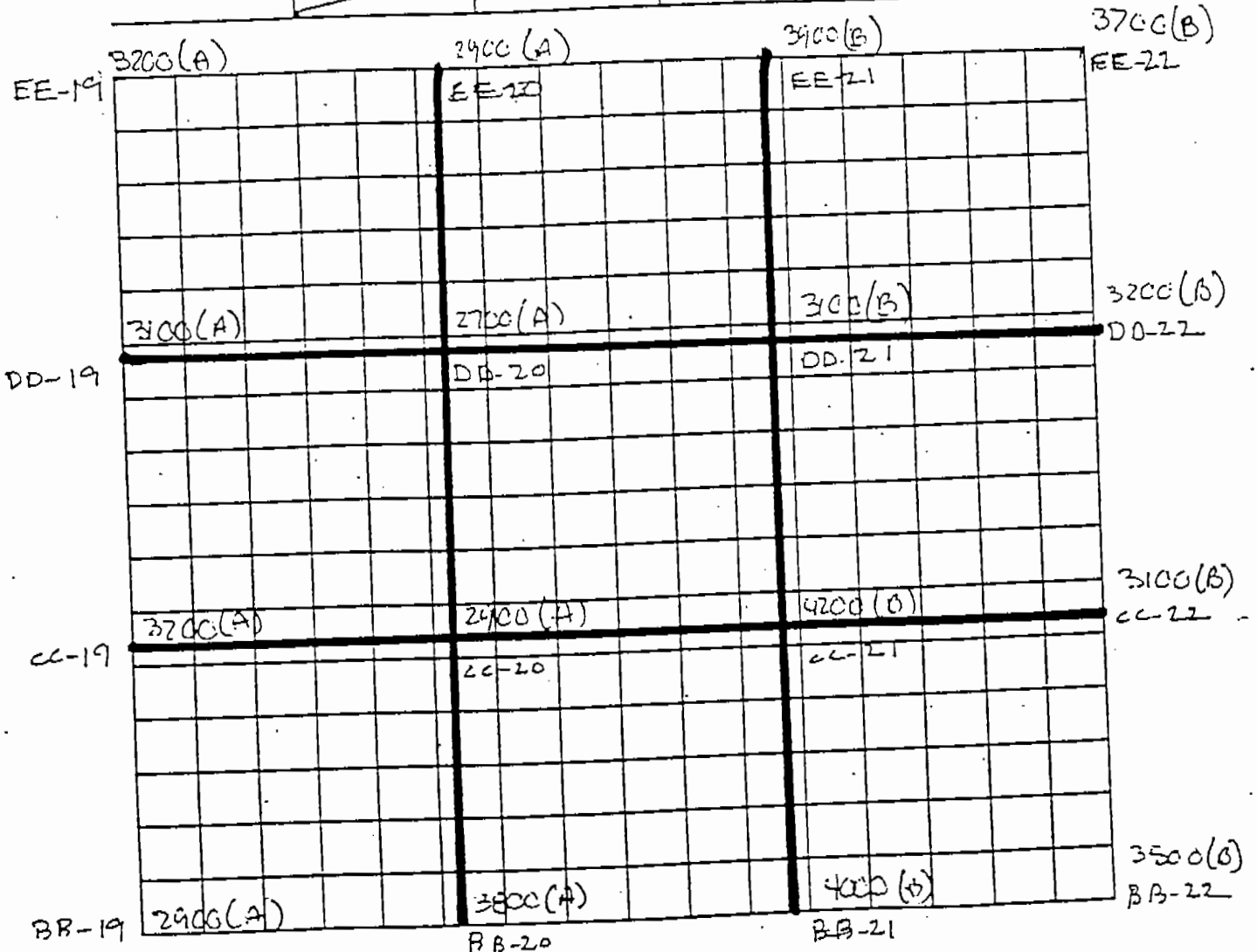
DATE ~~TIME~~: 24 JAN 95

SITE: PSC-03

LOCATION: GRID #22

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	94136 (A)	44-10	1165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-24-95

[signature] 2/1/95

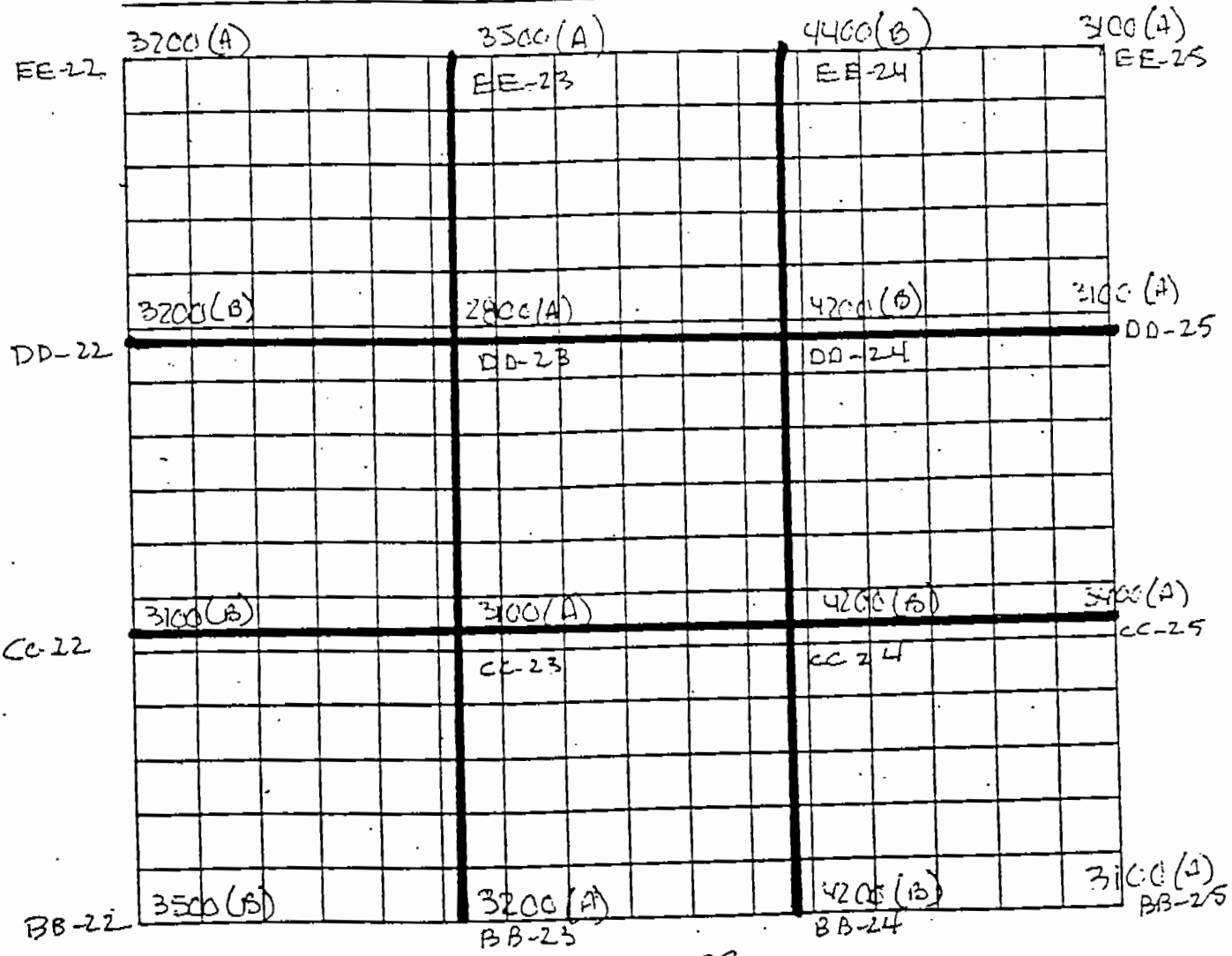
REMARKS (Notes): (1) No hits (2) all readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~ 25JAN95
SITE: PSC-03
LOCATION: Grid #23
TECHNICIANS: J. Shaver, G. Shaver, W. Conroy

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	105	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 6.2' X 6.2'
REVIEWED BY: [signature] 1-27-95
REMARKS (Notes): (1) No hits (2) all readings are in CPM.

[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

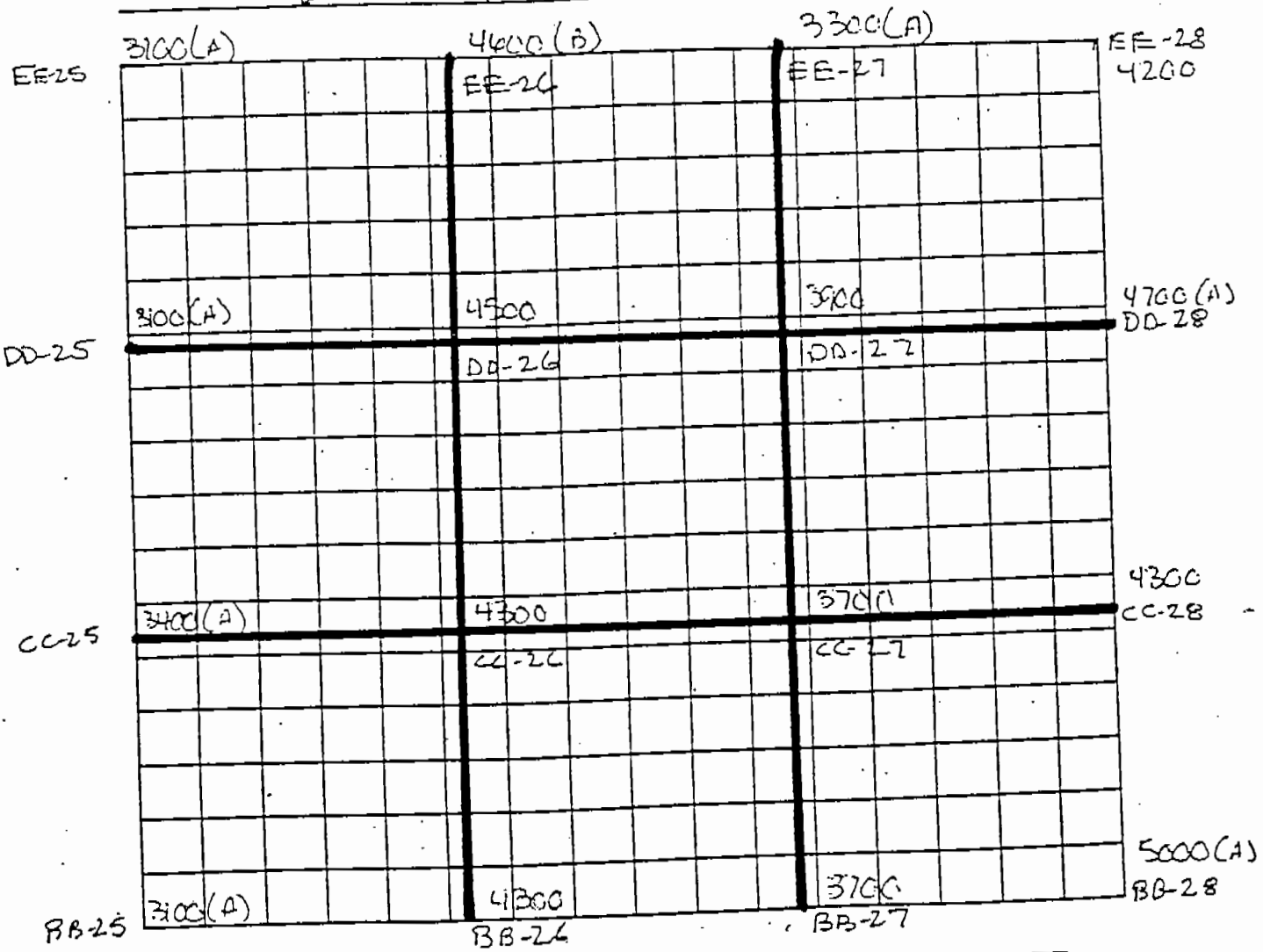
DATE/~~TIME~~ WCM: 23JAN95

SITE: PSC-03

LOCATION: Grid # 24

TECHNICIANS: J. Shaw, G. Shaw, W. Carney

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ WCM Serial #	Calibration Date
LDL Lm 2221	99136(A)	44-10	165	4/20/95
LDL Lm 2221	94954(A)	44-10	118370	4/20/95
		N/A		



SCALE: 60' x 60'

REVIEWED BY: [signature] 1-24-95

REMARKS (Notes): ① No hits ② all readings are in cpm.

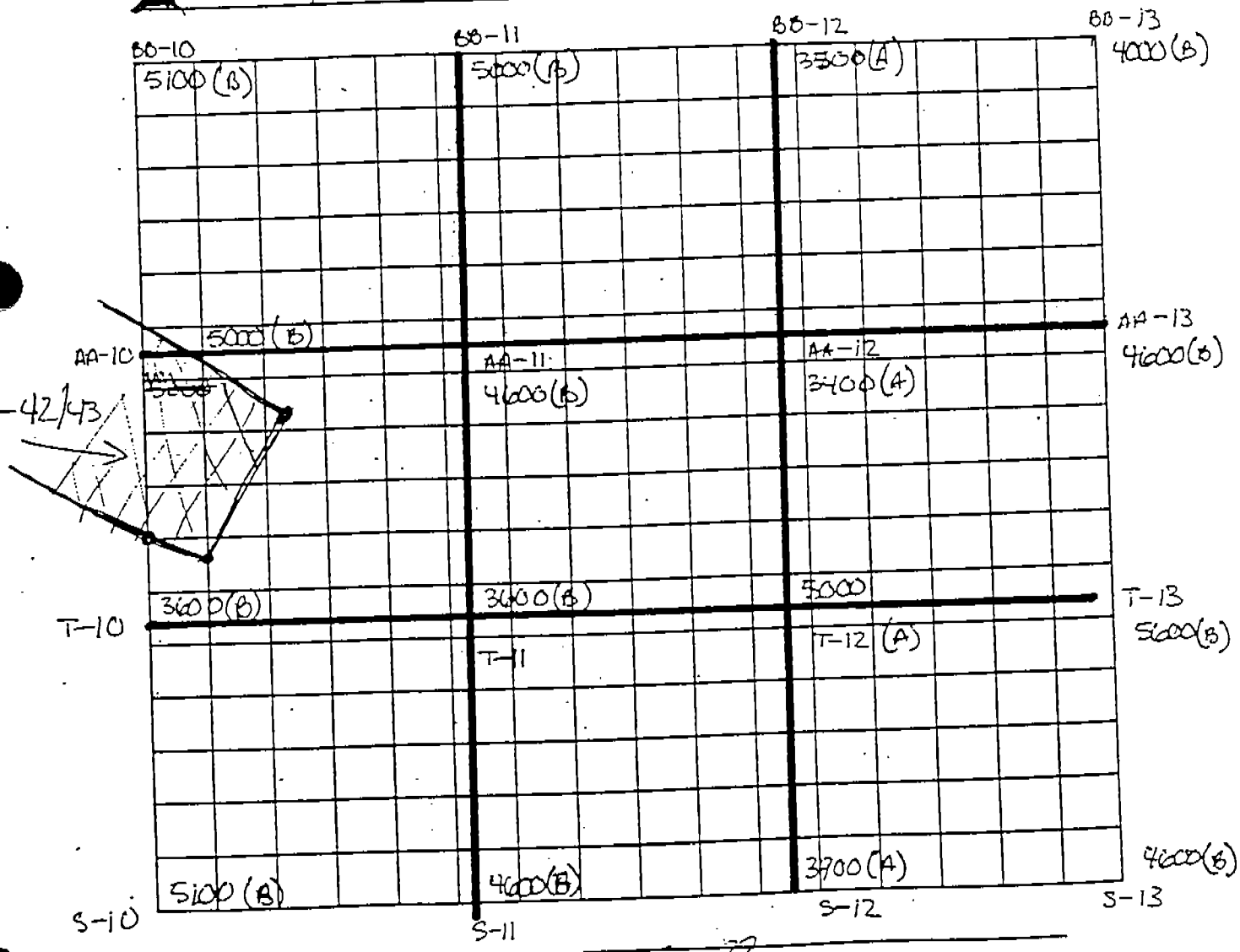
[signature] 2/1/95

★

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

		INSTRUMENTS				
		Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
DATE/~~TIME~~	25JAN95					
TE:	DSC-03					
LOCATION:	GRID #25					
ECHNICIANS:	R. Parrish	Ludlum 2221	99136 (A)	44-10	165	4/20/95
	W.C. May	Ludlum 2221	97826 (B)	44-10	118371	4/20/95
	G. Shaw					



SCALE: 6.2' X 6.2'

REVIEWED BY: 1-25-95

REMARKS (Notes): (1) No hits (2) all readings are in cpm.

2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

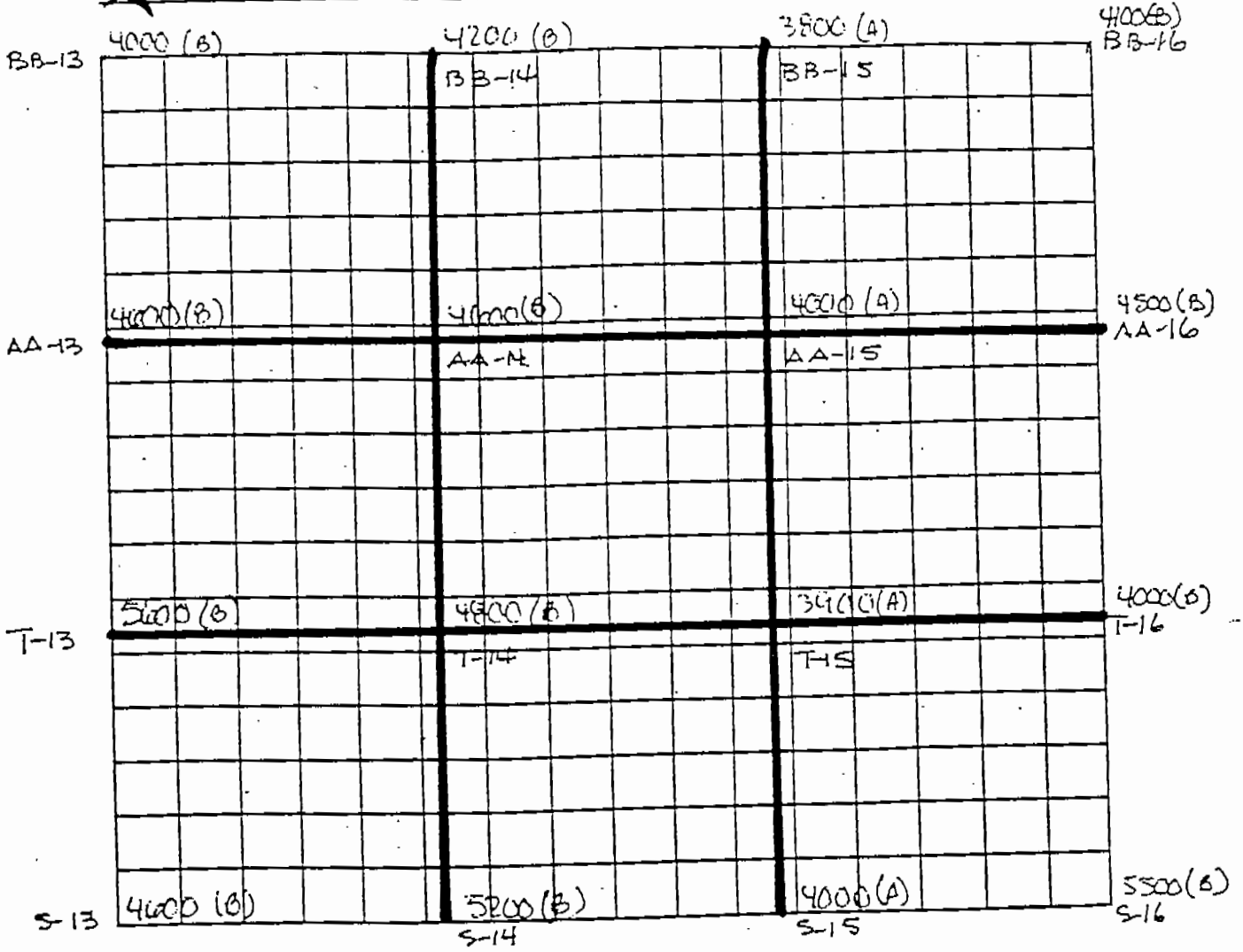
DATE/~~TIME~~: 25 Jan 95

SITE: PSC-03

LOCATION: Gnn#26

TECHNICIANS: R. Parrish, G. Shewey, W. C. Mary

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model) Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-16	145	4/20/95
" " "	97826 (B)	" "	118371	4/21/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-25-95

DWB 2/1/95

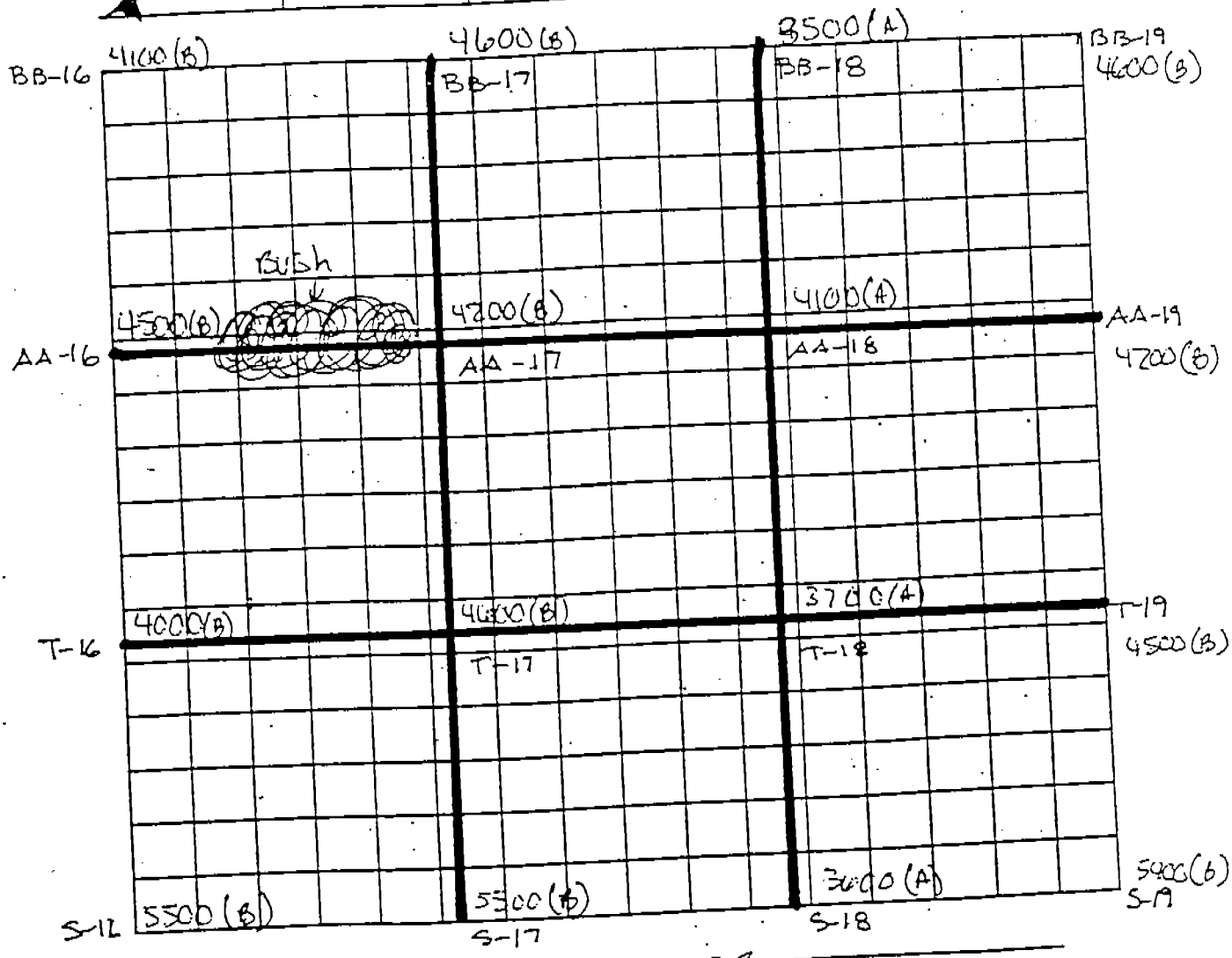
REMARKS (Notes): (1) No hits (2) all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~: 25JAN95
SITE: PSC-03
LOCATION: Grid # 27
TECHNICIANS: R. Parrish, G. Stevens, M. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
" "	97526(B)	" "	115371	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-25-95

DJS 2/1/95

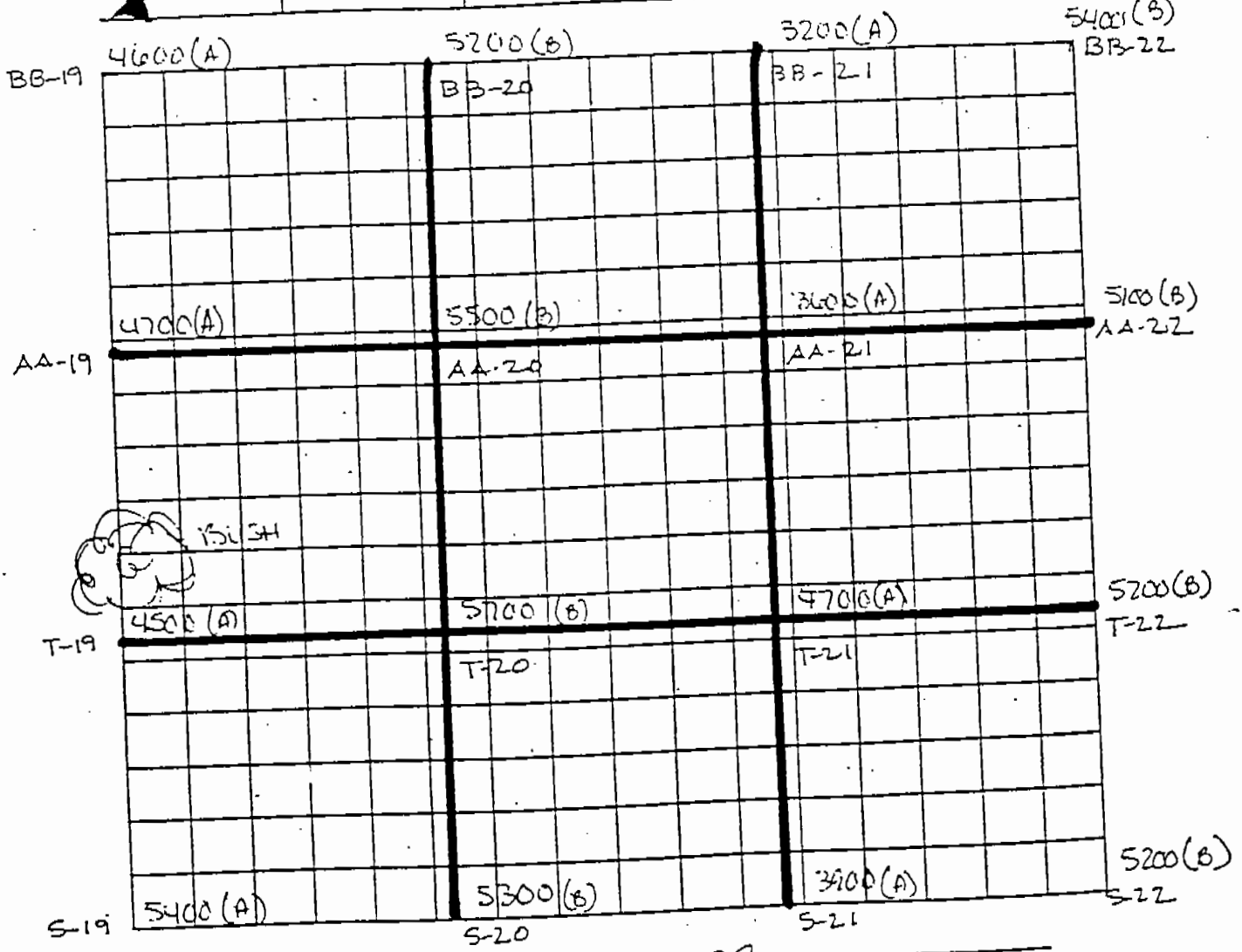
REMARKS (Notes): ① No hits ② all readings are in CPM

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~ Gam: 25Jan95
SITE: PSC-03
LOCATION: Grid #28
TECHNICIANS: R. Parrish, J. Shaver, G. Shaver

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	97826 (B)	44-10	118371	4/21/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-25-95

DAR 2/1/95

REMARKS (Notes): ① No hits. ② All readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

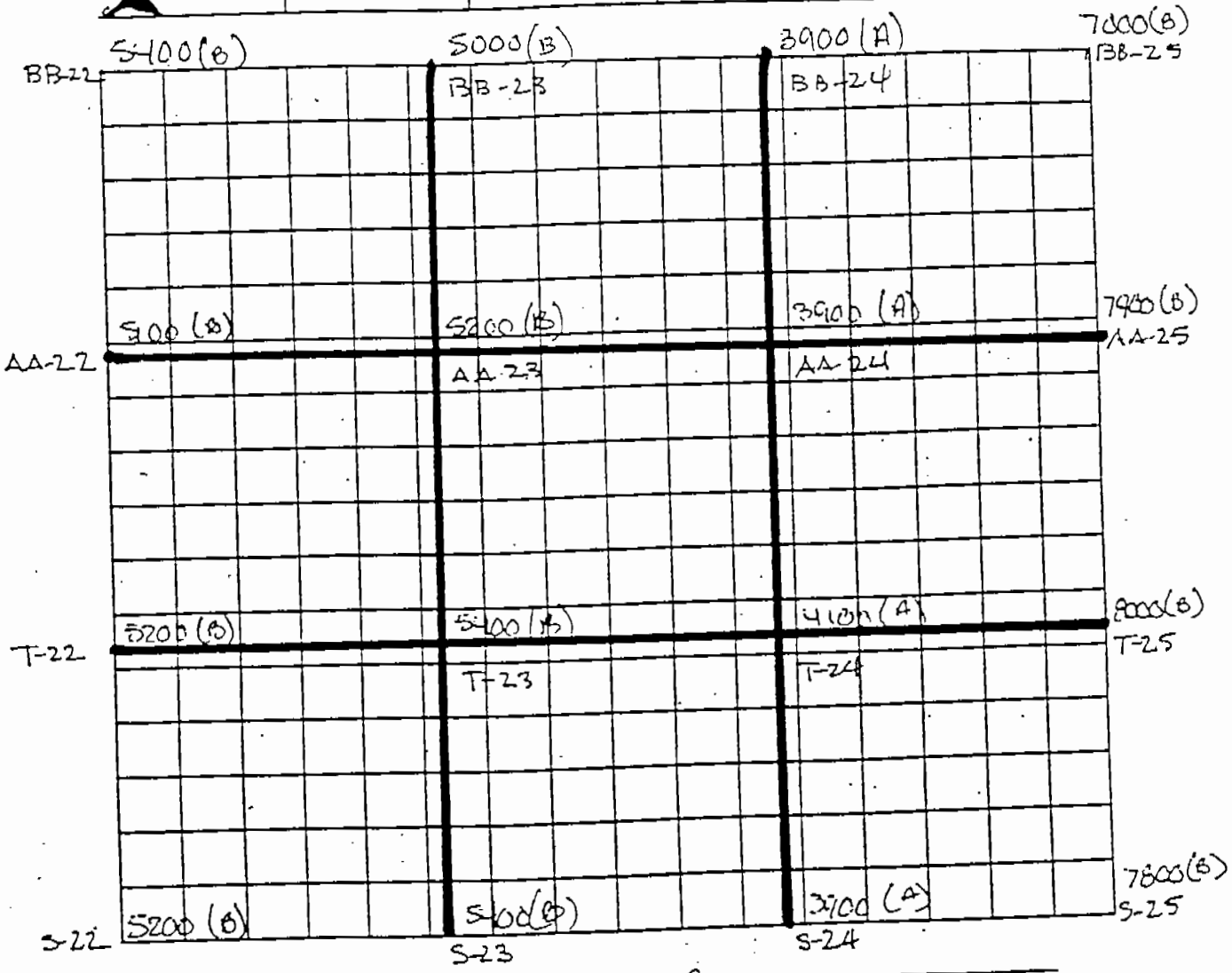
DATE/~~TIME~~: 25 Jan 95

SITE: PSC-3

LOCATION: Grid #29

TECHNICIANS: R. Perrish, J. Showers, G. Showers

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4-20-95
Ludlum 2221	97526 (B)	44-10	115371	4-20-95



SCALE: 6.2' x 6.2'

REVIEWED BY: 1-25-95

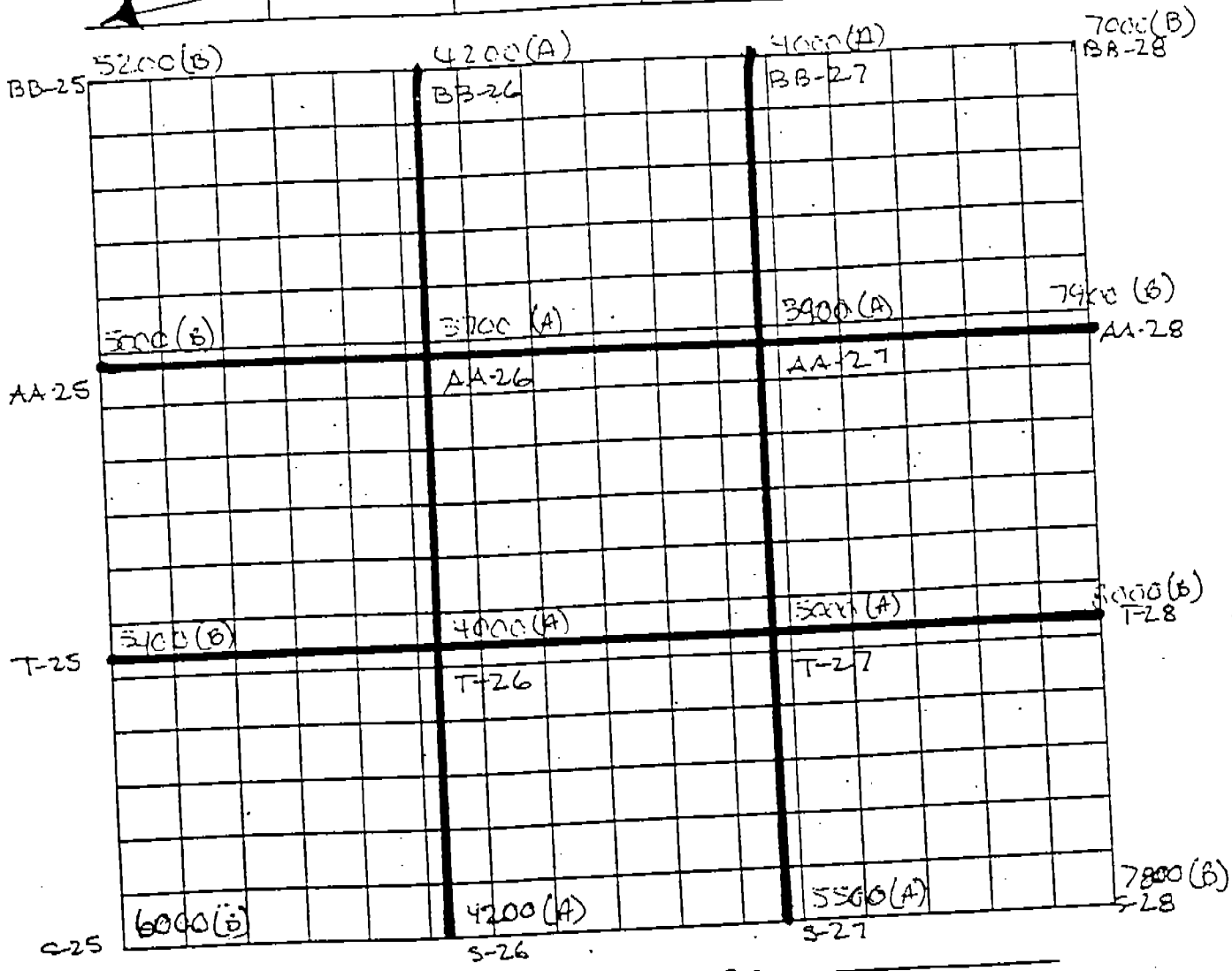
REMARKS (Notes): ① No hits ② All readings are in CPM

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~: 25 JAN 95
SITE: PSC-3
LOCATION: Grid # 30
TECHNICIANS: R. Parrish, J. Shoemaker, G. Shoemaker, P. May

INSTRUMENTS Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
Ludlum 2221	99136(A)	44-10	16.5	4.20.95
Ludlum 2221	97826(B)	44.10	118.371	4.20.95



SCALE: 6.2' x 6.2'

REVIEWED BY: 1-25-95 2/1/95

REMARKS (Notes): ① No hits ② All readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

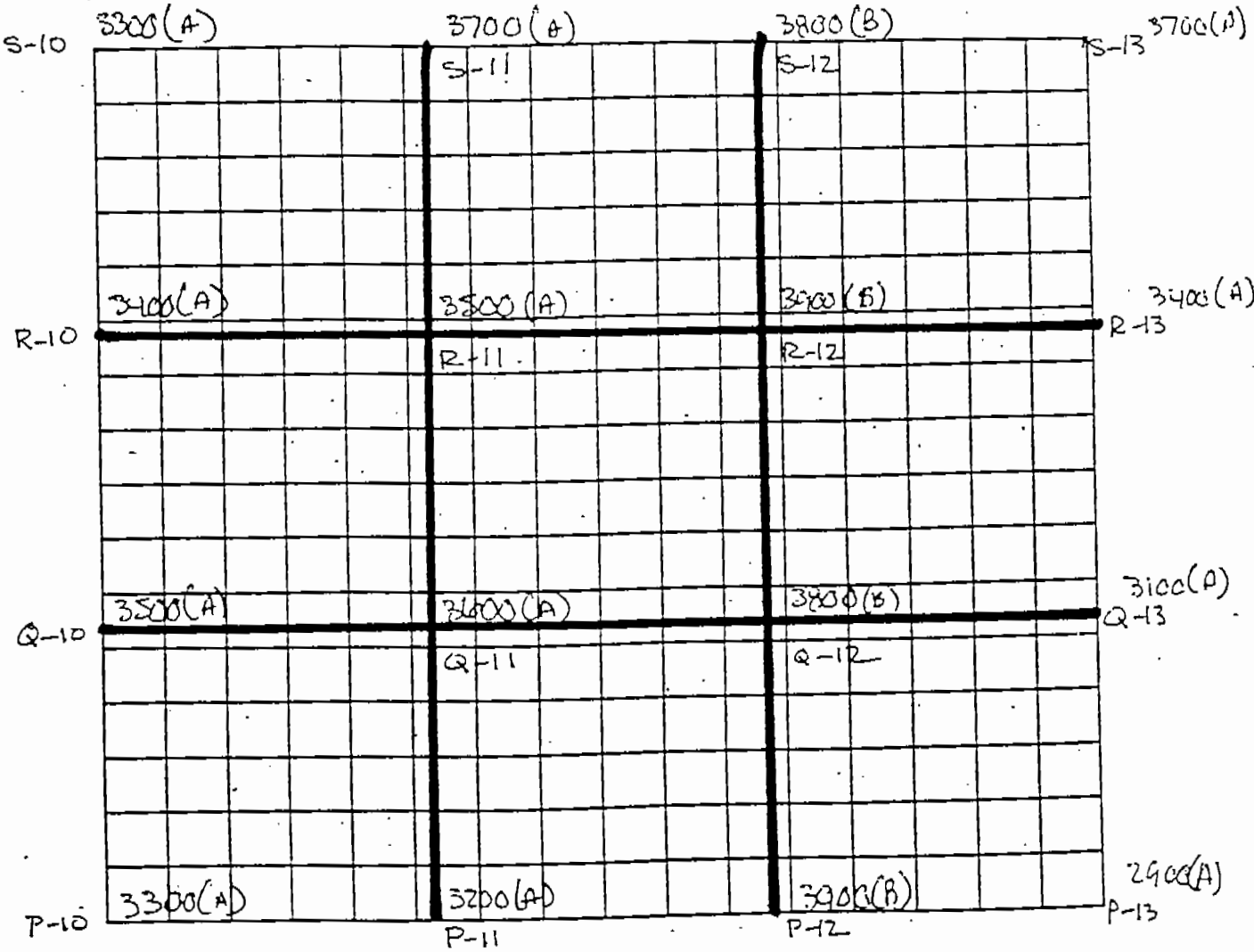
DATE ~~TIME~~ wom: 25 JAN 95

SITE: PSC-03

LOCATION: GRID #31

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136	44-10	165	4/20/95
Ludlum 2221	94954	44-10	118370	4/20/95



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-25-95

[signature] 2/1/95

REMARKS (Notes): ① No hits ② all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

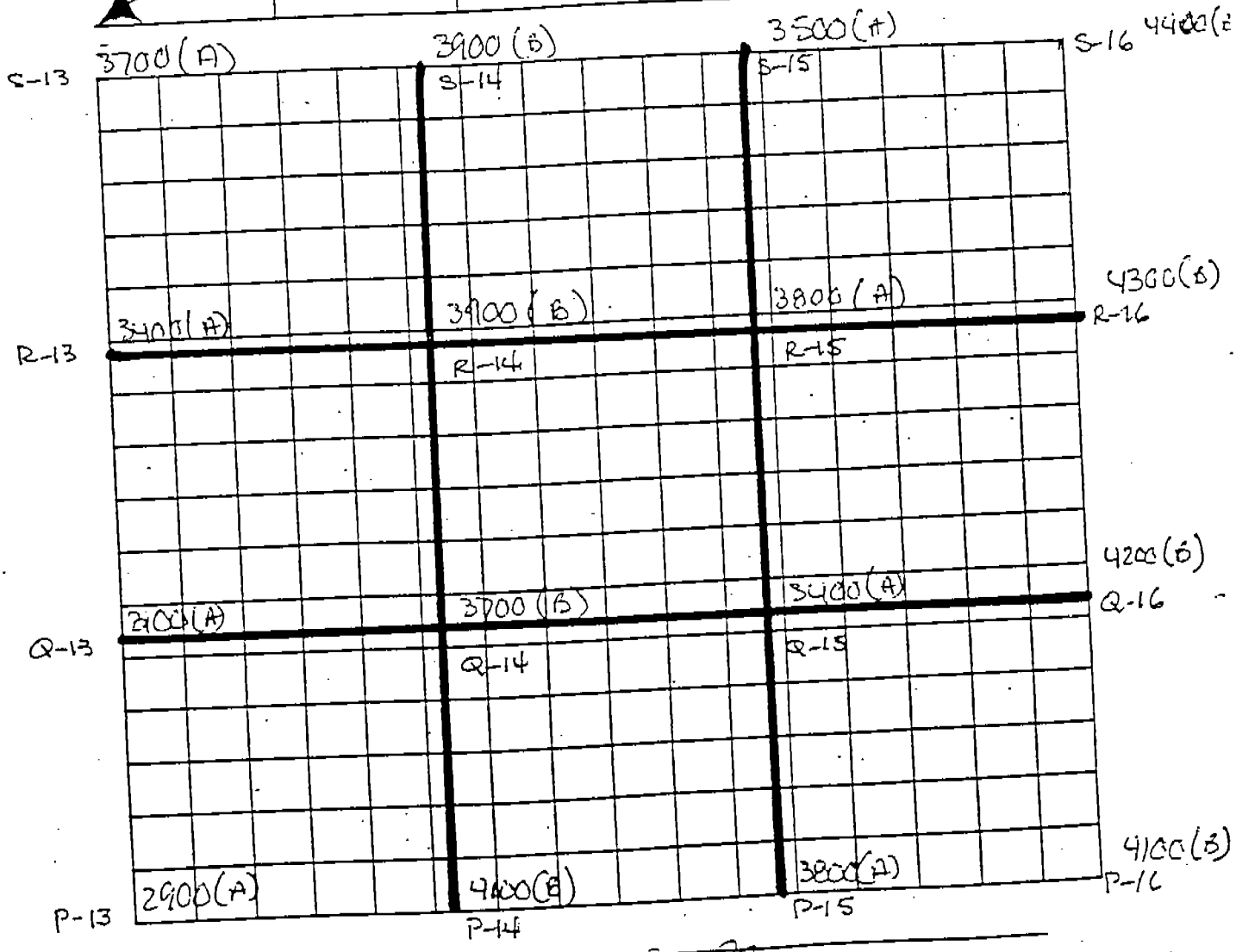
DATE ~~TIME~~ Lisa: 25 JAN 95

SITE: DSC-03

LOCATION: Grid #32

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
LUDLUM 2221	99136	44-10	165	4/20/95
" " "	94954	" "	118370	4/20/95



SCALE: 602' X 602'

REVIEWED BY: [signature] 1-25-95

REMARKS (Notes): ONLY HITS @ all readings are in cpm. [signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

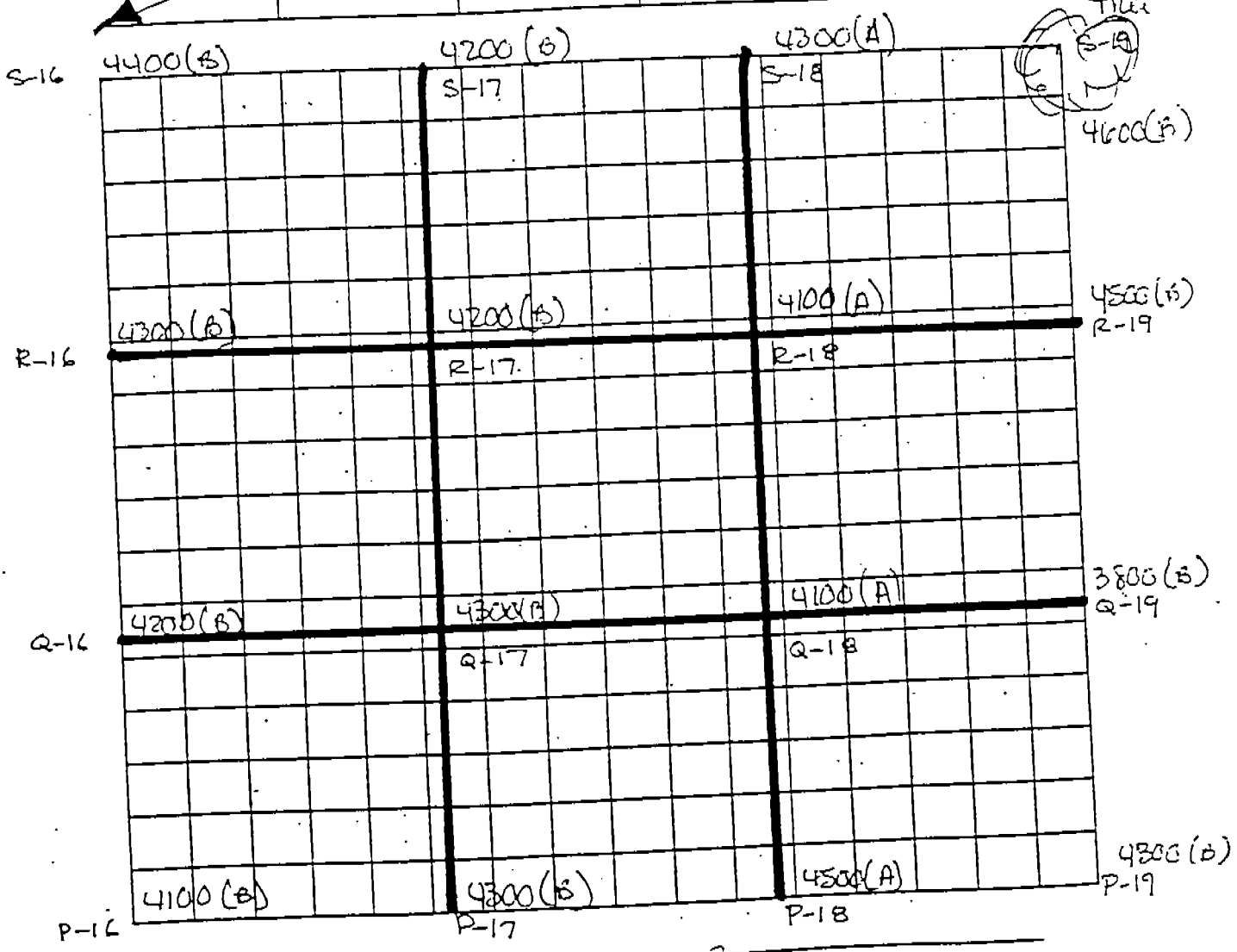
DATE/~~TIME~~ 25 Jan 95

SITE: PSC-003

LOCATION: GRID #33

TECHNICIANS: J. Shaw, G. Shaw, W.C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136	4040	1165	4/20/95
" "	94954	" "	118370	4/20/95



SCALE: 6.2' x 6.2'

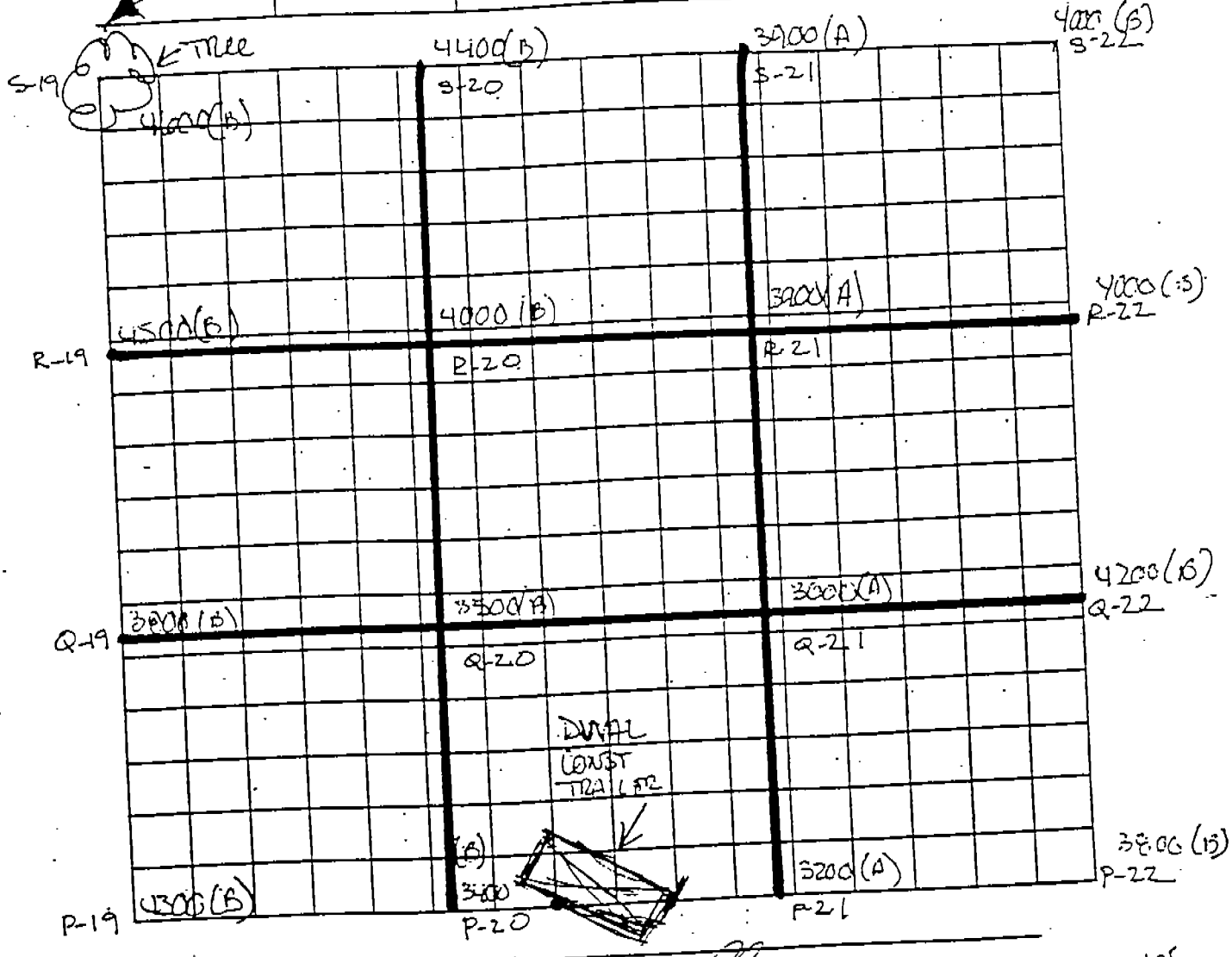
REVIEWED BY: [signature] 1-25-95 [signature] 2/1/95

REMARKS (Notes): (1) No hits (2) all readings in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

		INSTRUMENTS				
		Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
DATE ~~TIME~~	25 Jan 95					
SITE:	PSC-Q3					
LOCATION:	Grid # 34					
TECHNICIANS:	J. Shewey	Ludlum 2221	99136	44-10	165	4/20/95
	G. Shewey	" " "	94954	" "	118376	4/20/95
	W. C. May					



SCALE: 602' x 602'

REVIEWED BY: 1-25-95 2/1/95

REMARKS (Notes): ① No hits ② all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

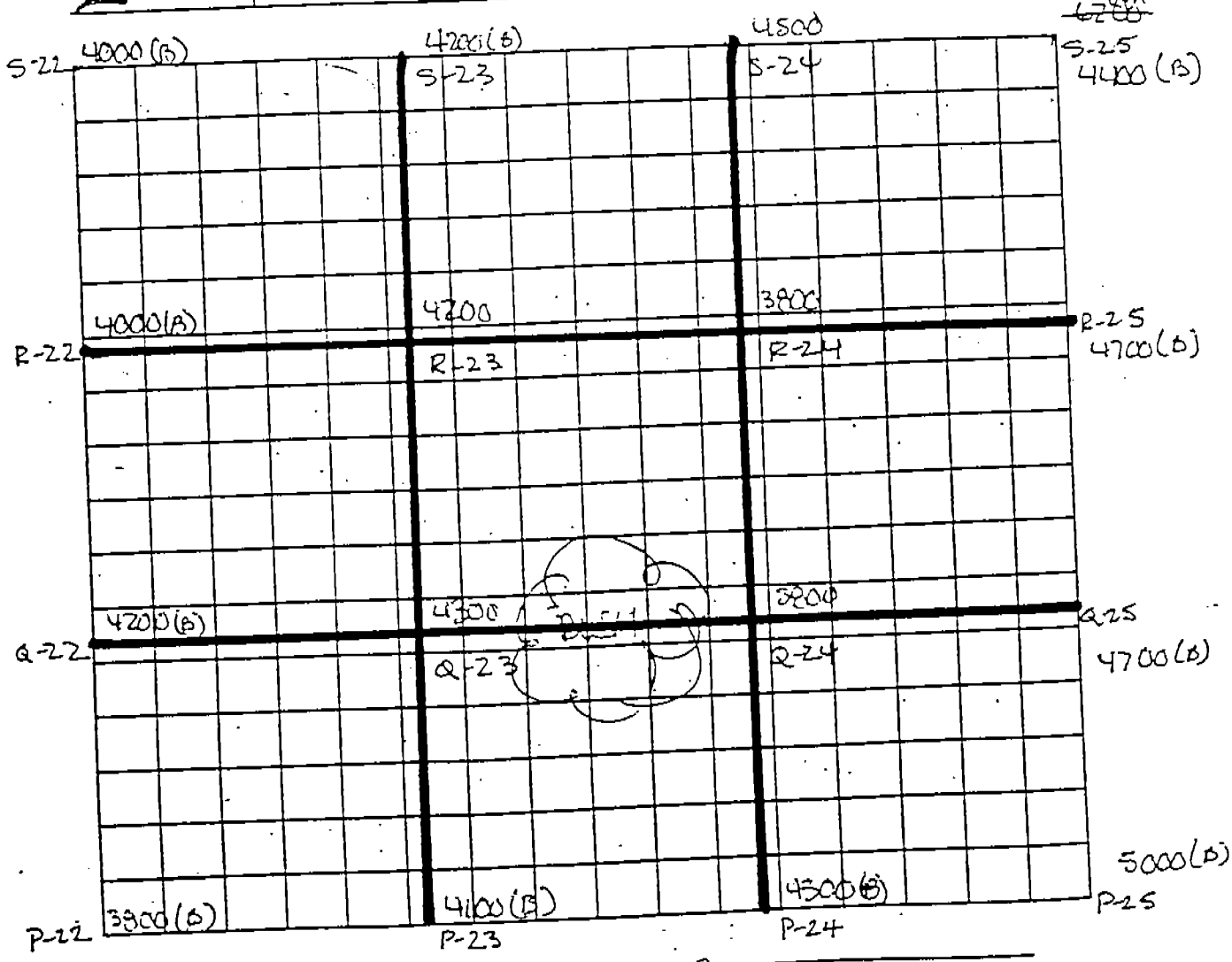
DATE/TIME: 25 JAN 95

SITE: PSC-3

LOCATION: GRID #35

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
LUDLUM 2221	99186	44-10	165	4/20/95
" " "	94954	" "	118370	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-25-95

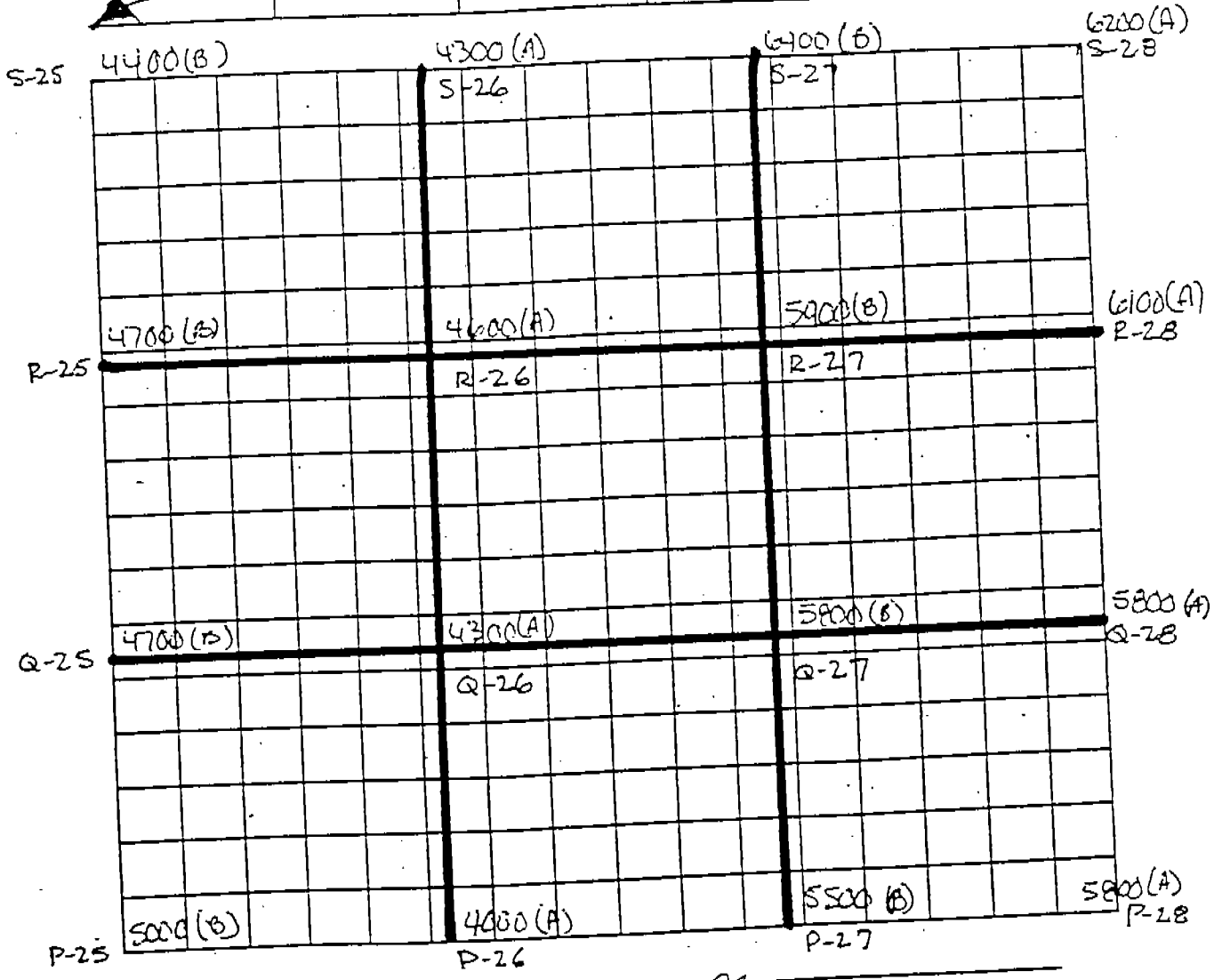
REMARKS (Notes): (1) No hits (2) all readings are cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~ 25JAN95
SITE: PSC-18
LOCATION: GRID #34
TECHNICIANS: J. Howlett, G. Howlett, W. O. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
LioLin 2221	99136 (A)	44-10	165	4/20/95
" " "	94954 (B)	" "	118370	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-25-95

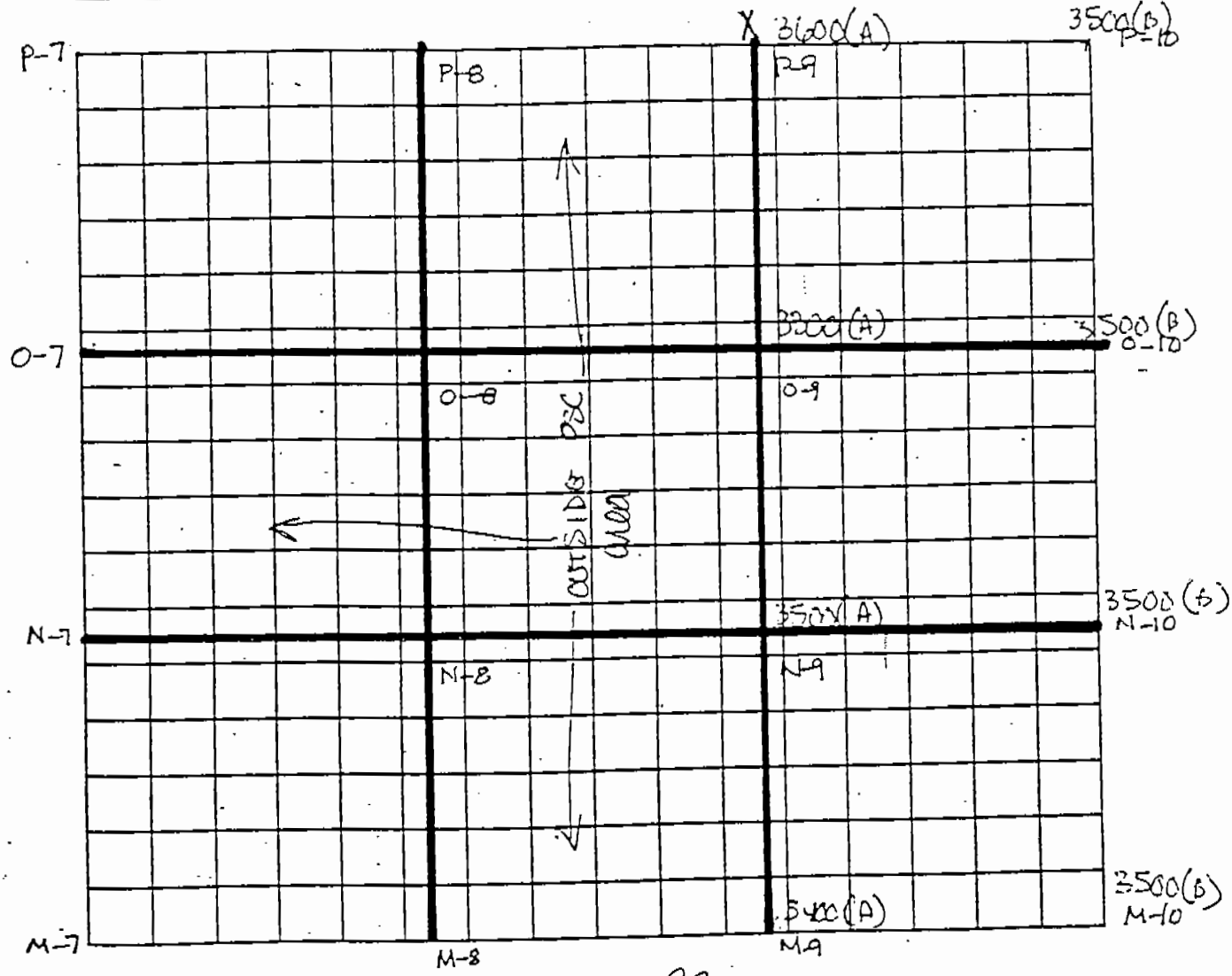
REMARKS (Notes): (1) No hits (2) all readings are in cpm. [signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

PAGE ~~66~~ WOM #73

		INSTRUMENTS				
DATE ~~TIME~~ WOM	26JAN95	Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ WOM Serial #	Calibration Date
E:	PSC-03					
LOCATION:	GRID #66					
CHNICIANS:	J. Showers	(WD) WM 2221	99136 (A)	44-10	165	4/20/95
	G. Showers	" " "	94954 (B)	44-10	118370	4/20/95
	W. C. May	" " "	97826 (C)	44-10	118371	4/21/95
	R. Parish		N/A			



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-26-95 [signature] 2/1/95

REMARKS (Notes): (1) No hits (2) all readings are 110 cpm.

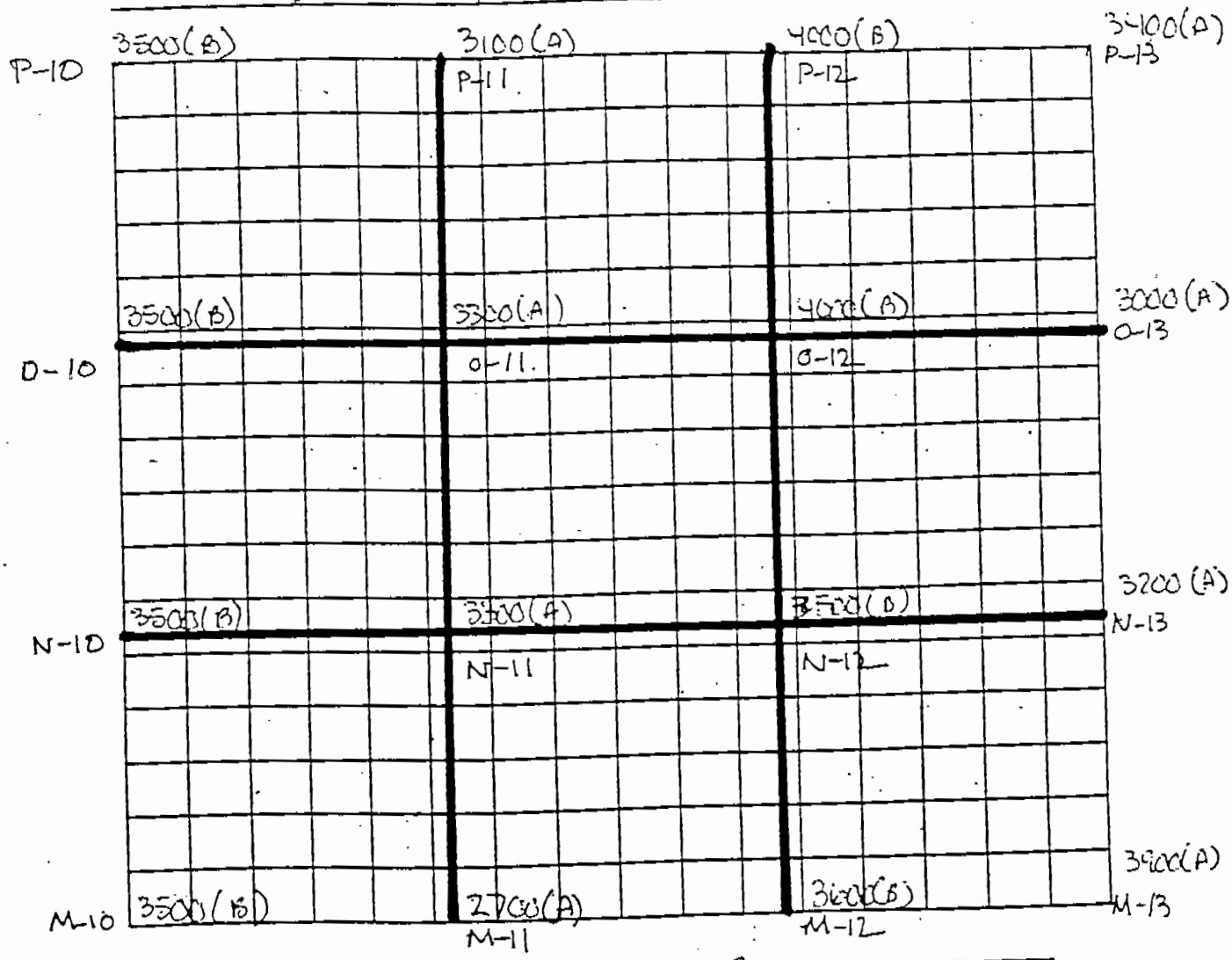
FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~: 26 Jan 95
SITE: PSC-3
LOCATION: GRID # 37
TECHNICIANS: J. Shawlen, G. Shawlen, W. C. May, R. Parrish

INSTRUMENTS

Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95
		N/A		



SCALE: 100' X 100'

REVIEWED BY: [signature] 1-26-95

DJH 2/1/95

REMARKS (Notes): (1) No hits (2) all readings in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

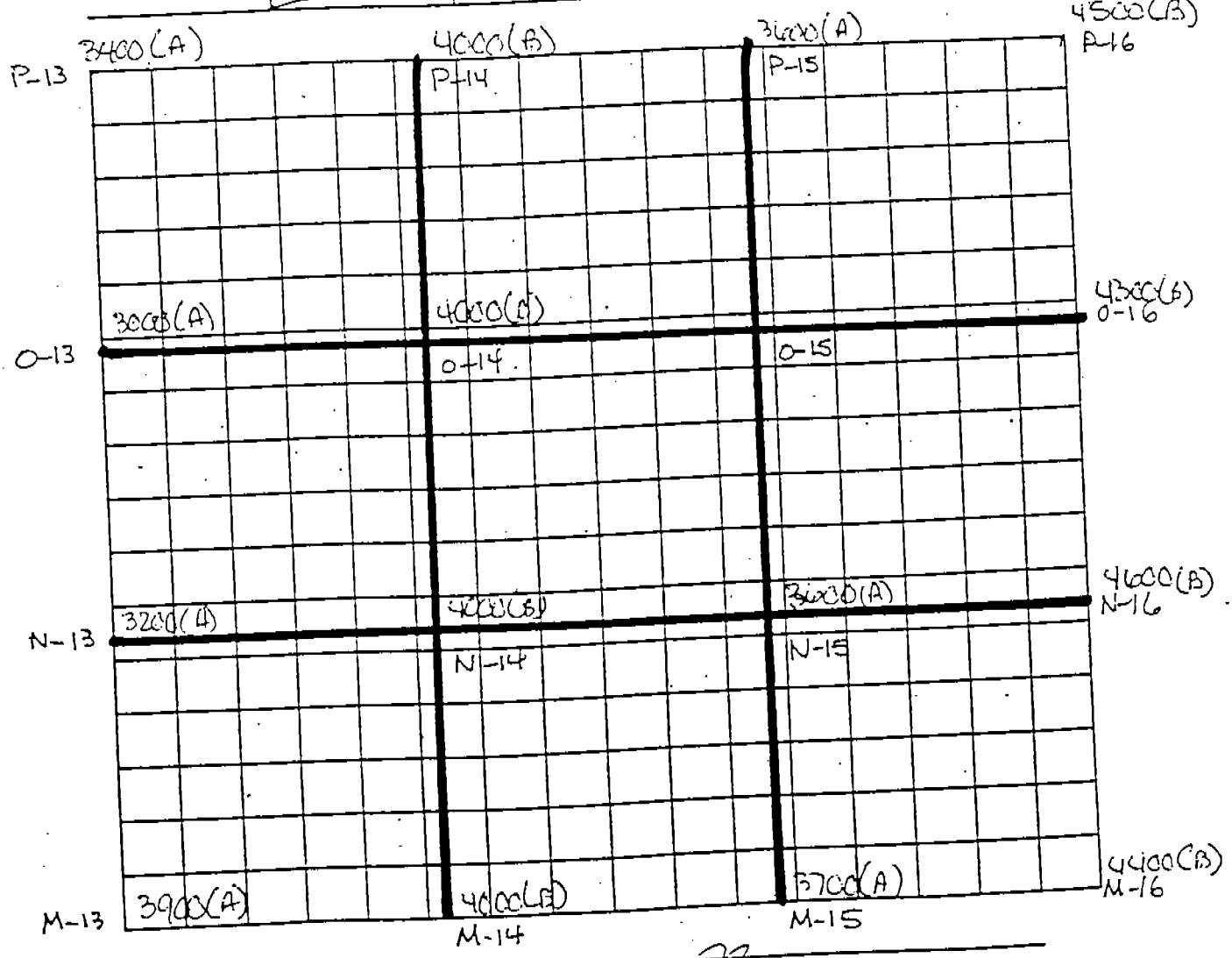
DATE ~~TIME~~ w/am: 26 JAN 95

SITE: PSC-03

LOCATION: Grid #38

TECHNICIANS: J. Shawers, G. Shawers, W. C. May, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe w/m ~~(type/model)~~ Serial#	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
" " "	94954 (B)	" "	118370	4/20/95
		N/A		



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-26-95

[signature] 2/1/95

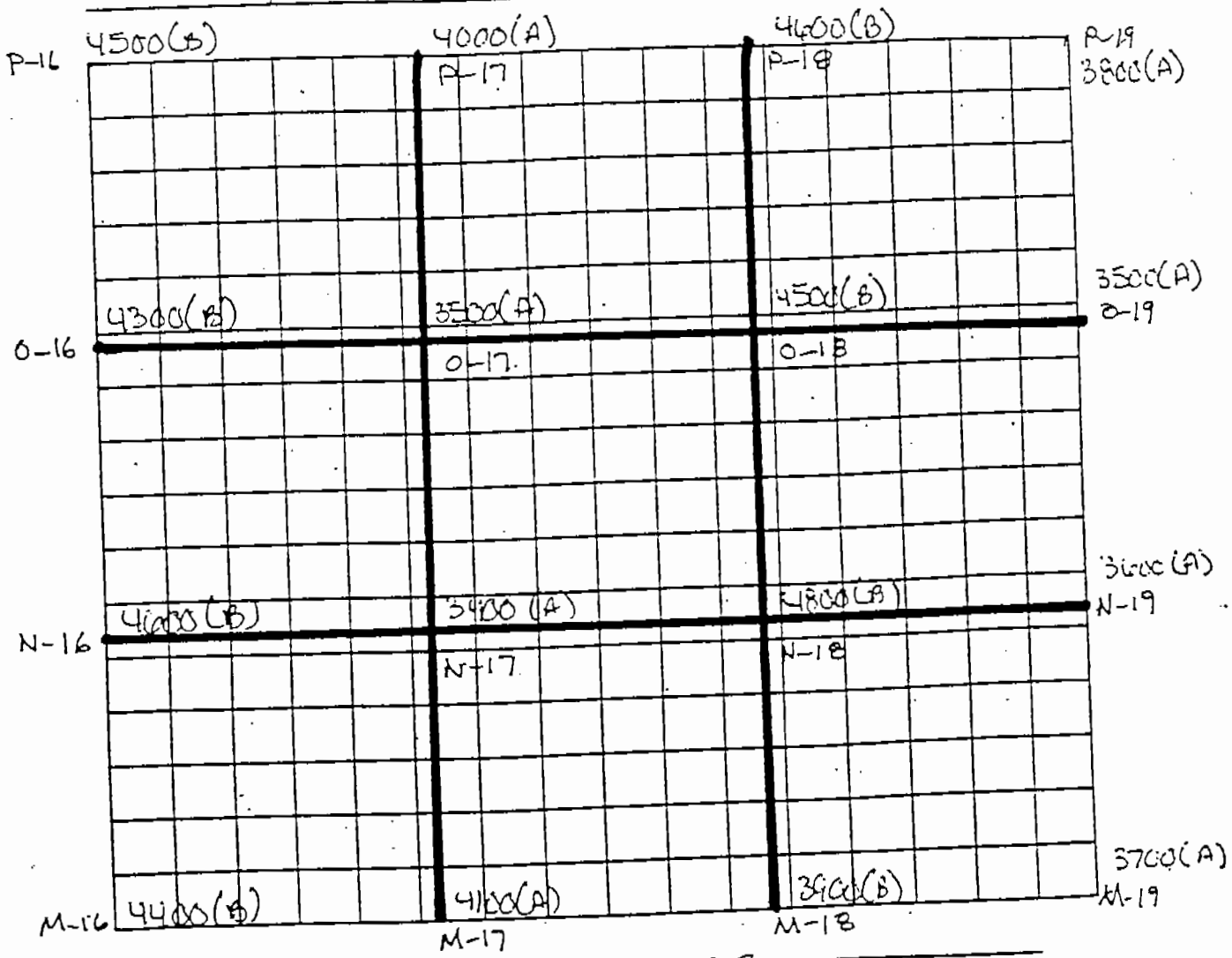
REMARKS (Notes): (1) No hits (2) all readings in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~ 26JAN95
SITE: PSC-03
LOCATION: Grid #39
TECHNICIANS: J. Shaver, G. Shaver, W. C. May, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	" "	118370	4/20/95
		N/A		



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-26-95

REMARKS (Notes): ① No hits ② all readings are in cpm.

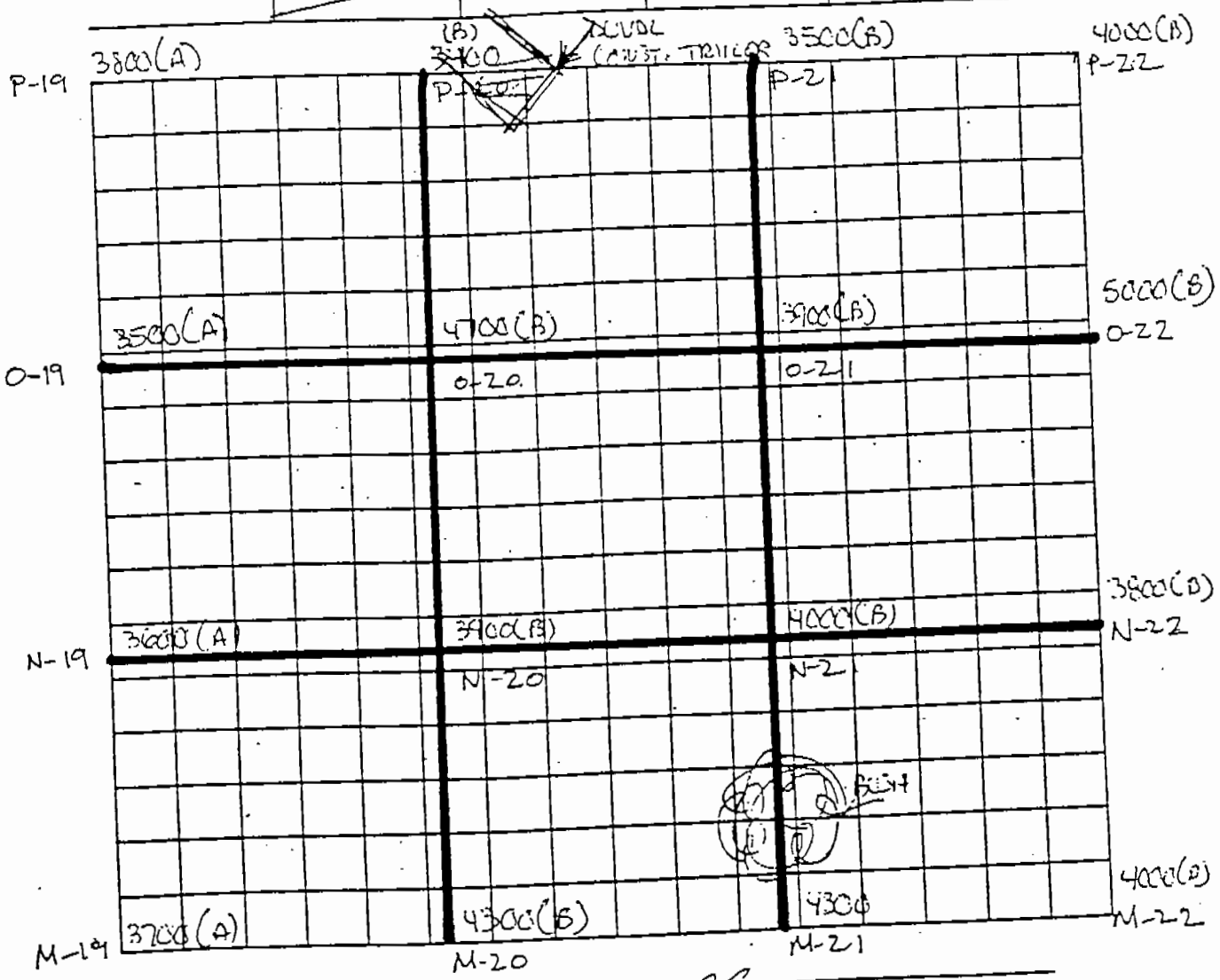
[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~: 26 JAN 95
SITE: PSC-03
LOCATION: GRID #40
TECHNICIANS: J. Showers, G. Showers, W. C. May, R. Farrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/28/95
" " "	94954 (B)	" "	118370	4/28/95



SCALE: 6'x2' X 6'x2'

REVIEWED BY: [signature] 1-26-95

REMARKS (Notes): (1) No hits (2) all readings are in cpm.

2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

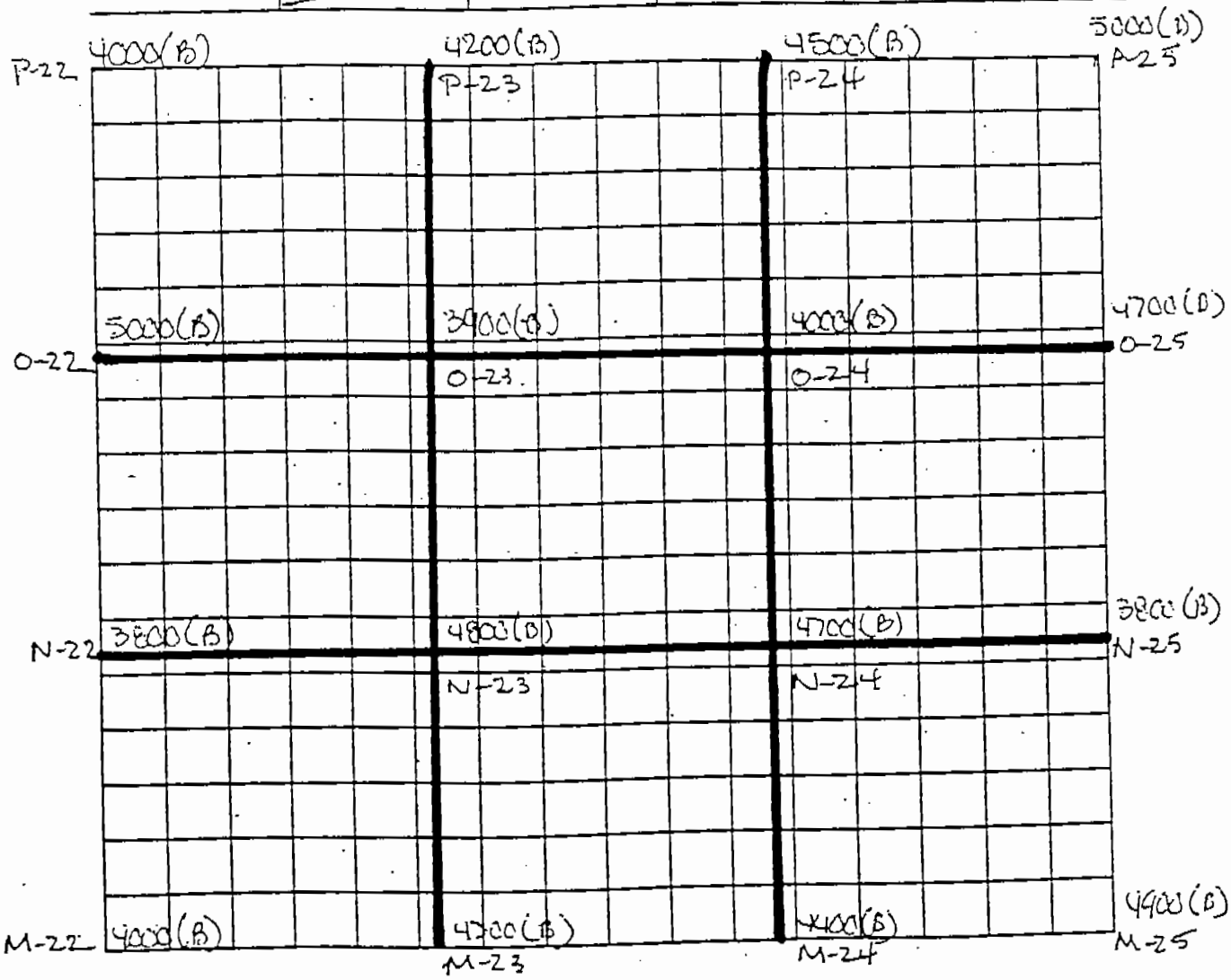
DATE/~~TIME~~: 26JAN95

SITE: P3C-03

LOCATION: 621D#41

TECHNICIANS: J. Showers, G. Showers, W. Comay, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial#	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
" " "	94954(B)	" "	118370	4/20/95
	N/A			



SCALE: 6'x6'

REVIEWED BY: 1-26-95

REMARKS (Notes): (1) No hits (2) all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

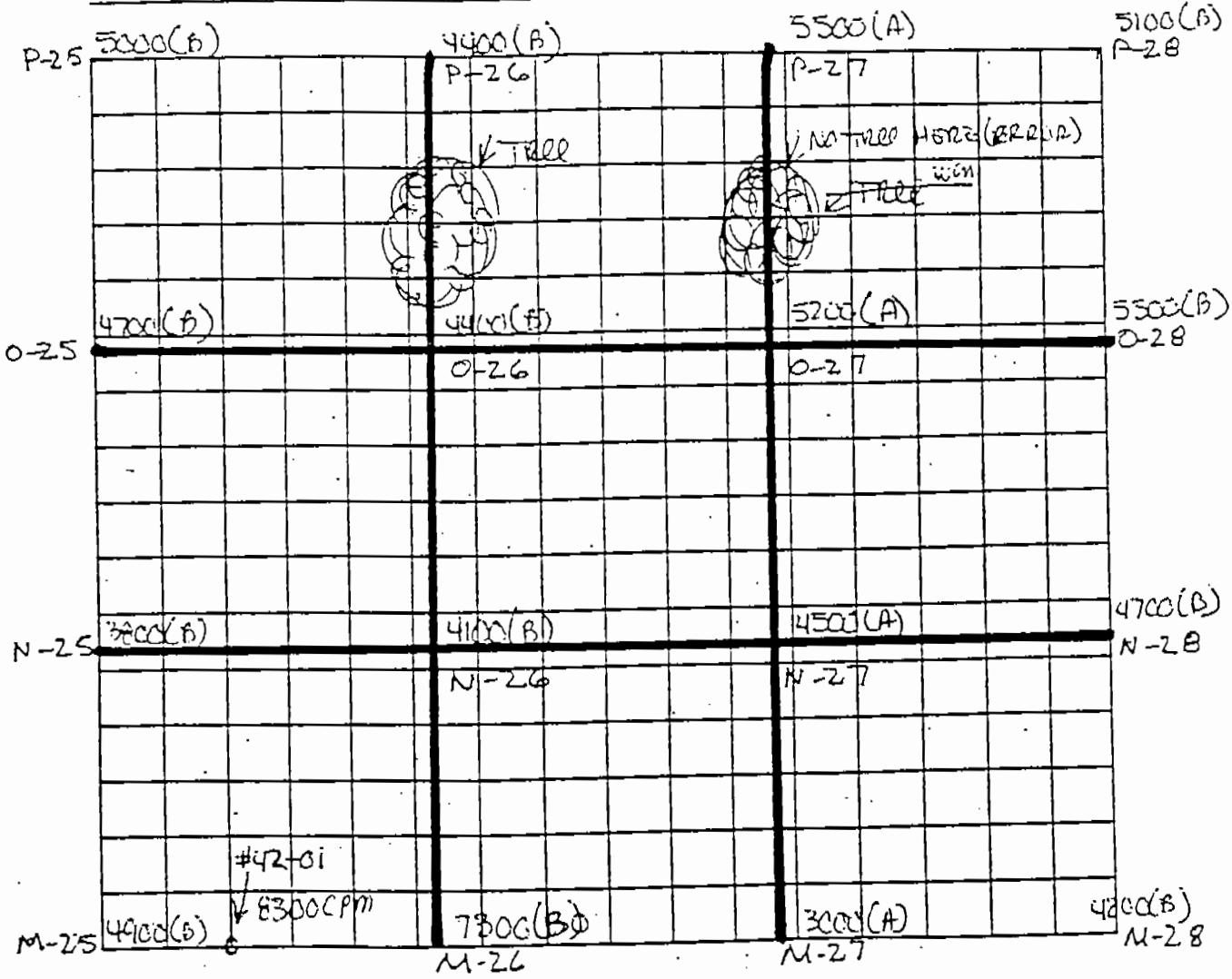
DATE ~~TIME~~: 26Jan95

SITE: PSC-3

LOCATION: Grid #42

TECHNICIANS: J. Shawley, G. Shawley, W. C. May, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	99454 (B)	44-10	118370	4/20/95
	N/A			



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-26-95

2/1/95

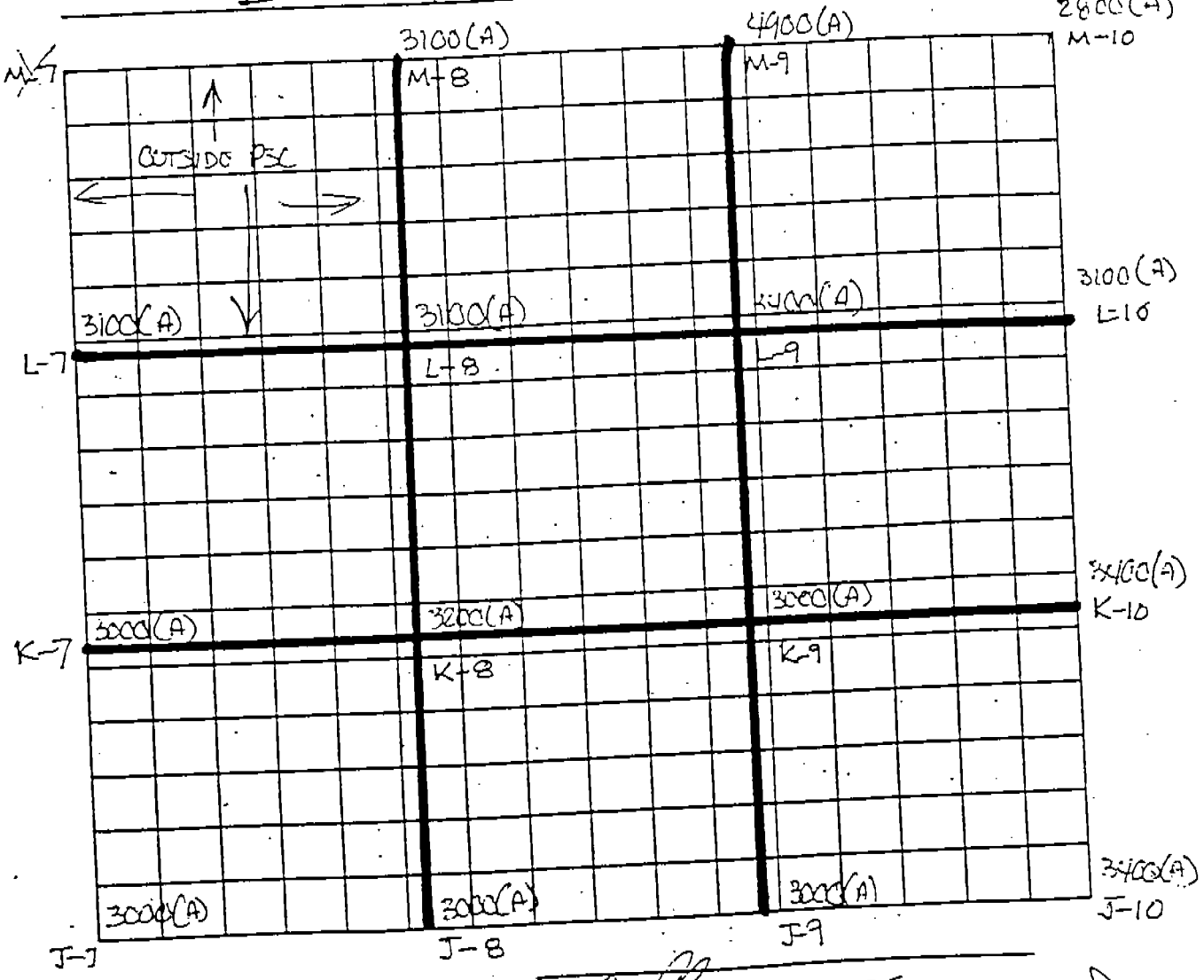
REMARKS (Notes): (1) 1" hit #42-01 (2) All readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~ 26 JAN 95
SITE: PSC-83
LOCATION: GRID #43
TECHNICIANS: J. Shawen, G. Shawen, W. C. May, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
Ludlum 2221	94954(B)	44-10	118370	4/20/95
	N/A			



SCALE: 100' x 6.2'

REVIEWED BY: 1-26-95

REMARKS (Notes): ① No hits ② all readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

PAGE ~~43~~ 41 / 51

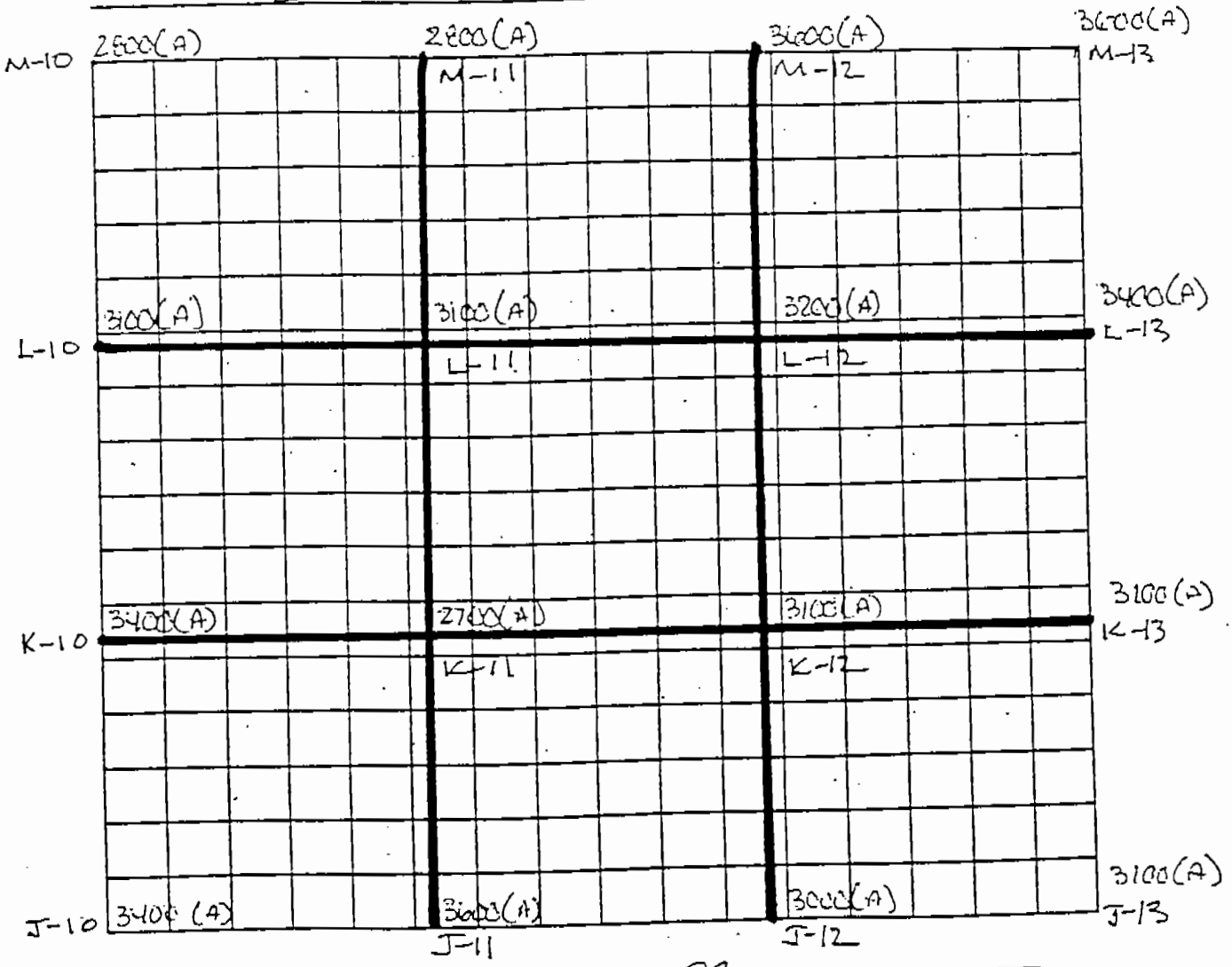
DATE ~~TIME~~ 26 JAN 95

SITE: PSC-C3

LOCATION: Grid #43

TECHNICIANS: J. Shaver, G. Shaver, G. Comaj, R. Parish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99126(A)	44-10	165	4/20/95
Ludlum 2221	94954(B)	44-10	118320	4/20/95
		N/A		



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-26-95

REMARKS (Notes): (1) No hits (2) all readings are in cpm.

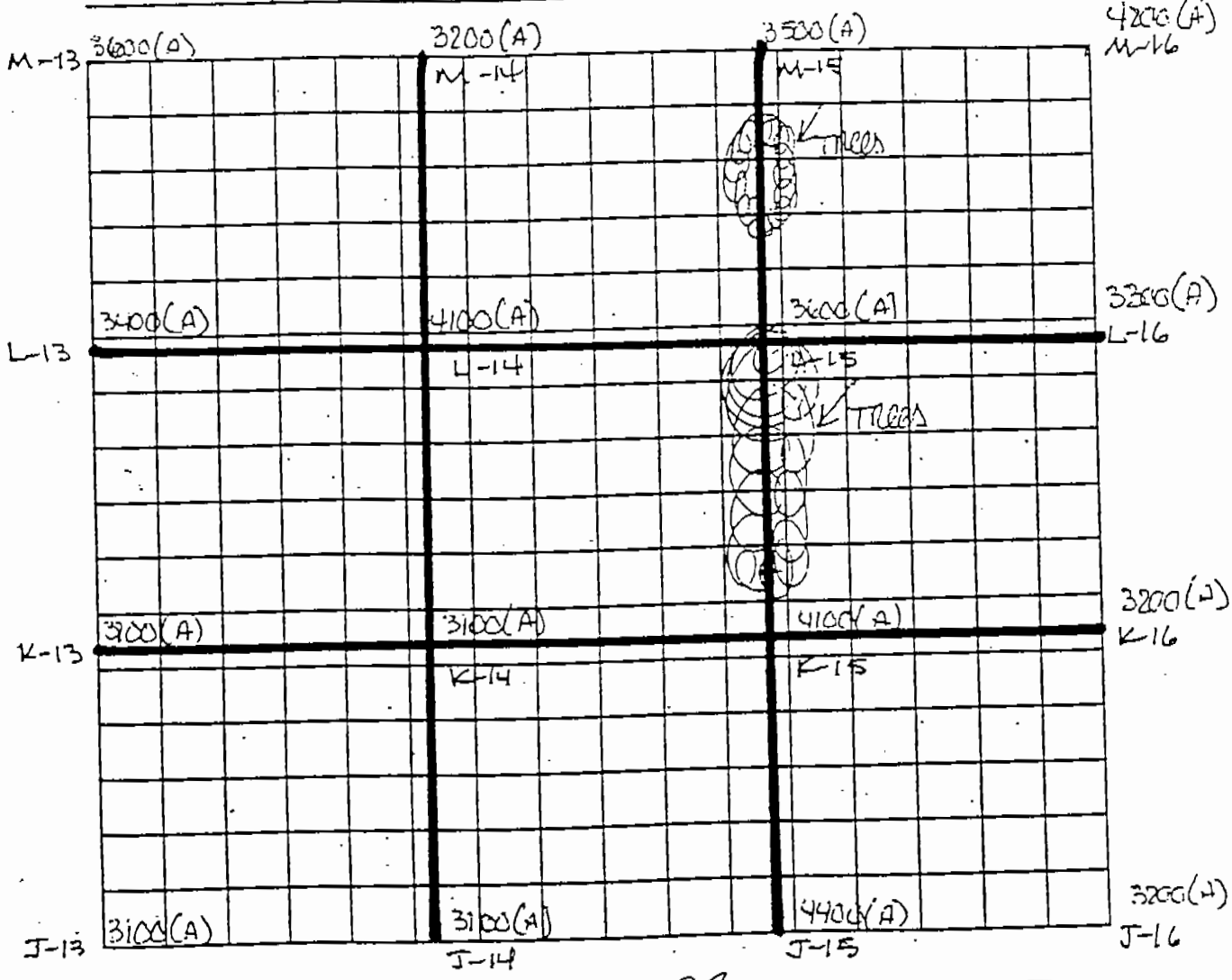
DWA 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~: 26 Jan 95
SITE: PSC-03
LOCATION: Grid #44
TECHNICIANS: J. Showers, G. Showers, W. Comay, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 6.0' x 6.0'

REVIEWED BY: [signature] 1-26-95

[signature] 2/1/95

REMARKS (Notes): ① No hits ② all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

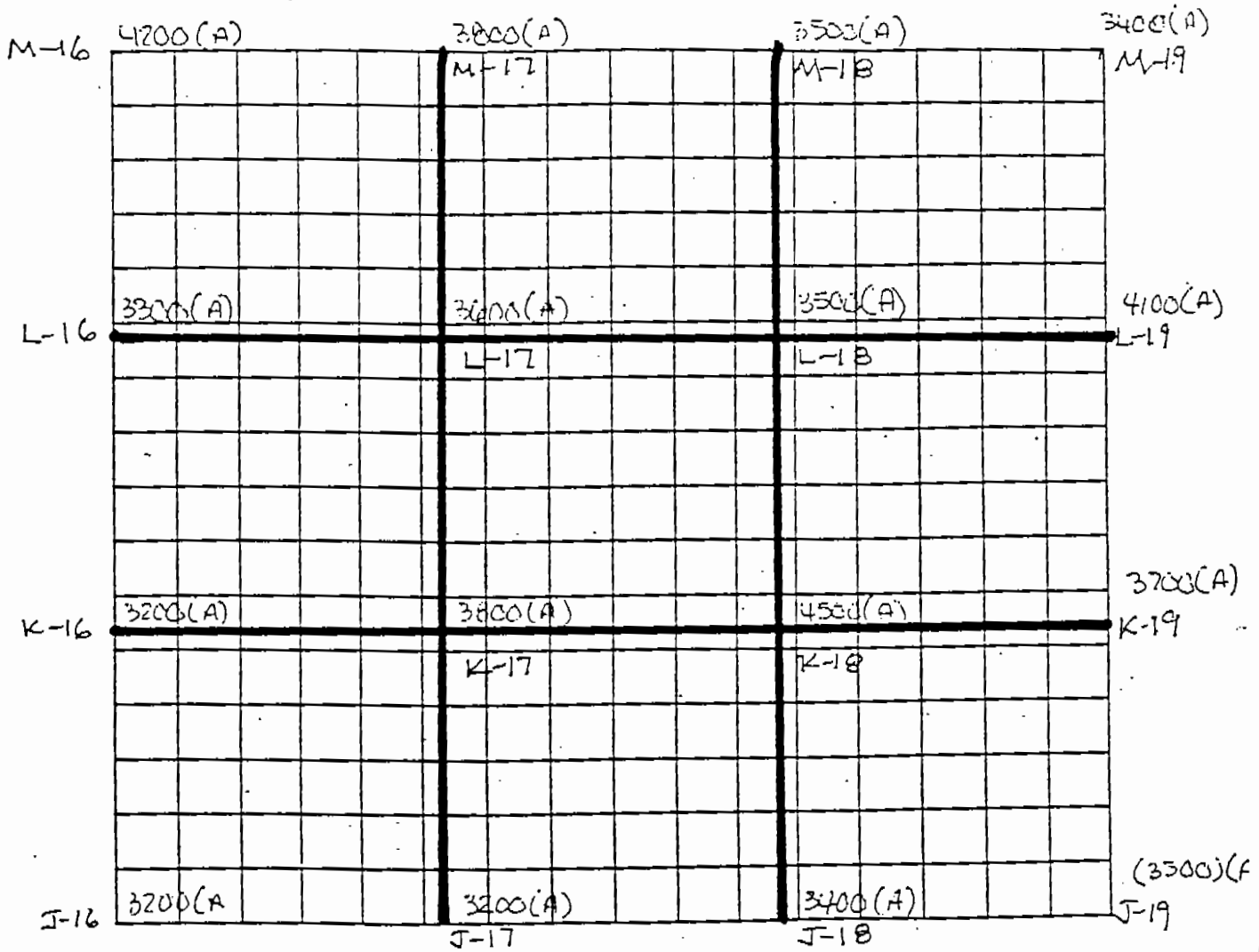
DATE/TIME: 26 JAN 95

SITE: PSC-43

LOCATION: GRID #45

TECHNICIANS: J. Shawen, G. Shawen, W. C. May, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model) Serial #	Calibration Date
Ludlum 2221	94126 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	" "	118370	4/20/95
		N/A		



SCALE: 602' x 602'

REVIEWED BY: [signature] 1-26-95

REMARKS (Notes): ① No hits. ② all readings in CPM.

2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

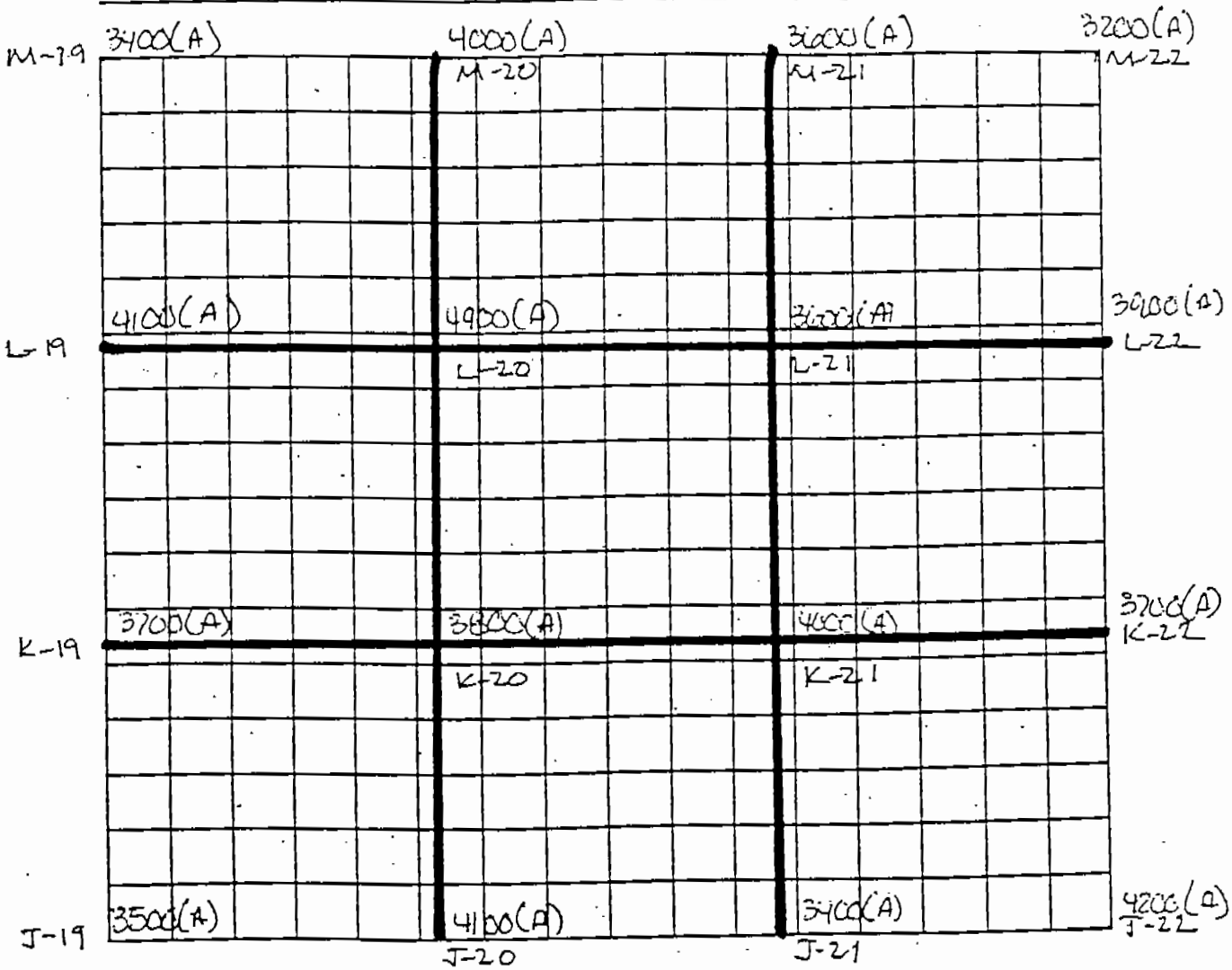
DATE/~~TIME~~ 26 Jan 95

SITE: PSC-03

LOCATION: Grid #46

TECHNICIANS: J. Showers, G. Showers, W. C. May, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/28/95
" " "	99954(A)	44-10	118370	4/20/95
		N/A		



SCALE: 60' x 60'

REVIEWED BY: [signature] 1-26-95

REMARKS (Notes): (1) No hits (2) all readings are in CPM.

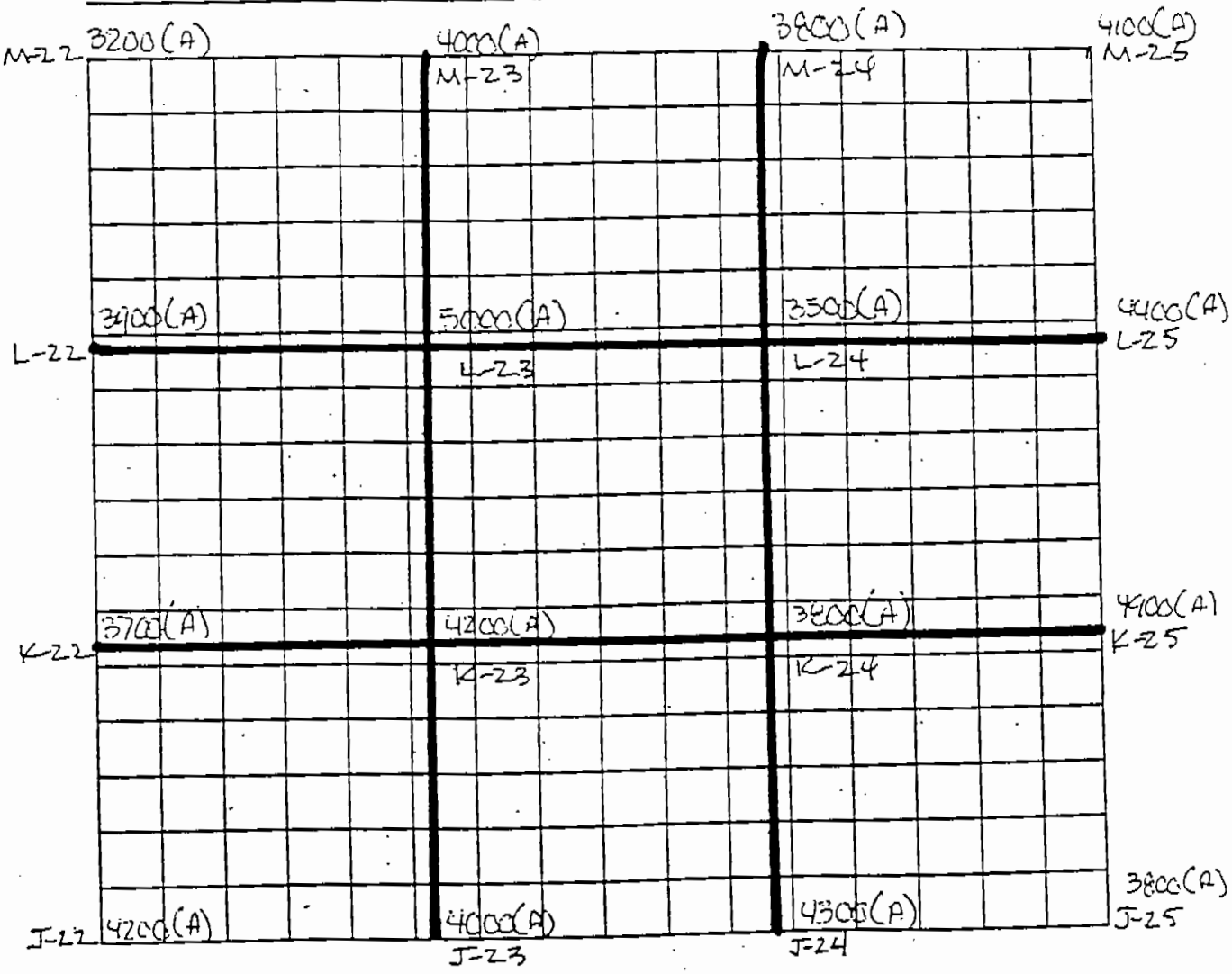
[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/TIME: 26JAN95
SITE: PSC-03
LOCATION: 6.2.1 #47
TECHNICIANS: J. Showalter, G. Showalter, W.C. May, R. Panish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model) Serial #	Calibration Date
LuDlum 2221	99136(A)	44-10	165	4/20/95
LuDlum 2221	94954(A)	44-10	118370	4/20/95
		N/A		



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-26-95

REMARKS (Notes): (1) No hits (2) all readings are in CPM.

[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

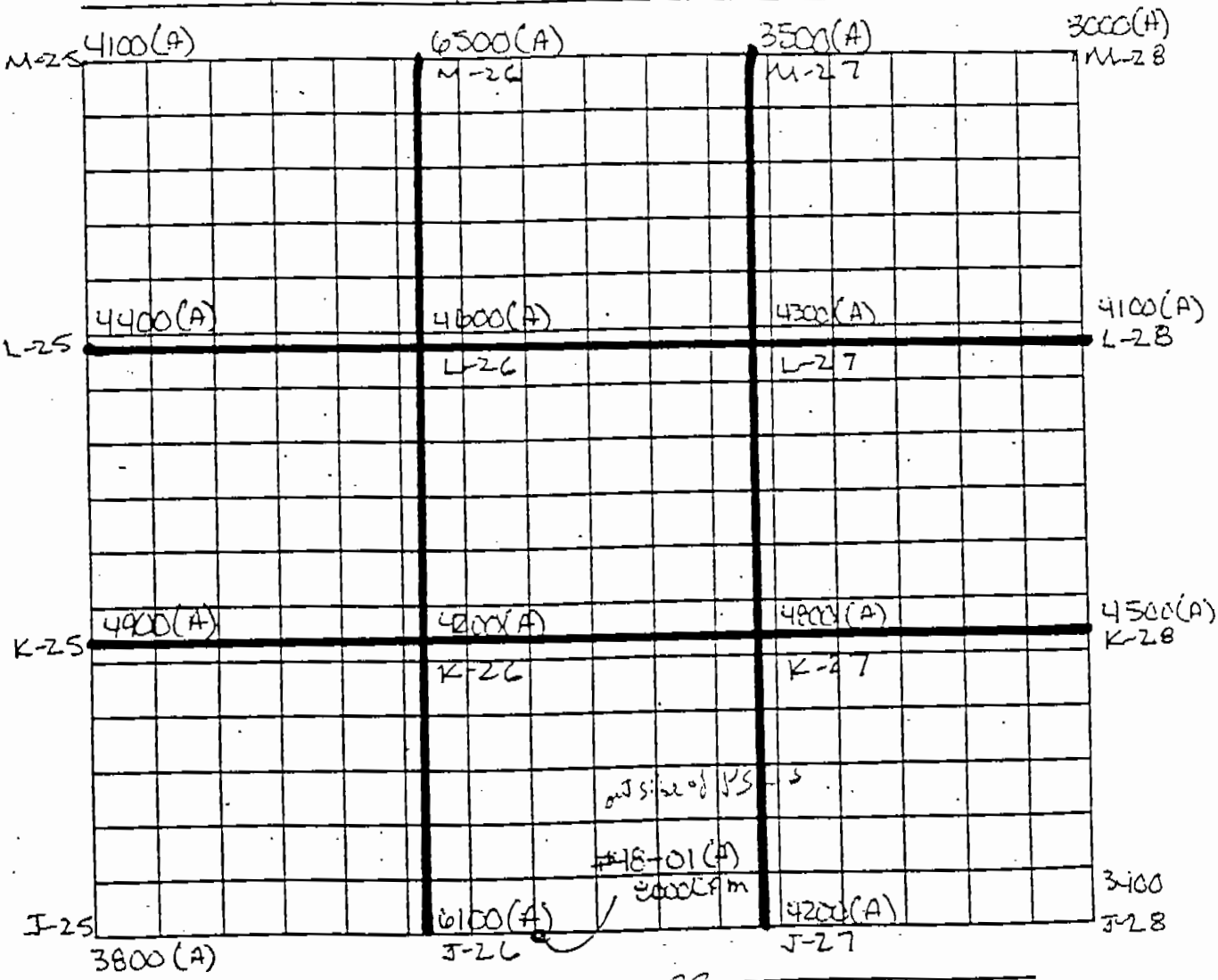
DATE/~~TIME~~: 26 JAN 95

SITE: PSC-03

LOCATION: Grid #48

TECHNICIANS: W. C. May, J. Shaver, G. Shaver, R. Parrish

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
" "	94954(B)	44-10	118370	4/20/95
		N/A		



SCALE: 60' X 60'

REVIEWED BY: [signature] 1-26-95

DWS 2/1/95

REMARKS (Notes): (1) 1" hit (2) all readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

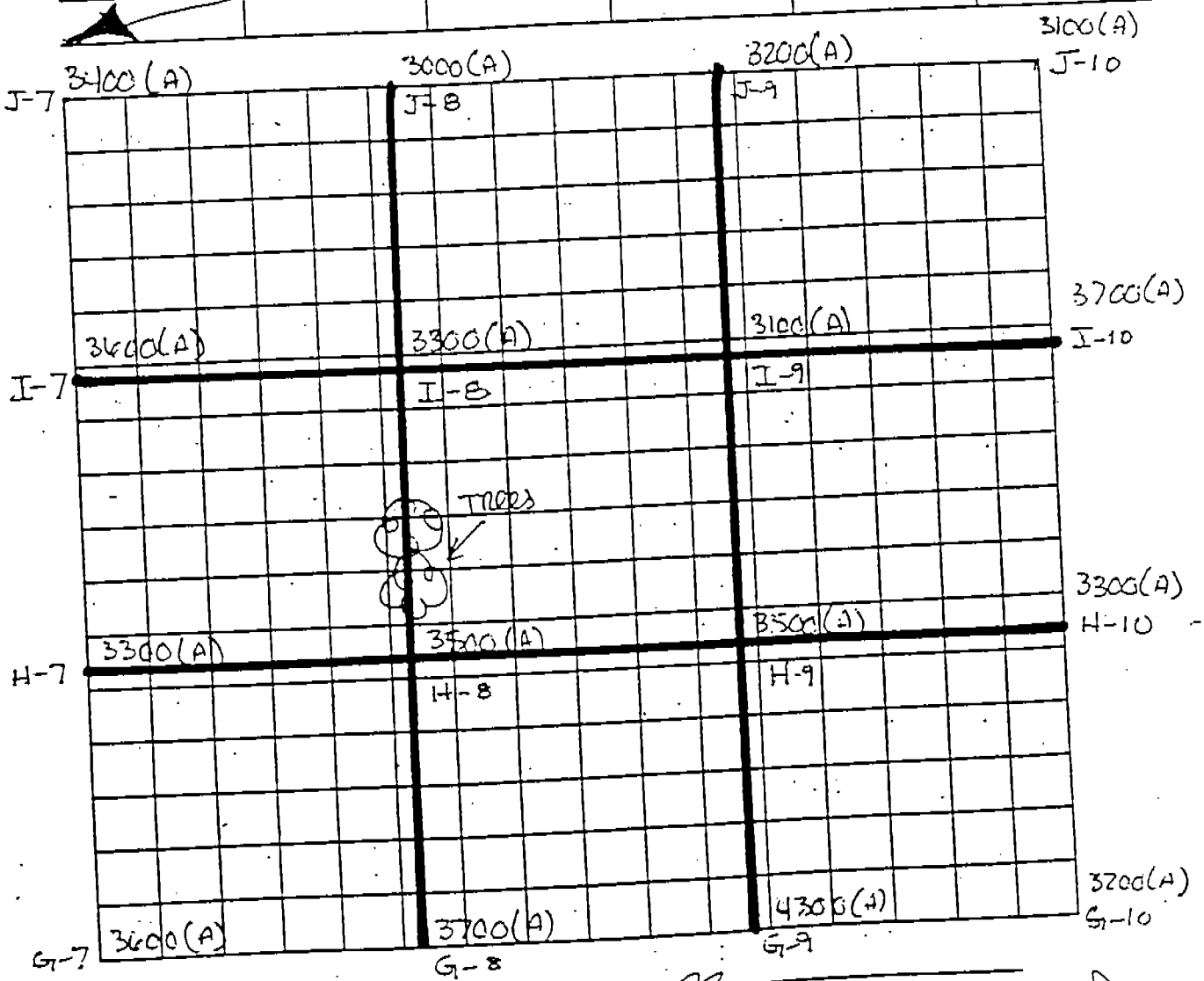
DATE/~~TIME~~: 30 JAN 95

SITE: FSC-93

LOCATION: GRID 64

TECHNICIANS: J. Showley, G. Showley, W. Co May

INSTRUMENTS Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 60' X 60'

REVIEWED BY: 1-30-95 DJP 2/1/95

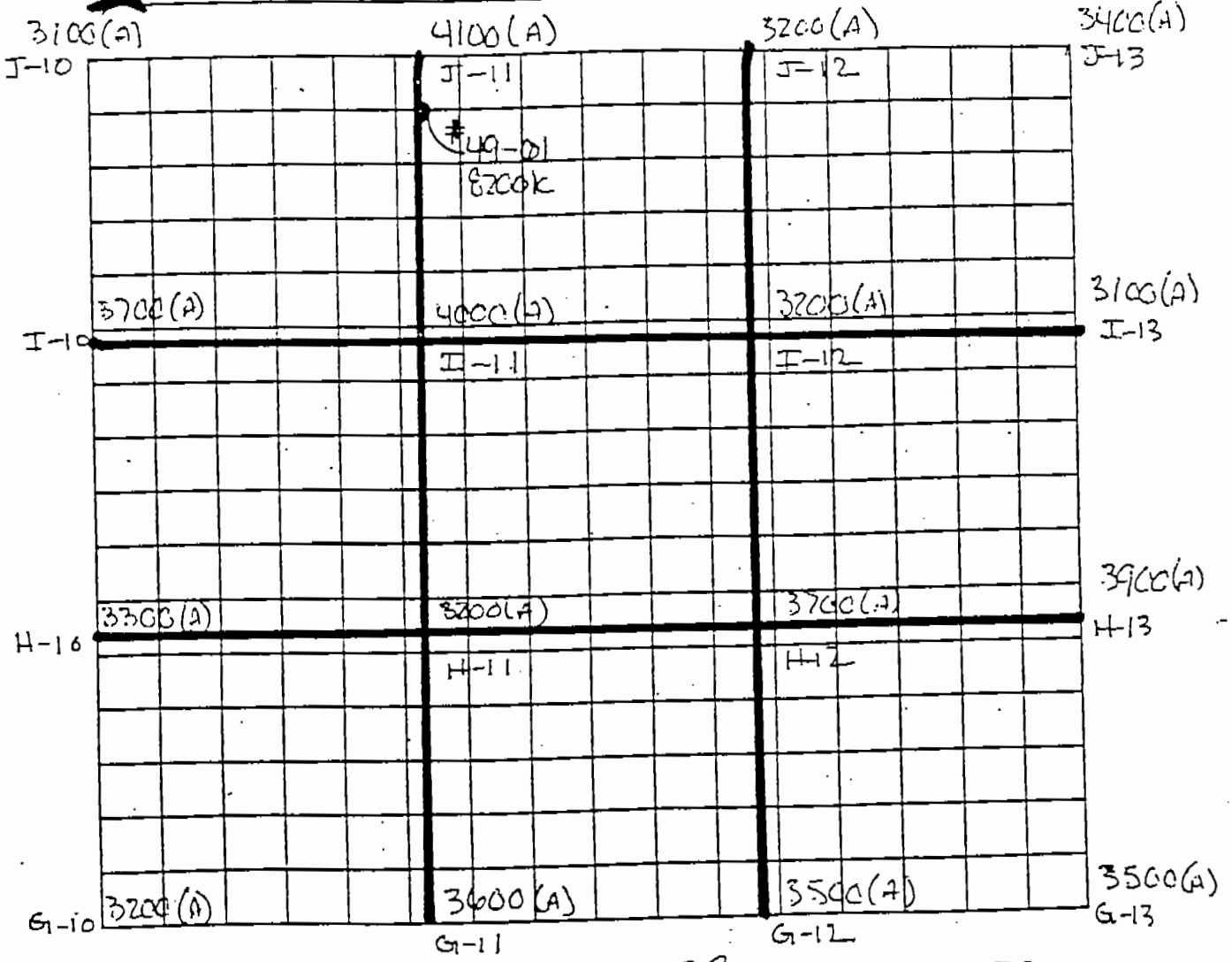
REMARKS (Notes): (1) No hits (2) all readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~: 30 JAN 95
SITE: PSC-03
LOCATION: GRID #49
TECHNICIANS: J. Showers, W. C. May, G. Showers

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (A)	44-10	118370	4/20/95



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-30-95

REMARKS (Notes): (1) "1" hit. (2) all readings in cpm.

DHP 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

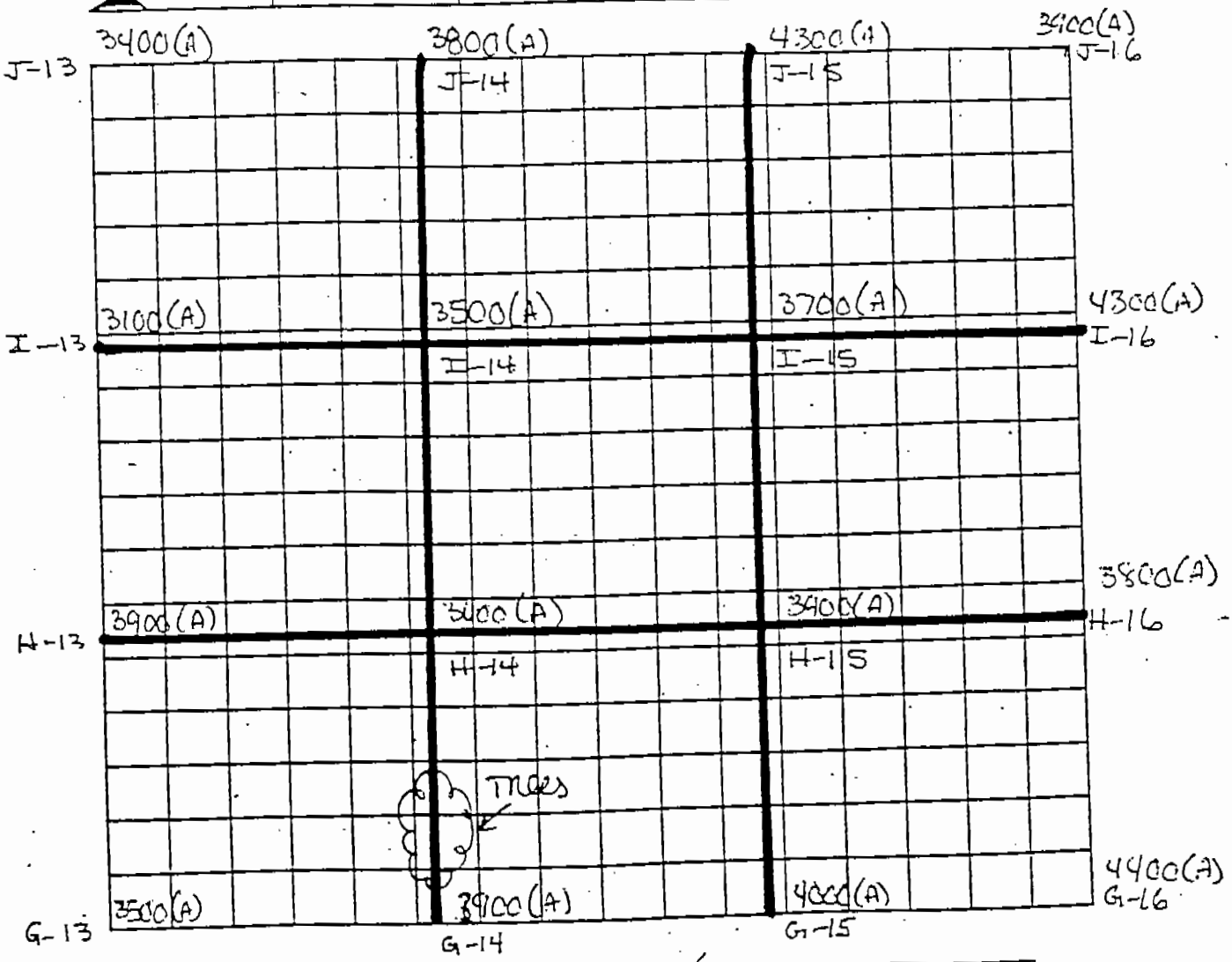
DATE ~~TIME~~ 30 JAN 95

SITE: PSC-C3

LOCATION: GRID #5C

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
LUDLUM 2221	99136	44-10	165	4/20/95
LUDLUM 2221	94954	44-10	118370	4/20/95



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-30-95

REMARKS (Notes): (1) No hits (2) all readings are in CPM.

DHA 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

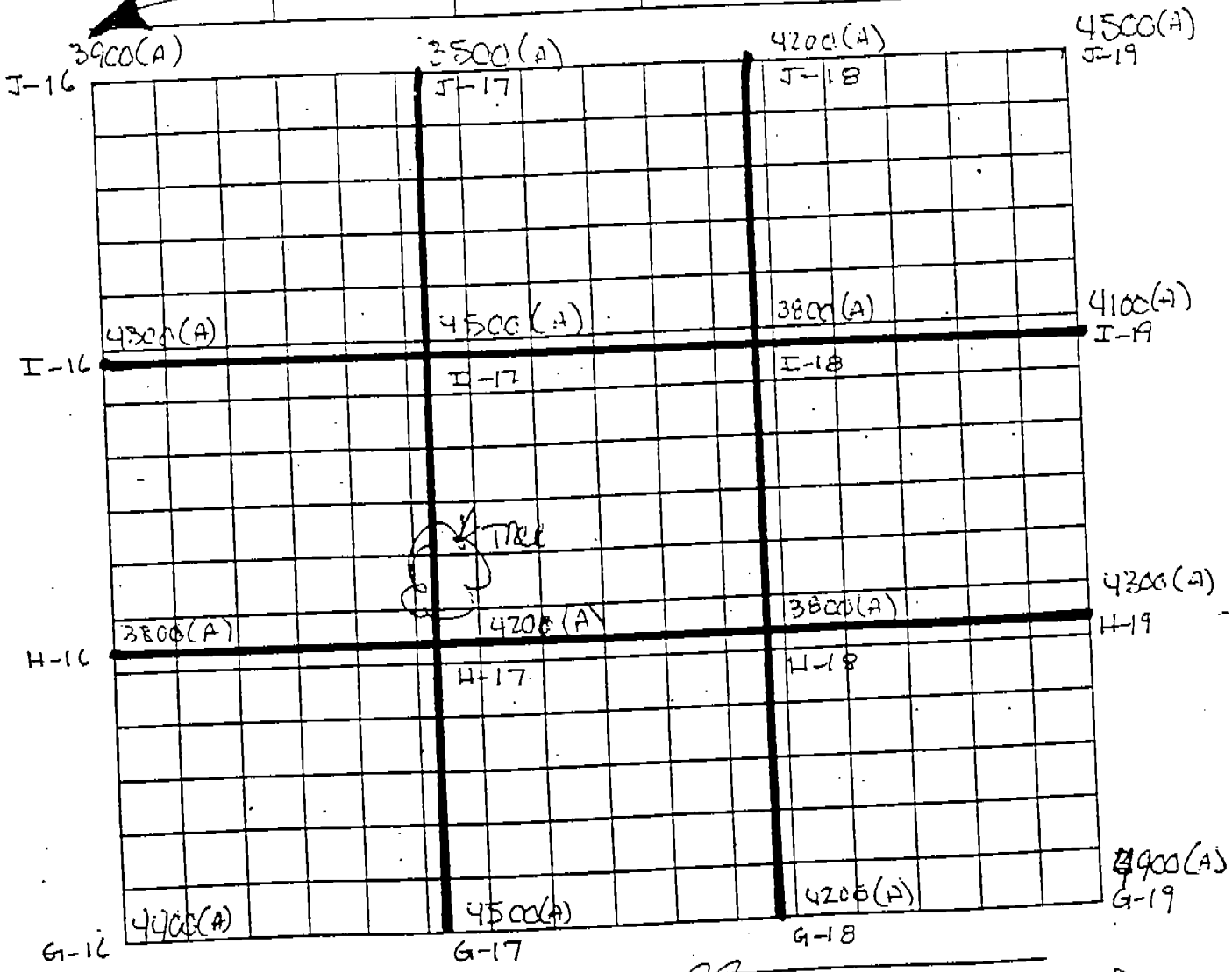
DATE ~~TIME~~ Lim: 30 JAN 95

SITE: PIC-03

LOCATION: GRID #51

TECHNICIANS: J. Showers, G. Showers, W.C. Mary

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Lim SERIAL #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	11A370	4/20/95



SCALE: 62' x 62'

REVIEWED BY: [signature] 1-30-95

DJH 2/1/95

REMARKS (Notes): ① No hits ② all readings in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

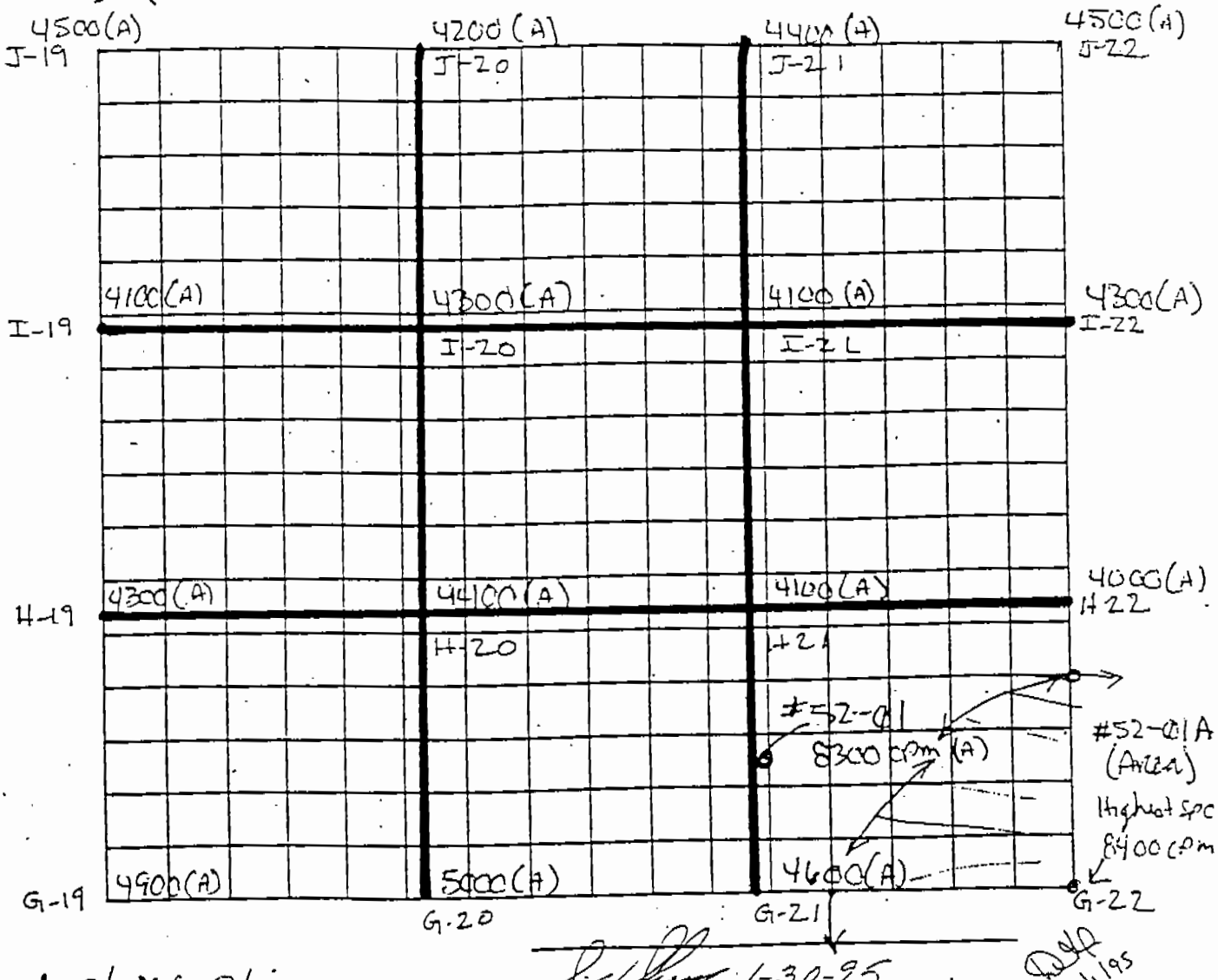
DATE/TIME: 30JAN95

SITE: PSC-03

LOCATION: GRID #52

TECHNICIANS: J. Shauers, G. Shauers, W. Co Mau

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 6.2' X 6.2'

REVIEWED BY: 1-30-95

REMARKS (Notes): (1) "2" hits #52-01 & #52-01A (Area). (2) all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

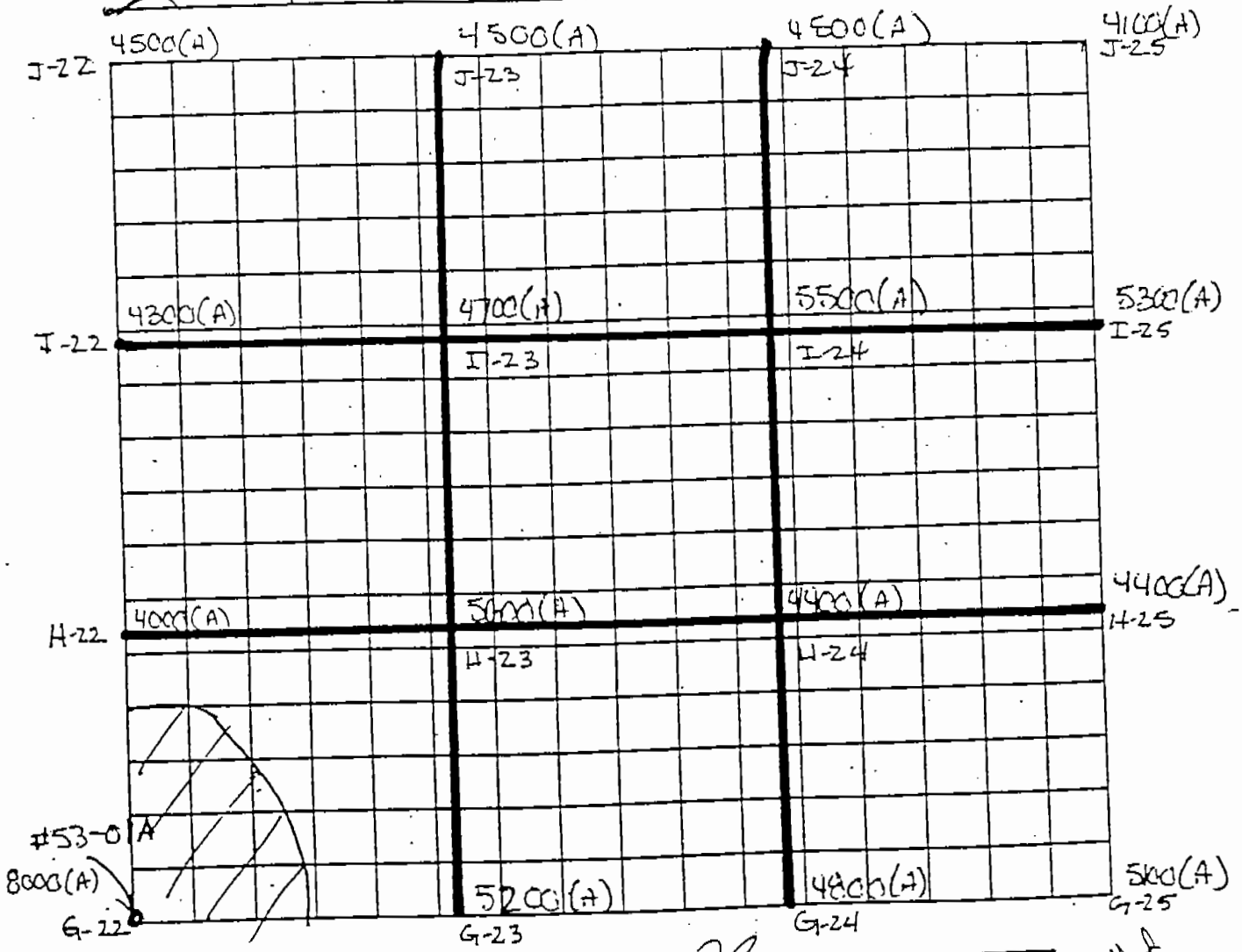
DATE/~~TIME~~: 30 JAN 95

SITE: PSC-03

LOCATION: Grid #53

TECHNICIANS: J. Shawell, G. Shawell, W. C. Mary

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
Ludlum 2221	94954(B)	44-10	118370	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-30-95

DWF 2/1/95

REMARKS (Notes): (1) #53-01A MULTI-HIT AREA, PARTS OF HIT IN GRID: 53/52/+58.

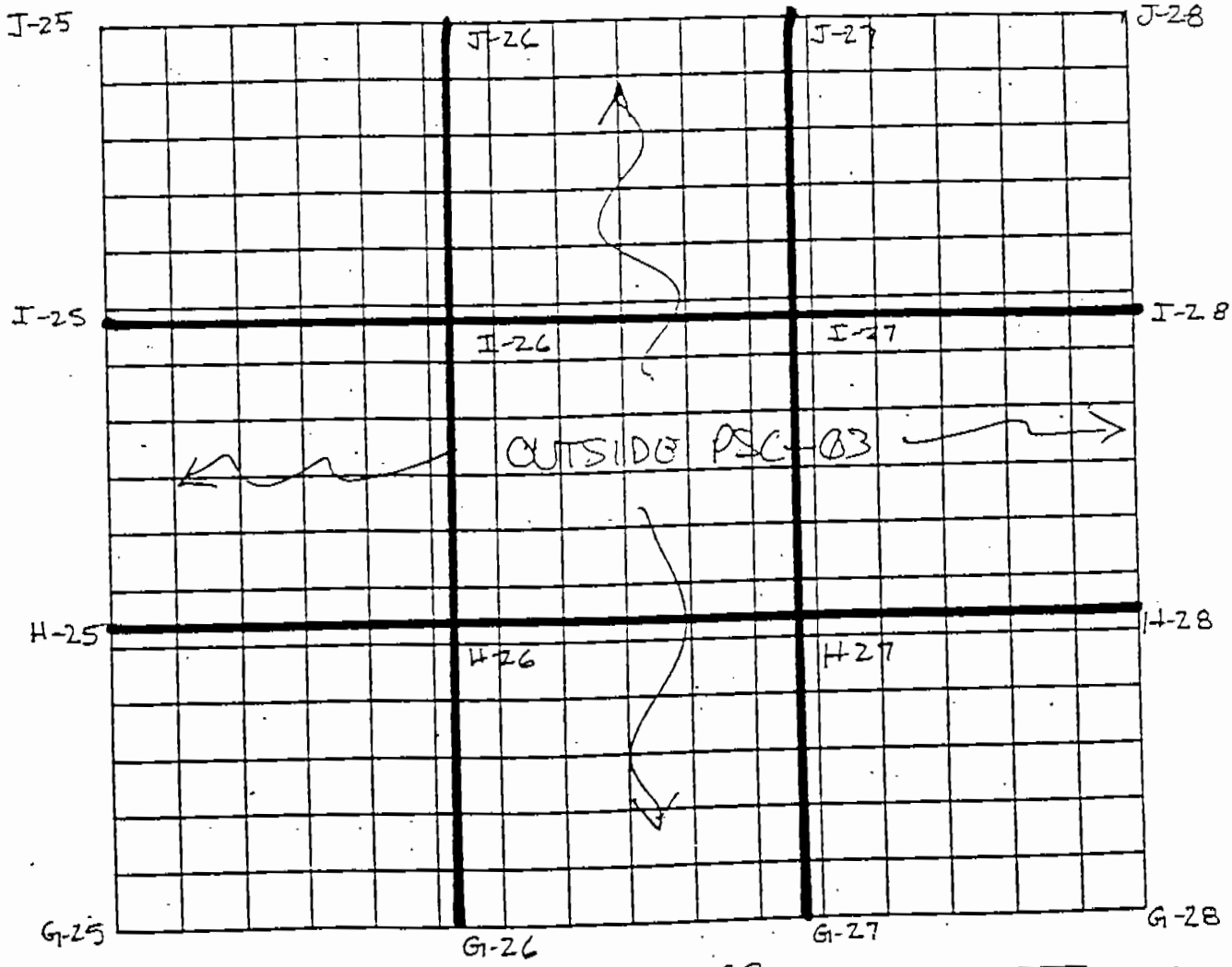
(2) all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~ wm: 30 JAN 95
SITE: PSC-03
LOCATION: GRID #54
TECHNICIANS: J. Showers, G. Showers, and Co. may

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe wm ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
Ludlum 2221	94954(B)	44-10	118370	4/20/95



SCALE: 60' X 60'
REVIEWED BY: [signature] 1-30-95
REMARKS (Notes): Pall digrid in OUTSIDE. PSC-03.

[signature] 2/1/95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

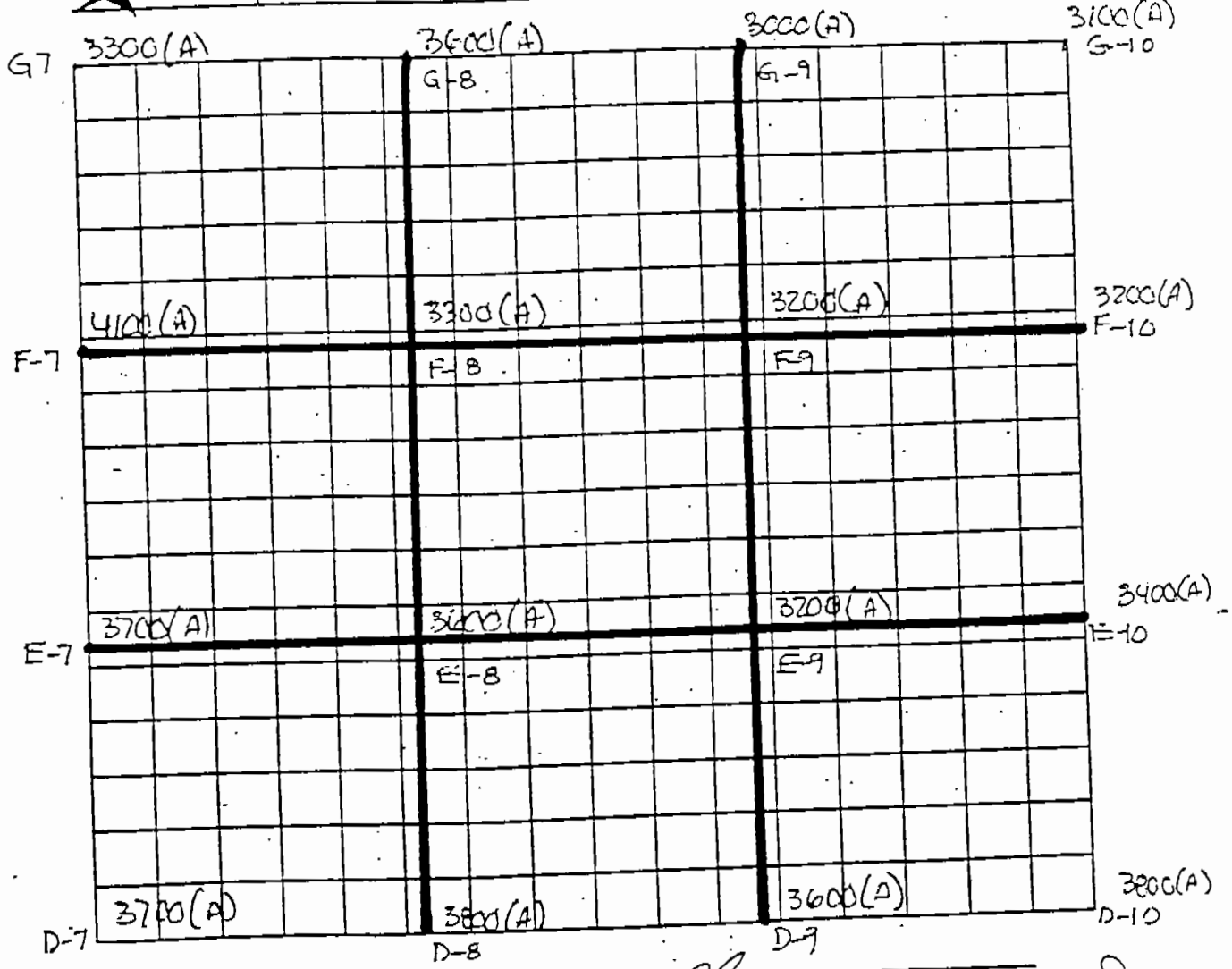
DATE/~~TIME~~: 30 JAN 95

SITE: PSC-63

LOCATION: GRID #63

TECHNICIANS: J. Stowers, G. Stowers, W.C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ SERIAL	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4-20/95
Ludlum 2221	94954(B)	44-10	118370	4-20-95



SCALE: 6.2' x 6.2'

REVIEWED BY: 1-30-95 2/1/95

REMARKS (Notes): (1) No hits (2) All readings in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

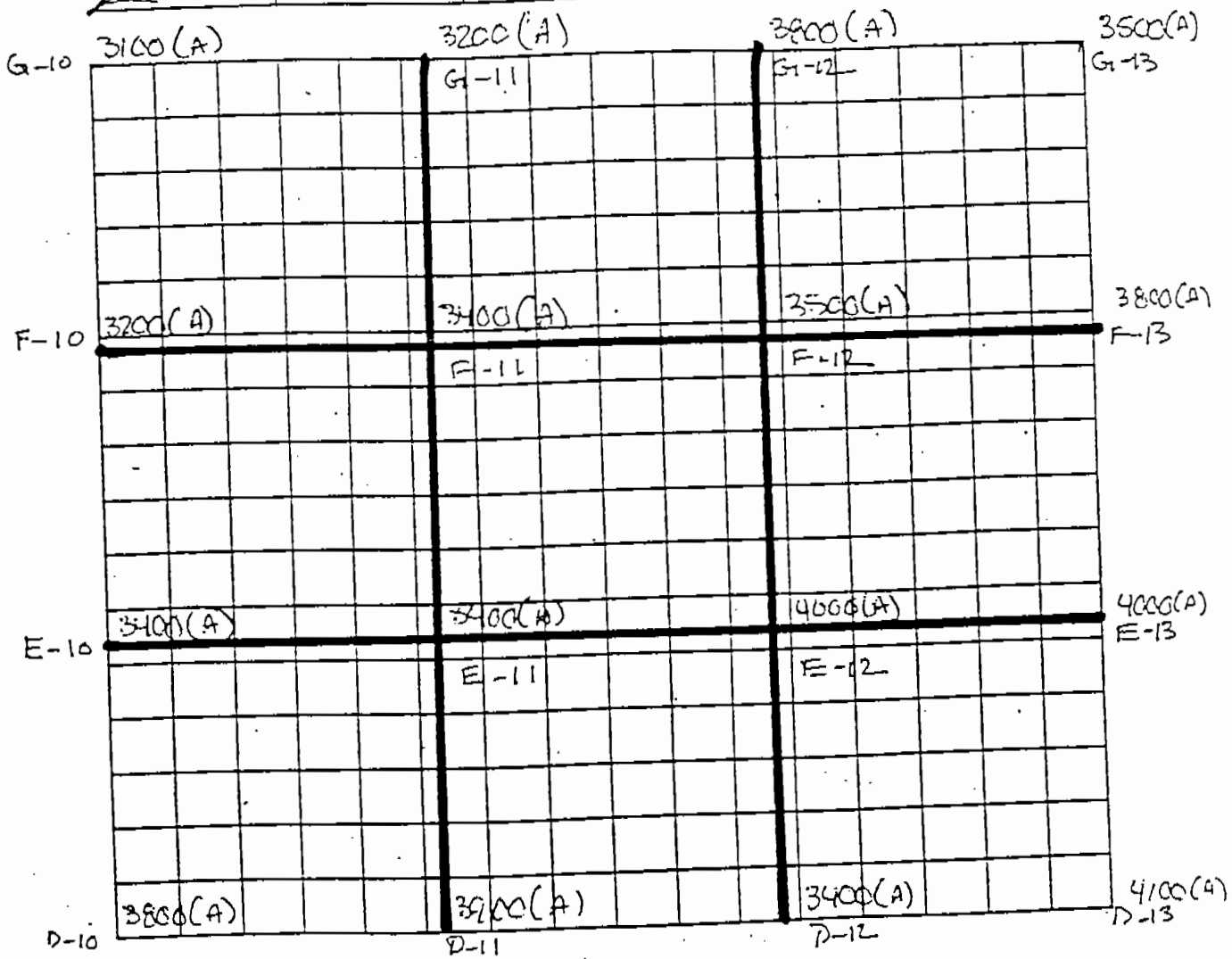
DATE/~~TIME~~: 30 Jan 95

SITE: PSC-03

LOCATION: GRID #55

TECHNICIANS: J. Stevens, G. Stevens, W.C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ SERIAL	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4-20-95
Ludlum 2221	94954 (B)	44-10	118370	4-20-95



SCALE: 6.2' = 6.2'

REVIEWED BY: [signature] 1-30-95

DHA 2/1/95

REMARKS (Notes): (1) No Hits (2) All Readings in CPM

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

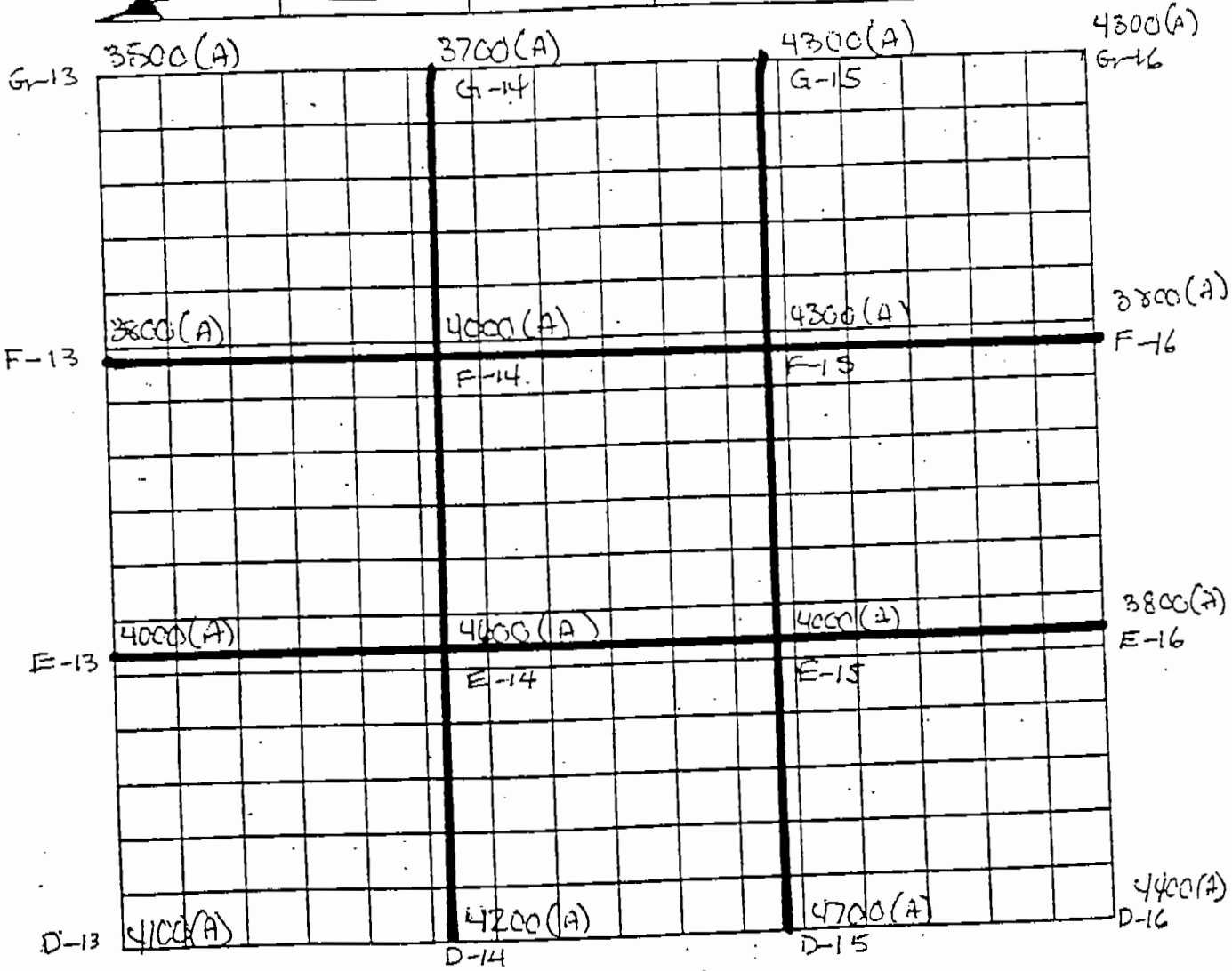
DATE/TIME: 30 JAN 95

SITE: PSC-03

LOCATION: GRID 56

TECHNICIANS: T. Stowers, G. Stowers, W.C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ SERIAL #	Calibration Date
LuoLum 2221	99136(A)	44-10	165	4-20-95
LuoLum 2221	94954(B)	44-10	118370	4-20-95



SCALE: 6.2' = 6.2'

REVIEWED BY: [signature] 1-31-94

DWB 2/1/95

REMARKS (Notes): (1) no X's (2) All Readings in CPM

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

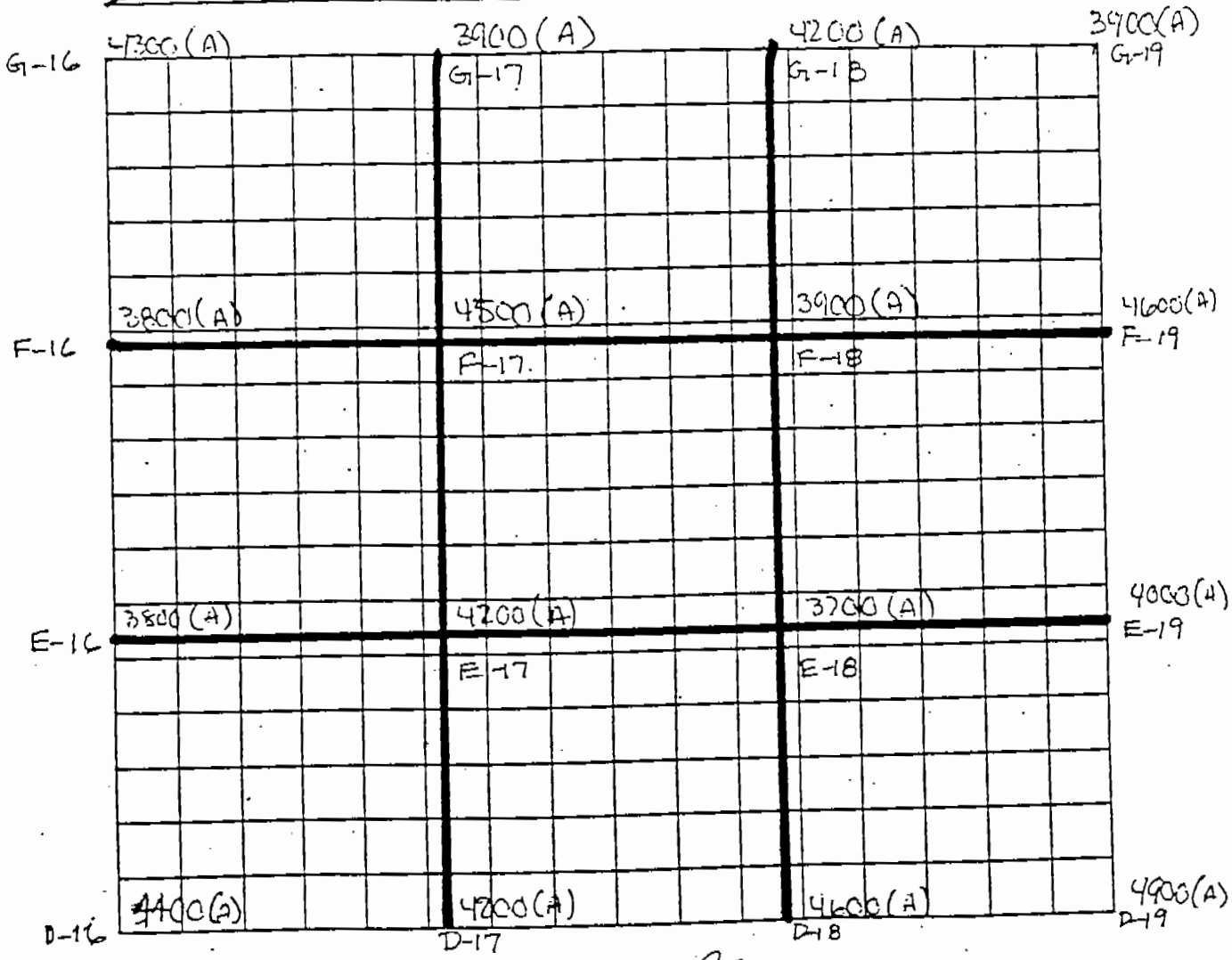
DATE/TIME: 30 Jan 95

SITE: PSC-03

LOCATION: G210 #57

TECHNICIANS: J. Stowers, G. Stowers, W.C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
LuLu 2221	99136(A)	44-10	165	4-20-95
LuLu 2221	94954(B)	44-10	118370	4-20-95



SCALE: 6.2' = 6.2'

REVIEWED BY: [signature] 1-30-95

DWF 2/1/95

REMARKS (Notes): (1) NO X-RB (2) All Readings in CPM

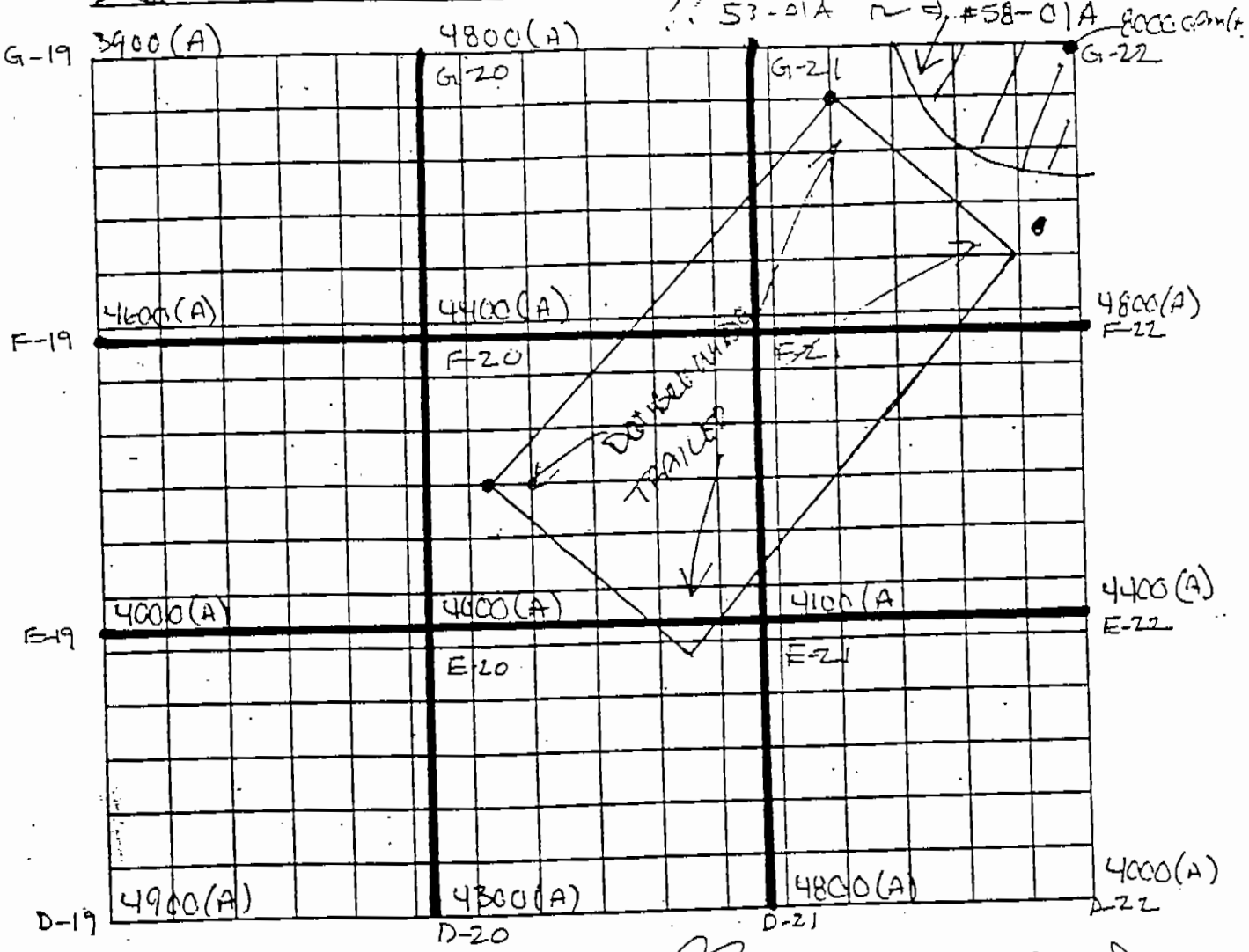
FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE ~~TIME~~ 30 JAN 95
SITE: PSC-03
LOCATION: GRID #58
TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe (type/model)	Calibration Date
Ludlum 2221	94954(B)	44-10	118376	4/20/95
Ludlum 2221	99136(A)	44-10	165	4/20/95

see page 61



SCALE: 60.2' x 60.2'

REVIEWED BY: 1-30-95 DJH 2/1/95

REMARKS (Notes): ① "1' hit #58-01A (area) ② all readings in CPM.

PAGE ~~61~~ 60 ~~89~~ 67

01-23-95

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

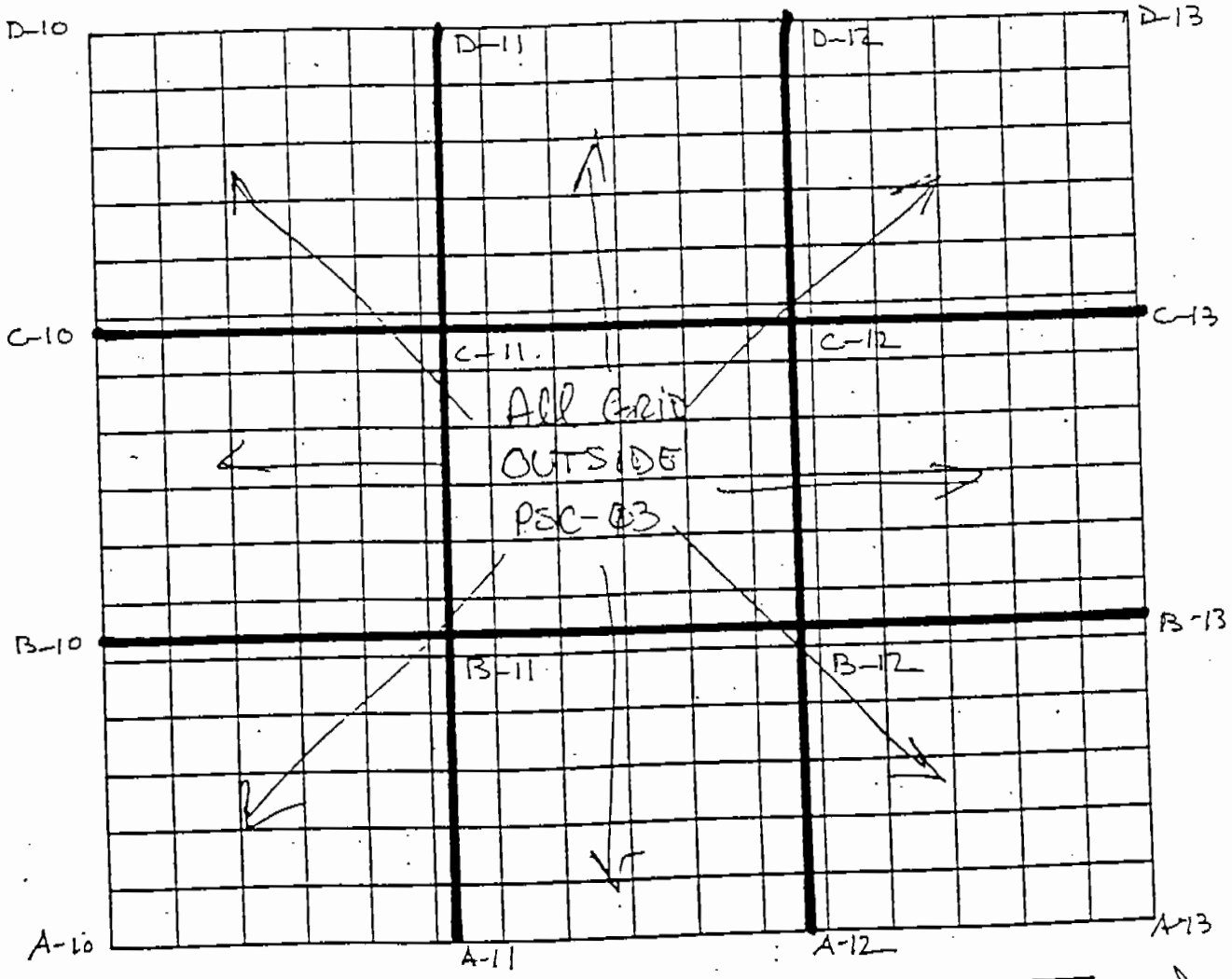
DATE/~~TIME~~: 30 JAN 95

SITE: PSC-03

LOCATION: GRID #59

TECHNICIANS: J. Shewell, G. Shewell, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136(A)	44-10	165	4/20/95
Ludlum 2221	99959 (B)	44-10	118370	4/20/95



SCALE: 60' X 60'

REVIEWED BY: [signature] 1-30-95

DWA 2/1/95

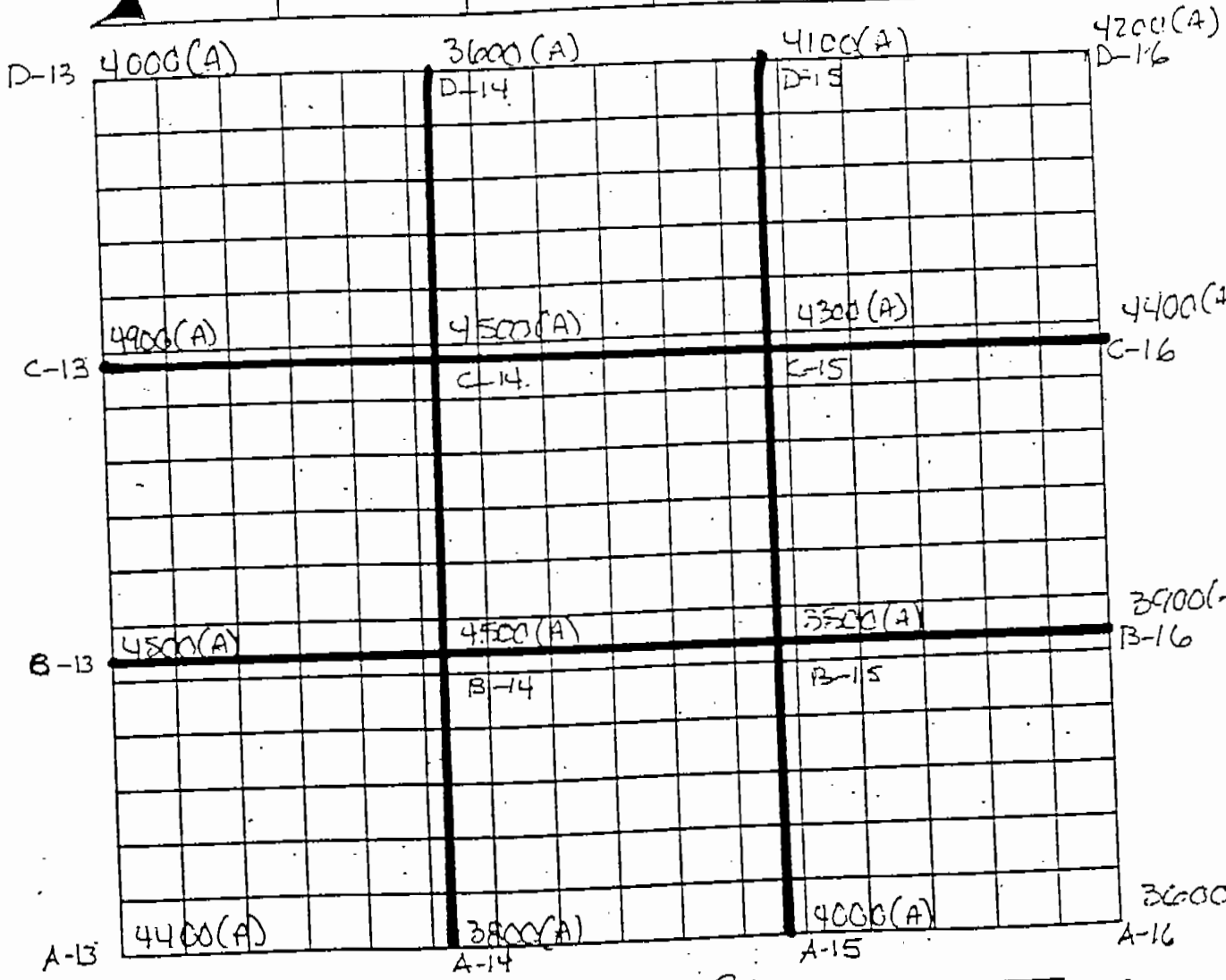
REMARKS (Notes): (1) All grid OUTSIDE PSC-03

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

DATE/~~TIME~~ WCM: 30 JAN 95
SITE: PSC-03
LOCATION: GRID #60
TECHNICIANS: J. Shoaley, G. Shoaley, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ WCM SERIAL #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 60.2' X 60.2'

REVIEWED BY: [signature] 1-30-95

REMARKS (Notes): (1) All hits (2) all readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

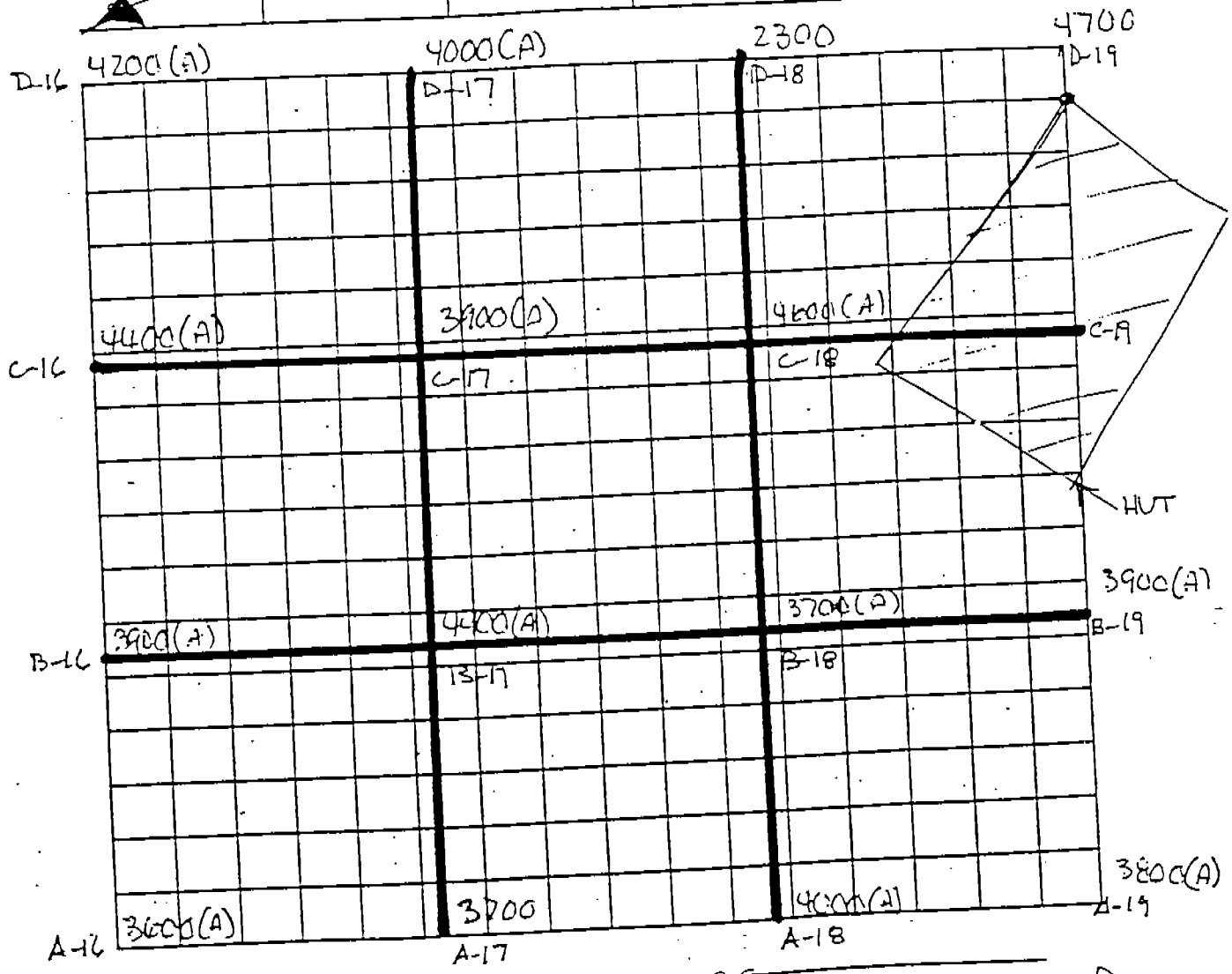
DATE ~~TIME~~: 30 JAN 95

SITE: PIC-03

LOCATION: GRID #(1)

TECHNICIANS: J. Showers, G. Showers, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	~~999~~ 94136(A)	44-10	1165	4/20/95
Ludlum 2221	94954(B)	44-10	118378	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: [signature] 1-30-95

REMARKS (Notes): ① No hits ② all readings are in CPM.

PAGE 64 ~~62~~ 80

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

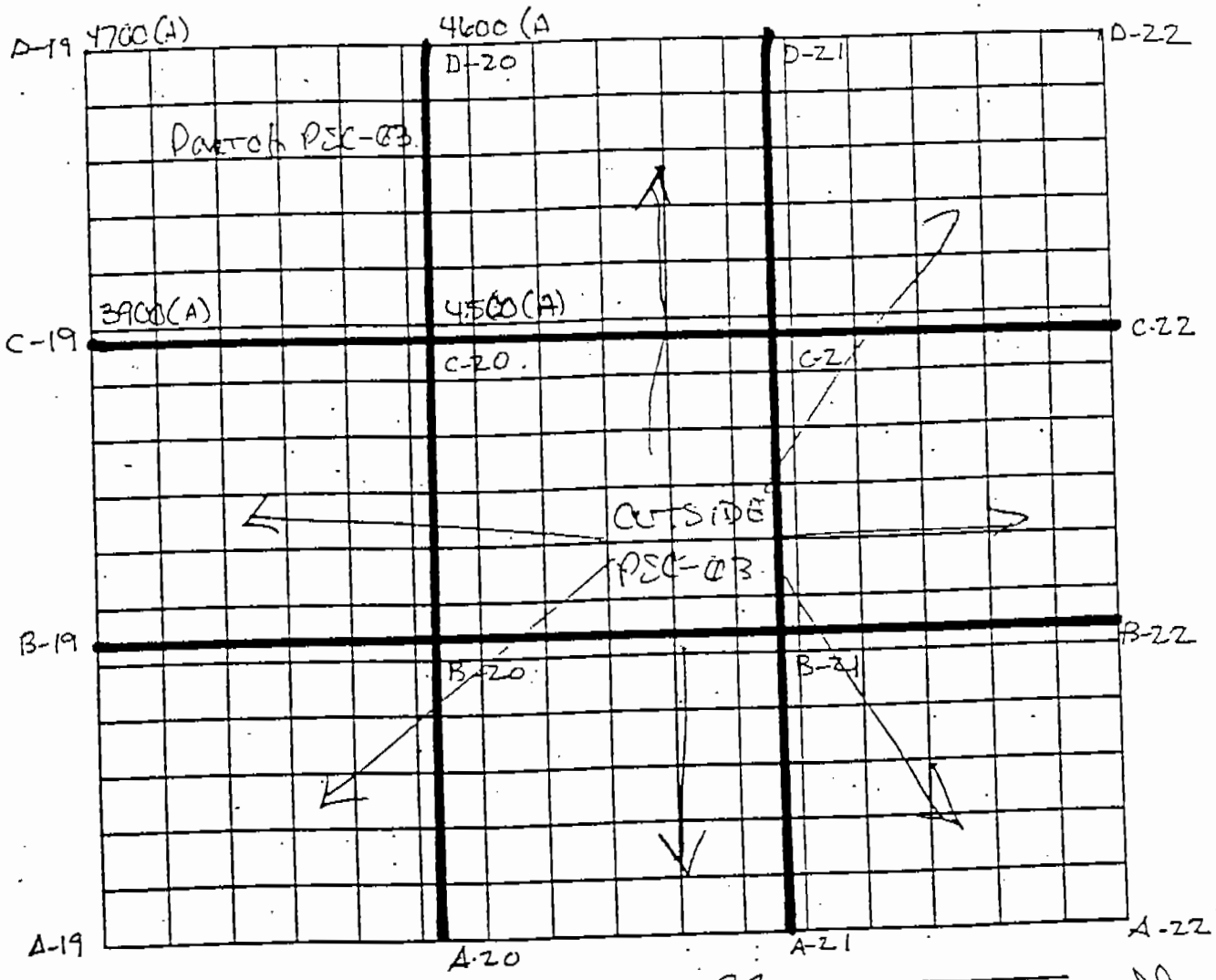
DATE ~~TIME~~ 30 JAN 95

SITE: PSC-03

LOCATION: GRID #62

TECHNICIANS: J. Shawley, G. Shawley, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
Ludlum 2221	94954 (B)	44-10	118370	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: 1-30-95

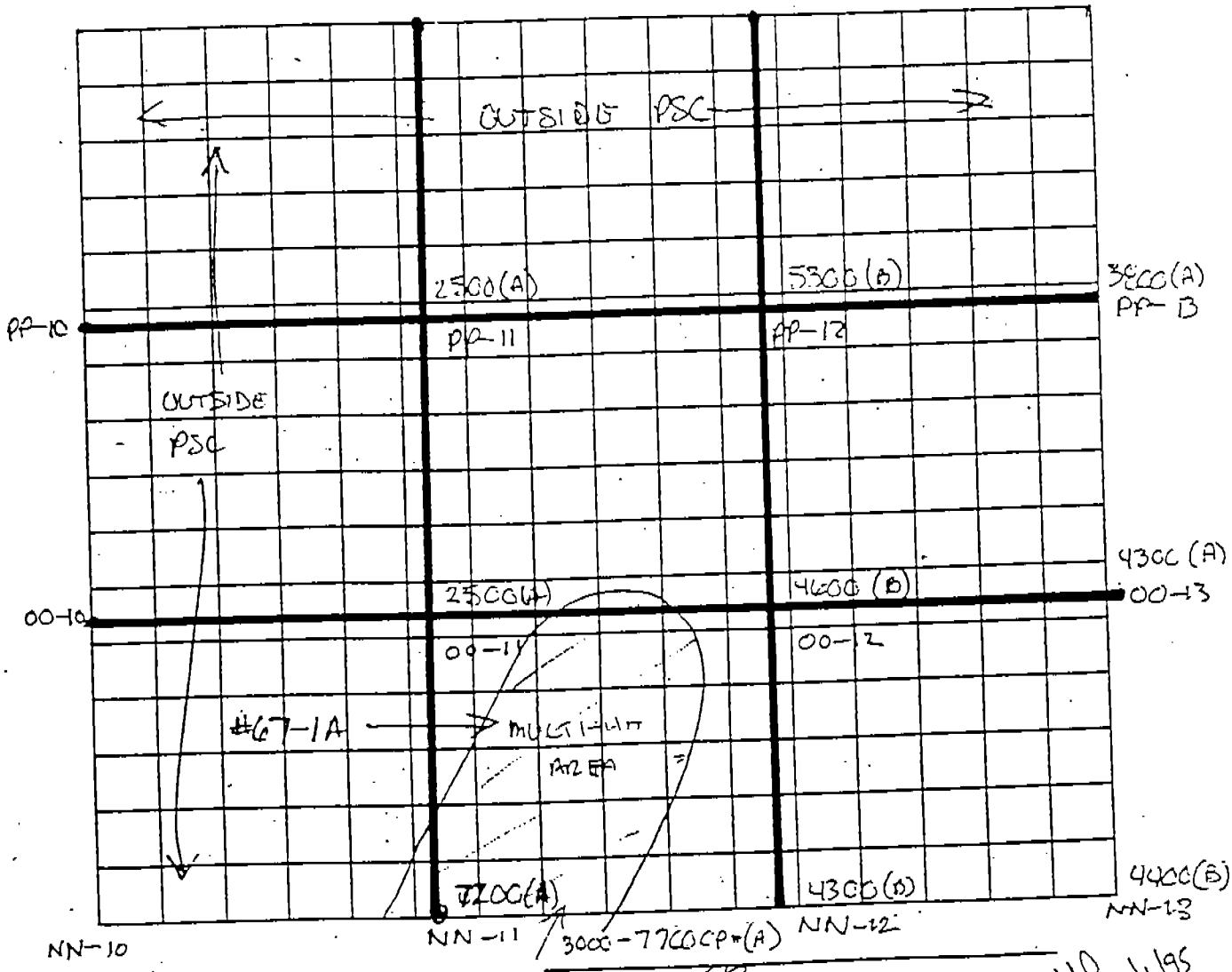
2/1/95

REMARKS (Notes): (1) No hits (2) all readings are in CPM. (3) NW square is only one of this grid that is part of PSC-03.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

		INSTRUMENTS				
		Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
DATE/~~TIME~~:	25 JAN 95					
SITE:	PSC-43					
LOCATION:	GRID # 67					
TECHNICIANS:	J. Shewey	Ludlum 2221	99136 (A)	44-10	165	4/20/95
	G. Shawey	" " "	94954 (B)	44-10	118370	4/20/95
	W. Cobb					



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-25-95 [signature] 2/1/95

REMARKS (Notes): (1) 1' MULTI-HIT Area high of 12,000 cpm (2) all readings are in cpm

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

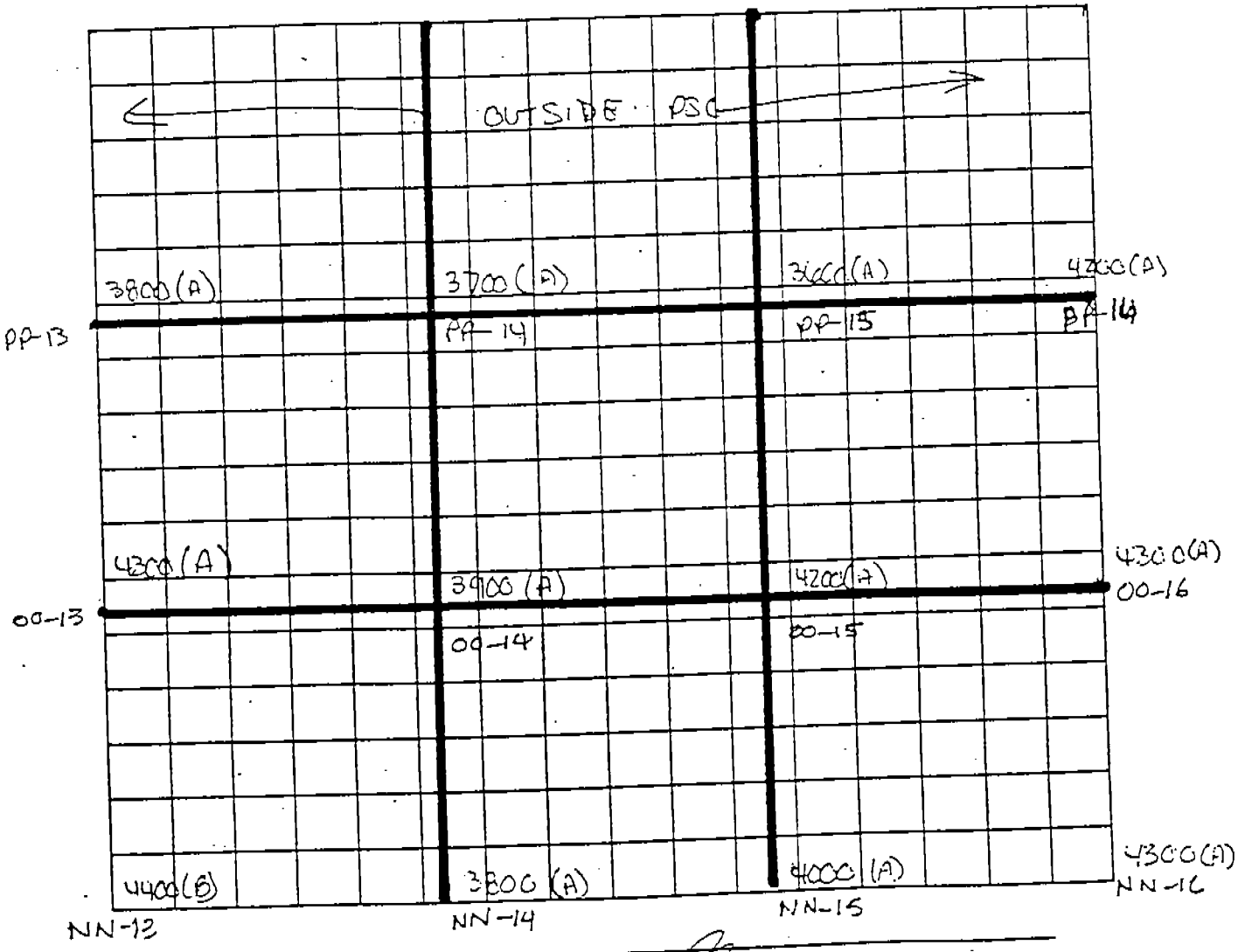
DATE/TIME: 25 Jan 95

E: PSC-03

LOCATION: GRID #68

CHNICIANS: J. Shawley, G. Shawley, W. G. Mingy

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
" " "	94954 (B)	44-10	118370	4/20/95



SCALE: 6.2' x 6.2'

REVIEWED BY: 1-25-95 DJA 2/1/95

REMARKS (Notes): (1) No hits (2) all readings are in cpm.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

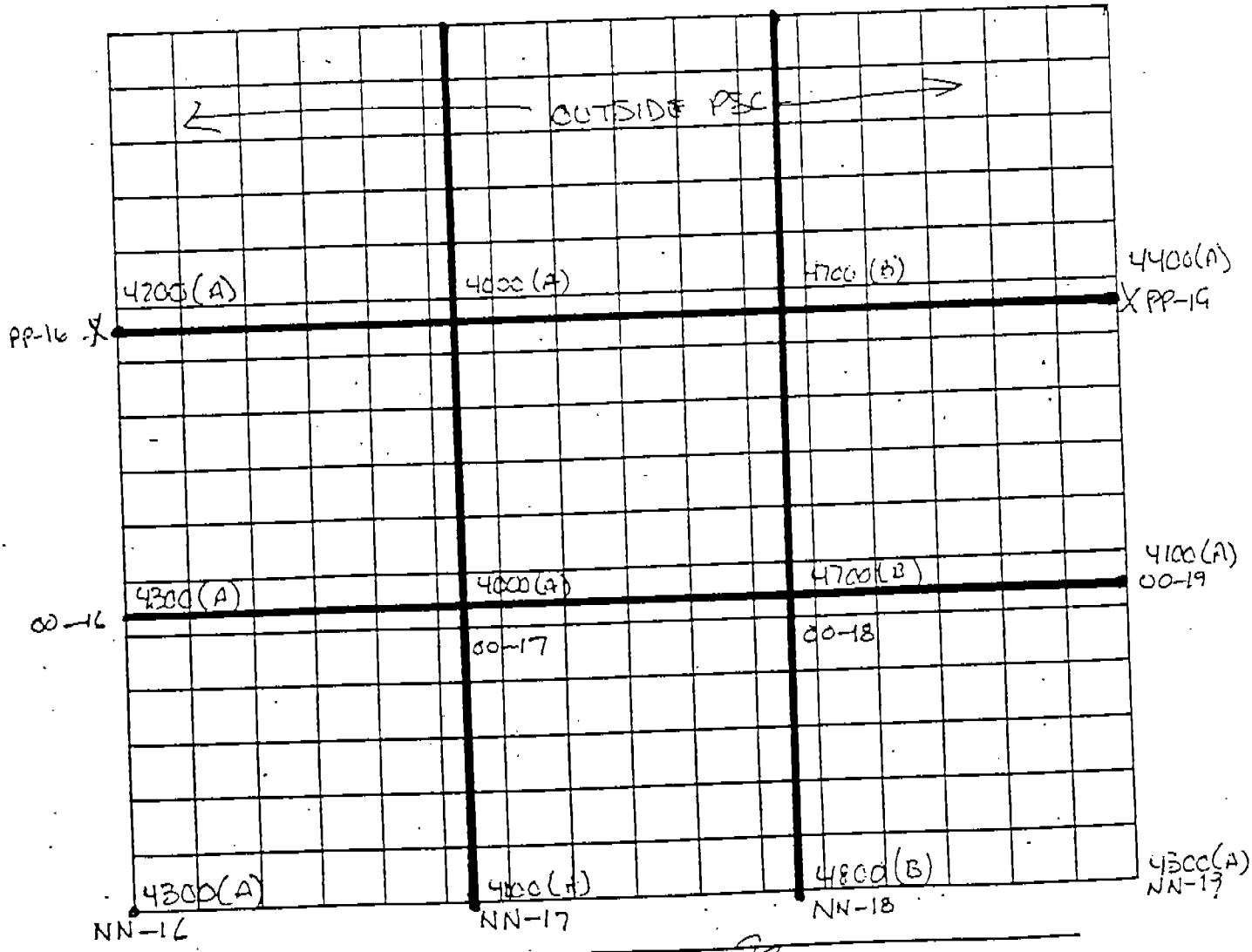
DATE ~~TIME~~: 25 JAN 95

TE: PSC-03

LOCATION: GUD ~~#68~~

ECHNICIANS: J. Showers, G. Showers, W. C. Merry

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	92136 (A)	44-10	165	4/20/95
" " "	94954 (B)	44-10	118370	4/20/95



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-25-95 DJH 2/1/95

REMARKS (Notes): ① No hits ② all readings are in CPM

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

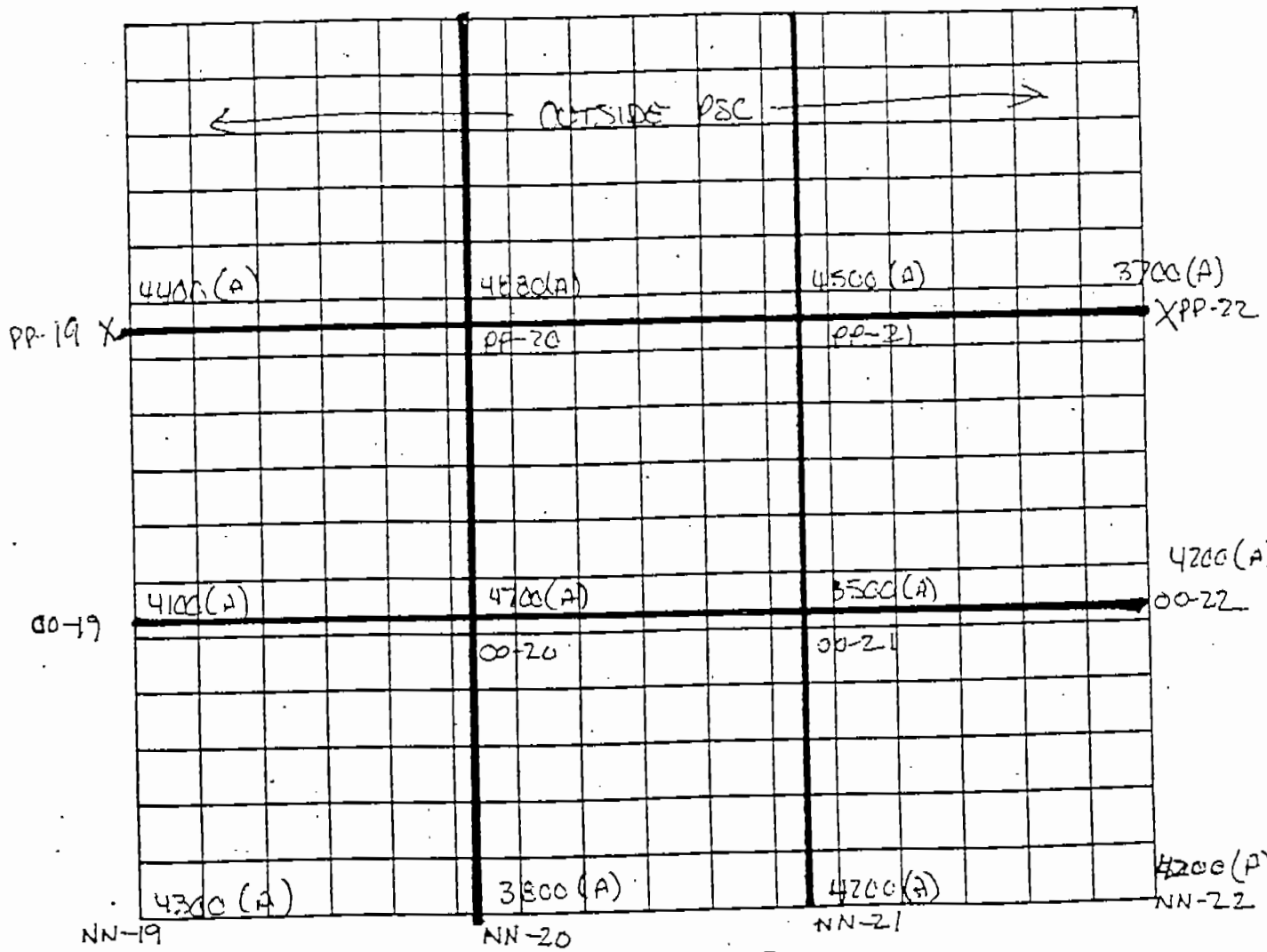
DATE ~~TIME~~: 25 Jan 95

SITE: PSC-03

LOCATION: GRID #

TECHNICIANS: J. Shawley, G. Shawley, W. C. May

INSTRUMENTS				
Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ Serial #	Calibration Date
Ludlum 2221	99136 (A)	44-10	165	4/20/95
" " "	99954 (B)	44-10	118370	4/20/95



SCALE: 60' X 60'

REVIEWED BY: 1-25-95

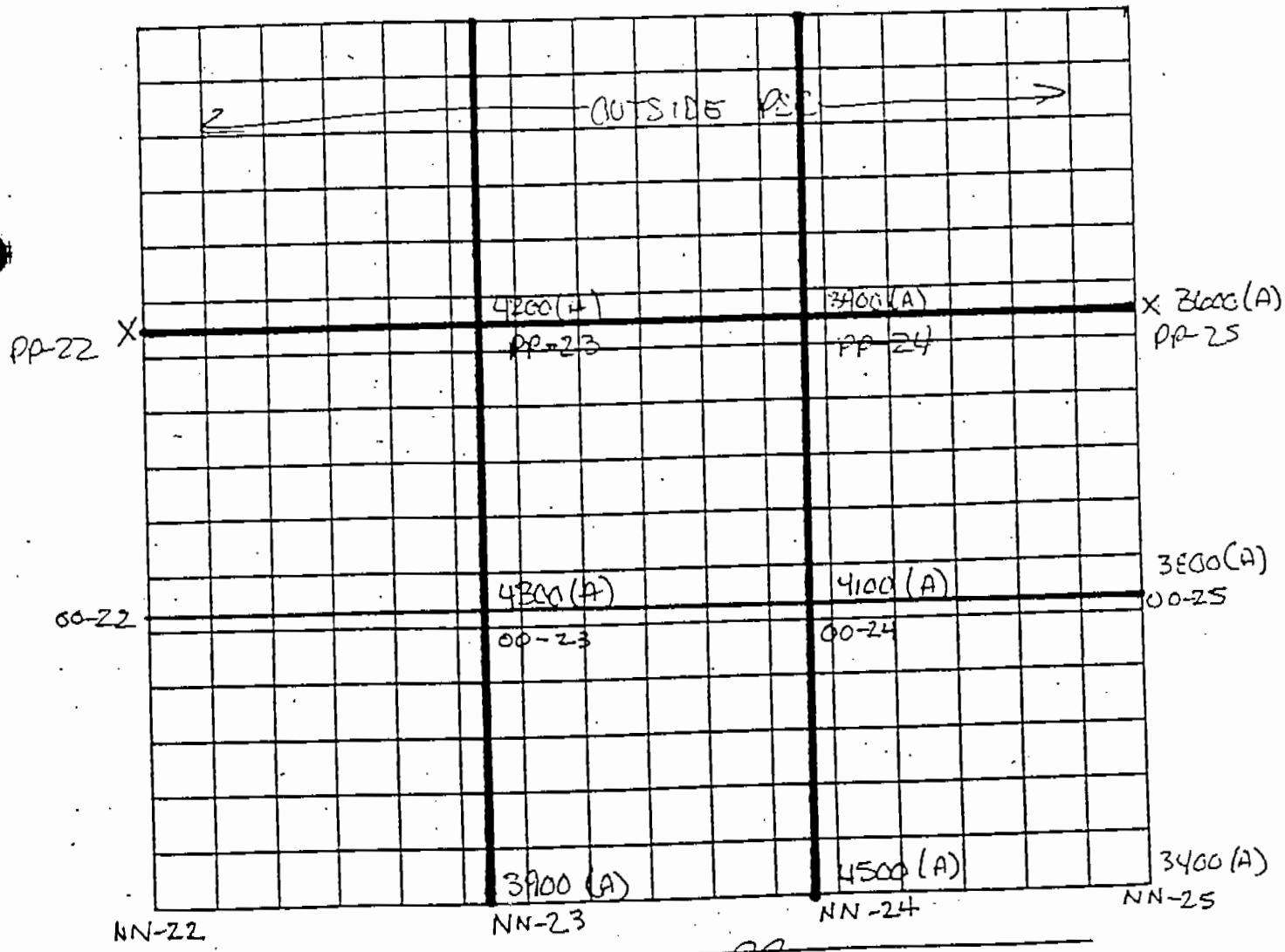
Date 2/1/95

REMARKS (Notes): (1) No hits (2) all readings are in CPM.

FIELD DATA ACQUISITION FORM

WALKOVER GAMMA SCAN DATA SHEET

		INSTRUMENTS				
DATE/~~TIME~~ WGM	25JAN95	Meter (type/model)	Meter Serial #	Probe (type/model)	Probe ~~(type/model)~~ WGM Serial#	Calibration Date
SITE:	PSC-03					
LOCATION:	GRID #01					
TECHNICIANS:	J. Showers	LUD Lum2221	99136 (A)	44-10	165	4/20/95
	G. Showers	" " "	94951 (B)	44-10	118370	4/20/95
	W. C. May					



SCALE: 6.2' X 6.2'

REVIEWED BY: [signature] 1-25-95 [signature] 2/1/95

REMARKS (Notes): (1) No hits (2) all readings are in CPM.

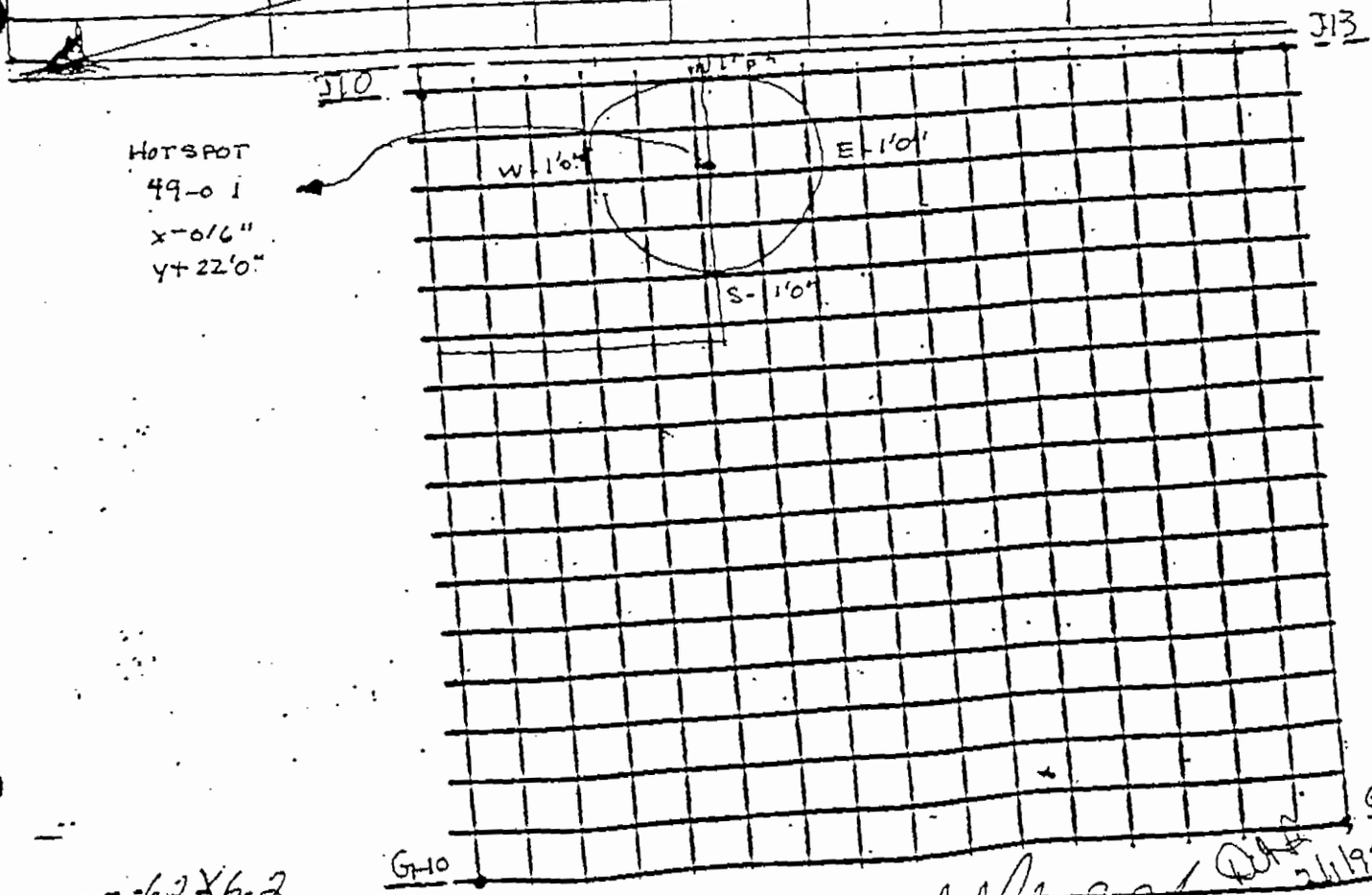
FIELD DATA ACQUISITION FORM
HOT SPOT CHARACTERIZATION DATA SHEET

DATE/TIME: 31 JAN 95
SITE: PSC #3
LOCATION: GRID #49
TECHNICIAN(S): Steve Hacker, R. Parrish

INSTRUMENTS Meter (type/model)	Meter Serial #	Probe (type/model)	Probe Serial #	Background cpm	% eff.	Calibration Date
Ludlum 19	95487	NA	NA		NA	10-20-94
Ludlum 2221	108881	44-9	116881	32.2	26.4	10-21-94
Ludlum 2221	117348	43-65	089766	0.5	19.1	10-25-94
Ludlum 2221	99136	44-10	165	2734	6.58	10-20-94

DIRECT CONTAMINATION SURVEY DATA

HOT SPOT I.D. #	ALPHA CPM	ALPHA DPM	BETA CPM	BETA DPM	GAMMA CPM	GAMMA DPM	MICRO R/HR
49-01	0	<MDA	55	86	7431	71,383	10



SCALE: 6.2X6.2

Remarks (Notes):

1-31-95

FIELD DATA ACQUISITION FORM
HOT SPOT CHARACTERIZATION DATA SHEET

DATE: 3 JAN 95
PSC-3
LOCATION: G21D 52
TECHNICIAN(S): Steve Haeck
R. Parrish

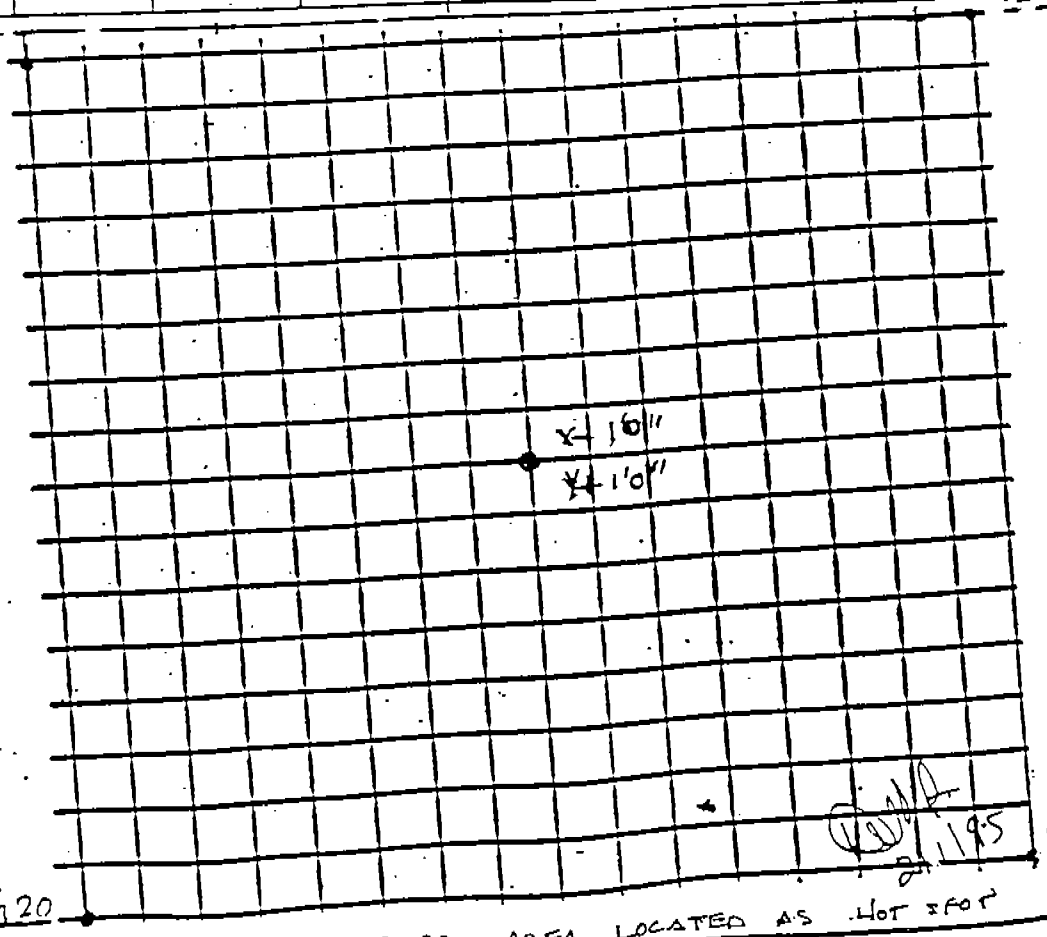
INSTRUMENTS Meter (type/model)	Meter Serial #	Probe (type/model)	Probe Serial #	Background cpm	% eff.	Calibration Date
Ludlum 19	95487	NA	NA	4	NA	10-20-94
Ludlum 2221	108881	44-9	116881	34	26.3	10-21-94
Ludlum 2221	117348	43-65	089766	0.6	19.2	10-25-94
Ludlum 2221	99136	44-10	165	2705	6.91	10-20-94

DIRECT CONTAMINATION SURVEY DATA

HOT SPOT I.D. #	ALPHA CPM	ALPHA DPM	BETA CPM	BETA DPM	GAMMA CPM	GAMMA DPM	MICRO R/HR
52-01	3	12.5	59	95	7400	67,945	10

J23

J20



SCALE: 6.2 x 6.2

Remarks (Notes): NOTE: AREA FROM G-22 AREA LOCATED AS HOT SPOT CHARACTERIZATION ENCOMPASSED BY DESIGNATED GRIDS POINTS AREA FOLLOWING J-20 J-23 G-23

Check R. S. Williams 1-3-95

APPENDIX C

SOIL SAMPLES LABORATORY ANALYSIS RESULTS

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation	Logbook JX SS 004	Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
3 - 2	ENV	–	–	–	–

SAMPLE

Sample ID	Sample Type	Collection	Interval start: Interval end:			
JX0016501	ENV	Method: TROWEL	Date: 2-21-95	Time: 1108	By: T. Rountree	

Weather Conditions: Clear

Field Logbook(s)/Pgs.	ES&H Jrnl(s)Pgs	SEIR No.
– / –	1 Pg	JX.008

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
VOAE/PEST/PCB	250 ML AMBER	NONE	–	–
CYANIDE	250 ML AMBER	NONE	–	–
METALS	250 ML AMBER	NONE	–	–
RAD ANAL	IC Container	NONE	30142900	–
VOC	125 ML	NONE	–	–
TPH	250 ML AMBER	NONE	–	–
PAH	250 ML AMBER	NONE	–	–

Remarks:

Recorded By:	Date	Checked and Reviewed By:	Date
T. Rountree	2-21-95		

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation	Logbook JX SS 004	Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC 3-3	ENV	–	–	–	–

SAMPLE

Sample ID	Sample Type	Collection	Interval start: Interval end:		
JX 00166	SFS	Method: TROWEL	Date: 2-21-95	Time: 1122	By: T. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs.	ES&H Jrnl(s)Pgs	SEIR No.
– / –	1 Pg	JX.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
VAE/PEST/PCB	250 ML AMBER	NONE	–	–
CYANIDE	250 ML AMBER	NONE	–	–
METALS	250 ML AMBER	NONE	–	–
RAD ANAL	IC Container	NONE	JX 0016601	30172538
VOC	125 ML	NONE	–	–
TPH	250 ML AMBER	NONE	–	–
PAH	250 ML AMBER	NONE	–	–

Remarks:

Recorded By:	Date	Checked and Reviewed By:	Date
T. Rountree	2-21-95		

D DATA ACQUISITION FORM

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation	Logbook Jx SS 004	Form ID - 1 of 1

AMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC 3-4	ENV	–	–	–	–

SAMPLE

Sample ID	Sample Type	Collection	Interval start: Interval end:		
Jx 00167	SFS	Method: Trowel	Date: 2-21-95	Time: 1126	By: T. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs.	ES&H Jrnl(s)Pgs	SEIR No.
– / –	1 Pg.	JX.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
BNAE/PEST/PCB	250 ML AMBER	NONE	–	–
CYANIDE	250 ML AMBER	NONE	–	–
METALS	250 ML AMBER	NONE	–	–
RAD ANAL	IC Container	NONE	JX 0016701	30142901
VOC	125 ML	NONE	–	–
TPH	250 ML AMBER	NONE	–	–
PAH	250 ML AMBER	NONE	–	–

marks:

Recorded By:	Date	Checked and Reviewed By:	Date
T. Rountree	2-21-95		

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation | Logbook JX SS 004 | Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PS C 3-5	ENV	-	-	-	-

SAMPLE

Sample ID	Sample Type	Collection	Interval start: Interval end:		
JX 00 168	SFS	Method: TROWEL	Date: 2-21-96	Time: 1131	By: J. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs. - / -

ES&H Jrnl(s)Pgs 1 Pg

SEIR No. JX.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
AE/PEST/PCB	250 ML AMBER	NONE	-	-
CYANIDE	250 ML AMBER	NONE	-	-
METALS	250 ML AMBER	NONE	-	-
RAD ANAL	IC Container	NONE	JX0016801	30127000
VOC	125 ML	NONE	-	-
TPH	250 ML AMBER	NONE	-	-
PAH	250 ML AMBER	NONE	-	-

emarks:

Recorded By: T. Rountree | Date 2-21-95 | Checked and Reviewed By: | Date

LD DATA ACQUISITION FORM

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation	Logbook Jx SS 004	Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC 3-1	ENV	–	–	–	–

SAMPLE

Sample ID	Sample Type	Collection			
		Interval start:			
		Interval end:			
Jx00 16401	SFS	Method: Trowel	Date: 2-21-95	Time: 1102	By: T. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs. – ES&H Jrnl(s)Pgs 1 SEIR No. Jx.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
AE/PEST/PCB	250 ML AMBER	NONE	–	–
CYANIDE	250 ML AMBER	NONE	–	–
METALS	250 ML AMBER	NONE	–	–
RAD ANAL	IC Container	NONE	30127533	–
VOC	125 ML	NONE	–	–
TPH	250 ML AMBER	NONE	–	–
PAH	250 ML AMBER	NONE	–	–

marks:

Recorded By:	Date	Checked and Reviewed By:	Date
T. Rountree	2-21-95		

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation | Logbook JX SS 005 | Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC-3-6	ENV	–	–	–	–

SAMPLE

Sample ID	Sample Type	Collection			
		Interval start: Interval end:			
JX 00169	SFS	Method: Trowels	Date: 2-21-95	Time: 1192	By: T. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs. – / – ES&H Jrnl(s)Pgs 1, 94 SEIR No. JX.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
RE/PEST/PCB	250 ML AMBER	NONE		
CYANIDE	250 ML AMBER	NONE		
METALS.	250 ML AMBER	NONE		
RAD ANAL	IC Container	NONE	30127557	JX0016901
VOC	125 ML	NONE		
TPH	250 ML AMBER	NONE		
PAH	250 ML AMBER	NONE		

Remarks:

Recorded By: T. Rountree Date 2-21-95 Checked and Reviewed By: Date

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation | Logbook JX SS 005 | Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC 3-7	ENV	-	-	-	-

SAMPLE

Sample ID	Sample Type	Collection			
		Interval start: Interval end:			
		Method	Date	Time	By
JX00170	ENV	Trowel	2-21-95	1147	T. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs. - / - | ES&H Jrnl(s)Pgs 1, 94 | SEIR No. JX.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
HAE/PEST/PCB	250 ML AMBER	NONE		
CYANIDE	250 ML AMBER	NONE		
METALS	250 ML AMBER	NONE		
RAD ANAL	IC Container	NONE	30172537	JX 0017001
VOC	125 ML	NONE		
TPH	250 ML AMBER	NONE		
PAH	250 ML AMBER	NONE		

Remarks:

Recorded By: T. Rountree | Date 2-21-95 | Checked and Reviewed By: | Date

NAVY RAC SOIL SAMPLING RECORD

ampling Event: RAD confirmation | Logbook JX 55 005 | Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC 3-8	ENV	–	–	–	–

AMPLE

Sample ID	Sample Type	Collection	Interval start: Interval end:		
		Method	Date	Time	By
JX00171	SFS	Trowel	2-21-95	1155	T. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs.	ES&H Jrnl(s)Pgs	SEIR No.
– / –	1 , 94	JX.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
BNAE/PEST/PCB	250 ML AMBER	NONE		
CYANIDE	250 ML AMBER	NONE		
METALS	250 ML AMBER	NONE		
RAD ANAL	IC Container	NONE	30172535	JX 0017101
VOC	125 ML	NONE		
TPH	250 ML AMBER	NONE		
PAH	250 ML AMBER	NONE		

Remarks:

Recorded By: T. Rountree | Date 2-21-95 | Checked and Reviewed By: | Date

NAVY RAC SOIL SAMPLING RECORD

Sampling Event: RAD Confirmation | Logbook Jx SS 005 | Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC 3-9	ENV	–	–	–	–

SAMPLE

Sample ID	Sample Type	Collection	Interval start: Interval end:		
		Method	Date	Time	By
Jx00172	SFS	Trowel	2-21-95	1151	T. Rountree

Weather Conditions: Clear

Field Logbook(s)/Pgs.	ES&H Jrnl(s)Pgs	SEIR No.
– / –	1 Pg 94	JX.005

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
VAE/PEST/PCB	250 ML AMBER	NONE		
CYANIDE	250 ML AMBER	NONE		
METALS	250 ML AMBER	NONE		
RAD ANAL	IC Container	NONE	30172536	Jx 0017201
VOC	125 ML	NONE		
TPH	250 ML AMBER	NONE		
PAH	250 ML AMBER	NONE		

Remarks:

Recorded By:	Date	Checked and Reviewed By:	Date
T. Rountree	2-21-95		

NAVY RAC SOIL SAMPLING RECORD

ampling Event: RAD Confirmation	Logbook JX SS 005	Form ID - 1 of 1

SAMPLING STATION ☐ Planned Coordinates ☒ Estimated ☐ Surveyed Coordinates

Station ID	Station Type	Grid Plane	Northing	Easting	Units
PSC 3-10	ENV	—	—	—	—

SAMPLE

Sample ID	Sample Type	Collection			Interval start: Interval end:	
		Method	Date	Time	By	
JX00173	SFS	Trowel	2-21-96	1202	T. Roundtree	

Weather Conditions: _____

Field Logbook(s)/Pgs. / ES&H Jrnl(s)Pgs SEIR No.

Container Information

ANALYTES	CONTAINER	PRESV.	CONTAINER ID	COMMENT
E/PEST/PCB	250 ML AMBER	NONE		
CYANIDE	250 ML AMBER	NONE		
METALS	250 ML AMBER	NONE		
RAD ANAL	IC Container	NONE	36172534	JX0017301
VOC	125 ML	NONE		
TPH	250 ML AMBER	NONE		
PAH	250 ML AMBER	NONE		

Remarks: _____

Recorded By:	Date	Checked and Reviewed By:	Date
T. Roundtree	2-21-95		

22565-201-SC-001-0043-002-01

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E37472/37458
NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3

Sample ID : JX00164 SFS SAMPLE 3-1 LOCATION MM 18
Lab ID : 9502398-27
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
Radiological													
Gamma PHA - 10 items													
Cesium-137		0.203	+/- 0.0418	0.0325	0.100	pCi/g	1.0	MDS	03/01/95	0042	62183	1	1
Potassium-40		2.82	+/- 0.450	0.265	1.00	pCi/g	1.0						
Radium-226	J	0.702	+/- 0.0895	0.0539	1.00	pCi/g	1.0						
Radium-228	J	0.863	+/- 0.138	0.104	1.00	pCi/g	1.0						
Thorium-228	J	0.978	+/- 0.0555	0.0410	5.00	pCi/g	1.0						
Thorium-230	J	0.702	+/- 0.0895	0.0539	1.00	pCi/g	1.0						
Thorium-232	J	0.970	+/- 0.0551	0.0407	2.00	pCi/g	1.0						
Thorium-234	J	2.32	+/- 1.18	1.02	5.00	pCi/g	1.0						
Uranium-235	U	0.0661	+/- 0.0972	0.170	1.00	pCi/g	1.0						
Uranium-238	J	2.32	+/- 1.18	1.02	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-27.01	JX0016401

22565-201-SC-001-0043-002-01

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00164 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
The qualifiers in this report are defined as follows:
J indicates presence of analyte < RL (Report Limit)
U indicates presence of analyte < DL (Detect Limit)

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Linda Darrington at (803) 556-8171.

Analytical Report Specialist

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GENERAL ENGINEERING LABORATORIES

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NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

PSC 3

SAMPLE 3-2 LOCATION GG15

Sample ID : JX00165 SFS
Lab ID : 9502398-28
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]logical													
Gamma PHA - 10 items													
Cesium-137		0.187	+/- 0.0354	0.0286	0.100	pCi/g	1.0	MDS	03/01/95	0657	62183	1	1
Potassium-40		2.71	+/- 0.465	0.228	1.00	pCi/g	1.0						
Radium-226	J	0.468	+/- 0.0785	0.0482	1.00	pCi/g	1.0						
Radium-228	J	0.575	+/- 0.137	0.0883	1.00	pCi/g	1.0						
Thorium-228	J	0.691	+/- 0.0506	0.0404	5.00	pCi/g	1.0						
Thorium-230	J	0.468	+/- 0.0785	0.0482	1.00	pCi/g	1.0						
Thorium-232	J	0.686	+/- 0.0502	0.0400	2.00	pCi/g	1.0						
Thorium-234	U	0.706	+/- 0.713	0.966	5.00	pCi/g	1.0						
Uranium-235	U	0.0982	+/- 0.0854	0.155	1.00	pCi/g	1.0						
Uranium-238	U	0.706	+/- 0.713	0.966	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-28.01	JX0016501

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GENERAL ENGINEERING LABORATORIES

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SC	10120	10582
TN	02934	
VA	00151	
WI	999887779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

: BECH00394 Report Date: March 03, 1995

Sample ID : JX00165 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
qualifiers in this report are defined as follows:
dicates presence of analyte < RL (Report Limit)
U indicates presence of analyte < DL (Detect Limit)

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ndard operating procedures. Please direct
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Analytical Report Specialist

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NC	233	
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VA	00151	
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CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3 Page 1 of 2

Sample ID : JX00166 SFS SAMPLE 3-3 LOCATION HH25
Lab ID : 9502398-29
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]ogical													
Gamma PHA - 10 items													
Cesium-137		0.459	+/- 0.0514	0.0291	0.100	pCi/g	1.0	MDS	03/01/95	0701	62183	1	1
Potassium-40		2.78	+/- 0.478	0.289	1.00	pCi/g	1.0						
Radium-226	J	0.502	+/- 0.0765	0.0496	1.00	pCi/g	1.0						
Radium-228	J	0.837	+/- 0.123	0.0898	1.00	pCi/g	1.0						
Thorium-228	J	0.818	+/- 0.0524	0.0390	5.00	pCi/g	1.0						
Thorium-230	J	0.502	+/- 0.0765	0.0496	1.00	pCi/g	1.0						
Thorium-232	J	0.811	+/- 0.0520	0.0387	2.00	pCi/g	1.0						
Thorium-234	J	1.02	+/- 0.882	0.791	5.00	pCi/g	1.0						
Uranium-235	U	0.0798	+/- 0.101	0.151	1.00	pCi/g	1.0						
Uranium-238	J	1.02	+/- 0.882	0.791	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-29.01	JX0016601

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CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00166 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
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U indicates presence of analyte < DL (Detect Limit)

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Analytical Report Specialist

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TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
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Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 Page 1 of 2

PSC 3

Sample ID : JX00167 SFS SAMPLE 3-4 LOCATION FF20
Lab ID : 9502398-30
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]logical													
Gamma PHA - 10 items													
Cesium-137		0.193	+/- 0.0344	0.0264	0.100	pCi/g	1.0	MDS	03/01/95	0703	62183	1	1
Potassium-40		2.66	+/- 0.369	0.252	1.00	pCi/g	1.0						
Radium-226	J	0.537	+/- 0.0751	0.0517	1.00	pCi/g	1.0						
Radium-228	J	0.827	+/- 0.141	0.0981	1.00	pCi/g	1.0						
Thorium-228	J	0.778	+/- 0.0559	0.0456	5.00	pCi/g	1.0						
Thorium-230	J	0.537	+/- 0.0751	0.0517	1.00	pCi/g	1.0						
Thorium-232	J	0.772	+/- 0.0555	0.0452	2.00	pCi/g	1.0						
Thorium-234	J	1.64	+/- 0.830	0.853	5.00	pCi/g	1.0						
Uranium-235	U	0.141	+/- 0.0941	0.169	1.00	pCi/g	1.0						
Uranium-238	J	1.64	+/- 0.830	0.853	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-30.01	JX0016701

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VA	00151	
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CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00167 SFS

C = Container Lab. Container ID Reference ID

Notes:
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CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3 Page 1 of 2

Sample ID : JX00168 SFS SAMPLE 3-5 LOCATION BB21
Lab ID : 9502398-31
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]logical													
[redacted]ma PHA - 10 items													
Cesium-137		0.164	+/- 0.0218	0.0183	0.100	pCi/g	1.0	MDS	03/01/95	0705	62183	1	1
Potassium-40		2.29	+/- 0.286	0.192	1.00	pCi/g	1.0						
Radium-226	J	0.654	+/- 0.0629	0.0383	1.00	pCi/g	1.0						
Radium-228	J	0.973	+/- 0.110	0.0654	1.00	pCi/g	1.0						
Thorium-228	J	1.04	+/- 0.0465	0.0349	5.00	pCi/g	1.0						
Thorium-230	J	0.654	+/- 0.0629	0.0383	1.00	pCi/g	1.0						
Thorium-232	J	1.03	+/- 0.0461	-0.0346	2.00	pCi/g	1.0						
Thorium-234	J	1.74	+/- 0.598	0.650	5.00	pCi/g	1.0						
Uranium-235	J	0.158	+/- 0.121	0.141	1.00	pCi/g	1.0						
Uranium-238	J	1.74	+/- 0.598	0.650	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-31.01	JX0016801

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CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00168 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
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U indicates presence of analyte < DL (Detect Limit)

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Analytical Report Specialist

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SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3

Sample ID : JX00169 SFS - SAMPLE 3-6 LOCATION Q16
Lab ID : 9502398-32
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]logical													
Gamma PHA - 10 items													
Cesium-137		0.258	+/- 0.0481	0.0419	0.100	pCi/g	1.0	MDS	03/01/95	0708	62183	1	1
Potassium-40		1.89	+/- 0.504	0.384	1.00	pCi/g	1.0						
Radium-226	J	0.738	+/- 0.0934	0.0802	1.00	pCi/g	1.0						
Radium-228	J	0.976	+/- 0.150	0.125	1.00	pCi/g	1.0						
Thorium-228	J	0.988	+/- 0.0642	0.0495	5.00	pCi/g	1.0						
Thorium-230	J	0.738	+/- 0.0934	0.0802	1.00	pCi/g	1.0						
Thorium-232	J	0.980	+/- 0.0637	0.0491	2.00	pCi/g	1.0						
Thorium-234	U	0.930	+/- 1.12	1.20	5.00	pCi/g	1.0						
Uranium-235	U	0.0960	+/- 0.107	0.194	1.00	pCi/g	1.0						
Uranium-238	U	0.930	+/- 1.12	1.20	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-32.01	JX0016901

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GENERAL ENGINEERING LABORATORIES

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NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	999885779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350

Contact: Ms. Lori Keller

Project Description: Cecil Field/JX

cc: BECH00394

Report Date: March 03, 1995

Sample ID : JX00169 SFS

C = Container | Lab. Container ID | Reference ID

Notes:
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andard operating procedures. Please direct
ny questions to your Project Manager, Linda Darrington at (803) 556-8171.

Barbara Sigmon

Analytical Report Specialist

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 83 SITE PSC-3 PIC - NN13 DATE 15 Feb 95
= 0960

INSTRUMENTS	X = 0' Y = 0'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
IS-112	L-2087	0944	15 Feb 95 1002	10	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Alam 221	97826	Ludlum 44-10	118371	3817	7.74	4-21-95
			Y1	17		

location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.7
MAXIMUM							7.7
MINIMUM							6.2
STANDARD DEVIATION				A			.43
DOSE INTEGATOR			N				2.0
2x2 NaI AT: 1 FT					5420	20710	/
3 FT					4890	13863	N/A

remarks (Notes): Surveyed by R Patton

DWH 2/27/95

PAGE ____ OF ____

22569-201-SC-001-0043-002-01

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NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00173 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
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indicates presence of analyte < RL (Report Limit)
U indicates presence of analyte < DL (Detect Limit)

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Analytical Report Specialist

12565-201-SC-001-0043-002-01

GENERAL ENGINEERING LABORATORIES

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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3

Sample ID : JX00172 SFS SAMPLE 3-9 LOCATION J17
Lab ID : 9502398-35
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
Radiological													
Gamma PHA - 10 items													
Cesium-137		0.531	+/- 0.0719	0.0352	0.100	pCi/g	1.0	MDS	03/01/95	1103	62183	1	1
Potassium-40		2.58	+/- 0.589	0.333	1.00	pCi/g	1.0						
Radium-226	J	0.766	+/- 0.100	0.0578	1.00	pCi/g	1.0						
Radium-228	J	0.731	+/- 0.145	0.106	1.00	pCi/g	1.0						
Thorium-228	J	0.871	+/- 0.0625	0.0496	5.00	pCi/g	1.0						
Thorium-230	J	0.766	+/- 0.100	0.0578	1.00	pCi/g	1.0						
Thorium-232	J	0.864	+/- 0.0620	0.0492	2.00	pCi/g	1.0						
Thorium-234	J	1.26	+/- 0.947	0.966	5.00	pCi/g	1.0						
Uranium-235	U	0.0881	+/- 0.130	0.190	1.00	pCi/g	1.0						
Uranium-238	J	1.26	+/- 0.947	0.966	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-35.01	JX0017201

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VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

ɔc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00172 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
e qualifiers in this report are defined as follows:
ıdicates presence of analyte < RL (Report Limit)
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FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3 Page 1 of 2

Sample ID : JX00173 SFS SAMPLE 3-10 LOCATION E17
Lab ID : 9502398-36
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]logical													
Gamma PHA - 10 items													
Cesium-137		0.251	+/- 0.0439	0.0306	0.100	pCi/g	1.0	MDS	03/01/95	1105	62183	1	1
Potassium-40		2.63	+/- 0.429	0.317	1.00	pCi/g	1.0						
Radium-226	J	0.568	+/- 0.0753	0.0634	1.00	pCi/g	1.0						
Radium-228	J	0.821	+/- 0.136	0.0965	1.00	pCi/g	1.0						
Thorium-228	J	0.781	+/- 0.0577	0.0462	5.00	pCi/g	1.0						
Thorium-230	J	0.568	+/- 0.0753	0.0634	1.00	pCi/g	1.0						
Thorium-232	J	0.775	+/- 0.0572	0.0458	2.00	pCi/g	1.0						
Thorium-234	J	1.57	+/- 1.02	1.02	5.00	pCi/g	1.0						
Uranium-235	U	0.0560	+/- 0.105	0.182	1.00	pCi/g	1.0						
Uranium-238	J	1.57	+/- 1.02	1.02	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-36.01	JX0017301

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FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3 Page 1 of 2

Sample ID : JX00170 SFS SAMPLE 3-7 LOCATION KT12
Lab ID : 9502398-33
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]logical													
[redacted]amma PHA - 10 items													
Cesium-137		0.403	+/- 0.0436	0.0325	0.100	pCi/g	1.0	MDS	03/01/95	0712	62183	1	1
[redacted]otassium-40		2.29	+/- 0.473	0.299	1.00	pCi/g	1.0						
[redacted]adium-226		1.05	+/- 0.0979	0.0647	1.00	pCi/g	1.0						
Radium-228		1.01	+/- 0.137	0.0903	1.00	pCi/g	1.0						
Thorium-228	J	0.840	+/- 0.0584	0.0549	5.00	pCi/g	1.0						
[redacted]horium-230		1.05	+/- 0.0979	0.0647	1.00	pCi/g	1.0						
[redacted]horium-232	J	0.833	+/- 0.0579	0.0545	2.00	pCi/g	1.0						
Thorium-234	J	1.50	+/- 1.29	1.17	5.00	pCi/g	1.0						
[redacted]ranium-235	U	0.154	+/- 0.106	0.192	1.00	pCi/g	1.0						
[redacted]ranium-238	J	1.50	+/- 1.29	1.17	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-33.01	JX0017001

22565-201-SC-001-0043-002-01

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00170 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
The qualifiers in this report are defined as follows:
J indicates presence of analyte < RL (Report Limit)
U indicates presence of analyte < DL (Detect Limit)

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Linda Darrington at (803) 556-8171.

Analytical Report Specialist

2565-201-SC-001-0043-002-01

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
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CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995 PSC 3 Page 1 of 2

Sample ID : JX00171 SFS SAMPLE 3-8 LOCATION L25
Lab ID : 9502398-34
Matrix : Soil
Date Collected : 02/21/95
Date Received : 02/22/95
Priority : Rush
Collector : Client

arameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	M	C
[redacted]logical													
[redacted]ma PHA - 10 items													
Cesium-137		0.494	+/- 0.0479	0.0363	0.100	pCi/g	1.0	MDS	03/01/95	1059	62183	1	1
Potassium-40		3.21	+/- 0.441	0.314	1.00	pCi/g	1.0						
Radium-226	J	0.754	+/- 0.0892	0.0529	1.00	pCi/g	1.0						
Radium-228	J	0.963	+/- 0.156	0.102	1.00	pCi/g	1.0						
Thorium-228	J	1.08	+/- 0.0589	0.0518	5.00	pCi/g	1.0						
Thorium-230	J	0.754	+/- 0.0892	0.0529	1.00	pCi/g	1.0						
Thorium-232	J	1.07	+/- 0.0585	0.0514	2.00	pCi/g	1.0						
Thorium-234	J	1.84	+/- 1.03	0.987	5.00	pCi/g	1.0						
Uranium-235	U	0.0954	+/- 0.100	0.179	1.00	pCi/g	1.0						
Uranium-238	J	1.84	+/- 1.03	0.987	5.00	pCi/g	1.0						

M = Method	Method-Description
M 1	HASL 300

C = Container	Lab. Container ID	Reference ID
C 1	9502398-34.01	JX0017101

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 83 SITE PSC-3 PIC - NN13 DATE 15 Feb 95

0960

INSTRUMENTS X = 0' Y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
IS-112	L-2087	0944	15 Feb 95 1002	10	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Cdium 221	97826	Ludlum 44-10	118371	3817	7.74	4-21-95
			Y1	17		

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.7
MAXIMUM							7.7
MINIMUM							6.2
STANDARD DEVIATION				A			.43
DOSE INTEGATOR			N				2.0
2x2 NaI AT: 1 FT					5420	20710	/
3 FT					4890	13863	N/A

Remarks (Notes): Surveyed by R Patton

DHA 2/27/95

PAGE ____ OF ____

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 84 SITE: DSC-3 PIC NN 16 DATE: 15 Feb 95

TIME: 1048

INSTRUMENTS x = 0' y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PSS-112	L-2087	1035	15Feb95 / 1053	18	298	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Eldam 221	97826	Ludlum 44-10	118371	3817	7.74	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.7
MAXIMUM							8.7
MINIMUM							5.8
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2
1x2 NaI AT: 1 FT					5800	25620	
3 FT					4960	14767 ~~1477~~	

Remarks (Notes): Surveyed by R Parris

DHA 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 108 SITE PSC-3 PIC-NN19 DATE 21 Feb 95

1523

X=0' Y=0'

...UMENTS						
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
S-112	L-2087	1522	21Feb95/1540	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lum 2281	44954	Lud Lum 44-10	110370	3131	7.32	4-21-95

...ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.9
MAXIMUM							8.1
MINIMUM							6.0
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.1
2x2 NaI at 1'					4360	16516 ~~4356~~	N/A
3'					3500	4768 ~~4768~~	N/A

N A

R...xs (Notes): Surveyed by [signature] 2/27/95

PAGE ____ OF ____

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 107 SITE PSC-3 PIC-NN.22 DATE 21 Feb 95

ME 1545

RUMENTS X = 0 Y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RS-112	L-2087	1545	21 Feb 95	10	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lucum 2281	44954	Lucum 44-10	110370	3151	7.32	4-21-95

ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE						6	6.7
MAXIMUM							8.3
MINIMUM							5.3
STANDARD DEVIATION							0.4
DOSE INTEGATOR			N	A		2.1	2.1
2 x 2 NaI at 1'					4160	13784 ~~1387~~	
3'					3400	3401	

rks (Notes): Surveyed by [illegible]

2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

EY NO. 106 SITE PSC-3 PIC-~~NN25~~ NN-25 DATE 21 Feb 95

1607

RUMENTS	X = 0 Y = 0					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1607	21 Feb 95 / 1635	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lum 281	44954	Lud Lum 44-10	110370	3151	7.32	4-21-95

	Alpha		Beta		Beta/Gamma		Micro R/hr
~~ation description~~	cpm	dpm	cpm	dpm	cpm	dpm	
AVERAGE							6.3
MAXIMUM							7.5
MINIMUM							5.3
STANDARD DEVIATION							0.4
DOSE INTEGATOR							1.9
2 x 2 NaI at 1'					3570	~~4772~~ 5724	Out
3'					3010	<Bkg	

A N

ks (~~Notes~~) Surveyed by [signature]

[signature] 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 105 SITE PSC-3 PIC-NN 26 DATE 21 Feb 95

TIME 1630

INSTRUMENTS X=0 Y=0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PSS-112	L-2087	1630	21 Feb 95 / ~~1650~~ 1648	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
2 Lum 2221	44954	Lud Lum 44-10	110370	3151	7.32	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.4
MAXIMUM							7.7
MINIMUM							5.5
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				1.9
2 x 2 NaI at 1'					3940	~~1070~~ 10778	
3'					3270	~~163~~ 1625	

Remarks (Notes): Surveyed by [illegible]

2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 88 SITE PSS-3 Rc A17 DATE 16 Feb 95

TIME 1015

INSTRUMENTS x = 0' y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1010	16Feb95/1020	10	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Ludlum 2221	97826	Ludlum 44-10	118371	.3726	7.9	4-21-95
		N				
			N/A			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.8
MAXIMUM							8
MINIMUM							5.7
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				
2X2 NaI AT: 1 FT					5790	26000	
3 FT					4790	13468	N/A

Remarks (Notes): Surveyed by R Parrish

2/27/95

PAGE ___ OF ___

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 91 SITE DSC3 PIC D-13 DATE 16 Feb 95

TIME 1130

INSTRUMENTS	x = 0' y = 0'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1126	16Feb95 / 1144	18	22c	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	M / VA
Ludlum 2221	97826	Ludlum 44-10	118371	2726	7.9	4-21-95
		M	VA			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.9
MAXIMUM							8.5
MINIMUM							5.7
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.0
2x2 NaI AT: 1 FT					6068	29544	
3 FT					4700	12329 ~~1233~~	
				M			VA

Remarks (Notes): Surveyed by R Parrish

DHR 2/27/95

PAGE ___ OF ___

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 90 SITE: PSC 3 PIC D 16 DATE: 16 Feb 95

TIME: 1110

INSTRUMENTS x = 0' y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1102	16Feb95/1120	18	220	6-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2221	97826	Ludlum 44-10	118371	3726	7.9	4-21-95
		N				
			N			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.6
MAXIMUM							5.8
MINIMUM							7.8
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2
2X2 NaI AT: 1 FT					5600	23721	
3 FT					4600	11063	
				N			N

Remarks (Notes): Surveyed by R Parrish

2/27/95

PAGE ___ OF ___

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

SURVEY NO. 89 SITE PSC 3 PIC D19 DATE 16 Feb 95

TIME 1040

INSTRUMENTS X=0' Y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1037	16Feb95/1055	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2221	97826	Ludlum 44-10	118371	2726	7.9	4-21-95
		N	N/A			

Information description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.8
MAXIMUM							8.5
MINIMUM							5.8
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.1
2x2 NaI AT: 1 FT					5510	22502	
3 FT					4575	10114	N/A

Remarks (Notes): Surveyed by P Parrish

DHF 2/27/95

PAGE ____ OF ____

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 92 SITE: PSC 3 PIC G10 DATE: 16 Feb 95

TIME: 1320

INSTRUMENTS: ~~x=0~~ x = 5' y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1320	16Feb95/1338	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2221	97826	Ludlum 44-10	118371	3726	7-9	4-21-95
		N				
			VA			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.1
MAXIMUM							7.7
MINIMUM							5.1
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				1.8
2x2 NaI AT: 1 FT					4420	8785	
3 FT					3600	<BKG	
					N		VA

Remarks (Notes): Surveyed by R Parris

DOF 2/27/95

PAGE ____ OF ____

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 109 SITE: PSC-3 PIC-G13 DATE: 21 Feb 95

E: 1440

RUMENTS x=0' y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1438	21Feb95/1452	18	220	8-30-95
N/A	N/A	Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	44954	Lud Lum 44-10	119370	3151	7.32	4-21-95
		N				
			N/A			

ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.3
MAXIMUM							7.7
MINIMUM							5.2
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.0
2x2 NaI at 1'					3580	5860	
3'					3060	<BKG	
					N/A		N/A

arks (Notes): Surveyed by [illegible]

DJH 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

VEY NO. 110 SITE PSC-3 PIC- G-16 DATE 21 Feb 95

E 1414

STRUMENTS

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1414	21Feb95/1432	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lud Lum 2281	44954	Lud Lum 44-10	119370	3131	7.32	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.9
MAXIMUM							8.0
MINIMUM							6.0
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.0
2 x 2 NaI at 1'					4190	14194 ~~123~~	
3'					3540	5314 ~~33~~	

Remarks (Notes): Surveyed by [illegible]

2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 111 SITE: PSC-3 PIC-G19 DATE: 21 Feb 95

TIME: 1355

INSTRUMENTS

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
FS-112	L-2087	1349	21Feb95/1407	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lucas 2281	44954	Lucas 44-10	110370	3151	7.32	4-21-95
		N				
			N/A			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							7.2
MAXIMUM							8.3
MINIMUM							5.8
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.1
2x2 NaI at 1'					4470	18019 ~~607~~	
3'					3870	9872 ~~465~~	
					N		N/A

Remarks (Notes): Surveyed by R Parrish

2/27/95

22565-201-SC-001-0043-002-01

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	
VA	00151	
WI	99988779	

CERTIFICATE OF ANALYSIS

Client: Bechtel
PO Box 350
Oak Ridge, Tennessee 37831-0350
Contact: Ms. Lori Keller
Project Description: Cecil Field/JX

cc: BECH00394 Report Date: March 03, 1995

Sample ID : JX00171 SFS

C = Container	Lab. Container ID	Reference ID

Notes:
ıe qualifiers in this report are defined as follows:
ndicates presence of analyte < RL (Report Limit)
U indicates presence of analyte < DL (Detect Limit)

ıhis data report has been prepared and reviewed
ın accordance with General Engineering Laboratories
andard operating procedures. Please direct
ıy questions to your Project Manager, Linda Darrington at (803) 556-8171.

Analytical Report Specialist

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 78 SITE PSC 3 PIC G-22 DATE 15 Feb 95

1545

UMENTS	X = 0' Y = 0'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1540	15 Feb 95/1558	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ham .21	97826	Ludlum 44-10	118371	3817	7.74	4-21-95

tion description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							8.9
MAXIMUM							10
MINIMUM							8
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.6
X2 NaI AT: 1 FT					9170	69160	
3 FT					7950	53398	

Pic (Notes): Surveyed by RPantis

2/27/95

PAGE ___ OF ___

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 93 SITE PSC 3 PIC J10 DATE 16 Feb 95

TIME 1340

INSTRUMENTS X = 5' Y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1340	16Feb95/1358	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2221	97826	Ludlum 44-10	118371	3726	7.9	4-21-95
		N				
			N			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							62
MAXIMUM							78
MINIMUM							51
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				1.8
2x2 NaI AT: 1 FT					4570	10683	
3 FT					3670	<Bkg	
					N		N

Remarks (Notes): Surveyed by R Parrish

DJH 2/27/95

PAGE ___ OF ___

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 115 SITE PSC-3 PIC-J-13 DATE 21 Feb 95

1125

RUMENTS x=0' y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PSS-112	L-2087	1115	21Feb95/1133	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 6281	44954	Lud Lum 44-10	119370	3151	7.32	4-21-95

ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.6
MAXIMUM							7.7
MINIMUM							5.6
STANDARD DEVIATION							0.4
DOSE INTEGATOR							1.8
2 x 2 NaI at 1'					3960	11052 ~~102~~	
3'					3280	1762 ~~179~~	

N A

rks (Notes): Surveyed by

2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 112 SITE: PSC-3 PIC-J16 DATE: 21 Feb 95

TIME: 1325

INSTRUMENTS x=0' y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
255-112	L-2087	1324	21 Feb 95 / 1342	18	220	8-30-95
N						N
	N	Probe (type/model)	Probe Serial #	Background com	% eff.	N
2 Lum 2281	44954	Lud Lum 44-10	119370	3151	7.32	4-21-95
		N				
			N			

Location description	Alpha com	Alpha dom	Beta com	Beta dom	Beta/Gamma com	Beta/Gamma dom	Micro R/hr
AVERAGE							6.5
MAXIMUM							8.0
MINIMUM							5.6
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				1.9
2 x 2 NaI at 1'					3520	5041 ~~505~~	
3'					3240	1216 ~~172~~	

Remarks (Notes): Surveyed by [signature]

2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

Y NO. 128 SITE: PSC PIC-BB17 DATE: 22 Feb 95

E: 1044

TRUMENTS X = 0 Y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PC-112	G-8250	1036	22Feb95 1044	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	n / n
281	97826	Lad Lum 44-10	118371	4724	7.85	4-21-95

on description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.2
MAXIMUM							9.7
MINIMUM							5.1
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				1.9
x2 NaI at 1'					5562	17044	
3'					4390	2114	

ks (Notes): Surveyed by P Parr

DJP 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

JOB NO. 129 SITE PSC-3 PIC-BB20 DATE 22 Feb 95

NAME

INSTRUMENTS X=0 Y=0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RS-112	G-8250	1111	22Feb95 1129	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lucm 2221	97826	Lad Lum 44-10	118371	4724	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.4
MAXIMUM							7.6
MINIMUM							5.6
STANDARD DEVIATION							0.3
DOSE INTEGATOR							7.9
2x2 NaI at 1'					5540	16764	
3'					4830	7719	

A N

Remarks (Notes): Surveyed by [illegible]

DJH 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

Y NO. 130 SITE: PSC-3 PIC-BB23 DATE: 22 Feb 95

= 1130

UMENTS X = 0 Y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	G-8250	1138	22Feb95 1156	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
2x1	97826	Lud Lum 44-10	118371	4724	7.85	4-21-95

ion description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.4
MAXIMUM							7.7
MINIMUM							5.3
STANDARD DEVIATION							0.4
DOSE INTEGATOR							1.9
x2 NaI at 1'					5960	22114	
3'					4580	4535 ~~454~~	

rks (Notes): Surveyed by [signature]

DWH 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 131 SITE: PSC-3 PIC-BB26 DATE: 22 Feb 95

TIME: 1400

INSTRUMENTS X = 0 y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	G-8250	1358	22Feb95 1416	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lud Lum 2221	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					—	—	6.4
MAXIMUM					—	—	9.0
MINIMUM					—	—	5.6
STANDARD DEVIATION					—	—	0.4
DOSE INTEGATOR					—		1.9
2x2 NaI at 1'					5700	18802	
3'					4710	6191	

Remarks (Notes): Surveyed by Ram

DHP 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 77 SITE PSC 3 PIC-EE13 DATE 15 Feb 95

1500

INSTRUMENTS x=0' y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
255-112	L-2087	1450	15 Feb 95 / 1508	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Alum 221	97826	Ludlum 44-10	118371	3817	7.74	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.8
MAXIMUM							8.0
MINIMUM							5.6
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.0
2x2 NaI AT: 1 FT					5640	23553	
3 FT					5200	17888	

Remarks (Notes): Surveyed by R Pantel

DWA 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 121 SITE: PSC-3 PIC-EE16 DATE: 22 Feb 95

IME: NA

INSTRUMENTS x = Ø y = Ø						
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	42:35 TR 10:24:22	11:00:35 22 Feb 95	18 min	220	8-30-95
N		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N
	NA					NA
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95
		N				
			NA			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					–	–	6.5
MAXIMUM					–	–	7.6
MINIMUM					–	–	5.6
STANDARD DEVIATION				A	–	–	0.3
DOSE INTEGATOR			N		–	–	1.9
2 x 2 NaI at 1'					5466	15821	–
3'					4355	1669 ~~167~~	–

Remarks (Notes): Surveyed by Tom Rantree / R Pa[illegible]

DWP 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 122 SITE: PSC-3 PIC-EE19 DATE: 22 Feb 95

TIME: ~~1227~~

INSTRUMENTS	X = 0 Y = 0					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	11:03:25	11:21:25 22 Feb 95	18 min	220	8-30-95
NA		Probe (type/model)	Probe Serial #	Background cpm	% eff.	NA
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95
		NA				
			NA			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					–	–	6.2
MAXIMUM					–	–	8.0
MINIMUM					–	–	5.2
STANDARD DEVIATION				A	–	–	0.4
DOSE INTEGATOR			N		–	–	1.9
2 x 2 NaI at 1'					5139	11656	–
3'					4142	< BKG	–

Remarks (Notes): Surveyed by Tom Rowtree / [illegible]

DWR 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 123 SITE PSC-3 PIC-EE21 DATE 22 Feb 95

IME 1128

INSTRUMENTS x=0 y=0						
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	11:27:45	11:45:45 22 Feb 95	18 min	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					–	–	6.6
MAXIMUM					–	–	7.8
MINIMUM					–	–	5.6
STANDARD DEVIATION				A	–	–	0.4
DOSE INTEGATOR			N		–	–	2.0
2 x 2 NaI at 1'					5885	21159 ~~2116~~	
3'					4851	7987 ~~799~~	

Remarks (Notes): Surveyed by Tom Rountree - Rau

DVP 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 124 SITE: PSC-3 PIC-EE24 DATE: 22 Feb 95

TIME: 1400

INSTRUMENTS	x = 0 y = 0					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	13:59:15	14:17:15 22Feb95	18 min	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					–	–	6.6
MAXIMUM					–	–	8.1
MINIMUM					–	–	5.7
STANDARD DEVIATION				A	–	–	0.4
DOSE INTEGATOR			N		–	–	2.0
2x2 NaI at 1'					5650	19165 ~~517~~	
3'					4640	5299 ~~550~~	

Remarks (Notes): Surveyed by Tom Roustree

2/27/95

Pg 7C

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 76 SITE: OSC 3 PIC HH 12 DATE: 15 Feb 95

1425

INSTRUMENTS X = 0' Y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1425	15 Feb 95 1443	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ham .21	9782C	Ludlum 44-10	118371	3817	7.74	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.8
MAXIMUM							8.2
MINIMUM							5.8
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.0
x2 NaI AT: 1 FT					5420	20710 ~~21440~~	
3 FT					4990	15155 ~~15145~~	

Remarks (Notes): Surveyed by R Parrish

2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

SURVEY NO. 81 SITE DSC3 PIC ~~HH-12~~ HH 15 RP DATE 15-Feb 95

1400

INSTRUMENTS X=0' Y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PSS-112	L-2087	1400	15 Feb 95 / 1418	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 121	97826	Ludlum 44-10	118371	3817	7.74	4-21-95
			NA	NA		

Radiation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.5
MAXIMUM							7.8
MINIMUM							5.6
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.0
X2 NaI AT: 1 FT					5460	21227	
3 FT					4500	8824	NA / NA

Misc (Notes): Surveyed by R Parin

DHP 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 117 SITE: PSC-3 PIC-HH18 DATE: 22 Feb 95

TIME: —

INSTRUMENTS x=0 y=0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	10:13:30	22Feb95	10:31:30	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/h
AVERAGE					–	–	6.6
MAXIMUM					–	–	8.2
MINIMUM					–	–	5.7
STANDARD DEVIATION				A	–	–	0.3
DOSE INTEGATOR			N		–	–	2.0
2 x 2 NaI at 1'					5780	19921	–
3'					4830	7720	–

Remarks (Notes): Surveyed by Tom Rountree / [illegible]

2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 118 SITE: PSC-3 PIC-4H21 DATE: 22 Feb 95

E: 1004

UMENTS X = 0 Y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	G-8250	1002	22Feb95 / 1020	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lum nal	97826	Lad Lum 44-10	118371	4224	7.85	4-21-95

	Alpha		Beta		Beta/Gamma		Micro R/hr
ion description	cpm	dpm	cpm	dpm	cpm	dpm	
AVERAGE							6.2
MAXIMUM							7.8
MINIMUM							5.0
STANDARD DEVIATION							0.4
DOSE INTEGATOR							1.8
x2 NaI at 1'					5350	14344	
3'					4148	2751	

A N

ks (Notes): Surveyed by [illegible]

DUH 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

VEY NO. 119 SITE: PSC-3 PIC-24 DATE: 22 Feb 95

E: 0945 HH-24

RUMENTS X = 0 y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
S-112	G-8250	0939	22Feb95 / 0957	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background com	% eff.	
Lum 21	97826	Lad Lum 44-10	118371	4724	7.85	4-21-95

ation description	Alpha com	Alpha dom	Beta com	Beta dom	Beta/Gamma com	Beta/Gamma dom	Micro R/hr
AVERAGE							6.5
MAXIMUM							7.8
MINIMUM							5.3
STANDARD DEVIATION							0.4
DOSE INTEGATOR							1.9
x2 NaI at 1'					5740	19312	
3'					4790	7219	

ks (Notes): Surveyed by

DJH 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 120 SITE: PSC-3 PIC-HH27 DATE: 22 Feb 95

TIME: 0915

STRUMENTS	X => Y = 0					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	G-8250	0914	22Feb95/0932	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lud Lum 2221	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							7
MAXIMUM							8.8
MINIMUM							6.1
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.1
2x2 NaI at 1'					5590	17274	~~2.1~~
3'					5270	13325	

Remarks (Notes): Surveyed by [illegible]

2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 82 SITE OSC-3 DiC-KK 11 DATE 15-Feb 95
1112

UMENTS	x = 33' y = -5'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1111	15 Feb 95 / 1129	~~1129~~ 18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lum 21	97826	Ludlum 44-10	118371	3817	7.74	4-21-95
		N/A		N/A		

	Alpha		Beta		Gamma		Micro R/hr
ation description	cpm	dpm	cpm	dpm	cpm	dpm	
AVERAGE							6.0
MAXIMUM							8.3
MINIMUM							5.6
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.0
x2 NaI AT: 1 FT					5730	24715 ~~2472~~	DHF
3 FT					4950	14638 ~~1454~~ DHF	N/A

ks (Notes): Surveyed by R Parrish

DHF 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 85 SITE PSC-3 AIC KK14 DATE 15 Feb 95
1145

UMENTS x = 0' y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1135	15 Feb 95/1153	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lum 21	97826	Ludlum 44-10	118371	3817	7.74	4-21-95
			N			
				N		

tion description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.7
MAXIMUM							8.1
MINIMUM							5.8
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.1
x2 NaI AT: 1 FT					5500	21744	
3 FT					5260	18643	N/A

s (Notes): Surveyed by R Parsons

2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 127 SITE: PSC-3 PIC-KK17 DATE: 22 Feb 95

TIME:

INSTRUMENTS x=0 y=0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	09:45:10	22Feb95	0:03:10	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					–	–	6.7
MAXIMUM					–	–	8.2
MINIMUM					–	–	5.7
STANDARD DEVIATION				A	–	–	0.4
DOSE INTEGATOR			N		–	–	2.0
2 x 2 NaI at 1'					5330	20458 ~~2646~~	
3'					5670	18420	–

Remarks (Notes): Surveyed by Tom Rountree

2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 126 SITE: PSC-3 PIC-KK20 DATE: 22 Feb 95

TIME: 0930

INSTRUMENTS X=0 Y=0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	09:23:45	22Feb95	09:41:45	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	n/a
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					—	—	6.6
MAXIMUM					—	—	8.2
MINIMUM					—	—	5.7
STANDARD DEVIATION				A	—	—	0.4
DOSE INTEGATOR			N		—	—	1.9
2x2 NaI at 1'					5730	19185	—
3'					5560	17019 ~~17222~~	—

Remarks (Notes): Surveyed by Tom Rountree

2/22/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

SURVEY NO. 125 SITE: PSC-3 PIC-KK23 DATE: 22 Feb 95
TIME: 0900

INSTRUMENTS X = 0 Y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	BP 24 Feb 95 TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	08:53	22Feb95 0911	~~07~~ ~~08~~ 18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					—	—	6.8
MAXIMUM					—	—	9.3
MINIMUM					—	—	5.8
STANDARD DEVIATION				A	—	—	0.4
DOSE INTEGATOR			N		—	—	2.0
2 x 2 NaI at 1'					5830	20458 ~~1044~~	[illegible]
3'					5426	15312	—

Remarks (Notes): Surveyed by T. Routten [signature] [signature] 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 113 SITE: PSC-3 PIC-J19 DATE: 21 Feb 95

E: 1350

UMENTS	X = x' Y = 0					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1300	21Feb95 / 1318	18	220	8-30-95
N		Probe (type/model)	Probe Serial #	Background com	% eff.	N / N
	N					
Lum 2x2 R1	44954	Lud Lum 44-10	110370	3151	7.32	4-21-95
		N				
			N			

ation description	Alpha com	Alpha dom	Beta com	Beta dom	Beta/Gamma com	Beta/Gamma dom	Micro R/hr
AVERAGE							6.8
MAXIMUM							8.5
MINIMUM							5.7
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.0
2 x 2 NaI at 1'					4220	14604 ~~14600~~	
3'					3510	14904 ~~1492~~	
					N	/	N

A N

ks (Notes): Surveyed by Parrish

2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

SURVEY NO. 114 SITE: PSC-3 PIC-J22 DATE: 21 Feb 95

NO. 1235

INSTRUMENTS x=0' y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
2SS-112	L-2087	1234	21Feb95 1252	18	220	8-30-95
N		Probe (type/model)	Probe Serial #	Background com	% eff.	N
	N					N
2 Lum 281	44954	Lud Lum 44-10	110370	3131	7.32	4-21-95
			N			
				N		

Location description	Alpha com	Alpha dom	Beta com	Beta dom	Beta/Gamma com	Beta/Gamma dom	Micro R/hr
AVERAGE							7
MAXIMUM							9
MINIMUM							4
STANDARD DEVIATION							8.4
DOSE INTEGATOR							2.1
2 x 2 NaI at 1'					4760	21981 ~~7204~~	
3'					3450	4084 ~~410~~	
						N	N

Remarks (Notes): Surveyed by R Parrish

DJH 2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 116 SITE PSC-3 PIC-1114 DATE 21 Feb 95

E 1048

UMENTS x=0' y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1048	21Feb95/1106	18	22	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lum x281	44954	Lud Lum 44-10	119370	3151	7.32	4-21-95

ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.9
MAXIMUM							9.5
MINIMUM							5.7
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.0
2x2 NaI at 1'					4262	15150 ~~1.4~~	
3'					3520	5041 ~~50.5~~	

rks (Notes): Surveyed by

DLA 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

VEY NO. 102 SITE: PSC-3 PIC-m20 DATE: 21 Feb 95

TIME 0915

INSTRUMENTS X = 0' Y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PSS-112	L-2087	0914	21Feb95 / 0932	10	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lud Lum α 281	44954	Lud Lum 44-10	119370	3151	7.32	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.8
MAXIMUM							8.2
MINIMUM							5.7
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.1
2 x 2 NaI at 1'					4350	16379 ~~16442~~	
3'					3696	7363 ~~7392~~	
					21		

Remarks (Notes): Surveyed by [illegible]

2/27/95

FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 103 SITE: PSC-3 PIC-M23 DATE: 21 Feb 95

E: 0940

RUMENTS	X = 0' Y = 0'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	0937	21 Feb 95 / 0955	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	n / A
Lum 2281	44954	Lud Lum 44-10	110370	3151	7.32	4-21-95

ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							7.0
MAXIMUM							8.1
MINIMUM							6.0
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.1
2 x 2 NaI at 1'					4680	20888 ~~2075~~	~~4.5~~ ~~2.1~~
3'					3610	6270 ~~627~~	~~0.7~~

A N

rks (Notes): Surveyed by [signature] 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

SURVEY NO. 94 SITE PSC 3 PGP10 DATE 16 Feb 95

TIME 1400

INSTRUMENTS x = 0' y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1463	16Feb95/1421	18	220	2-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2221	97826	Ludlum 44-10	118371	3726	7.9	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro Roar
AVERAGE						6.2	
MAXIMUM						7.9	
MINIMUM						4.8	
STANDARD DEVIATION				A		0.4	
DOSE INTEGATOR			N			1.9	
2x2 NaI AT: 1 FT					4616	11190	
3 FT					3758	304	
				N			N

Remarks (Notes): Surveyed by R Parrish

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 99 SITE PSC3 PIC P-16 DATE 16 Feb 95

TIME 1610

INSTRUMENTS x = 0' y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1605	16Feb95/1623	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2221	97826	Ludlum 44-10	118371	3726	7.9	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.6
MAXIMUM							8.5
MINIMUM							5.8
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				2.0
2X2 NaI AT: 1 FT					5590	23595 ~~2300~~	
3 FT					4440	~~904~~ 9035	

Remarks (Notes): Surveyed by R Parrish

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 100 SITE: PSC-3 PIC-P 19 DATE: 21 Feb 95

TIME: 0830

INSTRUMENTS x = 0' y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PSS-112	L-2087	0824	21Feb95 / 0842	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Cum 2281	44954	Lud Cum 44-10	118370	3151	7.32	4-21-95
			N			
				N		

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.8
MAXIMUM							8.0
MINIMUM							5.8
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.0
2 x 2 NaI at 1'					4310	15833 ~~1500~~	
3'					3411	16284 ~~530~~	
					N		N/A

Remarks (Notes): Surveyed by [illegible]

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 87 SITE PIC P22 PSC-3 DATE 16 Feb 95

TIME 0930

INSTRUMENTS X=0' Y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	0930	16Feb95/0948	18	220	6-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N / NA
Ludlum 2221	97826	Ludlum 44-10	119371	3726	7.9	4-21-95
		N				
			NA			

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.3
MAXIMUM							7.8
MINIMUM							5.5
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				1.9
2x2 NaI AT: 1 FT					4550	10430	/
3 FT					4170	5620	N / NA

Remarks (Notes): Surveyed by Robert Parker

DWH 2/27/9

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 135 SITE PSC-3 PIC-026 DATE 22 Feb 95

TIME 1450

INSTRUMENTS X=0 Y=0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	G-8250	1440	22Feb95/1458	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2281	97826	Ludlum 44-10	118371	4724	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					—	—	6.7
MAXIMUM					—	—	8.5
MINIMUM					—	—	5.7
STANDARD DEVIATION					—	—	0.4
DOSE INTEGATOR					—	—	2.0
2x2 NaI at 1'					6440	26224	
3'					5088	10904	
						17	12

Remarks (Notes): Surveyed by Paris

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

SURVEY NO. 95 SITE PSC 3 PIC S-11 DATE 16 Feb 95

TIME 1430

INSTRUMENTS X=0' Y=0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	1429	16Feb95/1447	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Ludlum 2221	97826	Ludlum 44-10	118371	3726	7.9	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							6.2
MAXIMUM							7.7
MINIMUM							5.1
STANDARD DEVIATION				A			0.4
DOSE INTEGATOR			N				1.8
2X2 NaI AT: 1 FT					4420	8785	
3 FT					3533	1354	

Remarks (Notes): Surveyed by R Parrish

Date 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

VEY NO. 80 SITE OSC 3 DIC S 17 DATE 15 Feb 95

1640

TRUMENTS X = 0' Y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1637	15Feb95 1655	18	230	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	n / N
dium .221	9782C	Ludlum 44-10	118371	3817	7.74	4-21-95
			n	N		

ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE						6.6	6.6
MAXIMUM						8.0	8.0
MINIMUM					15Feb95	5.8	5.8
STANDARD DEVIATION				A		0.4	0.4
DOSE INTEGATOR			N			2.0	2.0
2X2 NaI AT: 1 FT					5200	17868 ~~17867~~	n
3 FT					4700	11408	n / N

Notes (Notes): Surveyed by RPaul

RPaul 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 132 SITE PSC-3 PIC-521 DATE 22 Feb 95

TIME 1512

INSTRUMENTS X = 0 Y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	G-8250	1305	22Feb95 1322	18	220	2-6-96
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	n / a
Ludlum 2221	97826	Ludlum 44-10	118371	4724	7.85	4-21-95
		n				
				A		

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					—	—	6.7
MAXIMUM					—	—	8.3
MINIMUM					—	—	5.6
STANDARD DEVIATION				A	—	—	0.4
DOSE INTEGATOR			N		—	—	2.0
2x2 NaI at 1'					5680	18548	/
3'					4800	7337	/HR
						/	

Remarks (Notes): Surveyed by [illegible]

DWP 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 133 SITE PSC- 3 PIC- 524 DATE: 22 Feb 95

TIME 1450

INSTRUMENTS x = 0 y = 0

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	14:47:30	15:05:30 22Feb95	18min	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					–	–	6.6
MAXIMUM					–	–	8.1
MINIMUM					–	–	5.6
STANDARD DEVIATION				A	–	–	0.4
DOSE INTEGATOR			N		–	–	1.9
2x2 NaI at 1'					5779	19809	–
3'					4843	7885 ~~787~~	

Remarks (Notes): Surveyed by Tom Rountree

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 134 SITE: PSC-3 PIC-528 27 DATE: 22 Feb 95

TIME: 1430 TR 2-22-95

INSTRUMENTS	X = 0 Y = 0					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	14:24:55	14:42:55 22Feb95	18 MIN	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lud Lum 2281	97826	Lud Lum 44-10	118371	4224	7.85	4-21-95

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE					–	–	7.8
MAXIMUM					–	–	9.2
MINIMUM					–	–	6.7
STANDARD DEVIATION				A	–	–	0.4
DOSE INTEGATOR			N		–	–	2.3
2 x 2 NaI at 1'					7480	41477 ~~4448~~	
3'					6187	25006	–

Remarks (Notes): Surveyed by Tom Rowtree

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 79 SITE PSC 3 PIC J25 DATE 15 Feb 95
1615

UMENTS	x = 0' y = 0'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
33-112	L-2087	1610	15 Feb 95 / 1628	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	
Lum 21	97826	Ludlum 44-10	118371	3817	7.74	4-21-95

	Alpha		Beta		Gamma		Micro R/hr
ation description	cpm	dpm	cpm	dpm	cpm	dpm	
AVERAGE							7
MAXIMUM							8.5
MINIMUM							6
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.1
X2 NaI AT: 1 FT					6780	38281	
3 FT					5570	22648	

ks (Notes): Surveyed by R Parrish

Dell 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA ~~SHEET~~ (HPIC)

RVEY NO. 104 SITE PSC-3 PIC-~~m-14~~ PP m-11 DATE 21 Feb 95

NE 1030

STRUMENTS	X = 0' Y = 0'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
PSS-112	L-2087	1024	21Feb95/1042	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background com	% eff.	N / A
Lud Lum 2 2 81	44954	Lud Lum 44-10	119370	3151	7.32	4-21-95

	Alpha		Beta		Beta/Gamma		Micro R/hr
	com	dom	com	dom	com	dom	
~~cation description~~ AVERAGE							6.2
MAXIMUM							7.7
MINIMUM							5.2
STANDARD DEVIATION							0.4
DOSE INTEGATOR							1.9
2 x 2 NaI at 1'					3400	3401	
3'					2952	<BKG	

A N

~~mmnts (Notes)~~: Surveyed by

2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

EY NO. 116 SITE PSC-3 PIC-W14 DATE 21 Feb 95

E 1048

UMENTS	X=0' Y=0'					
Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
SS-112	L-2087	1048	21Feb95/1106	18	22	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Lum 2281	44954	Lud Lum 44-10	110370	3151	7.32	4-21-95

ation description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Beta/Gamma cpm	Beta/Gamma dpm	Micro R/hr
AVERAGE							6.9
MAXIMUM							8.5
MINIMUM							5.7
STANDARD DEVIATION							0.4
DOSE INTEGATOR							2.0
2x2 NaI at 1'					4268	15150 ~~1014~~ DLA	
3'					3520	15041 ~~1014~~ DLA	

A N

Remarks (Notes) Surveyed by DLA 2/27/95

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FIELD DATA ACQUISITION FORM

GAMMA SCAN DATA SHEET (HPIC)

SURVEY NO. 86 SITE PSC 3 PIC m 26 DATE 16 Feb 95

TIME 0901

INSTRUMENTS x = 0 y = 0'

Meter (type/model)	Meter Serial #	START TIME	END DATE/TIME	TOTAL TIME	Total Points	Calibration Date
RSS-112	L-2087	0901	16Feb95/0919	18	220	8-30-95
		Probe (type/model)	Probe Serial #	Background cpm	% eff.	N/A
Ludlum 2221	97826	Ludlum 44-10	118371	3726	7.9	4-21-95
			N/A	N/A		

Location description	Alpha cpm	Alpha dpm	Beta cpm	Beta dpm	Gamma cpm	Gamma dpm	Micro R/hr
AVERAGE							7.7
MAXIMUM							8.7
MINIMUM							6.3
STANDARD DEVIATION				A			0.5
DOSE INTEGATOR			N				2.3
2X2 NaI AT: 1 FT					6390	33721 ~~6390~~ N/A	~~3372~~ DPM
3 FT					5200	18658 ~~5200~~	~~1866~~ DPM
N/A							

Remarks (Notes): Surveyed by R Pantos

2/27/95

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