Westinghouse Electric Corporation
Nuclear Manufacturing Divisions

RS 93-036

Box 355
Pittsburgh Pennsylvania 15230-0355

July 9, 1993

U. S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Attention: Mr. C. T. Oberg

Subject: Seventh Submittal of Reports Concerning
Termination of License Number SNM-951 (Docket 70-997)

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 (Docket 70-997) for the site located in Large, Pennsylvania. Enclosed are four reports which document certain information concerning the site in the overall effort to demonstrate that the site meets all applicable regulatory requirements for release for unrestricted use and that therefore the license can be terminated. Attached is Table 1 which lists the titles of the reports which have been and are being submitted. Two additional reports are being prepared for submittal. The first report is a summary of the cleanup and radiological survey of the site. The second is a certification on the disposition of all licensed material. Upon submittal of these two reports, Westinghouse will formally request termination of the license. This submission completes all of the reports for the final termination surveys of the site.

If you have any questions concerning the attached information, please contact me at the above address or by telephone on 412-374-4652.

Very truly yours,

A. J. Nardi, Manager
Regulatory Services

dh

Enclosures

090161

TABLE 1

LICENSE TERMINATION REPORT

USNRC LICENSE

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REPORT #011	FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 8, (SURVEY SECTION 28E), JANUARY 26, 1993	2/24/93
REPORT #012	FINAL RADIOLOGICAL SURVEY OF THE FIRST FLOOR OF BUILDING NO. 7, (SURVEY SECTION 7), JANUARY 29, 1993	2/24/93
REPORT #013	FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 7, SECOND FLOOR, (SURVEY SECTION 28D), FEBRUARY 4, 1993	2/24/93
REPORT #014	FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 6A, (SURVEY SECTION 6), FEBRUARY 9, 1993	2/24/93
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REPORT #029	FINAL RADIOLOGICAL SURVEY OF THE THIRD FLOOR OF BUILDING NO. 4, (SURVEY SECTION 15), APRIL 7, 1993	4/30/93
REPORT #030	FINAL RADIOLOGICAL SURVEY OF THE FOURTH FLOOR OF BUILDING NO. 5, (SURVEY SECTION 28B), APRIL 8, 1993	4/30/93
REPORT #031	FINAL BUILDING SURVEY OF THE FIREHALL, (SURVEY SECTION 28J), APRIL 8, 1993	4/30/93

TABLE 1 (CONTINUED)

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REPORT #033	FINAL RADIOLOGICAL SURVEY OF THE HYDROGEN FACILITY, (SURVEY SECTION 11), MAY 10, 1993	5/14/93
REPORT #034	FINAL RADIOLOGICAL SURVEY OF THE FIRST FLOOR OF BUILDING NO. 5, (SURVEY SECTION 1), APRIL 20, 1993	4/30/93
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REPORT #039	FINAL RADIOLOGICAL SURVEY OF THE SITE GROUNDS, (SURVEY SECTION 30), JUNE 2, 1993	7/9/93
REPORT #040	RADIOLOGICAL SURVEY OF STREAMS ADJACENT TO THE SITE, (SURVEY SECTION 31)	7/9/93
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LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

RADIOLOGICAL SURVEY

OF STREAMS ADJACENT TO THE SITE

(SURVEY SECTION 31)

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #040

RADIOLOGICAL SURVEY

OF STREAMS ADJACENT TO THE SITE

(SURVEY SECTION 31)

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REPORT #040

RADIOLOGICAL SURVEY

OF STREAMS ADJACENT TO THE SITE

(Survey Section 31)

Purpose

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 for the site located in Large, PA. This report is one of a series of reports that presents the necessary information to establish that the site meets all applicable regulatory requirements so that the license can be terminated by the United States Nuclear Regulatory Commission.

Scope

This report documents the results of the radiological survey of the two streams which flow adjacent to the Westinghouse Site located in Large, PA. Sediment samples were taken at the three storm sewer outfalls to the streams, at two locations upstream, and at one location downstream. A statistical analysis of the analytical results obtained is presented.

Description of Sampling

Figure 1 presents an overall plot plan for the site which shows the two streams which flow adjacent to the site. Compass north and Building north are shown on the Figure. All directional references used in this license termination project have been to the "Building North" and that convention is followed in this report.

Peters Creek flows northward along the eastern side of the site. There are two storm sewer outfalls from the site into this creek. Lewis Run flows eastward along the southern side of the site. There is one storm sewer outfall from the site into this stream. Lewis Run joins with Peters Creek.

Six sampling locations were identified and are shown on Figure 1. The following is a description of these locations with respect to the rational for their selection:

1) Sample Location A - (See Figure 2) - This location is on Lewis Run upstream from the storm sewer outfall into Lewis Run.

2) Sample Location B - (See Figure 3) - This location is at the storm sewer outfall into Lewis Run. This storm sewer collects water from the area in front of Building Number 4 on the site.

3) Sample Location C - (See Figure 4) - This location is on Peters Creek upstream from the site.

4) Sample Location D - (See Figure 5) - This location is at one of the storm sewer outfalls into Peters Creek. This storm sewer outfall primarily collects water from the roadway between the buildings.

5) Sample Location E - (See Figure 6) - This location is at the other storm sewer outfall into Peters Creek. This storm sewer outfall primarily collects water from the process buildings and the east parking lot. Plant discharges were directed to this outfall.

6) Sample Location F - (See Figure 7) - This location is on Peters Creek downstream from the site.

Analysis of Results

At each sample location, a sampling pattern of 11 or 12 points was established taking into consideration the physical nature of the stream bed at that point. Figures 2 through 7 show the pattern selected and identify the number given to each sediment sample taken for an analytical determination. Table 1 provides additional information regarding each sample point including the gross gamma count taken using an Eberline PRS-2 instrument and a NaI probe (Eberline SPA-3). (See Report #037 for additional information regarding this instrument and probe.) This gross gamma information provides only qualitative comparative information since it cannot be compared directly against any radiological acceptance criteria.

Background measurements were made at three points for each of the six sample locations and this data is also presented in Table 1 with the background locations also shown on Figures 2 through 7. Although there are variations in the gross gamma count rates measured, there appears to be no indication of a substantial difference. No further analysis of this data was undertaken.

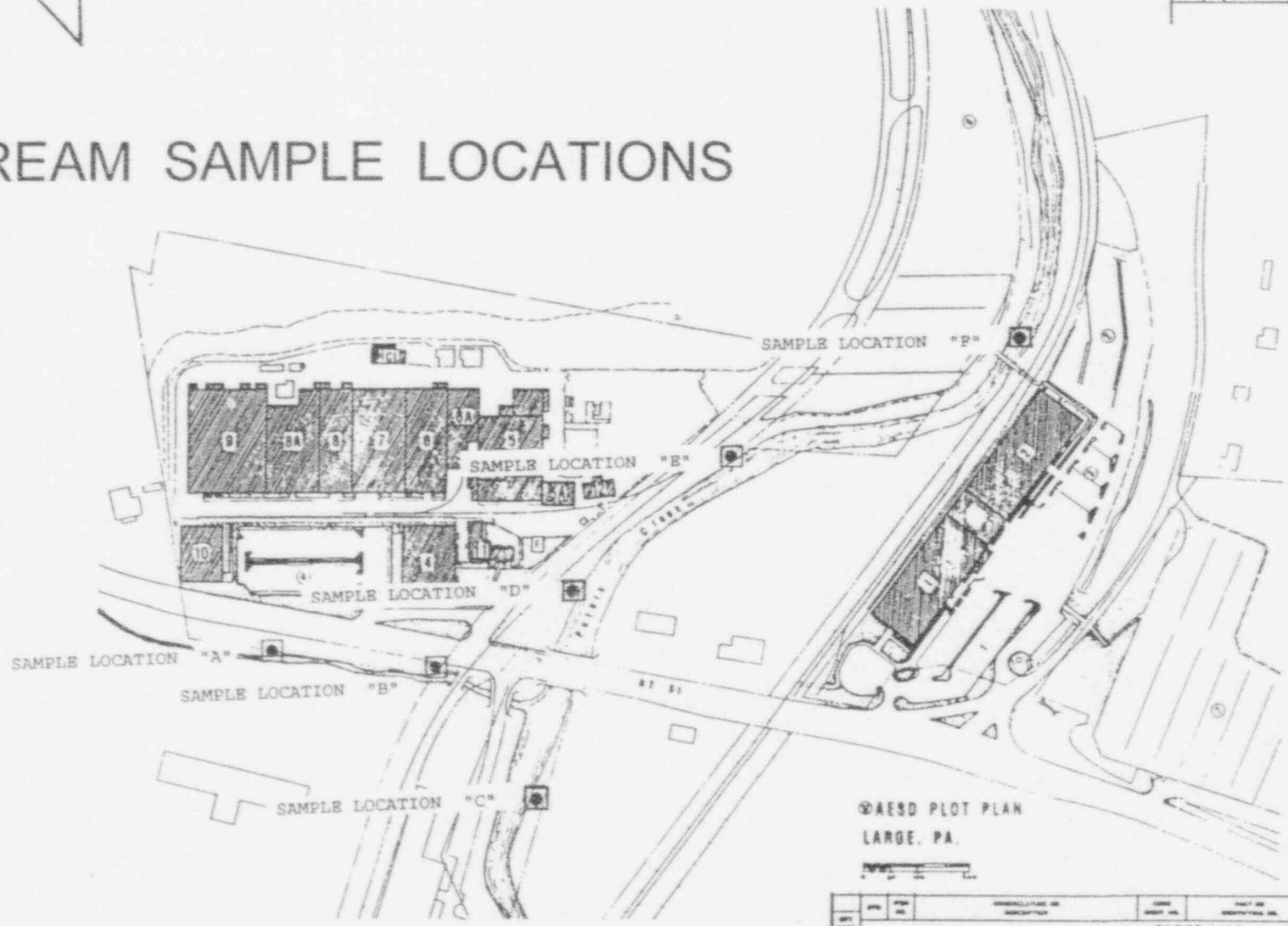
Analytical results for each of the 69 samples taken are presented in Table 2. Appendix A provides the Analytical Laboratory Report Sheets. Each sample was analyzed by gamma spectrometry and then the samples were grouped into composites as identified in Table 2 for alpha spectrometry. A statistical analysis is included at the end of Tables 2 to determine if the radiological acceptance criteria has been met at the desired degree of confidence. Table 2 presents a comparison of the alpha and gamma spectrometry results for the stream samples with the site average background values. (See Report #007).

Since the media for the stream sediment samples is distinctly different from the background soil samples, the results are not directly comparable. In general the stream sediment samples have a higher uranium concentration than the background soil samples. It is not clear that this is natural activity because the calculated U-235 enrichment based on the alpha spectrometry results is higher than that for natural uranium. With one exception, there does not appear to be any difference in the alpha and gamma spectrometry results for the stream sediment samples. Location A on Lewis Run, upstream from the storm drain discharge point does have a higher uranium concentration than the other five locations. Since all of these results are well within the radiological acceptance criteria of 30 pCi/grams for the total uranium concentration and there does not appear to be any indication that these results are due to site operations, no further investigation was conducted.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that there is no contamination present in the adjacent streams that can be attributed to licensed operations. The concentration of total uranium in the stream sediment samples meets the radiological acceptance criteria at the 95% confidence level. There is no potential for the adjacent streams to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

STREAM SAMPLE LOCATIONS



PARTS LIST

Westinghouse Advanced Energy Systems Division

TRACTS A & B
PLOT PLAN

D | 14683 | JN-043

FIGURE 1
SITE AREA MAP SHOWING STREAM SAMPLING LOCATIONS

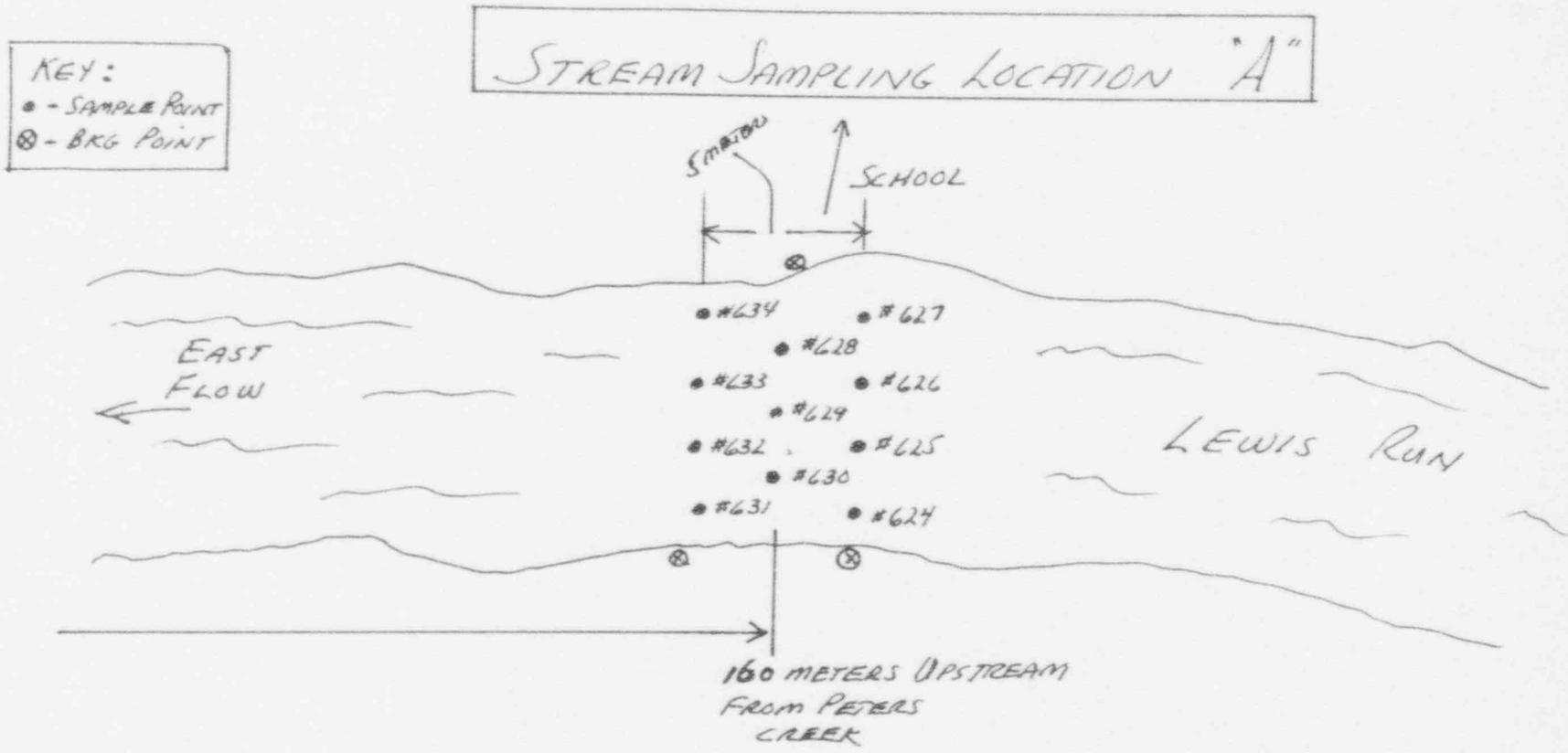


FIGURE 2
STREAM SAMPLING LOCATIONS – POINT A

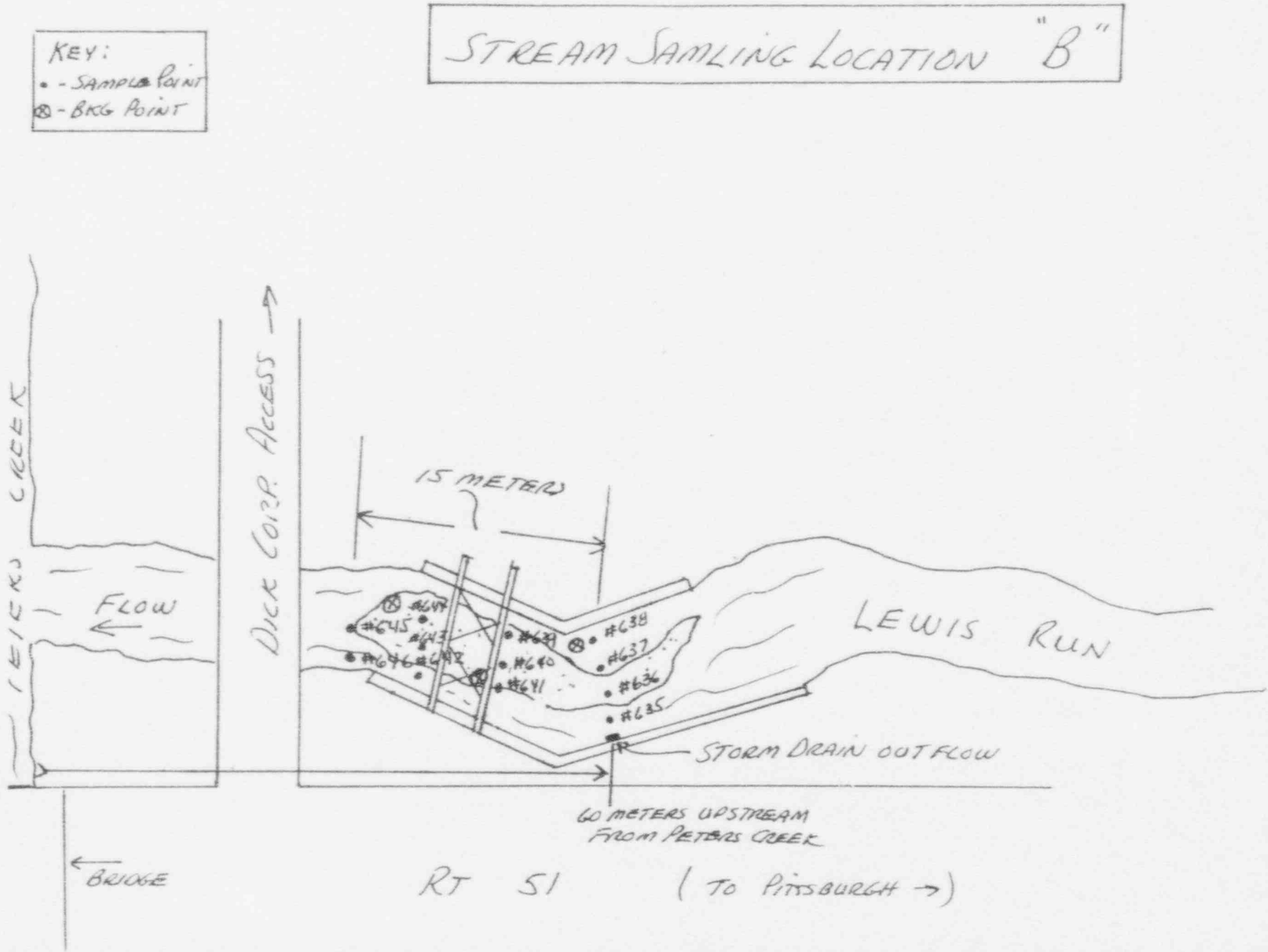


FIGURE 3
STREAM SAMPLING LOCATIONS – POINT B

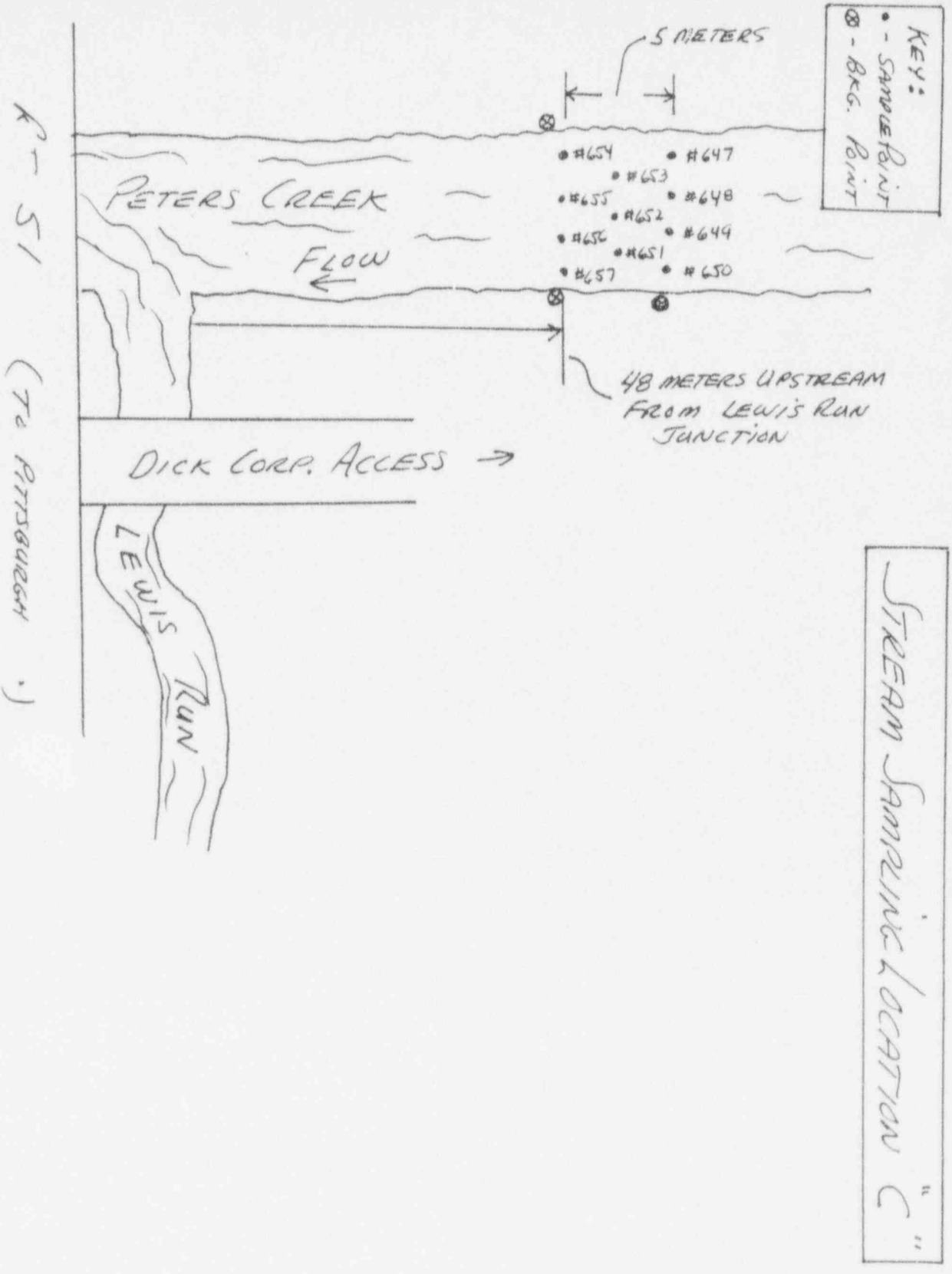


FIGURE 4
STREAM SAMPLING LOCATIONS – POINT C

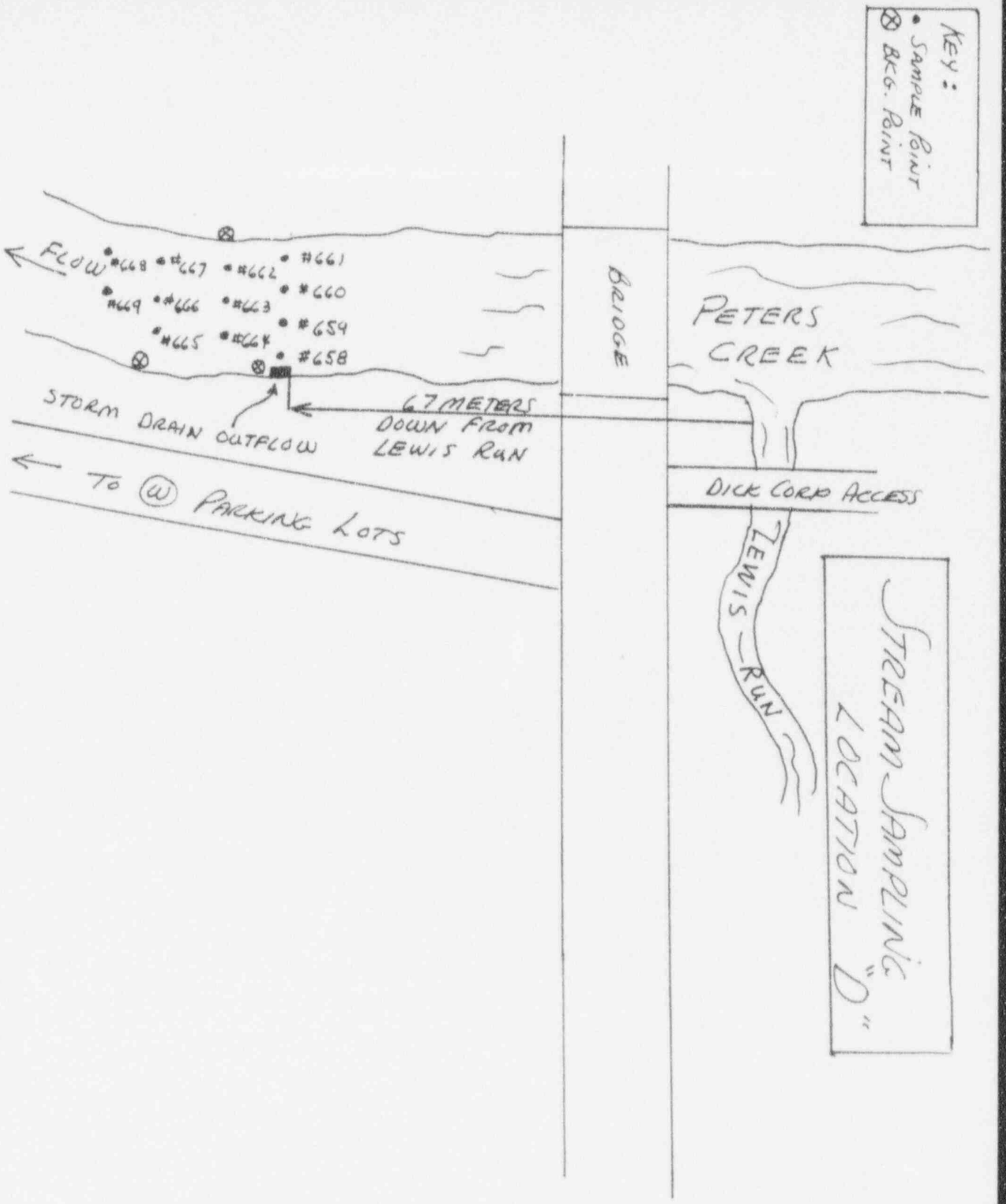


FIGURE 5
STREAM SAMPLING LOCATIONS – POINT D

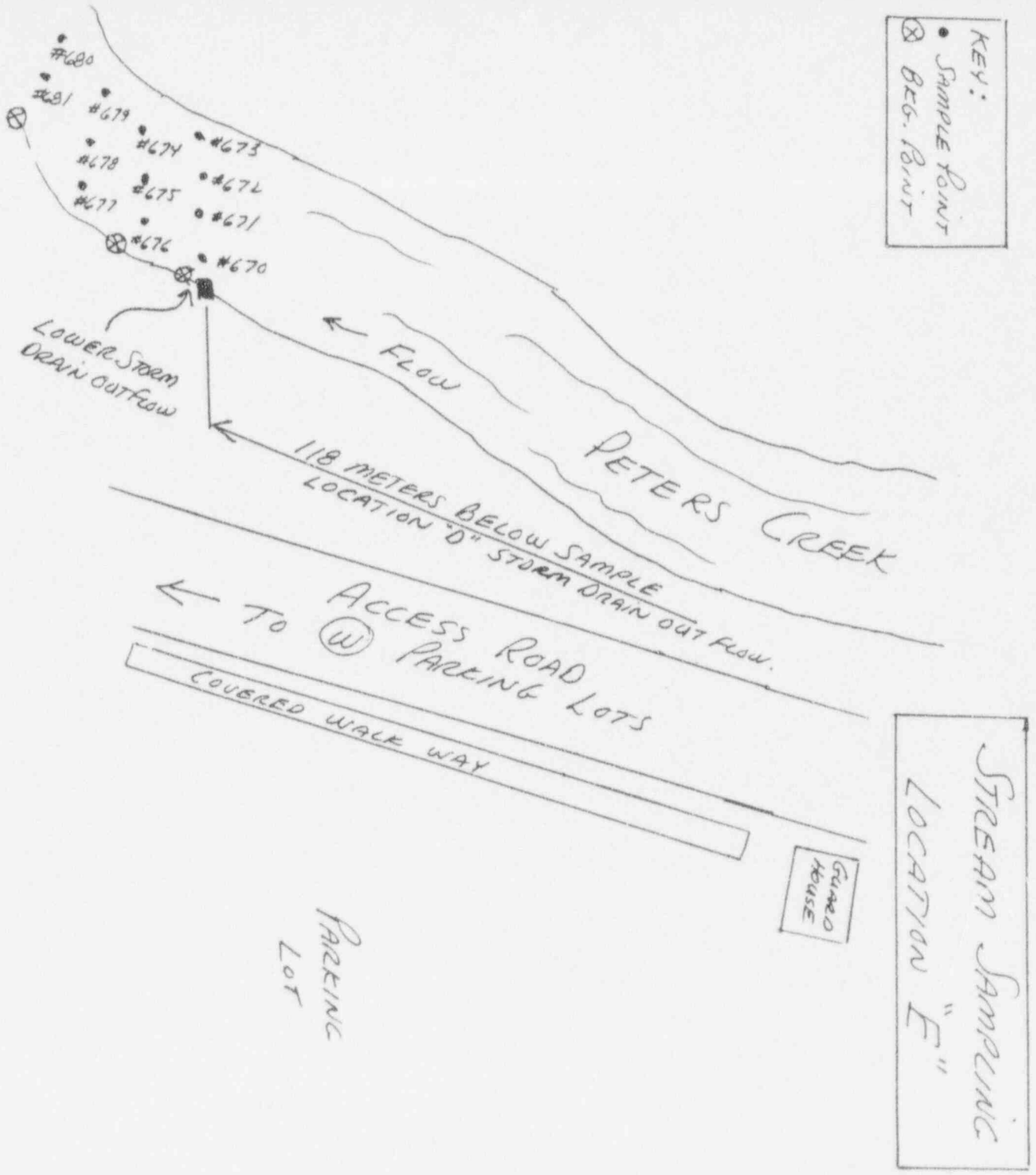


FIGURE 6
STREAM SAMPLING LOCATIONS – POINT E

FIGURE 7
STREAM SAMPLING LOCATIONS – POINT F

Note: (background counts on shore unless noted)

STREAM SAMPLING DATA SHEET

SAMPLE LOCATION	SOIL SAMPLE NUMBER	NAI 1 MIN. COUNT	BKG. COUNT	COMMENTS
A	624	10025	10348	IN 6" DEEP WATER
"	625	9477	N/A	IN 6" DEEP WATER
"	626	9830	N/A	IN 6" DEEP WATER
"	627	8853	N/A	IN 6" DEEP WATER
"	628	10014	10970	IN 6" DEEP WATER
"	629	9855	N/A	IN 6" DEEP WATER
"	630	10201	N/A	IN 6" DEEP WATER
"	631	9063	10918	IN 6" DEEP WATER
"	632	9390	N/A	IN 6" DEEP WATER
"	633	9723	N/A	IN 6" DEEP WATER
"	634	9085	N/A	IN 6" DEEP WATER
B	635	9073	N/A	IN 12" DEEP WATER
"	636	11048	N/A	ON GRAVEL BAR
"	637	10041	N/A	IN 6" DEEP WATER
"	638	8210	8244	BOTH CTS.IN 24" DEEP WATER
"	639	10352	N/A	ON GRAVEL BAR
"	640	10522	N/A	ON GRAVEL BAR
"	641	10269	9594	BOTH CTS.ON GRAVEL BAR
"	642	8837	N/A	IN 12" DEEP WATER
"	643	10522	N/A	ON GRAVEL BAR
"	644	11663	11331	BOTH CTS.ON GRAVEL BAR
"	645	9739	N/A	IN 6" DEEP WATER
"	646	8297	N/A	IN 24" DEEP WATER
C	647	6609	N/A	IN 24" DEEP WATER
"	648	8679	N/A	IN 12" DEEP WATER
"	649	6765	N/A	IN 12" DEEP WATER
"	650	5845	8474	BOTH CTS.IN 24" DEEP WATER
"	651	6701	N/A	IN 12" DEEP WATER

TABLE 1
STREAM SAMPLING DATA SHEETS

Note: (All background counts on shore.)

STREAM SAMPLING DATA SHEET

SAMPLE LOCATION	SOIL SAMPLE NUMBER	NAI 1 MIN. COUNT	BKG. COUNT	COMMENTS
C	652	8246	N/A	IN 12" DEEP WATER
"	653	6925	N/A	IN 24" DEEP WATER
"	654	7355	9250	IN 16" DEEP WATER
"	655	7318	N/A	IN 12" DEEP WATER
"	656	7331	N/A	IN 8" DEEP WATER
"	657	8469	11361	IN 6" DEEP WATER
D	658	9377	8485	IN 12" DEEP WATER
"	659	8193	N/A	IN 12" DEEP WATER
"	660	7901	N/A	IN 18" DEEP WATER
"	661	7284	N/A	IN 12" DEEP WATER
"	662	7273	9174	IN 12" DEEP WATER
"	663	7220	N/A	IN 12" DEEP WATER
"	664	7742	N/A	IN 16" DEEP WATER
"	665	7367	8210	IN 12" DEEP WATER
"	666	7238	N/A	IN 12" DEEP WATER
"	667	7326	N/A	IN 6" DEEP WATER
"	668	8444	9267	IN 12" DEEP WATER
"	669	7957	N/A	IN 12" DEEP WATER
E	670	8094	9738	IN 2" DEEP WATER
"	671	9067	N/A	IN 8" DEEP WATER
"	672	8762	N/A	IN 8" DEEP WATER
"	673	7569	N/A	IN 16" DEEP WATER
"	674	7060	N/A	IN 16" DEEP WATER
"	675	10087	N/A	IN 6" DEEP WATER
"	676	7782	9100	IN 4" DEEP WATER
"	677	9922	N/A	IN 6" DEEP WATER
"	678	8116	N/A	IN 6" DEEP WATER
"	679	8542	N/A	IN 18" DEEP WATER

TABLE 1 (CON'T)
STREAM SAMPLING DATA SHEETS

Note: (All backgound counts on shore.)

STREAM SAMPLING DATA SHEET

SAMPLE LOCATION	SOIL SAMPLE NUMBER	NAI 1 MIN. COUNT	BKG. COUNT	COMMENTS
E	680	7348	N/A	IN 12' DEEP WATER
"	681	9233	9884	IN 8" DEEP WATER
F	682	7185	7406	IN 18" DEEP WATER
"	683	8105	N/A	IN 18" DEEP WATER
"	684	7104	N/A	IN 12" DEEP WATER
"	685	7118	N/A	IN 24" DEEP WATER
"	686	8604	7903	IN 12" DEEP WATER
"	687	8261	N/A	IN 12" DEEP WATER
"	688	8897	N/A	IN 16" DEEP WATER
"	689	8405	10369	IN 12" DEEP WATER
"	690	9668	N/A	IN 12" DEEP WATER
"	691	9456	N/A	IN 12" DEEP WATER
"	692	7732	N/A	IN 12" DEEP WATER

TABLE 1 (CON'T)
STREAM SAMPLING DATA SHEETS

TABLE 2

ANALYTICAL RESULTS FOR SEDIMENT SAMPLES FROM ADJACENT STREAMS

PROJ ID	SAMPLE LOCATION AND IDENTIFICATION	GAMMA SPEC. LAB ID	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
624	LOCATION A	93- 587	<1.70E-01									
625	" ON LEWIS RUN	93- 588	2.66E-01									
626	" UPSTREAM FROM	93- 589	1.68E-01									
627	" STORM SEWER	93- 590	<2.50E-01									
628	" DISCHARGE INTO	93- 591	1.46E-01									
629	" LEWIS RUN	93- 592	1.96E-01									
630	"	93- 593	<2.40E-01									
631	"	93- 594	<1.80E-01									
632	"	93- 595	<2.30E-01									
633	"	93- 596	<1.40E-01									
634	"	93- 597	2.05E-01									
	COMPOSITE OF #624-634	AVG.= 1.99E-01		93- 587	<2.80E-01	8.87E+00	2.04E+00	1.17E+00	1.24E+01	YES	6.1	21.32%
635	LOCATION B	93- 598	<2.50E-01									
636	" ON LEWIS RUN AT	93- 599	<1.80E-01									
637	" POINT OF STORM	93- 600	2.10E-01									
638	" SEWER DISCHARGE	93- 601	<1.60E-01									
639	" INTO LEWIS RUN	93- 602	3.47E-01									
640	"	93- 603	<1.50E-01									
641	"	93- 604	2.64E-01									
642	"	93- 605	1.57E-01									
643	"	93- 606	3.08E-01									
644	"	93- 607	<2.20E-01									
645	"	93- 608	2.47E-01									
646	"	93- 609	<1.90E-01									
	COMPOSITE OF #635-646	AVG.= 2.21E-01		93- 598	<1.70E-01	1.31E+00	8.10E-01	6.40E-01	2.93E+00	YES	3.6	16.44%
647	LOCATION C	93- 610	1.76E-01									
648	" ON PETERS CREEK	93- 611	1.57E-01									
649	" UPSTREAM FROM THE	93- 612	1.69E-01									
650	" SITE	93- 613	<1.50E-01									
651	"	93- 614	2.85E-01									
652	"	93- 615	1.82E-01									
653	"	93- 616	<1.90E-01									
654	"	93- 617	2.28E-01									
655	"	93- 618	2.06E-01									
656	"	93- 619	1.66E-01									
657	"	93- 620	<1.80E-01									
	COMPOSITE OF #647-657	AVG.= 1.90E-01		93- 610	4.50E-01	2.13E+00	6.40E-01	<3.80E-01	3.60E+00	YES	5.6	20.74%

TABLE 2

ANALYTICAL RESULTS FOR SEDIMENT SAMPLES FROM ADJACENT STREAMS

PROJ ID	SAMPLE LOCATION AND IDENTIFICATION	GAMMA SPEC. LAB ID	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
658	LOCATION D	93- 621	2.25E-01									
659	" ON PETERS CREEK AT	93- 622	<2.30E-01									
660	" THE UPPER POINT OF	93- 623	1.73E-01									
661	" STORM SEWER	93- 624	2.36E-01									
662	" DISCHARGE INTO	93- 625	2.72E-01									
663	" PETERS CREEK	93- 626	2.95E-01									
664	"	93- 627	<2.50E-01									
665	"	93- 628	<2.60E-01									
666	"	93- 629	<1.90E-01									
667	"	93- 630	1.32E-01									
668	"	93- 631	<2.30E-01									
669	"	93- 632	1.35E-01									
	COMPOSITE OF #658-669	AVG.= 2.19E-01		93- 621	1.04E+00	9.20E-01	4.90E-01	1.03E+00	3.48E+00	YES	7.1	6.89%
670	LOCATION E	93- 633	1.78E-01									
671	" ON PETERS CREEK AT	93- 634	2.05E-01									
672	" THE LOWER POINT OF	93- 635	2.83E-01									
673	" STORM SEWER	93- 636	<1.00E-01									
674	" DISCHARGE INTO	93- 637	<1.70E-01									
675	" PETERS CREEK	93- 638	2.41E-01									
676	"	93- 639	1.97E-01									
677	"	93- 640	1.60E-01									
678	"	93- 641	1.96E-01									
679	"	93- 642	1.19E-01									
680	"	93- 643	<1.80E-01									
681	"	93- 644	1.57E-01									
	COMPOSITE OF #670-681	AVG.= 1.82E-01		93- 633	1.74E+00	7.40E-01	<2.90E-01	<3.10E-01	3.08E+00	YES	10.6	12.69%
682	LOCATION F	93- 645	2.54E-01									
683	" ON PETERS CREEK	93- 646	<8.80E-02									
684	" DOWN STREAM FROM	93- 647	<1.40E-01									
685	" THE SITE	93- 648	1.46E-01									
686	"	93- 649	<3.30E-01									
687	"	93- 650	1.70E-01									
688	"	93- 651	<2.40E-01									
689	"	93- 652	<1.60E-01									
690	"	93- 653	2.03E-01									
691	"	93- 654	<1.70E-01									
692	"	93- 655	<3.60E-01									

TABLE 2

ANALYTICAL RESULTS FOR SEDIMENT SAMPLES FROM ADJACENT STREAMS

PROJ ID	SAMPLE LOCATION AND IDENTIFICATION	GAMMA SPEC. LAB ID	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
	COMPOSITE OF #682-692	AVG.=	2.06E-01	93- 645	<1.60E-01	1.99E+00	<1.50E-01	5.60E-01	2.86E+00	YES	19.1	4.00%
	STASTICAL ANALYSIS											
	NUMBER OF SAMPLES		69		6	6	6	6	6		6	6
	MINIMUM		8.80E-02									
	MAXIMUM		3.60E-01									
	AVERAGE		2.03E-01		6.40E-01	2.66E+00	7.37E-01	6.82E-01	4.72E+00		8.7	13.68%
	STANDARD DEVIATION		5.59E-02		5.75E-01	2.82E+00	6.22E-01	3.18E-01	3.43E+00		5.1	6.54%
	LIMIT		1						30			
	FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:		1.669						1.669			
	DATA TEST PARAMETER		0.21						7.05			
	"NUMBER OF SAMPLES" FACTOR		14.24						7.37			
	DOES DATA SATISFY LIMIT CRITERIA?		YES						YES			
	WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?		YES						YES			

	BACKGROUND SOIL RESULTS (SEE REPORT #007 FOR INFORMATION)	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
	AVERAGE	3.24E-01	1.67E-02	4.61E-01	5.98E-02	4.49E-01	9.86E-01	29.5	1.95%
	STANDARD DEVIATION	1.01E-01	6.96E-03	2.45E-01	8.76E-02	2.19E-01	4.89E-01	13.2	2.12%

APPENDIX A

ANALYTICAL LABORATORY REPORT SHEETS

FILE FORM CODE: SOILLOGB

Sample Number	Date	Comments	Sample Number	Date	Comments
601- -	2/22/93	Pool Sludge Storm Sewer Cleanout	624- - See Maps	5/06/93	Stream Sampling
602- - Bldg. 9 Mezz	2/24/93	Drilled Concrete Powder from	625- - See Maps	5/06/93	Location "A"
		Survey Sec. 10-8-2 Mezzanine	626- - See Maps	5/06/93	" "
603- -	2/24/93	Residual Sludge from Tanks of	627- - See Maps	5/06/93	" "
		Water from Storm Drain Clean Up	628- - See Maps	5/06/93	" "
604- -	2/24/93	" "	629- - See Maps	5/06/93	" "
605- -	2/24/93	" "	630- - See Maps	5/06/93	" "
606- -	2/24/93	" "	631- - See Maps	5/06/93	" "
607- -	2/24/93	" "	632- - See Maps	5/06/93	" "
608- -	2/24/93	" "	633- - See Maps	5/06/93	" "
609- -	2/24/93	" "	634- - See Maps	5/06/93	" "
610- -	2/24/93	Pipe Chase Debris Disp. for Shipping	635- - See Maps	5/06/93	Location "B"
611- - Drum #9	3/24/93	MDL #20 Dirt Disp. for Shipping	636- - See Maps	5/06/93	" "
612- - Drum #31	3/24/93	Pipe Chase Debris Disp. for Shipping	637- - See Maps	5/06/93	" "
613- - Drum #32	3/24/93	" "	638- - See Maps	5/06/93	" "
614- - Drum #35	3/24/93	" "	639- - See Maps	5/06/93	" "
615- - Drum #37	3/24/93	" "	640- - See Maps	5/06/93	" "
616- - Drum #41	3/24/93	" "	641- - See Maps	5/06/93	" "
617- - Drum #42	3/24/93	" "	642- - See Maps	5/06/93	" "
618- - Drum #47	3/24/93	" "	643- - See Maps	5/06/93	" "
619- - Drum #51	3/24/93	" "	644- - See Maps	5/06/93	" "
620- - #50	3/24/93	" "	645- - See Maps	5/06/93	" "
621- - #53	3/24/93	" "	646- - See Maps	5/06/93	" "
622- - #44	3/24/93	Dirt Disposition	647- - See Maps	5/10/93	Location "C"
623- -	4/07/93	On Site Catch Basin #10 Fire Hse	648- - See Maps	5/10/93	" "

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

FILE FORM CODE: SOILOG14

Sample Number	Date	Comments	Sample Number	Date	Comments
649- - See Maps	05/10/93	Stream Sampling Location "C"	674- - See Maps	05/10/93	Stream Sampling Location "E"
650- - See Maps	05/10/93	" "	675- - See Maps	05/10/93	" "
651- - See Maps	05/10/93	" "	676- - See Maps	05/10/93	" "
652- - See Maps	05/10/93	" "	677- - See Maps	05/10/93	" "
653- - See Maps	05/10/93	" "	678- - See Maps	05/10/93	" "
654- - See Maps	05/10/93	" "	679- - See Maps	05/10/93	" "
655- - See Maps	05/10/93	" "	680- - See Maps	05/10/93	" "
656- - See Maps	05/10/93	" "	681- - See Maps	05/11/93	" "
657- - See Maps	05/10/93	" "	682- - See Maps	05/11/93	Stream Sampling Location "F"
658- - See Maps	05/10/93	Stream Sampling Location "D"	683- - See Maps	05/11/93	" "
659- - See Maps	05/10/93	" "	684- - See Maps	05/11/93	" "
660- - See Maps	05/10/93	" "	685- - See Maps	05/11/93	" "
661- - See Maps	05/10/93	" "	686- - See Maps	05/11/93	" "
662- - See Maps	05/10/93	" "	687- - See Maps	05/11/93	" "
663- - See Maps	05/10/93	" "	688- - See Maps	05/11/93	" "
664- - See Maps	05/10/93	" "	689- - See Maps	05/11/93	" "
665- - See Maps	05/10/93	" "	690- - See Maps	05/11/93	" "
666- - See Maps	05/10/93	" "	691- - See Maps	05/11/93	" "
667- - See Maps	05/10/93	" "	692- - See Maps	05/11/93	" "
668- - See Maps	05/10/93	" "	693- - See Maps	05/12/93	East Parking Lot #1
669- - See Maps	05/10/93	" "	694- - See Maps	05/12/93	East Parking Lot #2
670- - See Maps	05/10/93	Stream Sampling Location "E"	695- - See Maps	05/12/93	East Parking Lot #3
671- - See Maps	05/10/93	" "	696- - See Maps	05/12/93	East Parking Lot #4
672- - See Maps	05/10/93	" "	697- - See Maps	05/12/93	East Parking Lot #5
673- - See Maps	05/10/93	" "	698- - See Maps	05/12/93	East Parking Lot #7

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/12/93
Reported: 5/26/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 12, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram 2 sigma
624	93-587	U-235	<1.7E-01
625	93-588	U-235	2.66E-01 +/- 1.4E-01
626	93-589	U-235	1.68E-01 +/- 1.4E-01
627	93-590	U-235	<2.5E-01
628	93-591	U-235	1.46E-01 +/-1.45E-01
629	93-592	U-235	1.96E-01 +/- 1.8E-01
630	93-593	U-235	<2.4E-01
631	93-594	U-235	<1.8E-01
632	93-595	U-235	<2.3E-01
633	93-596	U-235	<1.4E-01
634	93-597	U-235	2.05E-01 +/- 1.2E-01
635	93-598	U-235	<2.5E-01
636	93-599	U-235	<1.8E-01
637	93-600	U-235	2.10E-01 +/- 1.8E-01
638	93-601	U-235	<1.6E-01
639	93-602	U-235	3.47E-01 +/- 2.1E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15069
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Kaurlak

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/12/93
Reported: 5/26/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 12, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
640	93-603	U-235	<1.5E-01	
641	93-604	U-235	2.64E-01	+/- 1.8E-01
642	93-605	U-235	1.57E-01	+/- 1.3E-01
643	93-606	U-235	3.08E-01	+/- 1.4E-01
644	93-607	U-235	<2.2E-01	
645	93-608	U-235	2.47E-01	+/- 1.4E-01
646	93-609	U-235	<1.9E-01	
647	93-610	U-235	1.76E-01	+/- 1.2E-01
		Eu-155	2.36E-01	+/- 2.0E-01
648	93-611	U-235	1.57E-01	+/- 1.2E-01
649	93-612	U-235	1.69E-01	+/- 1.5E-01
650	93-613	U-235	<1.5E-01	
651	93-614	U-235	2.85E-01	+/- 2.0E-01
652	93-615	U-235	1.82E-01	+/- 1.4E-01
653	93-616	U-235	<1.9E-01	
654	93-617	U-235	2.28E-01	+/- 1.3E-01
655	93-618	U-235	2.06E-01	+/- 2.0E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15069
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 2

Approved: Mark Kuchek

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/12/93
Reported: 5/27/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 12, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
656	93-619	U-235	1.66E-01 +/-	1.4E-01
657	93-620	U-235	<1.8E-01	
658	93-621	U-235	2.25E-01 +/-	2.1E-01
659	93-622	U-235	<2.3E-01	
660	93-623	U-235	1.73E-01 +/-	1.4E-01
661	93-624	U-235	2.36E-01 +/-	1.6E-01
		Co-60	1.73E-01 +/-	1.1E-01
662	93-625	U-235	2.72E-01 +/-	1.7E-01
663	93-626	U-235	2.95E-01 +/-	1.9E-01
664	93-627	U-235	<2.5E-01	
665	93-628	U-235	<2.6E-01	
666	93-629	U-235	<1.9E-01	
667	93-630	U-235	1.32E-01 +/-	9.3E-02
668	93-631	U-235	<2.3E-01	
669	93-632	U-235	1.35E-01 +/-	8.8E-02
670	93-633	U-235	1.78E-01 +/-	1.2E-01
671	93-634	U-235	2.05E-01 +/-	1.3E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15069
Procedures: A-524
Analyst: WTF, MRK, FRC

Approved: Mark Kowalski

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/12/93
Reported: 6/2/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 12, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
672	93-635	U-235	2.83E-01 +/-	1.7E-01
673	93-636	U-235	<1.0E-01	
674	93-637	U-235	<1.7E-01	
675	93-638	U-235	2.41E-01 +/-	1.8E-01
676	93-639	U-235	1.97E-01 +/-	9.5E-02
677	93-640	U-235	1.60E-01 +/-	9.6E-02
678	93-641	U-235	1.96E-01 +/-	1.5E-01
679	93-642	U-235	1.19E-01 +/-	7.0E-02
680	93-643	U-235	<1.8E-01	
681	93-644	U-235	1.57E-01 +/-	1.0E-01
682	93-645	U-235	2.54E-01 +/-	1.6E-01
683	93-646	U-235	<8.8E-02	
684	93-647	U-235	<1.4E-01	
685	93-648	U-235	1.46E-01 +/-	1.1E-01
686	93-649	U-235	<3.3E-01	
687	93-650	U-235	1.71E-01 +/-	1.3E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15069
Procedures: A-524
Analyst: WTF, MRK, FRC

Approved: [signature]

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/12/93
Reported: 6/2/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 12, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
688	93-651	U-235	<2.4E-01	
689	93-652	U-235	<1.6E-01	
690	93-653	U-235	2.03E-01	+/- 1.7E-01
691	93-654	U-235	<1.7E-01	
692	93-655	U-235	<3.6E-01	
693	93-656	U-235	<4.2E-01	
		Cs-137	5.39E-01	+/- 4.3E-01
694	93-657	U-235	5.19E-01	+/- 2.2E-01
		Cs-137	5.83E-01	+/- 2.6E-01
695	93-658	U-235	<3.9E-01	
696	93-659	U-235	3.33E-01	2.2E-01
697	93-660	U-235	3.05E-01	+/- 1.9E-01
698	93-661	U-235	1.05E+00	+/- 4.5E-01
699	93-662	U-235	4.18E-01	+/- 3.6E-01
700	93-663	U-235	2.76E-01	1.4E-01
701	93-664	U-235	<4.0E-01	
702	93-665	U-235	<4.6E-01	

Remarks: Gamma Spectrometry Analysis

References: Request# 15069
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 5

Approved: [signature]

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/23/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-661
ID	698

NUCLIDE	pCi/gram	2 sigma
U-238	2.16E+00	+/- 5.1E-01
U-235	5.46E+00	+/- 8.2E-01
U-234	4.05E+01	+/- 2.0E+00
U-233	<3.4E-01	

Lab.Spl#	93-656,657,658,659,660, 662,663,664,665,666,&667
ID	693,694,695,696,697,699, 700,701,702,703,&704

NUCLIDE	pCi/gram	2 sigma
U-238	4.70E-01	+/- 2.9E-01
U-235	<1.0E-01	
U-234	4.40E-01	+/- 2.9E-01
U-233	<1.7E-01	

Lab.Spl#	93-587,588,589,590,591,592, 593,594,595,596,& 597
ID	624,625,626,627,628,629,630,631, 632,633,& 634

NUCLIDE	pCi/gram	2 sigma
U-238	1.17E+00	+/- 5.0E-01
U-235	2.04E+00	+/- 6.2E-01
U-234	8.87E+00	+/- 1.2E+00
U-233	<2.8E-01	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15069A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Kovalchick

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/22/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-598,599,600,601,602,603, 604,605,606,607,608, & 609
ID	635,636,637,638,639,640,641, 642,643,644,645, & 646

NUCLIDE	pCi/gram	2 sigma
U-238	6.40E-01	+/- 5.3E-01
U-235	8.10E-01	+/- 5.3E-01
U-234	1.31E+01	+/- 1.8E+00
U-233	<1.7E-01	

Lab.Spl#	93-610,611,612,613,614,615 616,617,618,619,& 620
ID	647,648,649,650,651,652,653, 654,655,666,& 657

NUCLIDE	pCi/gram	2 sigma
U-238	<3.8E-01	
U-235	6.40E-01	+/- 3.7E-01
U-234	2.13E+00	+/- 7.5E-01
U-233	4.50E-01	+/- 4.5E-01

Lab.Spl#	93-621,622,623,624,625,626, 627,628,629,630,631,& 632
ID	658,659,660,661,662,663,664, 665,666,667,668,& 669

NUCLIDE	pCi/gram	2 sigma
U-238	1.03E+00	+/- 5.2E-01
U-235	4.90E-01	+/- 3.9E-01
U-234	9.20E-01	+/- 7.1E-01
U-233	1.04E+00	+/- 7.7E-01

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15069A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC

Approved: Mark Kovacs

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/23/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-633,634,635,636,637,638, 639,640,641,642,643,& 644	
ID	670,671,672,673,674,675,676, 677,678,679,680,& 681	
NUCLIDE	pCi/gram	2 sigma
U-238	<3.1E-01	
U-235	<2.9E-01	
U-234	<7.4E-01	
U-233	1.74E+00	+/- 8.5E-01

Lab.Spl#	93-645,646,647,648,649,650, 651,652,653,654,& 655	
ID	682,683,684,685,686,687, 688,689,690,691,& 692	
NUCLIDE	pCi/gram	2 sigma
U-238	5.60E-01	+/- 4.3E-01
U-235	<1.5E-01	
U-234	1.90E+00	+/- 6.6E-01
U-233	<1.6E-01	

Lab.Spl#	92-2979,2980,2981,2982,& 2983	
ID	519,520,521,522,& 523	
NUCLIDE	pCi/gram	2 sigma
U-238	<2.1E-01	
U-235	<1.0E-01	
U-234	1.63E+00	+/- 4.3E-01
U-233	<1.6E-01	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15069A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 3

Approved: Mark Kowalski

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY OF THE BUILDING ROOFS

(SURVEY SECTION 29)

June 1, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #038

FINAL RADIOLOGICAL SURVEY OF THE BUILDING ROOFS

(SURVEY SECTION 29)

TABLE OF CONTENTS

FINAL RADIOLOGICAL SURVEY OF THE BUILDING ROOFS

(SURVEY SECTION 29)

Purpose

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 for the site located in Large, PA. This report is one of a series of reports that presents the necessary information to establish that the site meets all applicable regulatory requirements so that the license can be terminated by the United States Nuclear Regulatory Commission.

Scope

This report documents the results of the final radiological survey of the Building Roofs on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 provides the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

1) Site Description
2) Radiological Acceptance Criteria
3) Survey Classification System
4) Classification of Building Area
5) Selection of Survey Instruments and Instrument Characterization
6) System for Identification of Survey Point Locations
7) Statistical Analysis of Survey Results
8) Survey Protocol

Much of the general information for the building surveys is applicable to the roof surveys. The following discussion provides specific information related to the roof surveys.

Discussion

Figure 1 presents the Site Plot Plan and identifies each of the buildings on the site. For purposes of the surveys, ten unit designations were assigned as described in Table 1. There are two types of units:

- The roof surfaces which were surveyed using the same survey measurements as for building floors (see Report #009) except that the surface scans were limited to the area adjacent to the survey point and no large area scans were made.

- The roof ventilation points which included such items as air intakes, air exhausts, vent

pipes, etc. Each of these physical items were measured for removable alpha and beta radiation (swipe test). Where it was physically possible to insert an instrument probe, measurements were made for total alpha and beta radiation on contact with the surface. Using these two types as a basis, the different roofs were grouped together based on the following considerations:

1) For the roof surface measurements the process buildings were each assigned a unit identity with the exception of Unit #2 (Buildings 6, 7 and 8, which were combined into one unit). The roof on each of these buildings is a rubber roof which was replaced only a few years ago. Since this replacement occurred long after any significant use of radioactive material on the site, there is essentially no probability that they are contaminated.

2) The roof surfaces of those buildings which had no significant uses of radioactive material were combined into one unit (Unit 6).

3) For the roof ventilation points, the units were assigned such that there would be at least 30 measurement points in a unit. The process buildings were grouped separately from those buildings which had no significant uses of radioactive material.

For safety reasons no attempt was made to survey those roofs which were sloped. These roofs are on Buildings 5A, 12 and the incinerator building.

The roof on Building 6A is a flat metal deck roof. There are no access ways to the upper roof and there are no roof ventilation points on it. The lower level roof is a slightly sloped metal deck roof over a portion of the building which had no significant use of radioactive material. No measurements were made on this roof.

While preparing for the survey of the roof and roof vents on the Hydrogen Facility, two items were noted:

1) A structure on the roof that was identified to be part of the original ventilation system during operations. The internal equipment had been removed and only the walls remained. The roof is a replacement for the original.

2) Some ventilation ductwork within the building that is not currently used but appears to have been part of the ventilation system during operation.

These items were not included in the Final Survey Report for the Hydrogen Facility (Report #033) so the survey data for those items is included in this report (Table 10 and Appendix I).

Analysis Of Results

Table 1 provides a description of the ten units that were defined for the purpose of combining radiological survey data. This table also provides a reference to the appropriate Table and Appendix for each unit.

Appendices A through J incorporate all of the radiological survey data sheets of the roof surfaces and roof vents for Units 1 through 10. Tables 2 through 11 present the survey data for the roof surface or roof vents for each of these units with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. a statistical analysis is included at the end of each table to determine if the acceptance criteria has been met at the desired degree of confidence. Table 12 presents a summary of the statistical information for the roof surface measurements. Table 13 presents a summary of the statistical information for the roof vent measurements.

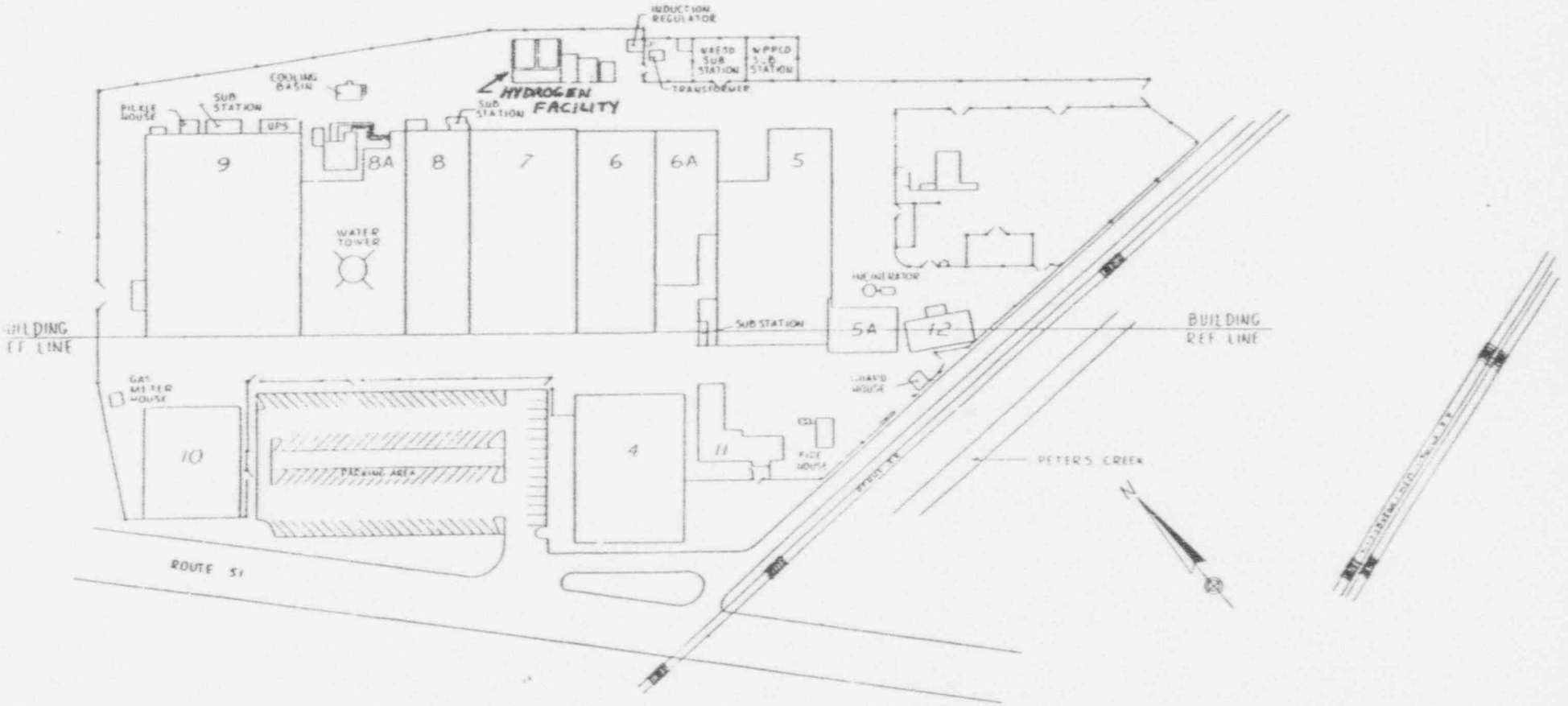
In Table No. 2 several of the measurements for gamma radiation at 1 meter above the surface show elevated readings. These measurement points are adjacent to old brick walls. Such elevated readings are typical for what has been measured at other locations and is apparently due to the presence of naturally occurring radioactive material. No further action was taken.

When the radiological survey measurements of the roof surfaces were begun, problems were encountered with survey meter background changes due to temperature changes for the gas proportional probes. In Appendix B this effect is noted because the beta background count rate of 643 for the Building 6 and 7 roofs is higher than all the measurements except one. For data evaluation purposes, the beta background value of 439 determined that same day for the Building 8 roof was used for all three roofs. This constitutes a conservative change since it increases the resulting beta surface activity results.

Separate samples of roof gravel and roofing materials were taken at 9 locations for the gravel roofs. Selection of these locations was based on a review of the survey results presented in Tables 2, 4, 5 and 6 and choosing those locations which indicated the higher fixed beta measurements. In general, these roofs (Buildings 5, 8A, 9 and the Hydrogen Facility) indicated beta radiation readings above background. At each of the nine sample locations, a gamma survey using a NaI probe was made of the general area to determine if there were any local variations. Appendix K incorporates the analytical laboratory data sheets for these 9 sample locations (2 separate samples at each location). Appendix L incorporates the radiological survey data sheets for the gamma measurements made at each location where a sample of roofing material was taken. Table 14 presents a statistical of these results and a comparison of the results with the background results established in Report #007 for soil. The elevated readings are apparently due to natural radioactivity associated with the slag material used as roofing gravel. No further action was taken.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the building roof surfaces and vents for all the buildings meets all the radiological acceptance criteria at the 95% confidence level with the exception noted above for the gamma survey at 1 meter. There is no potential for the building roofs and vents to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.



PARTS LIST

Westinghouse Advanced Energy Systems Div.

WAESD LARGE PA

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FIGURE 1
SITE PLOT PLAN

TABLE 1

UNIT DESIGNATIONS FOR ROOF SURFACES AND ROOF VENTILATION POINTS

Unit Number	Buildings Included	Type Description	Table Reference	Appendix Reference	Discussion
1	5	Roof Surfaces	2	A	Process Building
2	6, 7, 8	Roof Surfaces	3	B	These three have rubber roofs which are only about 2 years old.
3	8A	Roof Surfaces	4	C	Process Building
4	9	Roof Surfaces	5	D	Process Building
5	Hydrogen Facility	Roof Surfaces	6	E	Process Building
6	4, 10, 11, Firehouse	Roof Surfaces	7	F	These are all buildings which had no real uses of radioactive material.
7	5	Roof Ventilation Points	8	G	Process Building
8	6, 7, 8A	Roof Ventilation Points	9	H	Process Buildings grouped to provide at least 30 measurements.
9	9, Hydrogen Facility	Roof Ventilation Points	10	I	Process Buildings grouped to provide at least 30 measurements.
10	4, 8, 10, 11 and Firehouse	Roof Ventilation Points	11	J	These are all buildings which had no real use of radioactive material.

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5 ROOF (SECTION 29, UNIT 1)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Gravel Roof	N/A	3, -5	BLDG 5, A	11	0.008	27.3	-206.7	5.1	-128.7	-0.31	3.20
"	"	9, -5	BLDG 5, A	9	0.011	-319.8	-499.2	35.7	-132.6	-0.31	3.20
"	"	15, -2	BLDG 5, A	10	0.006	-74.1	-557.7	20.4	-89.7	-0.31	-2.78
"	"	15, -7	BLDG 5, A	10	0.009	-163.8	-382.2	15.3	-206.7	-0.31	-2.78
"	"	10, -10	BLDG 5, A	10	0.004	-245.7	-479.7	35.7	-210.6	4.37	5.35
"	"	4, -10	BLDG 5, A	10	0.012	-46.8	-304.2	10.2	-179.4	-0.31	5.35
Drain	"	1, -15	BLDG 5, A	14	0.010	-382.2	-577.2	10.2	-417.3	-0.31	-2.78
Drain	"	17, -15	BLDG 5, A	15	0.012	-452.4	-635.7	15.3	-230.1	-0.31	-2.78
Exhaust Blowdown	"	3, -14	BLDG 5, A	13	0.023	-526.5	-694.2	20.4	-464.1	-0.31	-2.78
"	"	14, -5	BLDG 5, A	10	0.011	-62.4	-265.2	35.7	-393.9	-0.31	3.20
Drain	N/A	0, 0	BLDG 5, B	15	0.019	592.8	210.6	30.6	600.6	6.79	3.38
Gravel	"	3, -8	BLDG 5, B	13	0.026	912.6	483.6	0.0	382.2	-0.31	-2.78
Drain	"	0, -14	BLDG 5, B	12	0.012	854.1	405.6	-5.1	503.1	-0.31	-2.78
Drain	"	16, 0	BLDG 5, B	18	0.022	822.9	347.1	-15.3	249.6	-0.31	3.20
Gravel	"	13, -5	BLDG 5, B	13	0.009	577.2	210.6	15.3	89.7	-0.31	-2.78
Drain	"	16, -14	BLDG 5, B	15	0.018	744.9	366.6	10.2	113.1	-0.31	9.54
Gravel	"	5, -19	BLDG 5, B	10	0.016	378.3	171.6	45.9	230.1	-0.31	-2.78
Gravel	"	10, -24	BLDG 5, B	13	0.007	783.9	269.1	35.7	351.0	-0.31	3.20
Exhaust Blowdown	"	3, -5	BLDG 5, B	12	0.011	780.0	308.1	-5.1	-159.9	-0.31	3.20
"	"	12, -3	BLDG 5, B	10	0.009	752.7	230.1	45.9	815.1	-0.31	-2.78
Gravel	"	10, -10	BLDG 5, B	12	0.011	1599.0	620.1	51.0	1064.7	-0.31	-2.78
Drain	"	0, -15	BLDG 5, B	17	0.009	709.8	171.6	15.3	101.4	-0.31	-2.78
Drain	"	0, -30	BLDG 5, B	19	0.015	717.6	304.2	-15.3	-120.9	6.58	3.20
Drain	"	16, -30	BLDG 5, B	18	0.014	772.2	54.6	-10.2	-62.4	-0.31	-2.78
Drain	"	16, -15	BLDG 5, B	14	0.016	834.6	276.9	-20.4	-62.4	-0.31	3.20
Drain	N/A	1, 0	BLDG 5, C	17	0.014	1493.7	1162.2	137.7	670.8	-0.31	3.20
"	"	1, -12	BLDG 5, C	15	0.016	1454.7	1123.2	209.1	869.7	-0.31	-2.78
Tar Paper	"	5, -5	BLDG 5, C	9	0.009	787.8	518.7	255.0	530.4	-0.31	3.38
Drain	"	15, 0	BLDG 5, C	15	0.014	1279.2	947.7	178.5	963.3	-0.31	9.54
"	"	15, -12	BLDG 5, C	14	0.016	1450.8	1084.2	40.8	1333.8	-0.31	-2.78
"	"	16, -12	BLDG 5, C	14	0.014	1747.2	1201.2	147.9	752.7	-0.31	-2.78
"	"	16, -12	BLDG 5, C	16	0.012	1774.5	1298.7	76.5	928.2	-0.31	-2.78
Tar Paper	"	20, -5	BLDG 5, C	9	0.014	1290.9	1084.2	153.0	358.8	-0.31	3.20
Drain	"	26, +2	BLDG 5, C	14	0.018	1649.7	1142.7	214.2	865.8	-0.31	-2.78
"	"	26, -12	BLDG 5, C	14	0.009	1318.2	967.2	193.8	670.8	-0.31	3.20

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5 ROOF (SECTION 29, UNIT 1)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
"	"	30, +2	BLDG 5, C	11	0.015	1287.0	557.7	168.3	553.8	-0.31	-2.78
Rubber	"	30, -10	BLDG 5, C	9	0.015	1368.9	694.2	275.4	787.8	-0.31	3.38
Exhaust	"	29, 0	BLDG 5, C	12	0.014	1423.5	1064.7	265.2	838.5	-0.31	9.54
"	"	33, -4	BLDG 5, C	10	0.009	1150.5	655.2	229.5	1127.1	-0.31	3.20
"	"	33, -5	BLDG 5, C	9	0.005	822.9	538.2	321.3	791.7	-0.31	-2.78
Drain	N/A	4, -5	BLDG 5, D	10	0.019	-74.1	-538.2	-5.1	27.3	-0.31	3.38
"	"	14, -11	BLDG 5, D	11	0.010	-237.9	-440.7	0.0	-421.2	-0.31	-2.78
Gravel	"	10, -15	BLDG 5, D	10	0.009	-409.5	-694.2	-5.1	-409.5	-0.31	-2.78
Drain	"	12, -25	BLDG 5, D	10	0.011	-132.6	-518.7	10.2	-510.9	-0.31	-2.78
"	"	0, -20	BLDG 5, D	10	0.008	-397.8	-596.7	5.1	-729.3	-0.31	3.38
Gravel	"	5, -30	BLDG 5, D	11	0.008	-343.2	-538.2	15.3	-358.8	-0.31	-2.78
Gravel	"	18, -34	BLDG 5, D	15	0.011	113.1	-187.2	5.1	-156.0	-0.31	3.20
Exhaust Blowdown	"	0, -34	BLDG 5, D	12	0.018	241.8	-382.2	20.4	-183.3	-0.31	-2.78
"	"	1, -11	BLDG 5, D	11	0.009	109.2	-245.7	51.0	-159.9	-0.31	-2.78
"	"	5, -11	BLDG 5, D	10	0.008	-152.1	-440.7	10.2	-471.9	-0.31	3.38
"	"	5, -10	BLDG 5, D	9	0.015	-491.4	-694.2	10.2	-647.4	-0.31	9.18

STASTICAL ANALYSIS

NUMBER OF SAMPLES	51	51	51	51	51	51	51	51
MINIMUM	9.00	0.004	-526.5	-694.2	-20.4	-729.3	-0.31	-2.78
MAXIMUM	19.00	0.026	1774.5	1298.7	321.3	1333.8	6.79	9.54
AVERAGE	12.35	0.013	551.2	168.5	66.0	189.5	0.05	0.75
STANDARD DEVIATION	2.71	0.005	701.3	617.3	91.1	529.1	1.49	3.93
LIMIT	15	0.200	15,000	5,000	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.678	1.678	1.678	1.678	1.678	1.678	1.678	1.678
DATA TEST PARAMETER	12.99	0.01	715.97	313.52	87.42	313.80	0.40	1.67
"NUMBER OF SAMPLES" FACTOR	0.98	41.03	20.60	7.83	54.13	9.09	672.02	254.10
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES	YES	YES	YES	YES

TABLE 3

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #6, 7 & 8 ROOFS (SECTION 29, UNIT 2)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Rubber Roof	N/A	14, -7	BLDG 6	10	0.010	-273.0	-522.6	20.8	304.2	6.71	15.52
"	"	22, -10	BLDG 6	10	0.010	-241.8	-503.1	36.4	276.9	2.03	23.65
"	"	15, -12	BLDG 6	10	0.010	-370.5	-581.1	15.6	292.5	4.37	15.52
"	"	8, -15	BLDG 6	9	0.010	-440.7	-620.1	15.6	-78.0	-0.31	9.18
"	"	2, -20	BLDG 6	10	0.010	-312.0	-581.1	15.6	-378.3	4.37	23.65
"	"	9, -24	BLDG 6	10	0.010	-308.1	-503.1	26.0	-386.1	-0.31	-2.78
"	"	15, -33	BLDG 6	10	0.010	-113.1	-405.6	-5.2	-362.7	-0.31	3.38
"	"	10, -39	BLDG 6	10	0.010	-292.5	-464.1	15.6	-405.6	2.03	9.42
"	"	10, -50	BLDG 6	10	0.010	19.5	-386.1	5.2	-569.4	2.03	13.49
"	"	23, -55	BLDG 6	10	0.010	109.2	-366.6	20.8	-530.4	-0.31	3.38
Roof	N/A	2, -3	BLDG 7	10	0.010	-756.6	-854.1	5.2	-553.8	6.58	3.20
"	"	14, -10	BLDG 7	8	0.010	343.2	-191.1	15.6	-514.8	-0.31	9.18
"	"	28, -9	BLDG 7	9	0.010	-11.7	-249.6	20.8	-319.8	-0.31	3.38
Roof Drain	"	15, -20	BLDG 7	7	0.010	499.2	-93.6	36.4	-358.8	6.71	19.59
Roof	"	0, -30	BLDG 7	10	0.010	436.8	159.9	31.2	319.8	-0.31	11.45
"	"	15, -43	BLDG 7	7	0.010	491.4	-54.6	15.6	-179.4	-0.31	7.39
"	"	29, -43	BLDG 7	10	0.020	744.9	-74.1	26.0	210.6	-0.31	-2.78
"	"	1, -52	BLDG 7	11	0.010	670.8	140.4	20.8	35.1	6.71	7.39
"	"	29, -52	BLDG 7	10	0.010	1123.2	81.9	26.0	471.9	-0.31	-2.78
"	"	15, -59	BLDG 7	9	0.010	148.2	-171.6	31.2	-429.0	-0.31	-2.78
Roof Drain	"	16, -10	BLDG 7	7	0.010	159.9	-132.6	10.4	-191.1	6.71	7.39
Rubber Roof	N/A	0, -2	BLDG 8	11	0.020	144.3	-191.1	36.4	-144.3	2.03	15.52
"	"	11, -2	BLDG 8	10	0.010	-42.9	-249.6	26.0	-300.3	2.03	11.45
"	"	19, -9	BLDG 8	10	0.010	78.0	-113.1	31.2	-444.6	-0.31	-2.78
"	"	18, -21	BLDG 8	11	0.010	-113.1	-288.6	36.4	-351.0	-0.31	9.54
"	"	9.5, -28	BLDG 8	9	0.010	62.4	-210.6	26.0	-440.7	6.58	3.20
"	"	1, -40	BLDG 8	10	0.010	304.2	-152.1	26.0	-444.6	6.79	-2.78

TABLE 3

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #6, 7 & 8 ROOFS (SECTION 29, UNIT 2)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
"	"	10, -45	BLDG 8	7	0.010	-405.6	-542.1	10.4	-666.9	-0.31	9.54
"	"	19, -50	BLDG 8	9	0.010	444.6	-93.6	41.6	-327.6	-0.31	9.18
"	"	0, -51	BLDG 8	12	0.010	386.1	-191.1	10.4	-351.0	-0.31	-2.78
"	"	18, -55	BLDG 8	9	0.010	195.0	-288.6	41.6	-491.4	-0.31	-2.78

STASTICAL ANALYSIS

NUMBER OF SAMPLES	31	31	31	31	31	31	31	31
MINIMUM	7.00	0.010	-756.6	-854.1	-5.2	-666.9	-0.31	-2.78
MAXIMUM	12.00	0.020	1123.2	159.9	41.6	471.9	6.79	23.65
AVERAGE	9.52	0.011	86.4	-280.4	22.3	-235.8	1.95	7.17
STANDARD DEVIATION	1.21	0.002	397.9	233.8	11.2	305.8	2.87	7.78
LIMIT	15	0.200	15,000	5,000	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.697	1.697	1.697	1.697	1.697	1.697	1.697	1.697
DATA TEST PARAMETER	9.89	0.01	207.72	-209.17	25.73	-142.57	2.82	9.55
"NUMBER OF SAMPLES" FACTOR	4.51	77.08	37.48	22.59	443.63	17.12	347.51	127.54
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES	YES	YES	YES	YES

TABLE 4

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #8A ROOF (SECTION 29, UNIT 3)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Gravel Roof	N/A	20, +5	BLDG 8A	10	0.012	410.4	208.8	5.1	435.6	-0.31	-2.78
"	"	25, +5	BLDG 8A	10	0.011	867.6	298.8	15.3	669.6	-0.31	3.38
"	"	30, +5	BLDG 8A	13	0.014	1098.0	658.8	15.3	943.2	-0.31	-2.78
"	"	20, 0	BLDG 8A	8	0.012	655.2	298.8	40.8	518.4	-0.31	-2.78
"	"	25, 0	BLDG 8A	11	0.011	1108.8	388.8	35.7	432.0	-0.31	-2.78
"	"	30, 0	BLDG 8A	11	0.012	1540.8	658.8	30.6	910.8	-0.31	-2.78
"	"	5, -5	BLDG 8A	8	0.011	493.2	208.8	10.2	568.8	-0.31	-2.78
"	"	10, -5	BLDG 8A	8	0.008	554.4	298.8	20.4	345.6	-0.31	3.20
"	"	5, -10	BLDG 8A	10	0.011	766.8	568.8	15.3	511.2	-0.31	3.38
"	"	10, -10	BLDG 8A	7	0.004	424.8	208.8	5.1	266.4	-0.31	-2.78
"	"	20, -10	BLDG 8A	7	0.007	496.8	208.8	10.2	410.4	-0.31	-2.78
"	"	25, -10	BLDG 8A	10	0.016	1054.8	604.8	5.1	547.2	-0.31	-2.78
"	"	30, -10	BLDG 8A	12	0.011	1216.8	748.8	20.4	856.8	-0.31	3.38
"	"	25, -20	BLDG 8A	10	0.014	608.4	298.8	20.4	558.0	-0.31	-2.78
"	"	30, -20	BLDG 8A	11	0.012	874.8	568.8	5.1	702.0	-0.31	-2.78
Gravel Roof	N/A	30, -30	BLDG 8A	11	0.012	811.2	347.1	10.4	573.3	-0.31	3.38
"	"	25, -30	BLDG 8A	9	0.007	471.9	269.1	31.2	577.2	-0.31	-2.78
"	"	30, -40	BLDG 8A	11	0.006	1158.3	659.1	10.4	811.2	6.58	3.20
"	"	25, -40	BLDG 8A	9	0.008	198.9	54.6	15.6	179.4	-0.31	-2.78
"	"	20, -40	BLDG 8A	8	0.007	526.5	152.1	-5.2	296.4	-0.31	-2.78
"	"	15, -40	BLDG 8A	8	0.010	378.3	54.6	31.2	253.5	-0.31	-2.78
"	"	10, -40	BLDG 8A	9	0.012	444.6	152.1	20.8	518.7	-0.31	9.54
"	"	5, -40	BLDG 8A	9	0.011	417.3	54.6	5.2	390.0	-0.31	-2.78
"	"	5, -50	BLDG 8A	11	0.007	393.9	152.1	57.2	608.4	-0.31	-2.78
"	"	10, -50	BLDG 8A	9	0.018	546.0	54.6	15.6	729.3	-0.31	3.38
"	"	15, -50	BLDG 8A	10	0.015	245.7	54.6	26.0	413.4	-0.31	-2.78
"	"	20, -50	BLDG 8A	8	0.012	241.8	54.6	0.0	549.9	-0.31	3.20
"	"	25, -50	BLDG 8A	10	0.014	780.0	347.1	-5.2	885.3	-0.31	-2.78
"	"	30, -50	BLDG 8A	10	0.018	347.1	54.6	10.4	631.8	-0.31	-2.78
"	"	5, -30	BLDG 8A	8	0.015	717.6	249.6	10.4	85.8	-0.31	-2.78
Roof Drains	N/A	1, -21	BLDG 8A	12	0.009	468.0	205.2	25.5	151.2	-0.31	3.20
"	"	0, -45	BLDG 8A	11	0.009	543.6	205.2	15.3	68.4	-0.31	3.38
"	"	30, -35	BLDG 8A	10	0.011	583.2	295.2	5.1	327.6	-0.31	-2.78

TABLE 4

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #8A ROOF (SECTION 29, UNIT 3)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
"	"	30, -5	BLDG 8A	11	0.011	115.2	25.2	10.2	93.6	-0.31	-2.78
"	"	30, +10	BLDG 8A	11	0.006	1029.6	475.2	30.6	403.2	-0.31	9.54
Gravel	N/A	5, 0	BLDG 8A	9	0.012	745.2	417.6	56.1	882.0	-0.31	-2.78
"	"	0, -5	BLDG 8A	8	0.014	752.4	471.6	66.3	745.2	-0.31	3.20
"	"	11, -5	BLDG 8A	9	0.014	932.4	651.6	30.6	496.8	-0.31	3.38
"	"	11, -10	BLDG 8A	9	0.008	280.8	39.6	40.8	478.8	-0.31	-2.78
"	"	0, -10	BLDG 8A	8	0.008	406.8	183.6	35.7	356.4	-0.31	-2.78
"	"	5, -15	BLDG 8A	6	0.006	594.0	309.6	25.5	561.6	-0.31	3.20
"	"	10, -18	BLDG 8A	8	0.007	608.4	363.6	5.1	201.6	-0.31	-2.78
"	"	2, -18	BLDG 8A	8	0.010	536.4	273.6	30.6	396.0	-0.31	-2.78
"	"	0, -22	BLDG 8A	8	0.007	399.6	111.6	20.4	129.6	-0.31	3.38
"	"	12, -22	BLDG 8A	7	0.009	320.4	3.6	30.6	248.4	6.79	-2.78

STASTICAL ANALYSIS								
NUMBER OF SAMPLES	45	45	45	45	45	45	45	45
MINIMUM	6.00	0.004	115.2	3.6	-5.2	68.4	-0.31	-2.78
MAXIMUM	13.00	0.018	1540.8	748.8	66.3	943.2	6.79	9.54
AVERAGE	9.36	0.011	625.9	288.2	20.4	482.7	0.00	-0.34
STANDARD DEVIATION	1.54	0.003	302.9	203.1	15.7	232.6	1.44	3.51
LIMIT	15	0.200	15,000	5,000	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.681	1.681	1.681	1.681	1.681	1.681	1.681	1.681
DATA TEST PARAMETER	9.74	0.01	701.84	339.12	24.32	540.96	0.36	0.54
"NUMBER OF SAMPLES" FACTOR	3.67	58.45	47.45	23.20	317.09	19.42	693.87	285.16
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES	YES	YES	YES	YES

TABLE 5

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #9 ROOF (SECTION 29, UNIT 4)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Gravel Roof	N/A	1, 0	BLDG 9	12	0.010	234.0	79.2	0.0	-75.6	-0.31	3.20
"	"	10, -10	BLDG 9	10	0.012	554.4	295.2	30.6	392.4	-0.31	-2.78
"	"	20, -10	BLDG 9	11	0.010	705.6	385.2	20.4	381.6	-0.31	-2.78
"	"	30, -10	BLDG 9	10	0.008	676.8	475.2	0.0	313.2	-0.31	3.20
"	"	40, -10	BLDG 9	10	0.016	298.8	115.2	15.3	133.2	-0.31	3.20
"	"	44, -6	BLDG 9	11	0.010	478.8	205.2	0.0	237.6	-0.31	3.20
"	"	5, -20	BLDG 9	10	0.006	975.6	511.2	5.1	435.6	-0.31	3.38
"	"	15, -20	BLDG 9	9	0.008	633.6	399.6	25.5	410.4	-0.31	-2.78
"	"	25, -20	BLDG 9	10	0.009	723.6	475.2	0.0	360.0	-0.31	3.38
"	"	35, -20	BLDG 9	9	0.008	586.8	295.2	10.2	270.0	-0.31	-2.78
"	"	10, -30	BLDG 9	9	0.009	1015.2	475.2	25.5	129.6	-0.31	-2.78
"	"	20, -30	BLDG 9	9	0.012	291.6	205.2	15.3	320.4	-0.31	-2.78
"	"	30, -30	BLDG 9	8	0.008	676.8	295.2	25.5	252.0	-0.31	-2.78
"	"	40, -30	BLDG 9	8	0.006	284.4	79.2	25.5	198.0	-0.31	9.18
"	"	44, -30	BLDG 9	10	0.017	709.2	205.2	15.3	50.4	-0.31	-2.78
Gravel Roof	N/A	0, -30	BLDG 9	10	0.008	284.4	115.2	35.7	241.2	-0.31	-2.78
"	"	5, -40	BLDG 9	10	0.016	504.0	295.2	35.7	500.4	-0.31	-2.78
"	"	15, -40	BLDG 9	8	0.010	471.6	295.2	25.5	525.6	-0.31	-2.78
"	"	25, -40	BLDG 9	8	0.010	669.6	295.2	20.4	370.8	-0.31	-2.78
"	"	35, -40	BLDG 9	8	0.004	500.4	295.2	30.6	493.2	-0.31	-2.78
"	"	44, -40	BLDG 9	8	0.012	806.4	439.2	0.0	367.2	-0.31	-2.78
"	"	10, -50	BLDG 9	9	0.017	1015.2	565.2	30.6	583.2	-0.31	-2.78
"	"	20, -50	BLDG 9	8	0.012	774.0	475.2	30.6	406.8	-0.31	3.38
"	"	30, -50	BLDG 9	8	0.012	126.0	-64.8	15.3	75.6	-0.31	-2.78
"	"	40, -50	BLDG 9	9	0.009	270.0	205.2	35.7	270.0	-0.31	-2.78
"	"	0, -55	BLDG 9	11	0.015	489.6	295.2	30.6	338.4	-0.31	3.20
"	"	5, -55	BLDG 9	9	0.007	601.2	115.2	30.6	32.4	-0.31	-2.78
"	"	15, -55	BLDG 9	9	0.012	392.4	205.2	25.5	255.6	-0.31	-2.78
"	"	25, -55	BLDG 9	9	0.009	853.2	295.2	5.1	216.0	-0.31	3.38
"	"	44, -55	BLDG 9	9	0.011	75.6	-64.8	10.2	158.4	-0.31	9.54
Gravel @ Vent #9	N/A	N/A	BLDG 9	8	0.008	291.6	295.2	66.3	327.6	-0.31	-2.78

TABLE 5

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #9 ROOF (SECTION 29, UNIT 4)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
" Vent #11	"	"	BLDG 9	8	0.013	828.0	565.2	25.5	514.8	-0.31	-2.78
" Vent #12	"	"	BLDG 9	7	0.007	709.2	583.2	30.6	867.6	-0.31	3.20
" Vent #31	"	"	BLDG 9	9	0.010	684.0	385.2	30.6	612.0	-0.31	-2.78

STASTICAL ANALYSIS

NUMBER OF SAMPLES	34	34	34	34	34	34	34	34
MINIMUM	7.00	0.004	75.6	-64.8	0.0	-75.6	-0.31	-2.78
MAXIMUM	12.00	0.017	1015.2	583.2	66.3	867.6	-0.31	9.54
AVERAGE	9.15	0.010	564.5	296.7	21.5	322.5	-0.31	-0.29
STANDARD DEVIATION	1.11	0.003	244.8	166.5	14.0	185.0	0.00	3.64
LIMIT	15	0.200	15,000	5,000	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.693	1.693	1.693	1.693	1.693	1.693	1.693	1.693
DATA TEST PARAMETER	9.47	0.01	635.54	345.04	25.51	376.2[illegible]	-0.31	0.77
"NUMBER OF SAMPLES" FACTOR	5.25	60.03	58.97	28.24	356.06	25.29	59204864.06	275.05
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES	YES	YES	YES	YES

TABLE 6

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR HYDROGEN BUILDING ROOF (SECTION 29, UNIT 5)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Gravel	N/A	16, +5	H2 BLDG	10	0.008	72[illegible].3	401.7	10.2	1571.7	-0.31	3.38
"	"	15, +5	H2 BLDG	10	0.010	721.5	382.2	25.5	705.9	-0.31	9.18
"	"	16, +3	H2 BLDG	10	0.012	1195.2	813.6	51.0	943.2	-0.31	-2.78
"	"	15, +3	H2 BLDG	12	0.015	1213.2	777.6	40.8	1177.2	6.58	3.20
"	"	16, +1	H2 BLDG	9	0.012	723.6	381.6	25.5	853.2	-0.31	-2.78
"	"	15, +1	H2 BLDG	10	0.013	925.2	615.6	5.1	1792.8	-0.31	-2.78
"	"	17, 0	H2 BLDG	10	0.009	957.6	723.6	5.1	1785.6	-0.31	-2.78
"	"	18, -1	H2 BLDG	10	0.015	1015.2	705.6	25.5	1774.8	2.03	1.29
"	"	18, 0	H2 BLDG	10	0.018	640.8	417.6	0.0	1454.4	-0.31	-2.78
"	"	15, -2	H2 BLDG	10	0.015	1486.8	1191.6	61.2	2174.4	-0.31	3.38
"	"	14, -1	H2 BLDG	11	0.010	910.8	687.6	20.4	1728.0	-0.31	-2.78
"	"	14, -2	H2 BLDG	12	0.022	1303.2	885.6	35.7	2372.4	-0.31	-2.78
"	"	16, -3	H2 BLDG	11	0.023	1155.6	849.6	40.8	1692.0	-0.31	9.54
Concrete	"	13, -3	H2 BLDG	9	0.015	874.8	399.6	45.9	1170.0	-0.31	-2.78
"	"	13, 0	H2 BLDG	10	0.009	349.2	129.6	117.3	1872.0	-0.31	-2.78
Concrete	N/A	12, -2	H2 BLDG	11	0.008	770.4	489.6	61.2	327.6	-0.31	3.20
"	"	11, -3	H2 BLDG	11	0.010	878.4	471.6	81.6	612.0	-0.31	-2.78
"	"	10, -2	H2 BLDG	10	0.018	316.8	165.6	0.0	615.6	-0.31	-2.78
"	"	10, -1	H2 BLDG	9	0.014	1155.6	525.6	61.2	453.6	-0.31	-2.78
Gravel	"	8, -1	H2 BLDG	9	0.015	1404.0	939.6	96.9	1288.8	-0.31	3.20
"	"	8, -3	H2 BLDG	11	0.012	1533.6	1281.6	96.9	1317.6	-0.31	-2.78
"	"	7, -3	H2 BLDG	10	0.012	1368.0	1011.6	132.6	1573.2	-0.31	3.38
"	"	6, -3	H2 BLDG	12	0.012	1386.0	1101.6	35.7	1288.8	-0.31	3.38
"	"	6, 0	H2 BLDG	11	0.016	1594.8	1335.6	61.2	1256.4	-0.31	-2.78
"	"	5, -1	H2 BLDG	11	0.015	1486.8	1173.6	96.9	1270.8	-0.31	3.38
"	"	5, -2	H2 BLDG	12	0.009	1234.8	939.6	40.8	1238.4	6.79	-2.78
"	"	4, -3	H2 BLDG	11	0.012	1440.0	1065.6	76.5	968.4	2.03	3.32

TABLE 6

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR HYDROGEN BUILDING ROOF (SECTION 29, UNIT 5)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
"	"	4, 0	H2 BLDG	12	0.018	1238.4	723.6	45.9	1162.8	-0.31	-2.78
"	"	3, -1	H2 BLDG	10	0.010	1515.6	1191.6	66.3	1468.8	-0.31	-2.78
"	"	1, -2	H2 BLDG	12	0.009	1497.6	1065.6	20.4	1058.4	-0.31	-2.78
STASTICAL ANALYSIS											
NUMBER OF SAMPLES				30	30	30	30	30	30	30	30
MINIMUM				9.00	0.008	316.8	129.6	0.0	327.6	-0.31	-2.78
MAXIMUM				12.00	0.023	1594.8	1335.6	132.6	2372.4	6.79	9.54
AVERAGE				10.53	0.013	1100.5	761.5	49.5	1299.0	[illegible]	-0.01
STANDARD DEVIATION				0.96	0.004	348.8	329.7	34.3	482.8	1.80	3.72
LIMIT				15	0.200	15,000	5,000	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:				1.699	1.699	1.699	1.699	1.699	1.699	1.699	1.699
DATA TEST PARAMETER				10.83	0.01	1208.69	863.75	60.11	1448.73	0.87	1.15
"NUMBER OF SAMPLES" FACTOR				4.67	48.51	39.85	12.86	144.37	7.67	555.49	268.89
DOES DATA SATISFY LIMIT CRITERIA?				YES	YES	YES	YES	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?				YES	YES	YES	YES	YES	YES	YES	YES

TABLE 7

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDINGS #4,10,11 & FIREHALL ROOFS (SEC. 29, UNIT 6)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Tar Paper	N/A	0, -5	BLDG 4	12	0.023	57.6	-302.4	5.1	-288.0	-0.31	-2.78
Gravel	"	12, -12	BLDG 4	12	0.015	158.4	-194.4	25.5	-252.0	-0.31	-2.78
"	"	0, -19	BLDG 4	12	0.016	313.2	-104.4	15.3	104.4	-0.31	-2.78
"	"	10, -22	BLDG 4	10	0.016	169.2	-14.4	10.2	25.2	-0.31	-2.78
"	"	13, -31	BLDG 4	10	0.010	273.6	-86.4	15.3	10.8	-0.31	-2.78
"	"	15, -40	BLDG 4	11	0.007	414.0	-122.4	5.1	298.8	-0.31	-2.78
"	"	30, -35	BLDG 4	11	0.010	18.0	-212.4	10.2	25.2	-0.31	3.38
Tar Paper	"	31, -20	BLDG 4	12	0.007	-54.0	-284.4	51.0	-331.2	6.79	-2.78
Gravel	"	20, -15	BLDG 4	10	0.007	-86.4	-320.4	25.5	-133.2	-0.31	9.18
"	"	17, -1	BLDG 4	15	0.016	363.6	3.6	10.2	338.4	-0.31	3.38
"	"	15, -19	BLDG 4	13	0.009	496.8	111.6	10.2	280.8	-0.31	-2.78
"	"	15, -27	BLDG 4	11	0.007	82.8	-86.4	40.8	234.0	-0.31	3.38
Tar Paper	"	0, -32	BLDG 4	14	0.014	230.4	-140.4	5.1	-136.8	-0.31	-2.78
Gravel Roof	N/A	5, -5	BLDG 10	9	0.009	763.2	496.8	20.4	381.6	6.58	-2.78
"	"	15, -5	BLDG 10	9	0.012	766.8	471.6	20.4	392.4	-0.31	-2.78
"	"	10, -10	BLDG 10	9	0.012	439.2	208.8	40.8	367.2	-0.31	3.20
"	"	8, -16	BLDG 10	7	0.005	219.6	-97.2	51.0	3.6	6.79	-2.78
"	"	15, -16	BLDG 10	9	0.005	284.4	100.8	35.7	324.0	-0.31	-2.78
"	"	0, -25	BLDG 10	9	0.009	741.6	352.8	40.8	565.2	-0.31	-2.78
"	"	10, -25	BLDG 10	8	0.010	882.0	568.8	30.6	489.6	-0.31	3.20
"	"	20, -25	BLDG 10	10	0.011	864.0	478.8	30.6	511.2	-0.31	-2.78
"	"	5, -30	BLDG 10	8	0.010	500.4	388.8	20.4	428.4	-0.31	9.67
"	"	20, -30	BLDG 10	8	0.012	651.6	406.8	25.5	626.4	-0.31	3.35
"	"	15, -15	BLDG 10	8	0.012	896.4	514.8	45.9	576.0	-0.31	3.20
"	"	15, -20	BLDG 10	9	0.011	-324.0	-486.0	40.8	-349.2	-0.31	2.78
Gravel Roof	N/A	7, 0	BLDG 11	11	0.018	-273.6	-432.0	20.4	194.4	-0.31	9.18
"	"	0, -5	BLDG 11	10	0.009	140.4	-180.0	-5.1	226.8	-0.31	3.20
"	"	4, -14	BLDG 11	9	0.007	-223.2	-486.0	-5.1	-216.0	-0.31	9.54
"	"	0, -20	BLDG 11	11	0.015	-64.8	-378.0	-5.1	21.6	-0.31	-2.78
"	"	7, -23	BLDG 11	10	0.012	-54.0	-432.0	-5.1	-342.0	-0.31	-2.78
"	"	13, -18	BLDG 11	11	0.012	10.8	-306.0	-10.2	-54.0	-0.31	-2.78

TABLE 7

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDINGS #4,10,11 & FIREHALL ROOFS (SEC. 29, UNIT 6)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
"	"	13, -16	BLDG 11	12	0.009	583.2	-18.0	5.1	-43.2	-0.31	-2.78
"	"	20, -16	BLDG 11	12	0.007	306.0	-72.0	-5.1	-223.2	6.79	3.38
"	"	25, -16	BLDG 11	17	0.014	327.6	-18.0	-5.1	-97.2	-0.31	-2.78
"	"	20, -24	BLDG 11	15	0.015	270.0	-36.0	0.0	151.2	-0.31	3.38
Drain	N/A	3, -5	FIREHOUSE	9	0.007	1131.0	842.4	5.1	943.8	-0.31	-2.78
Gravel	"	3, -10	FIREHOUSE	12	0.020	678.6	413.4	15.3	787.8	-0.31	3.20
STASTICAL ANALYSIS											
NUMBER OF SAMPLES				37	37	37	37	37	37	37	37
MINIMUM				7.00	0.005	-324.0	-486.0	-10.2	-349.2	-0.31	-2.78
MAXIMUM				17.00	0.023	1131.0	842.4	51.0	943.8	6.79	9.67
AVERAGE				10.68	0.011	323.1	14.9	17.2	157.9	0.45	0.34
STANDARD DEVIATION				2.17	0.004	354.3	337.6	17.4	327.2	2.19	4.15
LIMIT				15	0.200	15,000	5,000	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:				1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689
DATA TEST PARAMETER				11.28	0.01	421.47	108.61	22.07	248.76	1.06	1.50
"NUMBER OF SAMPLES" FACTOR				1.99	45.92	41.43	14.77	285.70	14.80	456.89	240.64
DOES DATA SATISFY LIMIT CRITERIA?				YES	YES	YES	YES	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?				YES	YES	YES	YES	YES	YES	YES	YES

TABLE 8

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5 ROOF VENTS (SECTION 29, UNIT 7)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Vent 1	N/A	N/A	BLDG 5, A					35.7	-686.4	-0.31	-2.78
Vent 2	"	"	BLDG 5, A					25.5	-499.2	-0.31	-2.78
Vent 3	"	"	BLDG 5, A					10.2	-951.6	-0.31	-2.78
Exhaust 4	"	"	BLDG 5, A					76.5	-838.5	-0.31	-2.78
Vent 5	"	"	BLDG 5, A					15.3	-787.8	-0.31	3.20
Vent 6	"	"	BLDG 5, A					15.3	-822.9	-0.31	-2.78
Vent 7	"	"	BLDG 5, A					5.1	-698.1	-0.31	3.38
Vent 8	"	"	BLDG 5, A					10.2	-768.3	-0.31	-2.78
Vent 1	N/A	N/A	BLDG 5, B					-5.1	-312.0	-0.31	-2.78
Vent 2	"	"	BLDG 5, B					-5.1	-666.9	-0.31	3.20
Vent 3	"	"	BLDG 5, B					-10.2	-179.4	-0.31	3.38
Exhaust 4	"	"	BLDG 5, B					-5.1	-101.4	-0.31	-2.78
Vent 5	"	"	BLDG 5, B					-10.2	-507.0	-0.31	3.20
Vent 6	"	"	BLDG 5, B					10.2	-959.4	-0.31	3.38
Vent 7	"	"	BLDG 5, B					10.2	-460.2	-0.31	3.20
Vent 8	"	"	BLDG 5, B					0.0	-417.3	-0.31	-2.78
Vent 9	"	"	BLDG 5, B					35.7	-678.6	-0.31	-2.78
Exhaust 10	"	"	BLDG 5, B					5.1	-117.0	-0.31	-2.78
Vent 11	"	"	BLDG 5, B					5.1	-670.8	-0.31	9.18
Exhaust 12	"	"	BLDG 5, B					0.0	-713.7	-0.31	-2.78
Exhaust 13	"	"	BLDG 5, B					10.2	-643.5	-0.31	-2.78
Vent 14	"	"	BLDG 5, B					15.3	218.4	-0.31	3.38
Vent 15	"	"	BLDG 5, B					-5.1	-429.0	-0.31	-2.78
Vent 1	N/A	N/A	BLDG 5, C					25.5	-354.9	-0.31	-2.78
Vent 2	"	"	BLDG 5, C					51.0	136.5	-0.31	3.20
Vent 3	"	"	BLDG 5, C					25.5	-409.5	-0.31	-2.78
Vent 4	"	"	BLDG 5, C					86.7	144.3	-0.31	-2.78
Vent 5	"	"	BLDG 5, C					30.6	-261.3	-0.31	-2.78
Vent 6	"	"	BLDG 5, C					30.6	-117.0	-0.31	-2.78
Vent 7	"	"	BLDG 5, C					76.5	140.4	-0.31	3.38
Exhaust 8	"	"	BLDG 5, C					5.1	-206.7	-0.31	-2.78
Exhaust 9	"	"	BLDG 5, C					30.6	27.3	-0.31	3.20
Exhaust 10	"	"	BLDG 5, C					30.6	-70.2	-0.31	-2.78
Vent 1	N/A	N/A	BLDG 5, D					0.0	-830.7	-0.31	-2.78
Exhaust 2	"	"	BLDG 5, D					10.2	-643.5	-0.31	-2.78

TABLE 8

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5 ROOF VENTS (SECTION 29, UNIT 7)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Exhaust 3	"	"	BLDG 5, D					25.5	-549.9	-0.31	-2.78
Vent 4	"	"	BLDG 5, D					5.1	-889.2	6.58	-2.78
Vent 5	"	"	BLDG 5, D					5.1	-666.9	-0.31	3.20
Vent 6	"	"	BLDG 5, D					0.0	-803.4	-0.31	3.38
Vent 7	"	"	BLDG 5, D					0.0	-947.7	-0.31	-2.78
Vent 8	"	"	BLDG 5, D					15.3	-678.6	-0.31	-2.78
Vent 9	"	"	BLDG 5, D					0.0	-702.0	-0.31	-2.78
Vent 10	"	"	BLDG 5, D					10.2	-432.9	-0.31	-2.78
Vent 11	"	"	BLDG 5, D					5.1	-105.3	-0.31	-2.78
Vent 12	"	"	BLDG 5, D					10.2	-261.3	-0.31	3.38
Vent 13	"	"	BLDG 5, D					15.3	-631.8	-0.31	3.38
Vent 14	"	"	BLDG 5, D					40.8	-335.4	-0.31	-2.78
Vent 15	"	"	BLDG 5, D					5.1	-436.8	-0.31	3.38
Vent 16	"	"	BLDG 5, D					30.6	-471.9	-0.31	-2.78

STASTICAL ANALYSIS

NUMBER OF SAMPLES	49	49	49	49
MINIMUM	-10.2	-959.4	-0.31	-2.78
MAXIMUM	86.7	218.4	6.58	9.18
AVERAGE	16.7	-470.4	-0.17	-0.55
STANDARD DEVIATION	21.3	316.3	0.97	3.17
LIMIT	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.679	1.679	1.679	1.679
DATA TEST PARAMETER	21.76	-394.51	0.06	0.21
"NUMBER OF SAMPLES" FACTOR	233.84	17.29	1026.97	316.00
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES

TABLE 9

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #6, 7 & 8A ROOF VENTS (SEC. 29, UNIT 8)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Vent 1	N/A	N/A	BLDG 6							-0.31	3.20
Blower 2	"	"	BLDG 6					10.2	291.6	-0.31	-2.78
Vent 3	"	"	BLDG 6							2.03	5.35
Vent 4	"	"	BLDG 6							-0.31	-2.78
Vent 5	"	"	BLDG 6					15.3	241.2	-0.31	3.20
Vent 6	"	"	BLDG 6					-10.2	0.0	-0.31	-2.78
Sewer Vent 7	"	"	BLDG 6					188.7	684.0	-0.31	3.20
Vent 8	"	"	BLDG 6							-0.31	-2.78
Vent 1	N/A	N/A	BLDG 7					-5.1	370.8	-0.31	-2.78
Exhaust Fan 2	"	"	BLDG 7					25.5	-108.0	-0.31	-2.78
Vent 3	"	"	BLDG 7							-0.31	3.20
Exhaust Fan 4	"	"	BLDG 7					-5.1	-147.6	-0.31	-2.78
Vent 5	"	"	BLDG 7							-0.31	-2.78
A/C 6	"	"	BLDG 7					-10.2	259.2	-0.31	-2.78
Vent 7	"	"	BLDG 7					10.2	43.2	-0.31	-2.78
Exhaust Fan 8	"	"	BLDG 7					-5.1	7.2	-0.31	5.35
Blower 9	"	"	BLDG 7					25.5	180.0	-0.31	3.20
Exhaust Fan 10	"	"	BLDG 7					5.1	-126.0	-0.31	-2.78
Vent 11	"	"	BLDG 7							-0.31	-2.78
Vent 12	"	"	BLDG 7							-0.31	3.38
Vent 13	"	"	BLDG 7							-0.31	-2.78
Vent 14	"	"	BLDG 7							-0.31	3.20
Vent 15	"	"	BLDG 7							-0.31	-2.78
Vent 16	N/A	N/A	BLDG 7							-0.31	3.20
Vent 17	"	"	BLDG 7							-0.31	5.35
Vent 18	"	"	BLDG 7							-0.31	3.38
Vent 19	"	"	BLDG 7							-0.31	-2.78
Vent 20	"	"	BLDG 7							-0.31	-2.28
Vent 21	"	"	BLDG 7							-0.31	-2.78
Vent 1	N/A	N/A	BLDG 8A					5.1	43.2	-0.31	3.38
Vent 2	"	"	BLDG 8A					15.3	-79.2	-0.31	-2.78

TABLE 9

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #6, 7 & 8A ROOF VENTS (SEC. 29, UNIT 8)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Vent 3	"	"	BLDG 8A					5.1	158.4	-0.31	3.38
Vent 4	"	"	BLDG 8A					51.0	97.2	-0.31	3.38
Vent 5	"	"	BLDG 8A					61.2	277.2	-0.31	3.20
Vent 6	"	"	BLDG 8A					0.0	176.4	-0.31	-2.78
Vent 7	"	"	BLDG 8A					51.0	144.0	-0.31	-2.78
Vent 8	"	"	BLDG 8A					56.1	158.4	-0.31	3.38
Vent 9	"	"	BLDG 8A					30.6	180.0	-0.31	-2.78
Vent 10	"	"	BLDG 8A					51.0	414.0	-0.31	-2.78

STASTICAL ANALYSIS

NUMBER OF SAMPLES	22	22	39	39
MINIMUM	-10.2	-147.6	-0.31	-2.78
MAXIMUM	188.7	684.0	2.03	5.35
AVERAGE	26.0	148.4	-0.25	0.03
STANDARD DEVIATION	42.6	192.5	0.37	3.22
LIMIT	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.721	1.721	1.687	1.687
DATA TEST PARAMETER	41.36	219.04	-0.15	0.90
"NUMBER OF SAMPLES" FACTOR	118.52	25.21	2702.06	310.77
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES

TABLE 10

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BLDG #9 & HYDROGEN FACILITY ROOF VENTS (SEC. 29, UNIT 9)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Vent #1	N/A	N/A	BLDG 9					0.0	-183.6	-0.31	-2.78
Vent #2	"	"	BLDG 9					0.0	370.8	-0.31	-2.78
Vent #3	"	"	BLDG 9					30.6	-298.8	-0.31	-2.78
Vent #4	"	"	BLDG 9					25.5	-7.2	-0.31	3.20
Vent #5	"	"	BLDG 9					51.0	-10.8	-0.31	3.38
Vent #6	"	"	BLDG 9					51.0	208.8	-0.31	-2.78
Vent #7	"	"	BLDG 9					2.6	100.8	-0.31	-2.78
Vent #8	"	"	BLDG 9					0.0	-190.8	-0.31	3.38
Vemt #9	"	"	BLDG 9					30.6	-126.0	-0.31	3.20
Vent #10	"	"	BLDG 9					10.2	-126.0	-0.31	-2.78
Vent #11	"	"	BLDG 9					40.8	662.4	-0.31	-2.78
Vent #12	"	"	BLDG 9					81.6	824.4	-0.31	-2.78
Vent #13	"	"	BLDG 9					30.6	-176.4	-0.31	-2.78
Vent #14	"	"	BLDG 9					81.6	-79.2	-0.31	-2.78
Vent #15	"	"	BLDG 9					35.7	14.4	-0.31	-2.78
Vent #16	N/A	N/A	BLDG 9					10.2	-194.4	-0.31	-2.78
Vent #17	"	"	BLDG 9					5.1	-226.8	-0.31	-2.78
Vent #18	"	"	BLDG 9					5.1	-172.8	-0.31	3.20
Vent #19	"	"	BLDG 9					10.2	-39.6	-0.31	3.20
Vent #20	"	"	BLDG 9					5.1	-154.8	-0.31	-2.78
Vent #21	"	"	BLDG 9					0.0	-212.4	-0.31	3.20
Vent #22	"	"	BLDG 9					25.5	32.4	-0.31	9.18
Vent #23	"	"	BLDG 9					255.0	428.4	-0.31	-2.78
Vent #24	"	"	BLDG 9					209.1	514.8	-0.31	-2.78
Vent #25	"	"	BLDG 9					127.5	907.2	-0.31	9.54
Vent #26	"	"	BLDG 9					86.7	795.6	-0.31	-2.78
Vent #27	"	"	BLDG 9					20.4	-219.6	-0.31	-2.78
Vent #28	"	"	BLDG 9					30.6	277.2	-0.31	-2.78
Vent #29	"	"	BLDG 9					20.4	-57.6	-0.31	-2.78
Vent #30	"	"	BLDG 9					45.9	-25.2	-0.31	3.20
Vent #31	N/A	N/A	BLDG 9					15.3	-79.2	-0.31	-2.78
West Wall	N/A	1, -1	H2 BLDG			-126.0	-338.4	10.2	-219.6	-0.31	-2.78
"	"	3, -1	H2 BLDG			-176.4	-374.4	-5.1	-248.4	-0.31	-2.78
East Wall	"	1, -1	H2 BLDG			-75.6	-302.4	-5.1	-280.8	-0.31	-2.78
"	"	3, -1	H2 BLDG			-158.4	-320.4	5.1	-230.4	6.71	-2.78

TABLE 10

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BLDG #9 & HYDROGEN FACILITY ROOF VENTS (SEC. 29, UNIT 9)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
North Wall	"	1, -1	H2 BLDG			234.0	-50.4	5.1	-75.6	-0.31	-2.78
South Wall Ceiling	"	1, -1	H2 BLDG			291.6	-122.4	5.1	-198.0	-0.31	-2.78
"	"	1, -1	H2 BLDG			-140.4	-302.4	-5.1	-244.8	-0.31	-2.78
"	"	1, -2	H2 BLDG			-7.2	-338.4	0.0	-266.4	-0.31	3.38
"	"	1, -3	H2 BLDG			32.4	-266.4	5.1	-234.0	-0.31	-2.78
"	"	1, -4	H2 BLDG			86.4	-266.4	5.1	-342.0	-0.31	-2.78
Floor	"	1, -1	H2 BLDG	8	0.007	255.6	3.6	15.3	18.0	-0.31	-2.78
"	"	1, -2	H2 BLDG	7	0.008	244.8	21.6	5.1	118.8	-0.31	-2.78
"	"	1, -3	H2 BLDG	6	0.012	306.0	-50.4	5.1	21.6	-0.31	-2.78
"	"	1, -4	H2 BLDG	8	0.011	489.6	147.6	5.2	90.0	-0.31	-2.78
Vent 1 Bottom	N/A	N/A	H2 BLDG			152.1	-487.5	5.2	-409.5	-0.31	3.38
Vent 1 Top	"	"	H2 BLDG			-588.9	-819.0	0.0	-760.5	-0.31	3.38
Vent 2 S. Wall	"	"	H2 BLDG			-565.5	-858.0	0.0	-791.7	-0.31	-2.78
Vent 1 N. Wall	"	"	H2 BLDG			-639.6	-838.5	-5.2	-799.5	-0.31	3.20

STASTICAL ANALYSIS

NUMBER OF SAMPLES	4	4	18	18	49	49	49	49
MINIMUM	6.00	0.007	-639.6	-858.0	-5.2	-799.5	-0.31	-2.78
MAXIMUM	8.00	0.012	489.6	147.6	255.0	907.2	6.71	9.54
AVERAGE	7.25	0.010	-21.4	-309.0	28.5	-46.9	-0.17	-0.80
STANDARD DEVIATION	0.83	0.002	315.8	285.5	50.2	358.2	0.99	3.33
LIMIT	15	0.200	15,000	5,000	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	2.353	2.353	1.740	1.740	1.679	1.679	1.679	1.679
DATA TEST PARAMETER	8.23	0.01	108.10	-191.92	40.51	39.04	0.07	0.00
"NUMBER OF SAMPLES" FACTOR	9.35	92.41	47.57	18.59	99.00	14.09	1006.79	500.61
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES	YES	YES	YES	YES

TABLE 11

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BLDG #4,8,10,11 & FIREHALL ROOF VENTS (SEC 29, UNIT 10)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Vent 1	N/A	N/A	BLDG 4					15.3	-424.8	-0.31	-2.78
Vent 2	"	"	BLDG 4					10.2	-144.0	-0.31	-2.78
Vent 3	"	"	BLDG 4					20.4	-338.4	-0.31	3.20
Exhaust 4	"	"	BLDG 4					10.2	-169.2	-0.31	3.20
Vent 5	"	"	BLDG 4					15.3	-280.8	-0.31	-2.78
Exhaust 6	"	"	BLDG 4					15.3	-93.6	-0.31	-2.78
Vent 7	"	"	BLDG 4					30.6	-86.4	-0.31	-2.78
Vent 8	"	"	BLDG 4					56.1	-50.4	-0.31	-2.78
Vent 9	"	"	BLDG 4					20.4	-230.4	-0.31	3.38
Vent 10	"	"	BLDG 4					20.4	-140.4	-0.31	-2.78
Vent 11	"	"	BLDG 4					10.2	-244.8	-0.31	-2.78
Vent 12	"	"	BLDG 4					40.8	-61.2	-0.31	-2.78
Blower 1	N/A	N/A	BLDG 8					20.4	28.8	-0.31	-2.78
Vent 2	"	"	BLDG 8					-10.2	-882.0	-0.31	-2.78
Vent 3	"	"	BLDG 8					-10.2	-882.0	-0.31	3.20
Exhaust Fan 4	"	"	BLDG 8					-5.1	-165.6	-0.31	-2.78
Vent 5	"	"	BLDG 8					-10.2	-882.0	-0.31	9.54
Vent 6	"	"	BLDG 8					-10.2	-882.0	-0.31	3.38
Vent 7	"	"	BLDG 8					30.6	86.4	-0.31	-2.78
Exhaust Fan 8	"	"	BLDG 8					-5.1	-194.4	-0.31	-2.78
Blower 9	"	"	BLDG 8					5.1	-147.6	-0.31	3.38
Vent 10	"	"	BLDG 8					5.1	57.6	-0.31	3.20
Exhaust Fan 11	"	"	BLDG 8					15.3	-115.2	-0.31	3.38
Blower 12	"	"	BLDG 8					0.0	126.0	-0.31	3.38
Vent 13	"	"	BLDG 8					-10.2	-882.0	-0.31	3.20
Sewer Vent 14	"	"	BLDG 8					295.8	982.8	-0.31	3.20
Vent 15	"	"	BLDG 8					-10.2	-882.0	-0.31	-2.78
Exhaust 1	N/A	N/A	BLDG 10					30.6	18.0	-0.31	-2.78
Vent 2	"	"	BLDG 10					239.7	788.4	-0.31	3.38
Vent 3	"	"	BLDG 10					224.4	478.8	-0.31	-2.78
Exhaust 4	"	"	BLDG 10					71.4	147.6	-0.31	3.38

TABLE 11

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BLDG #4,8,10,11 & FIREHALL ROOF VENTS (SEC 29, UNIT 10)

SURFACE DESCRIPTION	GRID	X,Y REF POINT	LOCATION CODE	GAMMA SURVEY @1 METER (microR/hr)	BETA/GAMMA SURVEY ON CONTACT (mR/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Vent 5	"	"	BLDG 10					45.9	-21.6	-0.31	-2.78
Vent 1	N/A	N/A	BLDG 11					5.1	-994.5	-0.31	9.18
Vent 2	"	"	BLDG 11					30.6	-499.2	-0.31	3.20
Vent 3	"	"	BLDG 11					0.0	-163.8	-0.31	-2.78
Vent 1	N/A	N/A	FIREHOUSE					5.1	-81.9	-0.31	3.38

STASTICAL ANALYSIS				
NUMBER OF SAMPLES	36	36	36	36
MINIMUM	-10.2	-994.5	-0.31	-2.78
MAXIMUM	295.8	982.8	-0.31	9.54
AVERAGE	33.9	-200.7	-0.31	0.43
STANDARD DEVIATION	69.4	442.0	0.00	3.65
LIMIT	5,000	5,000	1,000	1,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.691	1.691	1.691	1.691
DATA TEST PARAMETER	53.42	-76.13	-0.31	1.45
"NUMBER OF SAMPLES" FACTOR	71.54	11.77	60870087.09	274.13
DOES DATA SATISFY LIMIT CRITERIA?	YES	YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES	YES	YES	YES

TABLE 12
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 29 - BUILDING ROOF SURFACES)

LOCATION CODE	NUMBER OF SURVEY POINTS	MINIMUM VALUE	MAXIMUM VALUE	AVERAGE VALUE	STANDARD DEVIATION	UNITS
** SURVEY TYPE = GAMMA DOSERATE AT 1 METER FROM SURFACE						
29 -01	51	9.000	19.000	12.350	2.710	MicroR/hour
29 -02	31	7.000	12.000	9.520	1.210	MicroR/hour
29 -03	45	6.000	13.000	9.360	1.540	MicroR/hour
29 -04	34	7.000	12.000	9.150	1.110	MicroR/hour
29 -05	30	9.000	12.000	10.530	0.960	MicroR/hour
29 -06	37	7.000	17.000	10.680	2.170	MicroR/hour
** Subtotal **	228					
** SURVEY TYPE = BETA/GAMMA DOSERATE ON CONTACT WITH SURFACE						
29 -01	51	0.004	0.026	0.013	0.005	MilliRem/hour
29 -02	31	0.010	0.020	0.011	0.002	MilliRem/hour
29 -03	45	0.004	0.018	0.011	0.003	MilliRem/hour
29 -04	34	0.004	0.017	0.010	0.003	MilliRem/hour
29 -05	30	0.008	0.023	0.013	0.004	MilliRem/hour
29 -06	37	0.005	0.023	0.011	0.004	MilliRem/hour
** Subtotal **	228					
** SURVEY TYPE = MAXIMUM - BETA SCAN OF SURFACE NEAR SURVEY POINT						
29 -01	51	-526.500	1774.500	551.200	701.300	DPM/100 cm^2
29 -02	31	-756.600	1123.200	86.400	397.900	DPM/100 cm^2
29 -03	45	115.200	1540.800	625.900	302.900	DPM/100 cm^2
29 -04	34	75.600	1015.200	564.500	244.800	DPM/100 cm^2
29 -05	30	316.800	1594.800	1100.500	348.800	DPM/100 cm^2
29 -06	37	-324.000	1131.000	323.100	354.300	DPM/100 cm^2
** Subtotal **	228					
** SURVEY TYPE = AVERAGE - BETA SCAN OF SURFACE NEAR SURVEY POINT						
29 -01	51	-694.200	1298.700	168.500	617.300	DPM/100 cm^2
29 -02	31	-854.100	159.900	-280.400	233.800	DPM/100 cm^2
29 -03	45	3.600	748.800	288.200	203.100	DPM/100 cm^2
29 -04	34	-64.800	583.200	296.700	166.500	DPM/100 cm^2
29 -05	30	129.600	1335.600	761.500	329.700	DPM/100 cm^2
29 -06	37	-486.000	842.400	14.900	337.600	DPM/100 cm^2
** Subtotal **	228					
** SURVEY TYPE = FIXED ALPHA SURVEY AT SURVEY POINT						
29 -01	51	-20.400	321.300	66.000	91.100	DPM/100 cm^2
29 -02	31	-5.200	41.600	22.300	11.200	DPM/100 cm^2
29 -03	45	-5.200	66.300	20.400	15.700	DPM/100 cm^2
29 -04	34	0.000	66.300	21.500	14.000	DPM/100 cm^2
29 -05	30	0.000	132.600	49.500	34.300	DPM/100 cm^2

TABLE 12
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 29 - BUILDING ROOF SURFACES)

LOCATION CODE	NUMBER OF SURVEY POINTS	MINIMUM VALUE	MAXIMUM VALUE	AVERAGE VALUE	STANDARD DEVIATION	UNITS
29 -06	37	-10.200	51.000	17.200	17.400	DPM/100 cm^2
** Subtotal **	228					
** SURVEY TYPE = FIXED BETA SURVEY AT SURVEY POINT						
29 -01	51	-729.300	1333.800	189.500	529.100	DPM/100 cm^2
29 -02	31	-666.900	471.900	-235.800	305.800	DPM/100 cm^2
29 -03	45	68.400	943.200	482.700	232.600	DPM/100 cm^2
29 -04	34	-75.600	867.600	322.500	185.000	DPM/100 cm^2
29 -05	30	327.600	2372.400	1299.000	482.800	DPM/100 cm^2
29 -06	37	-349.200	943.800	157.900	327.200	DPM/100 cm^2
** Subtotal **	228					
** SURVEY TYPE = REMOVABLE ALPHA SMEAR SURVEY AT SURVEY POINT						
29 -01	51	-0.310	6.790	0.050	1.490	DPM/100 cm^2
29 -02	31	-0.310	6.790	1.950	2.870	DPM/100 cm^2
29 -03	45	-0.310	6.790	0.000	1.440	DPM/100 cm^2
29 -04	34	-0.310	-0.310	-0.310	0.000	DPM/100 cm^2
29 -05	30	-0.310	6.790	0.310	1.800	DPM/100 cm^2
29 -06	37	-0.310	6.790	0.450	2.190	DPM/100 cm^2
** Subtotal **	228					
** SURVEY TYPE = REMOVABLE BETA SMEAR SURVEY AT SURVEY POINT						
29 -01	51	-2.780	9.540	0.750	3.930	DPM/100 cm^2
29 -02	31	-2.780	23.650	7.170	7.780	DPM/100 cm^2
29 -03	45	-2.780	9.540	-0.340	3.510	DPM/100 cm^2
29 -04	34	-2.780	9.540	-0.290	3.640	DPM/100 cm^2
29 -05	30	-2.780	9.540	-0.010	3.720	DPM/100 cm^2
29 -06	37	-2.780	9.670	0.340	4.150	DPM/100 cm^2
** Subtotal **	228					
*** Total ***	1824					

TABLE 13
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 29 - BUILDING ROOF VENTS)

LOCATION CODE	NUMBER OF SURVEY POINTS	MINIMUM VALUE	MAXIMUM VALUE	AVERAGE VALUE	STANDARD DEVIATION	UNITS
** SURVEY TYPE = GAMMA DOSERATE AT 1 METER FROM SURFACE						
29 -09	4	6.000	8.000	7.250	0.830	MicroR/hour
** Subtotal **	4					
** SURVEY TYPE = BETA/GAMMA DOSERATE ON CONTACT WITH SURFACE						
29 -09	4	0.007	0.012	0.010	0.002	MilliRem/hour
** Subtotal **	4					
** SURVEY TYPE = MAXIMUM - BETA SCAN OF SURFACE NEAR SURVEY POINT						
29 -09	18	-639.600	489.600	-21.400	315.800	DPM/100 cm^2
** Subtotal **	18					
** SURVEY TYPE = AVERAGE - BETA SCAN OF SURFACE NEAR SURVEY POINT						
29 -09	18	-858.000	147.600	-309.000	285.500	DPM/100 cm^2
** Subtotal **	18					
** SURVEY TYPE = FIXED ALPHA SURVEY AT SURVEY POINT						
29 -07	49	-10.200	86.700	16.700	21.300	DPM/100 cm^2
29 -08	22	-10.200	188.700	26.000	42.000	DPM/100 cm^2
29 -09	49	-5.200	255.000	28.500	50.200	DPM/100 cm^2
29 -10	36	-10.200	295.800	33.900	69.400	DPM/100 cm^2
** Subtotal **	156					
** SURVEY TYPE = FIXED BETA SURVEY AT SURVEY POINT						
29 -07	49	-959.400	218.400	-470.400	316.300	DPM/100 cm^2
29 -08	22	-147.600	684.000	148.400	192.500	DPM/100 cm^2
29 -09	49	-799.500	907.200	-46.900	358.200	DPM/100 cm^2
29 -10	36	-994.500	982.800	-200.700	442.000	DPM/100 cm^2
** Subtotal **	156					
** SURVEY TYPE = REMOVABLE ALPHA SMEAR SURVEY AT SURVEY POINT						
29 -07	49	-0.310	6.580	-0.170	0.970	DPM/100 cm^2
29 -08	39	-0.310	2.030	-0.250	0.370	DPM/100 cm^2
29 -09	49	-0.310	6.710	-0.170	0.990	DPM/100 cm^2
29 -10	36	-0.310	-0.310	-0.310	0.000	DPM/100 cm^2
** Subtotal **	173					
** SURVEY TYPE = REMOVABLE BETA SMEAR SURVEY AT SURVEY POINT						
29 -07	49	-2.780	9.180	-0.550	3.170	DPM/100 cm^2

TABLE 13
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 29 - BUILDING ROOF VENTS)

LOCATION CODE	NUMBER OF SURVEY POINTS	MINIMUM VALUE	MAXIMUM VALUE	AVERAGE VALUE	STANDARD DEVIATION	UNITS
29 -08	39	-2.780	5.350	0.030	3.220	DPM/100 cm^2
29 -09	49	-2.780	9.540	-0.800	3.330	DPM/100 cm^2
29 -10	36	-2.780	9.540	0.430	3.650	DPM/100 cm^2
** Subtotal **	173					
*** Total ***	702					

TABLE 14

ANALYTICAL RESULTS FOR ROOFING MATERIAL SAMPLES

PROJ ID	DESCRIPTION	GAMMA SPECTROMETRY LAB ID	GAMMA SPECTROMETRY U-235 pCi/gm
732	BLDG 5, ROOF 'B', ROOFING MAT'L - (10,-10)	93- 791	<2.80E-01
733	BLDG 8A, ROOFING MAT'L - (30,5)	93- 792	<4.60E-01
734	BLDG 9, ROOFING MAT'L - (10,-50)	93- 793	<4.40E-01
735	BLDG 9, ROOFING MAT'L - @VENT #12	93- 794	<3.00E-01
736	BLDG 9, ROOFING MAT'L - @VENT #31	93- 795	<4.10E-01
737	H2 FACILITY, ROOFING MAT'L - (15,1)	93- 796	<4.40E-01
738	H2 FACILITY, ROOFING MAT'L - (15,-2)	93- 797	<4.20E-01
739	H2 FACILITY, ROOFING MAT'L - (14,-2)	93- 798	<5.10E-01
740	H2 FACILITY, ROOFING MAT'L - (14,-1)	93- 799	<6.40E-01
741	BLDG 5, ROOF 'B', ROOF GRAVEL - (10,-10)	93- 800	4.44E-01
742	BLDG 8A, ROOF GRAVEL - (30,5)	93- 801	<3.70E-01
743	BLDG 9, ROOF GRAVEL - (10,-50)	93- 802	<2.70E-01
744	BLDG 9, ROOF GRAVEL - @VENT #12	93- 803	4.84E-01
745	BLDG 9, ROOF GRAVEL - @VENT #31	93- 804	<2.80E-01
746	H2 FACILITY, ROOF GRAVEL - (15,1)	93- 805	2.81E-01
747	H2 FACILITY, ROOF GRAVEL - (15,-2)	93- 806	5.44E-01
748	H2 FACILITY, ROOF GRAVEL - (14,-2)	93- 807	4.70E-01
749	H2 FACILITY, ROOF GRAVEL - (14,-1)	93- 808	3.43E-01

STASTICAL ANALYSIS:

NUMBER OF SAMPLES	18
MINIMUM	2.70E-01
MAXIMUM	6.40E-01
AVERAGE	4.10E-01
STANDARD DEVIATION	1.01E-01
LIMIT	1
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.740
DATA TEST PARAMETER	0.45
"NUMBER OF SAMPLES" FACTOR	5.84
DOES DATA SATISFY LIMIT CRITERIA?	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES

	BACKGROUND SOIL RESULTS (SEE REPORT #007 FOR INFORMATION)	GAMMA SPEC. U-235 pCi/gm
	AVERAGE	3.24E-01
	STANDARD DEVIATION	1.01E-01

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

SURVEY TYPE: Roof A

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	463
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/19/93

COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	11 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.009 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel Roof	N/A	3, -5	11	.008	470	410	2	430	-0.312	3.20	Roof
"	"	9, -5	9	.011	381	335	8	429	-0.312	3.20	"
"	"	15, -2	10	.006	444	320	5	440	-0.312	-2.78	"
"	"	15, -7	10	.009	421	365	4	410	-0.312	-2.78	"
"	"	10, -10	10	.004	400	340	8	409	4.372	5.35	"
"	"	4, -10	10	.012	451	385	3	417	-0.312	5.35	"
Drain	"	1, -15	14	.010	365	315	3	356	-0.312	-2.78	"
Drain	"	17, -15	15	.012	347	300	4	404	-0.312	-2.78	"
Exhaust Blowdown	"	3, -14	13	.023	328	285	5	344	-0.312	-2.78	"
"	"	14, -5	10	.011	447	395	8	362	-0.312	3.20	"

FORM SERIAL #: 29- 018
(Survey Section - Sequential survey #)

LOCATION # Building 5
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: VII
(Group I, II, III, IV)

DISK FILE CODE: FDS - 0562

SURVEYOR SIGNATURE: V.I.M.S

LB5100W Low Background Counting System – Smear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LBDL\UNIT1\ROOF5A.XLD
Batch Ended: 5/20/93 7:44
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

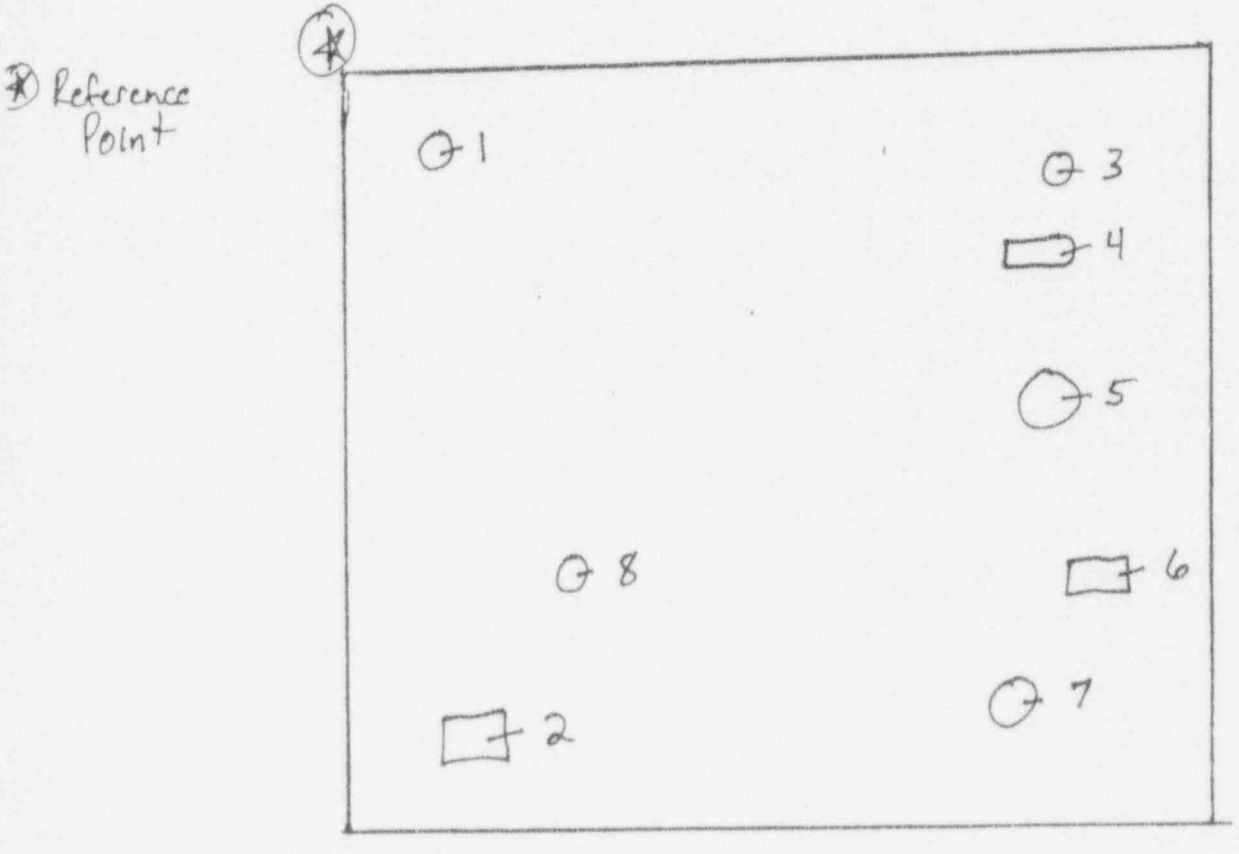
Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 5 ROOF "A"

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 7:38
2	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 7:38
3	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:39
4	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 7:40
5	4.372	3.47	At AL	10.72	5.35	4.73	<MDA	16.63	1.00	1.867	2.63	5/20/93 7:41
6	-0.312	1.02	<MDA	10.72	5.35	4.73	<MDA	16.63	1.00	-0.133	2.63	5/20/93 7:42
7	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:42
8	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:43
9	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:43
10	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 7:44

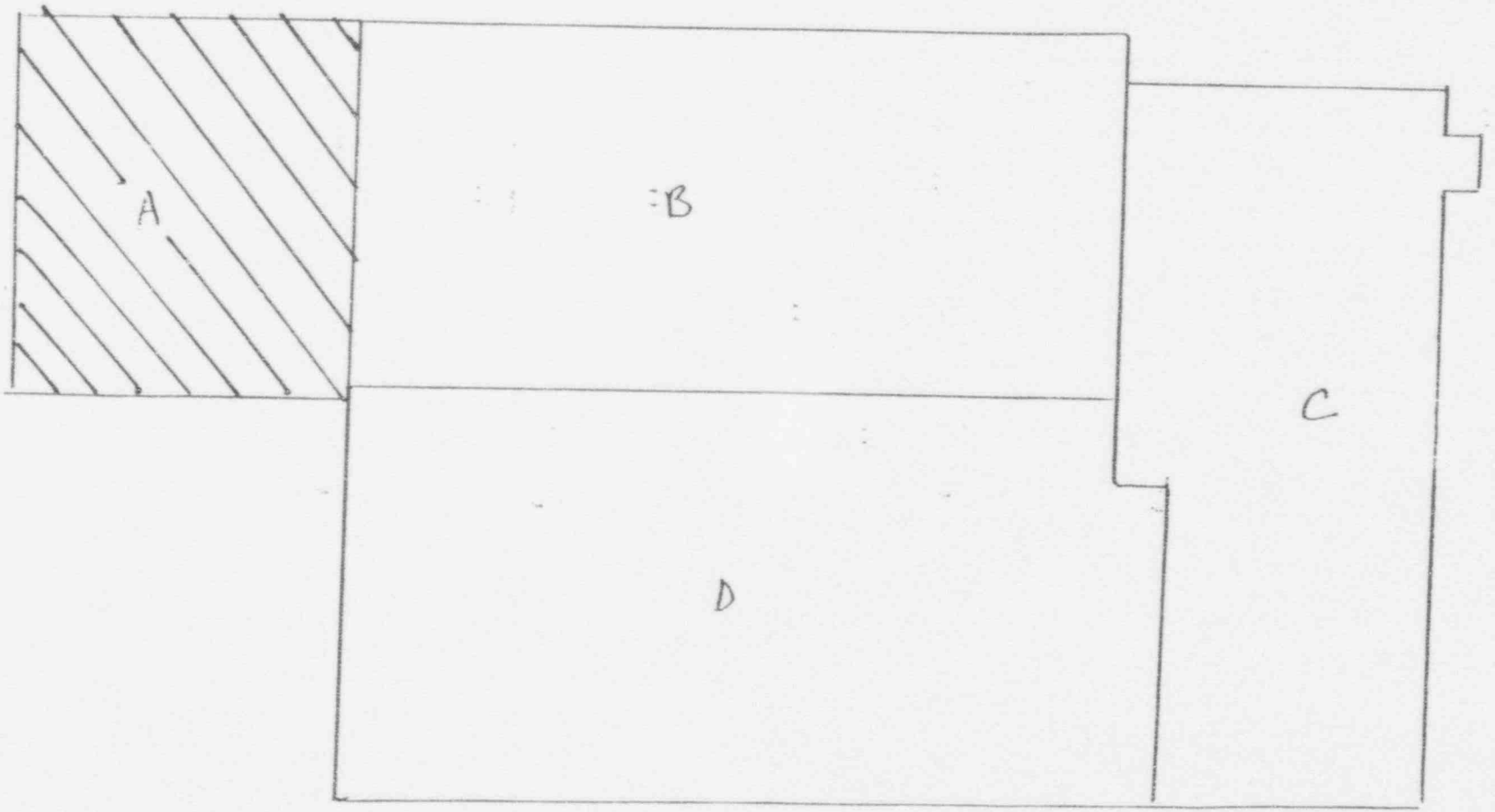
Bldg 5

"A" North ↑



NORTH
←

TOTAL BLDG 5 ROOF AREA



SURVEY TYPE: Roof B

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	5
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	576
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/20/93
COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	13 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.012 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Drain	N/A	0, 0	15	.019	728	630	11	730	6.585	3.38	Roof
Gravel	"	3, -8	13	.026	810	700	5	674	-0.312	-2.78	"
Drain	"	0, -14	12	.012	795	680	4	705	-0.312	-2.78	"
Drain	"	16, 0	18	.022	787	665	2	640	-0.312	3.20	"
Gravel	"	13, -5	13	.009	724	630	8	599	-0.312	-2.78	"
Drain	"	16, -14	15	.018	767	670	7	605	-0.312	9.54	"
Gravel	"	5, -19	10	.016	673	620	14	635	-0.312	-2.78	"
Gravel	"	10, -24	13	.007	777	645	12	666	-0.312	3.20	"
Exhaust Blowdown	"	3, -5	12	.011	776	655	4	535	-0.312	3.20	"
"	"	12, -3	10	.009	769	635	14	785	-0.312	-2.78	"
Gravel	"	10, -10	12	.011	986	735	15	849	-0.312	-2.78	"
Drain	"	0, -15	17	.009	758	620	8	602	-0.312	-2.78	"
Drain	"	0, -30	19	.015	760	654	2	545	6.576	3.20	"
Drain	"	16, -30	18	.014	774	590	3	560	-0.312	-2.78	"
Drain	"	16, -15	14	.016	790	647	1	560	-0.312	3.20	"

FORM SERIAL #: 29 - 020 (Survey Section - Sequential survey #)	LOCATION # Building 5 B (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0564	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LB5XL\UNIT1\ROOF5.XLD
Batch Ended: 5/20/93 13:09
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

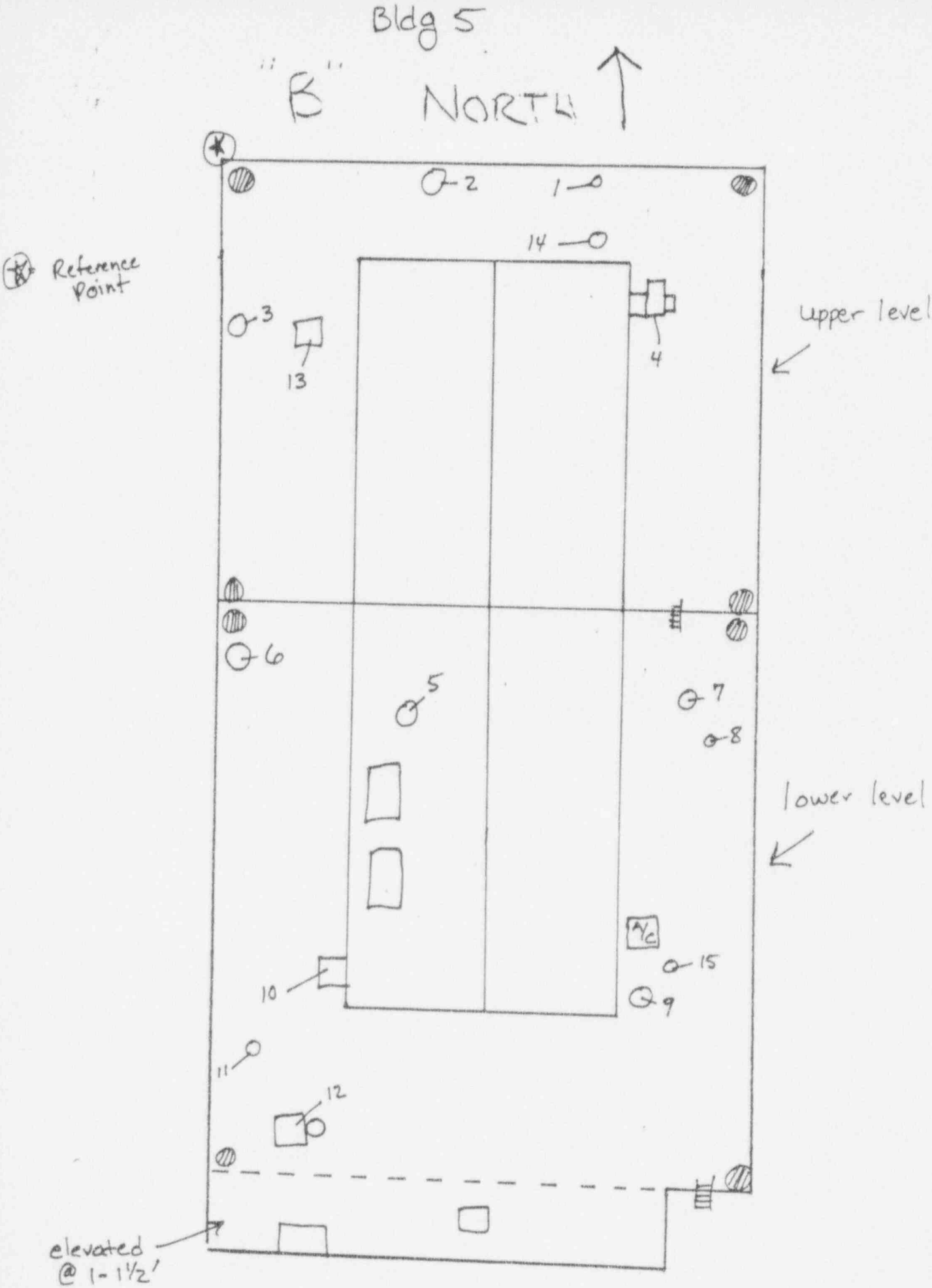
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

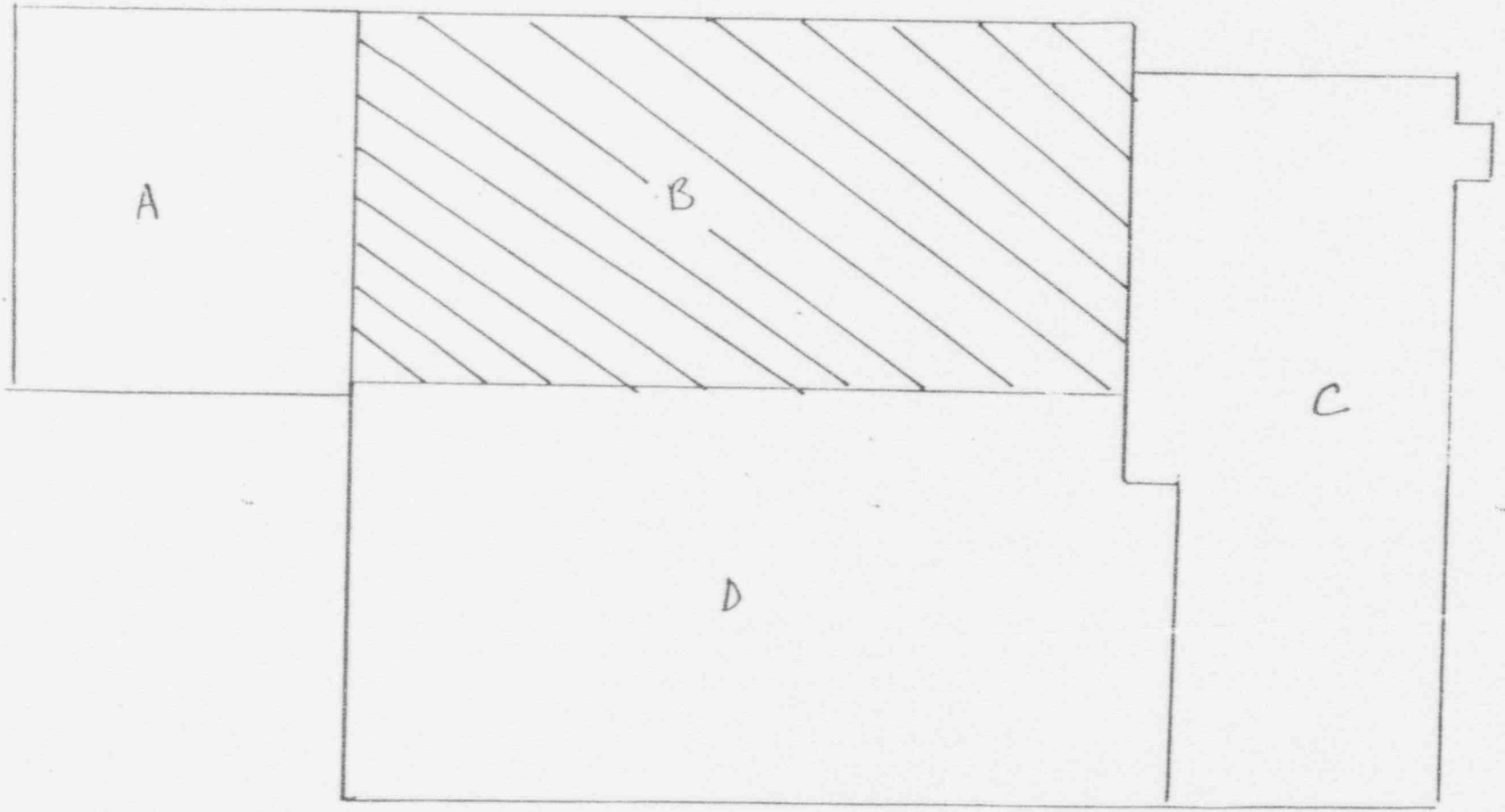
Batch ID: TSB - roof of Bldg 5 B

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	6.785	7.32	At AL	26.84	3.38	7.45	<MDA	36.04	0.33	2.897	1.66	5/20/93 13:01
2	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:02
3	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:02
4	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 13:03
5	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 13:03
6	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/20/93 13:04
7	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:04
8	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 13:05
9	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 13:05
10	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:06
11	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 13:06
12	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 13:07
13	6.576	7.11	At AL	26.16	3.20	7.26	<MDA	35.26	0.34	2.808	1.57	5/20/93 13:07
14	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:08
15	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 13:09


Bldg 5
"B"
NORTH
Reference Point
2
1
14
3
13
4
upper level
6
5
7
8
lower level
A/C
15
10
9
11
12
elevated @ 1-1½'

NORTH

TOTAL BLDG 5 ROOF AREA



SURVEY TYPE: Roof C

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	342
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/20/93

COUNT DATE: 5/24/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	12 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.016 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA)			
	INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Drain	N/A	1, 0	17	.014	725	640	28	514	-0.312	3.20	Roof
"	"	1, -12	15	.016	715	630	42	565	-0.312	-2.78	"
Tar Paper	"	5, -5	9	.009	544	475	51	478	-0.312	3.38	"
Drain	"	15, 0	15	.014	670	585	36	589	-0.312	9.54	"
"	"	15, -12	14	.016	714	620	9	684	-0.312	-2.78	"
"	"	16, -12	14	.014	790	650	30	535	-0.312	-2.78	"
"	"	16, -12	16	.012	797	675	16	580	-0.312	-2.78	"
Tar Paper	"	20, -5	9	.014	673	620	31	434	-0.312	3.20	"
Drain	"	26, +2	14	.018	765	635	43	564	-0.312	-2.78	"
"	"	26, -12	14	.009	680	590	39	514	-0.312	3.20	"
"	"	30, +2	11	.015	672	485	34	484	-0.312	-2.78	"
Rubber	"	30, -10	9	.015	693	520	55	544	-0.312	3.38	"
Exhaust	"	29, 0	12	.014	707	615	53	557	-0.312	9.54	"
"	"	33, -4	10	.009	637	510	46	631	-0.312	3.20	"
"	"	33, -5	9	.005	553	480	64	545	-0.312	-2.78	"

FORM SERIAL #: 29 - 022 (Survey Section - Sequential survey #)	LOCATION # Building 5 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0566	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/24/93
Counting Unit id: 1
Data file name: C:\LB5L\UNIT1\ROOF5C.XLD
Batch Ended: 5/24/93 7:02
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof "C" of Bldg 5

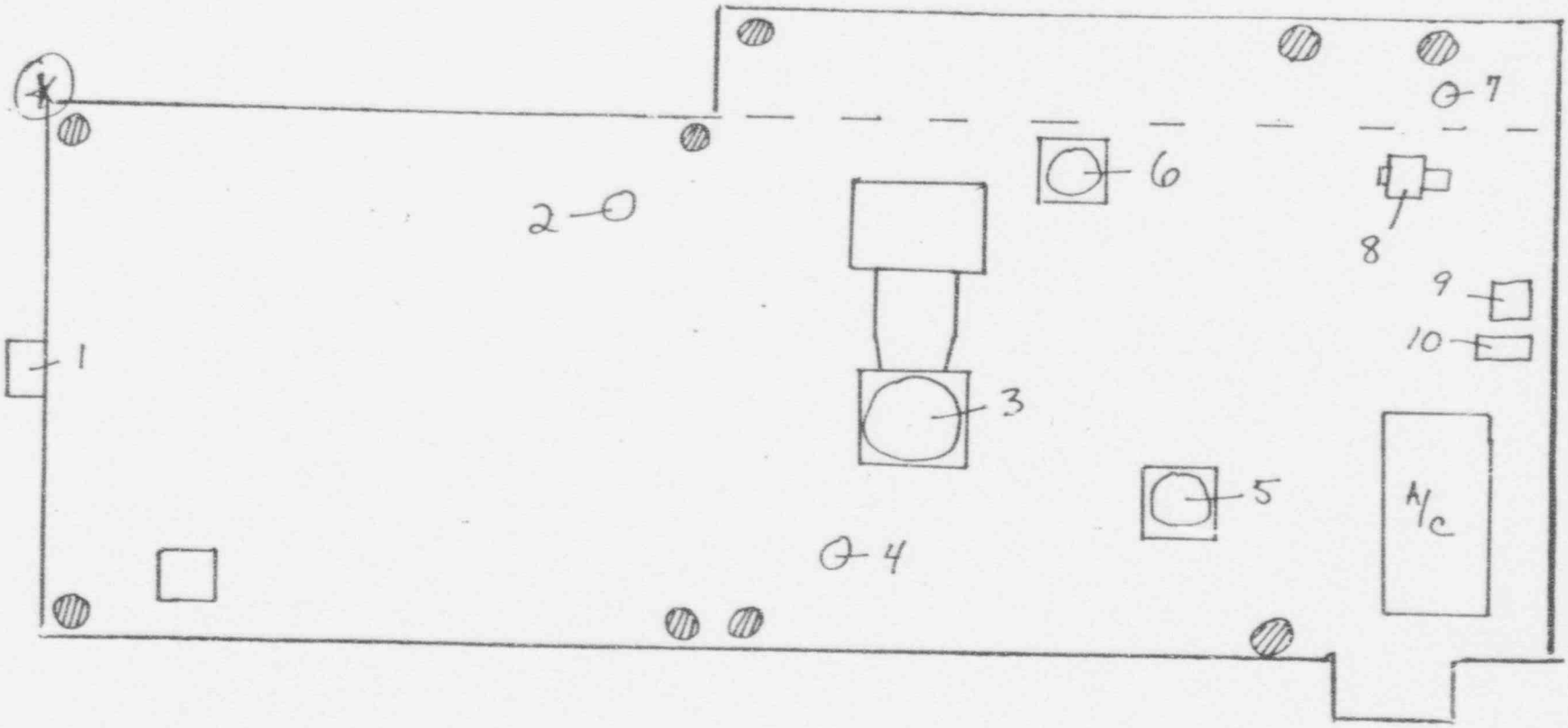
	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/24/93 6:55
2	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 6:55
3	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/24/93 6:56
4	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/24/93 6:56
5	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 6:57
6	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 6:57
7	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 6:58
8	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/24/93 6:58
9	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/24/93 6:59
10	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/24/93 6:59
11	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/24/93 7:00
12	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/24/93 7:00
13	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/24/93 7:01
14	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/24/93 7:01
15	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 7:02

Bldg 5 (Four Story Bldg)

"C" NORTH ↑

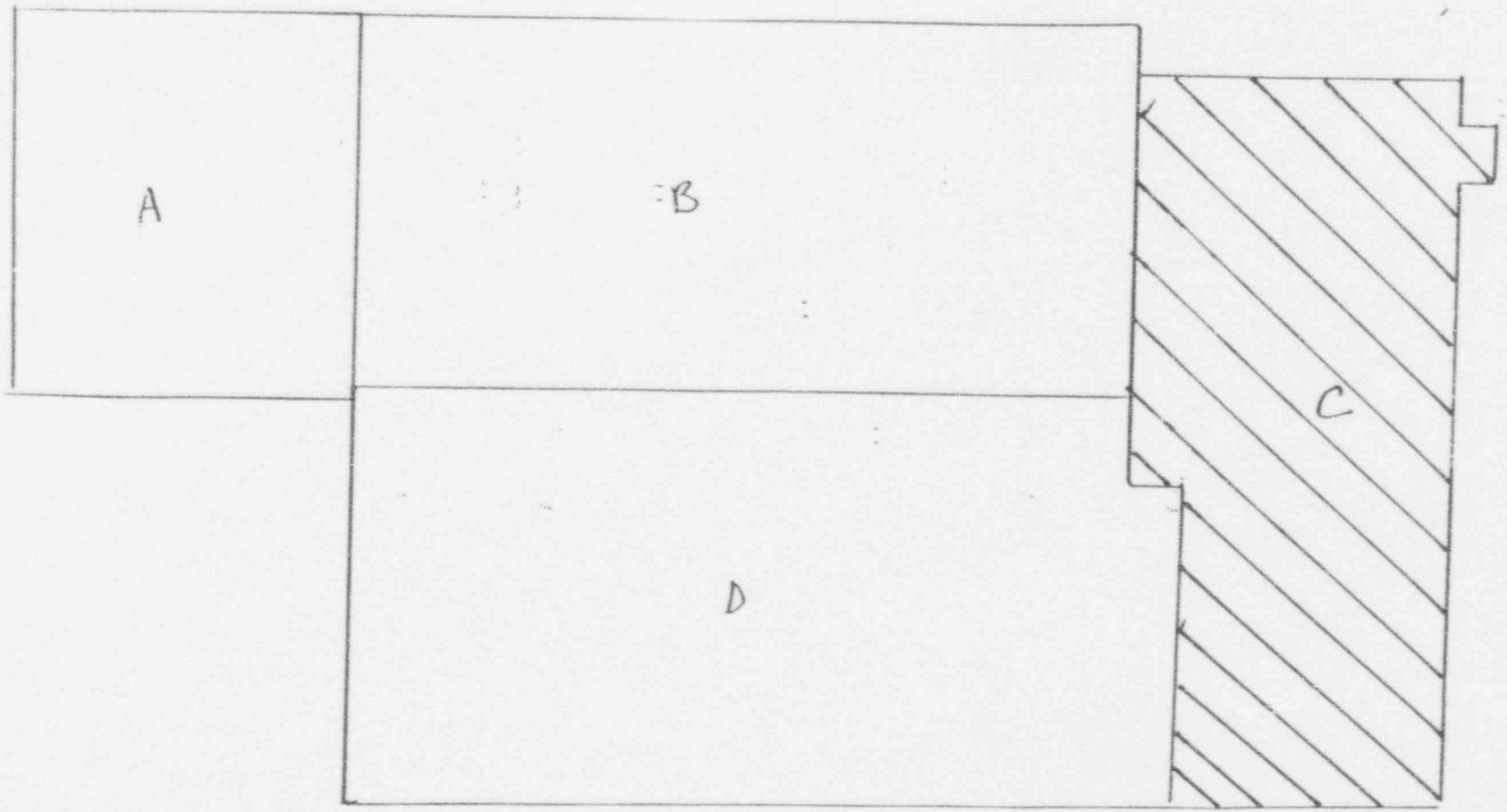
★ Reference point

---- Reference Line



NORTH

TOTAL BLDG 5 ROOF AREA



SURVEY TYPE: Roof D

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	463
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/19/93
COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	11 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.009 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Drain	N/A	4, -5	10	.019	444	325	0	470	-0.312	3.38	Roof
"	"	14, -11	11	.010	402	350	1	355	-0.312	-2.78	"
Gravel	"	10, -15	10	.009	358	285	0	358	-0.312	-2.78	"
Drain	"	12, -25	10	.011	429	330	3	332	-0.312	-2.78	"
"	"	0, -20	10	.008	361	310	2	276	-0.312	3.38	"
Gravel	"	5, -30	11	.008	375	325	4	371	-0.312	-2.78	"
Gravel	"	18, -34	15	.011	492	415	2	423	-0.312	3.20	"
Exhaust Blowdown	"	0, -34	12	.018	525	365	5	416	-0.312	-2.78	"
"	"	1, -11	11	.009	491	400	11	422	-0.312	-2.78	"
"	"	5, -11	10	.008	424	350	3	342	-0.312	3.38	"
"	"	5, -10	9	.015	337	285	3	297	-0.312	9.18	"

FORM SERIAL #: 29 - 024 (Survey Section - Sequential survey #)	LOCATION # Building 5 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0568	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF5D.XLD
Batch Ended: 5/20/93 6:50
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

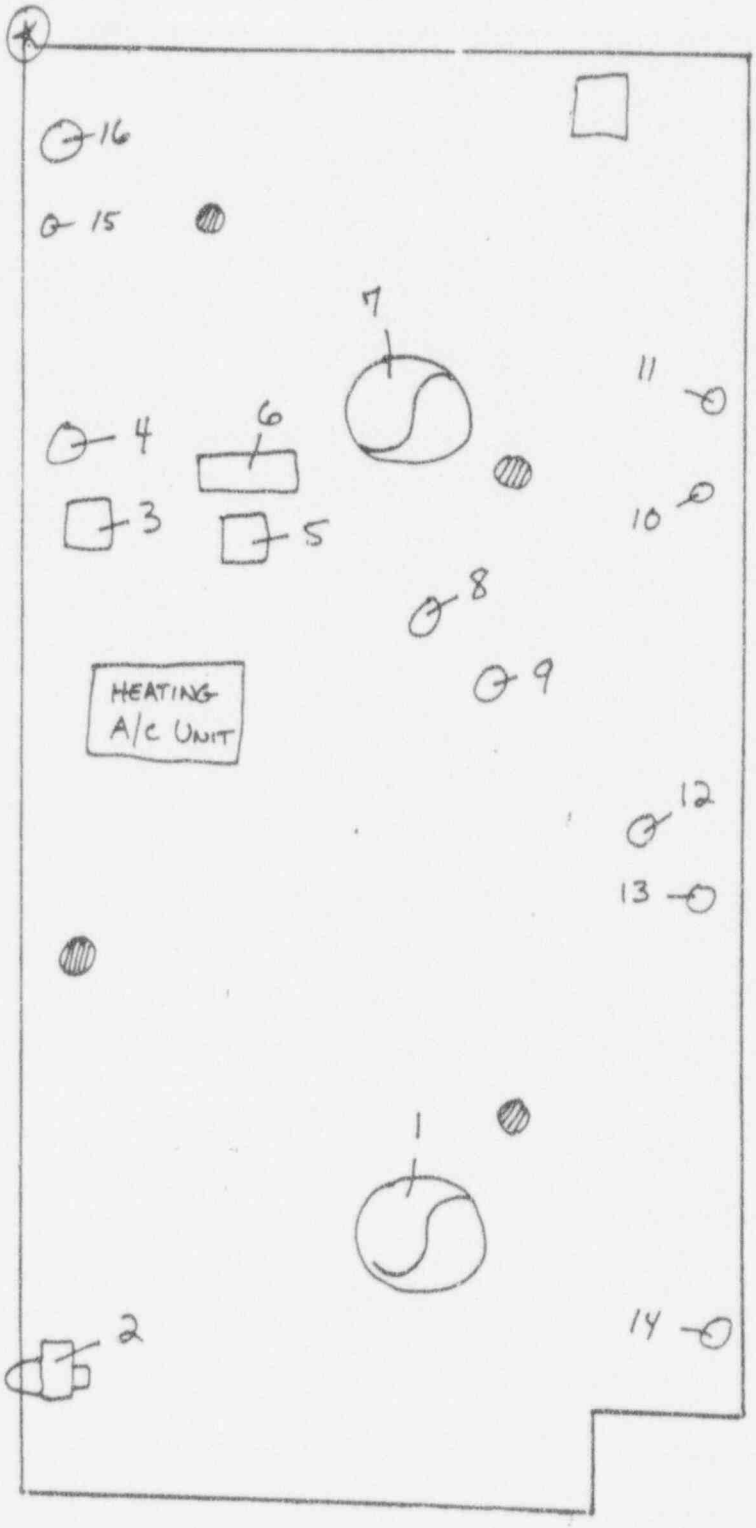
Batch ID: BLDG 5 ROOF "D"

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
16	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:44
17	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:45
18	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:46
19	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:46
20	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:47
21	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:47
22	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 6:48
23	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:48
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:49
25	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:49
26	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/20/93 6:50

Bldg 5

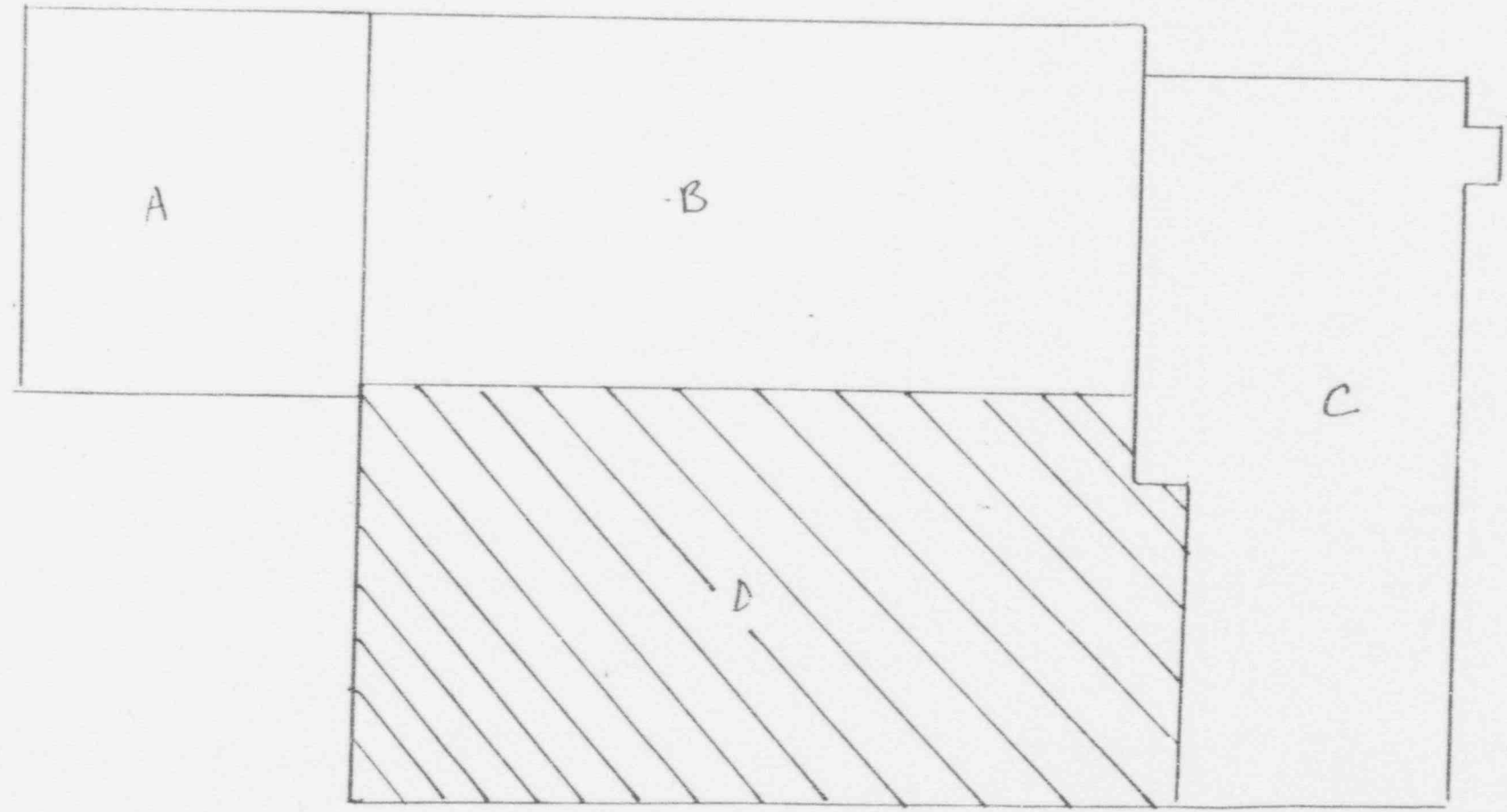
"D" NORTH ↑

⊛ Reference Point



NORTH

TOTAL BLDG 5 ROOF AREA



APPENDIX B

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 2

SURVEY TYPE: Roof - Building 6

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1517	19.3%	5.2	.999
	ESP2:1510	19.1%	5.1	
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	643
	ESP2:1593	28.3%	3.6	Used 439 4/1/93 AJ Kadi
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/12/93

COUNT DATE: 5/12/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.01 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Rubber Roof	N/A	14, -7	10	.01	369	305	5.00	517	6.714	15.52	N/A
"	"	22, -10	10	.01	377	310	7.99	510	2.030	23.65	"
"	"	15, -12	10	.01	344	290	4.00	514	4.372	15.52	"
"	"	8, -15	9	.01	326	280	4.00	419	-0.312	9.18	"
"	"	2, -20	10	.01	359	290	4.00	342	4.372	23.65	"
"	"	9, -24	10	.01	360	310	6.00	340	-0.312	-2.78	"
"	"	15, -33	10	.01	410	335	0	346	-0.312	3.38	"
"	"	10, -39	10	.01	364	320	4.00	335	2.030	9.42	"
"	"	10, -50	10	.01	444	340	2.00	293	2.030	13.49	"
"	"	23, -55	10	.01	467	345	5.00	303	-0.312	3.38	"

FORM SERIAL #: 29 - 001 (Survey Section - Sequential survey #)	LOCATION # Building 6 - Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS-0540	SURVEYOR SIGNATURE: VTMS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/12/93
Counting Unit Id: 1
Data file name: C:\LBXL\UNIT1\ROOF6.XLD
Batch Ended: 5/12/93 8:43
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

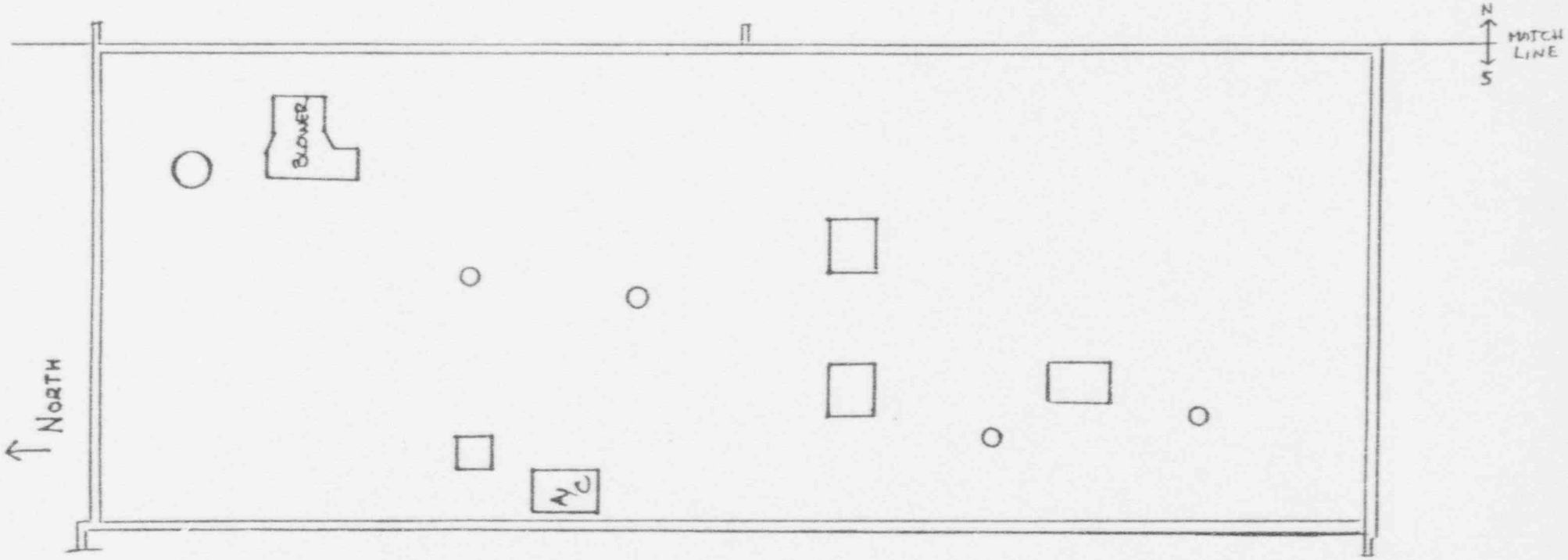
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof of Bldg 6

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	6.714	4.18	At AL	10.72	15.52	6.56	<AL	16.63	1.00	2.867	7.63	5/12/93 8:35
2	2.030	2.56	<MDA	10.72	23.65	7.72	<AL	16.63	1.00	0.867	11.63	5/12/93 8:36
3	4.372	3.47	At AL	10.72	15.52	6.56	<AL	16.63	1.00	1.867	7.63	5/12/93 8:37
4	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/12/93 8:38
5	4.372	3.47	At AL	10.72	23.65	7.72	<AL	16.63	1.00	1.867	11.63	5/12/93 8:39
6	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/12/93 8:40
7	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/12/93 8:40
8	2.030	2.56	<MDA	10.72	9.42	5.53	<AL	16.63	1.00	0.867	4.63	5/12/93 8:42
9	2.030	2.56	<MDA	10.72	13.49	6.24	<AL	16.63	1.00	0.867	6.63	5/12/93 8:43
10	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/12/93 8:43



ROOF BLDG 6

Not to scale

SURVEY TYPE: Roof - Building 7

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1517	19.3%	5.2	.999
	ESP2:1510	19.1%	5.1	
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	643
	ESP2:1593	28.3%	3.6	Used 439 4/1/93 A.J. Mandi
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/12/93

COUNT DATE: 5/12/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.01 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Roof	N/A	2, -3	10	.01	245	220	2	297	6.576	3.20	N/A
"	"	14, -10	8	.01	527	390	4	307	-0.312	9.18	"
"	"	28, -9	9	.01	436	375	5	357	-0.312	3.38	"
Roof Drain	"	15, -20	7	.01	567	415	8	347	6.714	19.59	"
Roof	"	0, -30	10	.01	551	480	7	521	-0.312	11.45	"
"	"	15, -43	7	.01	565	425	4	393	-0.312	7.39	"
"	"	29, -43	10	.02	630	420	6	493	-0.312	-2.78	"
"	"	1, -52	11	.01	611	475	5	448	6.714	7.39	"
"	"	29, -52	10	.01	727	460	6	560	-0.312	-2.78	"
"	"	15, -59	9	.01	477	395	7	329	-0.312	-2.78	"
Roof Drain	"	16, -10	7	.01	480	405	3	390	6.714	7.39	"

FORM SERIAL #: 29 - 002 (Survey Section - Sequential survey #)	LOCATION # Building 7 Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0541	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/12/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF7.XLD
Batch Ended: 5/12/93 15:51
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: avt:roof of building 7

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	6.576	7.11	At AL	26.16	3.20	7.26	<MDA	35.26	0.34	2.808	1.57	5/12/93 15:43
2	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/12/93 15:43
3	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/12/93 15:44
4	6.714	4.18	At AL	10.72	19.59	7.17	<AL	16.63	1.00	2.867	9.63	5/12/93 15:45
5	-0.312	1.02	<MDA	10.72	11.45	5.90	<AL	16.63	1.00	-0.133	5.63	5/12/93 15:46
6	-0.312	1.02	<MDA	10.72	7.39	5.14	<AL	16.63	1.00	-0.133	3.63	5/12/93 15:47
7	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 15:48
8	6.714	4.18	At AL	10.72	7.39	5.14	<AL	16.63	1.00	2.867	3.63	5/12/93 15:49
9	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 15:49
10	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 15:50
11	6.714	4.18	At AL	10.72	7.39	5.14	<AL	16.63	1.00	2.867	3.63	5/12/93 15:51

ROOF BLDG 7

Not to Scale

SURVEY TYPE: Roof - Building 8

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1517	19.3%	5.2	.999
	ESP2:1510	19.1%	5.1	
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	439
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/12/93
COUNT DATE: 5/12/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	12 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.01 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA)			
	INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Rubber Roof	N/A	0, -2	11	.02	476	390	8	402	2.030	15.52	N/A
"	"	11, -2	10	.01	428	375	6	362	2.030	11.45	"
"	"	19, -9	10	.01	459	410	7	325	-0.312	-2.78	"
"	"	18, -21	11	.01	410	365	8	349	-0.312	9.54	"
"	"	9.5, -28	9	.01	455	385	6	326	6.576	3.20	"
"	"	1, -40	10	.01	517	400	6	325	6.785	-2.78	"
"	"	10, -45	7	.01	335	300	3	268	-0.312	9.54	"
"	"	19, -50	9	.01	553	415	9	355	-0.312	9.18	"
"	"	0, -51	12	.01	538	390	3	349	-0.312	-2.78	"
"	"	18, -55	9	.01	489	365	9	313	-0.312	-2.78	"

FORM SERIAL #: 29 - 003 (Survey Section - Sequential survey #)	LOCATION # Building 8 Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0542	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/12/93
Counting Unit Id: 1
Data file name: C:\LBXL\UNIT1\ROCF8.XLD
Batch Ended: 5/12/93 15:58
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

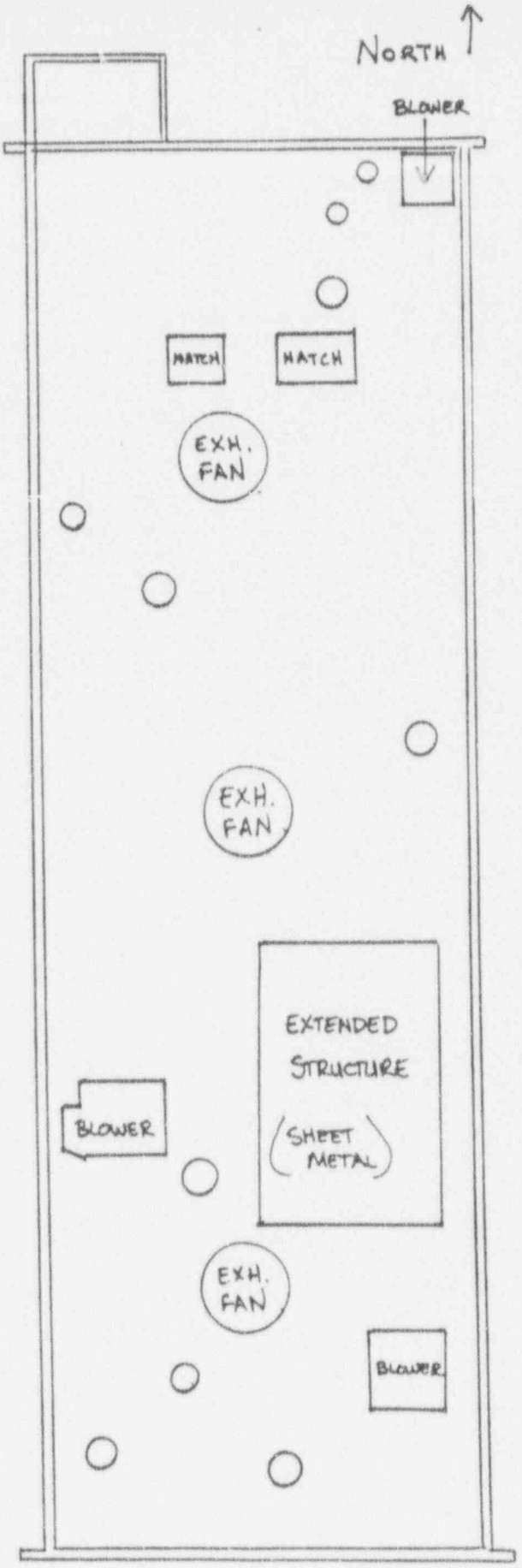
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: avt-roof 8

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
12	2.030	2.56	<MDA	10.72	15.52	6.56	<AL	16.63	1.00	0.867	7.63	5/12/93 15:52
13	2.030	2.56	<MDA	10.72	11.45	5.90	<AL	16.63	1.00	0.867	5.63	5/12/93 15:54
14	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/12/93 15:54
15	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/12/93 15:55
16	6.576	7.11	At AL	26.16	3.20	7.26	<MDA	35.26	0.34	2.808	1.57	5/12/93 15:55
17	6.785	7.32	At AL	26.84	-2.78	4.19	<MDA	36.04	0.33	2.897	-1.37	5/12/93 15:56
18	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/12/93 15:56
19	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/12/93 15:57
20	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 15:57
21	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/12/93 15:58


NORTH
BLOWER
HATCH
HATCH
EXH. FAN
EXH. FAN
EXTENDED STRUCTURE
(SHEET METAL)
BLOWER
EXH. FAN
BLOWER

ROOF BLDG. 8

APPENDIX C

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 3

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	292
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/13/93
COUNT DATE: 5/13/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	8 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.01 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA)			
	INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel Roof	N/A	20, +5	10	.012	406	350	2	413	-0.312	-2.78	ESP's used for scans
"	"	25, +5	10	.011	533	375	4	478	-0.312	3.38	& 1 minute counts
"	"	30, +5	13	.014	597	475	4	554	-0.312	-2.78	"
"	"	20, 0	8	.012	474	375	9	436	-0.312	-2.78	"
"	"	25, 0	11	.011	600	400	8	412	-0.312	-2.78	"
"	"	30, 0	11	.012	720	475	7	545	-0.312	-2.78	"
"	"	5, -5	8	.011	429	350	3	450	-0.312	-2.78	"
"	"	10, -5	8	.008	446	375	5	388	-0.312	3.20	"
"	"	5, -10	10	.011	505	450	4	434	-0.312	3.38	"
"	"	10, -10	7	.004	410	350	2	366	-0.312	-2.78	"
"	"	20, -10	7	.007	430	350	3	406	-0.312	-2.78	"
"	"	25, -10	10	.016	585	460	2	444	-0.312	-2.78	"
"	"	30, -10	12	.011	630	500	5	530	-0.312	3.38	"
"	"	25, -20	10	.014	461	375	5	447	-0.312	-2.78	"
"	"	30, -20	11	.012	535	450	2	487	-0.312	-2.78	"

FORM SERIAL #: 29 - 004 (Survey Section - Sequential survey #)	LOCATION # Building 8A (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0543	SURVEYOR SIGNATURE:

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1517	19.3%	5.2	2
	ESP2:1510	19.1%	5.1	
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	311
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/13/93

COUNT DATE: 5/13/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	8 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.01 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	

	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel Roof	N/A	30, -30	11	.012	519	400	4	458	-0.312	3.38	ESP'S used for scans
"	"	25, -30	9	.007	432	380	8	459	-0.312	-2.78	& 1 minute counts
"	"	30, -40	11	.006	608	480	4	519	6.576	3.20	"
"	"	25, -40	9	.008	362	325	5	357	-0.312	-2.78	"
"	"	20, -40	8	.007	446	350	1	387	-0.312	-2.78	"
"	"	15, -40	8	.010	408	325	8	376	-0.312	-2.78	"
"	"	10, -40	9	.012	425	350	6	444	-0.312	9.54	"
"	"	5, -40	9	.011	418	325	3	411	-0.312	-2.78	"
"	"	5, -50	11	.007	412	350	13	467	-0.312	-2.78	"
"	"	10, -50	9	.018	451	325	5	498	-0.312	3.38	"
"	"	15, -50	10	.015	374	325	7	417	-0.312	-2.78	"
"	"	20, -50	8	.012	373	325	2	452	-0.312	3.20	"
"	"	25, -50	10	.014	511	400	1	538	-0.312	-2.78	"
"	"	30, -50	10	.018	400	325	4	473	-0.312	-2.78	"
"	"	5, -30	8	.015	495	375	4	333	-0.312	-2.78	"

FORM SERIAL #: 29 - 004 (Survey Section - Sequential survey #)	LOCATION # Building 8A Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0544	SURVEYOR SIGNATURE: VI/LS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/13/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROC?8A.XLD
Batch Ended: 5/13/93 14:51
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - roof of Bldg 8A

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:35
2	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 14:36
3	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:36
4	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:37
5	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:37
6	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:38
7	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:38
8	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 14:39
9	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 14:40
10	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:40
11	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:41
12	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:41
13	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 14:42
14	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:42
15	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:43
16	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 14:43
17	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:44
18	6.576	7.11	At AL	26.16	3.20	7.26	<MDA	35.26	0.34	2.808	1.57	5/13/93 14:44
19	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:45
20	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:45
21	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:46
22	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/13/93 14:46
23	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:47
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:47
25	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 14:48

LB5100W Low Background Counting System – Smear Analysis

Date: 5/13/93
Counting Unit id: 1
Data file name: C:\LB5L\UNIT1\ROOF8A.XLD
Batch Ended: 5/13/93 14:51
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - roof of Bldg 8A

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
26	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:48
27	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 14:49
28	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:49
29	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 14:50
30	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 14:51


NORTH
DRAIN
0,0 COORDINATE
DRAIN
A/C
HEATING AND A/C
DRAIN
DRAIN
A/C
VENT
DRAIN
DRAIN
ROOF BLDG 8A

SURVEY TYPE: Roof Drain Points

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	318
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/15/93

COUNT DATE: 5/17/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.015 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	

	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Roof Drains	N/A	1, -21	12	.009	448	375	6	360	-0.312	3.20	ESP's used for scans &
"	"	0, -45	11	.009	469	375	4	337	-0.312	3.38	1 minute counts
"	"	30, -35	10	.011	480	400	2	409	-0.312	-2.78	"
"	"	30, -5	11	.011	350	325	3	344	-0.312	-2.78	"
"	"	30, +10	11	.006	604	450	7	430	-0.312	9.54	"

FORM SERIAL #: 29 - 008 (Survey Section - Sequential survey #)	LOCATION # Building 8 A (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: (Group I, II, III, IV) VII	DISK FILE CODE: FDS - 0549	SURVEYOR SIGNATURE: ~~FDS - 0549~~

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/17/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF-8A.XLD
Batch Ended: 5/17/93 14:37
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

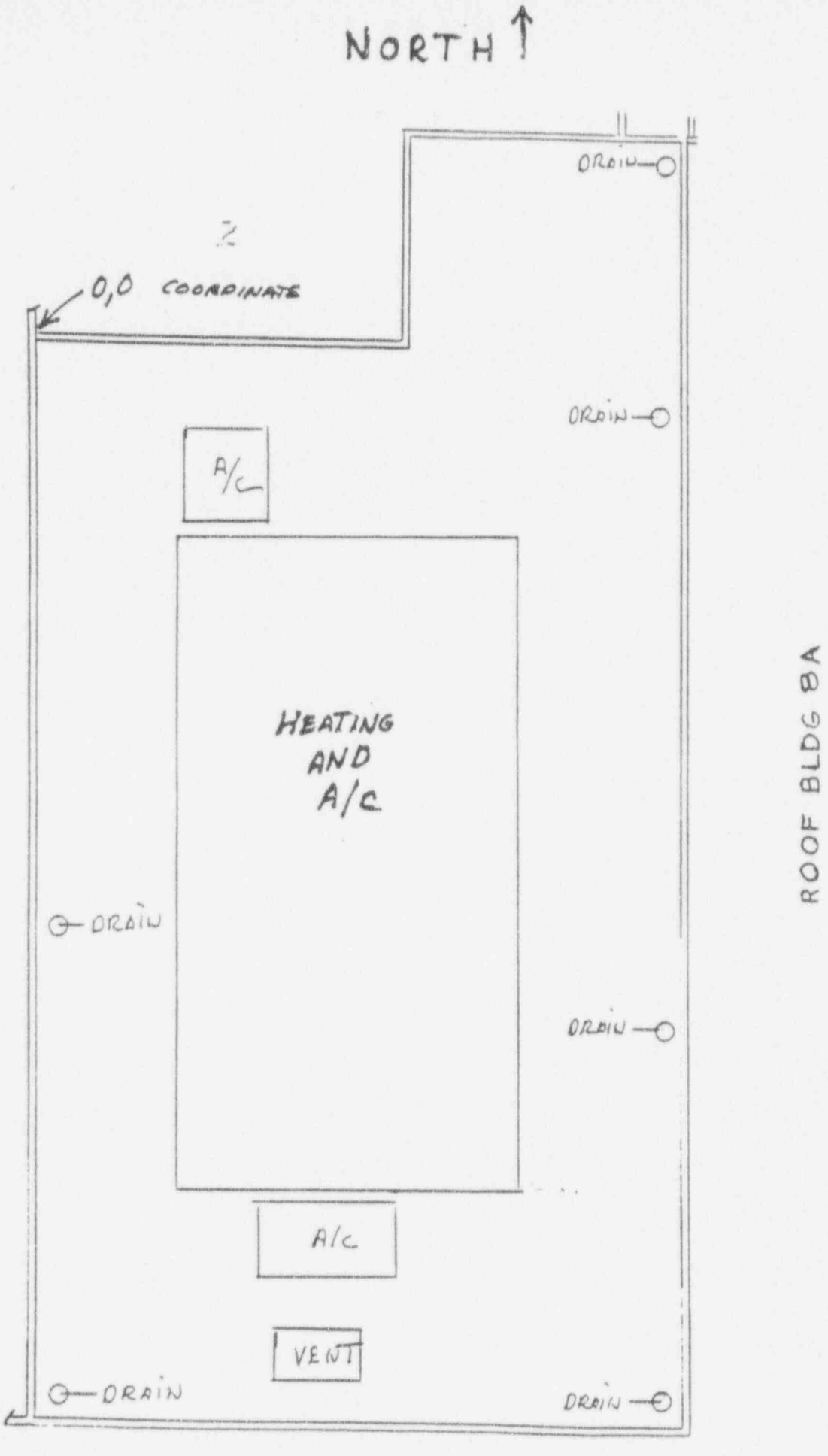
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 8A ROOF AT DRAIN AREAS

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
32	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:35
33	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/17/93 14:36
34	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:36
35	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:37
40	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/17/93 14:37


NORTH
DRAIN
0,0 COORDINATE
DRAIN
A/C
HEATING AND A/C
DRAIN
DRAIN
A/C
VENT
DRAIN
DRAIN
ROOF BLDG 8A

SURVEY TYPE: Roof (Upper - Heating & Air Conditioning Room) DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	259
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/26/93

COUNT DATE: 5/26/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	8 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.011 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel	N/A	5, 0	9	.012	466	375	12	504	-0.312	-2.78	ESP's used for scans &
"	"	0, -5	8	.014	468	390	14	466	-0.312	3.20	1 minute counts
"	"	11, -5	9	.014	518	440	7	397	-0.312	3.38	"
"	"	11, -10	9	.008	337	270	9	392	-0.312	-2.73	"
"	"	0, -10	8	.008	372	310	8	358	-0.312	-2.78	"
"	"	5, -15	6	.006	424	345	6	415	-0.312	3.20	"
"	"	10, -18	8	.007	428	360	2	315	-0.312	-2.78	"
"	"	2, -18	8	.010	408	335	7	369	-0.312	-2.78	"
"	"	0. -22	8	.007	370	290	5	295	-0.312	3.38	"
"	"	12, -22	7	.009	348	260	7	328	6.785	-2.78	"

FORM SERIAL #: 29 - 031 (Survey Section - Sequential survey #)	LOCATION # Building 8 A Heat & A/C (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0577	SURVEYOR SIGNATURE: MS/VT

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/26/93
Counting Unit id: 1
Data file name: C:\LB5\UNIT1\ROOF8AHA.XLD
Batch Ended: 5/26/93 9:08
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

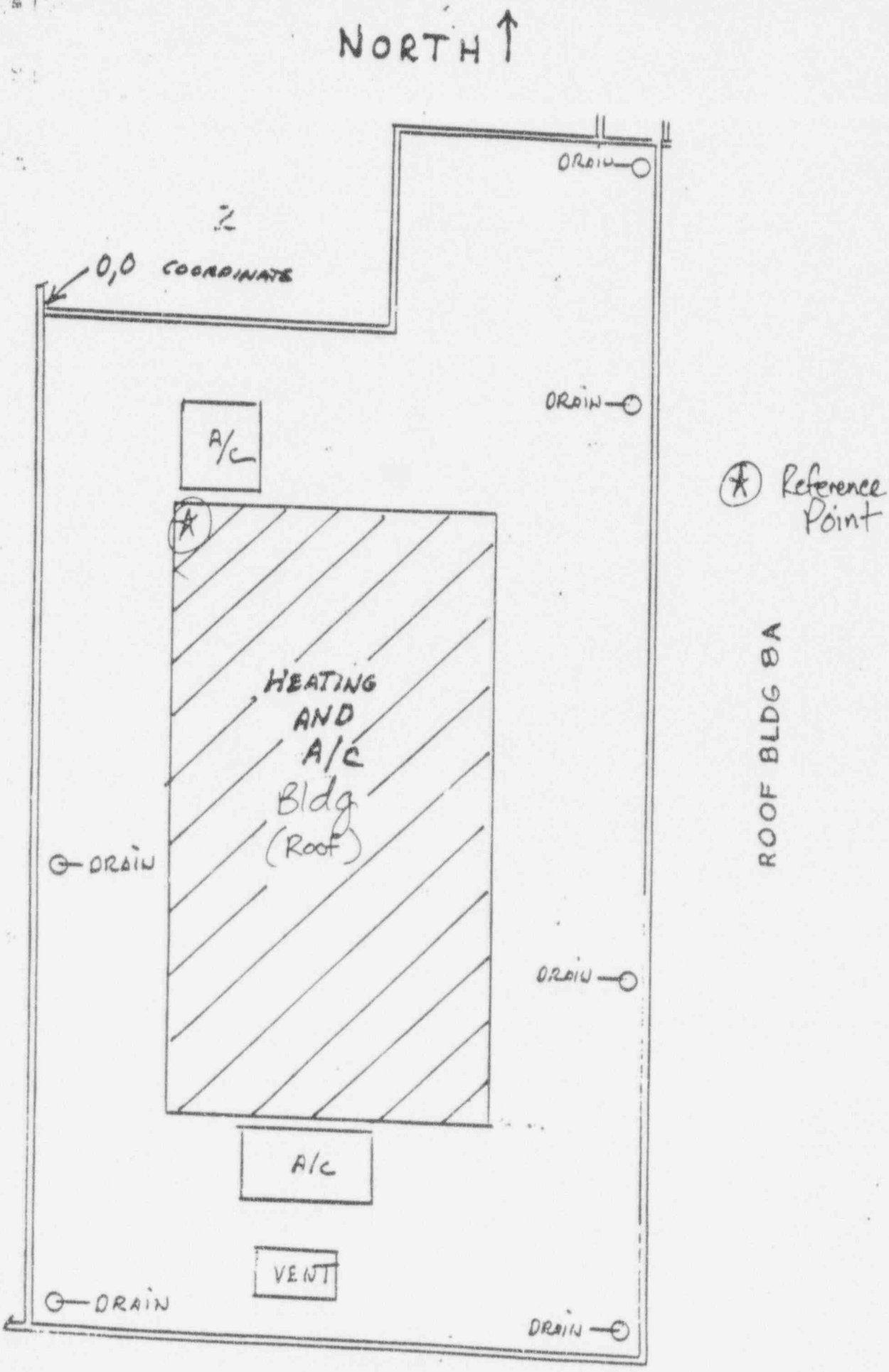
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 8A HEATING & A/C ROOM ROOF

Carrier	Alpha Activity				Beta Activity				Count time (min)	Alpha CPM	Beta CPM	Completion TOD
	DPM	σ	flags	MDA	DPM	σ	flags	MDA				
1	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/26/93 9:03
2	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/26/93 9:04
3	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/26/93 9:04
4	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/26/93 9:05
5	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/26/93 9:05
6	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/26/93 9:06
7	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/26/93 9:06
8	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/26/93 9:07
9	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/26/93 9:07
10	6.785	7.32	At AL	26.84	-2.78	4.19	<MDA	36.04	0.33	2.897	-1.37	5/26/93 9:08


NORTH
DRAIN
0,0 COORDINATE
DRAIN
A/C
Reference Point
HEATING AND A/C Bldg (Roof)
DRAIN
DRAIN
A/C
VENT
DRAIN
DRAIN
ROOF BLDG 8A

APPENDIX D

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 4

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	318
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/17/93
COUNT DATE: 5/17/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.015 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel Roof	N/A	1, 0	12	.010	383	340	1	297	-0.312	3.20	Roof Drain Area
"	"	10, -10	10	.012	472	400	7	427	-0.312	-2.78	Roof
"	"	20, -10	11	.010	514	425	5	424	-0.312	-2.78	"
"	"	30, -10	10	.008	506	450	1	405	-0.312	3.20	"
"	"	40, -10	10	.016	401	350	4	355	-0.312	3.20	"
"	"	44, -6	11	.010	451	375	1	384	-0.312	3.20	Roof Drain Area
"	"	5, -20	10	.006	589	460	2	439	-0.312	3.38	Roof
"	"	15, -20	9	.008	494	429	6	432	-0.312	-2.78	"
"	"	25, -20	10	.009	519	450	1	418	-0.312	3.38	"
"	"	35, -20	9	.008	481	400	3	393	-0.312	-2.78	"
"	"	10, -30	9	.009	600	450	6	354	-0.312	-2.78	"
"	"	20, -30	9	.012	399	375	4	407	-0.312	-2.78	"
"	"	30, -30	8	.008	506	400	6	388	-0.312	-2.78	"
"	"	40, -30	8	.006	397	340	6	373	-0.312	9.18	"
"	"	44, -30	10	.017	515	375	4	332	-0.312	-2.78	Roof Drain Area

FORM SERIAL #: 29 - 009 (Survey Section - Sequential survey #)	LOCATION # Building 9 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0550	SURVEYOR SIGNATURE: LSAT

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	318
	ESP2:			
	ESP2:			
	E520: 5242	20.2%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/17/93
COUNT DATE: 5/17/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.015 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel Roof	N/A	0, -30	10	.008	397	350	8	385	-0.312	-2.78	Roof Drain Area
"	"	5, -40	10	.016	458	400	8	457	-0.312	-2.78	Roof
"	"	15, -40	8	.010	449	400	6	464	-0.312	-2.78	"
"	"	25, -40	8	.010	504	400	5	421	-0.312	-2.78	"
"	"	35, -40	8	.004	457	400	7	455	-0.312	-2.78	"
"	"	44, -40	8	.012	542	440	1	420	-0.312	-2.78	"
"	"	10, -50	9	.017	600	475	7	480	-0.312	-2.78	"
"	"	20, -50	8	.012	533	450	7	431	-0.312	3.38	"
"	"	30, -50	8	.012	353	300	4	339	-0.312	-2.78	"
"	"	40, -50	9	.009	393	375	8	393	-0.312	-2.78	"
"	"	0, -55	11	.015	454	400	7	412	-0.312	3.20	Roof Drain Area
"	"	5, -55	9	.007	485	350	7	327	-0.312	-2.78	Roof
"	"	15, -55	9	.012	427	375	6	389	-0.312	-2.78	"
"	"	25, -55	9	.009	555	400	2	378	-0.312	3.38	"
"	"	44, -55	9	.011	339	300	3	362	-0.312	9.54	Roof Drain Area

FORM SERIAL #: 29 - 009 (Survey Section - Sequential survey #)	LOCATION # Building 9 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0551	SURVEYOR SIGNATURE: [illegible]

LB5100W Low Background Counting System – Smear Analysis

Date: 5/17/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF9.XLD
Batch Ended: 5/17/93 12:53
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof 9

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 12:38
2	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:38
3	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:39
4	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 12:39
5	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 12:40
6	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 12:40
7	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/17/93 12:41
8	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:41
9	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/17/93 12:42
10	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:42
11	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 12:43
12	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 12:43
13	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:44
14	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/17/93 12:44
15	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:45
16	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:45
17	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:46
18	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:46
19	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 12:47
20	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:47
21	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 12:48
22	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:48
23	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/17/93 12:49
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 12:50
25	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 12:50

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/17/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF9.XLD
Batch Ended: 5/17/93 12:53
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

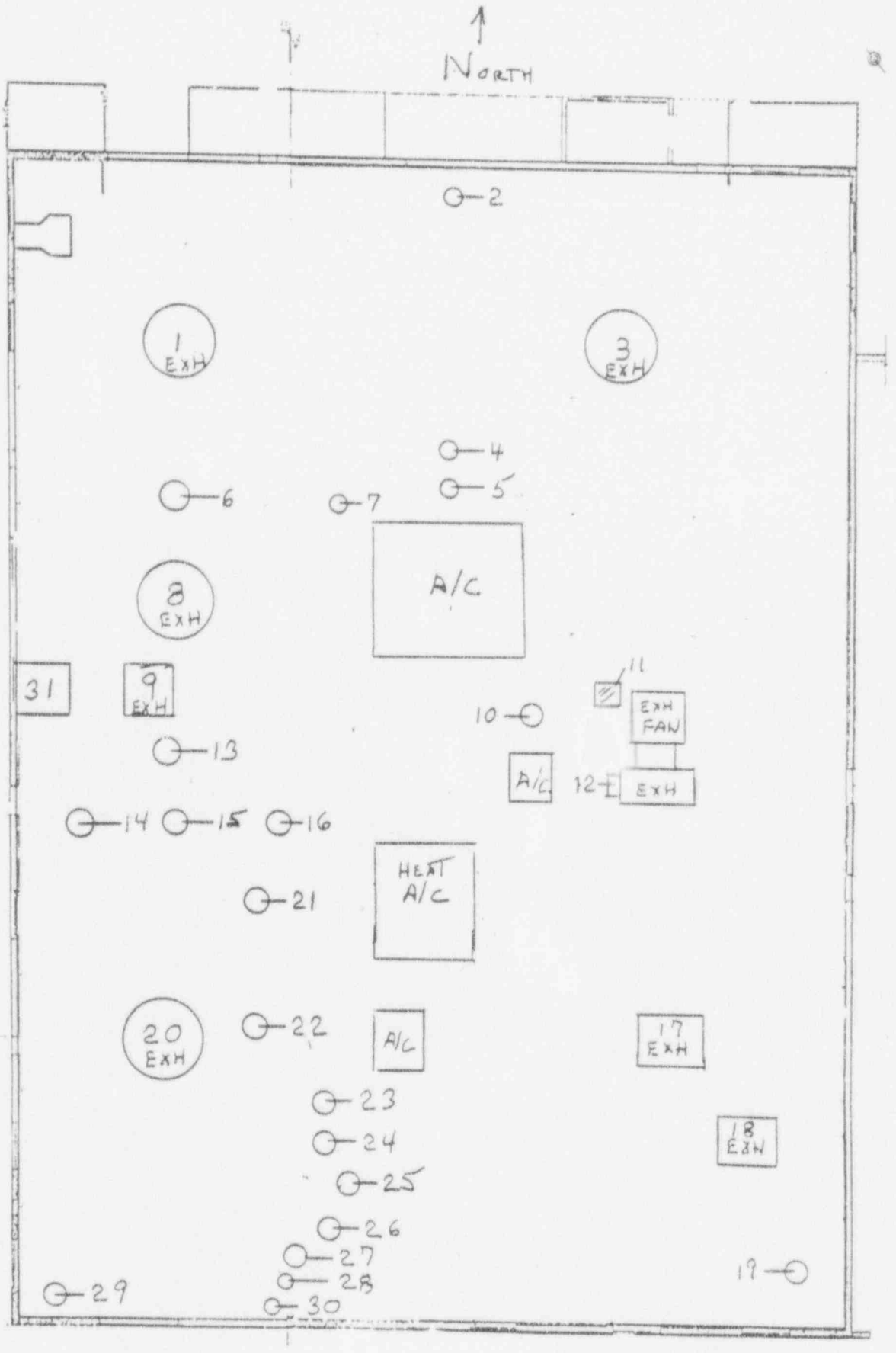
Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof 9

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
26	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 12:51
27	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:51
28	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 12:52
29	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/17/93 12:52
30	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/17/93 12:53

ROOF BLDG 9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3 EXH
4
5
6
7
A/C
8 EXH
31
9 EXH
11
EXH FAN
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A/C
12
EXH
13
14
15
16
HEAT A/C
21
20 EXH
22
A/C
17 EXH
23
24
18 EXH
25
26
27
28
29
30
19

SURVEY TYPE: Roof at Vent Blow Down Areas

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	318
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/17/93

COUNT DATE: 5/17/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.015 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	

	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel @ Vent #9	N/A	N/A	8	.008	399	400	14	409	-0.312	-2.78	See Attached Map-ESP's
" Vent #11	"	"	8	.013	548	475	6	461	-0.312	-2.78	"
" Vent #12	"	"	7	.007	515	480	7	559	-0.312	3.20	"
" Vent #31	"	"	9	.010	508	425	7	488	-0.312	-2.78	"

FORM SERIAL #: 29 - 011 (Survey Section - Sequential survey #)	LOCATION # Building 9 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0555	SURVEYOR SIGNATURE:

LB5100W Low Background Counting System – Smear Analysis

Date: 5/17/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF9V.XLD
Batch Ended: 5/17/93 14:39
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

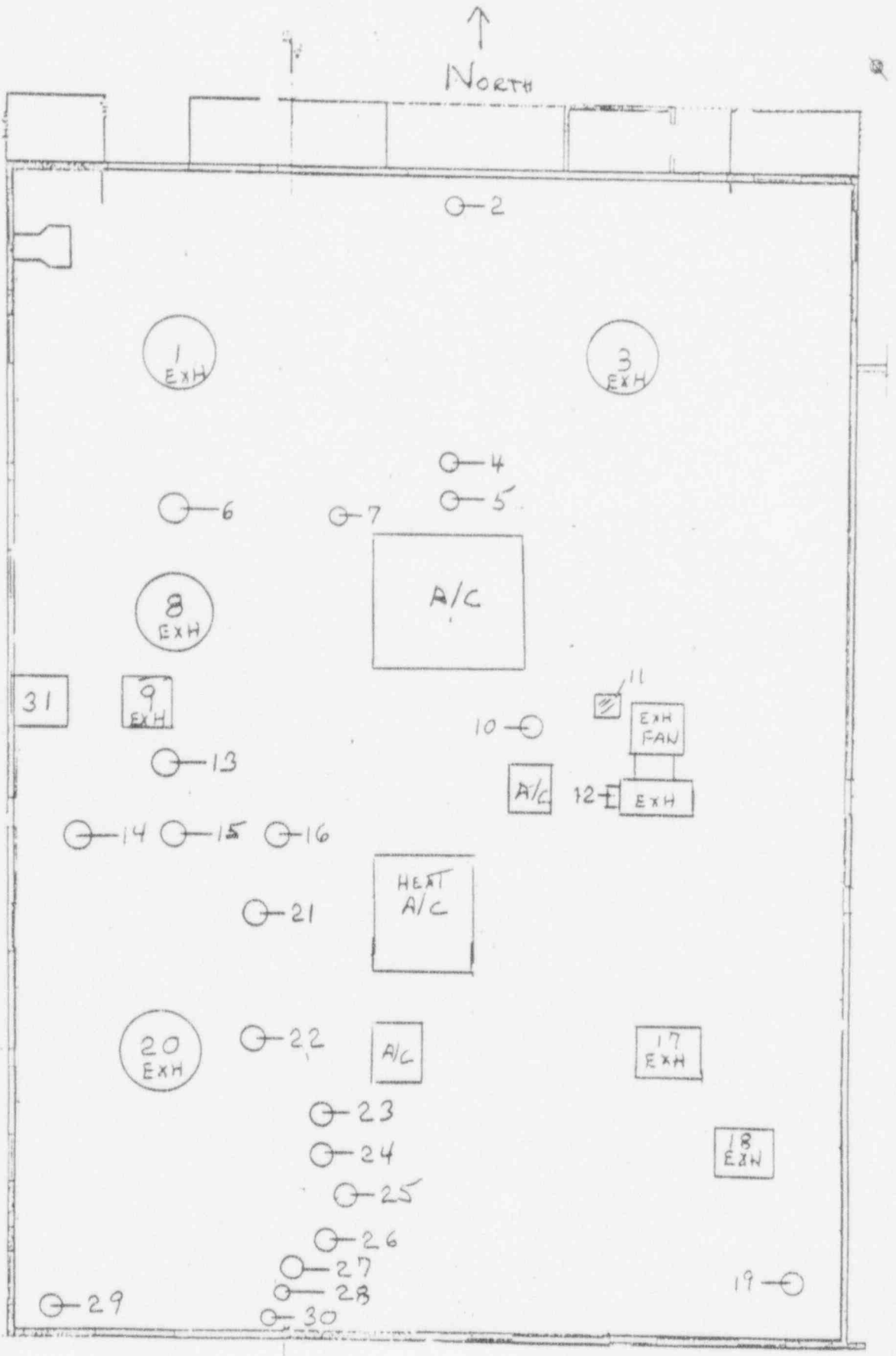
Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 9 ROOF AT VENT BLOW DOWN AREAS.

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
36	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:38
37	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:38
38	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:39
39	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:39

ROOF BLDG 9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3 EXH
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5
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7
A/C
8 EXH
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9 EXH
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EXH FAN
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A/C
12
EXH
13
14
15
16
HEAT A/C
21
20 EXH
22
A/C
17 EXH
23
24
25
26
27
28
29
30
18 EXH
19

APPENDIX E

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 5

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	377
*	ESP2:1593	28.3%	3.6	279
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/24/93

COUNT DATE: 5/25/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	9 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.020 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel	N/A	16, +5	10	.008	562	480	4	780	-0.312	3.38	Contact B Readings
"	"	15, +5	10	.010	562	475	7	558	-0.312	9.18	with ESP 2 #1595
"	"	16, +3	10	.012	611	505	12	541	-0.312	-2.78	Scans with #1593
"	"	15, +3	12	.015	616	495	10	606	6.576	3.20	"
"	"	16, +1	9	.012	480	385	7	516	-0.312	-2.78	"
"	"	15, +1	10	.013	536	450	3	777	-0.312	-2.78	"
"	"	17, 0	10	.009	545	480	3	775	-0.312	-2.78	"
"	"	18, -1	10	.015	561	475	7	772	2.030	1.29	"
"	"	18, 0	10	.018	457	395	2	683	-0.312	-2.78	"
"	"	15, -2	10	.015	692	610	14	883	-0.312	3.38	"
"	"	14, -1	11	.010	532	470	6	759	-0.312	-2.78	"
"	"	14, -2	12	.022	641	525	9	938	-0.312	-2.78	"
"	"	16, -3	11	.023	600	515	10	749	-0.312	9.54	"
Concrete	"	13, -3	9	.015	522	390	11	604	-0.312	-2.78	"
"	"	13, 0	10	.009	376	315	25	799	-0.312	-2.78	"

FORM SERIAL #: 29 - 028 (Survey Section - Sequential survey #)	LOCATION # Hydrogen Building (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0573	SURVEYOR SIGNATURE: VT/MS

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	279
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE:	/93
COUNT DATE:	/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.012 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA)			
	INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Concrete	N/A	12, -2	11	.008	493	415	13	370	-0.312	3.20	ESP's used for scans
"	"	11, -3	11	.010	523	410	17	449	-0.312	-2.78	& 1 minute counts
"	"	10, -2	10	.018	367	325	1	450	-0.312	-2.78	"
"	"	10, -1	9	.014	600	425	13	405	-0.312	-2.78	"
Gravel	"	8, -1	9	.015	669	540	20	637	-0.312	3.20	"
"	"	8, -3	11	.012	705	635	20	645	-0.312	-2.78	"
"	"	7, -3	10	.012	659	560	27	716	-0.312	3.38	"
"	"	6, -3	12	.012	664	585	8	637	-0.312	3.38	"
"	"	6, 0	11	.016	722	650	13	628	-0.312	-2.78	"
"	"	5, -1	11	.015	692	605	20	632	-0.312	3.38	"
"	"	5, -2	12	.009	622	540	9	623	6.785	-2.78	"
"	"	4, -3	11	.012	679	575	16	548	2.030	3.32	"
"	"	4, 0	12	.018	623	480	10	602	-0.312	-2.78	"
"	"	3, -1	10	.010	700	610	14	687	-0.312	-2.78	"
"	"	1, -2	12	.009	695	575	5	573	-0.312	-2.78	"

FORM SERIAL #: 29 - 028 (Survey Section - Sequential survey #)	LOCATION # Hydrogen Building (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0574	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/25/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF.HF.XLD
Batch Ended: 5/25/93 7:25
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof of Hyd Fac.

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/25/93 7:08
2	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/25/93 7:09
3	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:09
4	6.576	7.11	At AL	26.16	3.20	7.26	<MDA	35.26	0.34	2.808	1.57	5/25/93 7:10
5	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:10
6	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/25/93 7:11
7	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:11
8	2.030	2.56	<MDA	10.72	1.29	3.75	<MDA	16.63	1.00	0.867	0.63	5/25/93 7:13
9	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/25/93 7:13
10	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/25/93 7:14
11	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:14
12	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/25/93 7:15
13	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/25/93 7:15
14	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/25/93 7:16
15	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/25/93 7:16
16	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/25/93 7:17
17	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:17
18	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:18
19	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/25/93 7:18
20	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/25/93 7:19
21	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:19
22	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/25/93 7:20
23	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/25/93 7:20
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/25/93 7:21
25	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/25/93 7:21

LB5100W Low Background Counting System – Smear Analysis

Date: 5/25/93
Counting Unit Id: 1
Data file name: C:\LBXL\UNIT1\ROOF-HF.XLD
Batch Ended: 5/25/93 7:25
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

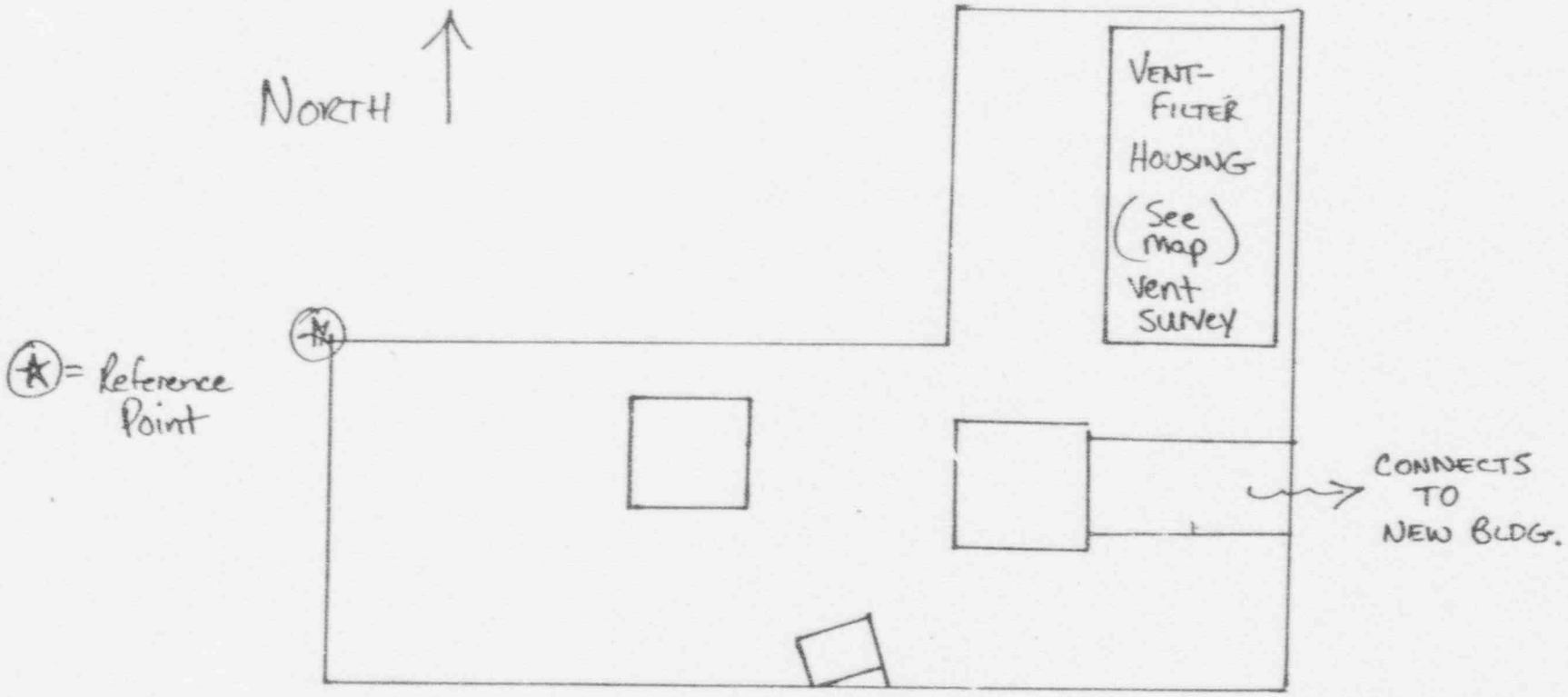
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof of Hyd Fac.

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
26	6.785	7.32	At AL	26.84	-2.78	4.19	<MDA	36.04	0.33	2.897	-1.37	5/25/93 7:22
27	2.030	2.56	<MDA	10.72	3.32	4.26	<MDA	16.63	1.00	0.867	1.63	5/25/93 7:23
28	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:24
29	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:24
30	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/25/93 7:25



HYDROGEN FACILITY
ROOF

APPENDIX F

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 6

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	384
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/18/93
COUNT DATE: 5/18/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	13 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.017 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Tar Paper	N/A	0, -5	12	.023	400	300	2	304	-0.312	-2.78	Roof
Gravel	"	12, -12	12	.015	428	330	6	314	-0.312	-2.78	Roof Drain
"	"	0, -19	12	.016	471	355	4	413	-0.312	-2.78	Roof
"	"	10, -22	10	.016	431	380	3	391	-0.312	-2.78	Roof
"	"	13, -31	10	.010	460	360	4	387	-0.312	-2.78	Roof Drain
"	"	15, -40	11	.007	499	350	2	467	-0.312	-2.78	Roof
"	"	30, -35	11	.010	389	325	3	391	-0.312	3.38	Roof
Tar Paper	"	31, -20	12	.007	369	305	11	292	6.785	-2.78	Roof Drain
Gravel	"	20, -15	10	.007	360	295	6	347	-0.312	9.18	Roof
"	"	17, -1	15	.016	485	385	3	478	-0.312	3.38	Roof
"	"	15, -19	13	.009	522	415	3	462	-0.312	-2.78	Exhaust Blow Down
"	"	15, -27	11	.007	407	360	9	449	-0.312	3.38	"
Tar Paper	"	0, -32	14	.014	448	345	2	346	-0.312	-2.78	"

FORM SERIAL #: 29 - 014 (Survey Section - Sequential survey #)	LOCATION # Building 4 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0558	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/18/93
Counting Unit id: 1
Data file name: C:\LB0\UNIT1\ROOF4.XLD
Batch Ended: 5/18/93 15:13
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof of Bldg 4

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:07
2	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:07
3	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:08
4	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:08
5	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 15:09
6	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 15:10
7	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/18/93 15:10
8	6.785	7.32	At AL	26.84	-2.78	4.19	<MDA	36.04	0.33	2.897	-1.37	5/18/93 15:11
9	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/18/93 15:11
10	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/18/93 15:12
11	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:12
12	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/18/93 15:13
13	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:13

BLDG 4 ROOF

A/C
BLOWER
PENT
COOLING CONDENSER UNIT
BLOWER
PENTHOUSE
NORTH
NORTHWEST

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	0
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	267
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/18/93

COUNT DATE: 5/18/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	9 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.010 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	

	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel Roof	N/A	5, -5	9	.009	479	405	4	373	6.576	-2.78	Roof
"	"	15, -5	9	.012	480	398	4	376	-0.312	-2.78	"
"	"	10, -10	9	.012	389	325	8	369	-0.312	3.20	"
"	"	8, -16	7	.005	328	240	10	268	6.785	-2.78	Roof Drain
"	"	15, -16	9	.005	346	295	7	357	-0.312	-2.78	Roof Drain
"	"	0, -25	9	.009	473	365	8	424	-0.312	-2.78	Roof
"	"	10, -25	8	.010	512	425	6	403	-0.312	3.20	"
"	"	20, -25	10	.011	507	400	6	409	-0.312	-2.78	"
"	"	5, -30	8	.010	406	375	4	386	-0.312	9.67	"
"	"	20, -30	8	.012	448	380	5	441	-0.312	3.38	"
"	"	15, -15	8	.012	516	410	9	427	-0.312	3.20	Exhaust Blow Down
"	"	15, -20	9	.011	405	360	8	398	-0.312	-2.78	Exhaust Blow Down

FORM SERIAL #: 29 - 012 (Survey Section - Sequential survey #)	LOCATION # Building 10 Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0556	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/18/93
Counting Unit id: 1
Data file name: C:\LB5100\UNIT1\ROOF10.XLD
Batch Ended: 5/18/93 9:35
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

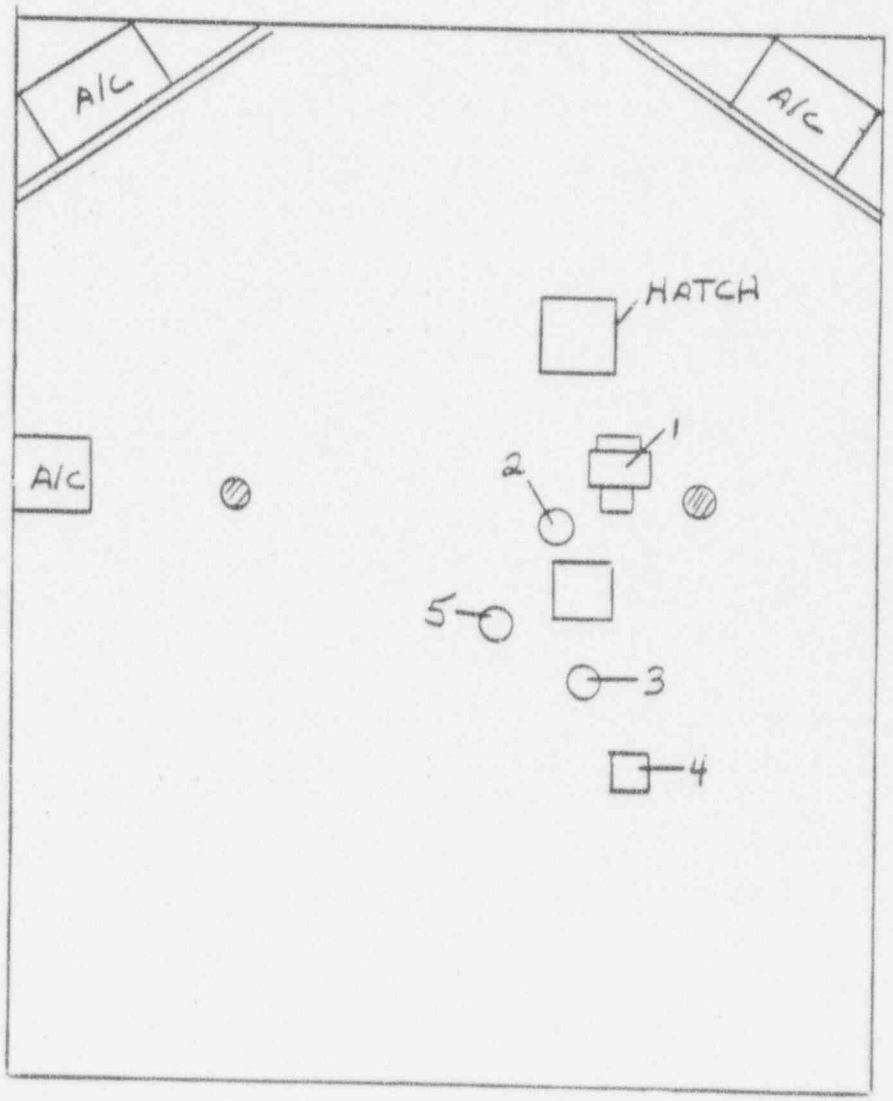
Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 46.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roff of Bldg 10 & blowdown areas of ventilation

	Alpha Activity				Beta Activity							
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	Count time (min)	Alpha CPM	Beta CPM	Completion TOD
1	6.576	7.11	At AL	26.16	-2.78	4.12	<MDA	35.26	0.34	2.808	-1.37	5/18/93 9:29
2	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 9:30
3	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/18/93 9:30
4	6.785	7.32	At AL	26.84	-2.78	4.19	<MDA	36.04	0.33	2.897	-1.37	5/18/93 9:31
5	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 9:31
6	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 9:32
7	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/18/93 9:33
8	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 9:33
9	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/18/93 9:34
10	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/18/93 9:34
11	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/18/93 9:35
12	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 9:35

NORTHWEST



1. EXHAUST
2. VENT
3. VENT
4. EXHAUST
5. VENT

BLDG 10

SURVEY TYPE: Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	495
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/19/93
COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.009 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Gravel Roof	N/A	7, 0	11	.018	419	375	6	549	-0.312	9.18	Drain
"	"	0, -5	10	.009	534	445	1	558	-0.312	3.20	Roof
"	"	4, -14	9	.007	433	360	1	435	-0.312	9.54	Roof
"	"	0, -20	11	.015	477	390	1	501	-0.312	-2.78	Roof
"	"	7, -23	10	.012	480	375	1	400	-0.312	-2.78	Drain
"	"	13, -18	11	.012	498	410	0	480	-0.312	-2.78	Roof
"	"	13, -16	12	.009	657	490	3	483	-0.312	-2.78	Drain
"	"	20, -16	12	.007	580	475	1	433	6.785	3.38	Roof
"	"	25, -16	17	.014	586	490	1	468	-0.312	-2.78	Drain
"	"	20, -24	15	.015	570	485	2	537	-0.312	3.38	Roof

FORM SERIAL #: 29 - 016 (Survey Section - Sequential survey #)	LOCATION # Building 11 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0560	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF11.XLD
Batch Ended: 5/20/93 6:42
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

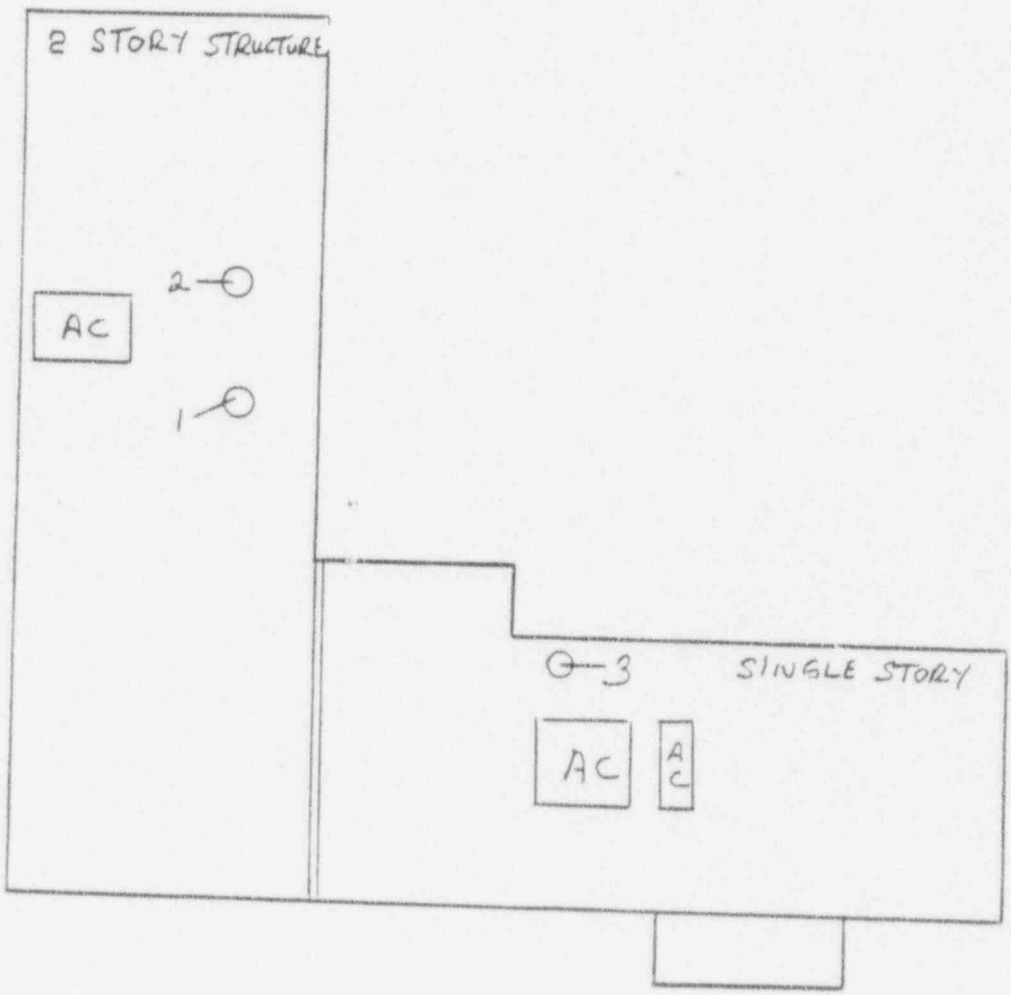
Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 11 ROOF

	Alpha Activity				Beta Activity							
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	Count time (min)	Alpha CPM	Beta CPM	Completion TOD
1	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/20/93 6:38
2	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 6:38
3	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/20/93 6:39
4	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:39
5	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:40
6	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:40
7	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:41
8	6.785	7.32	At AL	26.84	3.38	7.45	<MDA	36.04	0.33	2.897	1.66	5/20/93 6:41
11	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:42
12	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:42

NW CORNER



BLDG 11

SURVEY TYPE: Firehouse Roof

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	519
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/24/93

COUNT DATE: 5/24/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	10 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.012 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Drain	N/A	3, -5	9	.007	809	735	3	761	-0.312	-2.78	ESP's used for scans
Gravel	"	3, -10	12	.020	693	625	5	721	-0.312	3.20	& 1 minute counts

FORM SERIAL #: 29 - 026
(Survey Section - Sequential survey #)

LOCATION # Firehouse
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: VII
(Group I, II, III, IV)

DISK FILE CODE: FDS - 0571

SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/24/93
Counting Unit Id: 1
Data file name: C:\LBXL\UNIT1\ROOF-FH.XLD
Batch Ended: 5/24/93 9:14
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

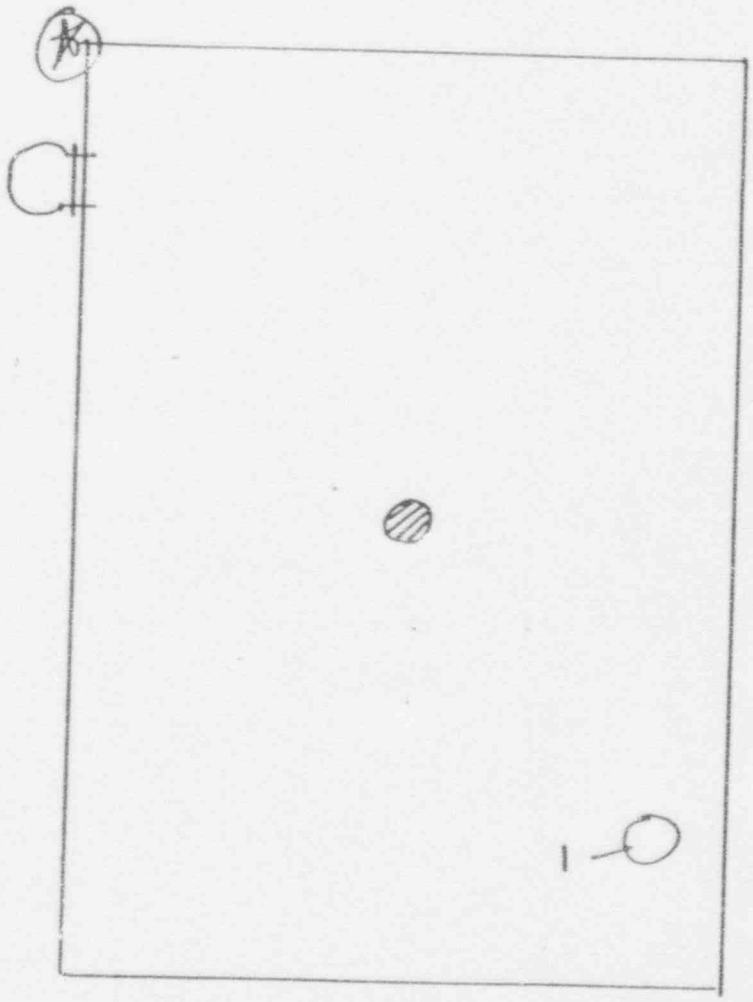
Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Fire house roof

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 9:14
2	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/24/93 9:14

NORTH

⊛ = Reference Point



FIREHOUSE BLDG.
ROOF

APPENDIX G

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 7

SURVEY TYPE: Roof A Vents

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	463
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/19/93

COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	8	287	-0.312	-2.78	See Attached Map for
Vent 2	"	"	"	"	"	"	6	335	-0.312	-2.78	Location
Vent 3	"	"	"	"	"	"	3	219	-0.312	-2.78	"
Exhaust 4	"	"	"	"	"	"	16	248	-0.312	-2.78	"
Vent 5	"	"	"	"	"	"	4	261	-0.312	3.20	"
Vent 6	"	"	"	"	"	"	4	252	-0.312	-2.78	"
Vent 7	"	"	"	"	"	"	2	284	-0.312	3.38	"
Vent 8	"	"	"	"	"	"	3	266	-0.312	-2.78	"

FORM SERIAL #: 29 - 019 (Survey Section - Sequential survey #)	LOCATION # Building 5 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0563	SURVEYOR SIGNATURE: VI/MS

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF5AV.XLD
Batch Ended: 5/20/93 7:48
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

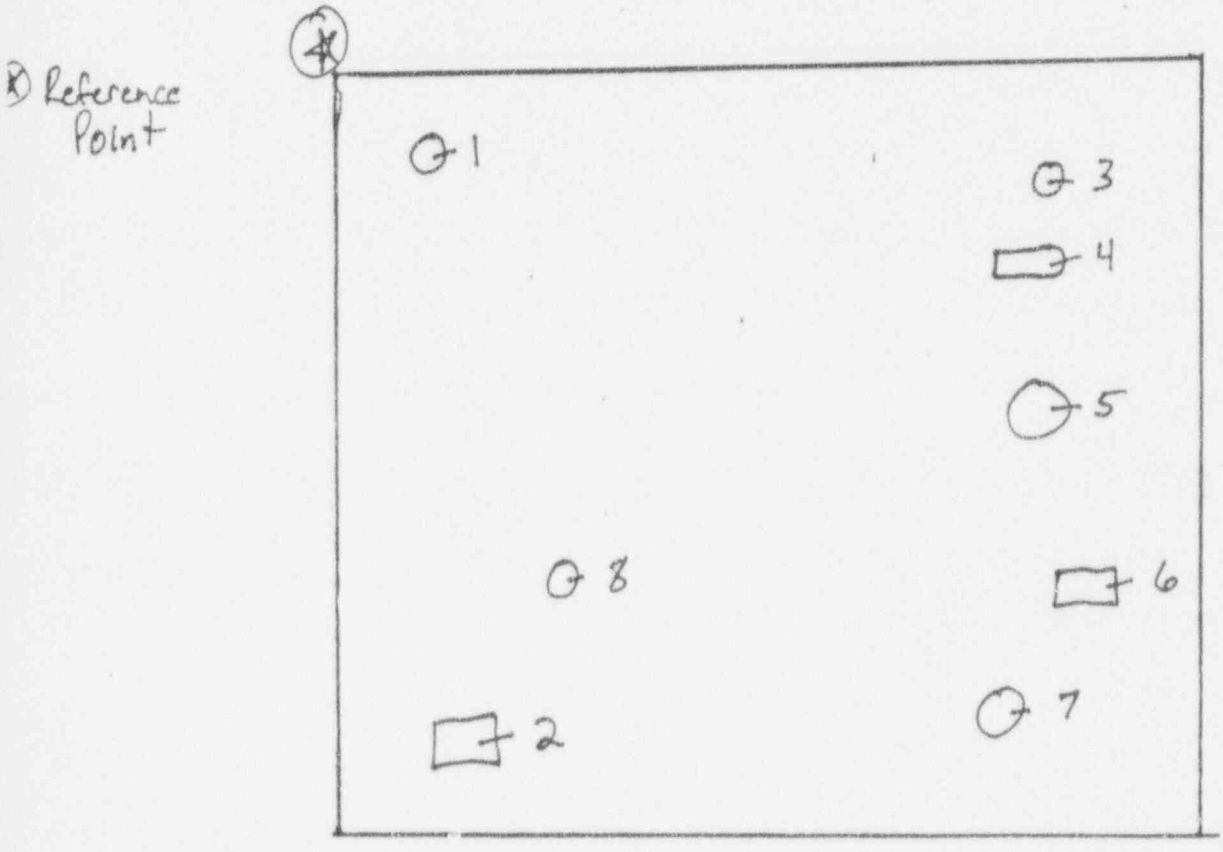
Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 5 ROOF "A" VENTS

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
11	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:44
12	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:45
13	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 7:46
14	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:46
15	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 7:47
16	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:47
17	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 7:48
18	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 7:48

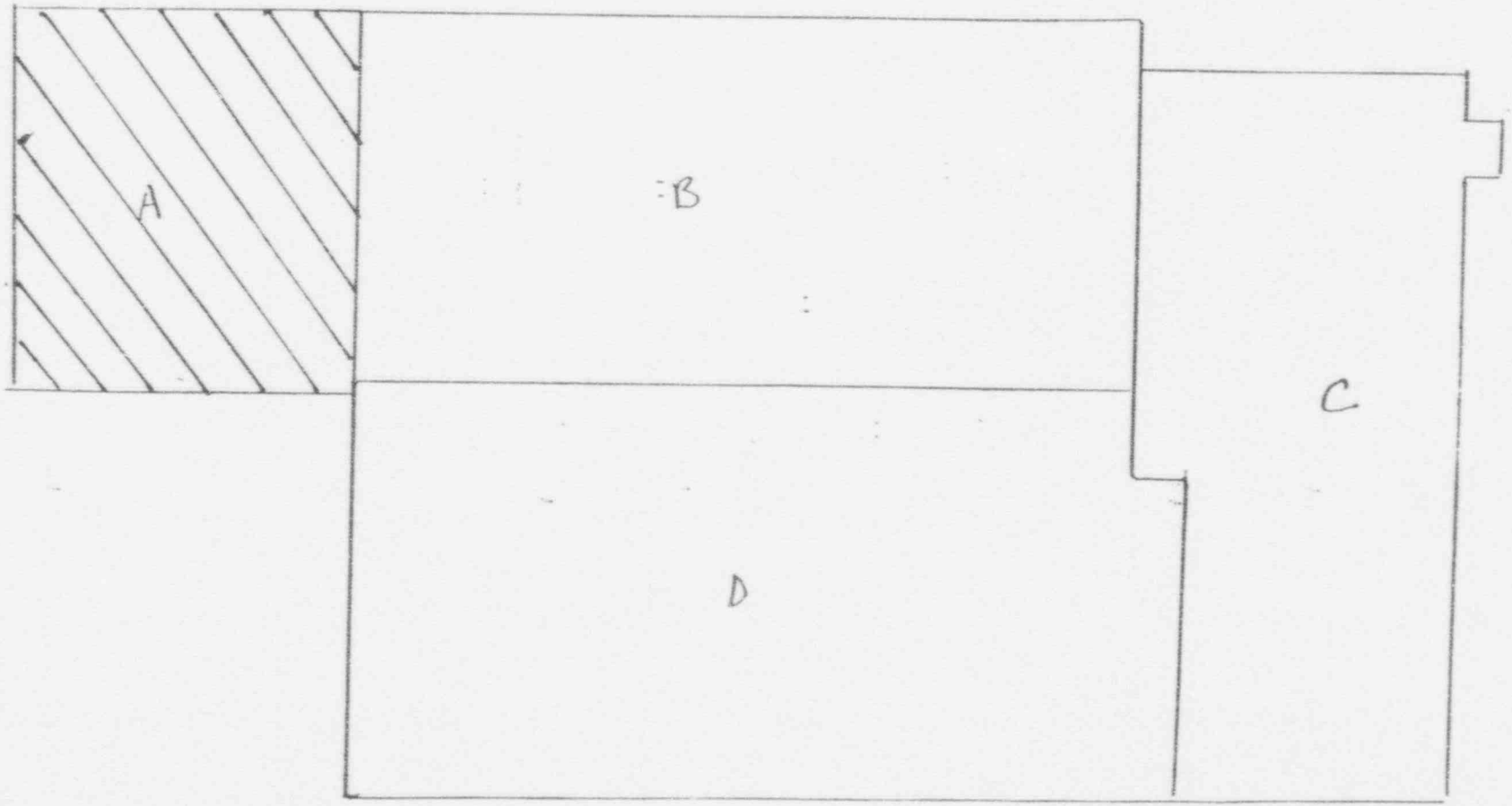
Bldg 5

"A" North ↑



NORTH

TOTAL BLDG 5 ROOF AREA



SURVEY TYPE: ROOF "B" VENTS

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	5
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	576
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/20/93

COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	

	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	4	496	-0.312	-2.78	Roof
Vent 2	"	"	"	"	"	"	4	405	-0.312	3.20	"
Vent 3	"	"	"	"	"	"	3	530	-0.312	3.38	"
Exhaust 4	"	"	"	"	"	"	4	550	-0.312	-2.78	"
Vent 5	"	"	"	"	"	"	3	446	-0.312	3.20	"
Vent 6	"	"	"	"	"	"	7	330	-0.312	3.38	"
Vent 7	"	"	"	"	"	"	7	458	-0.312	3.20	"
Vent 8	"	"	"	"	"	"	5	469	-0.312	-2.78	"
Vent 9	"	"	"	"	"	"	12	402	-0.312	-2.78	"
Exhaust 10	"	"	"	"	"	"	6	546	-0.312	-2.78	"
Vent 11	"	"	"	"	"	"	6	404	-0.312	9.18	"
Exhaust 12	"	"	"	"	"	"	5	393	-0.312	-2.78	"
Exhaust 13	"	"	"	"	"	"	7	411	-0.312	-2.78	"
Vent 14	"	"	"	"	"	"	8	632	-0.312	3.38	"
Vent 15	"	"	"	"	"	"	4	466	-0.312	-2.78	"

FORM SERIAL #: 29 - 021 (Survey Section - Sequential survey #)	LOCATION # Building 5 B (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0565	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Sinear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF5V.XLD
Batch Ended: 5/20/93 13:16
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

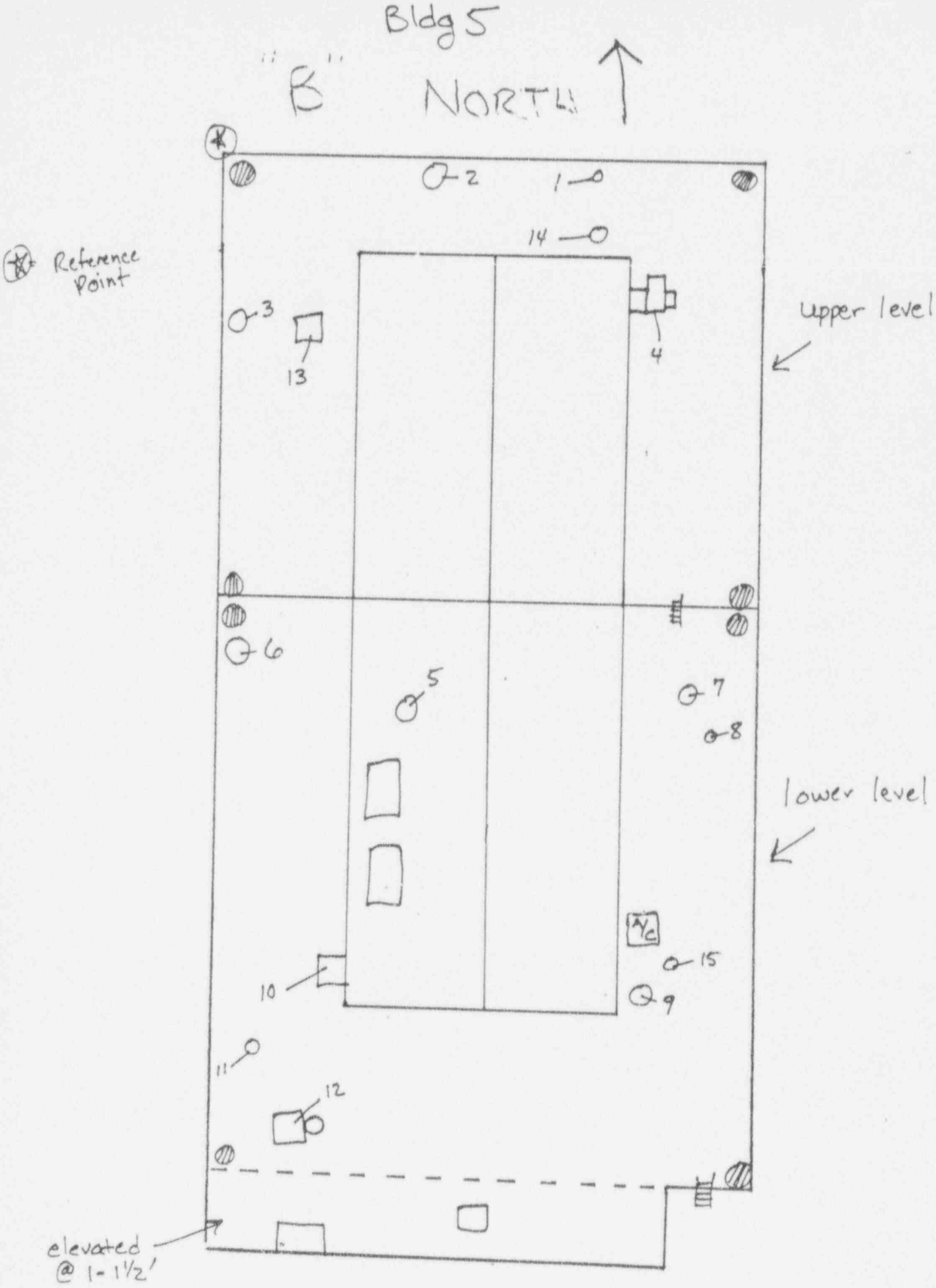
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

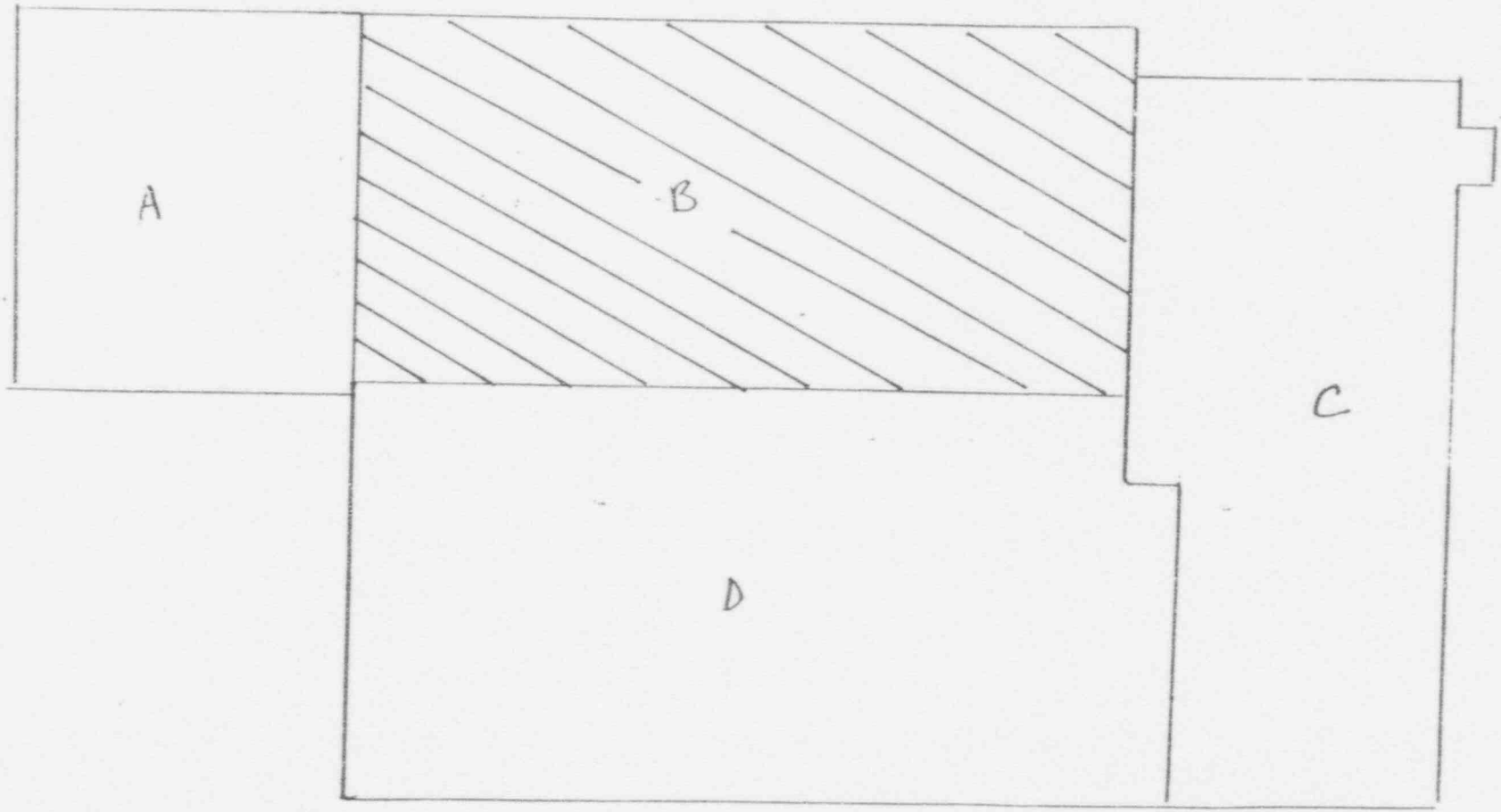
Batch ID: TSB - ventilation of Bldg 5 roof B

	Alpha Activity				Beta Activity							
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	Count time (min)	Alpha CPM	Beta CPM	Completion TOD
16	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:09
17	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 13:10
18	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 13:10
19	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:11
20	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 13:11
21	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 13:12
22	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 13:12
23	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 13:13
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 13:13
25	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:14
26	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/20/93 13:14
27	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:15
28	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 13:15
29	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 13:16
30	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 13:16


Bldg 5
"B"
NORTH
Reference Point
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A/C
Upper level
lower level
elevated @ 1-1½'

NORTH

TOTAL BLDG 5 ROOF AREA



SURVEY TYPE: Roof C Vents

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	342
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/20/93

COUNT DATE: 5/24/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	6	251	-0.312	-2.78	See Attached Map for
Vent 2	"	"	"	"	"	"	11	377	-0.312	3.20	Location
Vent 3	"	"	"	"	"	"	6	237	-0.312	-2.78	"
Vent 4	"	"	"	"	"	"	18	379	-0.312	-2.78	"
Vent 5	"	"	"	"	"	"	7	275	-0.312	-2.78	"
Vent 6	"	"	"	"	"	"	7	312	-0.312	-2.78	"
Vent 7	"	"	"	"	"	"	16	378	-0.312	3.38	"
Exhaust 8	"	"	"	"	"	"	2	289	-0.312	-2.78	"
Exhaust 9	"	"	"	"	"	"	7	349	-0.312	3.20	"
Exhaust 10	"	"	"	"	"	"	7	324	-0.312	-2.78	"

FORM SERIAL #: 29 - 023 (Survey Section - Sequential survey #)	LOCATION # Building 5 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0567	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/24/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF5CV.XLD
Batch Ended: 5/24/93 7:07
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof "C" vents on Bldg 5

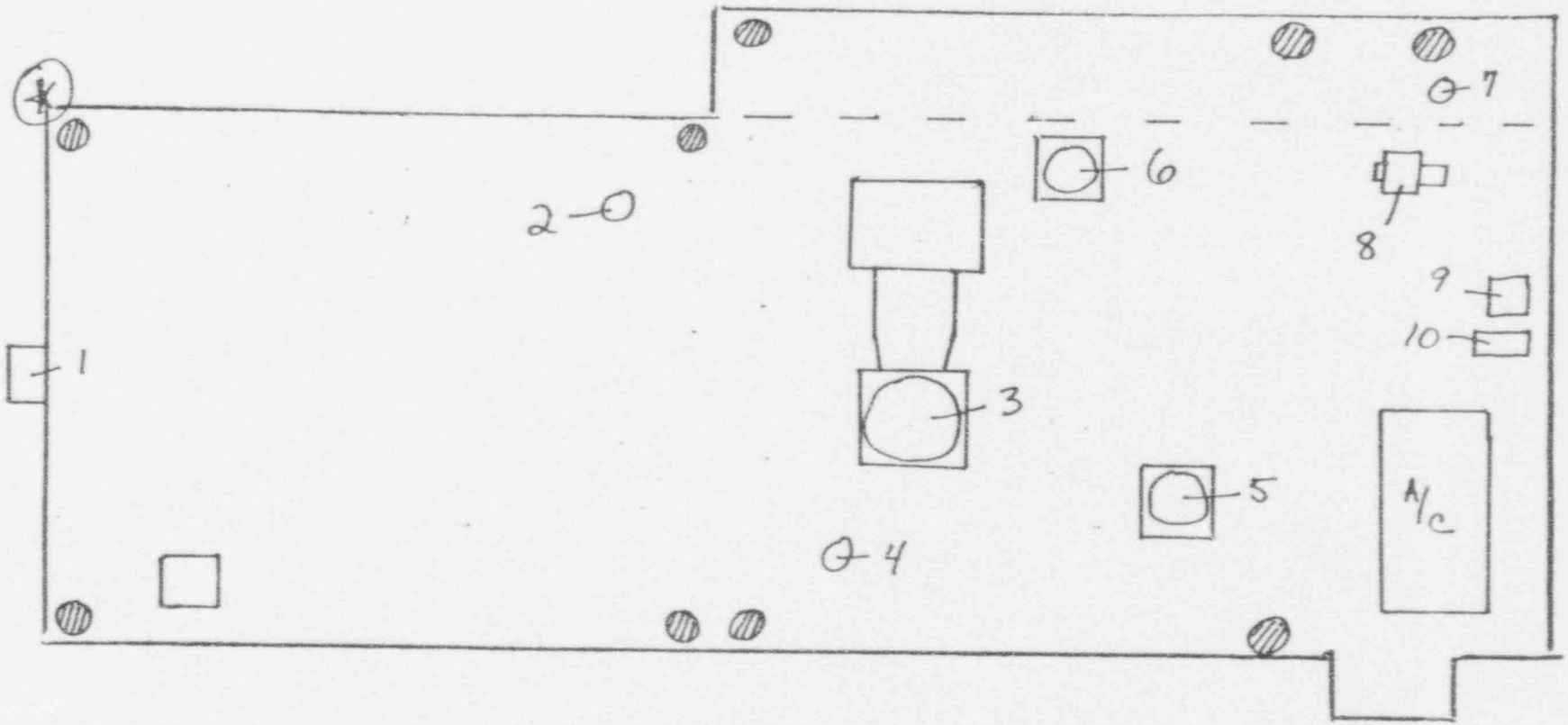
	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
16	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/24/93 7:02
17	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/24/93 7:03
18	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 7:03
19	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 7:04
20	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/24/93 7:04
21	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 7:05
22	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/24/93 7:05
23	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/24/93 7:06
24	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/24/93 7:06
25	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/24/93 7:07

Bldg 5 (Four Story Bldg)

"C" NORTH ↑

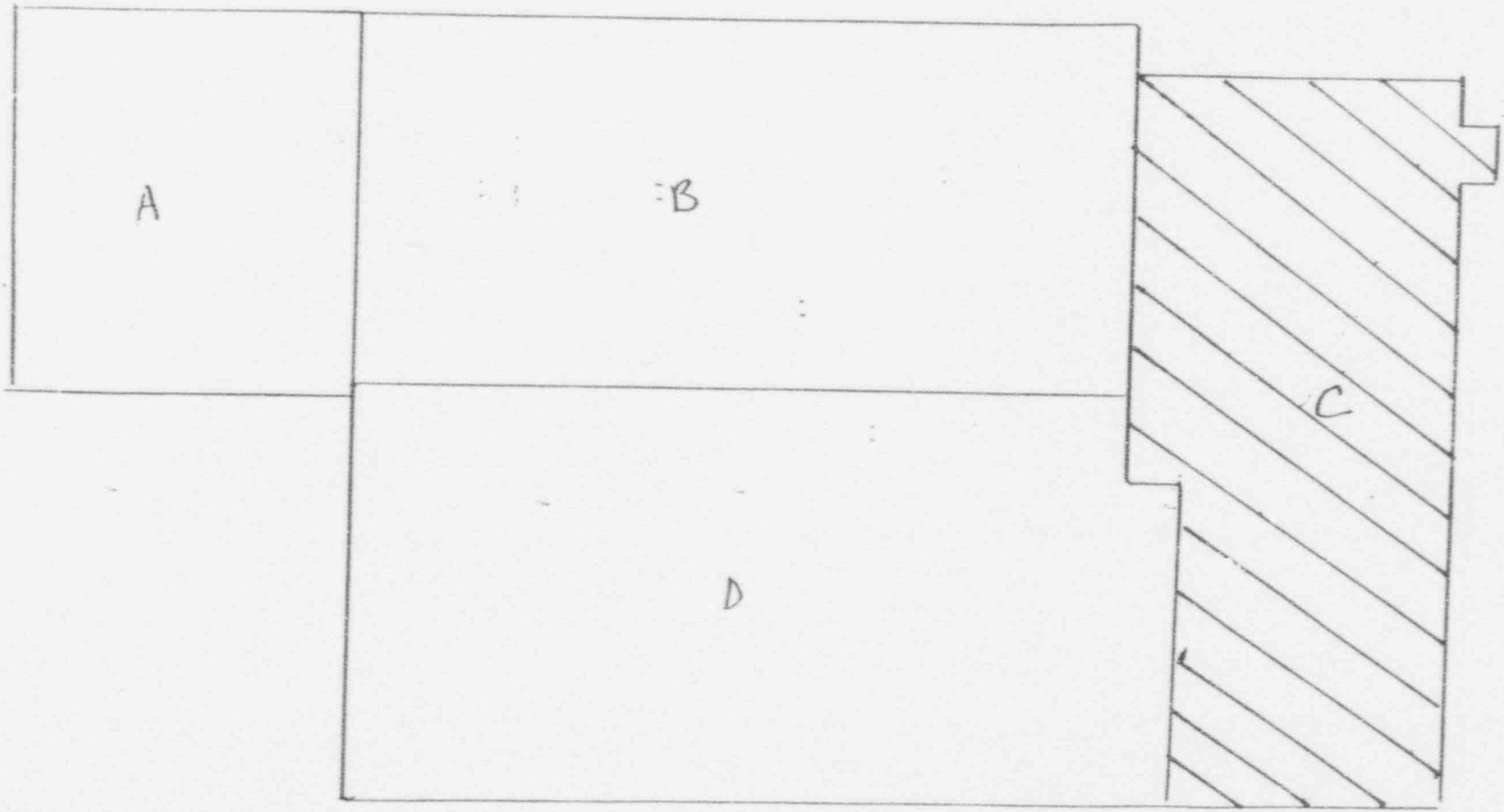
★ Reference point

---- Reference Line



NORTH

TOTAL BLDG 5 ROOF AREA



SURVEY TYPE: Roof D Vents

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	463
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/19/93

COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA)			
	INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	1	250	-0.312	-2.78	See Map for Attached
Exhaust 2	"	"	"	"	"	"	3	298	-0.312	-2.78	Location
Exhaust 3	"	"	"	"	"	"	6	322	-0.312	-2.78	"
Vent 4	"	"	"	"	"	"	2	235	6.576	-2.78	"
Vent 5	"	"	"	"	"	"	2	292	-0.312	3.20	"
Vent 6	"	"	"	"	"	"	1	257	-0.312	3.38	"
Vent 7	"	"	"	"	"	"	1	220	-0.312	-2.78	"
Vent 8	"	"	"	"	"	"	4	289	-0.312	-2.78	"
Vent 9	"	"	"	"	"	"	1	283	-0.312	-2.78	"
Vent 10	"	"	"	"	"	"	3	352	-0.312	-2.78	"
Vent 11	"	"	"	"	"	"	2	436	-0.312	-2.78	"
Vent 12	"	"	"	"	"	"	3	396	-0.312	3.38	"
Vent 13	"	"	"	"	"	"	4	301	-0.312	3.38	"
Vent 14	"	"	"	"	"	"	9	377	-0.312	-2.78	"
Vent 15	"	"	"	"	"	"	2	351	-0.312	3.38	"

FORM SERIAL #: 29 - 025 (Survey Section - Sequential survey #)	LOCATION # Building 5 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0569	SURVEYOR SIGNATURE: VT/MS

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	463
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/19/93
COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	

	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 16	N/A	N/A	N/A	N/A	N/A	N/A	7	342	-0.312	-2.78	See Attached Map for Location

FORM SERIAL #: 29 - 025 (Survey Section - Sequential survey #)	LOCATION # Building 5 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0570	SURVEYOR SIGNATURE: VI/MS

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LB5L\UNIT1\ROOF5DV.XLD
Batch Ended: 5/20/93 6:58
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

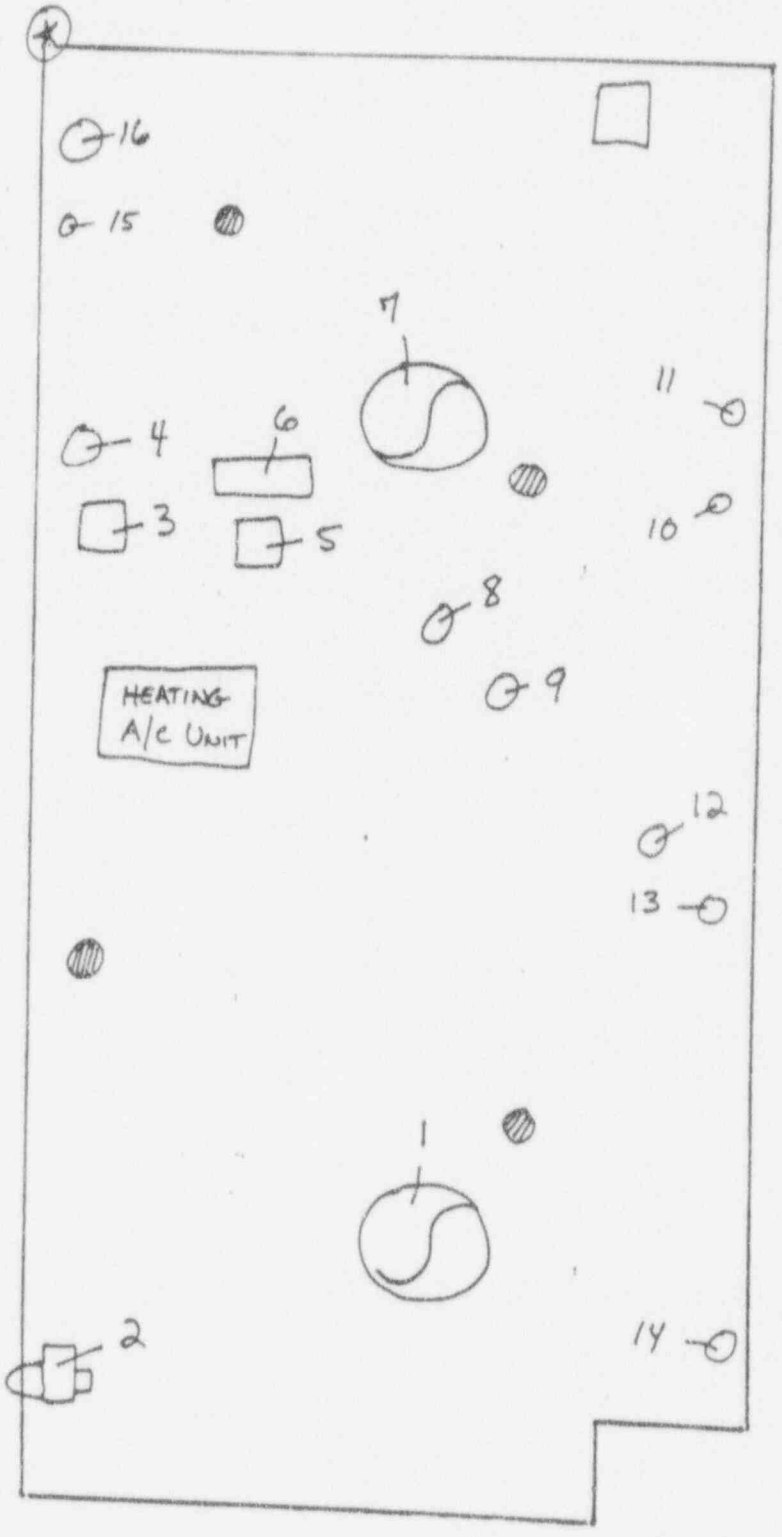
Batch ID: ROOF 5 "D" VENTS

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
27	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:50
28	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:51
29	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:51
30	6.576	7.11	At AL	26.16	-2.78	4.12	<MDA	35.26	0.34	2.908	-1.37	5/20/93 6:52
31	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 6:52
32	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:53
33	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:53
34	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:54
35	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:54
40	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:55
36	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:56
37	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:56
38	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:57
39	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/20/93 6:57
41	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/20/93 6:58
42	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:58

Bldg 5

"D" NORTH ↑

(*) Reference Point



NORTH

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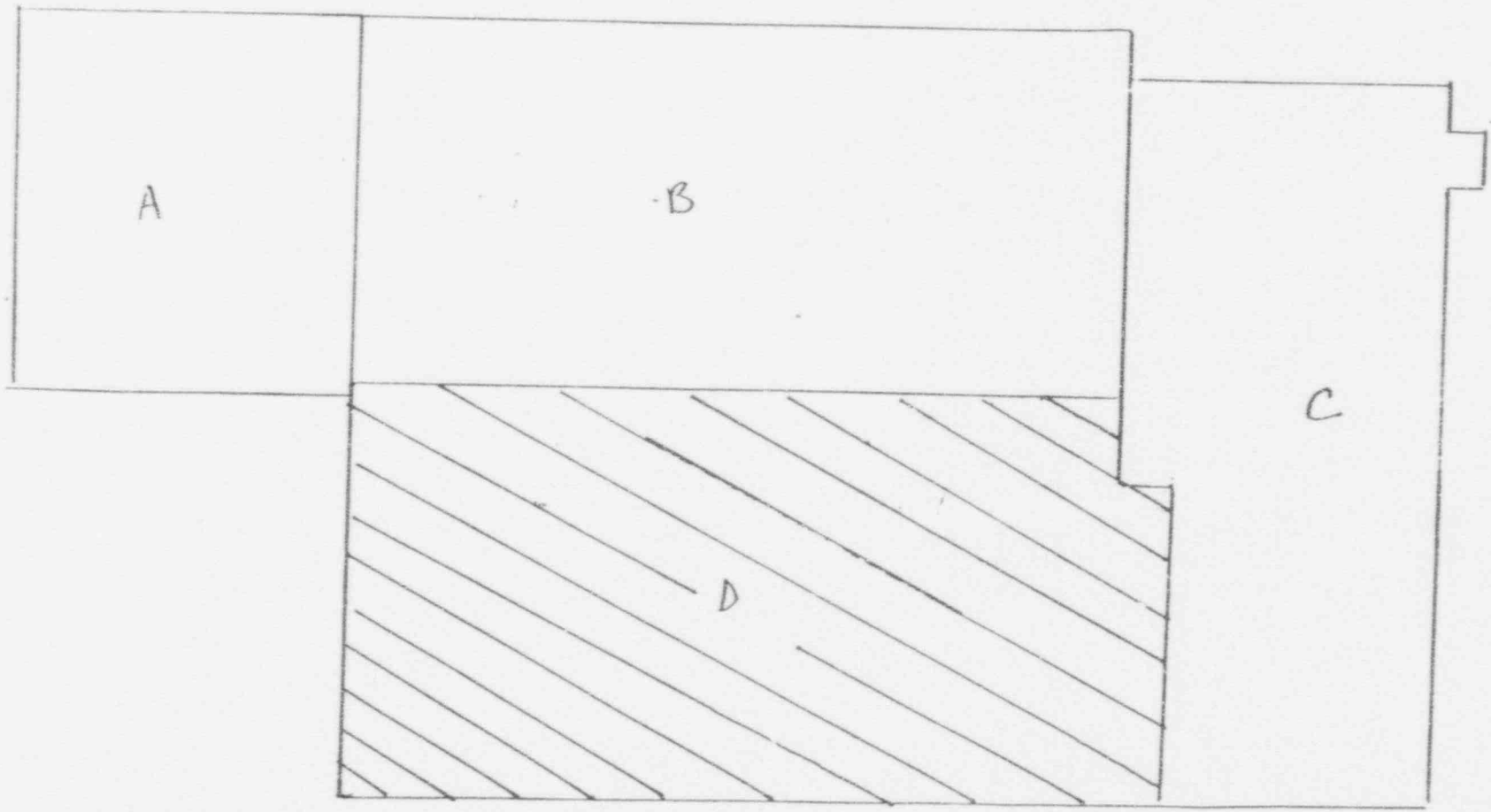
TOTAL BLDG 5 ROOF AREA



APPENDIX H

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 8

SURVEY TYPE: Building 6 Roof Ventillation

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	245
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/13/93

COUNT DATE: 5/13/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.312	3.20	See Map for Numbered
Blower 2	"	"	"	"	"	"	4	326	-0.312	-2.78	Survey Points
Vent 3	"	"	"	"	"	"	N/A	N/A	2.030	5.35	"
Vent 4	"	"	"	"	"	"	"	"	-0.312	-2.78	"
Vent 5	"	"	"	"	"	"	5	312	-0.312	3.20	"
Vent 6	"	"	"	"	"	"	0	245	-0.312	-2.78	"
Sewer vent 7	"	"	"	"	"	"	39	435	-0.312	3.20	"
Vent 8	"	"	"	"	"	"	N/A	N/A	-0.312	-2.78	"

FORM SERIAL #: 29 - 005 (Survey Section - Sequential survey #)	LOCATION # Building 6 Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0545	SURVEYOR SIGNATURE: VT V. Taylor

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/13/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF6.V.XLD
Batch Ended: 5/13/93 11:41
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

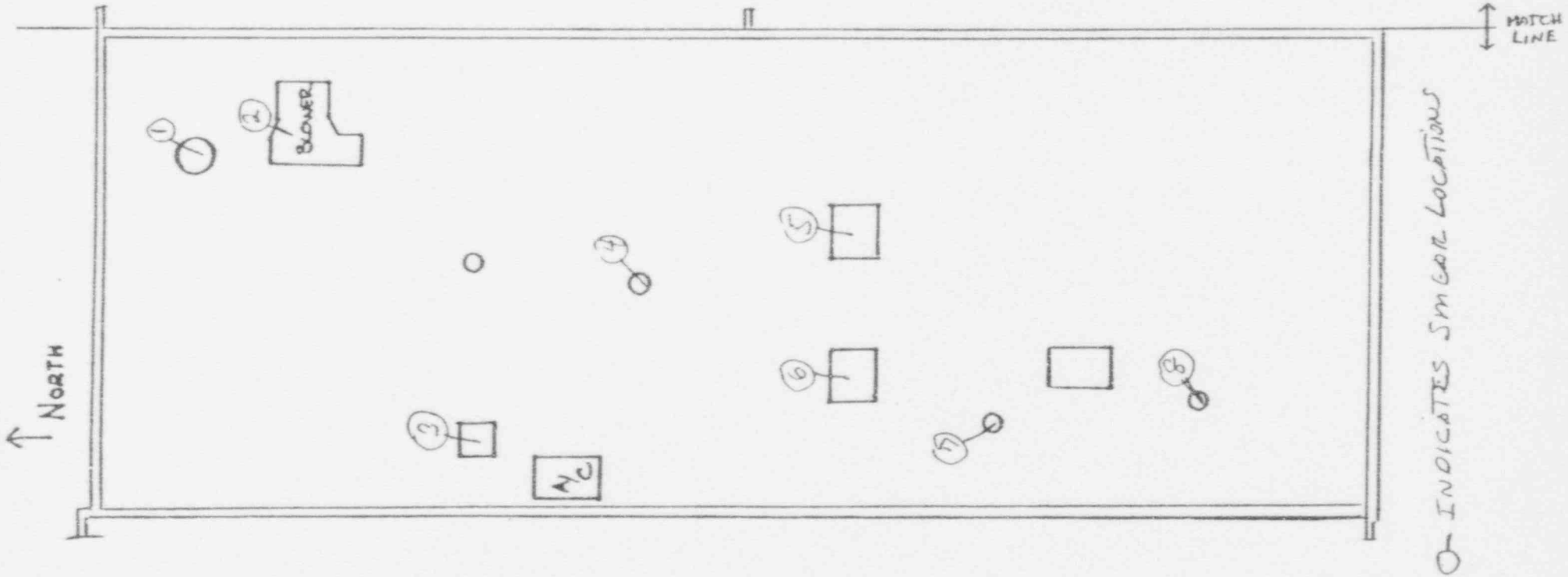
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu[illegible]ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof ventilation of Bldg 6

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:36
2	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:37
3	2.030	2.56	<MDA	10.72	5.35	4.73	<MDA	16.63	1.00	0.867	2.63	5/13/93 11:38
4	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:38
5	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:39
6	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:39
7	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:40
8	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:41



ROOF BLDG 6

Not to scale

SURVEY TYPE: Building 7 - Roof Ventillation

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	245
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/13/93

COUNT DATE: 5/13/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	**EFF**	**C.F.**	**BKG**
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	1	348	-0.312	-2.78	See Map for Numbered
Exhaust Fan 2	"	"	"	"	"	"	7	215	-0.312	-2.78	Survey Points.
Vent 3	"	"	"	"	"	"	N/A	N/A	-0.312	3.20	"
Exhaust Fan 4	"	"	"	"	"	"	1	204	-0.312	-2.78	"
Vent 5	"	"	"	"	"	"	N/A	N/A	-0.312	-2.78	"
A/C 6	"	"	"	"	"	"	0	317	-0.312	-2.78	"
Vent 7	"	"	"	"	"	"	4	257	-0.312	-2.78	"
Exhaust Fan 8	"	"	"	"	"	"	1	247	-0.312	5.35	"
Blower 9	"	"	"	"	"	"	7	295	-0.312	3.20	"
Exhaust Fan 10	"	"	"	"	"	"	3	210	-0.312	-2.78	"
Vent 11	"	"	"	"	"	"	N/A	N/A	-0.312	-2.78	"
Vent 12	"	"	"	"	"	"	"	"	-0.312	3.38	"
Vent 13	"	"	"	"	"	"	"	"	-0.312	-2.78	"
Vent 14	"	"	"	"	"	"	"	"	-0.312	3.20	"
Vent 15	"	"	"	"	"	"	"	"	-0.312	-2.78	"

FORM SERIAL #: 29 - 006 (Survey Section - Sequential survey #)	LOCATION # Building 7 Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0546	SURVEYOR ~~SIGNATURE~~: VT

SURVEY TYPE: Building 7 Roof Ventillation

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	245
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/13/93

COUNT DATE: 5/13 /93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.312	3.20	See Map for Numbered
Vent 17	"	"	"	"	"	"	"	"	-0.312	5.35	Survey Points
Vent 18	"	"	"	"	"	"	"	"	-0.312	3.38	"
Vent 19	"	"	"	"	"	"	"	"	-0.312	-2.78	"
Vent 20	"	"	"	"	"	"	"	"	-0.312	-2.28	"
Vent 21	"	"	"	"	"	"	"	"	-0.312	-2.78	"

FORM SERIAL #: 29 - 006 (Survey Section - Sequential survey #)	LOCATION # Building 7 Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0547	SURVEYOR SIGNATURE: VT

LB5100W Low Background Counting System – Smear Analysis

Date: 5/13/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF7-V.XLD
Batch Ended: 5/13/93 11:53
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

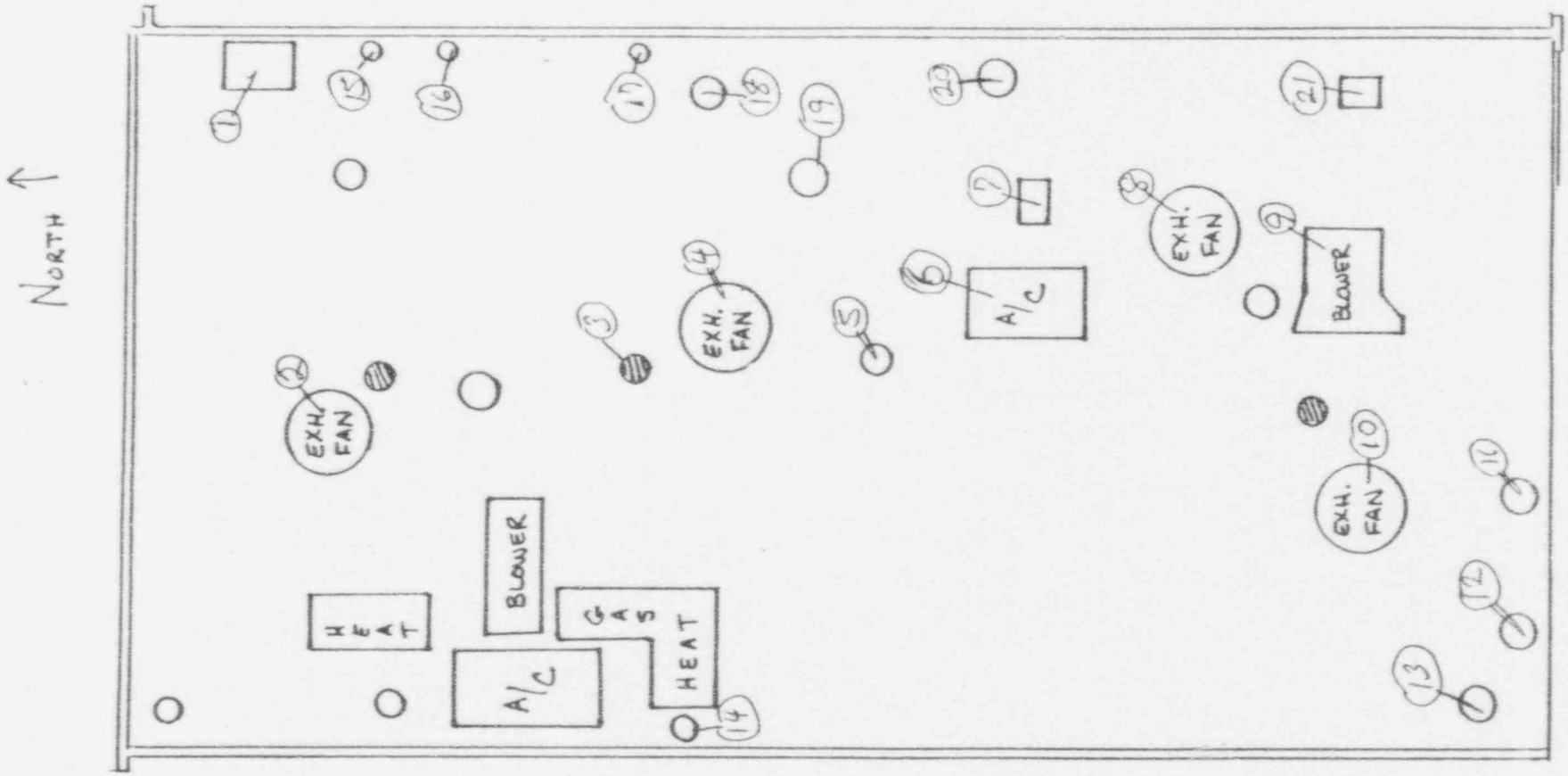
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof ventilation Bldg 7

	Alpha Activity				Beta Activity							
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	Count time (min)	Alpha CPM	Beta CPM	Completion TOD
9	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:41
10	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:42
11	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:42
12	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:43
13	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:43
14	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:44
15	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:44
16	-0.312	1.02	<MDA	10.72	5.35	4.73	<MDA	16.63	1.00	-0.133	2.63	5/13/93 11:45
17	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:46
18	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:46
19	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:47
20	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 11:47
21	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:48
22	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:49
23	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:49
24	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:50
25	-0.312	1.02	<MDA	10.72	5.35	4.73	<MDA	16.63	1.00	-0.133	2.63	5/13/93 11:51
26	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 11:51
27	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:52
28	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:52
29	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:53



ROOF BLDG 7

Not to Scale

SURVEY TYPE: Roof Vents (Upper)

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	259
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/26/93
COUNT DATE: 5/26/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	2	271	-0.312	3.38	See Attached Map for
Vent 2	"	"	"	"	"	"	4	237	-0.312	-2.78	Vent Locations
Vent 3	"	"	"	"	"	"	2	303	-0.312	3.38	"
Vent 4	"	"	"	"	"	"	11	286	-0.312	3.38	"
Vent 5	"	"	"	"	"	"	13	336	-0.312	3.20	"
Vent 6	"	"	"	"	"	"	1	308	-0.312	-2.78	"
Vent 7	"	"	"	"	"	"	11	299	-0.312	-2.78	"
Vent 8	"	"	"	"	"	"	12	303	-0.312	3.38	"
Vent 9	"	"	"	"	"	"	7	309	-0.312	-2.78	"
Vent 10	"	"	"	"	"	"	11	374	-0.312	-2.78	"

FORM SERIAL #: 29 - 032 (Survey Section - Sequential survey #)	LOCATION # Building 8A Heat & AC (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0578	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/26/93
Counting Unit id: 1
Data file name: C:\LB5L\UNIT1\RF2AHAV.XLD
Batch Ended: 5/26/93 9:13
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

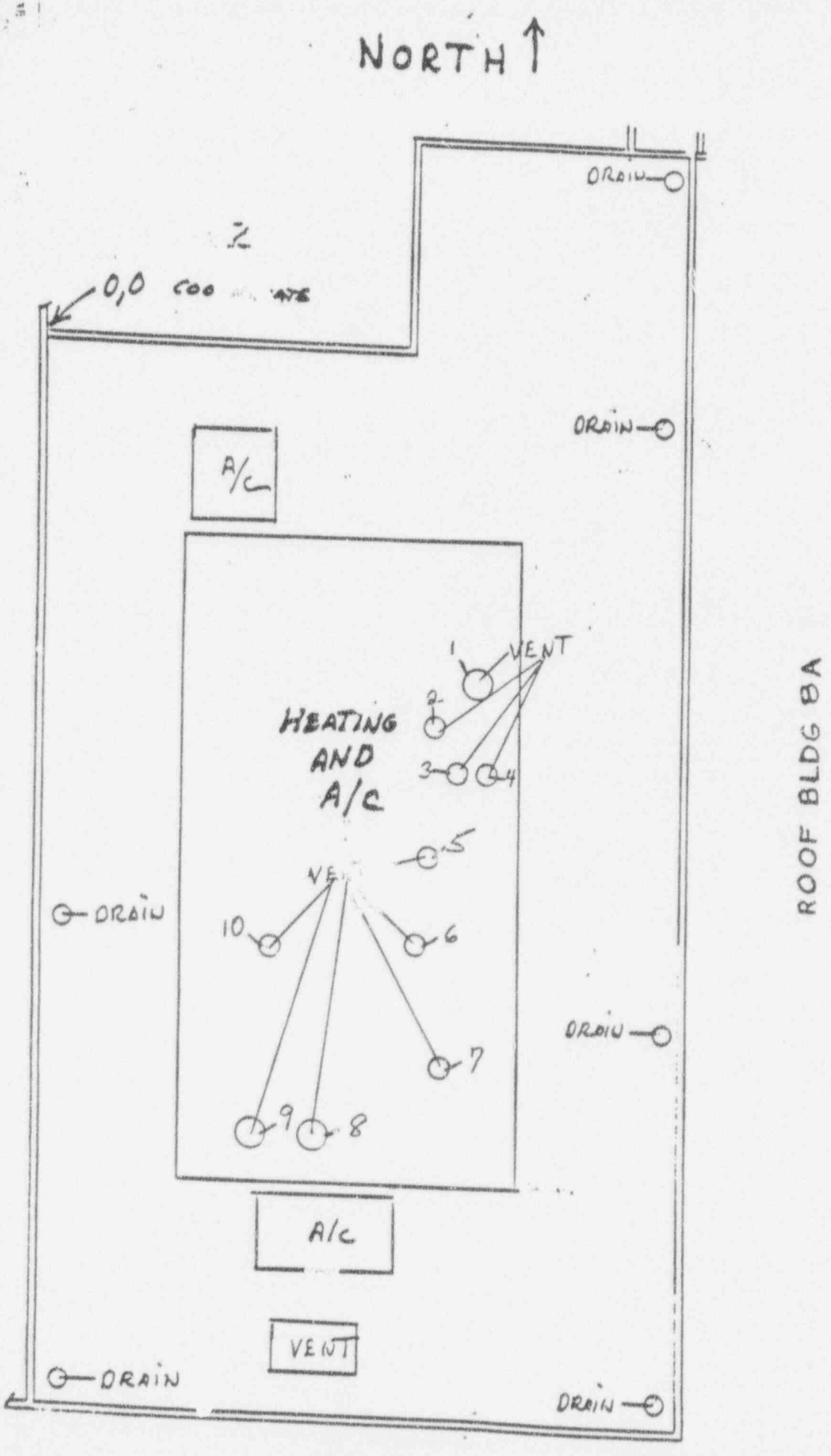
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 8A ROOF HEATING & A/C ROOF VENTS

Carrier	Alpha Activity				Beta Activity				Count time (min)	Alpha CPM	Beta CPM	Completion TOD
	DPM	σ	flags	MDA	DPM	σ	flags	MDA				
11	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/26/93 9:08
12	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/26/93 9:09
13	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/26/93 9:09
14	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/26/93 9:10
15	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/26/93 9:10
16	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/26/93 9:11
17	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/26/93 9:11
18	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/26/93 9:12
19	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/26/93 9:13
20	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/26/93 9:13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APPENDIX I

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 9

SURVEY TYPE: Roof Vents

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	318
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/17/93
COUNT DATE: 5/17/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: [illegible]-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	**EFF**	**C.F.**	**BKG**
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent #1	N/A	N/A	N/A	N/A	N/A	N/A	1	267	-0.312	-2.78	See Attached Rep-ESP's
Vent #2	"	"	"	"	"	"	1	421	-0.312	-2.78	"
Vent #3	"	"	"	"	"	"	7	235	-0.312	-2.78	"
Vent #4	"	"	"	"	"	"	6	316	-0.312	3.20	"
Vent #5	"	"	"	"	"	"	11	315	-0.312	3.38	"
Vent #6	"	"	"	"	"	"	11	376	-0.312	-2.78	"
Vent #7	"	"	"	"	"	"	1.5	346	-0.312	-2.78	"
Vent #8	"	"	"	"	"	"	1	265	-0.312	3.38	"
Vemt #9	"	"	"	"	"	"	7	283	-0.312	3.20	"
Vent #10	"	"	"	"	"	"	3	283	-0.312	-2.78	"
Vent #11	"	"	"	"	"	"	9	502	-0.312	-2.78	"
Vent #12	"	"	"	"	"	"	17	547	-0.312	-2.78	"
Vent #13	"	"	"	"	"	"	7	269	-0.312	-2.78	"
Vent #14	"	"	"	"	"	"	17	296	-0.312	-2.78	"
Vent #15	"	"	"	"	"	"	8	322	-0.312	-2.78	"

FORM SERIAL #: 29 - 010 (Survey Section - Sequential survey #)	LOCATION # Building 9 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0552	SURVEYOR SIGNATURE: LS/VT

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	FSP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	318
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/17/93

COUNT DATE: 5/17/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent #16	N/A	N/A	N/A	N/A	N/A	N/A	3	264	-0.312	-2.78	See Attached Map-ESP's
Vent #17	"	"	"	"	"	"	2	255	-0.312	-2.78	"
Vent #18	"	"	"	"	"	"	2	270	-0.312	3.20	"
Vent #19	"	"	"	"	"	"	3	307	-0.312	3.20	"
Vent #20	"	"	"	"	"	"	2	275	-0.312	-2.78	"
Vent #21	"	"	"	"	"	"	1	259	-0.312	3.20	"
Vent #22	"	"	"	"	"	"	6	327	-0.312	9.18	"
Vent #23	"	"	"	"	"	"	51	437	-0.312	-2.78	"
Vent #24	"	"	"	"	"	"	42	461	-0.312	-2.78	"
Vent #25	"	"	"	"	"	"	26	570	-0.312	9.54	"
Vent #26	"	"	"	"	"	"	18	539	-0.312	-2.78	"
Vent #27	"	"	"	"	"	"	5	257	-0.312	-2.78	"
Vent #28	"	"	"	"	"	"	7	395	-0.312	-2.78	"
Vent #29	"	"	"	"	"	"	5	302	-0.312	-2.78	"
Vent #30	"	"	"	"	"	"	10	311	-0.312	3.20	"

FORM SERIAL #: 29 - 010 (Survey Section - Sequential survey #)	LOCATION # Building 9 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0553	SURVEYOR SIGNATURE: LS/VT

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	318
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/17/93

COUNT DATE: 5/17/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent #31	N/A	N/A	N/A	N/A	N/A	N/A	4	296	-0.312	-2.78	See Attached Map-ESP's

FORM SERIAL #: 29 - 010 (Survey Section - Sequential survey #)	LOCATION # Building 9 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0554	SURVEYOR SIGNATURE: LS/VT

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/17/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\VENTS 9.XLD
Batch Ended: 5/17/93 14:35
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 9 ROOF VENTS

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:19
2	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:20
3	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:20
4	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:21
5	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/17/93 14:21
6	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:22
7	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:22
8	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/17/93 14:23
9	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/17/93 14:23
10	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:24
11	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:24
12	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:25
13	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:25
14	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:26
15	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:26
16	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:27
17	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:27
18	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:28
19	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:28
20	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:29
21	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:30
22	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/17/93 14:30
23	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:31
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:31
25	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/17/93 14:32

LB5100W Low Background Counting System – Smear Analysis

Date: 5/17/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\VENTS-9.XLD
Batch Ended: 5/17/93 14:35
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

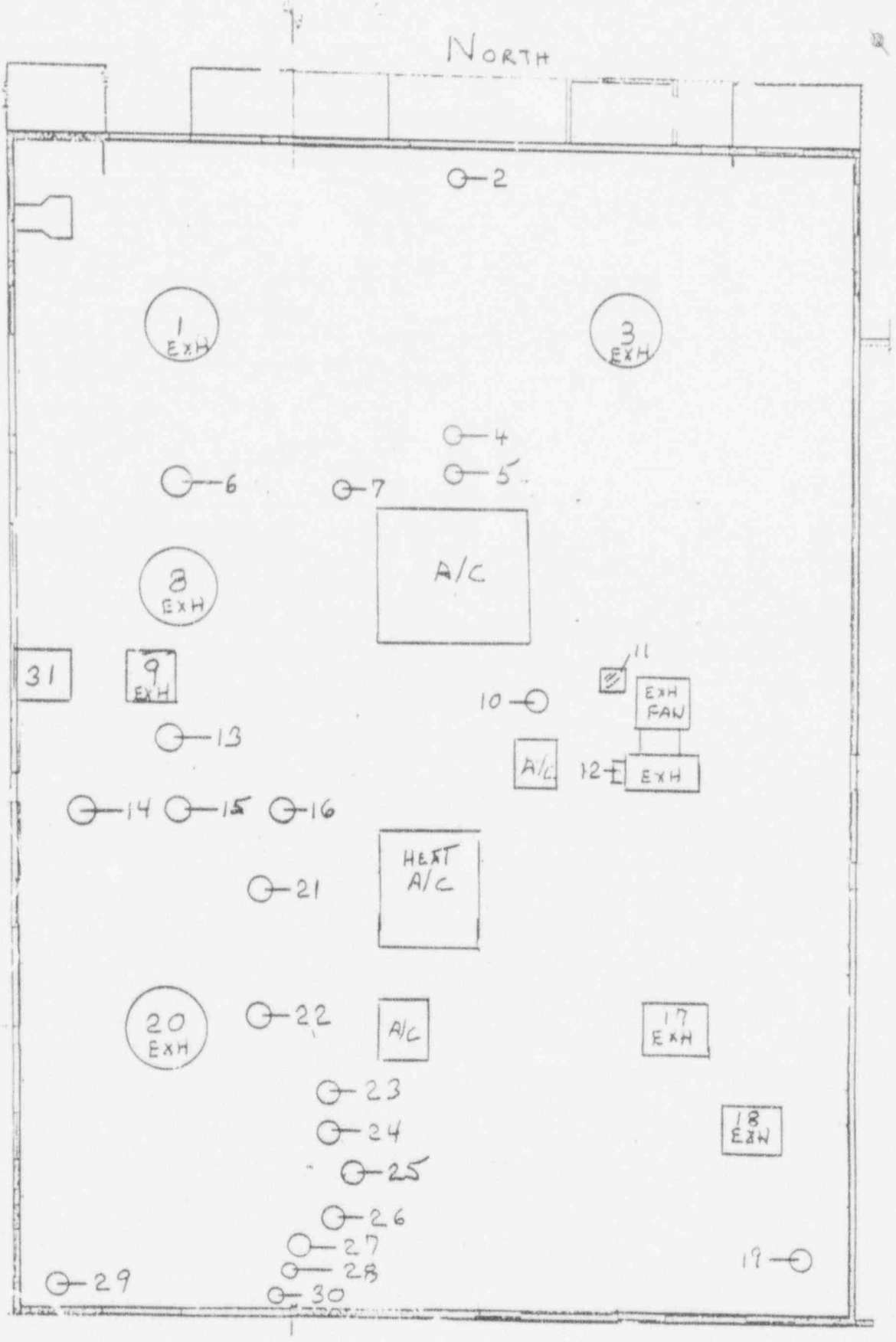
Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 9 ROOF VENTS

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
26	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:32
27	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:33
28	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:33
29	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/17/93 14:34
30	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/17/93 14:34
31	0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/17/93 14:35

ROOF BLDG 9


NORTH
2
1 EXH
3 EXH
4
5
6
7
A/C
8 EXH
31
9 EXH
11
10
EXH FAN
A/C
12
EXH
13
14
15
16
HEAT A/C
21
20 EXH
22
A/C
17 EXH
23
24
18 EXH
25
26
27
28
19
29
30

SURVEY TYPE: Ventilation Filter Housing

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	279
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/24/93

COUNT DATE: 5/12/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
*	PRM7: 234	9 uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
*	ESP2: 1522	.019 mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
West Wall	N/A	1, -1	N/A	N/A	244	185	3	218	-0.312	-2.78	Masonite
"	"	3, -1	"	"	230	175	0	210	-0.312	-2.78	"
East Wall	"	1, -1	"	"	258	195	0	201	-0.312	-2.78	"
"	"	3, -1	"	"	235	190	2	215	6.714	-2.78	"
North Wall	"	1, -1	"	"	344	265	2	258	-0.312	-2.78	"
South Wall Ceiling	"	1, -1	"	"	360	245	2	224	-0.312	-2.78	Wood
"	"	1, -1	"	"	240	195	0	211	-0.312	-2.78	"
"	"	1, -2	"	"	277	185	1	205	-0.312	3.38	"
"	"	1, -3	"	"	288	205	2	214	-0.312	-2.78	"
"	"	1, -4	"	"	303	205	2	184	-0.312	-2.78	"
Floor	"	1, -1	8	.007	350	280	4	284	-0.312	-2.78	Concrete/Steel
"	"	1, -2	7	.008	347	285	2	312	-0.312	-2.78	"
"	"	1, -3	6	.012	364	265	2	285	-0.312	-2.78	"
"	"	1, -4	8	.011	415	320	2	304	-0.312	-2.78	"

FORM SERIAL #: 29 - 030 (Survey Section - Sequential survey #)	LOCATION # Hydrogen Building (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0576	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System -- Smear Analysis

Date: 5/12/93
Counting Unit Id: 1
Data file name: C:\LBXL\UNIT1\FILTEREX.XLD
Batch Ended: 5/12/93 16:08
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: avt-h2 filter exhaust

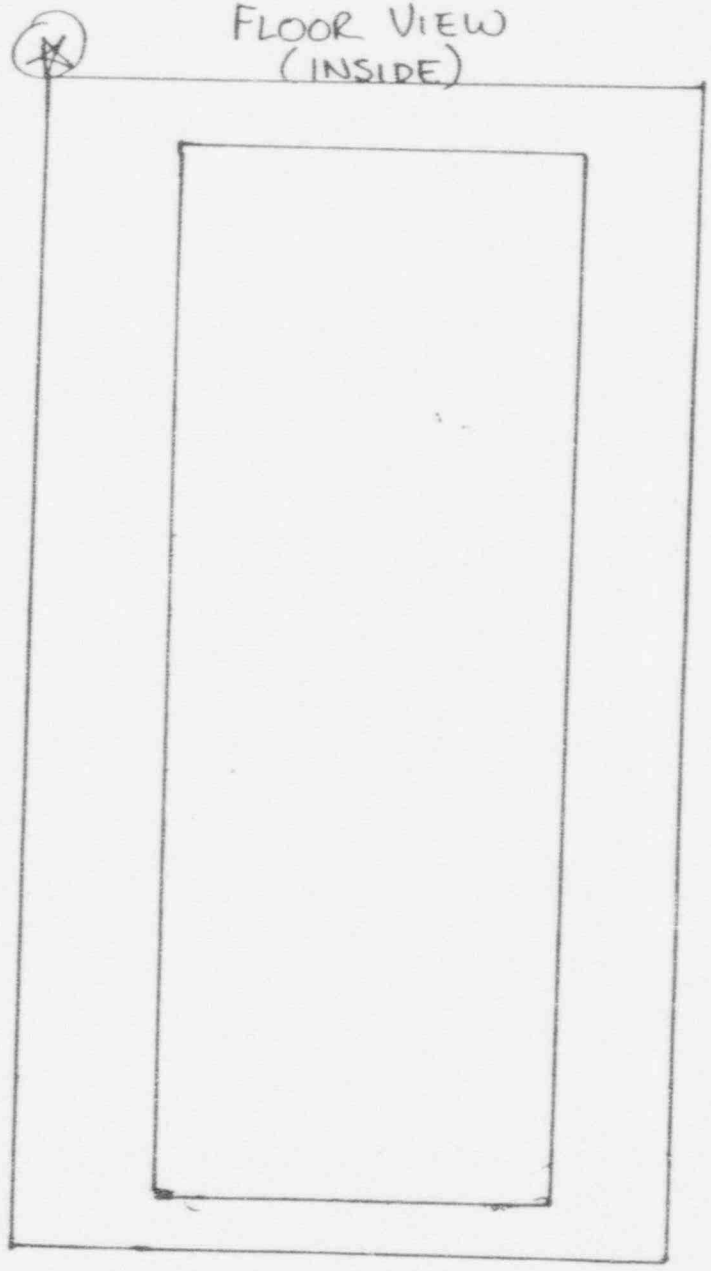
	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
26	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:00
27	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:01
28	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:01
29	6.714	4.18	At AL	10.72	-2.78	2.40	<MDA	16.63	1.00	2.867	-1.37	5/12/93 16:03
30	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:03
31	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:04
32	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:04
33	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/12/93 16:05
34	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/12/93 16:05
35	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/12/93 16:06
36	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:06
37	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:07
38	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/12/93 16:07
39	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 16:08

Hydrogen Facility
(Filter Exhaust Housing)

⊛ = Reference Point for Floor

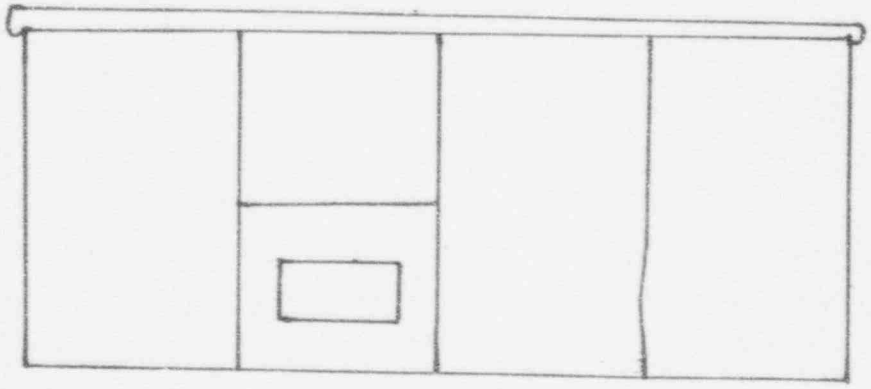
North ↑

FLOOR VIEW (INSIDE)

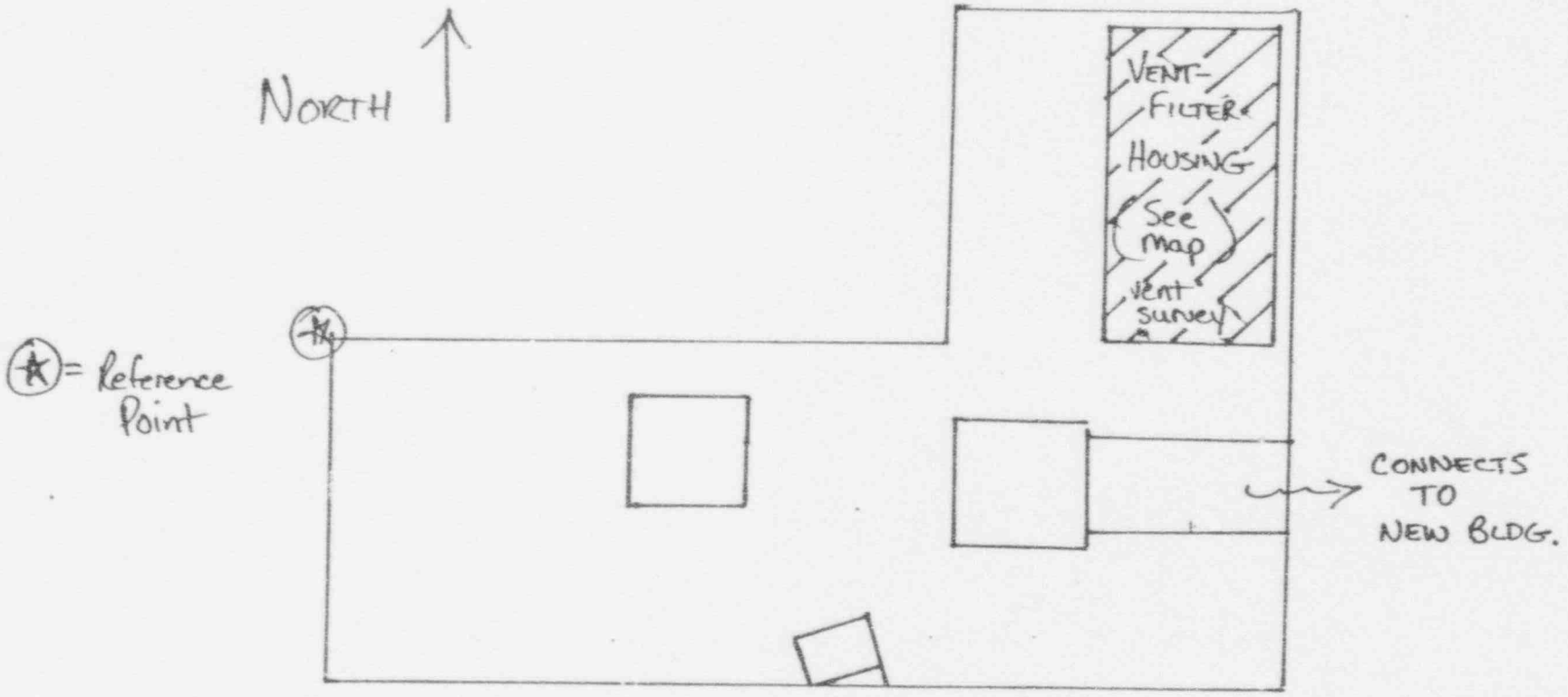


← North

SIDE VIEW



exterior



HYDROGEN FACILITY
ROOF

SURVEY TYPE: Ventilation

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1517	19.3%	5.2	.999
	ESP2:1510	19.1%	5.1	
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	535
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/12/93

COUNT DATE: 5/12/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1 Bottom	N/A	N/A	N/A	N/A	574	410	2	430	-0.312	3.38	Vent Blower Housing
Vent 1 Top	"	"	"	"	384	325	1	340	-0.312	3.38	"
Vent 2 S. Wall	"	"	"	"	390	315	1	332	-0.312	-2.78	"
Vent 1 N. Wall	"	"	"	"	371	320	0	330	-0.312	3.20	"

FORM SERIAL #: 29 - 029 (Survey Section - Sequential survey #)	LOCATION # Hydrogen Building (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0575	SURVEYOR SIGNATURE: VTMS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/12/93
Counting Unit Id: 1
Data file name: C:\LB5L\UNIT1\ROOFHYD.XLD
Batch Ended: 5/12/93 16:00
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

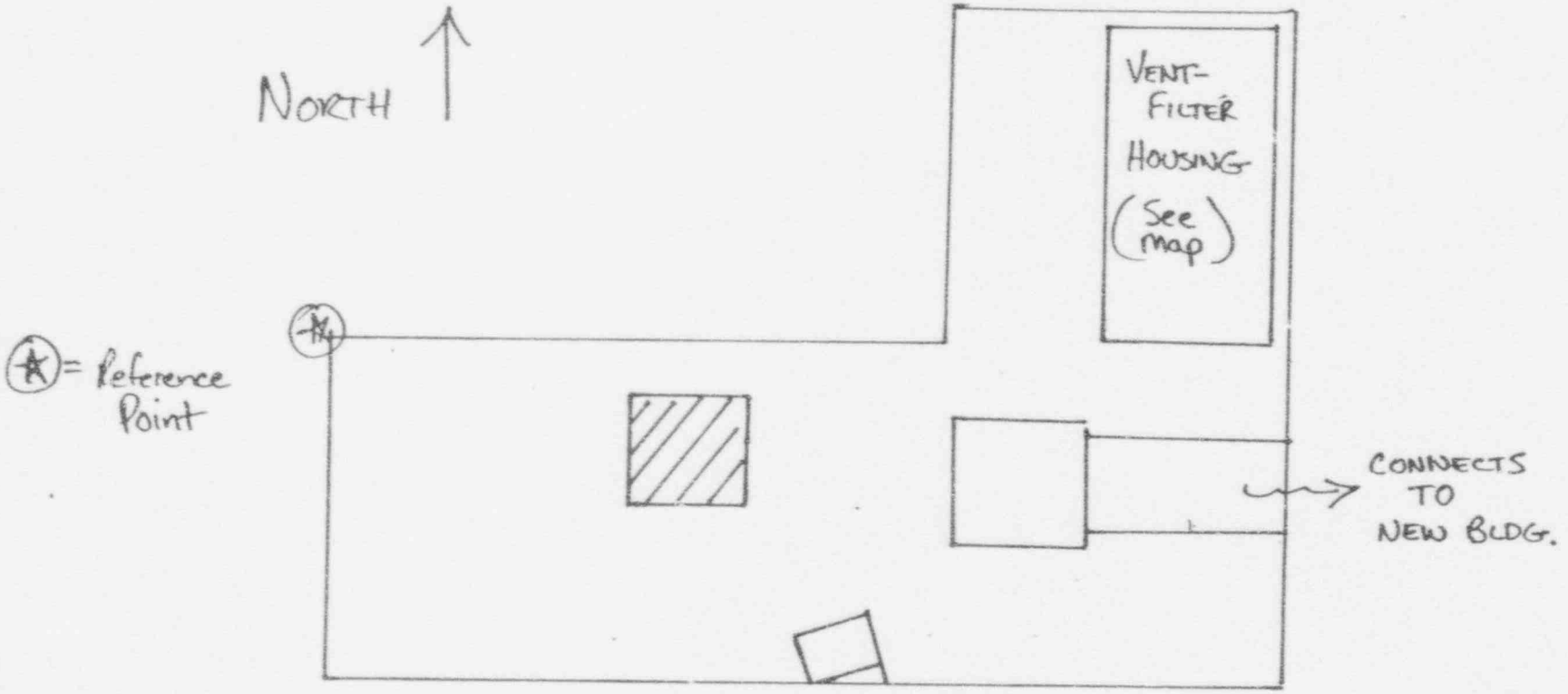
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: avt-vent housing of h2 fac

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
22	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/12/93 15:58
23	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/12/93 15:59
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/12/93 15:59
25	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/12/93 16:00



HYDROGEN FACILITY
ROOF

APPENDIX J

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 10

SURVEY TYPE: Roof Vent

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	1
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	384
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/18/93
COUNT DATE: 5/18/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	4	266	-0.312	-2.78	See Attached Map for
Vent 2	"	"	"	"	"	"	3	344	-0.312	-2.78	Locations
Vent 3	"	"	"	"	"	"	5	290	-0.312	3.20	"
Exhaust 4	"	"	"	"	"	"	3	337	-0.312	3.20	"
Vent 5	"	"	"	"	"	"	4	306	-0.312	-2.78	"
Exhaust 6	"	"	"	"	"	"	4	358	-0.312	-2.78	"
Vent 7	"	"	"	"	"	"	7	360	-0.312	-2.78	"
Vent 8	"	"	"	"	"	"	12	370	-0.312	-2.78	"
Vent 9	"	"	"	"	"	"	5	320	-0.312	3.38	"
Vent 10	"	"	"	"	"	"	5	345	-0.312	-2.78	"
Vent 11	"	"	"	"	"	"	3	316	-0.312	-2.78	"
Vent 12	"	"	"	"	"	"	9	367	-0.312	-2.78	"

FORM SERIAL #: 29 - 015 (Survey Section - Sequential survey #)	LOCATION # Building 4 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0559	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/18/93
Counting Unit id: 1
Data file name: C:\LB5L\UNIT1\ROOF4V.XLD
Batch Ended: 5/18/93 15:20
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Bldg 4 roof ventilation.

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
14	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:14
15	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:14
16	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/18/93 15:15
17	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/18/93 15:15
18	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 15:16
19	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 15:16
20	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:17
21	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:17
22	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/18/93 15:18
23	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:18
24	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 15:19
25	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 15:20

BLDG 4 ROOF

SURVEY TYPE: Building 8 Roof Ventilation

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM	(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2			ESP2:1595	27.4%	3.9	
*	ESP2:1510	19.1%	5.1	2	*	ESP2:1593	28.3%	3.6	245
	ESP2:					ESP2:			
	ESP2:					ESP2:			
	ESP2:					E520: 5242	20.3%	4.92	
	ASP1: 1891	19.1%	5.23			E520: 5245			
	PAC4G:4478	18.5%	5.4			PAC4G:4478	33.5%	3.0	
	FLMON:91943	18.8%	5.3			FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/13/93

COUNT DATE: 5/13/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Blower 1	N/A	N/A	N/A	N/A	N/A	N/A	6	253	-0.312	-2.78	See Attached Map for
Vent 2	"	"	"	"	"	"	N/A	N/A	-0.312	-2.78	Survey Locations
Vent 3	"	"	"	"	"	"	"	N/A	-0.312	3.20	"
Exhaust Fan 4	"	"	"	"	"	"	1	199	-0.312	-2.78	"
Vent 5	"	"	"	"	"	"	N/A	N/A	-0.312	9.54	"
Vent 6	"	"	"	"	"	"	"	"	-0.312	3.38	"
Vent 7	"	"	"	"	"	"	8	269	-0.312	-2.78	"
Exhaust Fan 8	"	"	"	"	"	"	1	191	-0.312	-2.78	"
Blower 9	"	"	"	"	"	"	3	204	-0.312	3.38	"
Vent 10	"	"	"	"	"	"	3	261	-0.312	3.20	"
Exhaust Fan 11	"	"	"	"	"	"	5	213	-0.312	3.38	"
Blower 12	"	"	"	"	"	"	2	280	-0.312	3.38	"
Vent 13	"	"	"	"	"	"	N/A	N/A	-0.312	3.20	"
Sewer Vent 14	"	"	"	"	"	"	60	518	-0.312	3.20	"
Vent 15	"	"	"	"	"	"	N/A	N/A	-0.312	-2.78	"

FORM SERIAL #: 29 - 007 (Survey Section - Sequential survey #)	LOCATION # Building 8 Ventilation (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0548	SURVEYOR SIGNATURE: VT

LB5100W Low Background Counting System – Smear Analysis

Date: 5/13/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\ROOF8-V.XLD
Batch Ended: 5/13/93 12:01
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

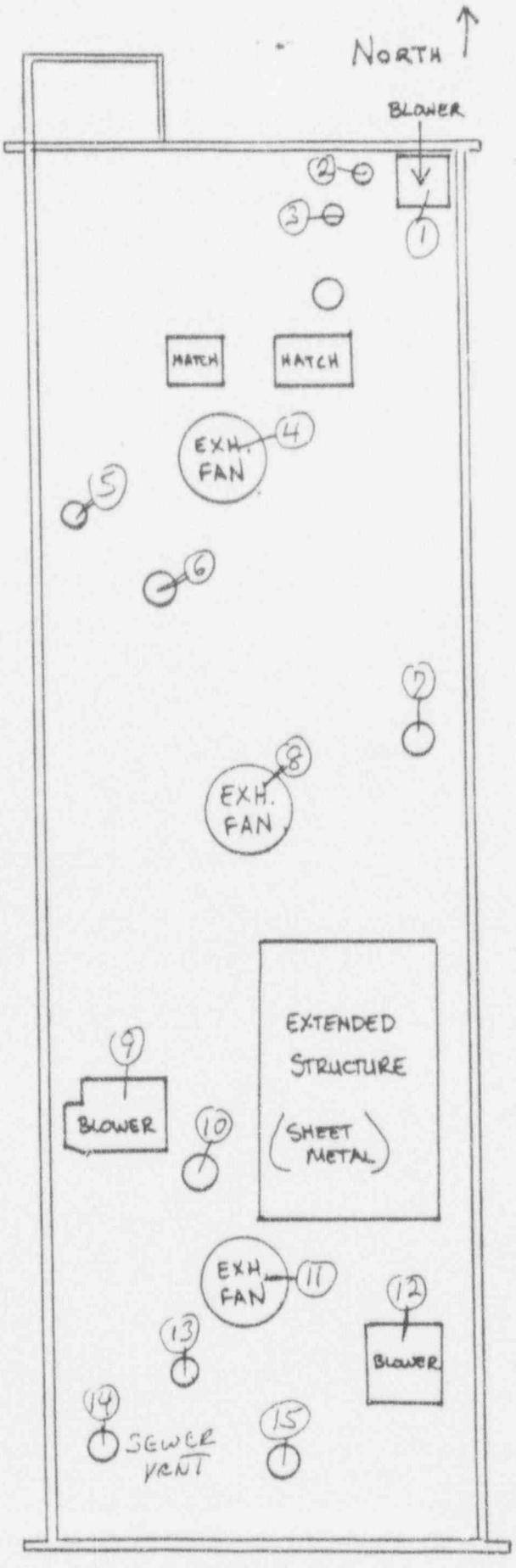
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Roof ventilation of Bldg 8

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
30	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:53
31	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 11:54
32	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:54
33	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:55
34	-0.312	1.78	<MDA	26.84	9.54	9.67	<MDA	36.04	0.33	-0.133	4.69	5/13/93 11:55
35	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 11:56
36	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:56
37	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/13/93 11:57
38	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 11:57
39	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 11:58
40	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 11:59
41	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/13/93 11:59
42	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 12:00
43	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/13/93 12:00
44	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/13/93 12:01


NORTH
BLOWER
1
2
3
HATCH
HATCH
EXH. FAN
4
5
6
7
EXH. FAN
8
EXTENDED STRUCTURE
(SHEET METAL)
9
BLOWER
10
EXH FAN
11
12
BLOWER
13
14
SEWER VENT
15

ROOF BLDG. 8

SURVEY Title: Roof Vent

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	0
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1595	27.4%	3.9	
*	ESP2:1593	28.3%	3.6	267
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/18/93

COUNT DATE: 5/18/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

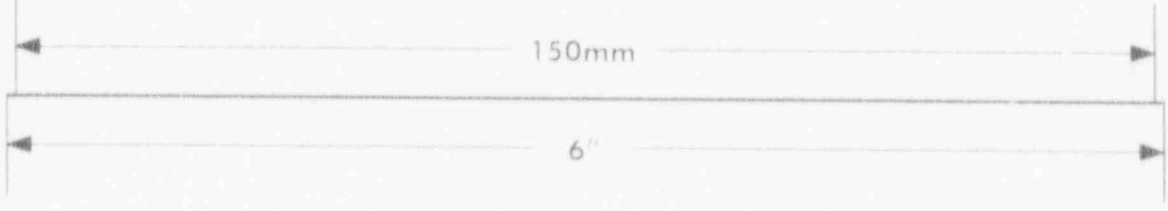
(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Exhaust 1	N/A	N/A	N/A	N/A	N/A	N/A	6	272	-0.312	-2.78	See Map for Vent
Vent 2	"	"	"	"	"	"	47	486	-0.312	3.38	Locations
Vent 3	"	"	"	"	"	"	44	400	-0.312	-2.78	"
Exhaust 4	"	"	"	"	"	"	14	308	-0.312	3.38	"
Vent 5	"	"	"	"	"	"	9	261	-0.312	-2.78	"

FORM SERIAL #: 29 - 013 (Survey Section - Sequential survey #)	LOCATION # Building 10 Roof (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0557	SURVEYOR SIGNATURE: VT/MS

2

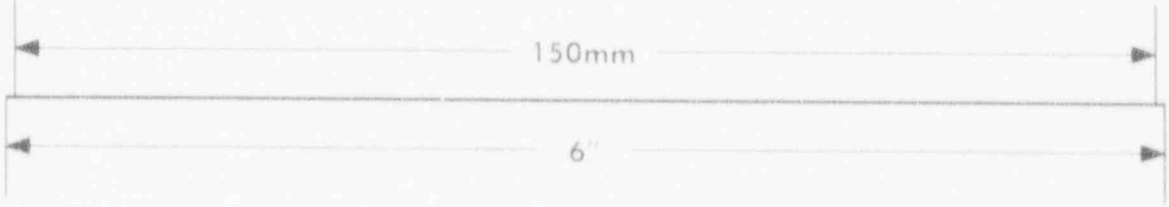
IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

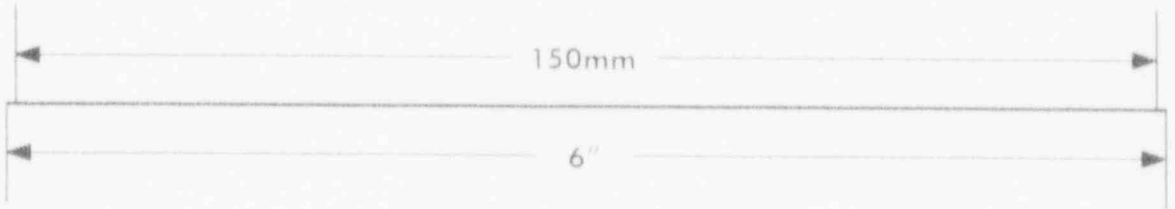
IMAGE EVALUATION
TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

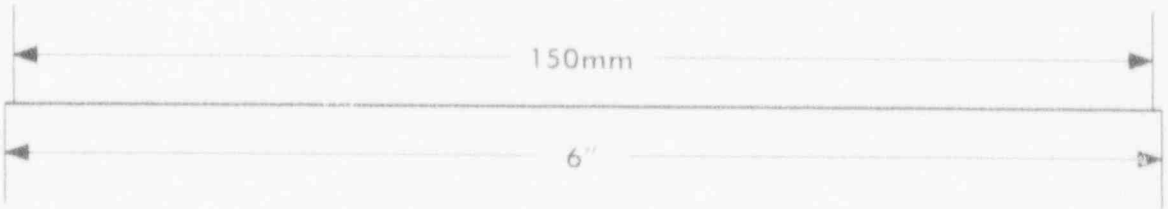
IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

LB5100W Low Background Counting System – Smear Analysis

Date: 5/18/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT\ROOF1\V.XLD
Batch Ended: 5/18/93 9:38
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

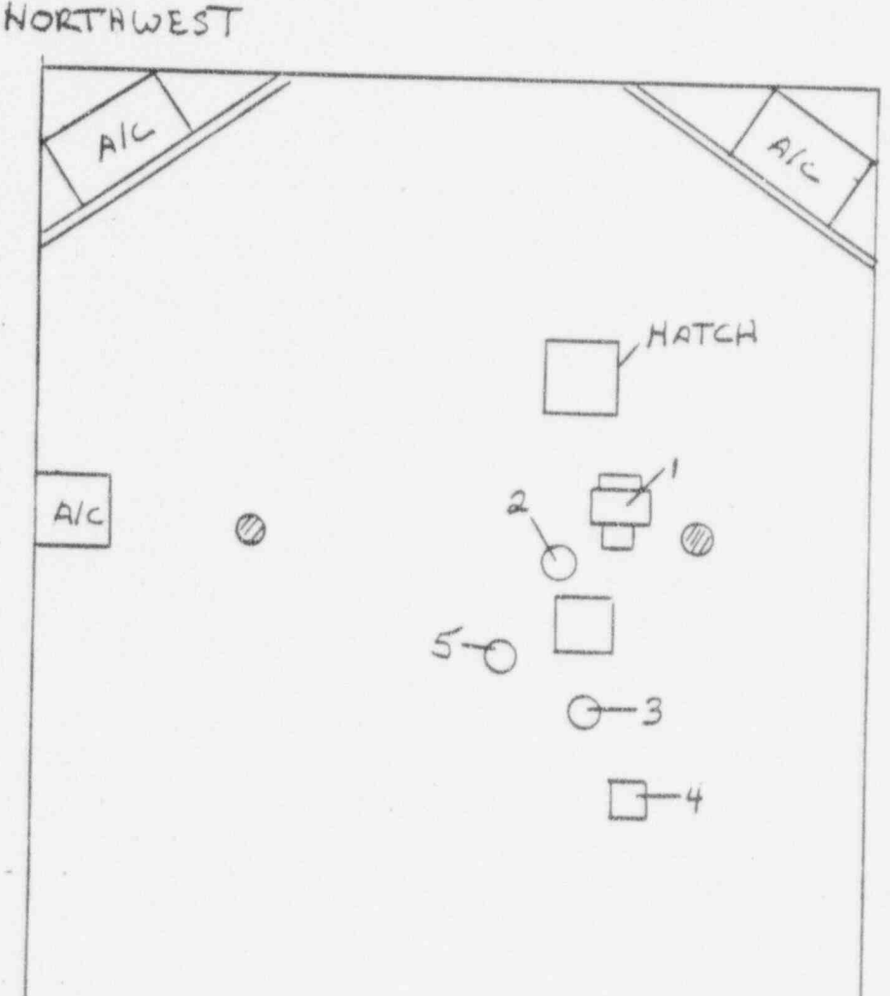
Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - ventilation of Bldg 10 roof

Carrier	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
13	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 9:36
14	-0.312	1.78	<MDA	26.84	3.39	7.45	<MDA	36.04	0.33	-0.133	1.66	5/18/93 9:36
15	-0.312	1.78	<MDA	26.84	-2.78	4.19	<MDA	36.04	0.33	-0.133	-1.37	5/18/93 9:37
16	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/18/93 9:37
17	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/18/93 9:38

NORTHWEST



1. EXHAUST
2. VENT
3. VENT
4. EXHAUST
5. VENT

BLDG 10

SURVEY TYPE: Roof Vents

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	495
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

SURVEY DATE: 5/19/93

COUNT DATE: 5/20/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	3	240	-0.312	9.18	ESP's used for scans &
Vent 2	"	"	"	"	"	"	8	367	-0.312	3.20	1 minute counts
Vent 3	"	"	"	"	"	"	2	453	-0.312	-2.78	"

FORM SERIAL #: 29 - 017 (Survey Section - Sequential survey #)	LOCATION # Building 11 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0561	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/20/93
Counting Unit id: 1
Data file name: C:\LPXL\UNIT1\ROOF11V.XLD
Batch Ended: 5/20/93 6:44
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

Application Revision: 2
Application Version: Standard

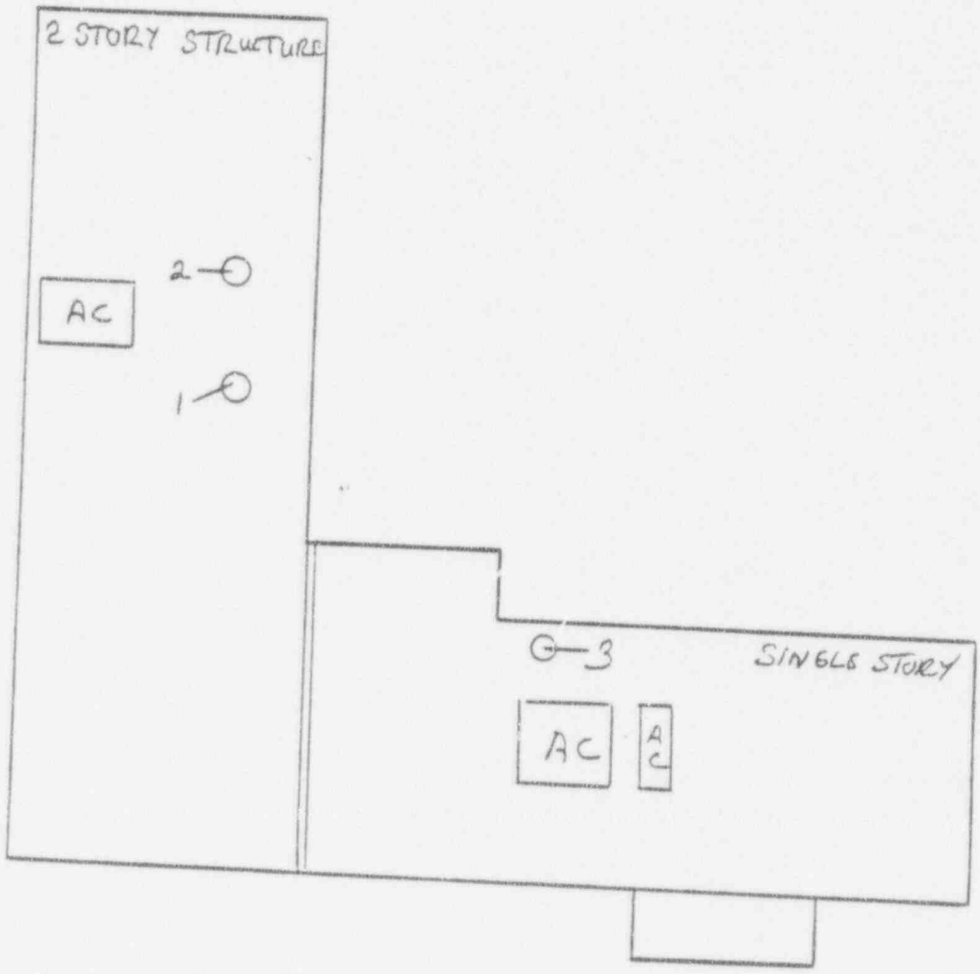
Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: BLDG. 11 ROOF VENTS

	Alpha Activity				Beta Activity							
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	Count time (min)	Alpha CPM	Beta CPM	Completion TOD
13	-0.312	1.75	<MDA	26.16	9.18	9.41	<MDA	35.26	0.34	-0.133	4.52	5/20/93 6:43
14	-0.312	1.75	<MDA	26.16	3.20	7.26	<MDA	35.26	0.34	-0.133	1.57	5/20/93 6:43
15	-0.312	1.75	<MDA	26.16	-2.78	4.12	<MDA	35.26	0.34	-0.133	-1.37	5/20/93 6:44

NW CORNER



BLDG 11

SURVEY TYPE: Firehouse Roof Vent

DECOMMISSIONING FIELD DATA SHEET

(*)IF USED	ALPHA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
	ESP2:1517	19.3%	5.2	
*	ESP2:1510	19.1%	5.1	2
	ESP2:			
	ESP2:			
	ESP2:			
	ASP1: 1891	19.1%	5.23	
	PAC4G:4478	18.5%	5.4	
	FLMON:91943	18.8%	5.3	

(*)IF USED	BETA SURVEY EQUIPMENT INST: S/N	EFF	C.F.	BKG CPM
*	ESP2:1595	27.4%	3.9	519
	ESP2:1593	28.3%	3.6	
	ESP2:			
	ESP2:			
	E520: 5242	20.3%	4.92	
	E520: 5245			
	PAC4G:4478	33.5%	3.0	
	FLMON:91943	28.8%	3.47	

URVEY DATE: 5/24/93

OUNT DATE: 5/24/93

(*)IF USED	GAMMA OR BETA/GAMMA EQUIP INST: S/N	BKG
	R/S: L-2088	uR/hr
	PRM7: 234	uR/hr
	E520: 5242	mr/hr
	E520: 5245	mr/hr
	ESP2: 1522	mr/hr

(*)IF USED	COUNTING EQUIPMENT (ALPHA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	42.7%	2.34	0.13
	SAC4: 1128	39.6%	2.53	
	COUNTING EQUIPMENT (BETA) INST: S/N	EFF	C.F.	BKG
*	TENN: 13295	49.2%	2.03	1.37
	BC-4: 808	16.9%	5.92	

SURFACE DESCRIPTION	GRID	X,Y REF POINT	GAMMA @ 1 M. uR/hr	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
					MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Vent 1	N/A	N/A	N/A	N/A	N/A	N/A	3	498	-0.312	3.38	See Attached Map for Location

FORM SERIAL #: 29 - 027 (Survey Section - Sequential survey #)	LOCATION # Firehouse (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: VII (Group I, II, III, IV)	DISK FILE CODE: FDS - 0572	SURVEYOR SIGNATURE: VT/MS

LB5100W Low Background Counting System – Smear Analysis

Date: 5/24/93
Counting Unit id: 1
Data file name: C:\LB5L\UNIT1\ROOF-FH.V.XLD
Batch Ended: 5/24/93 9:15
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1440

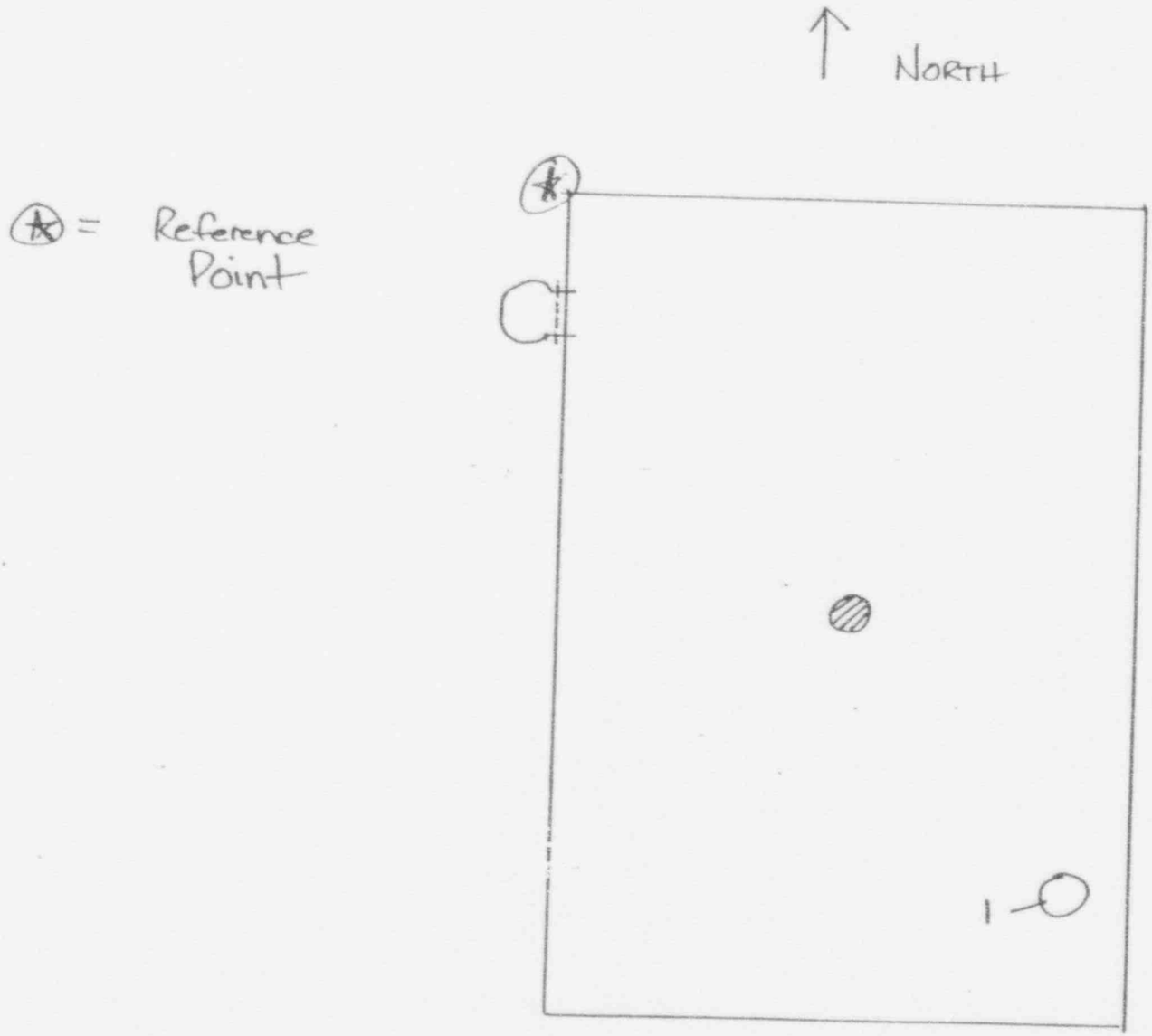
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: pu239ab
Alpha Efficiency: 42.70%
Alpha to Beta Crosstalk: 5.55%
Alpha Background (CPM): 0.133333333

Beta efficiency log file: cs137ab
Beta Efficiency: 49.18%
Beta into Alpha Crosstalk: 0.89%
Beta Background (CPM): 1.366666667

Batch ID: TSB - Fire house roof vents

	Alpha Activity				Beta Activity							
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	Count time (min)	Alpha CPM	Beta CPM	Completion TOD
3	-0.312	1.78	<MDA	26.84	3.38	7.45	<MDA	36.04	0.33	-0.133	1.66	5/24/93 9:15



FIREHOUSE BLDG.
ROOF

APPENDIX K

ANALYTICAL LABORATORY REPORT SHEETS

Sample Number	Date	Comments	Sample Number	Date	Comments
699- - See Maps	05/12/93	East Parking Lot #6	724 - @ 140 meters	05/26/93	Grounds Survey Sample Area #17
700- - See Maps	05/12/93	East Parking Lot #10	725 - @ 165 meters	05/26/93	" "
701- - See Maps	05/12/93	East Parking Lot #11	726 - @ 185 meters	05/26/93	" "
702- - See Maps	05/12/93	East Parking Lot #13	727 - @ 195 meters	05/26/93	" "
703- - See Maps	05/12/93	East Parking Lot #15	728 - @ 210 meters	05/26/93	" "
704- - See Maps	05/12/93	East Parking Lot #16	729 - @ 225 meters	05/26/93	" "
705- - See Maps	05/20/93	Catch Basin #8	730 - @ 20 meters	05/26/93	" "
706- - See Maps	05/20/93	Catch Basin #9	731 - @ 40 meters	05/26/93	" "
707- - See Maps	05/20/93	Catch Basin #11	732 - X = 10 Y =-10	06/03/93	Bldg. #5 Roof "B" Material
708- - See Maps	05/20/93	Catch Basin #12	733 - X = 30 Y =+5	06/03/93	Bldg. #8A Roof Material
709- - See Maps	05/20/93	Catch Basin #13	734 - X = 10 Y =-50	06/03/93	Bldg. #9 Roof Material
710- - See Maps	05/20/93	Catch Basin #15	735 - @ Vent #12	06/03/93	" "
711- - See Maps	05/20/93	Catch Basin #16	736 - @ Vent #31	06/03/93	" "
712- - See Maps	05/20/93	Catch Basin #17	737 - X = 15 Y = +1	06/03/93	Hydrogen Bldg. Roof Material
713- - See Maps	05/20/93	Catch Basin #18	738 - X = 15 Y = -2	06/03/93	" "
714- - See Maps	05/20/93	Catch Basin #19	739 - X = 14 Y = -2	06/03/93	" "
715- - See Maps	05/20/93	Catch Basin #20	740 - X = 14 Y = -1	06/03/93	" "
716- - See Maps	05/24/93	Catch Basin #21	741 - X = 10 Y =-10	06/03/93	Bldg. #5 Roof Gravel
717 - @ 5 meters	05/26/93	Grounds Survey Sample Area #17	742 - X = 30 Y = +5	06/03/93	Bldg. #8A Roof Gravel
718 - @ 30 meters	05/26/93	Grounds Survey Sample Area #17	743 - X = 10 Y =-50	06/03/93	Bldg. #9 Roof Gravel
719 - @ 50 meters	05/26/93	" "	744 - @ Vent #12	06/03/93	" "
720 - @ 70 meters	05/26/93	" "	745 - @ Vent #31	06/03/93	" "
721 - @ 85 meters	05/26/93	" "	746 - X = 15 Y = +1	06/03/93	Hydrogen Bldg. Roof - Gravel
722 - @ 100 meters	05/26/93	" "	747 - X = 15 Y = -2	06/03/93	" "
723 - @ 123 meters	05/26/93	" "	748 - X = 14 Y = -2	06/03/93	" "

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Sample Number	Date	Comments	Sample Number	Date	Comments
749 - X = 14 Y = -1	06/03/93	Hydrogen Bldg. Roof - Gravel			
750 - X = 0 Y = 30	06/03/93	Grounds Sample Area #11			
751 - X = 30 Y = 0	06/03/93	Grounds Sample Area #1			
752 - X = 25 Y = 0	06/03/93	Grounds Sample Area #3			
753 - X = 15 Y = 40	06/03/93	" "			
754 - X = 20 Y = 185	06/03/93	Grounds Sample Area #4			
755 - X = 85 Y = 20	06/03/93	Grounds Sample Area #5			
756 - X = 40 Y = 0	06/03/93	Grounds Sample Area #3			
757 - X = 20 Y =100	06/03/93	Grounds Sample Area #1			
758 - X = 40 Y =100	06/03/93	" "			
759 - @ 125 meters	06/03/93	Grounds Sample Area #17			
760 - @ 160 meters	06/03/93	" "			
761 - X = 10 Y = 10	06/03/93	Grounds Sample Area #8			
762 - X = 30 Y = 10	06/03/93	" "			
763 - X = 50 Y = 10	06/03/93	" "			
764 - X = 70 Y = 10	06/03/93	" "			
765 - X = 90 Y = 10	06/03/93	" "			
766 - X =110 Y = 10	06/03/93	" "			
767 - X = 40 Y = 20	06/03/93	" "			
768 - X = 80 Y = 5	06/03/93	" "			

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15088

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/11/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
732	93-791	U-235	<2.8E-01	
733	93-792	U-235	<4.6E-01	
734	93-793	U-235	<4.4E-01	
735	93-794	U-235	<3.0E-01	
736	93-795	U-235	<4.1E-01	
737	93-796	U-235	<4.4E-01	
738	93-797	U-235	<4.2E-01	
		Cs-137	8.81E-01	+/- 4.9E-01
739	93-798	U-235	<5.1E-01	
740	93-799	U-235	<6.4E-01	
741	93-800	U-235	4.44E-01	+/- 1.7E-01
		Cs-137	2.16E-01	+/- 1.4E-01
742	93-801	U-235	<3.7E-01	
		Cs-137	1.34E+00	+/- 3.3E-01
743	93-802	U-235	<2.7E-01	
744	93-803	U-235	4.84E-01	+/- 2.1E-01
745	93-804	U-235	<2.8E-01	
746	93-805	U-235	2.81E-01	+/- 2.5E-01
		Cs-137	4.66E-01	+/- 2.8E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15088
Procedures: A-524
Analyst: WTF, MRK, FRC

Approved: Mark Fawcett

REVISED REPORT

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

Request# 15088

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/15/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
747	93-806	U-235	5.44E-01	+/- 2.1E-01
		Cs-137	1.79E+00	+/- 4.3E-01
748	93-807	U-235	4.70E-01	+/- 3.7E-01
		Cs-137	1.65E+00	+/- 4.9E-01
749	93-808	U-235	3.43E-01	+/- 1.7E-01
		Cs-137	1.66E+00	+/- 3.1E-01
750	93-809	U-235	<3.5E-01	
751	93-810	U-235	<2.4E-01	
		Cs-137	2.89E-01	+/- 2.1E-01
752	93-811	U-235	<2.6E-01	
		Cs-137	6.61E-01	+/- 4.4E-01
753	93-812	U-235	<3.4E-01	
		Cs-137	4.47E-01	+/- 2.9E-01
754	93-813	U-235	<2.2E-01	
755	93-814	U-235	1.62E-01	+/- 1.2E-01
		Cs-137	6.36E-01	+/- 2.1E-01
756	93-815	U-235	<2.3E-01	
		Cs-137	3.42E-01	+/- 1.9E-01
757	93-816	U-235	<2.7E-01	
		Cs-137	1.34E+00	+/- 3.3E-01
758	93-817	U-235	<1.4E-01	
		Cs-137	3.25E-01	+/- 2.2E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15088
Procedures: A-524
Analyst: WTF, MRK, FRC

Approved: Mark Kowalski

APPENDIX L

RADIOLOGICAL SURVEY DATA SHEETS FOR ROOF SAMPLE LOCATIONS

DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

PAGE OF

SURVEY TYPE:	[ ] PAVED [X] ROOFS [ ] UNPAVED
SUPVEY DATE:	6/3/93
LOCATION:	BLDG 5,8A,9,H2
FORM S/N:	29-033
DISK CODE:	GRND-015

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	SEE BELOW
	R/S	L-2088	N/A	N/A	uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

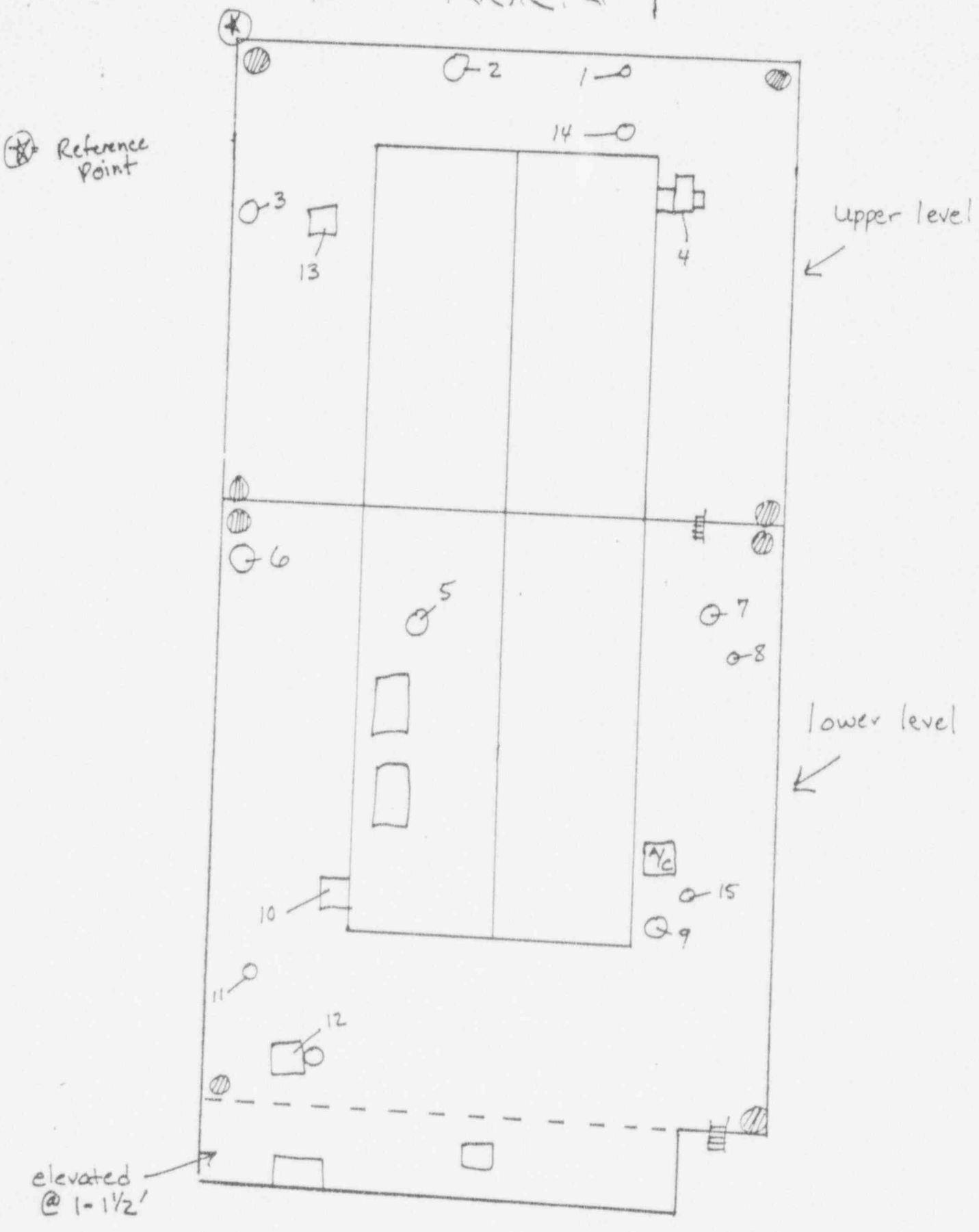
X,Y COORDINATES	REFERENCE SOIL LOG # GRAVEL SAMP.	MEDIA SAMP	L E GAMMA 1 MIN CT	L E GAMMA BKG. CPM	BETA CONT 1 MIN CT	COMMENTS
10, -10	741	732	8967	6344	N/A	BLDG. 5, ROOF B
30, 5	742	733	10616	5944	"	BLDG. 8A ROOF
10, -50	743	734	6600	5123	"	BLDG. 9 ROOF
VENT #12	744	735	5929	5123	"	BLDG. 9 ROOF
VENT #31	745	736	7766	5123	"	BLDG. 9 ROOF
15, 1	746	737	7528	6826	"	H2 BLDG. ROOF
15, 2	747	738	8985	6826	"	H2 BLDG. ROOF
14, -2	748	739	8950	6826	"	H2 BLDG. ROOF
14, -1	749	740	8510	6826	"	H2 BLDG. ROOF
				Note: Backgrounds are averaged from 4- 1 minute counts on each roof above and were done in air, not cn a surface.		

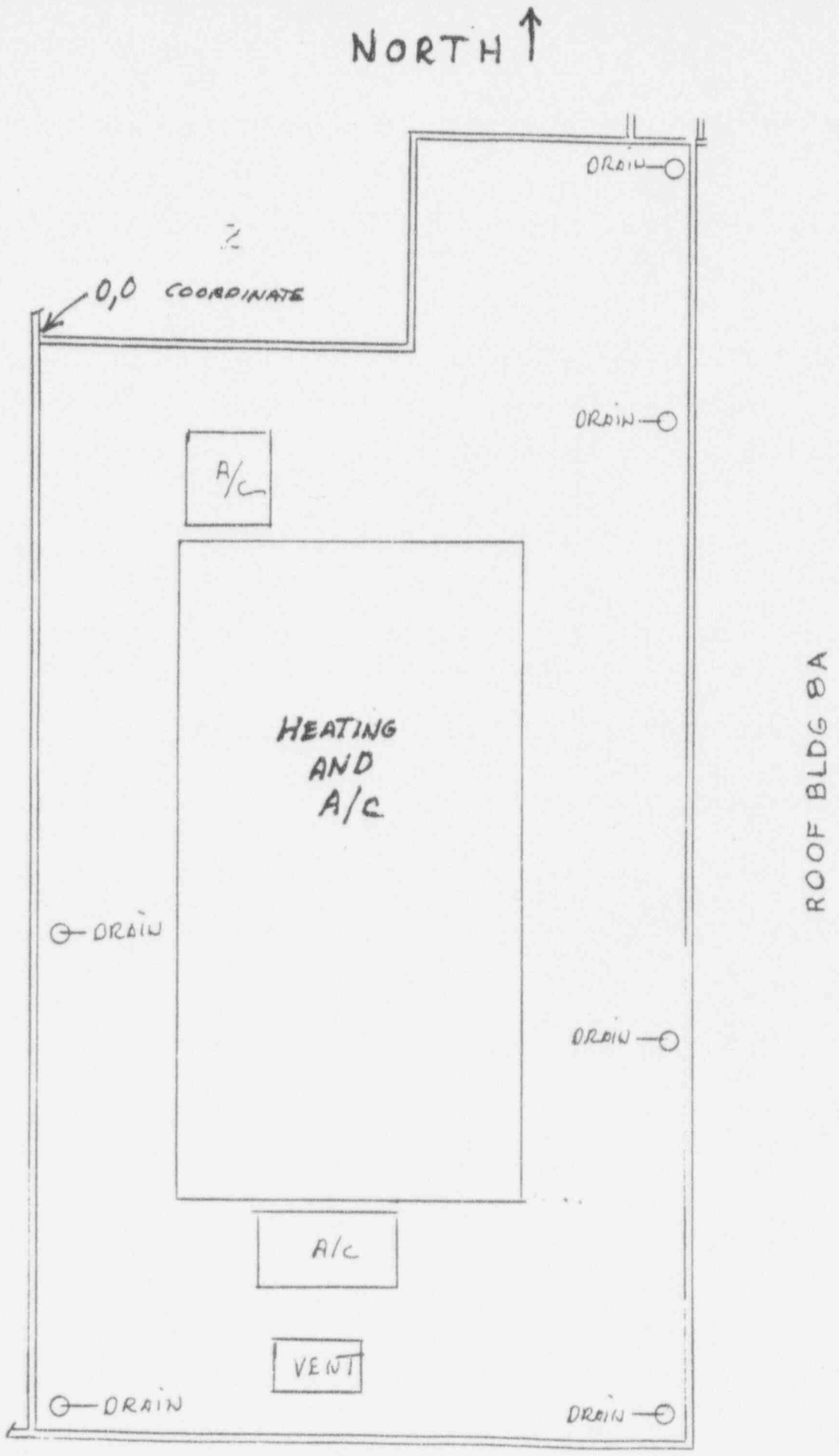
SURVEYOR:	J. NARDI	SURVEYOR SIGNATURE:	A Joseph Nardi 6/7/93

Bldg 5

"B"

NORTH

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0,0 COORDINATE
DRAIN
A/C
HEATING AND A/C
DRAIN
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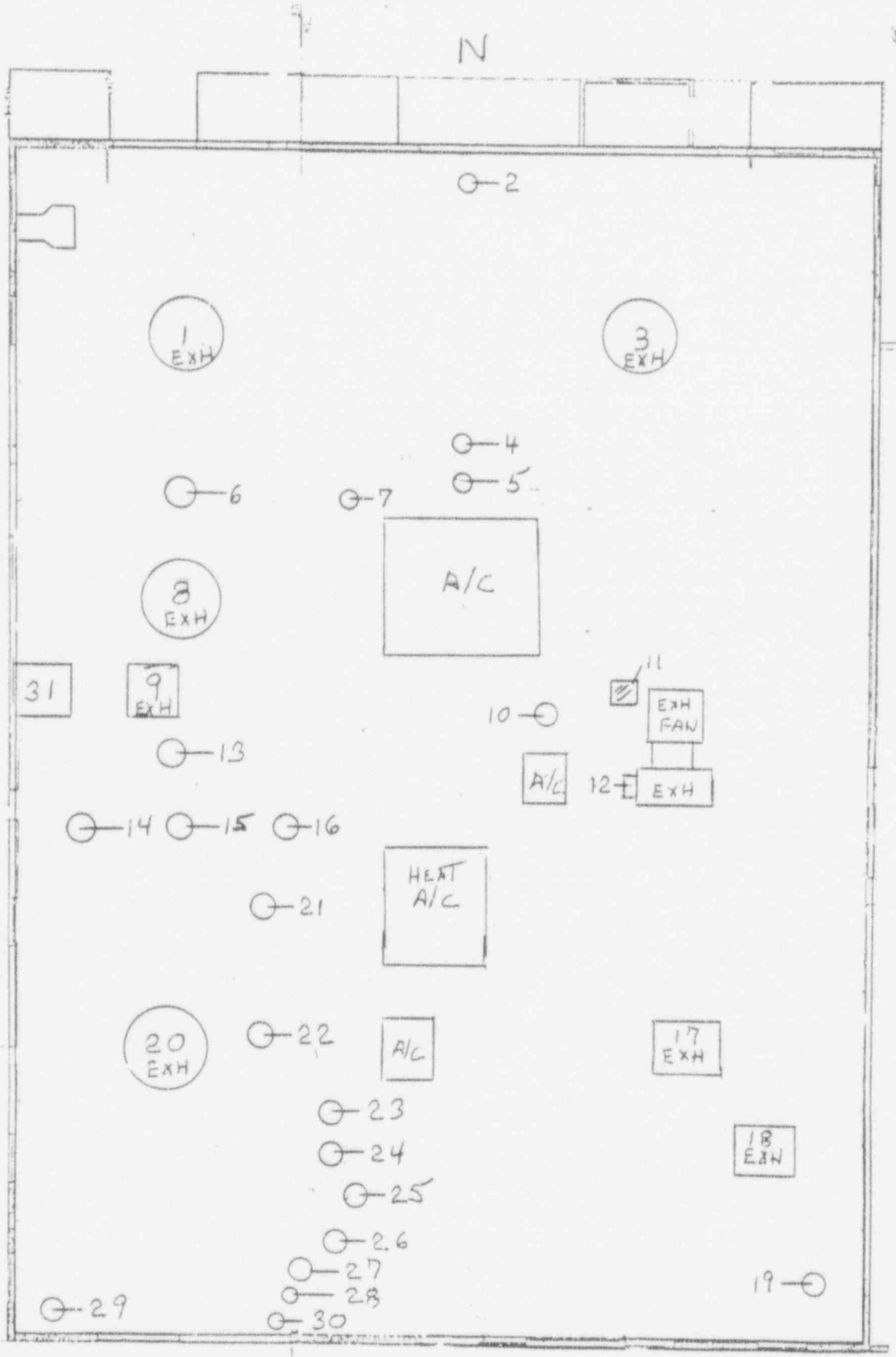
A/C
VENT
DRAIN
DRAIN
ROOF BLDG 8A

ROOF BLDG 9


N
2
1 EXH
3 EXH
4
5
6
7
A/C
8 EXH
31
9 EXH
11
EXH FAN
10
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12
EXH
14
15
16
HEAT A/C
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20 EXH
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18 EXH
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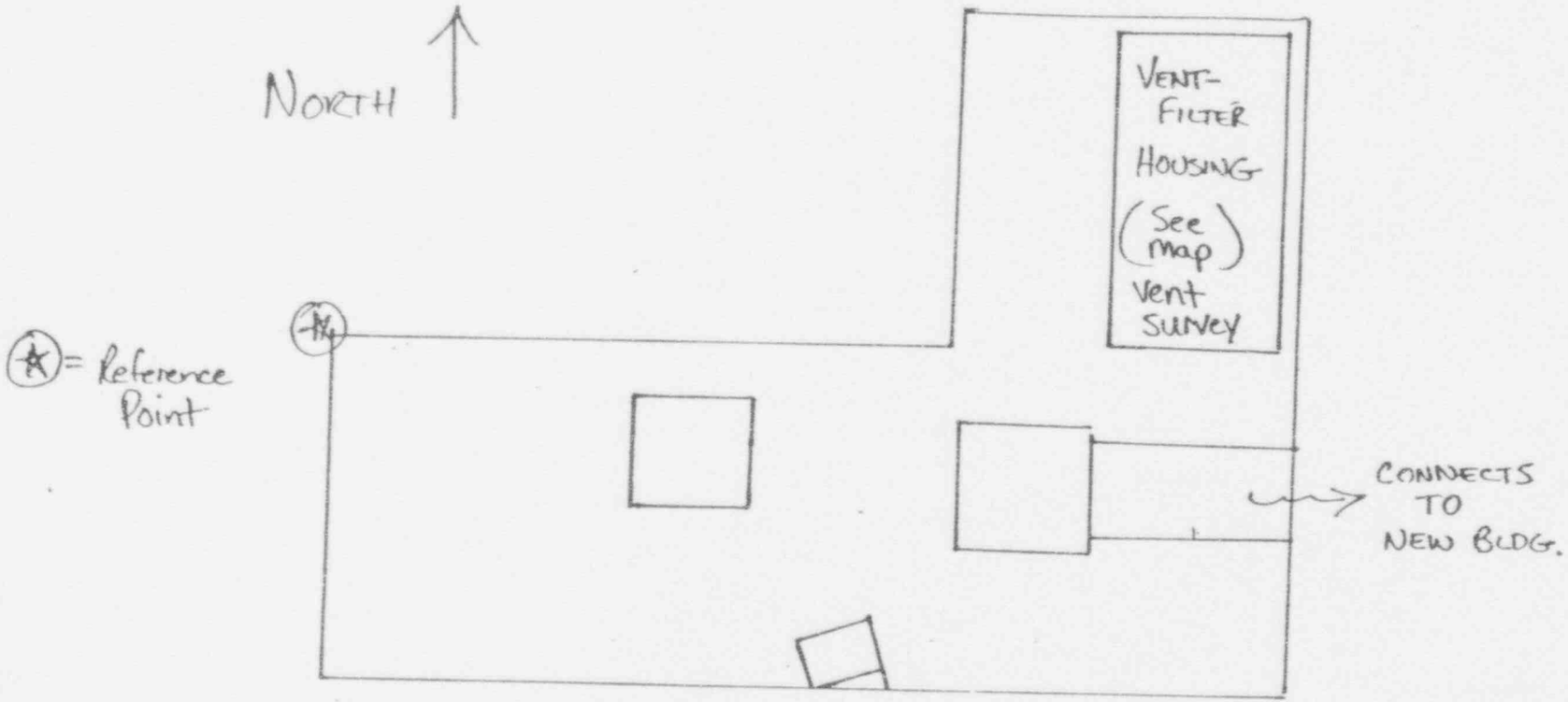
30



HYDROGEN FACILITY
ROOF

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY OF THE SITE GROUNDS

(SURVEY SECTION 30)

JUNE 2, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #039

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FINAL RADIOLOGICAL SURVEY

OF THE SITE GROUNDS

(Survey Section 30)

Purpose

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 for the site located in Large, PA. This report is one of a series of reports that presents the necessary information to establish that the site meets all applicable regulatory requirements so that the license can be terminated by the United States Nuclear Regulatory Commission.

Scope

This report documents the results of the final radiological survey of the site grounds on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 provides the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

1) Site Description
2) Radiological Acceptance Criteria
3) Survey Classification System
4) Classification of Building Area
5) Selection of Survey Instruments and Instrument Characterization
6) System for Identification of Survey Point Locations
7) Statistical Analysis of Survey Results
8) Survey Protocol

Much of the information presented in that report is applicable to the surveys of the site grounds.

Discussion of East Parking Lot

Figure 1 presents the site plot plan and identifies the location of the East Parking Lot. A portion of this parking area close to Building #5 was originally a storage area for drums of radioactive waste awaiting shipment for disposal. Figures 3 and 4 are photographs of this area while it was a drum storage area. Although this area has since been paved over, the location of the fire hydrant (See Figure 3) and the storm sewer (See Figure 4), both of which still exist, provided specific landmarks to locate the original area. In order to adequately survey the surfaces under the asphalt paving, it was necessary to remove the paving at 23 locations to expose the underlying surface.

Figure 5 provides specific information regarding the size and location of each of the 23 sample locations using the fire hydrant as the "point of origin" for the grid. The grid coordinate for each sample location is the center of the opening made in the paving.

These locations were chosen to provide for the following sample points:

1) Roadway that ran along the south and west side of the storage areas.

2) Main gate entry way into the storage area.

3) Along the edge of the concrete pad within the storage area.

4) Where the concrete pad was located.

5) In the general unpaved area where the drums were stored.

The selection criteria used to identify sample locations was intended to provide representative sampling for the surfaces under the current paving material.

At each sample location, the following radiological survey measurements were made using the specified instrumentation:

1) Gamma dose rate at 1 meter above the surface in the center of the sample area. (Reuter-Stokes instrument)

2) Gamma radiation scan of the sample area to record the maximum and average observed count rate. This survey provides comparative information only since the instrument is not calibrated to provide results which can be compared against any of the radiological acceptance criteria. (Eberline Model PRS-1 instrument with a NaI probe)

3) Gamma radiation integrated for one minute with the probe on contact with the surface at the center of the sample location. The same comments as above apply to this measurement. (Eberline Model PRS-1 instrument with a NaI probe)

4) Beta surface activity measurements were made on exposed concrete surfaces. (Eberline Model ESP-2 instrument with a 100 cm^2 area gas-proportional probe)

5) Analytical analysis by gamma and alpha spectrometry for samples of exposed soil or other loose media surfaces.

Analysis of Results for the East Parking Lot

Appendix A incorporates the analytical laboratory data sheets for the 12 soil samples. Appendix B incorporates the radiological survey data sheets for all the measurements. Table 1 presents the survey data for the 23 sample locations with the results converted, as appropriate, to the units

necessary for comparison against the radiological acceptance criteria. A statistical analysis is presented at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence. As noted in the previous discussion, the gamma count rate measurements are for comparative purposes only and no statistical tests are performed.

Table 2 presents a summary of the analytical results obtained by both gamma and alpha spectrometry. No correlation was found between the gamma activity on contact (see Table 1) and the gamma spectrometry results (see Table 2) for each of the soil sample locations. For comparison, Table 2 provides the analytical results for soil background given in Report #007. The results presented in Table 2 do not demonstrate that the acceptance criteria of 30 pCi of total uranium per gram of soil has been met at the desired degree of confidence based on the alpha spectrometry results. The alpha spectrometry results for sample location #7 indicate that the total uranium concentration is 48.5 pCi of uranium per gram of sample media. The sample media obtained from this location was primarily gray slag material. It is not clear if this is a naturally occurring concentration of uranium since the calculated %U-235 (based on the alpha spectrometry results) is higher than that for natural uranium. Using sample location #7 as the center, there are three other sample points (#2, #3 and #11) completely within an area of $100m^2$ (10m x 10 m square). If the results for all four sample points are averaged, then the radiological acceptance criteria of 30 pCi/gram is met for the 100 m^2 area and the single high value does not exceed three times the acceptance criteria. The gamma radiation measurements recorded for this sample location do not indicate elevated results. No further actions were taken.

Discussion of Gamma Measurements for Site Areas 1 through 11

Figure 1 presents the site plot plan. Figure 2 is the same as Figure 1, but shows the site divided into 17 areas. These 17 areas provide the basis for the grouping of the radiological survey data which will be presented in this report. The designation of the areas was based on the ease of conducting the surveys and is not intended to imply any difference in potential for contamination. A review of historical information did not indicate that there was any reason to suspect potential contamination of the site grounds with the exception of the East Parking Lot which has already been discussed in this report. Table 3 presents a description of each of the 17 areas and provides a reference coordinate system. This coordinate system was chosen to accommodate the data logging capabilities of the Exploranium Model GR-256 gamma survey meter since the instrument does not permit negative values for measurement point coordinates.

For each of the major area (Areas #1 through #11), the Model GR-256 instrument was used to make 20 second integrated gamma radiation readings for 4 gamma spectral regions at every intersection on a 5 meter by 5 meter grid spacing.

The four regions of interest (ROI) programmed into the instrument were:

1) ROI #1 - Gross gamma activity from channel 10 to channel 255 (120 Kev to 3060 Kev)

2) ROI #2 - Gamma Activity for the U-235 peak, Channel 12 to channel 20 (144 Kev to 240 Kev)

3) ROI #3 - Gamma Activity for the Cs-137 peak, Channel 51 to channel 59 (612 Kev to 708 Kev)

4) ROI #4 - Gamma Activity for the Co-60 peak, Channel 106 to channel 118 (1272 Kev to 1416 Kev)

The gamma survey data obtained in this manner was then used to generate topographical (topo) and surface maps as a visual guide to select locations for more detailed radiological surveys and soil sampling. On these maps, the elevation (Z axis) represents the radiation counts obtained in ROI #1. Appendices C through M incorporate the data output report from the instrument and the resulting topo and surface maps for each of these 11 areas.

There is a distinct difference in the recorded radiation readings between paved and unpaved ground areas with the unpaved areas giving generally higher activity in all 4 of the regions-of-interest. Tables 4 and 5 provide a compilation of all the gamma survey data for Areas 1 through 11 for paved and unpaved sections respectively.

Tables 6 and 7 present the same data as Tables 4 and 5 respectively, but with the results sorted by ROI #1 data so that the highest radiation readings are at the top of the table. These two tables along with the topo and surface maps (Appendix C through M) thus provided a logical basis for selecting specific locations within Areas 1 through 11 for more detailed radiological surveys and soil sampling.

Fixed point gamma measurements were made along the top of the hill behind Areas 8 and 17. The radiological survey data sheets for this survey are included in Appendix J and the data is included in Table 8.

Discussion of Gamma Measurements for Site Areas 12 through 16

As noted in the previous section, Figure 2 and Table 3 present information on all of the 17 area designations established for the site. Areas 12 through 16 represent small areas which for various reasons did not lend themselves to the more quantified approach described for Areas 1 through 11. For each of these areas, fixed point gamma measurements (integrated for 1 minute) were made using the Eberline Model PRS-1 survey instrument with a NaI probe at a number of locations within the area. Appendices N through R incorporate the radiological survey data sheets for Areas 12 through 16 respectively. Table 8 provides a summary of these results. This data provided a logical basis for selecting specific locations within areas 12 through 16 for more detailed radiological surveys and soil sampling.

Discussion of Site Area 17

This designated area borders the operations area on the west and north sides. For the most part, the portions of this area adjacent to the site fence consists of wetlands. Directly to the north of the operations area, Area 17 is a steep hill. This hillside is continually eroding and has been scraped down several times. The primary suspect area is the wetlands along the fence line due to the

potential for accumulation from site runoff. Rather than using gamma measurements to guide the selection of soil sample locations, a string of soil sample locations were selected about 20 meters apart. A total of 15 soil samples were taken within Area 17. There are no paved areas within Area 17.

Analysis of Results

Utilizing the gamma survey data discussed above, along with the criteria that traffic patterns and low spots be considered, a minimum of 30 paved and 30 unpaved locations were selected for the more detailed surveys of a 10 meter by 10 meter grid centered around the selected point.

Appendix S incorporates all of the radiological survey sheets for the specific measurements made on paved surfaces. Table 9 presents a summary of this information. At each of these sample points, the following measurements were made using the grid pattern shown in Figure 6:

1) Gamma scan of the 10 meter x 10 meter area to record the maximum and average values. (Eberline Model PRS-1 survey instrument with a NaI probe)

2) Gamma dose rate at 1 meter above the surface at the five points in the grid. (Reuter Stokes instrument)

3) Beta surface activity on contact with the paved surface at the five points in the grid. (Eberline Model ESP-2 instrument with a100 cm^2 area gas proportional probe)

For some of the points, obstructions prevented the use of the 10 meter x 10 meter grid size. In such situations as much area as possible was included.

Appendix T incorporates all of the radiological survey sheets for the specific measurements made on the unpaved surfaces. Table 10 presents a summary of the instrument survey data and Table 11 presents a summary of the analytical measurement data for the soil samples. Appendix A incorporates the analytical laboratory report sheets. At each of the sample points, the following measurements were made using the grid pattern shown in Figure 6:

1) Gamma scan of the 10 meter by 10 meter by 10 meter to record the maximum and average values (using the Eberline Model PRS-1 survey instrument with a NaI probe).

2) Gamma dose rate at 1 meter above the surface at the five points in the grid. (Reuter Stokes)

3) A soil sample was taken at each of the five points in the grid and composited for one analytical determination. (Alpha and Gamma Spectrometry)

Tables 9, 10 and 11 present the radiological data for the site grounds with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of each table to determine if the acceptance criteria have been met at the desired degree of confidence. For comparison purposes, Table 11 presents the results obtained in Report #007 for the analysis of background soil samples.

Tables 12 and 13 present a summary of the location of the sample points that were selected for paved and unpaved surfaces respectively. Since the process to select sample points was based on gamma radiation data, traffic patterns and low areas, the samples represent a biased selection rather than a random selection. In each case the sample was selected at a point with a greater potential for contamination.

Conclusions

The statistical analysis of the radiological data presented in this report indicates that the current condition of the site grounds meets all the radiological acceptance criteria at the 95% confidence level. Therefore the site grounds can be released for unrestricted use. There is no further potential for the site grounds to become contaminated as there is no use of radioactive material on the site except for the sealed containers of radioactive waste which are awaiting shipment offsite for disposal.

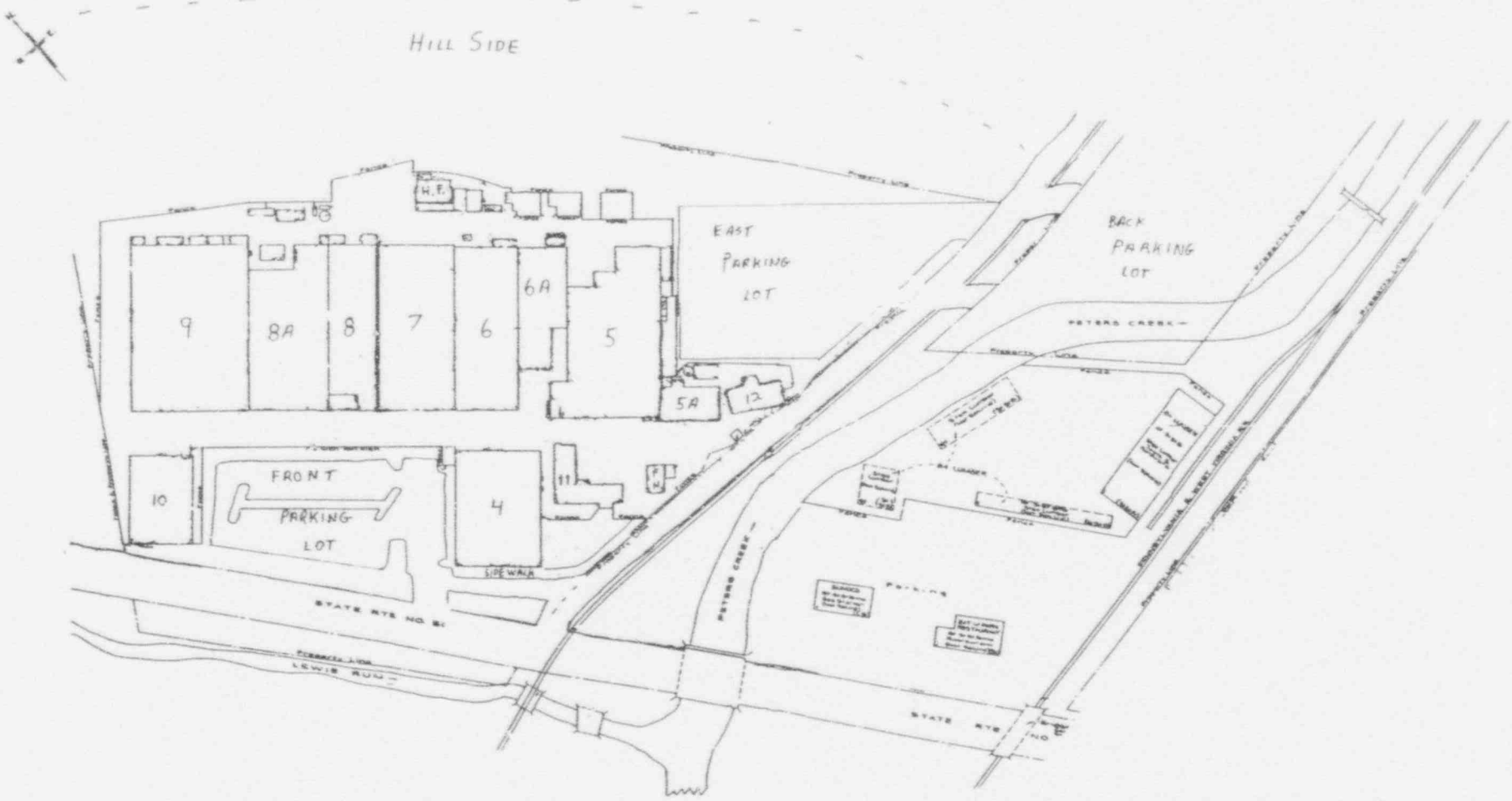


FIGURE 1
SITE PLOT PLAN

On Site / Off Site Grounds Area Map

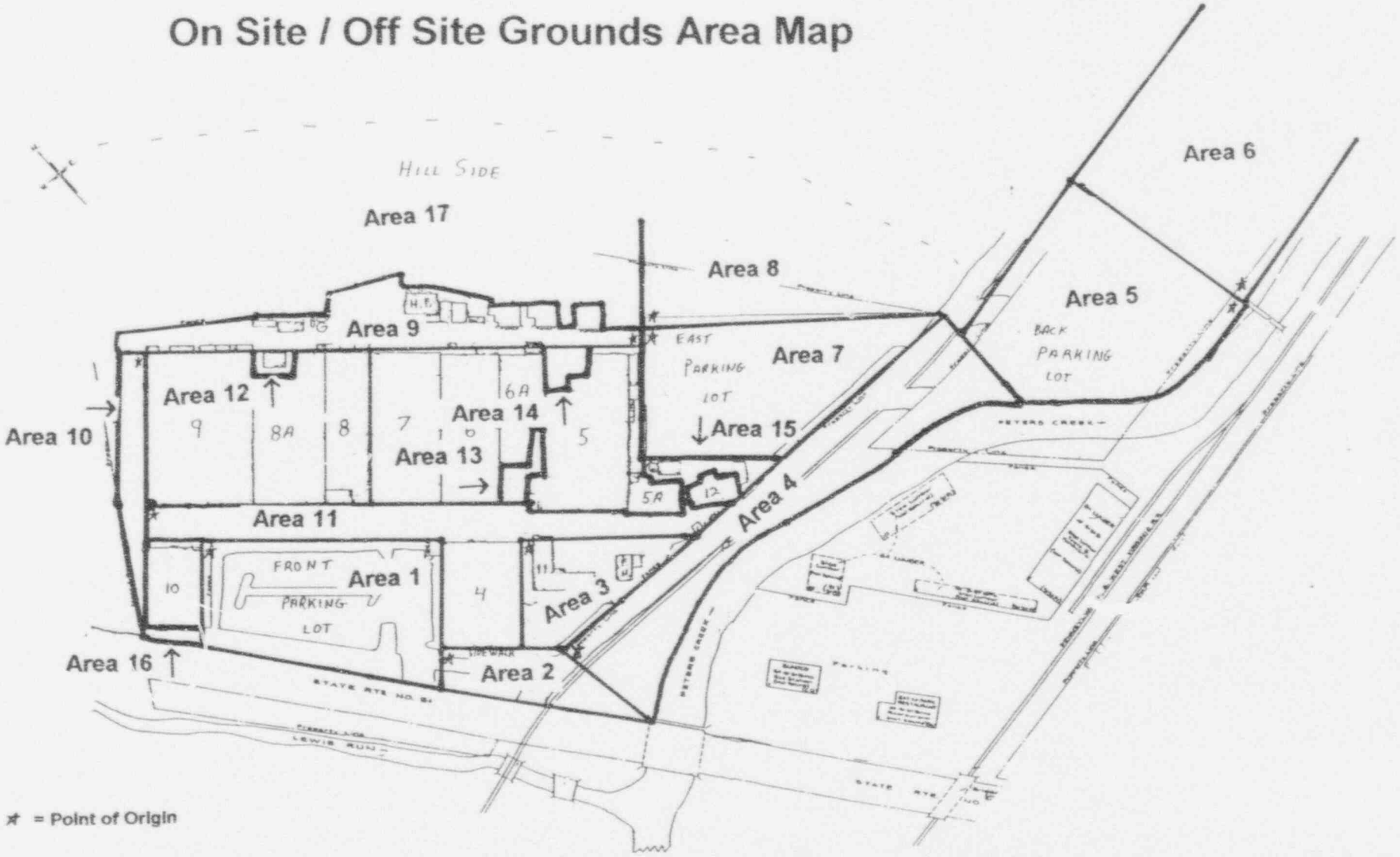


FIGURE 2
SITE PLOT PLAN SHOWING AREA DESIGNATIONS

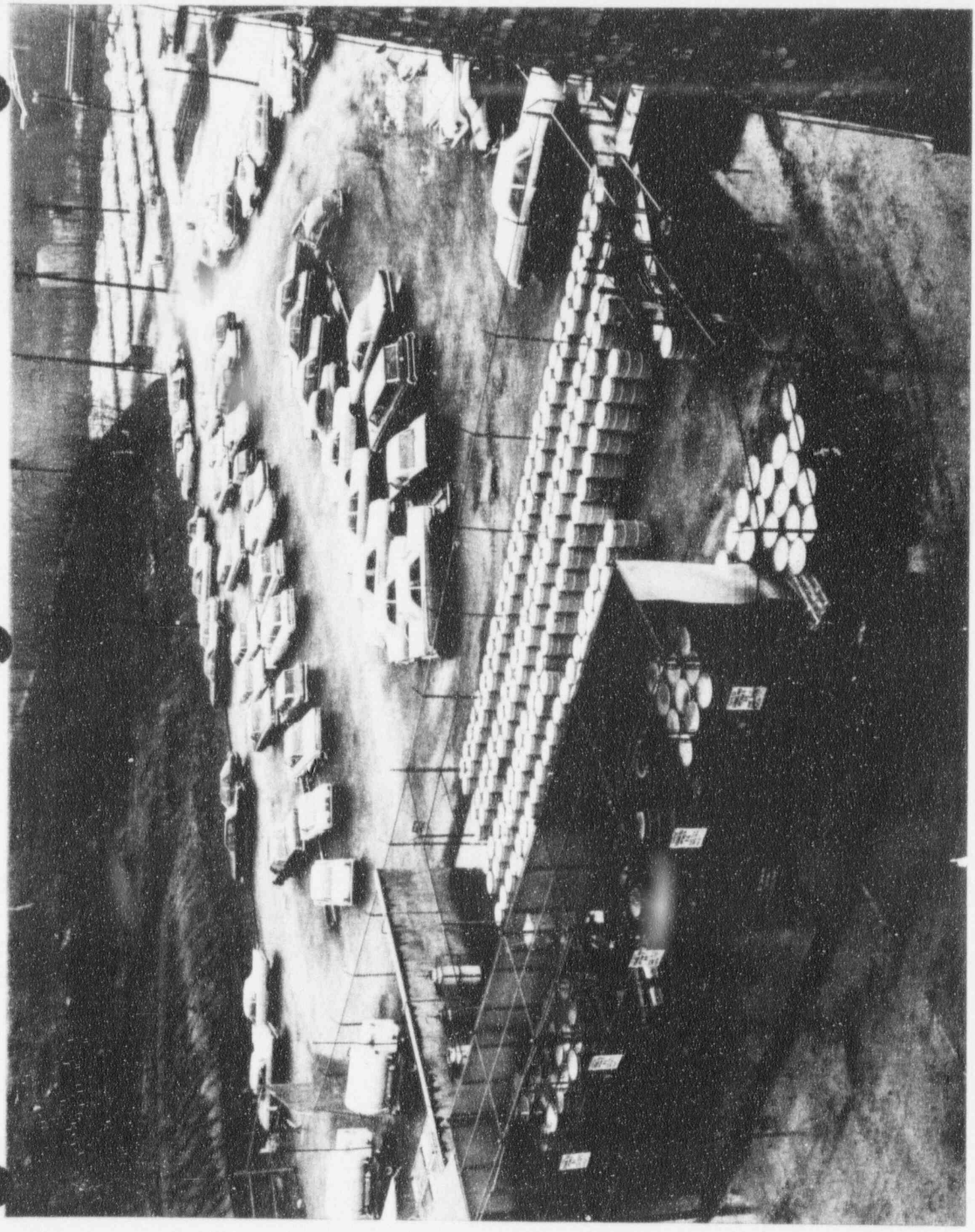
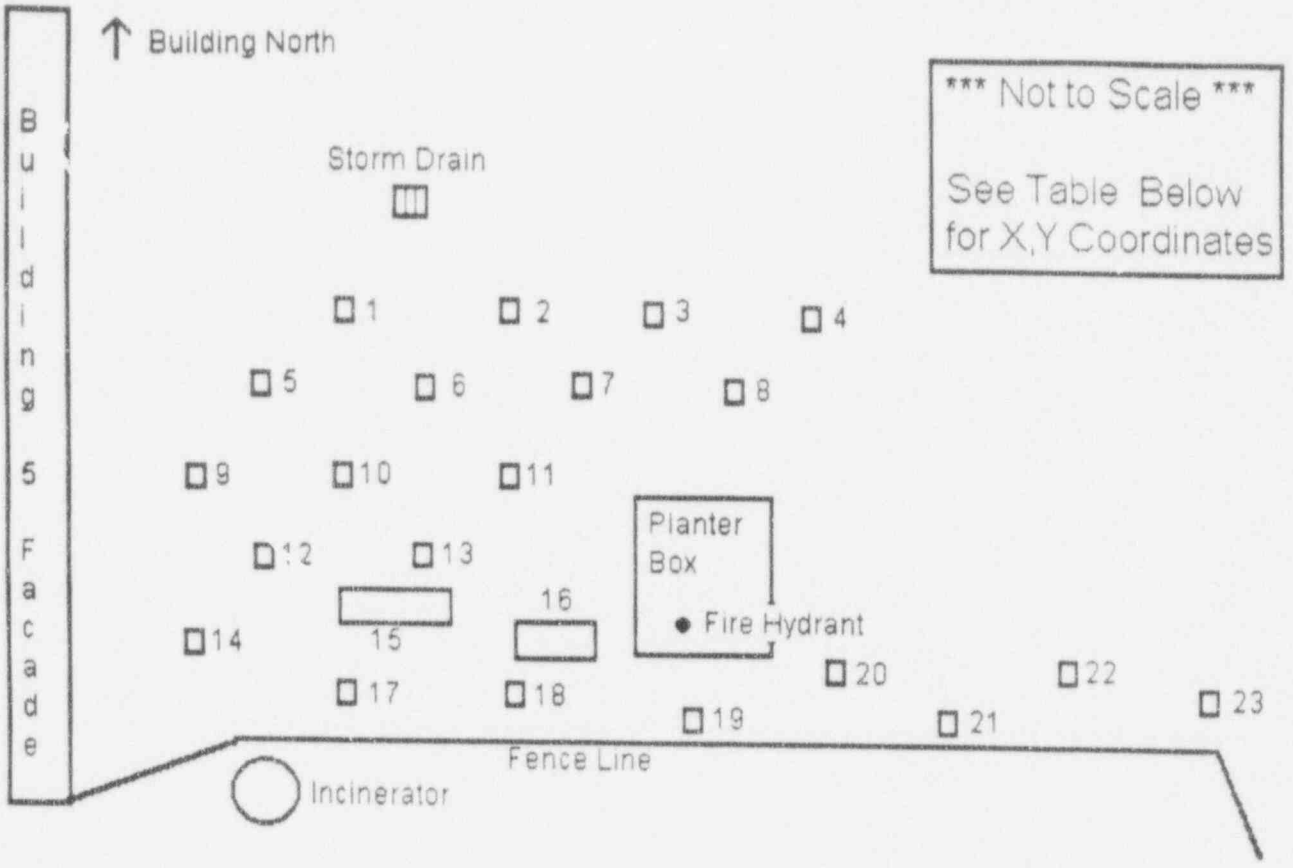


FIGURE 3
PHOTOGRAPH #1 OF FORMER STORAGE AREA ON EAST PARKING LOT

FIGURE 4
PHOTOGRAPH #2 OF FORMER STORAGE AREA ON EAST PARKING LOT

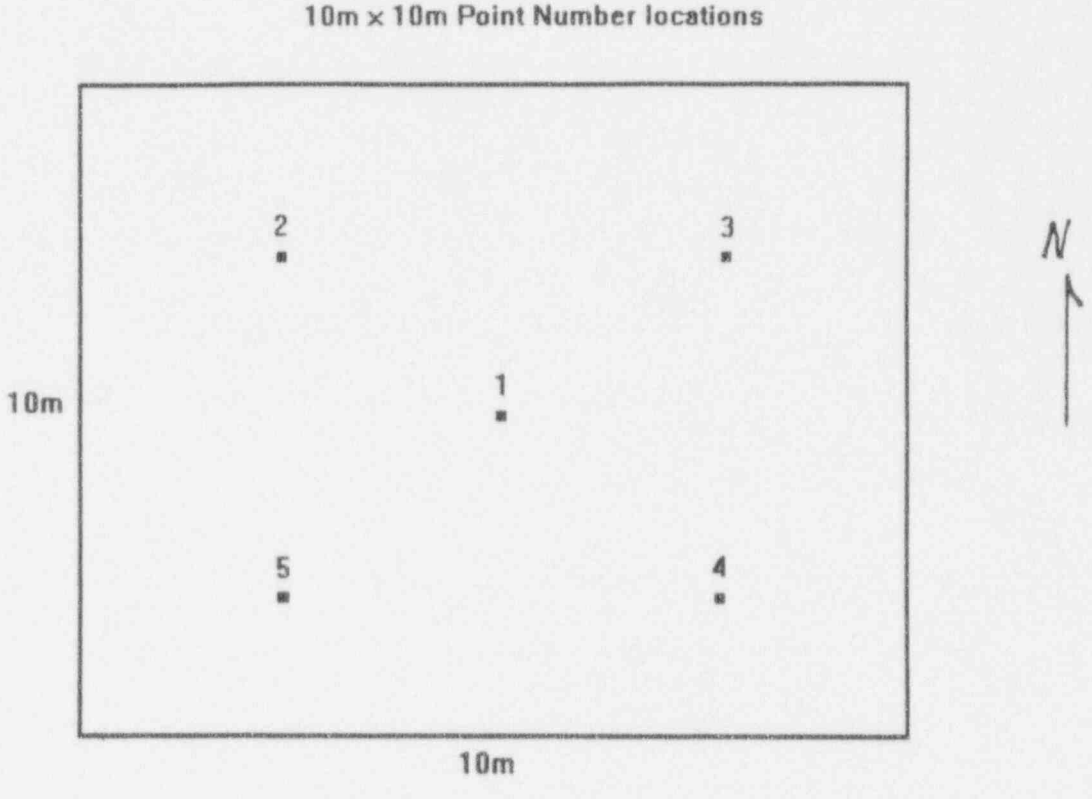
FIGURE 5
SAMPLE LOCATIONS IN EAST PARKING LOT



EAST PARKING LOT SAMPLE POINTS
LOCATION AND SIZE INFORMATION

LOCATION NUMBER	(X,Y) COORDINATES (METERS)	SIZE (METERS)	LOCATION NUMBER	(X,Y) COORDINATES (METERS)	SIZE (METERS)
1	-10.2 , 15.2	1X1	13	-8.0 , 4.8	1X1
2	-5.1 , 15.2	1X1	14	-14.8 , -1.4	1X1
3	0.5 , 15.2	1X1	15	-7.6 , 1.7	4.7X1.6
4	6.0 , 15.2	1X1	16	-3.6 , 0.0	2.7X1.9
5	-11.9 , 11.2	1X1	17	-9.7 , -3.6	1X1
6	-8.0 , 11.2	1X1	18	-4.4 , -3.6	1X1
7	-2.5 , 11.2	1X1	19	1.0 , -4.8	1X1
8	3.2 , 11.2	1X1	20	6.4 , -2.6	1X1
9	-14.8 , 7.5	1X1	21	10.6 , -4.8	1X1
10	-10.2 , 7.8	1X1	22	16.0 , -2.5	1X1
11	-5.3 , 7.6	1X1	23	21.2 , -3.4	1X1
12	-11.9 , 3.4	1X1			

COORDINATES ARE BASED ON THE FIRE HYDRANT BEING THE POINT OF ORIGIN (0,0). THE POSITVE X AXIS IS TO THE EAST, THE POSITIVE Y AXIS IS TO THE NORTH.



*** Note *** - The X and Y coordinates are referenced to point #1.

FIGURE 6
GRID PATTERN FOR SOIL SAMPLING AND SURVEY MEASUREMENTS

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR EAST PARKING LOT (SECTION 30)

SAMPLE LOCATION DESCRIPTION (SEE FIGURE 5 FOR LOCATION)	LOCATION NUMBER	GAMMA SURVEY @1 METER (microR/hr)	GAMMA SURVEY ON CONTACT CPM	SCAN RESULTS MAXIMUM GAMMA AVG CPM	SCAN RESULTS AVERAGE GAMMA AVG CPM	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
DIRT - SAMPLE #693	1	9.8	12065	13553	11000				
DIRT - SAMPLE #694	2	10.2	11882	14052	12200				
CLAY - SAMPLE #695	3	10.1	16033	16439	15000				
CLAY - SAMPLE #696	4	10.1	15432	17492	12000				
CONCRETE	5	9.9	9394	11279	9500		46.5		
DIRT - SAMPLE #699	6	10.5	12607	13606	11700				
DIRT - SAMPLE #698	7	10.2	10885	12821	11000				
DIRT - SAMPLE #697	8	10.1	10792	12527	10500				
CONCRETE	9	10.5	9699	11696	10700		37.2		
DIRT - SAMPLE #700	10	9.9	11509	14114	12000				
DIRT - SAMPLE #701	11	10.1	13818	14564	12200				
CONCRETE	12	10.5	9182	10715	9100		-49.6		
DIRT - SAMPLE #702	13	10.4	13386	14355	12500				
CONCRETE	14	10.7	9894	10506	9500		-15.5		
DIRT/CONCRETE - SAMPLE #703	15	10.5	10675	12073	11000		21.7		
DIRT/CONCRETE - SAMPLE #704	16	10.3	14385	14889	13000		-58.9		
CONCRETE	17	11.0	10469	13954	11100		40.3		
CONCRETE	18	10.2	9279	11812	10000		55.8		
CONCRETE	19	9.3	8308	10792	9600		-77.5		
CONCRETE	20	8.8	7996	9332	8900		0.0		
CONCRETE	21	9.2	7699	8379	7800		-71.3		

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR EAST PARKING LOT (SECTION 30)

SAMPLE LOCATION DESCRIPTION (SEE FIGURE 5 FOR LOCATION)	LOCATION NUMBER	GAMMA SURVEY @1 METER (microR/hr)	GAMMA SURVEY ON CONTACT CPM	SCAN RESULTS MAXIMUM GAMMA AVG CPM	SCAN RESULTS AVERAGE GAMMA AVG CPM	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
CONCRETE	22	8.9	8755	8879	8500		-18.6		
CONCRETE	23	8.3	8472	9026	8200		6.2		

STASTICAL ANALYSIS

NUMBER OF SAMPLES	23	23	23	23	13
MINIMUM	8.30	7699	8379	7800	-77.5
MAXIMUM	11.00	16033	17492	15000	55.8
AVERAGE	9.98	10983	12472	10739	-6.4
STANDARD DEVIATION	0.65	2337	2363	1697	44.6
LIMIT	15				5,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.703				1.669
DATA TEST PARAMETER	10.21				14.21
"NUMBER OF SAMPLES" FACTOR	7.77				112.25
DOES DATA SATISFY LIMIT CRITERIA?	YES				YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES				YES

TABLE 2

ANALYTICAL RESULTS FOR SOIL SAMPLES TAKEN FROM EAST PARKING LOT

PROJ ID	SAMPLE IDENTIFICATION (SEE FIGURE 5 FOR LOCATION)	GAMMA SPEC. LAB ID	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
693	EAST PARKING LOT LOCATION #1	93- 656	<4.20E-01									
694	EAST PARKING LOT LOCATION #2	93- 657	5.19E-01									
695	EAST PARKING LOT LOCATION #3	93- 658	<3.90E-01									
696	EAST PARKING LOT LOCATION #4	93- 659	3.33E-01									
697	EAST PARKING LOT LOCATION #8	93- 660	3.05E-01									
698	EAST PARKING LOT LOCATION #7	93- 661	1.05E+00	93- 661	<3.40E-01	4.05E+01	5.46E+00	2.16E+00	4.85E+01	NO	8.9	28.19%
699	EAST PARKING LOT LOCATION #6	93- 662	4.18E-01									
700	EAST PARKING LOT LOCATION #10	93- 663	2.76E-01									
701	EAST PARKING LOT LOCATION #11	93- 664	<4.00E-01									
702	EAST PARKING LOT LOCATION #13	93- 665	<4.60E-01									
703	EAST PARKING LOT LOCATION #15	93- 666	1.75E-01									
704	EAST PARKING LOT LOCATION #16	93- 667	3.43E-01									
	COMPOSITE OF #693-704 EXCEPT #698	AVG.=	3.67E-01	93- 656	<1.70E-01	4.40E-01	<1.00E-01	4.70E-01	1.18E+00	YES	11.8	3.20%

STASTICAL ANALYSIS:								
NUMBER OF SAMPLES	12	2	2	2	2	2	2	2
MINIMUM	1.75E-01							
MAXIMUM	1.05E+00							
AVERAGE	4.24E-01	2.55E-01	2.05E+01	2.78E+00	1.32E+00	2.48E+01	10.3	15.69%
STANDARD DEVIATION	2.08E-01	8.50E-02	2.00E+01	2.68E+00	8.45E-01	2.36E+01	1.5	12.49%
LIMIT	1					30		
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.669					6.314		
DATA TEST PARAMETER	0.52					130.36		
"NUMBER OF SAMPLES" FACTOR	2.77					0.22		
DOES DATA SATISFY LIMIT CRITERIA?	YES					NO		
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES					NO		

	BACKGROUND SOIL RESULTS (SEE REPORT #007 FOR INFORMATION)	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
	AVERAGE	4.70E-01	1.67E-02	4.61E-01	5.98E-02	4.49E-01	9.86E-01	29.5	1.95%
	STANDARD DEVIATION	3.24E-01	6.96E-03	2.54E-01	8.76E-02	2.19E-01	4.89E-01	13.2	2.12%

Area Number	"Y" Axis Direction (Est. compass heading)	Surface/Location Description	Point of Origin Location	Approximate size in meters. (Up x Right)
1	135 degrees	Front parking lot.	Starting at the North-east corner of Bldg 10, going towards Bldg 4 and over to Rt 51S.	100 x 30
2	135 degrees	Rt. 51S side of Bldg 4.	Starting at the South-west corner of Bldg 4, going to the sidewalk, then to the corner of the Peters Creek and Rt 51S and over to Rt 51S.	50 x 20
3	135 degrees	The East side of Bldg 4.	Starting at the North-east corner of Bldg 4, going to the Guard-house and to Area 2.	60 x 40
4	90 degrees	The road to the East of Site.	The sidewalk at the corner of Areas 2 and 3, going to the Corner of the property marked by the large telephone pole and over to Peters Creek.	210 x 30
5	260 degrees	The south half of the large, back parking lot.	Starting at the South-west corner of the walking bridge, down to Peters Creek and over to the road.	80 x 80
6	60 degrees	The north half of the large, back parking lot.	Starting at the South-west corner of the walking bridge, going to the road and over to Peters Creek.	80 x 80
7	135 degrees	Inter-mediate parking lot.	Starting at the North-east corner of the security fence, going to the property line marker and to the edge of Area 15 and the sidewalk.	120 x 70
8	45 degrees	Hillside and wash area adjacent to the Inter-mediate parking lot.	Starting at the North-east corner of the security fence, going up the hillside approximately 20 meters and over to the proiperty line marker.	120 x 20

TABLE 3
DESCRIPTION OF AREA DESIGNATIONS FOR GROUNDS SURVEY

Area Number	"Y" Axis Direction (Est. compass heading)	Surface/Location Description	Point of Origin Location	Approximate size in meters. (Up x Right)
9	315 degrees	Northern, on-site road area.	Starting at the north-east corner of Bldg 5, going along the back of the buildings to the west edge of the fence and over to the fence.	210 x 20
10	225 degrees	Western, on-site road area.	Starting at the north-west corner of Bldg 9, going along Bldg 9 to Bldg 10 and over to the fence.	60 x 15
11	135 degrees	Southern, on-site road area.	Starting at the South-west corner of Bldg 9, going along the south side of the buildings to the sidewalk and over to the edge of area 1.	210 x 15
12	Miscellaneous area.	Indentation on north side of Bldg 8A.		10 x 10
13	Miscellaneous area.	Indentation on south side of Bldg 6A.		10 x 15
14	Miscellaneous area.	Indentation on north side of Bldg 5.		10 x 10
15	Miscellaneous area.	Area encompassing Bldg's 5A and 12.	Located between areas 4, 7, and 11.	40 x 15
16	Miscellaneous area.	South side of Bldg 10.		5 x 15
17	Miscellaneous area.	The area north of the security fence at the base of the hill.	Extends up the hillside approximately 20 meters and is bordered by areas 7, 8, and 9.	220 x 20

TABLE 3 (CON'T)
DESCRIPTION OF AREA DESIGNATIONS FOR GROUNDS SURVEY

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	10	5724	2167	206	53	Area 01	Paved
5	15	5305	2106	178	59	Area 01	Paved
5	20	5459	2143	186	45	Area 01	Paved
5	25	5380	2116	182	59	Area 01	Paved
5	30	5018	1936	187	36	Area 01	Paved
5	35	5211	2129	202	47	Area 01	Paved
5	40	5207	2068	175	53	Area 01	Paved
5	45	5137	2027	218	51	Area 01	Paved
5	50	5389	2111	194	59	Area 01	Paved
5	55	5227	1979	183	45	Area 01	Paved
5	60	5383	2148	189	61	Area 01	Paved
5	65	5442	2119	202	49	Area 01	Paved
5	70	5534	2141	191	59	Area 01	Paved
5	75	5355	2133	211	51	Area 01	Paved
5	80	5196	2032	213	56	Area 01	Paved
5	85	5459	2154	174	47	Area 01	Paved
5	90	5536	2176	213	52	Area 01	Paved
5	95	5855	2281	208	61	Area 01	Paved
10	5	7626	2769	322	79	Area 01	Paved
10	10	6057	2339	241	57	Area 01	Paved
10	15	5188	2056	173	57	Area 01	Paved
10	20	5216	2066	187	53	Area 01	Paved
10	25	4932	1998	154	47	Area 01	Paved
10	30	5004	1963	178	59	Area 01	Paved
10	35	4870	1924	158	50	Area 01	Paved
10	40	5085	2107	142	35	Area 01	Paved
10	45	4934	1952	155	55	Area 01	Paved
10	50	5002	1977	183	48	Area 01	Paved
10	55	5304	2070	194	52	Area 01	Paved
10	60	5109	2047	160	57	Area 01	Paved
10	65	4936	2021	182	54	Area 01	Paved
10	70	5234	2095	192	60	Area 01	Paved
10	75	5183	2043	186	47	Area 01	Paved
10	80	5542	2256	201	38	Area 01	Paved
10	85	5416	2112	193	48	Area 01	Paved
10	90	5205	2030	163	45	Area 01	Paved
10	95	5952	2255	232	63	Area 01	Paved
15	5	7570	2883	294	78	Area 01	Paved
15	10	5584	2141	202	65	Area 01	Paved
15	15	5349	2136	204	37	Area 01	Paved
15	20	5442	2139	184	53	Area 01	Paved
15	25	5086	2013	186	43	Area 01	Paved
15	30	5006	1987	174	55	Area 01	Paved
15	35	5155	2026	167	35	Area 01	Paved
15	40	5161	2008	176	48	Area 01	Paved
15	45	5150	2046	168	35	Area 01	Paved
15	50	5114	2026	169	51	Area 01	Paved
15	55	5331	2083	201	42	Area 01	Paved
15	60	5298	2067	192	55	Area 01	Paved
15	65	5307	2054	177	44	Area 01	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	70	5178	2013	177	45	Area 01	Paved
15	75	4725	1839	166	51	Area 01	Paved
15	80	6200	2405	211	59	Area 01	Paved
15	85	5591	2210	214	44	Area 01	Paved
15	90	5403	2124	201	61	Area 01	Paved
15	95	5688	2211	189	51	Area 01	Paved
20	5	7650	2828	311	72	Area 01	Paved
20	10	5508	2136	179	48	Area 01	Paved
20	15	6183	2376	238	60	Area 01	Paved
20	20	6119	2409	268	51	Area 01	Paved
20	25	6270	2384	251	58	Area 01	Paved
20	30	5934	2304	250	58	Area 01	Paved
20	35	5870	2177	258	63	Area 01	Paved
20	40	5979	2300	238	52	Area 01	Paved
20	45	5829	2279	210	54	Area 01	Paved
20	50	4480	1740	157	39	Area 01	Paved
20	55	4503	1794	156	49	Area 01	Paved
20	60	5868	2306	247	61	Area 01	Paved
20	65	5921	2350	194	63	Area 01	Paved
20	70	6018	2339	242	54	Area 01	Paved
20	75	6005	2358	242	55	Area 01	Paved
20	80	6110	2359	268	61	Area 01	Paved
20	85	5353	2117	187	43	Area 01	Paved
20	90	5454	2098	168	46	Area 01	Paved
20	95	5693	2173	183	63	Area 01	Paved
25	5	7277	2738	305	77	Area 01	Paved
25	10	6223	2427	215	61	Area 01	Paved
25	15	5590	2178	202	53	Area 01	Paved
25	20	5353	2130	188	50	Area 01	Paved
25	25	5211	2087	190	45	Area 01	Paved
25	30	5016	1921	150	49	Area 01	Paved
25	35	5480	2118	244	47	Area 01	Paved
25	40	4562	1849	152	51	Area 01	Paved
25	45	4667	1900	155	51	Area 01	Paved
25	50	4582	1762	180	38	Area 01	Paved
25	55	4639	1833	189	43	Area 01	Paved
25	60	4887	1968	130	48	Area 01	Paved
25	65	4868	1910	181	29	Area 01	Paved
25	70	5078	2041	182	43	Area 01	Paved
25	75	4836	1888	155	45	Area 01	Paved
25	80	5551	2194	188	57	Area 01	Paved
25	85	5189	2123	149	59	Area 01	Paved
25	90	5347	2069	206	63	Area 01	Paved
25	95	5572	2211	198	57	Area 01	Paved
30	5	7182	2620	291	67	Area 01	Paved
30	10	5883	2267	187	45	Area 01	Paved
30	15	5273	2115	178	42	Area 01	Paved
30	20	5115	2047	189	51	Area 01	Paved
30	25	5255	2016	177	56	Area 01	Paved
30	30	4944	1929	178	42	Area 01	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
30	35	5120	2015	179	51	Area 01	Paved
30	40	5208	2060	196	43	Area 01	Paved
30	45	5071	1999	192	52	Area 01	Paved
30	50	4878	1914	163	52	Area 01	Paved
30	55	4788	1886	186	44	Area 01	Paved
30	60	4835	1953	140	45	Area 01	Paved
30	65	4788	1918	174	56	Area 01	Paved
30	70	4837	1955	155	50	Area 01	Paved
30	75	5137	2007	165	43	Area 01	Paved
30	80	5085	1965	178	49	Area 01	Paved
30	85	5150	1986	188	39	Area 01	Paved
30	90	4998	1959	163	34	Area 01	Paved
30	95	5727	2213	207	44	Area 01	Paved
35	5	7018	2641	301	78	Area 01	Paved
35	10	5511	2109	215	56	Area 01	Paved
35	15	5341	2078	178	45	Area 01	Paved
35	20	5131	1929	198	47	Area 01	Paved
35	25	4905	1925	166	55	Area 01	Paved
35	30	5211	2082	176	57	Area 01	Paved
35	35	4964	1990	156	50	Area 01	Paved
35	40	5042	1998	182	57	Area 01	Paved
35	45	4966	2009	168	37	Area 01	Paved
35	50	4800	1916	160	37	Area 01	Paved
35	55	4587	1805	157	45	Area 01	Paved
35	60	4969	1939	179	42	Area 01	Paved
35	65	5151	2023	178	61	Area 01	Paved
35	70	4779	1871	191	45	Area 01	Paved
35	75	4759	1872	169	50	Area 01	Paved
35	80	5304	2079	204	55	Area 01	Paved
35	85	4915	1925	171	45	Area 01	Paved
35	90	4983	1955	180	53	Area 01	Paved
35	95	5462	2138	221	53	Area 01	Paved
40	15	6243	2385	224	67	Area 01	Paved
40	20	5992	2235	205	69	Area 01	Paved
40	25	5897	2189	196	76	Area 01	Paved
40	30	6054	2260	190	77	Area 01	Paved
40	35	5653	2121	160	54	Area 01	Paved
40	40	5943	2212	214	67	Area 01	Paved
40	45	5964	2267	176	65	Area 01	Paved
40	50	6112	2238	213	69	Area 01	Paved
40	55	5681	2150	175	60	Area 01	Paved
40	60	5863	2207	183	72	Area 01	Paved
40	65	5746	2145	188	58	Area 01	Paved
40	70	5699	2124	208	72	Area 01	Paved
40	75	5557	2039	204	70	Area 01	Paved
40	80	6070	2165	199	67	Area 01	Paved
40	85	5198	1972	150	59	Area 01	Paved
40	90	5561	2075	183	70	Area 01	Paved
40	95	6082	2368	196	76	Area 01	Paved
45	80	5900	2244	198	67	Area 01	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
45	85	5222	1966	181	54	Area 01	Paved
45	90	5270	1991	173	63	Area 01	Paved
45	95	5959	2243	202	77	Area 01	Paved
50	80	5710	2133	175	64	Area 01	Paved
50	85	5279	1993	174	76	Area 01	Paved
50	90	6287	2425	203	72	Area 01	Paved
50	95	6083	2175	234	84	Area 01	Paved
50	100	5699	2159	179	71	Area 01	Paved
55	80	6089	2168	200	85	Area 01	Paved
55	85	4676	1859	148	60	Area 01	Paved
55	90	5655	2084	185	70	Area 01	Paved
0	15	6102	2398	214	62	Area 02	Paved
5	0	5978	2376	223	48	Area 02	Paved
5	5	5908	2323	245	55	Area 02	Paved
5	10	6423	2463	253	68	Area 02	Paved
5	15	6698	2586	248	66	Area 02	Paved
5	20	5392	2083	191	55	Area 02	Paved
5	25	6460	2574	234	58	Area 02	Paved
5	30	6174	2444	240	53	Area 02	Paved
5	35	6263	2459	247	74	Area 02	Paved
5	40	5391	2146	179	52	Area 02	Paved
5	45	5151	2087	178	51	Area 02	Paved
5	50	6097	2369	252	61	Area 02	Paved
5	55	6547	2520	265	81	Area 02	Paved
10	0	6377	2387	258	56	Area 02	Paved
10	5	6530	2503	265	55	Area 02	Paved
10	10	6788	2552	276	80	Area 02	Paved
10	15	5248	2101	194	45	Area 02	Paved
10	20	6847	2622	245	62	Area 02	Paved
10	25	6606	2498	260	59	Area 02	Paved
10	30	6509	2427	248	59	Area 02	Paved
10	35	6349	2417	234	76	Area 02	Paved
10	40	6475	2422	257	64	Area 02	Paved
10	45	6250	2417	273	61	Area 02	Paved
10	50	6544	2498	297	65	Area 02	Paved
10	55	6462	2389	267	64	Area 02	Paved
10	60	6297	2511	220	71	Area 02	Paved
15	45	6321	2382	257	62	Area 02	Paved
15	50	6497	2510	258	57	Area 02	Paved
15	55	6139	2425	227	65	Area 02	Paved
20	45	6396	2466	257	81	Area 02	Paved
20	50	5543	2140	245	57	Area 02	Paved
20	55	5761	2314	217	49	Area 02	Paved
0	0	7340	2842	263	53	Area 03	Paved
0	5	6691	2553	265	78	Area 03	Paved
0	15	7688	2869	298	79	Area 03	Paved
0	25	8086	3018	309	90	Area 03	Paved
0	30	7732	2886	319	81	Area 03	Paved
0	35	7401	2790	281	88	Area 03	Paved
0	40	6710	2595	266	75	Area 03	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	45	6683	2652	273	63	Area 03	Paved
0	50	6761	2520	260	82	Area 03	Paved
0	55	6433	2448	260	73	Area 03	Paved
0	60	6070	2254	244	67	Area 03	Paved
0	65	5514	2151	211	61	Area 03	Paved
5	0	9051	3481	355	110	Area 03	Paved
5	5	8521	3412	350	82	Area 03	Paved
5	15	8130	3054	322	86	Area 03	Paved
5	30	7324	2763	270	63	Area 03	Paved
5	35	7905	2983	294	68	Area 03	Paved
5	40	7032	2717	267	76	Area 03	Paved
5	45	6817	2626	270	75	Area 03	Paved
5	50	6660	2616	252	73	Area 03	Paved
5	55	5919	2271	210	75	Area 03	Paved
5	60	6015	2279	241	55	Area 03	Paved
5	65	5695	2143	211	56	Area 03	Paved
10	0	7768	3010	292	95	Area 03	Paved
10	5	8864	3381	301	96	Area 03	Paved
10	15	8266	3169	339	105	Area 03	Paved
10	50	6855	2587	254	76	Area 03	Paved
15	0	10250	3930	414	127	Area 03	Paved
15	5	9836	3732	408	101	Area 03	Paved
0	0	5807	2229	204	71	Area 04	Paved
0	5	5567	2160	187	52	Area 04	Paved
0	10	5483	2168	141	71	Area 04	Paved
0	15	5670	2165	190	55	Area 04	Paved
0	20	5595	2124	175	88	Area 04	Paved
0	25	5502	2117	166	74	Area 04	Paved
0	30	5672	2185	188	74	Area 04	Paved
0	35	5885	2292	192	82	Area 04	Paved
0	40	6081	2272	218	85	Area 04	Paved
0	45	6098	2307	231	70	Area 04	Paved
0	50	5855	2221	191	85	Area 04	Paved
0	55	5124	1985	195	59	Area 04	Paved
0	60	5113	1951	163	63	Area 04	Paved
0	65	6459	2476	226	89	Area 04	Paved
0	70	5989	2185	205	66	Area 04	Paved
0	75	7016	2526	258	90	Area 04	Paved
0	80	5720	2129	208	91	Area 04	Paved
0	85	6415	2361	231	84	Area 04	Paved
0	90	6994	2576	240	85	Area 04	Paved
0	95	6390	2389	197	90	Area 04	Paved
0	100	5978	2255	215	90	Area 04	Paved
0	105	5166	1965	157	76	Area 04	Paved
0	110	5112	1934	164	65	Area 04	Paved
0	115	4913	1894	159	67	Area 04	Paved
0	120	4786	1825	124	59	Area 04	Paved
0	125	4912	1889	166	60	Area 04	Paved
0	130	4766	1859	157	74	Area 04	Paved
0	135	4827	1866	168	64	Area 04	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	140	4745	1843	160	60	Area 04	Paved
0	145	4841	1870	120	61	Area 04	Paved
0	150	4776	1848	147	56	Area 04	Paved
0	155	4692	1772	127	63	Area 04	Paved
0	160	4782	1819	143	70	Area 04	Paved
0	165	4774	1888	159	61	Area 04	Paved
0	170	4798	1878	152	55	Area 04	Paved
0	175	5918	2266	211	73	Area 04	Paved
0	180	6130	2380	197	83	Area 04	Paved
0	185	6735	2507	230	84	Area 04	Paved
0	190	6390	2385	196	85	Area 04	Paved
0	195	6587	2535	191	86	Area 04	Paved
0	200	6015	2327	205	80	Area 04	Paved
0	205	5647	2112	148	64	Area 04	Paved
0	210	6402	2455	186	79	Area 04	Paved
0	215	6401	2448	204	77	Area 04	Paved
0	220	6096	2360	224	67	Area 04	Paved
0	225	6229	2366	226	75	Area 04	Paved
5	0	6810	2481	235	92	Area 04	Paved
5	5	7037	2589	233	92	Area 04	Paved
5	10	7137	2722	241	75	Area 04	Paved
5	15	7250	2641	259	91	Area 04	Paved
5	20	6747	2441	265	90	Area 04	Paved
5	25	6797	2497	221	73	Area 04	Paved
5	30	7114	2690	228	106	Area 04	Paved
5	35	6988	2632	243	89	Area 04	Paved
5	40	7076	2595	250	88	Area 04	Paved
5	45	7124	2532	268	101	Area 04	Paved
5	50	7127	2587	231	90	Area 04	Paved
5	55	6810	2437	240	92	Area 04	Paved
5	60	6808	2507	241	100	Area 04	Paved
5	65	6436	2320	227	88	Area 04	Paved
5	70	6550	2387	243	95	Area 04	Paved
5	75	6627	2375	224	82	Area 04	Paved
5	80	5503	1999	181	85	Area 04	Paved
5	85	7199	2601	253	106	Area 04	Paved
5	90	6788	2483	251	94	Area 04	Paved
5	95	6002	2238	190	65	Area 04	Paved
5	100	6469	2300	230	85	Area 04	Paved
5	105	6504	2311	251	89	Area 04	Paved
5	110	6274	2218	211	86	Area 04	Paved
5	115	6165	2255	211	75	Area 04	Paved
5	120	6232	2242	197	78	Area 04	Paved
5	125	6274	2280	205	82	Area 04	Paved
5	130	6367	2293	228	77	Area 04	Paved
5	135	5979	2193	189	75	Area 04	Paved
5	140	7065	2657	256	94	Area 04	Paved
5	145	6940	2575	252	80	Area 04	Paved
5	150	7161	2689	256	99	Area 04	Paved
5	155	7103	2679	235	89	Area 04	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	160	6896	2507	224	91	Area 04	Paved
5	165	6806	2528	245	77	Area 04	Paved
5	170	6475	2433	206	79	Area 04	Paved
5	175	6709	2476	218	90	Area 04	Paved
5	180	6783	2558	242	77	Area 04	Paved
5	185	6984	2557	205	89	Area 04	Paved
5	190	7044	2596	260	88	Area 04	Paved
5	195	7092	2628	241	82	Area 04	Paved
5	200	6976	2642	232	104	Area 04	Paved
5	205	6721	2469	251	102	Area 04	Paved
5	210	6927	2614	221	89	Area 04	Paved
5	215	6849	2558	239	108	Area 04	Paved
5	220	7023	2597	238	96	Area 04	Paved
5	225	6318	2438	217	87	Area 04	Paved
10	15	7197	2651	239	97	Area 04	Paved
10	20	7333	2672	249	106	Area 04	Paved
10	25	6407	2364	229	92	Area 04	Paved
10	30	6681	2503	212	77	Area 04	Paved
10	35	6926	2561	234	84	Area 04	Paved
10	40	6376	2342	227	80	Area 04	Paved
10	45	6670	2500	216	88	Area 04	Paved
10	50	6585	2521	221	92	Area 04	Paved
10	55	6578	2478	232	78	Area 04	Paved
10	60	6636	2493	209	101	Area 04	Paved
10	65	6871	2604	203	93	Area 04	Paved
10	70	6825	2528	224	90	Area 04	Paved
10	140	7074	2614	258	94	Area 04	Paved
10	145	6992	2501	245	82	Area 04	Paved
10	150	7242	2740	256	96	Area 04	Paved
10	155	7217	2702	229	88	Area 04	Paved
10	160	7361	2624	261	98	Area 04	Paved
10	165	7102	2669	250	98	Area 04	Paved
10	170	7156	2586	246	75	Area 04	Paved
10	175	7072	2572	232	88	Area 04	Paved
10	180	7267	2770	228	98	Area 04	Paved
10	185	7227	2755	224	87	Area 04	Paved
10	190	7356	2708	273	107	Area 04	Paved
10	195	7160	2638	242	85	Area 04	Paved
10	200	7087	2637	259	100	Area 04	Paved
10	205	7117	2650	261	70	Area 04	Paved
10	210	7678	2776	277	118	Area 04	Paved
10	215	6550	2475	208	69	Area 04	Paved
10	220	5818	2288	186	77	Area 04	Paved
10	225	5876	2282	205	80	Area 04	Paved
15	195	7816	2894	263	98	Area 04	Paved
15	200	7960	2873	266	126	Area 04	Paved
15	215	8072	2918	316	114	Area 04	Paved
15	220	6265	2350	208	85	Area 04	Paved
15	225	5415	2066	146	51	Area 04	Paved
20	200	7849	2819	280	111	Area 04	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
20	205	7427	2697	246	91	Area 04	Paved
20	220	7095	2551	247	96	Area 04	Paved
20	225	4934	1926	137	49	Area 04	Paved
25	205	6787	2514	242	77	Area 04	Paved
25	210	6756	2575	228	85	Area 04	Paved
25	215	6542	2443	213	79	Area 04	Paved
25	220	6523	2375	233	81	Area 04	Paved
25	225	6588	2464	214	63	Area 04	Paved
30	185	6651	2510	225	75	Area 04	Paved
30	190	6872	2580	243	79	Area 04	Paved
30	195	6565	2346	255	86	Area 04	Paved
30	200	6764	2501	243	84	Area 04	Paved
30	205	6745	2465	236	87	Area 04	Paved
30	210	7003	2584	224	83	Area 04	Paved
30	215	6752	2505	220	84	Area 04	Paved
30	220	6260	2291	216	86	Area 04	Paved
30	225	6092	2218	224	72	Area 04	Paved
35	185	6996	2599	244	82	Area 04	Paved
35	190	6407	2346	206	91	Area 04	Paved
35	195	6639	2455	218	78	Area 04	Paved
35	200	6646	2449	231	81	Area 04	Paved
35	205	6315	2277	226	70	Area 04	Paved
35	210	6724	2570	233	80	Area 04	Paved
35	215	6623	2498	216	77	Area 04	Paved
35	220	6799	2510	217	82	Area 04	Paved
35	225	6277	2290	204	86	Area 04	Paved
40	200	6829	2515	260	82	Area 04	Paved
40	205	6566	2393	248	92	Area 04	Paved
40	210	6649	2510	236	75	Area 04	Paved
40	215	6481	2368	201	61	Area 04	Paved
40	220	6618	2413	224	96	Area 04	Paved
40	225	6278	2268	238	73	Area 04	Paved
45	210	6240	2227	238	91	Area 04	Paved
45	215	6595	2465	213	75	Area 04	Paved
45	220	6719	2512	232	91	Area 04	Paved
45	225	6751	2508	226	80	Area 04	Paved
50	210	6573	2389	250	90	Area 04	Paved
50	215	6348	2344	237	92	Area 04	Paved
50	220	6685	2454	224	80	Area 04	Paved
50	225	6813	2528	224	77	Area 04	Paved
55	220	6198	2316	183	61	Area 04	Paved
55	225	6524	2448	217	77	Area 04	Paved
60	225	6671	2467	204	79	Area 04	Paved
65	225	6668	2509	235	78	Area 04	Paved
0	0	4386	1744	143	52	Area 05	Paved
10	0	7133	2747	212	96	Area 05	Paved
10	5	7098	2655	262	84	Area 05	Paved
10	10	6955	2604	243	101	Area 05	Paved
10	15	6985	2571	250	81	Area 05	Paved
10	20	7002	2613	248	76	Area 05	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
10	25	6864	2574	231	81	Area 05	Paved
10	30	6805	2590	224	79	Area 05	Paved
10	35	6883	2567	219	65	Area 05	Paved
10	40	6989	2647	230	95	Area 05	Paved
10	45	7222	2643	256	84	Area 05	Paved
10	50	6841	2569	260	77	Area 05	Paved
10	55	6684	2552	227	101	Area 05	Paved
10	60	6933	2583	244	94	Area 05	Paved
15	0	7061	2649	245	88	Area 05	Paved
15	5	6976	2643	234	72	Area 05	Paved
15	10	7068	2648	237	88	Area 05	Paved
15	15	6940	2663	219	79	Area 05	Paved
15	20	7015	2663	263	74	Area 05	Paved
15	25	6980	2576	229	79	Area 05	Paved
15	30	6846	2512	237	85	Area 05	Paved
15	35	7052	2650	237	91	Area 05	Paved
15	40	6760	2621	235	73	Area 05	Paved
15	45	7125	2683	232	92	Area 05	Paved
15	50	6987	2697	215	88	Area 05	Paved
15	55	7224	2733	262	74	Area 05	Paved
15	60	6899	2611	225	84	Area 05	Paved
20	0	6840	2551	228	98	Area 05	Paved
20	5	7000	2657	214	66	Area 05	Paved
20	10	6973	2538	268	81	Area 05	Paved
20	15	6746	2613	248	72	Area 05	Paved
20	20	7055	2660	259	93	Area 05	Paved
20	25	6897	2621	245	70	Area 05	Paved
20	30	7010	2649	260	74	Area 05	Paved
20	35	7089	2661	247	87	Area 05	Paved
20	40	7029	2583	217	91	Area 05	Paved
20	45	6975	2653	232	68	Area 05	Paved
20	50	7011	2616	225	89	Area 05	Paved
20	55	6669	2670	240	79	Area 05	Paved
20	60	7186	2764	247	88	Area 05	Paved
25	0	7073	2727	248	91	Area 05	Paved
25	5	7286	2728	236	90	Area 05	Paved
25	20	6771	2540	225	73	Area 05	Paved
25	25	7028	2606	228	95	Area 05	Paved
25	30	7143	2688	257	95	Area 05	Paved
25	35	7044	2725	231	70	Area 05	Paved
25	40	6937	2665	272	81	Area 05	Paved
25	45	6986	2650	275	96	Area 05	Paved
25	50	6810	2570	225	83	Area 05	Paved
25	55	6616	2384	213	93	Area 05	Paved
25	60	6753	2500	252	76	Area 05	Paved
30	0	6976	2657	201	93	Area 05	Paved
30	5	7476	2859	286	89	Area 05	Paved
30	25	7127	2721	267	96	Area 05	Paved
30	30	7254	2809	235	83	Area 05	Paved
30	35	7037	2655	222	88	Area 05	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
30	40	6943	2555	247	78	Area 05	Paved
30	45	6772	2510	245	81	Area 05	Paved
30	50	6946	2603	231	86	Area 05	Paved
30	55	6695	2499	239	72	Area 05	Paved
30	60	6866	2567	210	72	Area 05	Paved
35	0	7067	2694	231	76	Area 05	Paved
35	5	7752	2855	258	103	Area 05	Paved
35	30	7222	2741	240	79	Area 05	Paved
35	35	7060	2683	228	70	Area 05	Paved
35	40	7357	2765	256	95	Area 05	Paved
35	45	6943	2656	243	78	Area 05	Paved
35	50	6944	2579	240	77	Area 05	Paved
35	55	6835	2588	221	80	Area 05	Paved
35	60	6914	2586	250	79	Area 05	Paved
40	0	7086	2713	214	81	Area 05	Paved
40	5	7293	2767	257	89	Area 05	Paved
40	10	7373	2821	250	84	Area 05	Paved
40	15	7333	2730	267	92	Area 05	Paved
40	30	6962	2634	253	81	Area 05	Paved
40	35	7144	2747	271	79	Area 05	Paved
40	40	7039	2700	233	82	Area 05	Paved
40	45	6984	2596	234	80	Area 05	Paved
40	50	6864	2726	191	77	Area 05	Paved
40	55	6962	2679	233	71	Area 05	Paved
40	60	6929	2621	235	69	Area 05	Paved
45	0	7295	2838	243	83	Area 05	Paved
45	5	7206	2737	226	80	Area 05	Paved
45	10	7212	2812	218	75	Area 05	Paved
45	15	7398	2725	255	80	Area 05	Paved
45	20	7320	2759	259	85	Area 05	Paved
45	25	7007	2637	242	67	Area 05	Paved
45	30	6949	2796	203	86	Area 05	Paved
45	35	6894	2658	220	69	Area 05	Paved
45	40	7111	2711	230	100	Area 05	Paved
45	45	7171	2723	242	89	Area 05	Paved
45	50	7029	2685	239	80	Area 05	Paved
45	55	7124	2700	233	94	Area 05	Paved
45	60	7117	2701	252	78	Area 05	Paved
45	65	6936	2594	234	71	Area 05	Paved
50	0	6722	2560	241	80	Area 05	Paved
50	5	7067	2678	204	82	Area 05	Paved
50	10	7129	2700	252	72	Area 05	Paved
50	15	7323	2810	247	82	Area 05	Paved
50	20	7321	2791	241	82	Area 05	Paved
50	25	7303	2773	266	82	Area 05	Paved
50	30	7059	2672	274	76	Area 05	Paved
50	35	6913	2693	237	76	Area 05	Paved
50	40	6980	2671	215	72	Area 05	Paved
50	45	6900	2518	220	83	Area 05	Paved
50	50	7207	2804	247	82	Area 05	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
50	55	7066	2723	225	70	Area 05	Paved
50	60	7053	2642	259	86	Area 05	Paved
50	65	7025	2629	259	83	Area 05	Paved
55	0	7290	2792	256	72	Area 05	Paved
55	5	6982	2699	228	83	Area 05	Paved
55	10	7226	2748	234	80	Area 05	Paved
55	15	7183	2804	239	84	Area 05	Paved
55	20	7247	2749	252	92	Area 05	Paved
55	25	7431	2838	274	82	Area 05	Paved
55	30	7065	2696	242	81	Area 05	Paved
55	35	7076	2716	227	68	Area 05	Paved
55	40	7073	2693	238	77	Area 05	Paved
55	45	7010	2629	242	87	Area 05	Paved
55	50	7106	2722	234	88	Area 05	Paved
55	55	7091	2763	239	85	Area 05	Paved
55	60	6896	2637	242	95	Area 05	Paved
55	65	7078	2744	214	95	Area 05	Paved
60	0	7146	2777	243	72	Area 05	Paved
60	5	7402	2778	255	84	Area 05	Paved
60	10	7233	2714	251	84	Area 05	Paved
60	15	7259	2768	269	101	Area 05	Paved
60	20	7321	2800	254	82	Area 05	Paved
60	25	7321	2774	250	83	Area 05	Paved
60	30	7175	2725	258	83	Area 05	Paved
60	35	6956	2641	259	82	Area 05	Paved
60	40	6903	2530	255	71	Area 05	Paved
60	45	7144	2734	237	91	Area 05	Paved
60	50	6774	2576	216	78	Area 05	Paved
60	55	7201	2728	253	93	Area 05	Paved
60	60	6803	2623	230	83	Area 05	Paved
60	65	6908	2597	243	80	Area 05	Paved
65	0	7186	2668	255	69	Area 05	Paved
65	5	7260	2831	213	92	Area 05	Paved
65	10	7294	2814	200	71	Area 05	Paved
65	15	7245	2816	250	71	Area 05	Paved
65	20	7377	2787	251	92	Area 05	Paved
65	25	7177	2694	258	79	Area 05	Paved
65	30	7163	2752	202	81	Area 05	Paved
65	35	7139	2658	238	86	Area 05	Paved
65	40	7206	2783	225	85	Area 05	Paved
65	45	7059	2724	214	89	Area 05	Paved
65	50	6825	2577	245	82	Area 05	Paved
65	55	6891	2574	233	92	Area 05	Paved
65	60	7008	2699	242	67	Area 05	Paved
65	65	6944	2702	229	92	Area 05	Paved
70	0	7441	2865	259	91	Area 05	Paved
70	5	7269	2831	225	68	Area 05	Paved
70	10	7378	2799	240	87	Area 05	Paved
70	15	7282	2850	276	65	Area 05	Paved
70	20	7323	2763	284	74	Area 05	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
70	25	6743	2624	238	72	Area 05	Paved
70	30	6561	2606	208	72	Area 05	Paved
70	35	6574	2618	227	69	Area 05	Paved
70	40	6583	2585	206	64	Area 05	Paved
70	45	5928	2349	185	60	Area 05	Paved
70	50	6185	2411	193	72	Area 05	Paved
70	55	5993	2392	192	68	Area 05	Paved
70	60	6075	2379	193	89	Area 05	Paved
70	65	5914	2370	172	67	Area 05	Paved
75	0	7105	2771	228	78	Area 05	Paved
75	5	7108	2663	242	85	Area 05	Paved
75	10	6676	2570	209	59	Area 05	Paved
75	15	5779	2381	176	58	Area 05	Paved
75	20	5595	2206	190	55	Area 05	Paved
75	25	5999	2388	180	58	Area 05	Paved
75	30	5979	2380	181	75	Area 05	Paved
75	35	5732	2263	180	71	Area 05	Paved
75	40	6266	2460	211	87	Area 05	Paved
75	45	6914	2703	200	79	Area 05	Paved
75	50	6805	2626	243	93	Area 05	Paved
75	55	6776	2615	249	92	Area 05	Paved
75	60	6777	2571	238	96	Area 05	Paved
75	65	5818	2291	174	70	Area 05	Paved
80	0	7070	2720	221	77	Area 05	Paved
80	5	7627	2935	235	87	Area 05	Paved
80	10	7535	2903	266	82	Area 05	Paved
80	15	7953	2974	269	108	Area 05	Paved
80	20	7892	2977	241	101	Area 05	Paved
80	25	7764	2993	281	102	Area 05	Paved
80	30	7334	2783	232	85	Area 05	Paved
80	35	7060	2719	249	82	Area 05	Paved
80	40	7052	2703	218	85	Area 05	Paved
80	45	7265	2720	247	94	Area 05	Paved
80	50	7034	2584	249	84	Area 05	Paved
80	55	7176	2747	244	95	Area 05	Paved
80	60	7297	2680	263	84	Area 05	Paved
80	65	5831	2228	186	63	Area 05	Paved
85	50	7266	2813	201	90	Area 05	Paved
85	55	7307	2851	245	92	Area 05	Paved
85	60	7423	2788	278	85	Area 05	Paved
85	65	7168	2792	229	95	Area 05	Paved
0	0	6798	2519	241	92	Area 06	Paved
0	5	6641	2440	248	84	Area 06	Paved
0	10	6702	2449	221	69	Area 06	Paved
0	15	6852	2503	236	79	Area 06	Paved
0	20	6686	2499	199	76	Area 06	Paved
0	25	6896	2587	225	82	Area 06	Paved
0	30	7540	2795	242	90	Area 06	Paved
0	35	7036	2662	242	101	Area 06	Paved
0	40	6808	2559	202	71	Area 06	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	45	6966	2586	250	83	Area 06	Paved
0	50	6891	2594	231	94	Area 06	Paved
0	55	6983	2648	205	86	Area 06	Paved
0	60	6892	2615	220	79	Area 06	Paved
0	65	7106	2715	230	86	Area 06	Paved
0	70	6968	2657	235	80	Area 06	Paved
5	5	6942	2623	238	74	Area 06	Paved
5	10	6884	2525	249	89	Area 06	Paved
5	15	6747	2522	227	82	Area 06	Paved
5	20	6515	2415	217	85	Area 06	Paved
5	25	6831	2581	238	80	Area 06	Paved
5	30	7107	2642	216	90	Area 06	Paved
5	35	6962	2588	220	83	Area 06	Paved
5	40	6927	2577	255	92	Area 06	Paved
5	45	6717	2448	237	70	Area 06	Paved
5	50	6993	2625	218	82	Area 06	Paved
5	55	7048	2612	225	73	Area 06	Paved
5	60	6943	2608	214	64	Area 06	Paved
5	65	7053	2590	227	106	Area 06	Paved
5	70	7134	2681	233	80	Area 06	Paved
10	5	6806	2540	254	82	Area 06	Paved
10	10	7064	2642	247	93	Area 06	Paved
10	15	7194	2700	213	97	Area 06	Paved
10	20	6966	2678	225	87	Area 06	Paved
10	25	7031	2546	235	72	Area 06	Paved
10	30	6802	2630	238	83	Area 06	Paved
10	35	6900	2627	213	73	Area 06	Paved
10	40	7013	2570	254	94	Area 06	Paved
10	45	6909	2519	208	81	Area 06	Paved
10	50	6406	2472	205	80	Area 06	Paved
10	55	7162	2686	236	94	Area 06	Paved
10	60	6875	2596	207	79	Area 06	Paved
10	65	6916	2629	223	94	Area 06	Paved
10	70	7112	2667	223	80	Area 06	Paved
15	5	7177	2655	229	91	Area 06	Paved
15	10	6877	2630	216	75	Area 06	Paved
15	15	6887	2543	231	90	Area 06	Paved
15	20	6315	2390	199	77	Area 06	Paved
15	25	6644	2524	222	70	Area 06	Paved
15	30	6679	2514	223	70	Area 06	Paved
15	35	6889	2611	242	96	Area 06	Paved
15	40	7053	2679	223	61	Area 06	Paved
15	45	6846	2554	226	72	Area 06	Paved
15	50	6972	2668	253	83	Area 06	Paved
15	55	7017	2587	223	86	Area 06	Paved
15	60	7248	2681	270	92	Area 06	Paved
15	65	7245	2733	242	88	Area 06	Paved
15	70	7032	2651	233	76	Area 06	Paved
20	5	7054	2556	259	106	Area 06	Paved
20	10	6791	2627	216	85	Area 06	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
20	15	6754	2543	221	68	Area 06	Paved
20	20	7071	2600	261	100	Area 06	Paved
20	25	6813	2576	227	63	Area 06	Paved
20	30	6829	2593	216	61	Area 06	Paved
20	35	6848	2576	224	76	Area 06	Paved
20	40	6963	2682	219	83	Area 06	Paved
20	45	7198	2788	235	94	Area 06	Paved
20	50	7097	2682	217	79	Area 06	Paved
20	55	7141	2703	236	83	Area 06	Paved
20	60	7151	2710	191	83	Area 06	Paved
20	65	7098	2640	220	84	Area 06	Paved
20	70	7137	2710	233	62	Area 06	Paved
25	10	6685	2529	214	64	Area 06	Paved
25	15	6841	2580	244	80	Area 06	Paved
25	20	6863	2606	231	99	Area 06	Paved
25	25	6789	2572	209	77	Area 06	Paved
25	30	6883	2545	207	63	Area 06	Paved
25	35	6551	2400	242	69	Area 06	Paved
25	40	6886	2590	248	82	Area 06	Paved
25	45	7103	2669	237	73	Area 06	Paved
25	50	6849	2589	213	62	Area 06	Paved
25	55	7199	2732	250	75	Area 06	Paved
25	60	6994	2545	234	80	Area 06	Paved
25	65	7163	2608	215	79	Area 06	Paved
25	70	7148	2684	234	81	Area 06	Paved
30	10	6886	2524	239	92	Area 06	Paved
30	15	6645	2501	230	74	Area 06	Paved
30	20	6850	2562	239	79	Area 06	Paved
30	25	6726	2512	224	89	Area 06	Paved
30	30	7015	2574	218	74	Area 06	Paved
30	35	6942	2650	232	78	Area 06	Paved
30	40	6998	2614	236	82	Area 06	Paved
30	45	6795	2561	192	81	Area 06	Paved
30	50	6953	2583	240	91	Area 06	Paved
30	55	7160	2683	232	84	Area 06	Paved
30	60	6946	2637	242	82	Area 06	Paved
30	65	7126	2754	216	91	Area 06	Paved
30	70	7096	2695	208	71	Area 06	Paved
35	10	6998	2636	234	78	Area 06	Paved
35	15	6696	2475	251	74	Area 06	Paved
35	20	6806	2563	232	88	Area 06	Paved
35	25	7143	2681	222	67	Area 06	Paved
35	30	7108	2667	221	78	Area 06	Paved
35	35	6924	2657	205	84	Area 06	Paved
35	40	7050	2692	238	89	Area 06	Paved
35	45	6944	2618	228	83	Area 06	Paved
35	50	6928	2563	222	86	Area 06	Paved
35	55	7063	2681	233	93	Area 06	Paved
35	60	7170	2745	222	93	Area 06	Paved
35	65	6958	2589	226	78	Area 06	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
35	70	7130	2710	234	78	Area 06	Paved
35	75	7383	2749	258	97	Area 06	Paved
40	10	7128	2701	241	70	Area 06	Paved
40	15	6981	2628	244	88	Area 06	Paved
40	20	6904	2669	204	91	Area 06	Paved
40	25	6895	2567	268	87	Area 06	Paved
40	30	6774	2454	209	91	Area 06	Paved
40	35	6822	2529	218	78	Area 06	Paved
40	40	6971	2633	245	84	Area 06	Paved
40	45	6924	2585	288	88	Area 06	Paved
40	50	6905	2551	200	92	Area 06	Paved
40	55	7019	2662	214	88	Area 06	Paved
40	60	7326	2789	244	77	Area 06	Paved
40	65	6990	2693	248	77	Area 06	Paved
40	70	7204	2652	269	83	Area 06	Paved
40	75	6764	2583	228	79	Area 06	Paved
45	10	6848	2593	210	62	Area 06	Paved
45	15	7092	2681	240	75	Area 06	Paved
45	20	6807	2571	207	71	Area 06	Paved
45	25	7188	2699	237	93	Area 06	Paved
45	30	7004	2616	260	85	Area 06	Paved
45	35	6999	2698	213	79	Area 06	Paved
45	40	7156	2656	243	88	Area 06	Paved
45	45	7080	2667	222	90	Area 06	Paved
45	50	7048	2695	239	74	Area 06	Paved
45	55	7125	2772	197	75	Area 06	Paved
45	60	7178	2734	205	78	Area 06	Paved
45	65	6871	2596	234	84	Area 06	Paved
45	70	7260	2733	222	84	Area 06	Paved
45	75	7059	2674	224	83	Area 06	Paved
50	15	6895	2572	234	96	Area 06	Paved
50	20	6997	2542	224	79	Area 06	Paved
50	25	7004	2632	215	73	Area 06	Paved
50	30	6719	2529	240	85	Area 06	Paved
50	35	7075	2680	214	75	Area 06	Paved
50	40	7225	2690	213	84	Area 06	Paved
50	45	6981	2619	231	84	Area 06	Paved
50	50	6713	2598	220	85	Area 06	Paved
50	55	6987	2563	208	87	Area 06	Paved
50	60	7079	2668	228	68	Area 06	Paved
50	65	6976	2780	227	67	Area 06	Paved
50	70	7051	2696	223	82	Area 06	Paved
50	75	7148	2686	240	66	Area 06	Paved
55	15	6625	2489	225	75	Area 06	Paved
55	20	6353	2300	227	70	Area 06	Paved
55	25	6075	2178	241	59	Area 06	Paved
55	30	6889	2670	230	90	Area 06	Paved
55	35	6843	2643	223	82	Area 06	Paved
55	40	6983	2630	207	73	Area 06	Paved
55	45	6678	2554	211	80	Area 06	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
55	50	7060	2692	215	95	Area 06	Paved
55	55	6979	2672	222	88	Area 06	Paved
55	60	7078	2725	234	80	Area 06	Paved
55	65	6864	2649	224	73	Area 06	Paved
55	70	7153	2667	250	80	Area 06	Paved
55	75	7063	2702	217	78	Area 06	Paved
60	15	6810	2608	238	67	Area 06	Paved
60	20	6808	2534	243	83	Area 06	Paved
60	25	5972	2208	196	63	Area 06	Paved
60	30	6762	2632	243	64	Area 06	Paved
60	35	6992	2565	230	71	Area 06	Paved
60	40	7090	2621	242	94	Area 06	Paved
60	45	6942	2617	237	91	Area 06	Paved
60	50	6825	2596	196	91	Area 06	Paved
60	55	6974	2593	240	77	Area 06	Paved
60	60	7078	2690	229	62	Area 06	Paved
60	65	7230	2713	218	76	Area 06	Paved
60	70	7257	2741	224	75	Area 06	Paved
60	75	7129	2648	226	69	Area 06	Paved
0	0	6703	2483	208	92	Area 07	Paved
0	5	6693	2519	230	95	Area 07	Paved
0	10	6528	2474	205	81	Area 07	Paved
0	15	7120	2638	253	93	Area 07	Paved
0	20	6122	2193	204	85	Area 07	Paved
0	25	6091	2287	169	83	Area 07	Paved
0	30	6203	2265	204	96	Area 07	Paved
0	35	6128	2269	203	90	Area 07	Paved
0	40	6182	2330	190	87	Area 07	Paved
0	45	6236	2378	189	61	Area 07	Paved
0	50	6162	2337	191	74	Area 07	Paved
0	55	6196	2347	188	97	Area 07	Paved
0	60	6018	2249	198	85	Area 07	Paved
0	65	6260	2344	165	98	Area 07	Paved
0	70	6232	2276	228	97	Area 07	Paved
0	75	6303	2352	209	79	Area 07	Paved
0	80	6208	2343	203	72	Area 07	Paved
0	85	6043	2275	181	77	Area 07	Paved
0	90	5976	2233	191	87	Area 07	Paved
0	95	5993	2256	198	84	Area 07	Paved
0	100	6034	2351	183	83	Area 07	Paved
0	105	6084	2174	195	77	Area 07	Paved
0	110	6131	2377	209	77	Area 07	Paved
0	115	6207	2307	229	76	Area 07	Paved
5	0	6447	2329	257	84	Area 07	Paved
5	5	6791	2401	240	111	Area 07	Paved
5	10	6429	2399	221	78	Area 07	Paved
5	15	6503	2404	236	108	Area 07	Paved
5	20	6772	2463	227	109	Area 07	Paved
5	25	6750	2461	247	114	Area 07	Paved
5	[illegible]	6536	2430	219	101	Area 07	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	35	6417	2370	238	80	Area 07	Paved
5	40	6663	2444	224	81	Area 07	Paved
5	45	6750	2438	222	79	Area 07	Paved
5	50	6611	2423	227	86	Area 07	Paved
5	55	6537	2383	187	98	Area 07	Paved
5	60	6544	2455	201	101	Area 07	Paved
5	65	6515	2419	216	93	Area 07	Paved
5	70	6247	2307	179	93	Area 07	Paved
5	75	6337	2375	238	77	Area 07	Paved
5	80	6191	2254	239	76	Area 07	Paved
5	85	6188	2244	169	86	Area 07	Paved
5	90	6024	2357	198	96	Area 07	Paved
5	95	6154	2350	203	85	Area 07	Paved
5	100	6122	2301	203	77	Area 07	Paved
5	105	6232	2259	195	82	Area 07	Paved
5	110	6835	2608	215	97	Area 07	Paved
10	0	7132	2544	277	118	Area 07	Paved
10	5	6538	2389	247	81	Area 07	Paved
10	10	6556	2499	246	88	Area 07	Paved
10	15	6473	2360	234	109	Area 07	Paved
10	20	6526	2378	231	106	Area 07	Paved
10	25	6527	2377	262	84	Area 07	Paved
10	30	6291	2282	227	75	Area 07	Paved
10	35	6565	2437	229	87	Area 07	Paved
10	40	6537	2397	234	99	Area 07	Paved
10	45	6401	2378	197	104	Area 07	Paved
10	50	6356	2318	239	96	Area 07	Paved
10	55	6569	2441	259	68	Area 07	Paved
10	60	6410	2390	209	95	Area 07	Paved
10	65	6248	2257	223	81	Area 07	Paved
10	70	6360	2375	231	94	Area 07	Paved
10	75	6351	2358	254	111	Area 07	Paved
10	80	6293	2373	238	84	Area 07	Paved
10	85	6278	2322	246	86	Area 07	Paved
10	90	6293	2298	246	85	Area 07	Paved
10	95	6423	2348	269	74	Area 07	Paved
10	100	6291	2309	212	88	Area 07	Paved
10	105	6821	2517	240	105	Area 07	Paved
15	5	6570	2369	273	98	Area 07	Paved
15	10	6802	2470	271	92	Area 07	Paved
15	15	6788	2460	246	98	Area 07	Paved
15	20	6607	2403	249	99	Area 07	Paved
15	25	6752	2493	223	89	Area 07	Paved
15	30	6640	2436	250	96	Area 07	Paved
15	35	6584	2394	239	93	Area 07	Paved
15	40	6566	2387	244	93	Area 07	Paved
15	45	6554	2415	248	95	Area 07	Paved
15	50	6461	2351	238	102	Area 07	Paved
15	55	6206	2237	228	94	Area 07	Paved
15	60	6424	2333	225	92	Area 07	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	65	6255	2232	213	92	Area 07	Paved
15	70	6301	2315	245	101	Area 07	Paved
15	75	6470	2409	256	92	Area 07	Paved
15	80	6208	2255	220	85	Area 07	Paved
15	85	6395	2342	230	97	Area 07	Paved
15	90	6219	2315	216	76	Area 07	Paved
15	95	6246	2333	180	88	Area 07	Paved
15	100	6175	2280	210	89	Area 07	Paved
20	5	6354	2258	251	105	Area 07	Paved
20	10	6710	2469	239	105	Area 07	Paved
20	15	6861	2445	265	97	Area 07	Paved
20	20	5890	2116	239	88	Area 07	Paved
20	25	6530	2396	250	88	Area 07	Paved
20	30	6630	2447	254	95	Area 07	Paved
20	35	5789	2134	232	92	Area 07	Paved
20	40	4295	1573	158	66	Area 07	Paved
20	45	6281	2308	223	116	Area 07	Paved
20	50	6143	2227	263	89	Area 07	Paved
20	55	6192	2300	224	95	Area 07	Paved
20	60	6103	2210	215	107	Area 07	Paved
20	65	6164	2204	222	111	Area 07	Paved
20	70	6613	2372	252	102	Area 07	Paved
20	75	6388	2313	237	91	Area 07	Paved
20	80	6650	2365	254	107	Area 07	Paved
20	85	6378	2300	229	98	Area 07	Paved
20	90	6013	2228	195	83	Area 07	Paved
20	95	5605	2124	196	102	Area 07	Paved
25	5	6727	2385	240	118	Area 07	Paved
25	10	6914	2556	269	114	Area 07	Paved
25	15	7030	2536	249	113	Area 07	Paved
25	20	6762	2496	247	100	Area 07	Paved
25	25	6546	2297	255	101	Area 07	Paved
25	30	6819	2446	236	108	Area 07	Paved
25	35	6565	2307	255	92	Area 07	Paved
25	40	6347	2306	250	84	Area 07	Paved
25	45	6550	2402	230	88	Area 07	Paved
25	50	6103	2244	193	94	Area 07	Paved
25	55	5956	2120	227	86	Area 07	Paved
25	60	6107	2221	229	97	Area 07	Paved
25	65	6075	2208	258	91	Area 07	Paved
25	70	6317	2308	240	84	Area 07	Paved
25	75	6257	2285	226	108	Area 07	Paved
25	80	6038	2096	204	107	Area 07	Paved
25	85	6122	2283	206	93	Area 07	Paved
25	90	5145	1976	158	73	Area 07	Paved
30	0	6667	2421	219	108	Area 07	Paved
30	5	6923	2518	244	113	Area 07	Paved
30	10	6979	2516	246	105	Area 07	Paved
30	15	6810	2479	260	107	Area 07	Paved
30	20	6857	2482	253	108	Area 07	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
30	25	6623	2426	243	90	Area 07	Paved
30	30	6355	2353	223	107	Area 07	Paved
30	35	6559	2424	247	96	Area 07	Paved
30	40	6492	2325	236	111	Area 07	Paved
30	45	6462	2295	237	109	Area 07	Paved
30	50	6354	2349	228	90	Area 07	Paved
30	55	6337	2231	253	80	Area 07	Paved
30	60	6349	2364	258	101	Area 07	Paved
30	65	6247	2236	222	91	Area 07	Paved
30	70	6237	2282	236	96	Area 07	Paved
30	75	6123	2314	232	81	Area 07	Paved
30	80	5899	2164	196	114	Area 07	Paved
30	85	5151	1907	178	76	Area 07	Paved
35	0	7371	2515	248	132	Area 07	Paved
35	5	6702	2427	223	99	Area 07	Paved
35	10	7042	2520	265	89	Area 07	Paved
35	15	6939	2489	269	107	Area 07	Paved
35	20	6947	2555	288	85	Area 07	Paved
35	25	7092	2553	247	95	Area 07	Paved
35	30	6283	2257	231	103	Area 07	Paved
35	35	6404	2311	229	94	Area 07	Paved
35	40	6380	2320	237	86	Area 07	Paved
35	45	6400	2270	239	82	Area 07	Paved
35	50	6285	2292	229	108	Area 07	Paved
35	55	6195	2293	227	88	Area 07	Paved
35	60	6349	2356	245	78	Area 07	Paved
35	65	6251	2284	208	90	Area 07	Paved
35	70	6016	2163	229	112	Area 07	Paved
35	75	5963	2151	198	89	Area 07	Paved
35	80	5140	1979	181	77	Area 07	Paved
40	0	7619	2783	266	122	Area 07	Paved
40	5	6616	2420	234	97	Area 07	Paved
40	10	7020	2608	245	120	Area 07	Paved
40	15	6616	2392	257	74	Area 07	Paved
40	20	6266	2252	246	90	Area 07	Paved
40	25	6297	2325	238	87	Area 07	Paved
40	30	6398	2261	244	86	Area 07	Paved
40	35	6346	2352	200	112	Area 07	Paved
40	40	6317	2329	235	72	Area 07	Paved
40	45	6114	2190	224	96	Area 07	Paved
40	50	6113	2263	222	86	Area 07	Paved
40	55	6243	2298	235	80	Area 07	Paved
40	60	6457	2340	229	102	Area 07	Paved
40	65	5989	2236	204	80	Area 07	Paved
40	70	5885	2152	217	84	Area 07	Paved
40	75	5324	2009	188	60	Area 07	Paved
45	0	7905	2871	291	112	Area 07	Paved
45	5	6874	2424	238	103	Area 07	Paved
45	10	6918	2486	271	94	Area 07	Paved
45	15	6812	2479	250	101	Area 07	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
45	20	7901	2835	318	112	Area 07	Paved
45	25	6279	2274	256	92	Area 07	Paved
45	30	6427	2307	215	100	Area 07	Paved
45	35	6173	2181	219	111	Area 07	Paved
45	40	6225	2214	231	97	Area 07	Paved
45	45	6275	2346	235	83	Area 07	Paved
45	50	6549	2418	238	105	Area 07	Paved
45	55	6434	2252	238	101	Area 07	Paved
45	60	5957	2196	231	73	Area 07	Paved
45	65	5968	2209	190	82	Area 07	Paved
45	70	5265	1962	205	92	Area 07	Paved
50	0	7600	2692	260	124	Area 07	Paved
50	5	7172	2612	268	109	Area 07	Paved
50	10	7144	2501	252	94	Area 07	Paved
50	15	7381	2644	266	113	Area 07	Paved
50	20	7727	2695	300	125	Area 07	Paved
50	25	6488	2341	228	103	Area 07	Paved
50	30	6285	2245	221	96	Area 07	Paved
50	35	6199	2253	228	109	Area 07	Paved
50	40	6362	2330	254	83	Area 07	Paved
50	45	6212	2234	215	90	Area 07	Paved
50	50	6331	2274	217	97	Area 07	Paved
50	55	6141	2204	245	108	Area 07	Paved
50	60	5410	2039	170	79	Area 07	Paved
55	0	7939	2899	282	114	Area 07	Paved
55	5	7874	2851	284	124	Area 07	Paved
55	10	7643	2767	282	120	Area 07	Paved
55	15	6943	2460	240	129	Area 07	Paved
55	20	6116	2193	230	96	Area 07	Paved
55	25	5853	2107	222	79	Area 07	Paved
55	30	5766	2062	193	95	Area 07	Paved
55	35	5729	2094	205	97	Area 07	Paved
55	40	5439	1958	205	83	Area 07	Paved
55	45	6273	2275	233	109	Area 07	Paved
55	50	5938	2125	214	81	Area 07	Paved
55	55	5388	2041	190	67	Area 07	Paved
60	0	6725	2409	262	86	Area 07	Paved
60	45	6377	2260	233	104	Area 07	Paved
60	50	5395	1987	167	91	Area 07	Paved
0	5	6710	2425	233	104	Area 09	Paved
0	10	7929	2984	299	101	Area 09	Paved
0	15	7877	2977	261	103	Area 09	Paved
0	20	7306	2722	265	96	Area 09	Paved
0	25	6849	2580	244	87	Area 09	Paved
0	30	5983	2368	225	74	Area 09	Paved
0	35	5368	1962	209	70	Area 09	Paved
0	50	7407	2695	269	118	Area 09	Paved
0	55	6219	2262	251	76	Area 09	Paved
0	70	4909	1829	163	70	Area 09	Paved
0	75	7179	2621	244	98	Area 09	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	80	8147	2990	298	120	Area 09	Paved
0	85	5995	2165	240	90	Area 09	Paved
0	90	7132	2592	252	108	Area 09	Paved
0	95	6742	2543	227	79	Area 09	Paved
0	100	4795	1825	163	71	Area 09	Paved
0	105	6336	2263	244	85	Area 09	Paved
0	110	6864	2504	254	106	Area 09	Paved
0	120	6379	2390	207	83	Area 09	Paved
0	135	7970	3027	279	111	Area 09	Paved
0	140	8851	3265	320	106	Area 09	Paved
0	145	7635	2809	295	94	Area 09	Paved
0	150	4338	1623	151	55	Area 09	Paved
0	155	4881	1757	167	57	Area 09	Paved
0	160	7493	2666	311	104	Area 09	Paved
0	185	6503	2354	241	79	Area 09	Paved
0	200	7720	2820	278	95	Area 09	Paved
0	210	7056	2577	237	81	Area 09	Paved
0	215	7204	2713	262	103	Area 09	Paved
5	0	6269	2420	216	76	Area 09	Paved
5	5	6937	2565	250	81	Area 09	Paved
5	10	7150	2724	253	79	Area 09	Paved
5	15	7407	2788	242	115	Area 09	Paved
5	20	6800	2530	254	87	Area 09	Paved
5	25	6523	2470	213	99	Area 09	Paved
5	30	5910	2268	197	76	Area 09	Paved
5	35	5659	2210	181	76	Area 09	Paved
5	40	5359	2050	161	77	Area 09	Paved
5	45	5548	2076	211	85	Area 09	Paved
5	50	6628	2503	255	75	Area 09	Paved
5	55	6735	2468	221	81	Area 09	Paved
5	60	5781	2128	186	67	Area 09	Paved
5	65	5389	2018	185	71	Area 09	Paved
5	70	5422	2045	189	68	Area 09	Paved
5	75	6358	2434	178	78	Area 09	Paved
5	80	6816	2483	242	96	Area 09	Paved
5	85	6865	2576	232	87	Area 09	Paved
5	90	7364	2737	249	89	Area 09	Paved
5	95	7375	2671	269	101	Area 09	Paved
5	100	5984	2262	222	81	Area 09	Paved
5	105	6124	2268	200	77	Area 09	Paved
5	110	6185	2280	222	93	Area 09	Paved
5	115	7014	2535	259	84	Area 09	Paved
5	120	7664	2863	266	97	Area 09	Paved
5	125	8429	2988	324	110	Area 09	Paved
5	130	6977	2646	264	113	Area 09	Paved
5	135	7845	2866	270	94	Area 09	Paved
5	140	7844	2839	291	107	Area 09	Paved
5	145	7112	2689	261	80	Area 09	Paved
5	150	6514	2496	246	73	Area 09	Paved
5	155	7132	2640	231	86	Area 09	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	160	6935	2671	264	80	Area 09	Paved
5	165	7571	2916	278	97	Area 09	Paved
5	170	8781	3125	332	138	Area 09	Paved
5	175	9902	3651	360	144	Area 09	Paved
5	180	7879	2831	321	110	Area 09	Paved
5	185	8104	2992	317	105	Area 09	Paved
5	190	7708	2828	314	95	Area 09	Paved
5	195	7781	2882	281	108	Area 09	Paved
5	200	8239	2987	341	86	Area 09	Paved
5	205	7413	2711	328	96	Area 09	Paved
5	210	6967	2654	215	76	Area 09	Paved
5	215	6929	2629	239	90	Area 09	Paved
10	30	7828	2874	268	114	Area 09	Paved
10	35	6104	2346	223	88	Area 09	Paved
10	40	6018	2230	196	81	Area 09	Paved
10	45	6255	2356	232	64	Area 09	Paved
10	50	5719	2143	189	60	Area 09	Paved
10	55	6207	2277	227	72	Area 09	Paved
10	60	6368	2375	248	89	Area 09	Paved
10	65	5858	2191	197	83	Area 09	Paved
10	70	5592	2061	181	65	Area 09	Paved
10	75	5650	2147	193	75	Area 09	Paved
10	80	6056	2267	223	75	Area 09	Paved
10	85	6374	2305	228	87	Area 09	Paved
10	90	6510	2515	209	82	Area 09	Paved
10	95	6170	2294	223	86	Area 09	Paved
10	100	6152	2324	208	86	Area 09	Paved
10	105	6121	2295	232	88	Area 09	Paved
10	110	6122	2328	207	76	Area 09	Paved
10	115	7164	2705	245	81	Area 09	Paved
10	120	6956	2672	242	84	Area 09	Paved
10	125	7337	2791	262	102	Area 09	Paved
10	130	5140	1909	207	77	Area 09	Paved
10	135	5794	2165	214	84	Area 09	Paved
10	155	5815	2102	214	66	Area 09	Paved
10	160	6131	2343	188	82	Area 09	Paved
10	165	6926	2745	237	94	Area 09	Paved
10	170	7352	2771	257	89	Area 09	Paved
10	175	7163	2709	246	87	Area 09	Paved
10	180	6921	2675	237	87	Area 09	Paved
10	185	6884	2634	264	98	Area 09	Paved
10	190	7000	2651	261	98	Area 09	Paved
10	195	7396	2789	257	105	Area 09	Paved
10	200	6938	2715	216	76	Area 09	Paved
10	205	6956	2642	241	75	Area 09	Paved
15	60	5653	2145	216	77	Area 09	Paved
15	100	5765	2199	176	63	Area 09	Paved
15	105	3931	1488	145	64	Area 09	Paved
15	110	4751	1888	143	55	Area 09	Paved
15	115	5535	2187	188	70	Area 09	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	120	5446	2082	167	65	Area 09	Paved
15	125	5673	2229	184	56	Area 09	Paved
20	100	5763	2234	208	77	Area 09	Paved
20	105	4907	1923	175	64	Area 09	Paved
20	110	5016	1935	161	65	Area 09	Paved
20	115	5539	2185	191	69	Area 09	Paved
20	120	5629	2247	174	83	Area 09	Paved
20	125	5168	2042	175	66	Area 09	Paved
20	130	6506	2373	225	105	Area 09	Paved
25	100	4133	1581	141	52	Area 09	Paved
25	105	5154	1941	159	61	Area 09	Paved
25	110	5250	1979	199	72	Area 09	Paved
25	115	5501	2155	208	69	Area 09	Paved
25	120	6063	2413	197	72	Area 09	Paved
25	125	5325	2106	172	69	Area 09	Paved
0	0	8525	3310	359	95	Area 10	Paved
0	10	7188	2738	304	69	Area 10	Paved
0	15	7493	2881	292	64	Area 10	Paved
0	20	6064	2382	212	71	Area 10	Paved
0	25	8464	3229	362	70	Area 10	Paved
0	30	4478	1711	174	43	Area 10	Paved
0	35	6492	2505	248	78	Area 10	Paved
0	40	7894	2981	309	87	Area 10	Paved
0	45	4486	1660	170	52	Area 10	Paved
0	50	5147	1964	176	62	Area 10	Paved
0	55	7858	2998	354	81	Area 10	Paved
0	60	7446	2965	279	83	Area 10	Paved
0	65	7670	2939	299	83	Area 10	Paved
0	70	7064	2708	312	66	Area 10	Paved
5	0	6312	2468	191	64	Area 10	Paved
5	5	5708	2224	179	63	Area 10	Paved
5	10	6537	2500	249	63	Area 10	Paved
5	15	7030	2833	226	70	Area 10	Paved
5	20	6894	2675	236	72	Area 10	Paved
5	25	6889	2695	265	64	Area 10	Paved
5	30	6702	2526	236	73	Area 10	Paved
5	35	6419	2528	242	44	Area 10	Paved
5	40	6697	2631	265	67	Area 10	Paved
5	45	7271	2843	278	86	Area 10	Paved
5	50	7188	2891	283	59	Area 10	Paved
5	55	6903	2716	243	60	Area 10	Paved
5	60	7241	2762	269	65	Area 10	Paved
5	65	6569	2587	248	57	Area 10	Paved
5	70	7344	2789	308	78	Area 10	Paved
10	0	6776	2659	213	71	Area 10	Paved
10	5	6783	2687	250	73	Area 10	Paved
10	10	5687	2191	197	55	Area 10	Paved
10	15	5932	2308	204	48	Area 10	Paved
10	20	5719	2257	195	41	Area 10	Paved
10	25	5219	2087	176	54	Area 10	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
10	30	4971	1913	195	58	Area 10	Paved
10	35	4616	1735	167	49	Area 10	Paved
10	40	5742	2188	207	61	Area 10	Paved
10	45	5523	2055	216	60	Area 10	Paved
10	50	5731	2223	213	62	Area 10	Paved
10	55	5503	2060	218	52	Area 10	Paved
10	60	6337	2470	255	63	Area 10	Paved
10	65	7672	2838	321	69	Area 10	Paved
0	0	7393	2881	279	77	Area 11	Paved
0	5	7551	2926	262	61	Area 11	Paved
0	10	6726	2609	229	82	Area 11	Paved
0	15	8338	3079	344	98	Area 11	Paved
0	65	7962	3048	318	91	Area 11	Paved
0	90	8085	3017	350	83	Area 11	Paved
0	95	6472	2506	220	71	Area 11	Paved
0	100	6805	2582	234	75	Area 11	Paved
0	105	6030	2313	211	68	Area 11	Paved
0	110	6018	2346	208	51	Area 11	Paved
0	115	6568	2475	275	69	Area 11	Paved
0	125	6927	2660	280	96	Area 11	Paved
0	130	6891	2622	267	73	Area 11	Paved
0	135	7750	2974	296	78	Area 11	Paved
0	140	7517	2829	270	66	Area 11	Paved
0	145	7999	3063	326	88	Area 11	Paved
0	155	5941	2256	217	66	Area 11	Paved
0	160	5652	2146	224	73	Area 11	Paved
5	0	7154	2833	257	72	Area 11	Paved
5	5	6697	2586	230	63	Area 11	Paved
5	10	7088	2705	270	70	Area 11	Paved
5	15	7057	2688	298	76	Area 11	Paved
5	20	7128	2730	250	77	Area 11	Paved
5	25	6841	2576	273	83	Area 11	Paved
5	30	7069	2640	280	79	Area 11	Paved
5	35	6956	2706	287	77	Area 11	Paved
5	40	5930	2259	237	69	Area 11	Paved
5	45	6204	2365	267	61	Area 11	Paved
5	50	6531	2538	233	64	Area 11	Paved
5	55	6344	2446	229	59	Area 11	Paved
5	60	6618	2515	236	71	Area 11	Paved
5	65	6468	2465	242	70	Area 11	Paved
5	70	6269	2461	227	71	Area 11	Paved
5	75	6529	2562	255	63	Area 11	Paved
5	80	6762	2562	238	57	Area 11	Paved
5	85	6104	2314	264	63	Area 11	Paved
5	90	6698	2531	257	61	Area 11	Paved
5	95	6048	2324	228	63	Area 11	Paved
5	100	6227	2435	214	55	Area 11	Paved
5	105	6344	2451	241	73	Area 11	Paved
5	110	6277	2411	243	62	Area 11	Paved
5	115	6783	2588	231	61	Area 11	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	120	6487	2490	235	76	Area 11	Paved
5	125	6896	2636	243	77	Area 11	Paved
5	130	7065	2714	251	73	Area 11	Paved
5	135	6977	2680	279	62	Area 11	Paved
5	140	6814	2571	264	82	Area 11	Paved
5	145	6765	2523	255	80	Area 11	Paved
5	150	6298	2416	231	69	Area 11	Paved
5	155	6462	2485	240	65	Area 11	Paved
5	160	6044	2288	236	62	Area 11	Paved
5	165	7022	2700	238	78	Area 11	Paved
5	170	8013	3062	308	71	Area 11	Paved
5	175	8540	3171	322	96	Area 11	Paved
5	180	8290	3141	308	71	Area 11	Paved
5	185	8159	3104	324	78	Area 11	Paved
5	190	8526	3292	314	106	Area 11	Paved
5	225	7013	2738	268	66	Area 11	Paved
5	230	7756	2924	309	88	Area 11	Paved
5	235	8563	3284	308	88	Area 11	Paved
5	240	7418	2874	285	78	Area 11	Paved
10	0	7318	2818	278	62	Area 11	Paved
10	5	6805	2588	271	83	Area 11	Paved
10	10	6921	2650	279	65	Area 11	Paved
10	15	7021	2663	296	76	Area 11	Paved
10	20	7080	2625	265	64	Area 11	Paved
10	25	7043	2657	257	56	Area 11	Paved
10	30	7000	2682	277	66	Area 11	Paved
10	35	6733	2642	255	45	Area 11	Paved
10	40	6632	2547	288	67	Area 11	Paved
10	45	6526	2524	233	71	Area 11	Paved
10	50	6633	2580	257	74	Area 11	Paved
10	55	6227	2526	209	42	Area 11	Paved
10	60	6229	2460	217	53	Area 11	Paved
10	65	6385	2493	256	72	Area 11	Paved
10	70	6313	2417	235	77	Area 11	Paved
10	75	6068	2351	248	67	Area 11	Paved
10	80	6447	2523	226	71	Area 11	Paved
10	85	6327	2470	250	52	Area 11	Paved
10	90	6380	2465	258	47	Area 11	Paved
10	95	6343	2382	257	61	Area 11	Paved
10	100	6386	2429	221	71	Area 11	Paved
10	105	6207	2351	204	62	Area 11	Paved
10	110	6334	2428	250	75	Area 11	Paved
10	115	6322	2425	262	64	Area 11	Paved
10	120	6589	2499	252	81	Area 11	Paved
10	125	6735	2609	272	59	Area 11	Paved
10	130	7190	2749	296	74	Area 11	Paved
10	135	6993	2692	257	57	Area 11	Paved
10	140	7005	2765	265	57	Area 11	Paved
10	145	7035	2740	265	66	Area 11	Paved
10	150	6826	2688	248	48	Area 11	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
10	155	6404	2443	251	79	Area 11	Paved
10	160	7009	2744	265	60	Area 11	Paved
10	165	7484	2907	261	59	Area 11	Paved
10	170	7903	3029	281	74	Area 11	Paved
10	175	8148	3070	327	87	Area 11	Paved
10	180	7764	2918	303	85	Area 11	Paved
10	185	6482	2493	222	76	Area 11	Paved
10	190	7062	2702	262	72	Area 11	Paved
10	195	6692	2655	253	73	Area 11	Paved
10	200	6477	2510	244	77	Area 11	Paved
10	205	6478	2515	282	60	Area 11	Paved
10	210	5995	2349	222	65	Area 11	Paved
10	215	5517	2088	209	47	Area 11	Paved
10	220	5453	2095	195	56	Area 11	Paved
10	225	6820	2540	248	76	Area 11	Paved
10	230	7031	2664	286	55	Area 11	Paved
15	0	8003	3013	329	83	Area 11	Paved
15	5	7963	2951	316	92	Area 11	Paved
15	10	6861	2659	240	70	Area 11	Paved
15	15	6596	2568	264	74	Area 11	Paved
15	20	6383	2415	237	62	Area 11	Paved
15	25	5883	2317	204	68	Area 11	Paved
15	30	5874	2307	229	51	Area 11	Paved
15	35	6008	2300	242	59	Area 11	Paved
15	40	5944	2268	240	58	Area 11	Paved
15	45	5777	2252	204	55	Area 11	Paved
15	50	5538	2121	215	48	Area 11	Paved
15	55	5307	2044	222	53	Area 11	Paved
15	60	5405	2135	202	44	Area 11	Paved
15	65	5658	2223	225	48	Area 11	Paved
15	70	5729	2240	207	69	Area 11	Paved
15	75	5571	2149	220	45	Area 11	Paved
15	80	5376	2102	210	50	Area 11	Paved
15	85	5379	2081	203	62	Area 11	Paved
15	90	5659	2177	231	60	Area 11	Paved
15	95	5636	2155	230	58	Area 11	Paved
15	100	6038	2348	214	76	Area 11	Paved
15	105	5740	2186	224	56	Area 11	Paved
15	110	5634	2190	236	51	Area 11	Paved
15	115	5753	2219	228	60	Area 11	Paved
15	120	5943	2259	201	71	Area 11	Paved
15	125	6556	2507	249	70	Area 11	Paved
15	130	6971	2721	254	70	Area 11	Paved
15	135	7043	2607	261	74	Area 11	Paved
15	140	6935	2707	270	72	Area 11	Paved
15	145	7489	2925	266	80	Area 11	Paved
15	150	7404	2795	283	81	Area 11	Paved
15	155	7314	2809	298	84	Area 11	Paved
15	160	6754	2520	236	83	Area 11	Paved
15	165	7661	2827	275	85	Area 11	Paved

Table 4 - Gamma Survey Data Areas 1 through 11 (Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	170	7322	2764	277	90	Area 11	Paved
15	175	7084	2732	278	83	Area 11	Paved
15	180	7389	2883	267	80	Area 11	Paved
15	185	7125	2807	267	74	Area 11	Paved
15	190	7036	2692	267	76	Area 11	Paved
15	195	6347	2461	261	64	Area 11	Paved
15	200	6562	2584	245	67	Area 11	Paved
15	205	6860	2609	270	83	Area 11	Paved
15	210	6380	2394	276	66	Area 11	Paved
15	215	6264	2327	278	68	Area 11	Paved
15	220	6041	2287	223	60	Area 11	Paved
Average		6524	2462	230	78		
Median		6683	2500	231	79		
Maximum		10250	3930	414	144		
Minimum		3931	1488	120	29		
Count		1311	1311	1311	1311		
Standard Deviation		794.7	288.4	36.8	17.2		

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	0	7258	2810	236	71	Area 01	UnPaved
0	5	7073	2665	276	68	Area 01	UnPaved
0	10	7045	2713	294	62	Area 01	UnPaved
0	15	7107	2670	302	83	Area 01	UnPaved
0	20	7143	2790	306	64	Area 01	UnPaved
0	25	7229	2800	280	63	Area 01	UnPaved
0	30	7055	2672	296	76	Area 01	UnPaved
0	35	6669	2500	264	56	Area 01	UnPaved
0	40	6579	2445	245	60	Area 01	UnPaved
0	45	6926	2592	314	76	Area 01	UnPaved
0	50	7172	2656	289	84	Area 01	UnPaved
0	55	6529	2442	260	76	Area 01	UnPaved
0	60	6828	2642	277	70	Area 01	UnPaved
0	65	6622	2504	241	60	Area 01	UnPaved
0	70	6861	2571	281	66	Area 01	UnPaved
0	75	6793	2642	268	66	Area 01	UnPaved
0	80	7147	2731	326	67	Area 01	UnPaved
0	85	6971	2663	288	77	Area 01	UnPaved
0	90	7161	2629	280	96	Area 01	UnPaved
0	95	7188	2767	301	72	Area 01	UnPaved
0	100	7462	2858	330	62	Area 01	UnPaved
5	0	6513	2567	221	51	Area 01	UnPaved
5	5	7305	2642	318	77	Area 01	UnPaved
5	100	7701	2934	358	77	Area 01	UnPaved
10	0	6760	2698	259	58	Area 01	UnPaved
10	100	8130	3101	302	80	Area 01	UnPaved
15	0	6993	2713	278	67	Area 01	UnPaved
15	100	8175	3065	362	76	Area 01	UnPaved
20	0	7227	2817	260	68	Area 01	UnPaved
20	100	8206	3075	340	84	Area 01	UnPaved
25	0	7069	2837	249	69	Area 01	UnPaved
25	100	7163	2753	273	70	Area 01	UnPaved
30	0	8076	3035	307	97	Area 01	UnPaved
30	100	6875	2665	237	73	Area 01	UnPaved
35	0	7430	2750	276	64	Area 01	UnPaved
35	100	7562	2877	286	82	Area 01	UnPaved
40	0	6728	2550	263	65	Area 01	UnPaved
40	5	5773	2173	233	57	Area 01	UnPaved
40	10	6476	2346	247	83	Area 01	UnPaved
40	100	8855	3141	302	121	Area 01	UnPaved
45	0	6252	2250	231	88	Area 01	UnPaved
45	5	7044	2556	240	98	Area 01	UnPaved
45	10	6770	2453	237	92	Area 01	UnPaved
45	15	6998	2555	249	100	Area 01	UnPaved
45	20	6271	2281	203	86	Area 01	UnPaved
45	25	6314	2296	203	70	Area 01	UnPaved
45	30	6532	2377	225	91	Area 01	UnPaved
45	35	6483	2436	207	95	Area 01	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
45	40	6265	2272	197	77	Area 01	UnPaved
45	45	6256	2304	208	76	Area 01	UnPaved
45	50	5667	2102	219	74	Area 01	UnPaved
45	55	6247	2324	205	82	Area 01	UnPaved
45	60	6312	2405	208	68	Area 01	UnPaved
45	65	6297	2342	226	90	Area 01	UnPaved
45	70	6056	2265	201	75	Area 01	UnPaved
45	75	6518	2385	235	79	Area 01	UnPaved
45	100	8378	2939	309	115	Area 01	UnPaved
50	45	6310	2334	226	87	Area 01	UnPaved
50	50	6742	2499	261	99	Area 01	UnPaved
50	55	6100	2275	210	84	Area 01	UnPaved
50	60	6122	2187	229	73	Area 01	UnPaved
50	65	6184	2246	216	75	Area 01	UnPaved
50	70	6305	2384	226	70	Area 01	UnPaved
50	75	6524	2392	268	92	Area 01	UnPaved
55	65	6846	2483	248	103	Area 01	UnPaved
55	70	6035	2158	207	84	Area 01	UnPaved
55	75	5838	2097	219	68	Area 01	UnPaved
55	95	6236	2360	197	65	Area 01	UnPaved
55	100	6015	2289	185	65	Area 01	UnPaved
60	95	6062	2211	203	76	Area 01	UnPaved
60	100	6228	2283	191	87	Area 01	UnPaved
0	0	6439	2494	247	68	Area 02	UnPaved
0	5	7691	2971	275	75	Area 02	UnPaved
0	10	7102	2760	257	91	Area 02	UnPaved
0	20	7702	2910	306	73	Area 02	UnPaved
0	25	7894	3013	289	83	Area 02	UnPaved
0	30	7688	2934	279	72	Area 02	UnPaved
0	35	7783	2918	306	82	Area 02	UnPaved
0	40	7465	2873	328	69	Area 02	UnPaved
0	45	7110	2780	290	75	Area 02	UnPaved
0	50	6743	2575	260	70	Area 02	UnPaved
15	0	5995	2320	221	52	Area 02	UnPaved
15	5	6057	2351	236	64	Area 02	UnPaved
15	10	6237	2488	233	56	Area 02	UnPaved
15	15	6383	2442	223	49	Area 02	UnPaved
15	20	6719	2538	271	62	Area 02	UnPaved
15	25	6409	2438	239	60	Area 02	UnPaved
15	30	6596	2491	294	55	Area 02	UnPaved
15	35	6461	2462	248	58	Area 02	UnPaved
15	40	6513	2390	248	81	Area 02	UnPaved
15	60	5746	2270	238	49	Area 02	UnPaved
15	65	6193	2388	247	60	Area 02	UnPaved
15	70	6050	2310	214	58	Area 02	UnPaved
20	30	5986	2262	221	53	Area 02	UnPaved
20	35	5529	2161	197	59	Area 02	UnPaved
20	40	6605	2636	277	61	Area 02	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
20	60	5289	2053	191	41	Area 02	UnPaved
20	65	4318	1747	155	36	Area 02	UnPaved
20	70	5888	2351	214	55	Area 02	UnPaved
0	20	7538	2827	310	93	Area 03	UnPaved
5	20	7725	2965	325	86	Area 03	UnPaved
5	25	7657	2862	346	104	Area 03	UnPaved
10	20	9013	3427	324	96	Area 03	UnPaved
10	25	8550	3182	367	95	Area 03	UnPaved
10	30	8054	2935	354	76	Area 03	UnPaved
10	35	8239	3078	370	102	Area 03	UnPaved
10	40	9270	3623	368	89	Area 03	UnPaved
10	55	7083	2579	286	73	Area 03	UnPaved
15	35	8715	3303	380	95	Area 03	UnPaved
15	40	9426	3483	412	91	Area 03	UnPaved
15	50	7739	2893	333	77	Area 03	UnPaved
15	55	7631	2871	312	74	Area 03	UnPaved
20	0	10960	4214	499	102	Area 03	UnPaved
20	5	9894	3711	373	100	Area 03	UnPaved
20	35	8357	3125	348	74	Area 03	UnPaved
20	40	8463	3209	368	77	Area 03	UnPaved
20	45	8161	3105	372	91	Area 03	UnPaved
25	0	10021	3734	444	109	Area 03	UnPaved
25	5	9320	3535	409	92	Area 03	UnPaved
25	10	9200	3404	364	89	Area 03	UnPaved
25	15	8759	3335	350	90	Area 03	UnPaved
25	20	8442	3144	354	96	Area 03	UnPaved
25	25	6085	2331	250	64	Area 03	UnPaved
25	30	7900	2847	365	72	Area 03	UnPaved
25	35	7628	2792	317	89	Area 03	UnPaved
25	40	7630	2838	374	71	Area 03	UnPaved
30	0	8555	3186	363	94	Area 03	UnPaved
30	5	9172	3386	419	105	Area 03	UnPaved
30	10	8175	3085	294	90	Area 03	UnPaved
30	15	8131	3073	323	92	Area 03	UnPaved
30	20	5914	2241	235	68	Area 03	UnPaved
30	25	7402	2805	273	90	Area 03	UnPaved
30	30	7572	2841	319	76	Area 03	UnPaved
30	35	5942	2258	243	57	Area 03	UnPaved
35	0	9372	3513	360	105	Area 03	UnPaved
35	5	8659	3157	364	95	Area 03	UnPaved
35	10	8192	3027	371	88	Area 03	UnPaved
35	15	7635	2815	318	79	Area 03	UnPaved
35	20	6035	2275	260	61	Area 03	UnPaved
35	25	7403	2789	307	83	Area 03	UnPaved
35	30	6515	2534	280	65	Area 03	UnPaved
40	0	9395	3502	368	90	Area 03	UnPaved
40	5	6949	2657	277	80	Area 03	UnPaved
40	10	8285	3045	379	81	Area 03	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
40	15	8042	2963	368	69	Area 03	UnPaved
40	20	7542	2852	328	90	Area 03	UnPaved
40	25	6279	2428	297	46	Area 03	UnPaved
45	0	9079	3317	351	83	Area 03	UnPaved
45	5	7843	2993	330	81	Area 03	UnPaved
45	10	7491	2834	298	85	Area 03	UnPaved
45	15	6907	2588	292	60	Area 03	UnPaved
45	20	7029	2641	302	64	Area 03	UnPaved
10	0	6753	2580	238	69	Area 04	UnPaved
10	5	6972	2611	258	79	Area 04	UnPaved
10	10	7404	2685	289	106	Area 04	UnPaved
10	75	7472	2775	255	92	Area 04	UnPaved
10	80	6129	2242	205	78	Area 04	UnPaved
10	85	7725	2861	288	92	Area 04	UnPaved
10	90	7859	2822	287	93	Area 04	UnPaved
10	95	7359	2642	284	113	Area 04	UnPaved
10	100	7019	2604	221	83	Area 04	UnPaved
10	105	6604	2457	247	75	Area 04	UnPaved
10	110	6723	2525	221	80	Area 04	UnPaved
10	115	6001	2303	200	79	Area 04	UnPaved
10	120	6542	2442	209	110	Area 04	UnPaved
10	125	6764	2441	206	93	Area 04	UnPaved
10	130	6982	2572	270	88	Area 04	UnPaved
10	135	7268	2695	242	96	Area 04	UnPaved
15	0	7042	2600	235	78	Area 04	UnPaved
15	5	7345	2684	268	81	Area 04	UnPaved
15	10	7268	2699	230	84	Area 04	UnPaved
15	15	7319	2634	257	75	Area 04	UnPaved
15	20	7317	2635	273	102	Area 04	UnPaved
15	25	7416	2649	261	106	Area 04	UnPaved
15	30	7662	2792	261	111	Area 04	UnPaved
15	35	7709	2784	267	98	Area 04	UnPaved
15	40	7615	2869	241	99	Area 04	UnPaved
15	45	7766	2904	278	111	Area 04	UnPaved
15	50	7948	2859	274	128	Area 04	UnPaved
15	55	8011	2944	283	117	Area 04	UnPaved
15	60	7515	2742	252	87	Area 04	UnPaved
15	65	7730	2814	257	92	Area 04	UnPaved
15	70	7872	2830	255	107	Area 04	UnPaved
15	75	7329	2779	255	94	Area 04	UnPaved
15	80	7552	2677	249	95	Area 04	UnPaved
15	85	7901	2815	280	134	Area 04	UnPaved
15	90	7788	2754	254	102	Area 04	UnPaved
15	95	7579	2675	303	118	Area 04	UnPaved
15	100	7859	2899	262	116	Area 04	UnPaved
15	105	7815	2836	311	96	Area 04	UnPaved
15	110	7733	2876	263	111	Area 04	UnPaved
15	115	8139	2921	312	111	Area 04	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	120	7767	2740	302	96	Area 04	UnPaved
15	125	7720	2796	277	102	Area 04	UnPaved
15	130	7575	2780	275	102	Area 04	UnPaved
15	135	7464	2754	261	103	Area 04	UnPaved
15	140	7757	2848	279	104	Area 04	UnPaved
15	145	7674	2818	255	106	Area 04	UnPaved
15	150	7378	2747	272	90	Area 04	UnPaved
15	155	7798	2893	281	103	Area 04	UnPaved
15	160	7619	2805	276	91	Area 04	UnPaved
15	165	7742	2824	280	113	Area 04	UnPaved
15	170	7917	2862	257	110	Area 04	UnPaved
15	175	7747	2813	269	104	Area 04	UnPaved
15	180	7849	2834	277	116	Area 04	UnPaved
15	185	7903	2827	284	106	Area 04	UnPaved
15	190	8038	2893	289	107	Area 04	UnPaved
15	205	5809	2284	168	59	Area 04	UnPaved
15	210	6781	2493	235	102	Area 04	UnPaved
20	0	7127	2648	231	84	Area 04	UnPaved
20	5	7130	2558	262	109	Area 04	UnPaved
20	10	6434	2366	217	91	Area 04	UnPaved
20	15	6944	2590	246	97	Area 04	UnPaved
20	20	6997	2659	242	81	Area 04	UnPaved
20	25	7176	2631	261	92	Area 04	UnPaved
20	30	7167	2666	253	94	Area 04	UnPaved
20	35	7619	2703	297	91	Area 04	UnPaved
20	40	7965	2987	281	76	Area 04	UnPaved
20	45	7681	2780	282	108	Area 04	UnPaved
20	50	7125	2609	247	116	Area 04	UnPaved
20	55	7691	2755	291	108	Area 04	UnPaved
20	60	7720	2770	267	118	Area 04	UnPaved
20	65	6771	2505	241	82	Area 04	UnPaved
20	130	6420	2424	215	70	Area 04	UnPaved
20	135	6334	2388	234	83	Area 04	UnPaved
20	140	6723	2462	226	82	Area 04	UnPaved
20	145	6899	2464	241	102	Area 04	UnPaved
20	150	7000	2545	214	110	Area 04	UnPaved
20	155	7465	2693	256	98	Area 04	UnPaved
20	160	7641	2823	251	119	Area 04	UnPaved
20	165	7426	2675	254	120	Area 04	UnPaved
20	170	7851	2834	308	108	Area 04	UnPaved
20	175	7610	2794	242	107	Area 04	UnPaved
20	180	6272	2378	188	72	Area 04	UnPaved
20	185	8298	2954	278	114	Area 04	UnPaved
20	190	8046	2903	311	105	Area 04	UnPaved
20	195	8310	3075	301	133	Area 04	UnPaved
20	210	5975	2294	187	70	Area 04	UnPaved
20	215	6653	2416	220	93	Area 04	UnPaved
25	0	5887	2222	218	85	Area 04	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
25	5	6672	2433	225	95	Area 04	UnPaved
25	10	7014	2571	206	100	Area 04	UnPaved
25	15	6716	2555	210	82	Area 04	UnPaved
25	20	6993	2568	257	95	Area 04	UnPaved
25	25	6860	2572	208	80	Area 04	UnPaved
25	30	7342	2639	244	115	Area 04	UnPaved
25	35	7378	2660	284	105	Area 04	UnPaved
25	40	6811	2490	237	104	Area 04	UnPaved
25	160	6742	2527	213	83	Area 04	UnPaved
25	165	7774	2723	286	116	Area 04	UnPaved
25	170	7446	2661	234	109	Area 04	UnPaved
25	175	7459	2772	262	105	Area 04	UnPaved
25	180	7020	2625	238	78	Area 04	UnPaved
25	185	7156	2680	207	90	Area 04	UnPaved
25	190	7058	2663	257	87	Area 04	UnPaved
25	195	6668	2428	225	92	Area 04	UnPaved
25	200	7022	2584	256	78	Area 04	UnPaved
30	0	6977	2561	240	114	Area 04	UnPaved
30	5	5307	1999	177	57	Area 04	UnPaved
30	10	6761	2521	227	81	Area 04	UnPaved
30	15	7350	2722	271	107	Area 04	UnPaved
30	20	6763	2521	240	92	Area 04	UnPaved
30	25	7569	2726	276	117	Area 04	UnPaved
30	180	7433	2658	290	112	Area 04	UnPaved
35	0	5693	2125	209	55	Area 04	UnPaved
35	5	6759	2416	229	100	Area 04	UnPaved
35	10	6939	2493	253	91	Area 04	UnPaved
35	15	6882	2549	245	90	Area 04	UnPaved
35	20	6897	2620	236	109	Area 04	UnPaved
35	25	7095	2539	266	95	Area 04	UnPaved
45	200	7996	2871	290	106	Area 04	UnPaved
45	205	6649	2389	221	79	Area 04	UnPaved
50	205	8001	2883	296	114	Area 04	UnPaved
55	215	6685	2455	227	75	Area 04	UnPaved
60	220	6591	2492	205	68	Area 04	UnPaved
0	5	7111	2704	225	96	Area 05	UnPaved
0	10	5478	2186	181	56	Area 05	UnPaved
0	15	7097	2623	284	97	Area 05	UnPaved
0	20	5959	2373	199	72	Area 05	UnPaved
0	25	7205	2648	268	93	Area 05	UnPaved
0	30	6969	2586	235	99	Area 05	UnPaved
0	35	7197	2617	261	88	Area 05	UnPaved
0	40	6946	2496	244	112	Area 05	UnPaved
5	0	5308	1998	163	70	Area 05	UnPaved
5	5	7115	2649	252	98	Area 05	UnPaved
5	10	7068	2666	239	84	Area 05	UnPaved
5	15	7117	2702	263	75	Area 05	UnPaved
5	20	7019	2579	261	83	Area 05	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	25	6676	2599	214	80	Area 05	UnPaved
5	30	6755	2641	242	65	Area 05	UnPaved
5	35	7805	2866	279	87	Area 05	UnPaved
5	40	7537	2813	266	102	Area 05	UnPaved
5	45	7226	2626	239	86	Area 05	UnPaved
85	0	8123	3021	267	116	Area 05	UnPaved
85	5	8449	3241	271	105	Area 05	UnPaved
85	10	7299	2851	234	76	Area 05	UnPaved
85	15	8080	3041	285	108	Area 05	UnPaved
85	20	8478	3221	268	108	Area 05	UnPaved
85	25	7627	2903	254	77	Area 05	UnPaved
85	30	7367	2886	226	76	Area 05	UnPaved
85	35	6941	2645	231	85	Area 05	UnPaved
85	40	6962	2707	216	100	Area 05	UnPaved
85	45	7420	2817	265	102	Area 05	UnPaved
90	0	7330	2805	249	87	Area 05	UnPaved
90	5	6700	2573	233	69	Area 05	UnPaved
90	10	7222	2742	228	76	Area 05	UnPaved
0	75	6572	2476	224	86	Area 06	UnPaved
0	80	7497	2750	256	87	Area 06	UnPaved
5	75	6795	2614	232	69	Area 06	UnPaved
5	80	7118	2636	232	100	Area 06	UnPaved
10	75	6886	2591	211	87	Area 06	UnPaved
10	80	6744	2552	250	96	Area 06	UnPaved
15	75	6830	2536	216	77	Area 06	UnPaved
15	80	6735	2588	215	78	Area 06	UnPaved
20	75	6917	2626	228	79	Area 06	UnPaved
20	80	6928	2601	234	82	Area 06	UnPaved
25	75	6843	2589	213	68	Area 06	UnPaved
25	80	7268	2731	256	80	Area 06	UnPaved
30	75	7502	2809	252	93	Area 06	UnPaved
30	80	7387	2772	255	86	Area 06	UnPaved
30	85	5952	2307	175	67	Area 06	UnPaved
35	80	7495	2817	248	83	Area 06	UnPaved
35	85	7604	2849	289	101	Area 06	UnPaved
40	80	6911	2655	221	84	Area 06	UnPaved
40	85	7580	2840	266	99	Area 06	UnPaved
45	80	6868	2647	231	87	Area 06	UnPaved
45	85	7589	2847	266	97	Area 06	UnPaved
50	80	6988	2684	235	76	Area 06	UnPaved
50	85	7627	2848	257	91	Area 06	UnPaved
50	90	6194	2448	194	72	Area 06	UnPaved
55	80	7180	2724	259	86	Area 06	UnPaved
55	85	7610	2878	261	83	Area 06	UnPaved
55	90	7093	2665	219	78	Area 06	UnPaved
60	80	6752	2571	210	72	Area 06	UnPaved
60	85	7087	2741	212	79	Area 06	UnPaved
60	90	7923	2992	237	113	Area 06	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	0	7422	2665	281	109	Area 08	UnPaved
0	5	9754	3392	340	143	Area 08	UnPaved
0	10	10009	3574	349	161	Area 08	UnPaved
0	15	9587	3427	353	144	Area 08	UnPaved
0	20	9168	3283	317	145	Area 08	UnPaved
5	0	6725	2507	218	74	Area 08	UnPaved
5	5	9687	3476	344	156	Area 08	UnPaved
5	10	10175	3643	339	165	Area 08	UnPaved
5	15	9552	3334	377	123	Area 08	UnPaved
5	20	9294	3390	318	136	Area 08	UnPaved
10	0	7005	2690	243	80	Area 08	UnPaved
10	5	9407	3386	355	131	Area 08	UnPaved
10	10	10116	3526	371	156	Area 08	UnPaved
10	15	9627	3452	333	139	Area 08	UnPaved
10	20	9532	3386	337	152	Area 08	UnPaved
15	0	7985	2890	308	105	Area 08	UnPaved
15	5	9772	3447	332	144	Area 08	UnPaved
15	10	10349	3579	377	150	Area 08	UnPaved
15	15	9334	3255	323	148	Area 08	UnPaved
15	20	9124	3249	332	141	Area 08	UnPaved
20	0	7960	2927	317	116	Area 08	UnPaved
20	5	9905	3462	382	150	Area 08	UnPaved
20	10	9975	3470	389	194	Area 08	UnPaved
20	15	9641	3393	365	159	Area 08	UnPaved
20	20	9276	3254	359	140	Area 08	UnPaved
25	0	7565	2826	263	94	Area 08	UnPaved
25	5	9753	3427	355	148	Area 08	UnPaved
25	10	9602	3279	345	145	Area 08	UnPaved
25	15	9286	3221	317	133	Area 08	UnPaved
25	20	9167	3289	327	144	Area 08	UnPaved
30	0	7478	2774	245	88	Area 08	UnPaved
30	5	9578	3376	350	149	Area 08	UnPaved
30	10	10341	3660	369	177	Area 08	UnPaved
30	15	9290	3279	356	138	Area 08	UnPaved
30	20	9430	3357	331	135	Area 08	UnPaved
35	0	7792	2816	286	110	Area 08	UnPaved
35	5	9548	3400	363	157	Area 08	UnPaved
35	10	10281	3555	379	163	Area 08	UnPaved
35	15	9332	3337	362	154	Area 08	UnPaved
35	20	9126	3283	350	132	Area 08	UnPaved
40	0	8005	2864	289	124	Area 08	UnPaved
40	5	9370	3361	349	127	Area 08	UnPaved
40	10	9726	3435	353	133	Area 08	UnPaved
40	15	9465	3316	358	174	Area 08	UnPaved
40	20	9475	3335	334	145	Area 08	UnPaved
45	0	8029	2964	277	109	Area 08	UnPaved
45	5	9730	3469	330	148	Area 08	UnPaved
45	10	10066	3531	364	160	Area 08	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
45	15	9302	3257	343	134	Area 08	UnPaved
45	20	9559	3401	387	143	Area 08	UnPaved
50	0	8062	2960	279	113	Area 08	UnPaved
50	5	9731	3408	402	148	Area 08	UnPaved
50	10	9503	3291	333	146	Area 08	UnPaved
50	15	9139	3154	349	146	Area 08	UnPaved
50	20	9230	3261	322	152	Area 08	UnPaved
55	0	8037	2914	287	102	Area 08	UnPaved
55	5	9465	3244	339	150	Area 08	UnPaved
55	10	9475	3322	360	149	Area 08	UnPaved
55	15	9010	3213	321	152	Area 08	UnPaved
55	20	9486	3357	329	141	Area 08	UnPaved
60	0	7913	2891	301	99	Area 08	UnPaved
60	5	9735	3466	351	151	Area 08	UnPaved
60	10	9393	3379	317	144	Area 08	UnPaved
60	15	8886	3189	341	128	Area 08	UnPaved
60	20	8991	3254	328	143	Area 08	UnPaved
65	0	7843	2804	251	98	Area 08	UnPaved
65	5	9436	3189	340	126	Area 08	UnPaved
65	10	9421	3266	323	137	Area 08	UnPaved
65	15	8969	3270	319	129	Area 08	UnPaved
65	20	8199	2966	285	118	Area 08	UnPaved
70	0	7948	2752	261	108	Area 08	UnPaved
70	5	9604	3312	309	146	Area 08	UnPaved
70	10	9318	3245	322	157	Area 08	UnPaved
70	15	9118	3167	277	152	Area 08	UnPaved
70	20	8929	3128	294	126	Area 08	UnPaved
75	0	7855	2868	286	106	Area 08	UnPaved
75	5	9406	3292	345	144	Area 08	UnPaved
75	10	9480	3222	390	153	Area 08	UnPaved
75	15	8611	3069	309	129	Area 08	UnPaved
75	20	8673	3137	290	154	Area 08	UnPaved
80	0	7632	2875	255	107	Area 08	UnPaved
80	5	8710	3060	306	127	Area 08	UnPaved
80	10	9841	3529	359	132	Area 08	UnPaved
80	15	8571	3051	336	131	Area 08	UnPaved
80	20	8211	3003	325	132	Area 08	UnPaved
85	0	7206	2651	260	108	Area 08	UnPaved
85	5	8832	3121	295	124	Area 08	UnPaved
85	10	8849	3111	319	127	Area 08	UnPaved
85	15	8892	3043	301	119	Area 08	UnPaved
85	20	9448	3418	373	144	Area 08	UnPaved
90	0	7136	2673	243	77	Area 08	UnPaved
90	5	9017	3202	327	134	Area 08	UnPaved
90	10	9015	3082	339	135	Area 08	UnPaved
90	15	8646	3042	303	131	Area 08	UnPaved
90	20	8430	2998	296	132	Area 08	UnPaved
95	0	7208	2675	263	105	Area 08	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
95	5	8658	3039	343	143	Area 08	UnPaved
95	10	9281	3193	377	138	Area 08	UnPaved
95	15	9021	3294	347	143	Area 08	UnPaved
95	20	8173	2907	297	117	Area 08	UnPaved
100	0	6916	2599	206	101	Area 08	UnPaved
100	5	7506	2745	254	91	Area 08	UnPaved
100	10	9458	3334	322	142	Area 08	UnPaved
100	15	9741	3511	329	124	Area 08	UnPaved
100	20	8386	3071	280	97	Area 08	UnPaved
105	0	6891	2574	225	79	Area 08	UnPaved
105	5	7366	2722	249	100	Area 08	UnPaved
105	10	8984	3180	314	150	Area 08	UnPaved
105	15	9263	3276	336	116	Area 08	UnPaved
105	20	9045	3250	288	135	Area 08	UnPaved
110	0	6512	2416	221	70	Area 08	UnPaved
110	5	7741	2781	272	106	Area 08	UnPaved
110	10	8491	3030	325	109	Area 08	UnPaved
110	15	9330	3332	335	124	Area 08	UnPaved
110	20	8551	3125	291	117	Area 08	UnPaved
115	0	6134	2362	186	72	Area 08	UnPaved
115	5	7816	2806	274	110	Area 08	UnPaved
115	10	7742	2872	261	117	Area 08	UnPaved
115	15	7763	2815	275	105	Area 08	UnPaved
115	20	7478	2780	259	80	Area 08	UnPaved
120	10	7689	2900	257	100	Area 08	UnPaved
120	15	7632	2865	244	107	Area 08	UnPaved
120	20	7865	2836	281	120	Area 08	UnPaved
125	15	7865	2962	258	99	Area 08	UnPaved
125	20	7523	2733	228	101	Area 08	UnPaved
130	20	7358	2685	275	99	Area 08	UnPaved
10	0	7082	2627	257	94	Area 09	UnPaved
10	5	7691	2775	287	114	Area 09	UnPaved
10	10	7615	2777	265	123	Area 09	UnPaved
10	15	7791	2890	280	101	Area 09	UnPaved
10	20	6111	2322	199	71	Area 09	UnPaved
10	25	6835	2517	239	81	Area 09	UnPaved
10	210	7021	2706	247	68	Area 09	UnPaved
15	30	7632	2809	265	83	Area 09	UnPaved
15	130	5118	1973	187	63	Area 09	UnPaved
15	135	8105	3032	283	96	Area 09	UnPaved
15	140	8182	2975	315	87	Area 09	UnPaved
15	145	7184	2678	254	88	Area 09	UnPaved
15	150	6784	2571	237	96	Area 09	UnPaved
0	75	7220	2801	307	69	Area 10	UnPaved
5	75	7561	2967	290	71	Area 10	UnPaved
5	80	8296	3204	322	79	Area 10	UnPaved
5	85	8724	3367	316	87	Area 10	UnPaved
5	90	8068	3050	323	89	Area 10	UnPaved

Table 5 - Gamma Survey Data for Areas 1 through 11 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	95	8188	3042	329	72	Area 10	UnPaved
5	100	7973	3054	325	80	Area 10	UnPaved
5	105	8342	3188	346	72	Area 10	UnPaved
5	110	7805	2976	353	65	Area 10	UnPaved
10	70	6942	2645	263	55	Area 10	UnPaved
10	75	5939	2381	246	61	Area 10	UnPaved
0	20	7882	3025	317	85	Area 11	UnPaved
0	25	8540	3271	341	87	Area 11	UnPaved
0	30	9256	3489	385	78	Area 11	UnPaved
0	35	8749	3240	369	100	Area 11	UnPaved
0	40	8115	2996	333	90	Area 11	UnPaved
0	45	8116	3075	344	99	Area 11	UnPaved
0	50	8072	3076	300	92	Area 11	UnPaved
0	55	8070	2972	346	73	Area 11	UnPaved
0	60	5572	2152	209	59	Area 11	UnPaved
0	70	7811	2930	284	71	Area 11	UnPaved
0	75	8388	3157	332	73	Area 11	UnPaved
0	80	8410	3175	339	104	Area 11	UnPaved
0	85	6817	2587	248	67	Area 11	UnPaved
0	120	7389	2910	272	63	Area 11	UnPaved
0	150	4549	1724	175	54	Area 11	UnPaved
Average		7623	2812	279	96		
Median		7502	2781	273	92		
Maximum		10960	4214	499	194		
Minimum		4318	1724	155	36		
Count		501	501	501	501		
Standard Deviation		1109.3	360.9	52.9	26.9		

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	0	10250	3930	414	127	Area 03	Paved
5	175	9902	3651	360	144	Area 09	Paved
15	5	9836	3732	408	101	Area 03	Paved
5	0	9051	3481	355	110	Area 03	Paved
10	5	8864	3381	301	96	Area 03	Paved
0	140	8851	3265	320	106	Area 09	Paved
5	170	8781	3125	332	138	Area 09	Paved
5	235	8563	3284	308	88	Area 11	Paved
5	175	8540	3171	322	96	Area 11	Paved
5	190	8526	3292	314	106	Area 11	Paved
0	0	8525	3310	359	95	Area 10	Paved
5	5	8521	3412	350	82	Area 03	Paved
0	25	8464	3229	362	70	Area 10	Paved
5	125	8429	2988	324	110	Area 09	Paved
0	15	8338	3079	344	98	Area 11	Paved
5	180	8290	3141	308	71	Area 11	Paved
10	15	8266	3169	339	105	Area 03	Paved
5	200	8239	2987	341	86	Area 09	Paved
5	185	8159	3104	324	78	Area 11	Paved
10	175	8148	3070	327	87	Area 11	Paved
0	80	8147	2990	298	120	Area 09	Paved
5	15	8130	3054	322	86	Area 03	Paved
5	185	8104	2992	317	105	Area 09	Paved
0	25	8086	3018	309	90	Area 03	Paved
0	90	8085	3017	350	83	Area 11	Paved
15	215	8072	2918	316	114	Area 04	Paved
5	170	8013	3062	308	71	Area 11	Paved
15	0	8003	3013	329	83	Area 11	Paved
0	145	7999	3063	326	88	Area 11	Paved
0	135	7970	3027	279	111	Area 09	Paved
15	5	7963	2951	316	92	Area 11	Paved
0	65	7962	3048	318	91	Area 11	Paved
15	200	7960	2873	266	126	Area 04	Paved
80	15	7953	2974	269	108	Area 05	Paved
55	0	7939	2899	282	114	Area 07	Paved
0	10	7929	2984	299	101	Area 09	Paved
5	35	7905	2983	294	68	Area 03	Paved
45	0	7905	2871	291	112	Area 07	Paved
10	170	7903	3029	281	74	Area 11	Paved
45	20	7901	2835	318	112	Area 07	Paved
0	40	7894	2981	309	87	Area 10	Paved
80	20	7892	2977	241	101	Area 05	Paved
5	180	7879	2831	321	110	Area 09	Paved
0	15	7877	2977	261	103	Area 09	Paved
55	5	7874	2851	284	124	Area 07	Paved
0	55	7858	2998	354	81	Area 10	Paved
20	200	7849	2819	280	111	Area 04	Paved
5	135	7845	2866	270	94	Area 09	Paved
5	140	7844	2839	291	107	Area 09	Paved
10	30	7828	2874	268	114	Area 09	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	195	7816	2894	263	98	Area 04	Paved
5	195	7781	2882	281	108	Area 09	Paved
10	0	7768	3010	282	95	Area 03	Paved
80	25	7764	2993	281	102	Area 05	Paved
10	180	7764	2918	303	85	Area 11	Paved
5	230	7756	2924	309	88	Area 11	Paved
35	5	7752	2855	258	103	Area 05	Paved
0	135	7750	2974	296	78	Area 11	Paved
0	30	7732	2886	319	81	Area 03	Paved
50	20	7727	2695	300	125	Area 07	Paved
0	200	7720	2820	278	95	Area 09	Paved
5	190	7708	2828	314	95	Area 09	Paved
0	15	7688	2869	298	79	Area 03	Paved
10	210	7678	2776	277	118	Area 04	Paved
10	65	7672	2838	321	69	Area 10	Paved
0	65	7670	2939	299	83	Area 10	Paved
5	120	7664	2863	266	97	Area 09	Paved
15	165	7661	2827	275	85	Area 11	Paved
20	5	7650	2828	311	72	Area 01	Paved
55	10	7643	2767	282	120	Area 07	Paved
0	145	7635	2809	295	94	Area 09	Paved
80	5	7627	2935	235	87	Area 05	Paved
10	5	7626	2769	322	79	Area 01	Paved
40	0	7619	2783	266	122	Area 07	Paved
50	0	7600	2692	260	124	Area 07	Paved
5	165	7571	2916	278	97	Area 09	Paved
15	5	7570	2883	294	78	Area 01	Paved
0	5	7551	2926	262	61	Area 11	Paved
0	30	7540	2795	242	90	Area 06	Paved
80	10	7535	2903	266	82	Area 05	Paved
0	140	7517	2829	270	66	Area 11	Paved
0	160	7493	2666	311	104	Area 09	Paved
0	15	7493	2881	292	64	Area 10	Paved
15	145	7489	2925	266	80	Area 11	Paved
10	165	7484	2907	261	59	Area 11	Paved
30	5	7476	2859	286	89	Area 05	Paved
0	60	7446	2965	279	83	Area 10	Paved
70	0	7441	2865	259	91	Area 05	Paved
55	25	7431	2838	274	82	Area 05	Paved
20	205	7427	2697	246	91	Area 04	Paved
85	60	7423	2788	278	85	Area 05	Paved
5	240	7418	2874	285	78	Area 11	Paved
5	205	7413	2711	328	96	Area 09	Paved
0	50	7407	2695	269	118	Area 09	Paved
5	15	7407	2788	242	115	Area 09	Paved
15	150	7404	2795	283	81	Area 11	Paved
60	5	7402	2778	255	84	Area 05	Paved
0	35	7401	2790	281	88	Area 03	Paved
45	15	7398	2725	255	80	Area 05	Paved
10	195	7396	2789	257	105	Area 09	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	0	7393	2881	279	77	Area 11	Paved
15	180	7389	2883	267	80	Area 11	Paved
35	75	7383	2749	258	97	Area 06	Paved
50	15	7381	2644	266	113	Area 07	Paved
70	10	7378	2799	240	87	Area 05	Paved
65	20	7377	2787	251	92	Area 05	Paved
5	95	7375	2671	269	101	Area 09	Paved
40	10	7373	2821	250	84	Area 05	Paved
35	0	7371	2515	248	132	Area 07	Paved
5	90	7364	2737	249	89	Area 09	Paved
10	160	7361	2624	261	98	Area 04	Paved
35	40	7357	2765	256	95	Area 05	Paved
10	190	7356	2708	273	107	Area 04	Paved
10	170	7352	2771	257	89	Area 09	Paved
5	70	7344	2789	308	78	Area 10	Paved
0	0	7340	2842	233	53	Area 03	Paved
10	125	7337	2791	262	102	Area 09	Paved
80	30	7334	2783	232	85	Area 05	Paved
10	20	7333	2672	249	106	Area 04	Paved
40	15	7333	2730	267	92	Area 05	Paved
40	60	7326	2789	244	77	Area 06	Paved
5	30	7324	2763	270	63	Area 03	Paved
50	15	7323	2810	247	82	Area 05	Paved
70	20	7323	2763	284	74	Area 05	Paved
15	170	7322	2764	277	90	Area 11	Paved
50	20	7321	2791	241	82	Area 05	Paved
60	20	7321	2800	254	82	Area 05	Paved
60	25	7321	2774	250	83	Area 05	Paved
45	20	7320	2759	259	85	Area 05	Paved
10	0	7318	2818	278	62	Area 11	Paved
15	155	7314	2809	298	84	Area 11	Paved
85	55	7307	2851	245	92	Area 05	Paved
0	20	7306	2722	265	96	Area 09	Paved
50	25	7303	2773	266	82	Area 05	Paved
80	60	7297	2680	263	84	Area 05	Paved
45	0	7295	2838	243	83	Area 05	Paved
65	10	7294	2814	200	71	Area 05	Paved
40	5	7293	2767	257	89	Area 05	Paved
55	0	7290	2792	256	72	Area 05	Paved
25	5	7286	2728	236	90	Area 05	Paved
70	15	7282	2850	276	65	Area 05	Paved
25	5	7277	2738	305	77	Area 01	Paved
5	45	7271	2843	278	86	Area 10	Paved
70	5	7269	2831	225	68	Area 05	Paved
10	180	7267	2770	228	98	Area 04	Paved
85	50	7266	2813	201	90	Area 05	Paved
80	45	7265	2720	247	94	Area 05	Paved
65	5	7260	2831	213	92	Area 05	Paved
45	70	7260	2733	222	84	Area 06	Paved
60	15	7259	2768	269	101	Area 05	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
60	70	7257	2741	224	75	Area 06	Paved
30	30	7254	2809	235	83	Area 05	Paved
5	15	7250	2641	259	91	Area 04	Paved
15	60	7248	2681	270	92	Area 06	Paved
55	20	7247	2749	252	92	Area 05	Paved
65	15	7245	2816	250	71	Area 05	Paved
15	65	7245	2733	242	88	Area 06	Paved
10	150	7242	2740	256	96	Area 04	Paved
5	60	7241	2762	269	65	Area 10	Paved
60	10	7233	2714	251	84	Area 05	Paved
60	65	7230	2713	218	76	Area 06	Paved
10	185	7227	2755	224	87	Area 04	Paved
55	10	7226	2748	234	80	Area 05	Paved
50	40	7225	2690	213	84	Area 06	Paved
15	55	7224	2733	262	74	Area 05	Paved
10	45	7222	2643	256	84	Area 05	Paved
35	30	7222	2741	240	79	Area 05	Paved
10	155	7217	2702	229	88	Area 04	Paved
45	10	7212	2812	218	75	Area 05	Paved
50	50	7207	2804	247	82	Area 05	Paved
45	5	7206	2737	226	80	Area 05	Paved
65	40	7206	2783	225	85	Area 05	Paved
40	70	7204	2652	269	83	Area 06	Paved
0	215	7204	2713	262	103	Area 09	Paved
60	55	7201	2728	253	93	Area 05	Paved
5	85	7199	2601	253	106	Area 04	Paved
25	55	7199	2732	250	75	Area 06	Paved
20	45	7198	2788	235	94	Area 06	Paved
10	15	7197	2651	239	97	Area 04	Paved
10	15	7194	2700	213	97	Area 06	Paved
10	130	7190	2749	296	74	Area 11	Paved
45	25	7188	2699	237	93	Area 06	Paved
0	10	7188	2738	304	69	Area 10	Paved
5	50	7188	2891	283	59	Area 10	Paved
20	60	7186	2764	247	88	Area 05	Paved
65	0	7186	2668	255	69	Area 05	Paved
55	15	7183	2804	239	84	Area 05	Paved
30	5	7182	2620	291	67	Area 01	Paved
45	60	7178	2734	205	78	Area 06	Paved
65	25	7177	2694	258	79	Area 05	Paved
15	5	7177	2655	229	91	Area 06	Paved
80	55	7176	2747	244	95	Area 05	Paved
0	75	7176	2621	244	98	Area 09	Paved
60	30	7175	2725	258	83	Area 05	Paved
50	5	7172	2612	268	109	Area 07	Paved
45	45	7171	2723	242	89	Area 05	Paved
35	60	7170	2745	222	93	Area 06	Paved
85	65	7168	2792	229	95	Area 05	Paved
10	115	7164	2705	245	81	Area 09	Paved
65	30	7163	2752	202	81	Area 05	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
25	65	7163	2608	215	79	Area 06	Paved
10	175	7163	2709	246	87	Area 09	Paved
10	55	7162	2686	236	94	Area 06	Paved
5	150	7161	2689	256	99	Area 04	Paved
10	195	7160	2638	242	85	Area 04	Paved
30	55	7160	2683	232	84	Area 06	Paved
10	170	7156	2586	246	75	Area 04	Paved
45	40	7156	2656	243	88	Area 06	Paved
5	0	7154	2833	257	72	Area 11	Paved
55	70	7153	2667	250	80	Area 06	Paved
20	60	7151	2710	191	83	Area 06	Paved
5	10	7150	2724	253	79	Area 09	Paved
25	70	7148	2684	234	81	Area 06	Paved
50	75	7148	2686	240	66	Area 06	Paved
60	0	7146	2777	243	72	Area 05	Paved
40	35	7144	2747	271	79	Area 05	Paved
60	45	7144	2734	237	91	Area 05	Paved
50	10	7144	2501	252	94	Area 07	Paved
25	30	7143	2688	257	95	Area 05	Paved
35	25	7143	2681	222	67	Area 06	Paved
20	55	7141	2703	236	83	Area 06	Paved
65	35	7139	2658	238	86	Area 05	Paved
5	10	7137	2722	241	75	Area 04	Paved
20	70	7137	2710	233	62	Area 06	Paved
5	70	7134	2681	233	80	Area 06	Paved
10	0	7133	2747	212	96	Area 05	Paved
10	0	7132	2544	277	118	Area 07	Paved
0	90	7132	2592	252	108	Area 09	Paved
5	155	7132	2640	231	86	Area 09	Paved
35	70	7130	2710	234	78	Area 06	Paved
50	10	7129	2700	252	72	Area 05	Paved
60	75	7129	2648	226	69	Area 06	Paved
40	10	7128	2701	241	70	Area 06	Paved
5	20	7128	2730	250	77	Area 11	Paved
5	50	7127	2587	231	90	Area 04	Paved
30	25	7127	2721	267	96	Area 05	Paved
30	65	7126	2754	216	91	Area 06	Paved
15	45	7125	2683	232	92	Area 05	Paved
45	55	7125	2772	197	75	Area 06	Paved
15	185	7125	2807	267	74	Area 11	Paved
5	45	7124	2532	268	101	Area 04	Paved
45	55	7124	2700	233	94	Area 05	Paved
0	15	7120	2638	253	93	Area 07	Paved
10	205	7117	2650	261	70	Area 04	Paved
45	60	7117	2701	252	78	Area 05	Paved
5	30	7114	2690	228	106	Area 04	Paved
10	70	7112	2667	223	80	Area 06	Paved
5	145	7112	2689	261	80	Area 09	Paved
45	40	7111	2711	230	100	Area 05	Paved
75	5	7108	2663	242	85	Area 05	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
35	30	7108	2667	221	78	Area 06	Paved
5	30	7107	2642	216	90	Area 06	Paved
55	50	7106	2722	234	88	Area 05	Paved
0	65	7106	2715	230	86	Area 06	Paved
75	0	7105	2771	228	78	Area 05	Paved
5	155	7103	2679	235	89	Area 04	Paved
25	45	7103	2669	237	73	Area 06	Paved
10	165	7102	2669	250	98	Area 04	Paved
10	5	7098	2655	262	84	Area 05	Paved
20	65	7098	2640	220	84	Area 06	Paved
20	50	7097	2682	217	79	Area 06	Paved
30	70	7096	2695	208	71	Area 06	Paved
20	220	7095	2551	247	96	Area 04	Paved
5	195	7092	2628	241	82	Area 04	Paved
45	15	7092	2681	240	75	Area 06	Paved
35	25	7092	2553	247	95	Area 07	Paved
55	55	7091	2763	239	85	Area 05	Paved
60	40	7090	2621	242	94	Area 06	Paved
20	35	7089	2661	247	87	Area 05	Paved
5	10	7088	2705	270	70	Area 11	Paved
10	200	7087	2637	259	100	Area 04	Paved
40	0	7086	2713	214	81	Area 05	Paved
15	175	7084	2732	278	83	Area 11	Paved
45	45	7080	2667	222	90	Area 06	Paved
10	20	7080	2625	265	64	Area 11	Paved
50	60	7079	2668	228	68	Area 06	Paved
55	65	7078	2744	214	95	Area 05	Paved
55	60	7078	2725	234	80	Area 06	Paved
60	60	7078	2690	229	62	Area 06	Paved
5	40	7076	2595	250	88	Area 04	Paved
55	35	7076	2716	227	68	Area 05	Paved
50	35	7075	2680	214	75	Area 06	Paved
10	140	7074	2614	258	94	Area 04	Paved
25	0	7073	2727	248	91	Area 05	Paved
55	40	7073	2693	238	77	Area 05	Paved
10	175	7072	2572	232	88	Area 04	Paved
20	20	7071	2600	261	100	Area 06	Paved
80	0	7070	2720	221	77	Area 05	Paved
5	30	7069	2640	280	79	Area 11	Paved
15	10	7068	2648	237	88	Area 05	Paved
35	0	7067	2694	231	76	Area 05	Paved
50	5	7067	2678	204	82	Area 05	Paved
50	55	7066	2723	225	70	Area 05	Paved
5	140	7065	2657	256	94	Area 04	Paved
55	30	7065	2696	242	81	Area 05	Paved
5	130	7065	2714	251	73	Area 11	Paved
10	10	7064	2642	247	93	Area 06	Paved
0	70	7064	2708	312	66	Area 10	Paved
35	55	7063	2681	233	93	Area 06	Paved
55	75	7063	2702	217	78	Area 06	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
10	190	7062	2702	262	72	Area 11	Paved
15	0	7061	2649	245	88	Area 05	Paved
35	35	7060	2683	228	70	Area 05	Paved
80	35	7060	2719	249	82	Area 05	Paved
55	50	7060	2692	215	95	Area 06	Paved
50	30	7059	2672	274	76	Area 05	Paved
65	45	7059	2724	214	89	Area 05	Paved
45	75	7059	2674	224	83	Area 06	Paved
5	15	7057	2688	298	76	Area 11	Paved
0	210	7056	2577	237	81	Area 09	Paved
20	20	7055	2660	259	93	Area 05	Paved
20	5	7054	2556	259	106	Area 06	Paved
50	60	7053	2642	259	86	Area 05	Paved
5	65	7053	2590	227	106	Area 06	Paved
15	40	7053	2679	223	61	Area 06	Paved
15	35	7052	2650	237	91	Area 05	Paved
80	40	7052	2703	218	85	Area 05	Paved
50	70	7051	2696	223	82	Area 06	Paved
35	40	7050	2692	238	89	Area 06	Paved
5	55	7048	2612	225	73	Area 06	Paved
45	50	7048	2695	239	74	Area 06	Paved
5	190	7044	2596	260	88	Area 04	Paved
25	35	7044	2725	231	70	Area 05	Paved
10	25	7043	2657	257	56	Area 11	Paved
15	135	7043	2607	261	74	Area 11	Paved
35	10	7042	2520	265	89	Area 07	Paved
40	40	7039	2700	233	82	Area 05	Paved
5	5	7037	2589	233	92	Area 04	Paved
30	35	7037	2655	222	88	Area 05	Paved
0	35	7036	2662	242	101	Area 06	Paved
15	190	7036	2692	267	76	Area 11	Paved
10	145	7035	2740	265	66	Area 11	Paved
80	50	7034	2584	249	84	Area 05	Paved
5	40	7032	2717	267	76	Area 03	Paved
15	70	7032	2651	233	76	Area 06	Paved
10	25	7031	2546	235	72	Area 06	Paved
10	230	7031	2664	286	55	Area 11	Paved
25	15	7030	2536	249	113	Area 07	Paved
5	15	7030	2833	226	70	Area 10	Paved
20	40	7029	2583	217	91	Area 05	Paved
45	50	7029	2685	239	80	Area 05	Paved
25	25	7028	2606	228	95	Area 05	Paved
50	65	7025	2629	259	83	Area 05	Paved
5	220	7023	2597	238	96	Area 04	Paved
5	165	7022	2700	238	78	Area 11	Paved
10	15	7021	2663	296	76	Area 11	Paved
40	10	7020	2608	245	120	Area 07	Paved
40	55	7019	2662	214	88	Area 06	Paved
35	5	7018	2641	301	78	Area 01	Paved
15	55	7017	2587	223	86	Area 06	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	75	7016	2526	258	90	Area 04	Paved
15	20	7015	2663	263	74	Area 05	Paved
30	30	7015	2574	218	74	Area 06	Paved
5	115	7014	2535	259	84	Area 09	Paved
10	40	7013	2570	254	94	Area 06	Paved
5	225	7013	2738	268	66	Area 11	Paved
20	50	7011	2616	225	89	Area 05	Paved
20	30	7010	2649	260	74	Area 05	Paved
55	45	7010	2629	242	87	Area 05	Paved
10	160	7009	2744	265	60	Area 11	Paved
65	60	7008	2699	242	67	Area 05	Paved
45	25	7007	2637	242	67	Area 05	Paved
10	140	7005	2765	265	57	Area 11	Paved
45	30	7004	2616	260	85	Area 06	Paved
50	25	7004	2632	215	73	Area 06	Paved
30	210	7003	2584	224	83	Area 04	Paved
10	20	7002	2613	248	76	Area 05	Paved
20	5	7000	2657	214	66	Area 05	Paved
10	190	7000	2651	261	98	Area 09	Paved
10	30	7000	2682	277	66	Area 11	Paved
45	35	6999	2698	213	79	Area 06	Paved
30	40	6998	2614	236	82	Area 06	Paved
35	10	6998	2636	234	78	Area 06	Paved
50	20	6997	2542	224	79	Area 06	Paved
35	185	6996	2599	244	82	Area 04	Paved
0	90	6994	2576	240	85	Area 04	Paved
25	60	6994	2545	234	80	Area 06	Paved
5	50	6993	2625	218	82	Area 06	Paved
10	135	6993	2692	257	57	Area 11	Paved
10	145	6992	2501	245	82	Area 04	Paved
60	35	6992	2565	230	71	Area 06	Paved
40	65	6990	2693	248	77	Area 06	Paved
10	40	6989	2647	230	95	Area 05	Paved
5	35	6988	2632	243	89	Area 04	Paved
15	50	6987	2697	215	88	Area 05	Paved
50	55	6987	2563	208	81	Area 06	Paved
25	45	6986	2650	275	96	Area 05	Paved
10	15	6985	2571	250	81	Area 05	Paved
5	185	6984	2557	205	89	Area 04	Paved
40	45	6984	2596	234	80	Area 05	Paved
0	55	6983	2648	205	86	Area 06	Paved
55	40	6983	2630	207	73	Area 06	Paved
55	5	6982	2699	228	83	Area 05	Paved
40	15	6981	2628	244	88	Area 06	Paved
50	45	6981	2619	231	84	Area 06	Paved
15	25	6980	2576	229	79	Area 05	Paved
50	40	6980	2671	215	72	Area 05	Paved
55	55	6979	2672	222	88	Area 06	Paved
30	10	6979	2516	246	105	Area 07	Paved
5	130	6977	2646	264	113	Area 09	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	135	6977	2680	279	62	Area 11	Paved
5	200	6976	2642	232	104	Area 04	Paved
15	5	6976	2643	234	72	Area 05	Paved
30	0	6976	2657	201	93	Area 05	Paved
50	65	6976	2780	227	67	Area 06	Paved
20	45	6975	2653	232	68	Area 05	Paved
60	55	6974	2593	240	77	Area 06	Paved
20	10	6973	2538	268	81	Area 05	Paved
15	50	6972	2668	253	83	Area 06	Paved
40	40	6971	2633	245	84	Area 06	Paved
15	130	6971	2721	254	70	Area 11	Paved
0	70	6968	2657	235	80	Area 06	Paved
5	210	6967	2654	215	76	Area 09	Paved
0	45	6966	2586	250	83	Area 06	Paved
10	20	6966	2678	225	87	Area 06	Paved
20	40	6963	2682	219	83	Area 06	Paved
40	30	6962	2634	253	81	Area 05	Paved
40	55	6962	2679	233	71	Area 05	Paved
5	35	6962	2588	220	83	Area 06	Paved
35	65	6958	2589	226	78	Area 06	Paved
60	35	6956	2641	259	82	Area 05	Paved
10	120	6956	2672	242	84	Area 09	Paved
10	205	6956	2642	241	75	Area 09	Paved
5	35	6956	2706	287	77	Area 11	Paved
10	10	6955	2604	243	101	Area 05	Paved
30	50	6953	2583	240	91	Area 06	Paved
45	30	6949	2796	203	86	Area 05	Paved
35	20	6947	2555	288	85	Area 07	Paved
30	50	6946	2603	231	86	Area 05	Paved
30	60	6946	2637	242	82	Area 06	Paved
35	50	6944	2579	240	77	Area 05	Paved
65	65	6944	2702	229	92	Area 05	Paved
35	45	6944	2618	228	83	Area 06	Paved
30	40	6943	2555	247	78	Area 05	Paved
35	45	6943	2656	243	78	Area 05	Paved
5	60	6943	2608	214	64	Area 06	Paved
55	15	6943	2460	240	129	Area 07	Paved
5	5	6942	2623	238	74	Area 06	Paved
30	35	6942	2650	232	78	Area 06	Paved
60	45	6942	2617	237	91	Area 06	Paved
5	145	6940	2575	252	80	Area 04	Paved
15	15	6940	2663	219	79	Area 05	Paved
35	15	6939	2489	269	107	Area 07	Paved
10	200	6938	2715	216	76	Area 09	Paved
25	40	6937	2665	272	81	Area 05	Paved
5	5	6937	2565	250	81	Area 09	Paved
45	65	6936	2594	234	71	Area 05	Paved
5	160	6935	2671	264	80	Area 09	Paved
15	140	6935	2707	270	72	Area 11	Paved
10	60	6933	2583	244	94	Area 05	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
40	60	6929	2621	235	69	Area 05	Paved
5	215	6929	2629	239	90	Area 09	Paved
35	50	6928	2563	222	86	Area 06	Paved
5	210	6927	2614	221	89	Area 04	Paved
5	40	6927	2577	255	92	Area 06	Paved
0	125	6927	2660	280	96	Area 11	Paved
10	35	6926	2561	234	84	Area 04	Paved
10	165	6926	2745	237	94	Area 09	Paved
35	35	6924	2657	205	84	Area 06	Paved
40	45	6924	2585	288	88	Area 06	Paved
30	5	6923	2518	244	113	Area 07	Paved
10	180	6921	2675	237	87	Area 09	Paved
10	10	6921	2650	279	65	Area 11	Paved
45	10	6918	2486	271	94	Area 07	Paved
10	65	6916	2629	223	94	Area 06	Paved
35	60	6914	2586	250	79	Area 05	Paved
75	45	6914	2703	200	79	Area 05	Paved
25	10	6914	2556	269	114	Area 07	Paved
50	35	6913	2693	237	76	Area 05	Paved
10	45	6909	2519	208	81	Area 06	Paved
60	65	6908	2597	243	80	Area 05	Paved
40	50	6905	2551	200	92	Area 06	Paved
40	20	6904	2669	204	91	Area 06	Paved
60	40	6903	2530	255	71	Area 05	Paved
5	55	6903	2716	243	60	Area 10	Paved
50	45	6900	2518	220	83	Area 05	Paved
10	35	6900	2627	213	73	Area 06	Paved
15	60	6899	2611	225	84	Area 05	Paved
20	25	6897	2621	245	70	Area 05	Paved
5	160	6896	2507	224	91	Area 04	Paved
55	60	6896	2637	242	95	Area 05	Paved
0	25	6896	2587	225	82	Area 06	Paved
5	125	6896	2636	243	77	Area 11	Paved
40	25	6895	2567	268	87	Area 06	Paved
50	15	6895	2572	234	96	Area 06	Paved
45	35	6894	2658	220	69	Area 05	Paved
5	20	6894	2675	236	72	Area 10	Paved
0	60	6892	2615	220	79	Area 06	Paved
65	55	6891	2574	233	92	Area 05	Paved
0	50	6891	2594	231	94	Area 06	Paved
0	130	6891	2622	267	73	Area 11	Paved
15	35	6889	2611	242	96	Area 06	Paved
55	30	6889	2670	230	90	Area 06	Paved
5	25	6889	2695	265	64	Area 10	Paved
15	15	6887	2543	231	90	Area 06	Paved
25	40	6886	2590	248	82	Area 06	Paved
30	10	6886	2524	239	92	Area 06	Paved
5	10	6884	2525	249	89	Area 06	Paved
10	185	6884	2634	264	98	Area 09	Paved
10	35	6883	2567	219	65	Area 05	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
25	30	6883	2545	207	63	Area 06	Paved
15	10	6877	2630	216	75	Area 06	Paved
10	60	6875	2596	207	79	Area 06	Paved
45	5	6874	2424	238	103	Area 07	Paved
30	190	6872	2580	243	79	Area 04	Paved
10	65	6871	2604	203	93	Area 04	Paved
45	65	6871	2596	234	84	Area 06	Paved
30	60	6866	2567	210	72	Area 05	Paved
5	85	6865	2576	232	87	Area 09	Paved
10	25	6864	2574	231	81	Area 05	Paved
40	50	6864	2726	191	77	Area 05	Paved
55	65	6864	2649	224	73	Area 06	Paved
0	110	6864	2504	254	106	Area 09	Paved
25	20	6863	2606	231	99	Area 06	Paved
20	15	6861	2445	265	97	Area 07	Paved
15	10	6861	2659	240	70	Area 11	Paved
15	205	6860	2609	270	83	Area 11	Paved
30	20	6857	2482	253	108	Area 07	Paved
10	10	6856	2499	246	88	Area 07	Paved
10	50	6855	2587	254	76	Area 03	Paved
0	15	6852	2503	236	79	Area 06	Paved
30	20	6850	2562	239	79	Area 06	Paved
5	215	6849	2558	239	108	Area 04	Paved
25	50	6849	2589	213	62	Area 06	Paved
0	25	6849	2580	244	87	Area 09	Paved
20	35	6848	2576	224	76	Area 06	Paved
45	10	6848	2593	210	62	Area 06	Paved
10	20	6847	2622	245	62	Area 02	Paved
15	30	6846	2512	237	85	Area 05	Paved
15	45	6846	2554	226	72	Area 06	Paved
55	35	6843	2643	223	82	Area 06	Paved
10	50	6841	2569	260	77	Area 05	Paved
25	15	6841	2580	244	80	Area 06	Paved
5	25	6841	2576	273	83	Area 11	Paved
20	0	6840	2551	228	98	Area 05	Paved
35	55	6835	2588	221	80	Area 05	Paved
5	110	6835	2608	215	97	Area 07	Paved
5	25	6831	2581	238	80	Area 06	Paved
40	200	6829	2515	260	82	Area 04	Paved
20	30	6829	2593	216	61	Area 06	Paved
10	150	6826	2688	248	48	Area 11	Paved
10	70	6825	2528	224	90	Area 04	Paved
65	50	6825	2577	245	82	Area 05	Paved
60	50	6825	2596	196	91	Area 06	Paved
40	35	6822	2529	218	78	Area 06	Paved
10	105	6821	2517	240	105	Area 07	Paved
10	225	6820	2540	248	76	Area 11	Paved
25	30	6819	2446	236	108	Area 07	Paved
5	45	6817	2626	270	75	Area 03	Paved
5	80	6816	2483	242	96	Area 09	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	140	6814	2571	264	82	Area 11	Paved
50	225	6813	2528	224	77	Area 04	Paved
20	25	6813	2576	227	63	Area 06	Paved
45	15	6812	2479	250	101	Area 07	Paved
5	0	6810	2481	235	92	Area 04	Paved
5	55	6810	2437	240	92	Area 04	Paved
25	50	6810	2570	225	83	Area 05	Paved
60	15	6810	2608	238	67	Area 06	Paved
30	15	6810	2479	260	107	Area 07	Paved
5	60	6808	2507	241	100	Area 04	Paved
0	40	6808	2559	202	71	Area 06	Paved
60	20	6808	2534	243	83	Area 06	Paved
45	20	6807	2571	207	71	Area 06	Paved
5	165	6806	2528	245	77	Area 04	Paved
10	5	6806	2540	254	82	Area 06	Paved
35	20	6806	2563	232	88	Area 06	Paved
10	30	6805	2590	224	79	Area 05	Paved
75	50	6805	2626	243	93	Area 05	Paved
0	100	6805	2582	234	75	Area 11	Paved
10	5	6805	2588	271	83	Area 11	Paved
60	60	6803	2623	230	83	Area 05	Paved
10	30	6802	2630	238	83	Area 06	Paved
15	10	6802	2470	271	92	Area 07	Paved
5	20	6800	2530	254	87	Area 09	Paved
35	220	6799	2510	217	82	Area 04	Paved
0	0	6798	2519	241	92	Area 06	Paved
5	25	6797	2497	221	73	Area 04	Paved
30	45	6795	2561	192	81	Area 06	Paved
20	10	6791	2627	216	85	Area 06	Paved
5	5	6791	2401	240	111	Area 07	Paved
25	25	6789	2572	209	77	Area 06	Paved
10	10	6788	2552	276	80	Area 02	Paved
5	90	6788	2483	251	94	Area 04	Paved
15	15	6788	2460	246	98	Area 07	Paved
25	205	6787	2514	242	77	Area 04	Paved
5	180	6783	2558	242	77	Area 04	Paved
10	5	6783	2687	230	73	Area 10	Paved
5	115	6783	2588	231	61	Area 11	Paved
10	35	6783	2642	255	45	Area 11	Paved
75	60	6777	2571	238	96	Area 05	Paved
75	55	6776	2615	249	92	Area 05	Paved
10	0	6776	2659	213	71	Area 10	Paved
60	50	6774	2576	216	78	Area 05	Paved
40	30	6774	2454	209	91	Area 06	Paved
30	45	6772	2510	245	81	Area 05	Paved
5	20	6772	2463	227	109	Area 07	Paved
25	20	6771	2540	225	73	Area 05	Paved
5	145	6765	2523	255	80	Area 11	Paved
30	200	6764	2501	243	84	Area 04	Paved
40	75	6764	2583	228	79	Area 06	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
60	30	6762	2632	243	64	Area 06	Paved
25	20	6762	2496	247	100	Area 07	Paved
5	80	6762	2562	238	57	Area 11	Paved
0	50	6761	2520	260	82	Area 03	Paved
15	40	6760	2621	235	73	Area 05	Paved
25	210	6756	2575	228	85	Area 04	Paved
20	15	6754	2543	221	68	Area 06	Paved
15	160	6754	2520	236	83	Area 11	Paved
25	60	6753	2500	252	76	Area 05	Paved
30	215	6752	2505	220	84	Area 04	Paved
15	25	6752	2493	223	89	Area 07	Paved
45	225	6751	2508	226	80	Area 04	Paved
5	25	6750	2461	247	114	Area 07	Paved
5	45	6750	2438	222	79	Area 07	Paved
5	20	6747	2441	265	90	Area 04	Paved
5	15	6747	2522	227	82	Area 06	Paved
20	15	6746	2613	248	72	Area 05	Paved
30	205	6745	2465	236	87	Area 04	Paved
70	25	6743	2624	238	72	Area 05	Paved
0	95	6742	2543	227	79	Area 09	Paved
0	185	6735	2507	230	84	Area 04	Paved
5	55	6735	2468	221	81	Area 09	Paved
10	125	6735	2609	272	59	Area 11	Paved
25	5	6727	2385	240	118	Area 07	Paved
30	25	6726	2512	224	89	Area 06	Paved
0	10	6726	2609	229	82	Area 11	Paved
60	0	6725	2409	262	86	Area 07	Paved
35	210	6724	2570	233	80	Area 04	Paved
50	0	6722	2560	241	80	Area 05	Paved
5	205	6721	2469	251	102	Area 04	Paved
45	220	6719	2512	232	91	Area 04	Paved
50	30	6719	2529	240	85	Area 06	Paved
5	45	6717	2448	237	70	Area 06	Paved
50	50	6713	2598	220	85	Area 06	Paved
0	40	6710	2595	266	75	Area 03	Paved
20	10	6710	2469	239	105	Area 07	Paved
0	5	6710	2425	233	104	Area 09	Paved
5	175	6709	2476	218	90	Area 04	Paved
0	0	6703	2483	208	92	Area 07	Paved
0	10	6702	2449	221	69	Area 06	Paved
35	5	6702	2427	223	99	Area 07	Paved
5	30	6702	2526	236	73	Area 10	Paved
5	15	6698	2586	248	66	Area 02	Paved
5	90	6698	2531	257	61	Area 11	Paved
5	40	6697	2631	265	67	Area 10	Paved
5	5	6697	2586	230	63	Area 11	Paved
35	15	6696	2475	251	74	Area 06	Paved
30	55	6695	2499	239	72	Area 05	Paved
0	5	6693	2519	230	95	Area 07	Paved
10	195	6692	2655	253	73	Area 11	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	5	6691	2553	265	78	Area 03	Paved
0	20	6686	2499	199	76	Area 06	Paved
50	220	6685	2454	224	80	Area 04	Paved
25	10	6685	2529	214	64	Area 06	Paved
10	55	6684	2552	227	101	Area 05	Paved
0	45	6683	2652	273	63	Area 03	Paved
10	30	6681	2503	212	77	Area 04	Paved
15	30	6679	2514	223	70	Area 06	Paved
55	45	6678	2554	211	80	Area 06	Paved
75	10	6676	2570	209	59	Area 05	Paved
60	225	6671	2467	204	79	Area 04	Paved
10	45	6670	2500	216	88	Area 04	Paved
20	55	6669	2670	240	79	Area 05	Paved
65	225	6668	2509	235	78	Area 04	Paved
30	0	6667	2421	219	108	Area 07	Paved
5	40	6663	2444	224	81	Area 07	Paved
5	50	6660	2616	252	73	Area 03	Paved
30	185	6651	2510	225	75	Area 04	Paved
20	80	6650	2365	254	107	Area 07	Paved
40	210	6649	2510	236	75	Area 04	Paved
35	200	6646	2449	231	81	Area 04	Paved
30	15	6645	2501	230	74	Area 06	Paved
15	25	6644	2524	222	70	Area 06	Paved
0	5	6641	2440	248	84	Area 06	Paved
15	30	6640	2436	250	96	Area 07	Paved
35	195	6639	2455	218	78	Area 04	Paved
10	60	6636	2493	209	101	Area 04	Paved
10	50	6633	2580	257	74	Area 11	Paved
10	40	6632	2547	288	67	Area 11	Paved
20	30	6630	2447	254	95	Area 07	Paved
5	50	6628	2503	255	75	Area 09	Paved
5	75	6627	2375	224	82	Area 04	Paved
55	15	6625	2489	225	75	Area 06	Paved
35	215	6623	2498	216	77	Area 04	Paved
30	25	6623	2426	243	90	Area 07	Paved
40	220	6618	2413	224	96	Area 04	Paved
5	60	6618	2515	236	71	Area 11	Paved
25	55	6616	2384	213	93	Area 05	Paved
40	5	6616	2420	234	97	Area 07	Paved
40	15	6616	2392	257	74	Area 07	Paved
20	70	6613	2372	252	102	Area 07	Paved
5	50	6611	2423	227	86	Area 07	Paved
15	20	6607	2403	249	99	Area 07	Paved
10	25	6606	2498	260	59	Area 02	Paved
15	15	6596	2568	264	74	Area 11	Paved
45	215	6595	2465	213	75	Area 04	Paved
10	120	6589	2499	252	81	Area 11	Paved
25	225	6588	2464	214	63	Area 04	Paved
0	195	6587	2535	191	86	Area 04	Paved
10	50	6585	2521	221	92	Area 04	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	35	6584	2394	239	93	Area 07	Paved
70	40	6583	2585	206	64	Area 05	Paved
10	55	6578	2478	232	78	Area 04	Paved
70	35	6574	2618	227	69	Area 05	Paved
50	210	6573	2389	250	90	Area 04	Paved
15	5	6570	2369	273	98	Area 07	Paved
10	55	6569	2441	259	68	Area 07	Paved
5	65	6569	2587	248	57	Area 10	Paved
0	115	6568	2475	275	69	Area 11	Paved
40	205	6566	2393	248	92	Area 04	Paved
15	40	6566	2387	244	93	Area 07	Paved
30	195	6565	2346	255	86	Area 04	Paved
10	35	6565	2437	229	87	Area 07	Paved
25	35	6565	2307	255	92	Area 07	Paved
15	200	6562	2584	245	67	Area 11	Paved
70	30	6561	2606	208	72	Area 05	Paved
30	35	6559	2424	247	96	Area 07	Paved
15	125	6556	2507	249	70	Area 11	Paved
15	45	6554	2415	248	95	Area 07	Paved
25	35	6551	2400	242	69	Area 06	Paved
5	70	6550	2387	243	95	Area 04	Paved
10	215	6550	2475	208	69	Area 04	Paved
25	45	6550	2402	230	88	Area 07	Paved
45	50	6549	2418	238	105	Area 07	Paved
5	55	6547	2520	265	81	Area 02	Paved
25	25	6546	2297	255	101	Area 07	Paved
10	50	6544	2498	297	65	Area 02	Paved
5	60	6544	2455	201	101	Area 07	Paved
25	215	6542	2443	213	79	Area 04	Paved
10	5	6538	2389	247	81	Area 07	Paved
5	55	6537	2383	187	98	Area 07	Paved
10	40	6537	2397	234	99	Area 07	Paved
5	10	6537	2500	249	63	Area 10	Paved
5	30	6536	2430	219	101	Area 07	Paved
5	50	6531	2538	233	64	Area 11	Paved
10	5	6530	2503	265	55	Area 02	Paved
20	25	6530	2396	250	88	Area 07	Paved
5	75	6529	2562	255	63	Area 11	Paved
0	10	6528	2474	205	81	Area 07	Paved
10	25	6527	2377	262	84	Area 07	Paved
10	20	6526	2378	231	106	Area 07	Paved
10	45	6526	2524	233	71	Area 11	Paved
55	225	6524	2448	217	77	Area 04	Paved
25	220	6523	2375	233	81	Area 04	Paved
5	25	6523	2470	213	99	Area 09	Paved
5	20	6515	2415	217	85	Area 06	Paved
5	65	6515	2419	216	93	Area 07	Paved
5	150	6514	2496	246	73	Area 09	Paved
10	90	6510	2515	209	82	Area 09	Paved
10	30	6509	2427	248	59	Area 02	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
20	130	6506	2373	225	105	Area 09	Paved
5	105	6504	2311	251	89	Area 04	Paved
5	15	6503	2404	236	108	Area 07	Paved
0	185	6503	2354	241	79	Area 09	Paved
15	50	6497	2510	258	57	Area 02	Paved
30	40	6492	2325	236	111	Area 07	Paved
0	35	6492	2505	248	78	Area 10	Paved
50	25	6488	2341	228	103	Area 07	Paved
5	120	6487	2490	235	76	Area 11	Paved
10	185	6482	2493	222	76	Area 11	Paved
40	215	6481	2368	201	61	Area 04	Paved
10	205	6478	2515	282	60	Area 11	Paved
10	200	6477	2510	244	77	Area 11	Paved
10	40	6475	2422	257	64	Area 02	Paved
5	170	6475	2433	206	79	Area 04	Paved
10	15	6473	2360	234	109	Area 07	Paved
0	95	6472	2506	220	71	Area 11	Paved
15	75	6470	2409	256	92	Area 07	Paved
5	100	6469	2300	230	85	Area 04	Paved
5	65	6468	2465	242	70	Area 11	Paved
10	55	6462	2389	267	64	Area 02	Paved
30	45	6462	2295	237	109	Area 07	Paved
5	155	6462	2485	240	65	Area 11	Paved
15	50	6461	2351	238	102	Area 07	Paved
5	25	6460	2574	234	58	Area 02	Paved
0	65	6459	2476	226	89	Area 04	Paved
40	60	6457	2340	229	102	Area 07	Paved
5	0	6447	2329	257	84	Area 07	Paved
10	80	6447	2523	226	71	Area 11	Paved
5	65	6436	2320	227	88	Area 04	Paved
45	55	6434	2252	238	101	Area 07	Paved
0	55	6433	2448	260	73	Area 03	Paved
5	10	6429	2399	221	78	Area 07	Paved
45	30	6427	2307	215	100	Area 07	Paved
15	60	6424	2333	225	92	Area 07	Paved
5	10	6423	2463	253	68	Area 02	Paved
10	95	6423	2348	269	74	Area 07	Paved
5	35	6419	2528	242	44	Area 10	Paved
5	35	6417	2370	238	80	Area 07	Paved
0	85	6415	2361	231	84	Area 04	Paved
10	60	6410	2390	209	95	Area 07	Paved
10	25	6407	2364	229	92	Area 04	Paved
35	190	6407	2346	206	91	Area 04	Paved
10	50	6406	2472	205	80	Area 06	Paved
35	35	6404	2311	229	94	Area 07	Paved
10	155	6404	2443	251	79	Area 11	Paved
0	210	6402	2455	186	79	Area 04	Paved
0	215	6401	2448	204	77	Area 04	Paved
10	45	6401	2378	197	104	Area 07	Paved
35	45	6400	2270	239	82	Area 07	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
40	30	6398	2261	244	86	Area 07	Paved
20	45	6396	2466	257	81	Area 02	Paved
15	85	6395	2342	230	97	Area 07	Paved
0	95	6390	2389	197	90	Area 04	Paved
0	190	6390	2385	196	85	Area 04	Paved
20	75	6388	2313	237	91	Area 07	Paved
10	100	6386	2429	221	71	Area 11	Paved
10	65	6385	2493	256	72	Area 11	Paved
15	20	6383	2415	237	62	Area 11	Paved
35	40	6380	2320	237	86	Area 07	Paved
10	90	6380	2465	258	47	Area 11	Paved
15	210	6380	2394	276	66	Area 11	Paved
0	120	6379	2390	207	83	Area 09	Paved
20	85	6378	2300	229	98	Area 07	Paved
10	0	6377	2387	258	56	Area 02	Paved
60	45	6377	2260	233	104	Area 07	Paved
10	40	6376	2342	227	80	Area 04	Paved
10	85	6374	2305	228	87	Area 09	Paved
10	60	6368	2375	248	89	Area 09	Paved
5	130	6367	2293	228	77	Area 04	Paved
50	40	6362	2330	254	83	Area 07	Paved
10	70	6360	2375	231	94	Area 07	Paved
5	75	6358	2434	178	78	Area 09	Paved
10	50	6356	2318	239	96	Area 07	Paved
30	30	6355	2353	223	107	Area 07	Paved
20	5	6354	2258	251	105	Area 07	Paved
30	50	6354	2349	228	90	Area 07	Paved
55	20	6353	2300	227	70	Area 06	Paved
10	75	6351	2358	254	111	Area 07	Paved
10	35	6349	2417	234	76	Area 02	Paved
30	60	6349	2364	258	101	Area 07	Paved
35	60	6349	2356	245	78	Area 07	Paved
50	215	6348	2344	237	92	Area 04	Paved
25	40	6347	2306	250	84	Area 07	Paved
15	195	6347	2461	261	64	Area 11	Paved
40	35	6346	2352	200	112	Area 07	Paved
5	55	6344	2446	229	59	Area 11	Paved
5	105	6344	2451	241	73	Area 11	Paved
10	95	6343	2382	257	61	Area 11	Paved
5	75	6337	2375	238	77	Area 07	Paved
30	55	6337	2231	253	80	Area 07	Paved
10	60	6337	2470	255	63	Area 10	Paved
0	105	6336	2263	244	85	Area 09	Paved
10	110	6334	2428	250	75	Area 11	Paved
50	50	6331	2274	217	97	Area 07	Paved
10	85	6327	2470	250	52	Area 11	Paved
10	115	6322	2425	262	64	Area 11	Paved
15	45	6321	2382	257	62	Area 02	Paved
5	225	6318	2438	217	87	Area 04	Paved
25	70	6317	2308	240	84	Area 07	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
40	40	6317	2329	235	72	Area 07	Paved
35	205	6315	2277	226	70	Area 04	Paved
15	20	6315	2390	199	77	Area 06	Paved
10	70	6313	2417	235	77	Area 11	Paved
5	0	6312	2468	191	64	Area 10	Paved
0	75	6303	2352	209	79	Area 07	Paved
15	70	6301	2315	245	101	Area 07	Paved
5	150	6298	2416	231	69	Area 11	Paved
10	60	6297	2511	220	71	Area 02	Paved
40	25	6297	2325	238	87	Area 07	Paved
10	80	6293	2373	238	84	Area 07	Paved
10	90	6293	2298	246	85	Area 07	Paved
10	30	6291	2282	227	75	Area 07	Paved
10	100	6291	2309	212	88	Area 07	Paved
50	90	6287	2425	203	72	Area 01	Paved
35	50	6285	2292	229	108	Area 07	Paved
50	30	6285	2245	221	96	Area 07	Paved
35	30	6283	2257	231	103	Area 07	Paved
20	45	6281	2308	223	116	Area 07	Paved
45	25	6279	2274	256	92	Area 07	Paved
40	225	6278	2268	238	73	Area 04	Paved
10	85	6278	2322	246	86	Area 07	Paved
35	225	6277	2290	204	86	Area 04	Paved
5	110	6277	2411	243	62	Area 11	Paved
45	45	6275	2346	235	83	Area 07	Paved
5	110	6274	2218	211	86	Area 04	Paved
5	125	6274	2280	205	82	Area 04	Paved
55	45	6273	2275	233	109	Area 07	Paved
20	25	6270	2384	251	58	Area 01	Paved
5	0	6269	2420	216	76	Area 09	Paved
5	70	6269	2461	227	71	Area 11	Paved
75	40	6266	2460	211	87	Area 05	Paved
40	20	6266	2252	246	90	Area 07	Paved
15	220	6265	2350	208	85	Area 04	Paved
15	215	6264	2327	278	68	Area 11	Paved
5	35	6263	2459	247	74	Area 02	Paved
30	220	6260	2291	216	86	Area 04	Paved
0	65	6260	2344	165	98	Area 07	Paved
25	75	6257	2285	226	108	Area 07	Paved
15	65	6255	2232	213	92	Area 07	Paved
10	45	6255	2356	232	64	Area 09	Paved
35	65	6251	2284	208	90	Area 07	Paved
10	45	6250	2417	273	61	Area 02	Paved
10	65	6248	2257	223	81	Area 07	Paved
5	70	6247	2307	179	93	Area 07	Paved
30	65	6247	2236	222	91	Area 07	Paved
15	95	6246	2333	180	88	Area 07	Paved
40	15	6243	2385	224	67	Area 01	Paved
40	55	6243	2298	235	80	Area 07	Paved
45	210	6240	2227	238	91	Area 04	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
30	70	6237	2282	236	96	Area 07	Paved
0	45	6236	2378	189	61	Area 07	Paved
5	120	6232	2242	197	78	Area 04	Paved
0	70	6232	2276	228	97	Area 07	Paved
5	105	6232	2259	195	82	Area 07	Paved
0	225	6229	2366	226	75	Area 04	Paved
10	60	6229	2460	217	53	Area 11	Paved
5	100	6227	2435	214	55	Area 11	Paved
10	55	6227	2526	209	42	Area 11	Paved
45	40	6225	2214	231	97	Area 07	Paved
25	10	6223	2427	215	61	Area 01	Paved
15	90	6219	2315	216	76	Area 07	Paved
0	55	6219	2262	251	76	Area 09	Paved
50	45	6212	2234	215	90	Area 07	Paved
0	80	6208	2343	203	72	Area 07	Paved
15	80	6208	2255	220	85	Area 07	Paved
0	115	6207	2307	220	76	Area 07	Paved
10	55	6207	2277	227	72	Area 09	Paved
10	105	6207	2351	204	62	Area 11	Paved
15	55	6206	2237	228	94	Area 07	Paved
5	45	6204	2365	267	61	Area 11	Paved
0	30	6203	2265	204	96	Area 07	Paved
15	80	6200	2405	211	59	Area 01	Paved
50	35	6199	2253	228	109	Area 07	Paved
55	220	6198	2316	183	61	Area 04	Paved
0	55	6196	2347	188	97	Area 07	Paved
35	55	6195	2293	227	88	Area 07	Paved
20	55	6192	2300	224	95	Area 07	Paved
5	80	6191	2254	239	76	Area 07	Paved
5	85	6188	2244	169	86	Area 07	Paved
70	50	6185	2411	193	72	Area 05	Paved
5	110	6185	2280	222	93	Area 09	Paved
20	15	6183	2376	238	60	Area 01	Paved
0	40	6182	2330	190	87	Area 07	Paved
15	100	6175	2280	210	89	Area 07	Paved
5	30	6174	2444	240	53	Area 02	Paved
45	35	6173	2181	219	111	Area 07	Paved
10	95	6170	2294	223	86	Area 09	Paved
5	115	6165	2255	211	75	Area 04	Paved
20	65	6164	2204	222	111	Area 07	Paved
0	50	6162	2337	191	74	Area 07	Paved
5	95	6154	2350	203	85	Area 07	Paved
10	100	6152	2324	208	86	Area 09	Paved
20	50	6143	2227	263	89	Area 07	Paved
50	55	6141	2204	245	108	Area 07	Paved
15	55	6139	2425	227	65	Area 02	Paved
0	110	6131	2377	209	77	Area 07	Paved
10	160	6131	2343	188	82	Area 09	Paved
0	180	6130	2380	197	83	Area 04	Paved
0	35	6128	2269	203	90	Area 07	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	105	6124	2268	200	77	Area 09	Paved
30	75	6123	2314	232	81	Area 07	Paved
0	20	6122	2193	204	85	Area 07	Paved
5	100	6122	2301	203	77	Area 07	Paved
25	85	6122	2283	206	93	Area 07	Paved
10	110	6122	2328	207	76	Area 09	Paved
10	105	6121	2295	232	88	Area 09	Paved
20	20	6119	2409	268	51	Area 01	Paved
55	20	6116	2193	230	96	Area 07	Paved
40	45	6114	2190	224	96	Area 07	Paved
40	50	6113	2263	222	86	Area 07	Paved
40	50	6112	2238	213	69	Area 01	Paved
20	80	6110	2359	268	61	Area 01	Paved
25	60	6107	2221	229	97	Area 07	Paved
10	35	6104	2346	223	88	Area 09	Paved
5	85	6104	2314	264	63	Area 11	Paved
20	60	6103	2210	215	107	Area 07	Paved
25	50	6103	2244	193	94	Area 07	Paved
0	15	6102	2398	214	62	Area 02	Paved
0	45	6098	2307	231	70	Area 04	Paved
5	50	6097	2369	252	61	Area 02	Paved
0	220	6096	2360	224	67	Area 04	Paved
30	225	6092	2218	224	72	Area 04	Paved
0	25	6091	2287	169	83	Area 07	Paved
55	80	6089	2168	200	85	Area 01	Paved
0	105	6084	2174	195	77	Area 07	Paved
50	95	6083	2175	234	84	Area 01	Paved
40	95	6082	2368	196	76	Area 01	Paved
0	40	6081	2272	218	85	Area 04	Paved
70	60	6075	2379	193	89	Area 05	Paved
55	25	6075	2178	241	59	Area 03	Paved
25	65	6075	2208	258	91	Area 07	Paved
40	80	6070	2165	199	67	Area 01	Paved
0	60	6070	2254	244	67	Area 03	Paved
10	75	6068	2351	248	67	Area 11	Paved
0	20	6064	2382	212	71	Area 10	Paved
25	120	6063	2413	197	72	Area 09	Paved
10	10	6057	2339	241	57	Area 01	Paved
10	80	6056	2267	223	75	Area 09	Paved
40	30	6054	2260	190	77	Area 01	Paved
5	95	6048	2324	228	63	Area 11	Paved
5	160	6044	2288	236	62	Area 11	Paved
0	85	6043	2275	181	77	Area 07	Paved
15	220	6041	2287	223	60	Area 11	Paved
25	80	6038	2096	204	107	Area 07	Paved
15	100	6038	2348	214	76	Area 11	Paved
0	100	6034	2351	183	83	Area 07	Paved
0	105	6030	2313	211	68	Area 11	Paved
5	90	6024	2357	198	96	Area 07	Paved
20	70	6018	2339	242	54	Area 01	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	60	6018	2249	198	85	Area 07	Paved
10	40	6018	2230	196	81	Area 09	Paved
0	110	6018	2346	208	51	Area 11	Paved
35	70	6016	2163	229	112	Area 07	Paved
5	60	6015	2279	241	55	Area 03	Paved
0	200	6015	2327	205	80	Area 04	Paved
20	90	6013	2228	195	83	Area 07	Paved
15	35	6008	2300	242	59	Area 11	Paved
20	75	6005	2358	242	55	Area 01	Paved
5	95	6002	2238	190	65	Area 04	Paved
75	25	5999	2388	180	58	Area 05	Paved
0	85	5995	2165	240	90	Area 09	Paved
10	210	5995	2349	222	65	Area 11	Paved
70	55	5993	2392	192	68	Area 05	Paved
0	95	5993	2256	198	84	Area 07	Paved
40	20	5992	2235	205	69	Area 01	Paved
0	70	5989	2185	205	66	Area 04	Paved
40	65	5989	2236	204	80	Area 07	Paved
5	100	5984	2262	222	81	Area 09	Paved
0	30	5983	2368	225	74	Area 09	Paved
20	40	5979	2300	238	52	Area 01	Paved
5	135	5979	2193	189	75	Area 04	Paved
75	30	5979	2380	181	75	Area 05	Paved
5	0	5978	2376	223	48	Area 02	Paved
0	100	5978	2255	215	90	Area 04	Paved
0	90	5976	2233	191	87	Area 07	Paved
60	25	5972	2208	196	63	Area 06	Paved
45	65	5968	2209	190	82	Area 07	Paved
40	45	5964	2267	176	65	Area 01	Paved
35	75	5963	2151	198	89	Area 07	Paved
45	95	5959	2243	202	77	Area 01	Paved
45	60	5957	2196	231	73	Area 07	Paved
25	55	5956	2120	227	86	Area 07	Paved
10	95	5952	2255	232	63	Area 01	Paved
15	40	5944	2268	240	58	Area 11	Paved
40	40	5943	2212	214	67	Area 01	Paved
15	120	5943	2259	201	71	Area 11	Paved
0	155	5941	2256	217	66	Area 11	Paved
55	50	5938	2125	214	81	Area 07	Paved
20	30	5934	2304	250	58	Area 01	Paved
10	15	5932	2308	204	48	Area 10	Paved
5	40	5930	2259	237	69	Area 11	Paved
70	45	5928	2349	185	60	Area 05	Paved
20	65	5921	2350	194	63	Area 01	Paved
5	55	5919	2271	210	75	Area 03	Paved
0	175	5918	2266	211	73	Area 04	Paved
70	65	5914	2370	172	67	Area 05	Paved
5	30	5910	2268	197	76	Area 09	Paved
5	5	5908	2323	245	55	Area 02	Paved
45	80	5900	2244	198	67	Area 01	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
30	80	5899	2164	196	114	Area 07	Paved
40	25	5897	2189	196	76	Area 01	Paved
20	20	5890	2116	239	88	Area 07	Paved
0	35	5885	2292	192	82	Area 04	Paved
40	70	5885	2152	217	84	Area 07	Paved
30	10	5883	2267	187	45	Area 01	Paved
15	25	5883	2317	204	68	Area 11	Paved
10	225	5876	2282	205	80	Area 04	Paved
15	30	5874	2307	229	51	Area 11	Paved
20	35	5870	2177	258	63	Area 01	Paved
20	60	5868	2306	247	61	Area 01	Paved
40	60	5863	2207	183	72	Area 01	Paved
10	65	5858	2191	197	83	Area 09	Paved
5	95	5855	2281	208	61	Area 01	Paved
0	50	5855	2221	191	85	Area 04	Paved
55	25	5853	2107	222	79	Area 07	Paved
80	65	5831	2228	186	63	Area 05	Paved
20	45	5829	2279	210	54	Area 01	Paved
10	220	5818	2288	186	77	Area 04	Paved
75	65	5818	2291	174	70	Area 05	Paved
10	155	5815	2102	214	66	Area 09	Paved
0	0	5807	2229	204	71	Area 04	Paved
10	135	5794	2165	214	84	Area 09	Paved
20	35	5789	2134	232	92	Area 07	Paved
5	60	5781	2128	186	67	Area 09	Paved
75	15	5779	2381	176	58	Area 05	Paved
15	45	5777	2252	204	55	Area 11	Paved
55	30	5766	2062	193	95	Area 07	Paved
15	100	5765	2199	176	63	Area 09	Paved
20	100	5763	2234	208	77	Area 09	Paved
20	55	5761	2314	217	49	Area 02	Paved
15	115	5753	2219	228	60	Area 11	Paved
40	65	5746	2145	188	58	Area 01	Paved
10	40	5742	2188	207	61	Area 10	Paved
15	105	5740	2186	224	56	Area 11	Paved
75	35	5732	2263	180	71	Area 05	Paved
10	50	5731	2223	213	62	Area 10	Paved
55	35	5729	2094	205	97	Area 07	Paved
15	70	5729	2240	207	69	Area 11	Paved
30	95	5727	2213	207	44	Area 01	Paved
5	10	5724	2167	206	53	Area 01	Paved
0	80	5720	2129	208	91	Area 04	Paved
10	50	5719	2143	189	60	Area 09	Paved
10	20	5719	2257	195	41	Area 10	Paved
50	80	5710	2133	175	64	Area 01	Paved
5	5	5708	2224	179	63	Area 10	Paved
40	70	5699	2124	208	72	Area 01	Paved
50	100	5699	2159	179	71	Area 01	Paved
5	65	5695	2143	211	56	Area 03	Paved
20	95	5693	2173	183	63	Area 01	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
15	95	5688	2211	189	51	Area 01	Paved
10	10	5687	2191	197	55	Area 10	Paved
40	55	5681	2150	175	60	Area 01	Paved
15	125	5673	2229	184	56	Area 09	Paved
0	30	5672	2185	188	74	Area 04	Paved
0	15	5670	2165	190	55	Area 04	Paved
5	35	5659	2210	181	76	Area 09	Paved
15	90	5659	2177	231	60	Area 11	Paved
15	65	5658	2223	225	48	Area 11	Paved
55	90	5655	2084	185	70	Area 01	Paved
40	35	5653	2121	160	54	Area 01	Paved
15	60	5653	2145	216	77	Area 09	Paved
0	160	5652	2146	224	73	Area 11	Paved
10	75	5650	2147	193	75	Area 09	Paved
0	205	5647	2112	148	64	Area 04	Paved
15	95	5636	2155	230	58	Area 11	Paved
15	110	5634	2190	236	51	Area 11	Paved
20	120	5629	2247	174	83	Area 09	Paved
20	95	5605	2124	196	102	Area 07	Paved
0	20	5595	2124	175	88	Area 04	Paved
75	20	5595	2206	190	55	Area 05	Paved
10	70	5592	2061	181	65	Area 09	Paved
15	85	5591	2210	214	44	Area 01	Paved
25	15	5590	2178	202	53	Area 01	Paved
15	10	5584	2141	202	65	Area 01	Paved
25	95	5572	2211	198	57	Area 01	Paved
15	75	5571	2149	220	45	Area 11	Paved
0	5	5567	2160	187	52	Area 04	Paved
40	90	5561	2075	183	70	Area 01	Paved
40	75	5557	2039	204	70	Area 01	Paved
25	80	5551	2194	188	57	Area 01	Paved
5	45	5548	2076	211	85	Area 09	Paved
20	50	5543	2140	245	57	Area 02	Paved
10	80	5542	2256	201	38	Area 01	Paved
20	115	5539	2185	191	69	Area 09	Paved
15	50	5538	2121	215	48	Area 11	Paved
5	90	5536	2176	213	52	Area 01	Paved
15	115	5535	2187	188	70	Area 09	Paved
5	70	5534	2141	191	59	Area 01	Paved
10	45	5523	2055	216	60	Area 10	Paved
10	215	5517	2088	209	47	Area 11	Paved
0	65	5514	2151	211	61	Area 03	Paved
35	10	5511	2109	215	56	Area 01	Paved
20	10	5508	2136	179	48	Area 01	Paved
5	80	5503	1999	181	85	Area 04	Paved
10	55	5503	2060	218	52	Area 10	Paved
0	25	5502	2117	166	74	Area 04	Paved
25	115	5501	2155	208	69	Area 09	Paved
0	10	5483	2168	141	71	Area 04	Paved
25	35	5480	2118	244	47	Area 01	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
35	95	5462	2138	221	53	Area 01	Paved
5	20	5459	2143	186	45	Area 01	Paved
5	85	5459	2154	174	47	Area 01	Paved
20	90	5454	2098	168	46	Area 01	Paved
10	220	5453	2095	195	56	Area 11	Paved
15	120	5446	2082	167	65	Area 09	Paved
5	65	5442	2119	202	49	Area 01	Paved
15	20	5442	2139	184	53	Area 01	Paved
55	40	5439	1958	205	83	Area 07	Paved
5	70	5422	2045	189	68	Area 09	Paved
10	85	5416	2112	193	48	Area 01	Paved
15	225	5415	2066	146	51	Area 04	Paved
50	60	5410	2039	170	79	Area 07	Paved
15	60	5405	2135	202	44	Area 11	Paved
15	90	5403	2124	201	61	Area 01	Paved
60	50	5395	1987	167	91	Area 07	Paved
5	20	5392	2083	191	55	Area 02	Paved
5	40	5391	2146	179	52	Area 02	Paved
5	50	5389	2111	194	59	Area 01	Paved
5	65	5389	2018	185	71	Area 09	Paved
55	55	5388	2041	190	67	Area 07	Paved
5	60	5383	2148	189	61	Area 01	Paved
5	25	5380	2116	182	59	Area 01	Paved
15	85	5379	2081	203	62	Area 11	Paved
15	80	5376	2102	210	50	Area 11	Paved
0	35	5368	1962	209	70	Area 09	Paved
5	40	5359	2050	161	77	Area 09	Paved
5	75	5355	2133	211	51	Area 01	Paved
20	85	5353	2117	187	43	Area 01	Paved
25	20	5353	2130	188	50	Area 01	Paved
15	15	5349	2136	204	37	Area 01	Paved
25	90	5347	2069	206	63	Area 01	Paved
35	15	5341	2078	178	45	Area 01	Paved
15	55	5331	2083	201	42	Area 01	Paved
25	125	5325	2106	172	69	Area 09	Paved
40	75	5324	2009	188	60	Area 07	Paved
15	65	5307	2054	177	44	Area 01	Paved
15	55	5307	2044	222	53	Area 11	Paved
5	15	5305	2106	178	59	Area 01	Paved
10	55	5304	2070	194	52	Area 01	Paved
35	80	5304	2079	204	55	Area 01	Paved
15	60	5298	2067	192	55	Area 01	Paved
50	85	5279	1993	174	76	Area 01	Paved
30	15	5273	2115	178	42	Area 01	Paved
45	90	5270	1991	173	63	Area 01	Paved
45	70	5265	1962	205	92	Area 07	Paved
30	25	5255	2016	177	56	Area 01	Paved
25	110	5250	1979	199	72	Area 09	Paved
10	15	5248	2101	194	45	Area 02	Paved
10	70	5234	2095	192	60	Area 01	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	55	5227	1979	183	45	Area 01	Paved
45	85	5222	1966	181	54	Area 01	Paved
10	25	5219	2087	176	54	Area 10	Paved
10	20	5216	2066	187	53	Area 01	Paved
5	35	5211	2129	202	47	Area 01	Paved
25	25	5211	2087	190	45	Area 01	Paved
35	30	5211	2082	176	57	Area 01	Paved
30	40	5208	2060	196	43	Area 01	Paved
5	40	5207	2068	175	53	Area 01	Paved
10	90	5205	2030	163	45	Area 01	Paved
40	85	5198	1972	150	59	Area 01	Paved
5	80	5196	2032	213	56	Area 01	Paved
25	85	5189	2123	149	59	Area 01	Paved
10	15	5188	2056	173	57	Area 01	Paved
10	75	5183	2043	186	47	Area 01	Paved
15	70	5178	2013	177	45	Area 01	Paved
20	125	5168	2042	175	66	Area 09	Paved
0	105	5166	1965	157	76	Area 04	Paved
15	40	5161	2008	176	48	Area 01	Paved
15	35	5155	2026	167	35	Area 01	Paved
25	105	5154	1941	159	61	Area 09	Paved
35	65	5151	2023	178	61	Area 01	Paved
5	45	5151	2087	178	51	Area 02	Paved
30	85	5151	1907	178	76	Area 07	Paved
15	45	5150	2046	168	35	Area 01	Paved
30	85	5150	1986	188	39	Area 01	Paved
0	50	5147	1964	176	62	Area 10	Paved
25	90	5145	1976	158	73	Area 07	Paved
35	80	5140	1979	181	77	Area 07	Paved
10	130	5140	1909	207	77	Area 09	Paved
5	45	5137	2027	218	51	Area 01	Paved
30	75	5137	2007	165	43	Area 01	Paved
35	20	5131	1929	198	47	Area 01	Paved
0	55	5124	1985	195	59	Area 04	Paved
30	35	5120	2015	179	51	Area 01	Paved
30	20	5115	2047	189	51	Area 01	Paved
15	50	5114	2026	169	51	Area 01	Paved
0	60	5113	1951	163	63	Area 04	Paved
0	110	5112	1934	164	65	Area 04	Paved
10	60	5109	2047	160	57	Area 01	Paved
15	25	5086	2013	186	43	Area 01	Paved
10	40	5085	2107	142	35	Area 01	Paved
30	80	5085	1965	178	49	Area 01	Paved
25	70	5078	2041	182	43	Area 01	Paved
30	45	5071	1999	192	52	Area 01	Paved
35	40	5042	1998	182	57	Area 01	Paved
5	30	5018	1936	187	36	Area 01	Paved
25	30	5016	1921	150	49	Area 01	Paved
20	110	5016	1935	161	65	Area 09	Paved
15	30	5006	1987	174	55	Area 01	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
10	30	5004	1963	178	59	Area 01	Paved
10	50	5002	1977	183	48	Area 01	Paved
30	90	4998	1959	163	34	Area 01	Paved
35	90	4983	1955	180	53	Area 01	Paved
10	30	4971	1913	195	58	Area 10	Paved
35	60	4969	1939	179	42	Area 01	Paved
35	45	4966	2009	168	37	Area 01	Paved
35	35	4964	1990	156	50	Area 01	Paved
30	30	4944	1929	178	42	Area 01	Paved
10	65	4936	2021	182	54	Area 01	Paved
10	45	4934	1952	155	55	Area 01	Paved
20	225	4934	1926	137	49	Area 04	Paved
10	25	4932	1998	154	47	Area 01	Paved
35	85	4915	1925	171	45	Area 01	Paved
0	115	4913	1894	159	67	Area 04	Paved
0	125	4912	1889	166	60	Area 04	Paved
0	70	4909	1829	163	70	Area 09	Paved
20	105	4907	1923	175	64	Area 09	Paved
35	25	4905	1925	166	55	Area 01	Paved
25	60	4887	1968	130	48	Area 01	Paved
0	155	4881	1757	167	57	Area 09	Paved
30	50	4878	1914	163	52	Area 01	Paved
10	35	4870	1924	158	50	Area 01	Paved
25	65	4868	1910	181	29	Area 01	Paved
0	145	4841	1870	120	61	Area 04	Paved
30	70	4837	1955	155	50	Area 01	Paved
25	75	4836	1888	155	45	Area 01	Paved
30	60	4835	1953	140	45	Area 01	Paved
0	135	4827	1866	168	64	Area 04	Paved
35	50	4800	1916	160	37	Area 01	Paved
0	170	4798	1878	152	55	Area 04	Paved
0	100	4795	1825	163	71	Area 09	Paved
30	55	4788	1886	186	44	Area 01	Paved
30	65	4788	1918	174	56	Area 01	Paved
0	120	4786	1825	124	59	Area 04	Paved
0	160	4782	1819	143	70	Area 04	Paved
35	70	4779	1871	191	45	Area 01	Paved
0	150	4776	1848	147	56	Area 04	Paved
0	165	4774	1888	159	61	Area 04	Paved
0	130	4766	1859	157	74	Area 04	Paved
35	75	4759	1872	169	50	Area 01	Paved
15	110	4751	1888	143	55	Area 09	Paved
0	140	4745	1843	160	60	Area 04	Paved
15	75	4725	1839	166	51	Area 01	Paved
0	155	4692	1772	127	63	Area 04	Paved
55	85	4676	1859	148	60	Area 01	Paved
25	45	4667	1900	155	51	Area 01	Paved
25	55	4639	1833	189	43	Area 01	Paved
10	35	4616	1735	167	49	Area 10	Paved
35	55	4587	1805	157	45	Area 01	Paved

Table 6 - Gamma Survey Data Areas 1 through 11 sorted by ROI #1(Paved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
25	50	4582	1762	180	38	Area 01	Paved
25	40	4562	1849	152	51	Area 01	Paved
20	55	4503	1794	156	49	Area 01	Paved
0	45	4486	1660	170	52	Area 10	Paved
20	50	4480	1740	157	39	Area 01	Paved
0	30	4478	1711	174	43	Area 10	Paved
0	0	4386	1744	143	52	Area 05	Paved
0	150	4338	1623	151	55	Area 09	Paved
20	40	4295	1573	158	66	Area 07	Paved
25	100	4133	1581	141	52	Area 09	Paved
15	105	3931	1488	145	64	Area 09	Paved
Average		6524	2462	230	78		
Median		6683	2500	231	79		
Maximum		10250	3930	414	144		
Minimum		3931	1488	120	29		
Count		1311	1311	1311	1311		
Standard Deviation		794.7	288.4	36.8	17.2		

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
20	0	10960	4214	499	102	Area 03	UnPaved
15	10	10349	3579	377	150	Area 08	UnPaved
30	10	10341	3660	369	177	Area 08	UnPaved
35	10	10281	3555	379	163	Area 08	UnPaved
5	10	10175	3643	339	165	Area 08	UnPaved
10	10	10116	3526	371	156	Area 08	UnPaved
45	10	10066	3531	364	160	Area 08	UnPaved
25	0	10021	3734	444	109	Area 03	UnPaved
0	10	10009	3574	349	161	Area 08	UnPaved
20	10	9975	3470	389	194	Area 08	UnPaved
20	5	9905	3462	382	150	Area 08	UnPaved
20	5	9894	3711	373	100	Area 03	UnPaved
80	10	9841	3529	359	132	Area 08	UnPaved
15	5	9772	3447	332	144	Area 08	UnPaved
0	5	9754	3392	340	143	Area 08	UnPaved
25	5	9753	3427	355	148	Area 08	UnPaved
100	15	9741	3511	329	124	Area 08	UnPaved
60	5	9735	3466	351	151	Area 08	UnPaved
50	5	9731	3408	402	148	Area 08	UnPaved
45	5	9730	3469	330	148	Area 08	UnPaved
40	10	9726	3435	353	133	Area 08	UnPaved
5	5	9687	3476	344	156	Area 08	UnPaved
20	15	9641	3393	365	159	Area 08	UnPaved
10	15	9627	3452	333	139	Area 08	UnPaved
70	5	9604	3312	309	146	Area 08	UnPaved
25	10	9602	3279	345	145	Area 08	UnPaved
0	15	9587	3427	353	144	Area 08	UnPaved
30	5	9578	3376	350	149	Area 08	UnPaved
45	20	9559	3401	387	143	Area 08	UnPaved
5	15	9552	3334	377	123	Area 08	UnPaved
35	5	9548	3400	363	157	Area 08	UnPaved
10	20	9532	3386	337	152	Area 08	UnPaved
50	10	9503	3291	333	146	Area 08	UnPaved
55	20	9486	3357	329	141	Area 08	UnPaved
75	10	9480	3222	390	153	Area 08	UnPaved
55	10	9475	3322	360	149	Area 08	UnPaved
40	20	9475	3335	334	145	Area 08	UnPaved
55	5	9465	3244	339	150	Area 08	UnPaved
40	15	9465	3316	358	174	Area 08	UnPaved
100	10	9458	3334	322	142	Area 08	UnPaved
85	20	9448	3418	373	144	Area 08	UnPaved
65	5	9436	3189	340	126	Area 08	UnPaved
30	20	9430	3357	331	135	Area 08	UnPaved
15	40	9426	3483	412	91	Area 03	UnPaved
65	10	9421	3266	323	137	Area 08	UnPaved
10	5	9407	3386	355	131	Area 08	UnPaved
75	5	9406	3292	345	144	Area 08	UnPaved
40	0	9395	3502	368	90	Area 03	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
60	10	9393	3379	317	144	Area 08	UnPaved
35	0	9372	3513	360	105	Area 03	UnPaved
40	5	9370	3361	349	127	Area 08	UnPaved
15	15	9334	3255	323	148	Area 08	UnPaved
35	15	9332	3337	362	154	Area 08	UnPaved
110	15	9330	3332	335	124	Area 08	UnPaved
25	5	9320	3535	409	92	Area 03	UnPaved
70	10	9318	3245	322	157	Area 08	UnPaved
45	15	9302	3257	343	134	Area 08	UnPaved
5	20	9294	3390	318	136	Area 08	UnPaved
30	15	9290	3279	356	138	Area 08	UnPaved
25	15	9286	3221	317	133	Area 08	UnPaved
95	10	9281	3193	377	138	Area 08	UnPaved
20	20	9276	3254	359	140	Area 08	UnPaved
10	40	9270	3623	368	89	Area 03	UnPaved
105	15	9263	3276	336	116	Area 08	UnPaved
0	30	9256	3489	385	78	Area 11	UnPaved
50	20	9230	3261	322	152	Area 08	UnPaved
25	10	9200	3404	364	89	Area 03	UnPaved
30	5	9172	3386	419	105	Area 03	UnPaved
0	20	9168	3283	317	145	Area 08	UnPaved
25	20	9167	3289	327	144	Area 08	UnPaved
50	15	9139	3154	349	146	Area 08	UnPaved
35	20	9126	3283	350	132	Area 08	UnPaved
15	20	9124	3249	332	141	Area 08	UnPaved
70	15	9118	3167	277	152	Area 08	UnPaved
45	0	9079	3317	351	83	Area 03	UnPaved
105	20	9045	3250	288	135	Area 08	UnPaved
95	15	9021	3294	347	143	Area 08	UnPaved
90	5	9017	3202	327	134	Area 08	UnPaved
90	10	9015	3082	339	135	Area 08	UnPaved
10	20	9013	3427	324	96	Area 03	UnPaved
55	15	9010	3213	321	152	Area 08	UnPaved
60	20	8991	3254	328	143	Area 08	UnPaved
105	10	8984	3180	314	150	Area 08	UnPaved
65	15	8969	3270	319	129	Area 08	UnPaved
70	20	8929	3128	294	126	Area 08	UnPaved
85	15	8892	3043	301	119	Area 08	UnPaved
60	15	8886	3189	341	128	Area 08	UnPaved
40	100	8855	3141	302	121	Area 01	UnPaved
85	10	8849	3111	319	127	Area 08	UnPaved
85	5	8832	3121	295	124	Area 08	UnPaved
25	15	8759	3335	350	90	Area 03	UnPaved
0	35	8749	3240	369	100	Area 11	UnPaved
5	85	8724	3367	316	87	Area 10	UnPaved
15	35	8715	3303	380	95	Area 03	UnPaved
80	5	8710	3060	306	127	Area 08	UnPaved
75	20	8673	3137	290	154	Area 08	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
35	5	8659	3157	364	95	Area 03	UnPaved
95	5	8658	3039	343	143	Area 08	UnPaved
90	15	8646	3042	303	131	Area 08	UnPaved
75	15	8611	3069	309	129	Area 08	UnPaved
80	15	8571	3051	336	131	Area 08	UnPaved
30	0	8555	3186	363	94	Area 03	UnPaved
110	20	8551	3125	291	117	Area 08	UnPaved
10	25	8550	3182	367	95	Area 03	UnPaved
0	25	8540	3271	341	87	Area 11	UnPaved
110	10	8491	3030	325	109	Area 08	UnPaved
85	20	8478	3221	268	108	Area 05	UnPaved
20	40	8463	3209	368	77	Area 03	UnPaved
85	5	8449	3241	271	105	Area 05	UnPaved
25	20	8442	3144	354	96	Area 03	UnPaved
90	20	8430	2998	296	132	Area 08	UnPaved
0	80	8410	3175	339	104	Area 11	UnPaved
0	75	8388	3157	332	73	Area 11	UnPaved
100	20	8386	3071	280	97	Area 08	UnPaved
45	100	8378	2939	309	115	Area 01	UnPaved
20	35	8357	3125	348	74	Area 03	UnPaved
5	105	8342	3188	346	72	Area 10	UnPaved
20	195	8310	3075	301	133	Area 04	UnPaved
20	185	8298	2954	278	114	Area 04	UnPaved
5	80	8296	3204	322	79	Area 10	UnPaved
40	10	8285	3045	379	81	Area 03	UnPaved
10	35	8239	3078	370	102	Area 03	UnPaved
80	20	8211	3003	325	132	Area 08	UnPaved
20	100	8206	3075	340	84	Area 01	UnPaved
65	20	8199	2966	285	118	Area 08	UnPaved
35	10	8192	3027	371	88	Area 03	UnPaved
5	95	8188	3042	329	72	Area 10	UnPaved
15	140	8182	2975	315	87	Area 09	UnPaved
15	100	8175	3065	362	76	Area 01	UnPaved
30	10	8175	3085	294	90	Area 03	UnPaved
95	20	8173	2907	297	117	Area 08	UnPaved
20	45	8161	3105	372	91	Area 03	UnPaved
15	115	8139	2921	312	111	Area 04	UnPaved
30	15	8131	3073	323	92	Area 03	UnPaved
10	100	8130	3101	302	80	Area 01	UnPaved
85	0	8123	3021	267	116	Area 05	UnPaved
0	45	8116	3075	344	99	Area 11	UnPaved
0	40	8115	2996	333	90	Area 11	UnPaved
15	135	8105	3032	283	96	Area 09	UnPaved
85	15	8080	3041	285	108	Area 05	UnPaved
30	0	8076	3035	307	97	Area 01	UnPaved
0	50	8072	3076	300	92	Area 11	UnPaved
0	55	8070	2972	346	73	Area 11	UnPaved
5	90	8068	3050	323	89	Area 10	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
50	0	8062	2960	279	113	Area 08	UnPaved
10	30	8054	2935	354	76	Area 03	UnPaved
20	190	8046	2903	311	105	Area 04	UnPaved
40	15	8042	2963	368	69	Area 03	UnPaved
15	190	8038	2893	289	107	Area 04	UnPaved
55	0	8037	2914	287	102	Area 08	UnPaved
45	0	8029	2964	277	109	Area 08	UnPaved
15	55	8011	2944	283	117	Area 04	UnPaved
40	0	8005	2864	289	124	Area 08	UnPaved
50	205	8001	2883	296	114	Area 04	UnPaved
45	200	7996	2871	290	106	Area 04	UnPaved
15	0	7985	2890	308	105	Area 08	UnPaved
5	100	7973	3054	325	80	Area 10	UnPaved
20	40	7965	2987	281	76	Area 04	UnPaved
20	0	7960	2927	317	116	Area 08	UnPaved
15	50	7948	2859	274	128	Area 04	UnPaved
70	0	7948	2752	261	108	Area 08	UnPaved
60	90	7923	2992	237	113	Area 06	UnPaved
15	170	7917	2862	257	110	Area 04	UnPaved
60	0	7913	2891	301	99	Area 08	UnPaved
15	185	7903	2827	284	106	Area 04	UnPaved
15	85	7901	2815	280	134	Area 04	UnPaved
25	30	7900	2847	365	72	Area 03	UnPaved
0	25	7894	3013	289	83	Area 02	UnPaved
0	20	7882	3025	317	85	Area 11	UnPaved
15	70	7872	2830	255	107	Area 04	UnPaved
125	15	7865	2962	258	99	Area 08	UnPaved
120	20	7865	2836	281	120	Area 08	UnPaved
10	90	7859	2822	287	93	Area 04	UnPaved
15	100	7859	2899	262	116	Area 04	UnPaved
75	0	7855	2868	286	106	Area 08	UnPaved
20	170	7851	2834	308	108	Area 04	UnPaved
15	180	7849	2834	277	116	Area 04	UnPaved
45	5	7843	2993	330	81	Area 03	UnPaved
65	0	7843	2804	251	98	Area 08	UnPaved
115	5	7816	2806	274	110	Area 08	UnPaved
15	105	7815	2836	311	96	Area 04	UnPaved
0	70	7811	2930	284	71	Area 11	UnPaved
5	35	7805	2866	279	87	Area 05	UnPaved
5	110	7805	2976	353	65	Area 10	UnPaved
15	155	7798	2893	281	103	Area 04	UnPaved
35	0	7792	2816	286	110	Area 08	UnPaved
10	15	7791	2890	280	101	Area 09	UnPaved
15	90	7788	2754	254	102	Area 04	UnPaved
0	35	7783	2918	306	82	Area 02	UnPaved
25	165	7774	2723	286	116	Area 04	UnPaved
15	120	7767	2740	302	96	Area 04	UnPaved
15	45	7766	2904	278	111	Area 04	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
115	15	7763	2815	275	105	Area 08	UnPaved
15	140	7757	2848	279	104	Area 04	UnPaved
15	175	7747	2813	269	104	Area 04	UnPaved
15	165	7742	2824	280	113	Area 04	UnPaved
115	10	7742	2872	261	117	Area 08	UnPaved
110	5	7741	2781	272	106	Area 08	UnPaved
15	50	7739	2893	333	77	Area 03	UnPaved
15	110	7733	2876	263	111	Area 04	UnPaved
15	65	7730	2814	257	92	Area 04	UnPaved
5	20	7725	2965	325	86	Area 03	UnPaved
10	85	7725	2861	288	92	Area 04	UnPaved
20	60	7720	2770	267	118	Area 04	UnPaved
15	125	7720	2796	277	102	Area 04	UnPaved
15	35	7709	2784	267	98	Area 04	UnPaved
0	20	7702	2910	306	73	Area 02	UnPaved
5	100	7701	2934	358	77	Area 01	UnPaved
0	5	7691	2971	275	75	Area 02	UnPaved
20	55	7691	2755	291	108	Area 04	UnPaved
10	5	7691	2775	287	114	Area 09	UnPaved
120	10	7689	2900	257	100	Area 08	UnPaved
0	30	7688	2934	279	72	Area 02	UnPaved
20	45	7681	2780	282	108	Area 04	UnPaved
15	145	7674	2818	255	106	Area 04	UnPaved
15	30	7662	2792	261	111	Area 04	UnPaved
5	25	7657	2862	343	104	Area 03	UnPaved
20	160	7641	2823	251	119	Area 04	UnPaved
35	15	7635	2815	318	79	Area 03	UnPaved
80	0	7632	2875	255	107	Area 08	UnPaved
120	15	7632	2865	244	107	Area 08	UnPaved
15	30	7632	2809	265	83	Area 09	UnPaved
15	55	7631	2871	312	74	Area 03	UnPaved
25	40	7630	2838	374	71	Area 03	UnPaved
25	35	7628	2792	317	89	Area 03	UnPaved
85	25	7627	2903	254	77	Area 05	UnPaved
50	85	7627	2848	257	91	Area 06	UnPaved
20	35	7619	2703	297	91	Area 04	UnPaved
15	160	7619	2805	276	91	Area 04	UnPaved
15	40	7615	2869	241	99	Area 04	UnPaved
10	10	7615	2777	265	123	Area 09	UnPaved
20	175	7610	2794	242	107	Area 04	UnPaved
55	85	7610	2878	261	83	Area 06	UnPaved
35	85	7604	2849	289	101	Area 06	UnPaved
45	85	7589	2847	266	97	Area 06	UnPaved
40	85	7580	2840	266	99	Area 06	UnPaved
15	95	7579	2675	303	118	Area 04	UnPaved
15	130	7575	2780	275	102	Area 04	UnPaved
30	30	7572	2841	319	76	Area 03	UnPaved
30	25	7569	2726	276	117	Area 04	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
25	0	7565	2826	263	94	Area 08	UnPaved
35	100	7562	2877	286	82	Area 01	UnPaved
5	75	7561	2967	290	71	Area 10	UnPaved
15	80	7552	2677	249	95	Area 04	UnPaved
40	20	7542	2852	328	90	Area 03	UnPaved
0	20	7538	2827	310	93	Area 03	UnPaved
5	40	7537	2813	266	102	Area 05	UnPaved
125	20	7523	2733	228	101	Area 08	UnPaved
15	60	7515	2742	252	87	Area 04	UnPaved
100	5	7506	2745	254	91	Area 08	UnPaved
30	75	7502	2809	252	93	Area 06	UnPaved
0	80	7497	2750	256	87	Area 06	UnPaved
35	80	7495	2817	248	83	Area 06	UnPaved
45	10	7491	2834	298	85	Area 03	UnPaved
30	0	7478	2774	245	88	Area 08	UnPaved
115	20	7478	2780	259	80	Area 08	UnPaved
10	75	7472	2775	255	92	Area 04	UnPaved
0	40	7465	2873	328	69	Area 02	UnPaved
20	155	7465	2693	256	98	Area 04	UnPaved
15	135	7464	2754	261	103	Area 04	UnPaved
0	100	7462	2858	330	62	Area 01	UnPaved
25	175	7459	2772	262	105	Area 04	UnPaved
25	170	7446	2661	234	109	Area 04	UnPaved
30	180	7433	2658	290	112	Area 04	UnPaved
35	0	7430	2750	276	64	Area 01	UnPaved
20	165	7426	2675	254	120	Area 04	UnPaved
0	0	7422	2665	281	109	Area 08	UnPaved
85	45	7420	2817	265	102	Area 05	UnPaved
15	25	7416	2649	261	106	Area 04	UnPaved
10	10	7404	2685	289	106	Area 04	UnPaved
35	25	7403	2789	307	83	Area 03	UnPaved
30	25	7402	2805	273	90	Area 03	UnPaved
0	120	7389	2910	272	63	Area 11	UnPaved
30	80	7387	2772	255	86	Area 06	UnPaved
25	35	7378	2660	284	105	Area 04	UnPaved
15	150	7378	2747	272	90	Area 04	UnPaved
85	30	7367	2886	226	76	Area 05	UnPaved
105	5	7366	2722	249	100	Area 08	UnPaved
10	95	7359	2642	284	113	Area 04	UnPaved
130	20	7358	2685	275	99	Area 08	UnPaved
30	15	7350	2722	271	107	Area 04	UnPaved
15	5	7345	2684	268	81	Area 04	UnPaved
25	30	7342	2639	244	115	Area 04	UnPaved
90	0	7330	2805	249	87	Area 05	UnPaved
15	75	7329	2779	255	94	Area 04	UnPaved
15	15	7319	2634	257	75	Area 04	UnPaved
15	20	7317	2635	273	102	Area 04	UnPaved
5	5	7305	2642	318	77	Area 01	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
85	10	7299	2851	234	76	Area 05	UnPaved
15	10	7268	2699	230	84	Area 04	UnPaved
10	135	7268	2695	242	96	Area 04	UnPaved
25	80	7268	2731	256	80	Area 06	UnPaved
0	0	7258	2810	236	71	Area 01	UnPaved
0	25	7229	2800	280	63	Area 01	UnPaved
20	0	7227	2817	260	68	Area 01	UnPaved
5	45	7226	2626	239	86	Area 05	UnPaved
90	10	7222	2742	228	76	Area 05	UnPaved
0	75	7220	2801	307	69	Area 10	UnPaved
95	0	7208	2675	263	105	Area 08	UnPaved
85	0	7206	2651	260	108	Area 08	UnPaved
0	25	7205	2648	268	93	Area 05	UnPaved
0	35	7197	2617	261	88	Area 05	UnPaved
0	95	7188	2767	301	72	Area 01	UnPaved
15	145	7184	2678	254	88	Area 09	UnPaved
55	80	7180	2724	259	86	Area 06	UnPaved
20	25	7176	2631	261	92	Area 04	UnPaved
0	50	7172	2656	289	84	Area 01	UnPaved
20	30	7167	2666	253	94	Area 04	UnPaved
25	100	7163	2753	273	70	Area 01	UnPaved
0	90	7161	2629	280	96	Area 01	UnPaved
25	185	7156	2680	207	90	Area 04	UnPaved
0	80	7147	2731	326	67	Area 01	UnPaved
0	20	7143	2790	306	64	Area 01	UnPaved
90	0	7136	2673	243	77	Area 08	UnPaved
20	5	7130	2558	262	109	Area 04	UnPaved
20	0	7127	2648	231	84	Area 04	UnPaved
20	50	7125	2609	247	116	Area 04	UnPaved
5	80	7118	2636	232	100	Area 06	UnPaved
5	15	7117	2702	263	75	Area 05	UnPaved
5	5	7115	2649	252	98	Area 05	UnPaved
0	5	7111	2704	225	96	Area 05	UnPaved
0	45	7110	2780	290	75	Area 02	UnPaved
0	15	7107	2670	302	83	Area 01	UnPaved
0	10	7102	2760	257	91	Area 02	UnPaved
0	15	7097	2623	284	97	Area 05	UnPaved
35	25	7095	2539	266	95	Area 04	UnPaved
55	90	7093	2665	219	78	Area 06	UnPaved
60	85	7087	2741	212	79	Area 06	UnPaved
10	55	7083	2579	286	73	Area 03	UnPaved
10	0	7082	2627	257	94	Area 09	UnPaved
0	5	7073	2665	276	68	Area 01	UnPaved
25	0	7069	2837	249	69	Area 01	UnPaved
5	10	7068	2666	239	84	Area 05	UnPaved
25	190	7058	2663	257	87	Area 04	UnPaved
0	30	7055	2672	296	76	Area 01	UnPaved
0	10	7045	2713	294	62	Area 01	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
45	5	7044	2556	240	98	Area 01	UnPaved
15	0	7042	2600	235	78	Area 04	UnPaved
45	20	7029	2641	302	64	Area 03	UnPaved
25	200	7022	2584	256	78	Area 04	UnPaved
10	210	7021	2706	247	68	Area 09	UnPaved
25	180	7020	2625	238	78	Area 04	UnPaved
10	100	7019	2604	221	83	Area 04	UnPaved
5	20	7019	2579	261	83	Area 05	UnPaved
25	10	7014	2571	206	100	Area 04	UnPaved
10	0	7005	2690	243	80	Area 08	UnPaved
20	150	7000	2545	214	110	Area 04	UnPaved
45	15	6998	2555	249	100	Area 01	UnPaved
20	20	6997	2659	242	81	Area 04	UnPaved
15	0	6993	2713	278	67	Area 01	UnPaved
25	20	6993	2568	257	95	Area 04	UnPaved
50	80	6988	2684	235	76	Area 06	UnPaved
10	130	6982	2572	270	88	Area 04	UnPaved
30	0	6977	2561	240	114	Area 04	UnPaved
10	5	6972	2611	258	79	Area 04	UnPaved
0	85	6971	2663	288	77	Area 01	UnPaved
0	30	6969	2586	235	99	Area 05	UnPaved
85	40	6962	2707	216	100	Area 05	UnPaved
40	5	6949	2657	277	80	Area 03	UnPaved
0	40	6946	2496	244	112	Area 05	UnPaved
20	15	6944	2590	246	97	Area 04	UnPaved
10	70	6942	2645	263	55	Area 10	UnPaved
85	35	6941	2645	231	85	Area 05	UnPaved
35	10	6939	2493	253	91	Area 04	UnPaved
20	80	6928	2601	234	82	Area 06	UnPaved
0	45	6926	2592	314	76	Area 01	UnPaved
20	75	6917	2626	228	79	Area 06	UnPaved
100	0	6916	2599	206	101	Area 08	UnPaved
40	80	6911	2655	221	84	Area 06	UnPaved
45	15	6907	2588	292	60	Area 03	UnPaved
20	145	6899	2464	241	102	Area 04	UnPaved
35	20	6897	2620	236	109	Area 04	UnPaved
105	0	6891	2574	225	79	Area 08	UnPaved
10	75	6886	2591	211	87	Area 06	UnPaved
35	15	6882	2549	245	90	Area 04	UnPaved
30	100	6875	2665	237	73	Area 01	UnPaved
45	80	6868	2647	231	87	Area 06	UnPaved
0	70	6361	2571	281	66	Area 01	UnPaved
25	25	6860	2572	208	80	Area 04	UnPaved
55	65	6846	2483	248	103	Area 01	UnPaved
25	75	6843	2589	213	68	Area 06	UnPaved
10	25	6835	2517	239	81	Area 09	UnPaved
15	75	6830	2536	216	77	Area 06	UnPaved
0	60	6828	2642	277	70	Area 01	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
0	85	6817	2587	248	67	Area 11	UnPaved
25	40	6811	2490	237	104	Area 04	UnPaved
5	75	6795	2614	232	69	Area 06	UnPaved
0	75	6793	2642	268	66	Area 01	UnPaved
15	150	6784	2571	237	96	Area 09	UnPaved
15	210	6781	2493	235	102	Area 04	UnPaved
20	65	6771	2505	241	82	Area 04	UnPaved
45	10	6770	2453	237	92	Area 01	UnPaved
10	125	6764	2441	206	93	Area 04	UnPaved
30	20	6763	2521	240	92	Area 04	UnPaved
30	10	6761	2521	227	81	Area 04	UnPaved
10	0	6760	2698	259	58	Area 01	UnPaved
35	5	6759	2416	229	100	Area 04	UnPaved
5	30	6755	2641	242	65	Area 05	UnPaved
10	0	6753	2580	238	69	Area 04	UnPaved
60	80	6752	2571	210	72	Area 06	UnPaved
10	80	6744	2552	250	96	Area 06	UnPaved
0	50	6743	2575	260	70	Area 02	UnPaved
50	50	6742	2499	261	99	Area 01	UnPaved
25	160	6742	2527	213	83	Area 04	UnPaved
15	80	6735	2588	215	78	Area 06	UnPaved
40	0	6728	2550	263	65	Area 01	UnPaved
5	0	6725	2507	218	74	Area 08	UnPaved
10	110	6723	2525	221	80	Area 04	UnPaved
20	140	6723	2462	226	82	Area 04	UnPaved
15	20	6719	2538	271	62	Area 02	UnPaved
25	15	6716	2555	210	82	Area 04	UnPaved
90	5	6700	2573	233	69	Area 05	UnPaved
55	215	6685	2455	227	75	Area 04	UnPaved
5	25	6676	2599	214	80	Area 05	UnPaved
25	5	6672	2433	225	95	Area 04	UnPaved
0	35	6669	2500	264	56	Area 01	UnPaved
25	195	6668	2428	225	92	Area 04	UnPaved
20	215	6653	2416	220	93	Area 04	UnPaved
45	205	6649	2389	221	79	Area 04	UnPaved
0	65	6622	2504	241	60	Area 01	UnPaved
20	40	6605	2636	277	61	Area 02	UnPaved
10	105	6604	2457	247	75	Area 04	UnPaved
15	30	6596	2491	294	55	Area 02	UnPaved
60	220	6591	2492	205	68	Area 04	UnPaved
0	40	6579	2445	245	60	Area 01	UnPaved
0	75	6572	2476	224	86	Area 06	UnPaved
10	120	6542	2442	209	110	Area 04	UnPaved
45	30	6532	2377	225	91	Area 01	UnPaved
0	55	6529	2442	260	76	Area 01	UnPaved
50	75	6524	2392	268	92	Area 01	UnPaved
45	75	6518	2385	235	79	Area 01	UnPaved
35	30	6515	2534	280	65	Area 03	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
5	0	6513	2567	221	51	Area 01	UnPaved
15	40	6513	2390	248	81	Area 02	UnPaved
110	0	6512	2416	221	70	Area 08	UnPaved
45	35	6483	2436	207	95	Area 01	UnPaved
40	10	6476	2346	247	83	Area 01	UnPaved
15	35	6461	2462	248	58	Area 02	UnPaved
0	0	6439	2494	247	68	Area 02	UnPaved
20	10	6434	2366	217	91	Area 04	UnPaved
20	130	6420	2424	215	70	Area 04	UnPaved
15	25	6409	2438	239	60	Area 02	UnPaved
15	15	6383	2442	223	49	Area 02	UnPaved
20	135	6334	2388	234	83	Area 04	UnPaved
45	25	6314	2296	203	70	Area 01	UnPaved
45	60	6312	2405	208	68	Area 01	UnPaved
50	45	6310	2334	226	87	Area 01	UnPaved
50	70	6305	2384	226	70	Area 01	UnPaved
45	65	6297	2342	226	90	Area 01	UnPaved
40	25	6279	2428	297	46	Area 03	UnPaved
20	180	6272	2378	188	72	Area 04	UnPaved
45	20	6271	2281	203	86	Area 01	UnPaved
45	40	6265	2272	197	77	Area 01	UnPaved
45	45	6256	2304	208	76	Area 01	UnPaved
45	0	6252	2250	231	88	Area 01	UnPaved
45	55	6247	2324	205	82	Area 01	UnPaved
15	10	6237	2488	233	56	Area 02	UnPaved
55	95	6236	2360	197	65	Area 01	UnPaved
60	100	6228	2283	191	87	Area 01	UnPaved
50	90	6194	2448	194	72	Area 06	UnPaved
15	65	6193	2388	247	60	Area 02	UnPaved
50	65	6184	2246	216	75	Area 01	UnPaved
115	0	6134	2362	186	72	Area 08	UnPaved
10	80	6129	2242	205	78	Area 04	UnPaved
50	60	6122	2187	229	73	Area 01	UnPaved
10	20	6111	2322	199	71	Area 09	UnPaved
50	55	6100	2275	210	84	Area 01	UnPaved
25	25	6085	2331	250	64	Area 03	UnPaved
60	95	6062	2211	203	76	Area 01	UnPaved
15	5	6057	2351	236	64	Area 02	UnPaved
45	70	6056	2265	201	75	Area 01	UnPaved
15	70	6050	2310	214	58	Area 02	UnPaved
55	70	6035	2158	207	84	Area 01	UnPaved
35	20	6035	2275	260	61	Area 03	UnPaved
55	100	6015	2289	185	65	Area 01	UnPaved
10	115	6001	2303	200	79	Area 04	UnPaved
15	0	5995	2320	221	52	Area 02	UnPaved
20	30	5986	2262	221	53	Area 02	UnPaved
20	210	5975	2294	187	70	Area 04	UnPaved
0	20	5959	2373	199	72	Area 05	UnPaved

Table 7 - Gamma Survey Data for Areas 1 through 11 Sorted by ROI #1 (UnPaved Sections)							
X Coordinate	Y Coordinate	ROI #1	ROI #2	ROI #3	ROI #4	Location	
30	85	5952	2307	175	67	Area 06	UnPaved
30	35	5942	2258	243	57	Area 03	UnPaved
10	75	5939	2381	246	61	Area 10	UnPaved
30	20	5914	2241	235	68	Area 03	UnPaved
20	70	5888	2351	214	55	Area 02	UnPaved
25	0	5887	2222	218	85	Area 04	UnPaved
55	75	5838	2097	219	68	Area 01	UnPaved
15	205	5809	2284	168	59	Area 04	UnPaved
40	5	5773	2173	233	57	Area 01	UnPaved
15	60	5746	2270	238	49	Area 02	UnPaved
35	0	5693	2125	209	55	Area 04	UnPaved
45	50	5667	2102	219	74	Area 01	UnPaved
0	60	5572	2152	209	59	Area 11	UnPaved
20	35	5529	2161	197	59	Area 02	UnPaved
0	10	5478	2186	181	56	Area 05	UnPaved
5	0	5308	1998	163	70	Area 05	UnPaved
30	5	5307	1999	177	57	Area 04	UnPaved
20	60	5289	2053	191	41	Area 02	UnPaved
15	130	5118	1973	187	63	Area 09	UnPaved
0	150	4549	1724	175	54	Area 11	UnPaved
20	65	4318	1747	155	36	Area 02	UnPaved
Average		7623	2812	279	96		
Median		7502	2781	273	92		
Maximum		10960	4214	499	194		
Minimum		4318	1724	155	36		
Count		501	501	501	501		
Standard Deviation		1109.3	360.9	52.9	26.9		

TABLE 8

GAMMA SURVEY DATA OF AREAS 12 THROUGH 16 (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINAT	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT	GAMMA @ 1m I MIN AVG	GAMMA @ 1m AVERAGE FOR GRID	BETA COUNT 1 MIN COUNT	COMMENTS
12	N/A	3, -3	N/A	N/A	N/A	9209	N/A	N/A	N/A	CONCRETE
12	"	3, -6	"	"	"	10757	"	"	"	"
12	"	6, -6	"	"	"	13103	"	"	"	DIRT
12	"	9, -6	"	"	"	12259	"	"	"	"
12	"	12, -6	"	"	"	14182	"	"	"	"
12	"	15, -6	"	"	"	15333	"	"	"	"
12	"	15, -3	"	"	"	12262	"	"	"	"
12	"	15, 0	"	"	"	10456	"	"	"	"
13	"	1, -3	N/A	N/A	N/A	9658	N/A	N/A	N/A	
13	"	5, -3	"	"	"	10569	"	"	"	
13	"	3, -6	"	"	"	9945	"	"	"	
13	"	1, -9	"	"	"	9334	"	"	"	
13	"	5, -9	"	"	"	8156	"	"	"	
13	"	3, -12	"	"	"	9175	"	"	"	
13	"	1, -15	"	"	"	8824	"	"	"	
13	"	5, -15	"	"	"	10399	"	"	"	
13	"	3, -18	"	"	"	11001	"	"	"	
13	"	0, -18	"	"	"	9269	"	"	"	
13	"	-3, -18	"	"	"	8922	"	"	"	
13	"	-6, -18	"	"	"	8404	"	"	"	
13	"	-3, -23	"	"	"	9632	"	"	"	
13	"	-6, -23	"	"	"	5792	"	"	"	
13	"	-3, -28	"	"	"	9479	"	"	"	
13	"	-6, -28	"	"	"	8120	"	"	"	
14	"	5, -5	N/A	N/A	N/A	9631	N/A	N,A	N/A	
14	"	5, -10	"	"	"	10073	"	"	"	
14	"	10, 0	"	"	"	8937	"	"	"	
14	"	10, -5	"	"	"	9378	"	"	"	
14	"	10, -10	"	"	"	10055	"	"	"	
14	"	15, 0	"	"	"	9142	"	"	"	
14	"	15, -5	"	"	"	9216	"	"	"	
14	"	15, -10	"	"	"	9247	"	"	"	
14	"	5, -15	"	"	"	9937	"	"	"	
14	"	10, -15	"	"	"	10000	"	"	"	

TABLE 8

GAMMA SURVEY DATA OF AREAS 12 THROUGH 16 (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINAT	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT	GAMMA @ 1m I MIN AVG	GAMMA @ 1m AVERAGE FOR GRID	BETA COUNT 1 MIN COUNT	COMMENTS
14	"	15, -15	"	"	"	10033	"	"	"	
15	"	5, -2	N/A	N/A	N/A	9146	N/A	N/A	N/A	
15	"	7, 0	"	"	"	8204	"	"	"	
15	"	10, -2	"	"	"	9769	"	"	"	
15	"	15, -2	"	"	"	10490	"	"	"	
15	"	20, -2	"	"	"	10616	"	"	"	BETWEEN BRICK BUILDINGS
15	"	20, -5	"	"	"	12783	"	"	"	"
15	"	25, 0	"	"	"	8158	"	"	"	"
15	"	30, -1	"	"	"	9060	"	"	"	
15	"	35, 1	"	"	"	8248	"	"	"	
15	"	35, -2	"	"	"	9032	"	"	"	
15	"	38, -8	"	"	"	9767	"	"	"	
16	"	0, -1	N/A	N/A	N/A	10398	N/A	N/A	N/A	
16	"	3, -1	"	"	"	11183	"	"	"	
16	"	6, -2	"	"	"	12080	"	"	"	
16	"	9, -2	"	"	"	11639	"	"	"	
16	"	12, -1	"	"	"	12736	"	"	"	
16	"	12, -3	"	"	"	12098	"	"	"	
16	"	15, -2	"	"	"	12188	"	"	"	
16	"	15, -4	"	"	"	10612	"	"	"	
16	"	18, -1	"	"	"	12869	"	"	"	
16	"	18, -4	"	"	"	11442	"	"	"	
TOP	N/A	1	N/A	N/A	N/A	11700	N/A	N/A	N/A	
OF	"	2	"	"	"	11922	"	"	"	
HILL	"	3	"	"	"	12694	"	"	"	
"	"	4	"	"	"	12316	"	"	"	
"	"	5	"	"	"	12744	"	"	"	
"	"	6	"	"	"	13361	"	"	"	
"	"	7	"	"	"	12880	"	"	"	
"	"	8	"	"	"	12059	"	"	"	
"	"	9	"	"	"	11356	"	"	"	
"	"	10	"	"	"	11703	"	"	"	
"	"	11	"	"	"	11455	"	"	"	
"	"	12	"	"	"	11368	"	"	"	

TABLE 8

GAMMA SURVEY DATA OF AREAS 12 THROUGH 16 (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINAT	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT	GAMMA @ 1m I MIN AVG	GAMMA @ 1m AVERAGE FOR GRID	BETA COUNT 1 MIN COUNT	COMMENTS
"	"	13	"	"	"	10842	"	"	"	
"	"	14	"	"	"	11297	"	"	"	
"	"	15	"	"	"	11401	"	"	"	

STASTICAL ANALYSIS:

NUMBER OF SAMPLES	71
MINIMUM	5792
MAXIMUM	15333
AVERAGE	10585
STANDARD DEVIATION	1679

TABLE 9

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF PAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
1	N/A	20, 5	1	10237	8900	9592	9.7	10.4	148.8	
1	"	"	2			8867	10		155.0	
1	"	"	3			9374	10.3		195.3	
1	"	"	4			9380	11		161.2	
1	"	"	5			10009	10.8		167.4	
1	N/A	50, 90	1	9895	7600	7823	8.9	8.8	99.2	
1	"	"	2			8457	9		142.6	
1	"	"	3			7865	8.9		96.1	
1	"	"	4			7282	8.6		-55.8	
1	"	"	5			7624	8.8		12.4	
3	N/A	15, 5	1	14355	12000	12509	13.5	13.5	117.8	
3	"	"	2			12660	13.6		58.9	
3	"	"	3			11640	13.1		133.3	
3	"	"	4			11389	12.9		24.8	
3	"	"	5			12849	14.4		195.3	
4	N/A	5, 15	1	11571	10300	9842	10.1	10.1	201.5	
4	"	"	2			9883	10.1		238.7	
4	"	"	3			10580	10		179.8	
4	"	"	4			10256	10.1		266.6	
4	"	"	5			9741	10.1		244.9	
4	N/A	5, 50	1	12651	10400	10026	9.9	10.0	220.1	
4	"	"	2			9341	10		232.5	
4	"	"	3			10911	9.9		272.8	
4	"	"	4			10687	10.4		381.3	
4	"	"	5			9447	9.7		244.9	
4	N/A	10, 150	1	13302	10200	10006	9.9	9.8	387.5	
4	"	"	2			9756	9.7		164.3	
4	"	"	3			10047	10.1		220.1	
4	"	"	4			9532	9.6		158.1	
4	"	"	5			8358	9.6		257.3	
4	N/A	15, 215	1	10222	8800	8080	9.1	9.1	393.7	

TABLE 9

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF PAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
4	"	"	2			8490	9.1		68.2	
4	"	"	3			8021	8.6		99.2	
4	"	"	4			8093	9.5		229.4	
4	"	"	5			8506	9.4		269.7	
5	N/A	85, 60	1	9439	8300	8012	8.3	8.6	136.4	
5	"	"	2			8438	8.6		198.4	
5	"	"	3			8340	8.7		272.8	
5	"	"	4			9022	9.1		198.4	
5	"	"	5			7693	8.4		37.2	
5	N/A	80, 15	1	11674	10400	9579	9.2	9.4	319.3	
5	"	"	2			9661	9.6		176.7	
5	"	"	3			7690	8.9		310.0	
5	"	"	4			7860	9.4		266.6	
5	"	"	5			10022	9.8		440.2	
5	N/A	30, 5	1	12346	9800	9857	9.8	9.7	350.3	
5	"	"	2			10928	9.7		654.1	
5	"	"	3			9932	9.8		319.3	
5	"	"	4			9824	9.7		337.9	
5	"	"	5			9401	9.6		365.8	
6	N/A	35, 75	1	12939	9850	9872	9.3	9.6	477.4	
6	"	"	2			9728	9.4		381.3	
6	"	"	3			9865	10		474.3	
6	"	"	4			10218	9.7		359.6	
6	"	"	5			10175	9.8		275.9	
6	N/A	40, 60	1	11977	10400	9904	10	9.7	449.5	
6	"	"	2			10071	9.6		328.6	
6	"	"	3			10291	10		508.4	
6	"	"	4			9854	9.5		427.8	
6	"	"	5			10020	9.6		437.1	
6	N/A	60, 70	1	11953	10500	9857	9.6	9.6	263.5	
6	"	"	2			10284	10		344.1	

TABLE 9

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF PAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
6	"	"	3			9611	9.3		480.5	
6	"	"	4			9802	9.7		474.3	
6	"	"	5			9594	9.6		282.1	
7	N/A	5, 110	1	10753	9000	8836	9.1	9.4	378.2	
7	"	"	2			8859	9.2		220.1	
7	"	"	3			8967	9.7		235.6	
7	"	"	4			9035	9.8		226.3	
7	"	"	5			8938	9.1		440.2	
7	N/A	35, 25	1	10677	8500	8502	9.1	9.3	275.9	
7	"	"	2			8412	9		207.7	
7	"	"	3			8704	9.4		427.8	
7	"	"	4			8427	9.5		195.3	
7	"	"	5			8673	9.5		399.9	
7	N/A	45, 20	1	10000	8400	8405	9.3	9.4	480.5	
7	"	"	2			8796	9.4		359.6	
7	"	"	3			7710	9.4		427.8	
7	"	"	4			9214	9.5		430.9	
7	"	"	5			8917	9.5		468.1	
7	N/A	55, 5	1	12974	9800	10138	10.6	10.6	480.5	
7	"	"	2			9753	10.2		306.9	
7	"	"	3			11116	12		368.9	1m FROM BRICK CHIMNEY
7	"	"	4			9988	10.5		297.6	
7	"	"	5			9816	9.8		474.3	
9	N/A	5, 175	1	13172	11500	11263	11.8	11.2	124.0	
9	"	"	2			11175	11.4		424.7	
9	"	"	3			10239	10.9		89.9	
9	"	"	4			10809	10.9		235.6	
9	"	"	5			11700	11.1		434.0	
9	N/A	5, 140	1	13145	11200	10862	10.7	10.3	176.7	
9	"	"	2			11136	11		331.7	
9	"	"	3			8429	9.2		-105.4	

TABLE 9

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF PAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
9	"	"	4			8537	10		207.7	
9	"	"	5			11976	10.5		465.0	
9	N/A	10, 125	1	15000	12000	11686	11.4	10.7	272.8	
9	"	"	2			10318	11.5		297.6	
9	"	"	3			9780	10.4		260.4	
9	"	"	4			9661	10.1		235.6	
9	"	"	5			10331	10.1		241.8	
9	N/A	5, 80	1	13730	10500	9723	9.9	9.8	139.5	
9	"	"	2			9761	9.9		570.4	
9	"	"	3			8791	9.4		164.3	
9	"	"	4			8810	9.5		71.3	
9	"	"	5			10185	10.5		306.9	
9	N/A	5, 30	1	10492	9000	8496	9.5	9.2	96.1	
9	"	"	2			9851	9.6		114.7	
9	"	"	3			8967	9.3		58.9	
9	"	"	4			8716	9.1		-46.5	
9	"	"	5			7694	8.4		151.9	
10	N/A	5, 70	1	12876	11500	11274	11.1	11.0	508.4	
10	"	"	2			9767	10.7		399.9	
10	"	"	3			11736	11.1		551.8	
10	"	"	4			10621	10.9		310.0	
10	"	"	5			10906	11		365.8	
10	N/A	5, 45	1	12884	10200	11364	10.8	10.5	412.3	
10	"	"	2			11071	11.5		452.6	
10	"	"	3			8334	10		477.4	
10	"	"	4			7946	9.1		486.7	
10	"	"	5			11421	11		576.6	
10	N/A	5, 15	1	15668	11700	11364	11	10.6	511.5	
10	"	"	2			11039	11		511.5	
10	"	"	3			9921	10.3		263.5	
10	"	"	4			9422	10.3		310.0	

TABLE 9

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF PAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
10	"	"	5			10737	10.6		421.6	
11	N/A	5, 235	1	14564	10700	10067	10.7	10.8	393.7	
11	"	"	2			11322	12.3		412.3	
11	"	"	3			8739	11		133.3	
11	"	"	4			10325	10		375.1	
11	"	"	5			9878	10		471.2	
11	N/A	5, 175	1	14852	12500	11914	11.5	11.5	399.9	
11	"	"	2			12212	11.4		449.5	
11	"	"	3			11836	11		480.5	
11	"	"	4			11031	11.5		461.9	
11	"	"	5			11500	12		248.0	
11	N/A	5, 90	1	13216	10500	10961	10.6	10.3	378.2	
11	"	"	2			8982	9.7		458.8	
11	"	"	3			9308	10.2		424.7	
11	"	"	4			10918	10.3		384.4	
11	"	"	5			9956	10.9		359.6	
11	N/A	10, 20	1	14600	12500	10843	10.9	11.0	427.8	
11	"	"	2			11523	11.3		393.7	
11	"	"	3			10738	10.8		477.4	
11	"	"	4			11466	10.7		514.6	
11	"	"	5			11547	11.2		613.8	
11	N/A	15, 10	1	13107	10800	10309	10.4	10.8	300.7	
11	"	"	2			9797	10.3		337.9	
11	"	"	3			10795	11		465.0	
11	"	"	4			11101	11.8		263.5	
11	"	"	5			10569	10.7		446.4	
13	N/A	-5, -25	1	11071	9500	7671	9.6	10.1	-18.6	ASPHALT
13	"	"	2			8144	9.4		6.2	ASPHALT
13	"	"	3			8826	10.1		-9.3	CONCRETE
13	"	"	4			9798	11		328.6	CONCRETE
13	"	"	5			7773	10.2		15.5	ASPHALT

TABLE 9

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF PAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
14	N/A	10, -10	1	12000	9500	9615	10.2	10.1	120.9	
14	"	"	2			9241	9.6		173.6	
14	"	"	3			9188	9.5		127.1	
14	"	"	4			9662	10.8		130.2	
14	"	"	5			10038	10.4		133.3	
15	N/A	25, 0	1	10508	8500	8260	8.8	9.1	145.7	
15	"	"	2			7680	8.7		266.6	
15	"	"	3			7367	8.8		285.2	
15	"	"	4			7680	9.5		145.7	
15	"	"	5			8798	9.7		399.9	

STASTICAL ANALYSIS:						
NUMBER OF SAMPLES	33	33	165	165	33	165
MINIMUM	9439	7600	7282	8.30	8.62	-105.40
MAXIMUM	15668	12500	12849	14.40	13.50	654.10
AVERAGE	12359	10159	9738	10.13	10.13	291.12
STANDARD DEVIATION	1646	1255	1222	1.01	0.92	152.48
LIMIT				18.0	18.0	5,000
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:				1.657	1.694	1.657
DATA TEST PARAMETER				10.26	10.40	310.79
"NUMBER OF SAMPLES" FACTOR				7.77	8.54	30.88
DOES DATA SATISFY LIMIT CRITERIA?				YES	YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?				YES	YES	YES

TABLE 10

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF UNPAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
1	751	30,0	1	14963	12500	12223	12.7	12.0	N/A	SAMP #751
1		"	2			12073	11.5		"	NEAR BRICK BUILDING
1		"	3			12233	11.7		"	AREA APPROX. 10m X 4m
1		"	4			12220	11.7		"	
1		"	5			11161	12.4		"	
1	758	20,100	1	14863	12900	12555	11.5	11.5	N/A	SAMP #758
1		"	2			12393	11.7		"	
1		"	3			12346	11.7		"	
1		"	4			11981	11.5		"	
1		"	5			11973	11.1		"	
1	757	40,100	1	15385	12200	11984	11.2	11.6	N/A	SAMP #757
1		"	2			12649	12.2		"	
1		"	3			12533	12.4		"	
1		"	4			11463	11.0		"	
1		"	5			11607	11.4		"	
3	753	15,40	1	16394	13800	14506	13.0	13.2	N/A	SAMP #753
3		"	2			14437	13.9		"	
3		"	3			14229	13.6		"	
3		"	4			14031	12.5		"	
3		"	5			13986	13.0		"	
3	752	25,0	1	20271	12700	14713	13.3	13.4	N/A	SAMP #752
3		"	2			14623	13.4		"	
3		"	3			14008	12.6		"	
3		"	4			15079	13.2		"	
3		"	5			15509	14.5		"	
3	756	40,0	1	17850	15000	14161	13.4	12.8	N/A	SAMP #756
3		"	2			13680	12.2		"	
3		"	3			13136	11.4		"	
3		"	4			13394	12.9		"	
3		"	5			14921	14.2		"	
4	754	20,185	1	15268	12000	10872	10.9	10.8	N/A	SAMP #754

TABLE 10

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF UNPAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
4		"	2			11108	10.8		"	
4		"	3			11459	10.7		"	
4		"	4			10919	10.8		"	
4		"	5			11093	10.6		"	
5	755	85,20	1	12346	10700	10444	10.0	9.9	N/A	SAMP #755
5		"	2			10226	9.8		"	
5		"	3			10855	10.4		"	
5		"	4			11135	9.6		"	
5		"	5			10001	9.6		"	
8	761	10,10	1	19170	14000	16234	16.0	17.0	N/A	SAMP #761
8		"	2			19219	17.0		"	
8		"	3			17975	18.0		"	
8		"	4			15442	17.0		"	
8		"	5			17352	17.0		"	
8	762	30,10	1	21144	15000	18484	15.0	15.8	N/A	SAMP #762
8		"	2			19081	16.0		"	
8		"	3			21205	18.0		"	
8		"	4			14964	15.0		"	
8		"	5			13969	15.0		"	
8	763	50,10	1	16998	14400	13845	16.0	15.8	N/A	SAMP #763
8		"	2			15202	15.0		"	
8		"	3			14889	16.0		"	
8		"	4			14467	15.0		"	
8		"	5			16346	17.0		"	
8	764	70,10	1	16129	13000	14331	15.0	14.8	N/A	SAMP #764
8		"	2			14432	14.0		"	
8		"	3			14486	14.0		"	
8		"	4			14475	15.0		"	
8		"	5			15182	16.0		"	
8	765	90,10	1	15190	13000	13521	15.0	14.6	N/A	SAMP #765
8		"	2			16486	15.0		"	

TABLE 10

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF UNPAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
8		"	3			16542	13.0		"	
8		"	4			14301	15.0		"	
8		"	5			16226	15.0		"	
8	766	110,10	1	14493	11000	14464	13.0	13.4	N/A	SAMP #766
8		"	2			14932	14.0		"	
8		"	3			12592	14.0		"	
8		"	4			11461	13.0		"	
8		"	5			13382	13.0		"	
8	767	40,20	1	16578	13200	14404	16.0	16.4	N/A	SAMP #767
8		"	2			15450	17.0		"	
8		"	3			15576	17.0		"	
8		"	4			15211	15.0		"	
8		"	5			14843	17.0		"	
8	768	80,5	1	15958	13100	16563	14.0	14.0	N/A	SAMP #768
8		"	2			14746	13.0		"	
8		"	3			14439	15.0		"	
8		"	4			12311	14.0		"	
8		"	5			14601	14.0		"	
11	750	0,30	1	15916	12900	13843	13.1	12.5	N/A	SAMP #750
11		"	2			13661	12.6		"	NEAR BRICK BUILDING
11		"	3			12795	12.1		"	AREA APPROX. 10m X 3m
11		"	4			13508	12.2		"	
11		"	5			14275	12.7		"	
17	717	@ Soil	1	15070	13000	14132	19.0	18.0	N/A	Sample point @ 5 meters
17		Sample #717	2			13082	17.0		"	west of 0' reference rear
17		"	3			16803	20.0		"	east gate.
17		"	4			13815	17.0		"	"
17		"	5			13828	17.0		"	"
17	718	@ Soil	1	17219	13514	14235	17.0	16.2	N/A	Sample point @ 30 meters
17		Sample #718	2			14920	17.0		"	west of 0' reference rear
17		"	3			14551	15.0		"	east gate.

TABLE 10

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF UNPAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
17		"	4			15196	16.0		"	"
17		"	5			13877	16.0		"	"
17	719	@ Soil	1	17150	13800	14061	19.0	17.2	N/A	Sample point @ 50 meters
17		Sample #719	2			13675	16.0		"	west of 0' reference rear
17		"	3			13099	18.0		"	east gate.
17		"	4			13579	16.0		"	"
17		"	5			13376	17.0		"	"
17	720	@ Soil	1	15350	12800	13310	19.0	16.8	N/A	Sample point @ 70 meters
17		Sample #720	2			13934	17.0		"	west of 0' reference rear
17		"	3			13796	17.0		"	east gate.
17		"	4			11503	15.0		"	"
17		"	5			13607	16.0		"	"
17	721	@ Soil	1	17950	14600	12736	15.0	16.2	N/A	Sample point @ 85 meters
17		Sample #721	2			14406	18.0		"	west of 0' reference rear
17		"	3			13579	17.0		"	east gate.
17		"	4			12229	16.0		"	"
17		"	5			12637	15.0		"	"
17	722	@ Soil	1	16840	12800	12470	16.0	17.2	N/A	Sample point @ 100 meters
17		Sample #722	2			17061	20.0		"	west of 0' reference rear
17		"	3			13924	17.0		"	east gate.
17		"	4			13550	17.0		"	"
17		"	5			14826	16.0		"	"
17	723	@ Soil	1	14870	13213	13876	16.0	17.2	N/A	Sample point @ 115 meters
17		Sample #723	2			14082	20.0		"	west of 0' reference rear
17		"	3			14611	17.0		"	east gate.
17		"	4			14567	17.0		"	"
17		"	5			14865	16.0		"	"
17	724	@ Soil	1	14789	13364	13836	18.0	17.2	N/A	Sample point @ 140 meters
17		Sample #724	2			13931	21.0		"	west of 0' reference rear
17		"	3			13332	18.0		"	east gate.
17		"	4			11020	14.0		"	"

TABLE 10

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF UNPAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1π 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
17		"	5			14666	15.0		"	"
17	725	@ Soil	1	17893	13461	12944	17.0	17.4	N/A	Sample point @ 165 meters
17		Sample #725	2			15611	18.0		"	west of 0' reference rear
17		"	3			13598	19.0		"	east gate.
17		"	4			15988	17.0		"	"
17		"	5			15965	16.0		"	"
17	726	@ Soil	1	18250	13150	14595	17.0	17.4	N/A	Sample point @ [illegible] meters
17		Sample #726	2			14524	18.0		"	west of 0' reference rear
17		"	3			15192	17.0		"	east gate.
17		"	4			13645	18.0		"	"
17		"	5			13712	17.0		"	"
17	727	@ Soil	1	16625	13100	14074	17.0	17.2	N/A	Sample point @ 195 meters
17		Sample #727	2			13973	17.0		"	west of 0' reference rear
17		"	3			14413	19.0		"	east gate.
17		"	4			12584	17.0		"	"
17		"	5			13293	16.0		"	"
17	728	@ Soil	1	17654	13825	15450	18.0	18.6	N/A	Sample point @ 210 meters
17		Sample #728	2			13474	19.0		"	west of 0' reference rear
17		"	3			14432	18.0		"	east gate.
17		"	4			14700	19.0		"	"
17		"	5			13557	19.0		"	"
17	729	@ Soil	1	15827	12791	15205	19.0	18.4	N/A	Sample point @ 225 meters
17		Sample #729	2			13614	18.0		"	west of 0' reference rear
17		"	3			13783	20.0		"	east gate.
17		"	4			13684	17.0		"	"
17		"	5			14188	18.0		"	"
17	730	@ Soil	1	15890	13551	13733	17.0	15.6	N/A	Sample point @ 20 meters
17		Sample #730	2			13570	16.0		"	south of 225 meter point
17		"	3			13374	16.0		"	west of 0' reference rear
17		"	4			11851	14.0		"	east gate.(Rdgs. span at
17		"	5			12688	15.0		"	5 meter x 2.5 meter area)

TABLE 10

RADIOLOGICAL SURVEY DATA AND COMPARISON AGAINST ACCEPTANCE CRITERIA FOR SURVEYS OF UNPAVED AREAS (SURVEY SECTION 30)

LOCATION (AREA #)	SOIL SAMPLE NUMBER	X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN COUNT (COUNTS)	GAMMA @ 1m 1 MIN AVG (microR/hr)	GAMMA @ 1m GRID AVG. (microR/hr)	BETA COUNT 1 MIN COUNT DPM/100cm^2	COMMENTS
17	731	@ Soil	1	14670	11883	12336	16.0	15.4	N/A	Sample point @ 40 meters
17		Sample #731	2			11531	15.0		"	south of 225 meter point
17		"	3			11755	17.0		"	west of 0' reference rear
17		"	4			12382	15.0		"	east gate.(Rdgs. span at
17		"	5			11734	14.0		"	5 meter x 2.5 meter area)

STASTICAL ANALYSIS:					
NUMBER OF SAMPLES	32	32	160	160	32
MINIMUM	12346	10700	10001	9.60	9.88
MAXIMUM	21144	15000	21205	21.00	18.60
AVERAGE	16405	13133	13884	15.17	15.17
STANDARD DEVIATION	1758	946	1739	2.56	2.37
LIMIT				18.0	18.0
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:				1.657	1.696
DATA TEST PARAMETER				15.51	15.88
"NUMBER OF SAMPLES" FACTOR				1.11	1.19
DOES DATA SATISFY LIMIT CRITERIA?				YES	YES
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?				YES	YES

TABLE 11

ANALYTICAL RESULTS FOR SOIL SAMPLES TAKEN OF SITE GROUNDS

PROJ ID	AREA LOCATION	X COORDINATE	Y COORDINATE	GAMMA SPEC. LAB ID	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
758	1	20	100	93- 817	<1.40E-01									
751	1	30	0	93- 810	<2.40E-01									
757	1	40	100	93- 816	<2.70E-01									
COMPOSITE, SAMP. #758,751,757				AVG.=2.17E-01		93- 817	<2.50E-01	1.13E+00	1.60E-01	4.90E-01	2.03E+00	YES	12.7	4.83%
753	2	15	40	93- 812	<3.40E-01									
752	3	25	0	93- 811	<2.60E-01									
756	3	40	0	93- 815	<2.30E-01									
COMPOSITE, SAMP. #753,752,756				AVG.=2.77E-01		93- 812	<1.40E-01	6.80E-01	<9.00E-02	3.80E-01	1.49E+00	YES	14.3 16.6	3.55%
754	4	20	185	93- 813	<2.20E-01									
755	5	85	20	93- 814	1.62E-01									
761	8	10	10	93- 820	<3.40E-01									
COMPOSITE, SAMP. #754,755,761				AVG.=2.47E-01		93- 813	<1.30E-01	4.40E-01	<1.10E-01	4.30E-01	1.11E+00	YES	10.1	3.82%
762	8	30	10	93- 821	<3.70E-01									
767	8	40	20	93- 826	1.97E-01									
763	8	50	10	93- 822	<3.70E-01									
COMPOSITE, SAMP. #762,767,763				AVG.=3.12E-01		93- 821	<2.70E-01	6.10E-01	<9.00E-02	6.30E-01	1.60E+00	YES	17.8	2.17%
764	8	70	10	93- 823	3.48E-01									
768	8	80	5	93- 827	1.49E-01									
765	8	90	10	93- 824	<3.40E-01									
COMPOSITE, SAMP. #764,768,765				AVG.=2.79E-01		93- 823	<1.30E-01	1.10E+00	1.10E-01	5.10E-01	1.85E+00	YES	16.8	3.24%
766	8	110	10	93- 825	<2.30E-01									
750	11	0	30	93- 809	<3.50E-01									
717	17	at 5 m west of 0 m		93- 776	2.10E-01									
COMPOSITE, SAMP. #766,750,717				AVG.=2.63E-01		93- 776	<1.50E-01	5.50E-01	<1.40E-01	6.20E-01	1.46E+00	YES	10.4	3.39%
718	17	at 30 m west of 0 m		93- 777	<2.20E-01									
719	17	at 50 m west of 0 m		93- 778	1.78E-01									
720	17	at 70 m west of 0 m		93- 779	1.76E-01									
721	17	at 85 m west of 0 m		93- 780	<2.70E-01									
COMPOSITE, SAMP. #718,719,720,721				AVG.=2.11E-01		93- 777	<1.00E-01	7.90E-01	<1.30E-01	5.00E-01	1.52E+00	YES	11.7	3.88%
722	17	at 100 m west of 0 m		93- 781	<3.60E-01									
723	17	at 115 m west of 0 m		93- 782	<3.50E-01									
724	17	at 140 m west of 0 m		93- 783	<2.30E-01									
725	17	at 165 m west of 0 m		93- 784	<3.50E-01									
COMPOSITE, SAMP. #722,723,724,725				AVG.=3.23E-01		93- 781	<1.10E-01	2.43E+00	1.30E-01	6.20E-01	3.34E+00	YES	25.7	3.16%
726	17	at 180 m west of 0 m		93- 785	1.82E-01									
727	17	at 195 m west of 0 m		93- 786	<2.70E-01									

TABLE 11

ANALYTICAL RESULTS FOR SOIL SAMPLES TAKEN OF SITE GROUNDS

PROJ ID	AREA LOCATION	X COORDINATE	Y COORDINATE	GAMMA SPEC. LAB ID	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
728	17	at 210 m west of 0 m		93- 787	<3.50E-01									
729	17	at 225 m west of 0 m		93- 788	<2.20E-01									
COMPOSITE, SAMP. #726,727,728,729				AVG.=2.56E-01		93- 785	<8.00E-02	4.20E-01	<5.00E-01	3.00E-01	1.30E+00	YES	2.6	20.58%
730	17	20m south of 225m point		93- 789	<3.20E-01									
731	17	40m south of 225m point		93- 790	<2.40E-01									
759	17	125m south of 225m point		93- 818	<3.70E-01									
760	17	160m south of 225m point		93- 819	1.57E-01									
COMPOSITE, SAMP. #730,731,759,760				AVG.=2.94E-01		93- 789	<8.00E-02	4.20E-01	<1.00E-01	4.10E-01	1.01E+00	YES	10.1	3.65%

STASTICAL ANALYSIS:

NUMBER OF SAMPLES	34	10	10	10	10	10	10	10
MINIMUM	1.40E-01				1.01E+00			
MAXIMUM	3.70E-01		8.57E-01		~~3.34E+00~~	3.29E+00		
AVERAGE	2.65E-01	1.44E-01	~~8.82E~~-01	1.56E-01	4.89E-01	~~1.67E+00~~	1.65E+00	~~13.4~~ 13.2	5.23%
STANDARD DEVIATION	7.48E-02	6.23E-02	~~5.90E~~-01	1.17E-01	1.06E-01	~~6.28E-01~~	6.23E-01	~~5.9~~ 5.7	5.15%
LIMIT	1		5.79E-01			30			
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.693					1.833			
DATA TEST PARAMETER	0.29					~~2.03~~	2.01		
"NUMBER OF SAMPLES" FACTOR	9.83					~~45.13~~	45.50		
DOES DATA SATISFY LIMIT CRITERIA?	YES					YES			
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES					YES			

All hadwritten changes.
A.J. Nardi
4/30/93

BACKGROUND SOIL RESULTS (SEE REPORT #007 FOR INFORMATION)	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
AVERAGE	3.24E-01	1.67E-02	4.61E-01	5.98E-02	4.49E-01	9.86E-01	29.5	1.95%
STANDARD DEVIATION	1.01E-01	6.96E-03	2.45E-01	8.76E-02	2.19E-01	4.89E-01	13.2	2.12%

Paved Surfaces Data Points						
X Coordinate	Y Coordinate	Gross Counts	U-235 Counts	Cs-137 Counts	Co-60 Counts	Area Location
20	5	7650	2828	311	72	Area 01
50	90	6287	2425	203	72	Area 01
15	5	9836	3732	408	101	Area 03
5	15	7250	2641	259	91	Area 04
5	50	7127	2587	231	90	Area 04
10	150	7242	2740	256	96	Area 04
15	215	8072	2918	316	114	Area 04
30	5	7476	2859	286	89	Area 05
80	15	7953	2974	269	108	Area 05
85	60	7423	2788	278	85	Area 05
35	75	7383	2749	258	97	Area 06
40	60	7326	2789	244	77	Area 06
60	70	7257	2741	224	75	Area 06
5	110	6835	2608	215	97	Area 07
35	25	7092	2553	247	95	Area 07
45	20	7901	2835	318	112	Area 07
55	5	7874	2851	284	124	Area 07
5	30	5910	2268	197	76	Area 09
5	80	6816	2483	242	96	Area 09
5	140	7844	2839	291	107	Area 09
5	175	9902	3651	360	144	Area 09
10	125	7337	2791	262	102	Area 09
5	15	7030	2833	226	70	Area 10
5	45	7271	2843	278	86	Area 10
5	70	7344	2789	308	78	Area 10
5	90	6698	2531	257	61	Area 11
5	175	8540	3171	322	96	Area 11
5	235	8563	3284	308	88	Area 11
10	20	7080	2625	265	64	Area 11
15	10	6861	2659	240	70	Area 11
-5	-25	6545	2394	258	95	Area 13
10	-10	6943	2595	247	87	Area 14
25	0	5545	2055	215	84	Area 15
Total # to collect		33				

TABLE 12
LOCATION OF SAMPLE POINTS FOR PAVED SURFACES

UnPaved Surfaces Data Points							
X Coordinate	Y Coordinate	Gross Counts	U-235 Counts	Cs-137 Counts	Co-60 Counts	Area Location	Sample Number
20	100	8206	3075	340	84	Area 01	758
30	0	8076	3035	307	97	Area 01	751
40	100	8855	3141	302	121	Area 01	757
15	40	6513	2390	248	81	Area 02	753
25	0	10021	3734	444	109	Area 03	752
40	0	9395	3502	368	90	Area 03	756
20	185	8298	2954	278	114	Area 04	754
85	20	8478	3221	268	108	Area 05	755
10	10	10116	3526	371	156	Area 08	761
30	10	10341	3660	369	177	Area 08	762
40	20	9475	3335	334	145	Area 08	767
50	10	9503	3291	333	146	Area 08	763
70	10	9318	3245	322	157	Area 08	764
80	5	8710	3060	306	127	Area 08	768
90	10	9015	3082	339	135	Area 08	765
110	10	8491	3030	325	109	Area 08	766
0	30	9256	3489	385	78	Area 11	750
at 5m west of 0m		9146	3296	315	140	Area 17	717
at 30m west of 0m		8345	3028	312	106	Area 17	718
at 50m west of 0m		8531	2981	314	130	Area 17	719
at 70m west of 0m		8749	3075	325	152	Area 17	720
at 85m west of 0m		8285	2891	318	115	Area 17	721
at 100m west of 0m		8848	3235	344	136	Area 17	722
at 115m west of 0m		9417	3396	345	124	Area 17	723
at 140m west of 0m		8785	3150	332	118	Area 17	724
at 165m west of 0m		9069	3230	340	123	Area 17	725
at 180m west of 0m		9363	3306	386	131	Area 17	726
at 195m west of 0m		8781	3119	343	122	Area 17	727
at 210m west of 0m		10042	3565	383	147	Area 17	728
at 225m west of 0m		10253	3686	422	154	Area 17	729
at 225m west and 20m south of 0m reference		8778	3153	333	115	Area 17	730
at 225m west and 40m south of 0m reference		7539	2827	276	107	Area 17	731
at 225m west and 125m south of 0m reference		6885	2507	249	82	Area 17	759
at 225m west and 160m south of 0m reference		5725	2184	214	72	Area 17	760
Total # to collect		34					

TABLE 13
LOCATION OF SAMPLE POINTS FOR UNPAVED SURFACES

APPENDIX A

ANALYTICAL LABORATORY REPORT SHEETS

Sample Number	Date	Comments	Sample Number	Date	Comments
649- - See Maps	05/10/93	Stream Sampling Location "C"	674- - See Maps	05/10/93	Stream Sampling Location "E"
650- - See Maps	05/10/93	" "	675- - See Maps	05/10/93	" "
651- - See Maps	05/10/93	" "	676- - See Maps	05/10/93	" "
652- - See Maps	05/10/93	" "	677- - See Maps	05/10/93	" "
653- - See Maps	05/10/93	" "	678- - See Maps	05/10/93	" "
654- - See Maps	05/10/93	" "	679- - See Maps	05/10/93	" "
655- - See Maps	05/10/93	" "	680- - See Maps	05/10/93	" "
656- - See Maps	05/10/93	" "	681- - See Maps	05/11/93	" "
657- - See Maps	05/10/93	" "	682- - See Maps	05/11/93	Stream Sampling Location "F"
658- - See Maps	05/10/93	Stream Sampling Location "D"	683- - See Maps	05/11/93	" "
659- - See Maps	05/10/93	" "	684- - See Maps	05/11/93	" "
660- - See Maps	05/10/93	" "	685- - See Maps	05/11/93	" "
661- - See Maps	05/10/93	" "	686- - See Maps	05/11/93	" "
662- - See Maps	05/10/93	" "	687- - See Maps	05/11/93	" "
663- - See Maps	05/10/93	" "	688- - See Maps	05/11/93	" "
664- - See Maps	05/10/93	" "	689- - See Maps	05/11/93	" "
665- - See Maps	05/10/93	" "	690- - See Maps	05/11/93	" "
666- - See Maps	05/10/93	" "	691- - See Maps	05/11/93	" "
667- - See Maps	05/10/93	" "	692- - See Maps	05/11/93	" "
668- - See Maps	05/10/93	" "	693- - See Maps	05/12/93	East Parking Lot #1
669- - See Maps	05/10/93	" "	694- - See Maps	05/12/93	East Parking Lot #2
670- - See Maps	05/10/93	Stream Sampling Location "E"	695- - See Maps	05/12/93	East Parking Lot #3
671- - See Maps	05/10/93	" "	696- - See Maps	05/12/93	East Parking Lot #4
672- - See Maps	05/10/93	" "	697- - See Maps	05/12/93	East Parking Lot #5
673- - See Maps	05/10/93	" "	698- - See Maps	05/12/93	East Parking Lot #7

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Sample Number	Date	Comments	Sample Number	Date	Comments
699- - See Maps	05/12/93	East Parking Lot #6	724 - @ 140 meters	05/26/93	Grounds Survey Sample Area #17
700- - See Maps	05/12/93	East Parking Lot #10	725 - @ 165 meters	05/26/93	" "
701- - See Maps	05/12/93	East Parking Lot #11	726 - @ 185 meters	05/26/93	" "
702- - See Maps	05/12/93	East Parking Lot #13	727 - @ 195 meters	05/26/93	" "
703- - See Maps	05/12/93	East Parking Lot #15	728 - @ 210 meters	05/26/93	" "
704- - See Maps	05/12/93	East Parking Lot #16	729 - @ 225 meters	05/26/93	" "
705- - See Maps	05/20/93	Catch Basin #8	730 - @ 20 meters	05/26/93	" "
706- - See Maps	05/20/93	Catch Basin #9	731 - @ 40 meters	05/26/93	" "
707- - See Maps	05/20/93	Catch Basin #11	732 - X = 10 Y =-10	06/03/93	Bldg. #5 Roof "B" Material
708- - See Maps	05/20/93	Catch Basin #12	733 - X = 30 Y =+5	06/03/93	Bldg. #8A Roof Material
709- - See Maps	05/20/93	Catch Basin #13	734 - X = 10 Y =-50	06/03/93	Bldg. #9 Roof Material
710- - See Maps	05/20/93	Catch Basin #15	735 - @ Vent #12	06/03/93	" "
711- - See Maps	05/20/93	Catch Basin #16	736 - @ Vent #31	06/03/93	" "
712- - See Maps	05/20/93	Catch Basin #17	737 - X = 15 Y = +1	06/03/93	Hydrogen Bldg. Roof Material
713- - See Maps	05/20/93	Catch Basin #18	738 - X = 15 Y = -2	06/03/93	" "
714- - See Maps	05/20/93	Catch Basin #19	739 - X = 14 Y = -2	06/03/93	" "
715- - See Maps	05/20/93	Catch Basin #20	740 - X = 14 Y = -1	06/03/93	" "
716- - See Maps	05/24/93	Catch Basin #21	741 - X = 10 Y =-10	06/03/93	Bldg. #5 Roof Gravel
717 - @ 5 meters	05/26/93	Grounds Survey Sample Area #17	742 - X = 30 Y = +5	06/03/93	Bldg. #8A Roof Gravel
718 - @ 30 meters	05/26/93	Grounds Survey Sample Area #17	743 - X = 10 Y =-50	06/03/93	Bldg. #9 Roof Gravel
719 - @ 50 meters	05/26/93	" "	744 - @ Vent #12	06/03/93	" "
720 - @ 70 meters	05/26/93	" "	745 - @ Vent #31	06/03/93	" "
721 - @ 85 meters	05/26/93	" "	746 - X = 15 Y = +1	06/03/93	Hydrogen Bldg. Roof - Gravel
722 - @ 100 meters	05/26/93	" "	747 - X = 15 Y = -2	06/03/93	" "
723 - @ 123 meters	05/26/93	" "	748 - X = 14 Y = -2	06/03/93	" "

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Sample Number	Date	Comments	Sample Number	Date	Comments
749 - X = 14 Y = -1	06/03/93	Hydrogen Bldg. Roof - Gravel			
750 - X = 0 Y = 30	06/03/93	Grounds Sample Area #11			
751 - X = 30 Y = 0	06/03/93	Grounds Sample Area #1			
752 - X = 25 Y = 0	06/03/93	Grounds Sample Area #3			
753 - X = 15 Y = 40	06/03/93	" "			
754 - X = 20 Y = 185	06/03/93	Grounds Sample Area #4			
755 - X = 85 Y = 20	06/03/93	Grounds Sample Area #5			
756 - X = 40 Y = 0	06/03/93	Grounds Sample Area #3			
757 - X = 20 Y =100	06/03/93	Grounds Sample Area #1			
758 - X = 40 Y =100	06/03/93	" "			
759 - @ 125 meters	06/03/93	Grounds Sample Area #17			
760 - @ 160 meters	06/03/93	" "			
761 - X = 10 Y = 10	06/03/93	Grounds Sample Area #8			
762 - X = 30 Y = 10	06/03/93	" "			
763 - X = 50 Y = 10	06/03/93	" "			
764 - X = 70 Y = 10	06/03/93	" "			
765 - X = 90 Y = 10	06/03/93	" "			
766 - X =110 Y = 10	06/03/93	" "			
767 - X = 40 Y = 20	06/03/93	" "			
768 - X = 80 Y = 5	06/03/93	" "			

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/12/93
Reported: 6/2/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 12, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
688	93-651	U-235	<2.4E-01	
689	93-652	U-235	<1.6E-01	
690	93-653	U-235	2.03E-01 +/-	1.7E-01
691	93-654	U-235	<1.7E-01	
692	93-655	U-235	<3.6E-01	
693	93-656	U-235	<4.2E-01	
		Cs-137	5.39E-01 +/-	4.3E-01
694	93-657	U-235	5.19E-01 +/-	2.2E-01
		Cs-137	5.83E-01 +/-	2.6E-01
695	93 658	U-235	<3.9E-01	
696	93-659	U-235	3.33E-01	2.2E-01
697	93-660	U-235	3.05E-01 +/-	1.9E-01
698	93-661	U-235	1.05E+00 +/-	4.5E-01
699	93-662	U-235	4.18E-01 +/-	3.6E-01
700	93-663	U-235	2.76E-01	1.4E-01
701	93-664	U-235	<4.0E-01	
702	93-665	U-235	<4.6E-01	

Remarks: Gamma Spectrometry Analysis

References: Request# 15069
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 5

Approved: Mark Kaufman

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT Request# 15069

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/12/93
Reported: 6/2/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 12, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
703	93-666	U-235	1.75E-01	+/- 1.1E-01
		Cs-137	1.06E+00	+/- 3.3E-01
704	93-667	U-235	3.43E-01	+/- 1.6E-01
		Cs-137	4.40E-01	+/- 2.5E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15069
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 6

Approved: Mark Kaminski

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15088

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/9/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (June 3, 1993)

Orig ID	Lab.Spl#	Nuclide	pCi/gram (Wet basis)	2 sigma
717	93-776	U-235	2.10E-01	+/- 1.7E-01
718	93-777	U-235	<2.2E-01	
719	93-778	U-235	1.78E-01	+/- 1.5E-01
720	93-779	U-235	1.76E-01	+/- 1.4E-01
721	93-780	U-235	<2.7E-01	
722	93-781	U-235	<3.6E-01	
723	93-782	U-235	<3.5E-01	
724	93-783	U-235	<2.3E-01	
725	93-784	U-235	<3.5E-01	
726	93-785	U-235	1.82E-01	+/- 1.4E-01
727	93-786	U-235	<2.7E-01	
728	93-787	U-235	<3.5E-01	
729	93-788	U-235	<2.2E-01	
730	93-789	U-235	<3.2E-01	
		Cs-137	4.74E-01	+/- 3.7E-01
731	93-790	U-235	<2.4E-01	
		Cs-137	2.38E-01	+/- 1.8E-02

Remarks: Gamma Spectrometry Analysis

References: Request# 15088
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Kowchak

Westinghouse Electric Corporation
REVISED REPORT Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site
Request# 15088

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/15/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
747	93-806	U-235	5.44E-01	+/- 2.1E-01
		Cs-137	1.79E+00	+/- 4.3E-01
748	93-807	U-235	4.70E-01	+/- 3.7E-01
		Cs-137	1.65E+00	+/- 4.9E-01
749	93-808	U-235	3.43E-01	+/- 1.7E-01
		Cs-137	1.66E+00	+/- 3.1E-01
750	93-809	U-235	<3.5E-01	
751	93-810	U-235	<2.4E-01	
		Cs-137	2.89E-01	+/- 2.1E-01
752	93-811	U-235	<2.6E-01	
		Cs-137	6.61E-01	+/- 4.4E-01
753	93-812	U-235	<3.4E-01	
		Cs-137	4.47E-01	+/- 2.9E-01
754	93-813	U-235	<2.2E-01	
755	93-814	U-235	1.62E-01	+/- 1.2E-01
		Cs-137	6.36E-01	+/- 2.1E-01
756	93-815	U-235	<2.3E-01	
		Cs-137	3.42E-01	+/- 1.9E-01
757	93-816	U-235	<2.7E-01	
		Cs-137	1.34E+00	+/- 3.3E-01
758	93-817	U-235	<1.4E-01	
		Cs-137	3.25E-01	+/- 2.2E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15088
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 3

Approved: Mark Kowalski

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15088

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/14/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
759	93-818	U-235	<3.7E-01	
760	93-819	U-235	1.57E-01	+/- 1.4E-01
761	93-820	U-235	<3.4E-01	
762	93-821	U-235	<3.7E-01	
763	93-822	U-235	<3.7E-01	
764	93-823	U-235	3.48E-01	+/- 1.8E-01
765	93-824	U-235	<3.4E-01	
766	93-825	U-235	<2.3E-01	
767	93-826	U-235	1.97E-01	+/- 1.9E-01
768	93-827	U-235	1.49E-01	+/- 1.1E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15088
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 4

Approved: Mark Krawczuk

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15065

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/23/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-661	
ID	698	
NUCLIDE	pCi/gram	2 sigma
U-238	2.16E+00	+/- 5.1E-01
U-235	5.46E+00	+/- 8.2E-01
U-234	4.05E+01	+/- 2.0E+00
U-233	<3.4E-01	

Lab.Spl#	93-656,657,658,659,660, 662,663,664,665,666,&667	
ID	693,694,695,696,697,699, 700,701,702,703,&704	
NUCLIDE	pCi/gram	2 sigma
U-238	4.70E-01	+/- 2.9E-01
U-235	<1.0E-01	
U-234	4.40E-01	+/- 2.9E-01
U-233	<1.7E-01	

Lab.Spl#	93-587,588,589,590,591,592, 593,594,595,596,& 597	
ID	624,625,626,627,628,629,630,631, 632,633,& 634	
NUCLIDE	pCi/gram	2 sigma
U-238	1.17E+00	+/- 5.0E-01
U-235	2.04E+00	+/- 6.2E-01
U-234	8.87E+00	+/- 1.2E+00
U-233	<2.8E-01	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15069A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Kourbah

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15088A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/15/93
Reported: 7/01/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-817,810,816		Lab.Spl#	93-821,822,826	
ID	758,751,757		ID	762,763,767	
NUCLIDE	pCi/gram	2 sigma	NUCLIDE	pCi/gram	2 sigma
U-238	4.90E-01	+/- 3.0E-01	U-238	6.30E-01	+ 3.4E-01
U-235	1.60E-01	+/- 1.6E-01	U-235	<9.0E-02	
U-234	1.13E+00	+/- 4.8E-01	U-234	6.10E-01	+ 4.1E-01
U-233	<2.5E-01		U-233	<2.7E-01	
Lab.Spl#	93-812,811,815		Lab.Spl#	93-823,824,827	
ID	753,752,756		ID	764,765,768	
NUCLIDE	pCi/gram	2 sigma	NUCLIDE	pCi/gram	2 sigma
U-238	3.80E-01	+/- 2.0E-01	U-238	5.10E-01	+ 2.1E-01
U-235	<9.0E-02		U-235	1.10E-01	+ 1.0E-01
U-234	6.80E-01	+/- 2.8E-01	U-234	1.10E+00	+ 3.3E-01
U-233	<1.4E-01		U-233	<1.3E-01	
Lab.Spl#	93-813,814,820		Lab.Spl#	93-776,809,825	
ID	754,755,761		ID	717,750,766	
NUCLIDE	pCi/gram	2 sigma	NUCLIDE	pCi/gram	2 sigma
U-238	4.30E-01	+/- 2.4E-01	U-238	6.20E-01	+ 2.5E-01
U-235	<1.1E-01		U-235	<1.4E-01	
U-234	4.40E-01	+/- 2.9E-01	U-234	5.50E-01	+ 2.8E-01
U-233	<1.3E-01		U-233	<1.5E-01	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15088A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Kovacs

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15088A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/15/93
Reported: 7/01/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl# 93-777,778,779,780

ID 718,719,720,721

NUCLIDE	pCi/gram	2 sigma
U-238	5.00E-01	+/- 2.2E-01
U-235	<1.3E-01	
U-234	7.90E-01	+/- 3.0E-01
U-233	<1.0E-01	

Lab.Spl# 93-781,782,783,784

ID 722,723,724,725

NUCLIDE	pCi/gram	2 sigma
U-238	6.20E-01	+/- 3.0E-01
U-235	1.30E-01	+/- 1.3E-01
U-234	2.43E+00	+/- 4.2E-01
U-233	<1.1E-01	

Lab.Spl# 93-785,786,787,788

ID 726,727,728,729

NUCLIDE	pCi/gram	2 sigma
U-238	3.00E-01	+/- 1.6E-01
U-235	<5.0E-01	
U-234	4.20E-01	+/- 2.2E-01
U-233	<8.0E-02	

Lab.Spl# 93-789,790,818,819

ID 730,731,759,760

NUCLIDE	pCi/gram	2 sigma
U-238	4.10E-01	+/- 1.8E-01
U-235	<1.0E-01	
U-234	4.20E-01	+/- 2.1E-01
U-233	<8.0E-02	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15088A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 2

Approved: Mark Kaschak

APPENDIX B

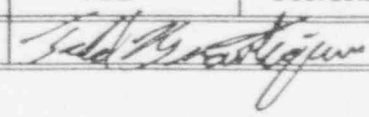
RADIOLOGICAL SURVEY DATA SHEETS FOR EAST PARKING LOT

DECOMMISSIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

SURVEY TYPE: SEE COMMENTS	
SURVEY DATE:	5-12-93
LOCATION:	EAST PARKING LOT
FORM S/N:	30-001
DISK CODE:	GRND-001

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9568 CPM
*	R/S	L-2088	N/A	N/A	10.0 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	411 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
SEE	1	13553	11000	12065	9.8	N/A	DIRT - SAMPLE #693
ATTACHED	2	14052	12200	11882	10.2	N/A	DIRT - SAMPLE #694
MAP	3	16439	15000	16033	10.1	N/A	CLAY - SAMPLE #695
"	4	17492	12000	15432	10.1	N/A	CLAY - SAMPLE #696
"	5	11279	9500	9394	9.9	426	CONCRETE
"	6	13606	11700	12607	10.5	N/A	DIRT - SAMPLE #699
"	7	12821	11000	10885	10.2	N/A	DIRT - SAMPLE #698
"	8	12527	10500	10792	10.1	N/A	DIRT - SAMPLE #697
"	9	11696	10700	9699	10.5	423	CONCRETE
"	10	14114	12000	11509	9.9	N/A	DIRT - SAMPLE #700
"	11	14564	12200	13818	10.1	N/A	DIRT - SAMPLE #701
"	12	10715	9100	9182	10.5	395	CONCRETE
"	13	14355	12500	13386	10.4	N/A	DIRT - SAMPLE #702
"	14	10506	9500	9894	10.7	406	CONCRETE
"	15	12073	11000	10675	10.5	418	DIRT/CONCRETE SAMP. #703
"	16	14889	13000	14385	10.3	392	DIRT/CONCRETE SAMP. #704
"	17	13954	11100	10469	11.0	424	CONCRETE
"	18	11812	10000	9279	10.2	429	CONCRETE
"	19	10792	9600	8308	9.3	386	CONCRETE
"	20	9332	8900	7996	8.8	411	CONCRETE

SURVEYOR:	TODD BRAUTIGAM	SURVEYOR SIGNATURE:	

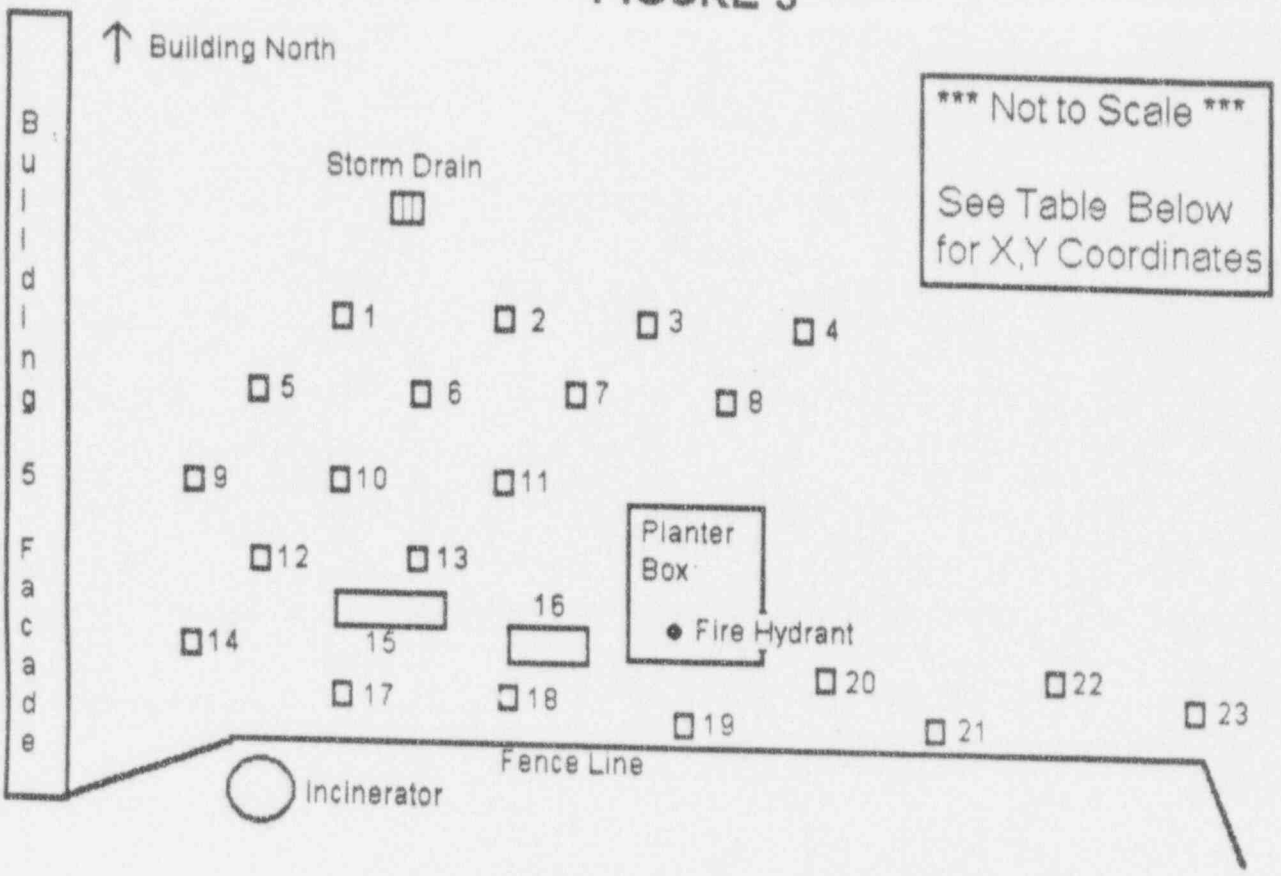
SURVEY TYPE: SEE COMMENTS	
SURVEY DATE:	5-12-93
LOCATION:	EAST PARKING LOT
FORM S/N:	30-001
DISK CODE:	GRND-002

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9568 CPM
*	R/S	L-2088	N/A	N/A	10.0 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	411 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
SEE	21	8379	7800	7699	9.2	388	CONCRETE
ATTACHED	22	8879	8500	8755	8.9	405	CONCRETE
MAP	23	9026	8200	8472	8.3	413	CONCRETE

SURVEYOR:	TODD BRAUTIGAM	SURVEYOR SIGNATURE:	Todd Brautigam

FIGURE 3



EAST PARKING LOT SAMPLE POINTS LOCATION AND SIZE INFORMATION

LOCATION NUMBER	(X,Y) COORDINATES (METERS)	SIZE (METERS)	LOCATION NUMBER	(X,Y) COORDINATES (METERS)	SIZE (METERS)
1	-10.2 , 15.2	1X1	13	-8.0 , 4.8	1X1
2	-5.1 , 15.2	1X1	14	-14.8 , -1.4	1X1
3	0.5 , 15.2	1X1	15	-7.6 , 1.7	4.7X1.6
4	6.0 , 15.2	1X1	16	-3.6 , 0.0	2.7X1.9
5	-11.9 , 11.2	1X1	17	-9.7 , -3.6	1X1
6	-8.0 , 11.2	1X1	18	-4.4 , -3.6	1X1
7	-2.5 , 11.2	1X1	19	1.0 , -4.8	1X1
8	3.2 , 11.2	1X1	20	6.4 , -2.6	1X1
9	-14.8 , 7.5	1X1	21	10.6 , -4.8	1X1
10	-10.2 , 7.8	1X1	22	16.0 , -2.5	1X1
11	-5.3 , 7.6	1X1	23	21.2 , -3.4	1X1
12	-11.9 , 3.4	1X1			

COORDINATES ARE BASED ON THE FIRE HYDRANT BEING THE POINT OF ORIGIN (0,0). THE POSITVE X AXIS IS TO THE EAST, THE POSITIVE Y AXIS IS TO THE NORTH.

APPENDIX C

GAMMA SURVEY DATA FOR AREA 1

AREA 1

AREA 1

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 118

CALIBRATION CONSTANTS:

-1
BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484 -411 -40
-37 4331 -3016
132 -533 13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 052093 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION ROI#1 ROI#2 ROI#3 ROI#4 Uekv K[%] [illegible]m] Th[ppm]

0 7258 2810 236 71 124.6 37.7 20.7 35.5

H 5 0 STEP = 5

STATION ROI#1 ROI#2 ROI#3 ROI#4 Uek

0 6513 2567 221 51 111.5 34.4 2

H 10 0 STEP = 5

STATION ROI#1 ROI#2 ROI#3 ROI#4 Uekv K[%] U[ppm] Th[ppm]

0 6760 2698 259 58 115.9 35.8 25.0 29.4

L 15 0 STEP = 5

STATION ROI#1 ROI#2 ROI#3 ROI#4 Uekv K[%] U[ppm] Th[ppm]

0 6993 2713 278 67 120.0 35.8 26.7 32.8

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

L 20 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7227	2817	260	68	124.1	37.5	24.1	34.0

L 25 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7069	2837	249	69	121.3	37.9	22.6	34.6

L 30 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	8076	3035	307	97	139.0	40.0	27.4	46.0

L 35 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7430	2750	276	64	127.6	36.3	26.6	31.8

H 0 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	7073	2665	276	68	121.4	35.1	26.4	33.1
10	7045	2713	294	62	120.9	35.6	29.2	30.5
15	7107	2670	302	83	122.0	34.8	28.4	38.9
20	7143	2790	306	64	122.6	36.5	30.5	31.5
25	7229	2800	280	63	124.1	37.0	27.2	31.5
30	7055	2672	296	76	121.1	34.9	28.2	36.1
35	6669	2500	264	56	114.3	32.8	26.1	27.7
40	6579	2445	245	60	112.7	32.3	23.3	29.4
45	6926	2592	314	76	118.8	33.5	30.7	35.5
50	7172	2656	289	84	123.1	34.8	26.6	39.4
55	6529	2442	260	76	111.8	32.0	23.8	35.7
60	6828	264_	277	70	117.1	34.7	26.3	33.8
65	6622	2504	241	60	113.4	33.2	22.7	29.7
70	6861	2571	281	66	117.6	33.7	27.3	31.8
75	6793	2642	268	66	116.4	34.8	25.5	32.3
80	7147	2731	326	67	122.7	35.4	32.9	32.1
85	6971	2663	288	77	119.6	34.9	27.1	36.6
90	7161	2629	280	96	122.9	34.5	24.4	44.4
95	7188	2767	301	72	123.4	36.2	29.1	34.7
100	7462	2858	330	62	128.2	37.2	33.7	30.5

L 5 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]

100	7701	2934	358	77	132.4	38.0	35.9	36.5
95	5855	2281	208	61	100.0	30.3	18.6	29.8
90	5536	2176	213	52	94.4	28.8	20.2	25.6
85	5459	2154	174	47	93.0	28.9	15.6	24.1
80	5196	2032	213	56	88.4	26.7	20.0	26.7
75	5355	2133	211	51	91.2	28.2	20.1	25.1
70	5534	2141	191	59	94.3	28.5	16.7	28.7
65	5442	2119	202	49	92.7	28.1	19.1	24.3
60	5383	2148	189	61	91.7	28.7	16.3	29.6
55	5227	1979	183	45	88.9	26.3	17.1	22.4
50	5389	2111	194	59	91.8	28.1	17.1	28.5
45	5137	2027	218	51	87.3	26.5	21.1	24.5
40	5207	2068	175	53	88.6	27.7	15.3	26.2
35	5211	2129	202	47	88.6	28.2	19.2	23.5
30	5018	1936	187	36	85.2	25.6	18.5	18.5
25	5380	2116	182	59	91.6	28.3	15.6	28.7
20	5459	2143	186	45	93.0	28.6	17.3	23.0
15	5305	2106	178	59	90.3	28.2	15.1	28.8
10	5724	2167	206	53	97.7	28.7	19.2	26.1
5	7305	2642	318	77	125.5	34.2	31.0	36.0

H 10 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	7626	2769	322	79	131.1	36.0	31.2	37.3
10	6057	2339	241	57	103.5	30.8	23.2	27.9
15	5188	2056	173	57	88.2	27.5	14.7	27.8
20	5216	2066	187	53	88.7	27.5	16.8	26.0
25	4932	1998	154	47	83.7	26.9	13.2	23.8
30	5004	1963	178	59	85.0	26.1	15.2	28.2
35	4870	1924	158	50	82.6	25.8	13.5	24.7
40	5085	2107	142	35	86.4	28.7	12.6	19.5
45	4934	1952	155	55	83.8	26.2	12.6	26.9
50	5002	1977	183	48	85.0	26.3	16.9	23.7
55	5304	2070	194	52	90.3	27.5	17.8	25.5
60	5109	2047	160	57	86.8	27.5	13.0	28.0
65	4936	2021	182	54	83.8	26.9	16.1	26.3
70	5234	2095	192	60	89.0	27.8	16.8	28.9
75	5183	2043	186	47	88.1	27.2	17.3	23.5
80	5542	2256	201	38	94.5	30.1	19.8	20.4
85	5416	2112	193	48	92.2	28.1	18.0	24.0
90	5205	2030	163	45	88.5	27.3	14.5	23.0
95	5952	2255	232	63	101.7	29.7	21.6	30.1
100	8130	3101	302	80	140.0	41.1	28.2	39.3

L 15 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	8175	3065	362	76	140.7	39.8	36.4	36.6
95	5688	2211	189	51	97.0	29.6	17.1	25.7
90	5403	2124	201	61	92.0	28.2	17.9	29.3
85	5591	2210	214	44	95.3	29.3	21.0	22.4

80	6200	2405	211	59	106.0	32.1	19.0	29.4
75	4725	1839	166	51	80.1	24.5	14.5	24.6
70	5178	2013	177	45	88.1	26.9	16.3	22.7
65	5307	2054	177	44	90.3	27.5	16.4	22.4
60	5298	2067	192	55	90.2	27.4	17.3	26.7
55	5331	2083	201	42	90.7	27.6	19.6	21.3
50	5114	2026	169	51	86.9	27.1	14.7	25.3
45	5150	2046	168	35	87.6	27.5	16.0	18.8
40	5161	2008	176	48	87.8	26.8	15.9	23.9
35	5155	2026	167	35	87.7	27.2	15.9	18.8
30	5006	1987	174	55	85.0	26.5	15.0	26.7
25	5086	2013	186	43	86.4	26.8	17.7	21.7
20	5442	2139	184	53	92.7	28.6	16.4	26.3
15	5349	2136	204	37	91.1	28.3	20.4	19.4
10	5584	2141	202	65	95.2	28.4	17.6	31.0
5	7570	2883	294	78	130.1	38.0	27.6	37.8

H 20 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	7650	2828	311	72	131.5	37.0	30.4	34.8
10	5508	2136	179	48	93.9	28.6	16.2	24.3
15	6183	2376	238	60	105.7	31.4	22.5	29.3
20	6119	2409	268	51	104.6	31.5	27.2	25.2
25	6270	2384	251	58	107.3	31.3	24.3	28.3
30	5934	2304	250	58	101.3	30.2	24.3	28.0
35	5870	2177	258	63	100.2	28.2	25.0	29.4
40	5979	2300	238	52	102.1	30.3	23.3	25.7
45	5829	2279	210	54	99.5	30.3	19.5	26.9
50	4480	1740	157	39	75.8	23.1	14.6	19.4
55	4503	1794	156	49	76.2	23.9	13.5	23.8
60	5868	2306	247	61	100.2	30.2	23.6	29.3
65	5921	2350	194	63	101.1	31.5	16.5	31.1
70	6018	2339	242	54	102.8	30.8	23.6	26.6
75	6005	2358	242	55	102.6	31.1	23.5	27.1
80	6110	2359	268	61	104.4	30.7	26.3	29.1
85	5353	2117	187	43	91.1	28.2	17.7	22.1
90	5454	2098	168	46	92.9	28.2	15.0	23.6
95	5693	2173	183	63	97.1	29.1	15.3	30.6
100	8206	3075	340	84	141.3	40.2	32.8	40.3

L 25 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	7163	2753	273	70	123.0	36.4	25.7	34.3
95	5572	2211	198	57	95.0	29.5	17.7	28.0
90	5347	2069	206	63	91.0	27.3	18.4	29.8
85	5189	2123	149	59	88.3	28.8	11.3	29.3
80	5551	2194	188	57	94.6	29.3	16.5	28.1
75	4836	1888	155	45	82.0	25.3	13.6	22.5
70	5078	2041	182	43	86.3	27.2	17.1	21.9
65	4868	1910	181	29	82.6	25.3	18.4	15.6
60	4887	1968	130	48	82.9	26.8	10.0	24.5

55	4639	1833	189	43	78.6	24.1	18.3	20.9
50	4582	1762	180	38	77.6	23.2	17.6	18.8
45	4667	1900	155	51	79.1	25.5	13.0	25.0
40	4562	1849	152	51	77.2	24.8	12.7	24.9
35	5480	2118	244	47	93.4	27.6	24.7	22.8
30	5016	1921	150	49	85.2	25.9	12.5	24.4
25	5211	2087	190	45	88.6	27.8	17.9	22.7
20	5353	2130	188	50	91.1	28.4	17.2	25.0
15	5590	2178	202	53	95.3	28.9	18.7	26.2
10	6223	2427	215	61	106.4	32.4	19.3	30.3
5	7277	2738	305	77	125.0	35.8	29.2	36.6

H 30 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	7182	2620	291	67	123.3	34.2	28.5	32.3
10	5883	2267	187	45	100.5	30.4	17.3	23.5
15	5273	2115	178	42	89.7	28.3	16.6	21.8
20	5115	2047	189	51	87.0	27.2	17.3	25.1
25	5255	2016	177	56	89.4	26.9	15.3	27.2
30	4944	1929	178	42	83.9	25.6	16.8	21.1
35	5120	2015	179	51	87.0	26.9	16.0	25.1
40	5208	2060	196	43	88.6	27.3	18.9	21.7
45	5071	1999	192	52	86.2	26.5	17.6	25.2
50	4878	1914	163	52	82.8	25.6	14.0	25.4
55	4788	1886	186	44	81.2	24.9	17.7	21.6
60	4835	1953	140	45	82.0	26.4	11.6	23.0
65	4788	1918	174	56	81.2	25.5	15.0	26.8
70	4837	1955	155	50	82.1	26.3	13.1	24.8
75	5137	2007	165	43	87.3	26.9	14.9	22.0
80	5085	1965	178	49	86.4	26.1	16.1	24.1
85	5150	1986	188	39	87.6	26.3	18.3	19.9
90	4998	1959	163	34	84.9	26.3	15.5	18.2
95	5727	2213	207	44	97.7	29.4	20.1	22.6
100	6875	2665	237	73	117.9	35.6	20.8	35.8

L 35 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	7562	2877	286	82	130.0	38.0	26.2	39.5
95	5462	2138	221	53	93.1	28.1	21.2	25.7
90	4983	1955	180	53	84.6	26.0	16.0	25.7
85	4915	1925	171	45	83.4	25.7	15.6	22.4
80	5304	2079	204	55	90.3	27.5	18.8	26.6
75	4759	1872	169	50	80.7	24.9	15.0	24.3
70	4779	1871	191	45	81.0	24.6	18.3	21.9
65	5151	2023	178	61	87.6	27.0	15.0	29.2
60	4969	1939	179	42	84.4	25.8	16.9	21.1
55	4587	1805	157	45	77.7	24.1	13.9	22.2
50	4800	1916	160	37	81.4	25.7	14.9	19.3
45	4966	2009	168	37	84.3	26.9	15.9	19.5
40	5042	1998	182	57	85.7	26.6	15.9	27.4
35	4964	1990	156	50	84.3	26.8	13.2	25.0

30	5211	2082	176	57	88.6	27.9	15.0	27.9
25	4905	1925	166	55	83.3	25.7	14.1	26.6
20	5131	1929	198	47	87.2	25.4	19.0	22.8
15	5341	2078	178	45	90.9	27.8	16.4	22.9
10	5511	2109	215	56	93.9	27.8	20.1	26.9
5	7018	2641	301	78	120.4	34.4	28.7	36.7

H 40 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6728	2550	263	65	115.3	33.6	25.1	31.6
5	5773	2173	233	57	98.5	28.5	22.3	27.3
10	6476	2346	247	83	110.9	30.8	21.6	38.4
15	6243	2385	224	67	106.8	31.7	20.0	32.4
20	5992	2235	205	69	102.4	29.7	17.5	32.9
25	5897	2189	196	76	100.7	29.1	15.8	35.8
30	6054	2260	190	77	103.5	30.2	14.8	36.6
35	5653	2121	160	54	96.4	28.6	13.2	27.1
40	5943	2212	214	67	101.5	29.3	18.9	31.9
45	5964	2267	176	65	101.9	30.5	14.1	31.9
50	6112	2238	213	69	104.5	29.7	18.6	32.8
55	5681	2150	175	60	96.9	28.9	14.5	29.4
60	5863	2207	183	72	100.1	29.6	14.4	34.4
65	5746	2145	188	58	98.0	28.6	16.4	28.3
70	5699	2124	208	72	97.2	28.1	17.8	33.7
75	5557	2039	204	70	94.7	26.9	17.5	32.6
80	6070	2165	199	67	103.7	28.8	17.0	31.9
85	5198	1972	150	59	88.4	26.6	11.6	28.7
90	5561	2075	183	70	94.8	27.7	14.8	33.1
95	6082	2368	196	76	104.0	31.7	15.6	36.5
100	8855	3141	302	121	152.7	41.6	24.4	56.3

L 45 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	8378	2939	309	115	144.3	38.6	26.1	52.9
95	5959	2243	202	77	101.8	29.9	16.4	36.3
90	5270	1991	173	63	89.7	26.6	14.2	30.0
85	5222	1966	181	54	88.8	26.1	16.1	26.1
80	5900	2244	198	67	100.8	29.9	16.8	32.3
75	6518	2385	235	79	111.6	31.5	20.4	37.2
70	6056	2265	201	75	103.5	30.2	16.4	35.6
65	6297	2342	226	90	107.7	31.0	18.2	41.6
60	6312	2405	208	68	108.0	32.1	17.8	33.2
55	6247	2324	205	82	106.9	31.0	16.3	38.6
50	5667	2102	219	74	96.7	27.6	19.0	34.2
45	6256	2304	208	76	107.0	30.7	17.2	36.0
40	6265	2272	197	77	107.2	30.3	15.7	36.5
35	6483	2436	207	95	111.0	32.6	15.2	44.4
30	6532	2377	225	91	111.9	31.5	18.0	42.2
25	6314	2296	203	70	108.0	30.6	17.1	33.6
20	6271	2281	203	86	107.3	30.4	15.7	40.1
15	6998	2555	249	100	120.1	33.8	20.1	46.2

10	6770	2453	237	92	116.0	32.5	19.4	42.7
5	7044	2556	240	98	120.9	33.9	19.1	45.5
0	6252	2250	231	88	106.9	29.6	19.2	40.4

H 50 45 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
45	6310	2334	226	87	108.0	30.9	18.5	40.4
50	6742	2499	261	99	115.6	32.8	21.8	45.4
55	6100	2275	210	84	104.3	30.2	16.8	39.2
60	6122	2187	229	73	104.7	28.7	20.3	34.0
65	6184	2246	216	75	105.7	29.7	18.4	35.3
70	6305	2384	226	70	107.9	31.6	20.0	33.6
75	6524	2392	268	92	111.7	31.2	23.5	42.0
80	5710	2133	175	64	97.4	28.6	14.2	31.0
85	5279	1993	174	76	89.8	26.6	13.1	35.3
90	6287	2425	203	72	107.6	32.5	16.8	35.0
95	6083	2175	234	84	104.0	28.5	20.0	38.4
100	5699	2159	179	71	97.2	28.9	14.1	33.9

L 55 100 STEP = 5

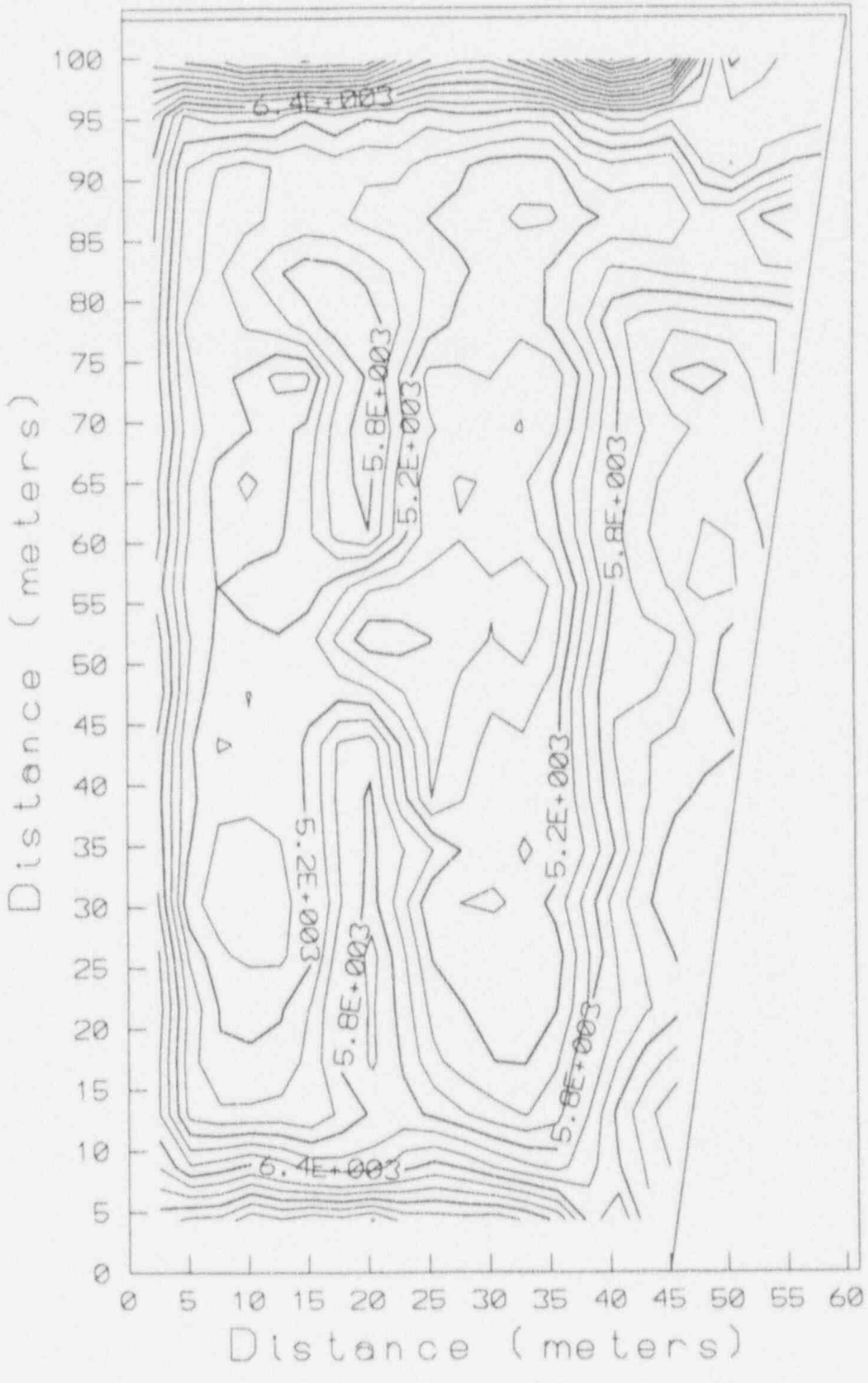
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	6015	2289	185	65	102.8	30.7	15.2	31.8
95	6236	2360	197	65	106.7	31.6	16.7	31.9
90	5655	2084	185	70	96.4	27.8	15.0	33.1
85	4676	1859	148	60	79.2	25.0	11.4	28.7
80	6089	2168	200	85	104.1	28.8	15.5	39.3
75	5838	2097	219	68	99.7	27.5	19.6	31.8
70	6035	2158	207	84	103.1	28.5	16.5	38.8
65	6846	2483	248	103	117.4	32.7	19.8	47.2

H 60 95 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
95	6062	2211	203	76	103.6	29.4	16.7	35.7
100	6228	2283	191	87	106.5	30.6	14.0	40.7

END OF DATA

AREA 1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5.8E+003
5.2E+003
5.8E+003
5.2E+003
5.8E+003
5.2E+003
5.8E+003
6.4E+003
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Distance (meters)
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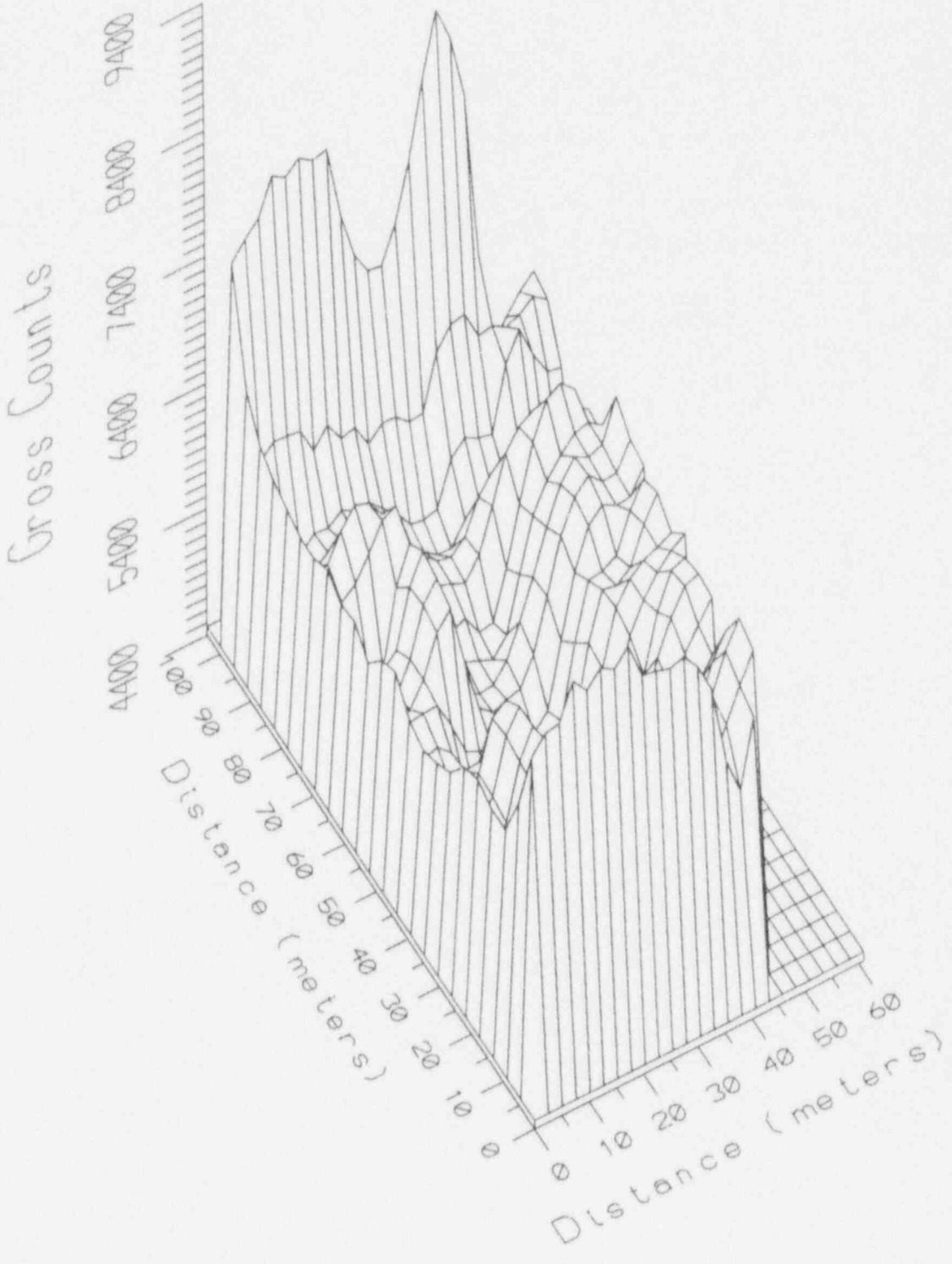
AREA 1


Gross Counts
4400
5400
6400
7400
8400
9400
Distance (meters)
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90
80
70
60
50
40
30
20
10
0
0
10
20
30
40
50
60
Distance (meters)

APPENDIX D

GAMMA SURVEY DATA FOR AREA 2

AREA 2

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
      # 2 12 20
      # 3 51 59
      # 4 106 118

CALIBRATION CONSTANTS:

BACKGROUND [MIN^{-1}] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484	-411	-40
-37	4331	-3016
132	-533	13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 052093 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6439	2494	247	68	110.2	33.0	22.8	32.9
5	7691	2971	275	75	132.2	39.5	25.3	37.2
10	7102	2760	257	91	121.9	36.7	21.7	43.2
15	6102	2398	214	62				
20	7702	2910	306	73				
25	7894	3013	289	83				
30	7688	2934	279	72				
35	7783	2918	306	82				
40	7465	2873	328	69				
45	7110	2780	290	75				
50	6743	2575	260	70				

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

L 5 55 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
55	6547	2520	265	81	112.1	33.1	23.9	38.0
50	6097	2369	252	61	104.2	31.1	24.2	29.4
45	5151	2087	178	51	87.6	27.9	15.8	25.4
40	5391	2146	179	52	91.8	28.8	15.8	26.0
35	6263	2459	247	74	107.1	32.4	22.3	35.2
30	6174	2444	240	53	105.6	32.3	23.3	26.6
25	6460	2574	234	58	110.6	34.3	21.9	29.3
20	5392	2083	191	55	91.8	27.7	17.1	26.8
15	6698	2586	248	66	114.8	34.3	23.0	32.4
10	6423	2463	253	68	109.9	32.4	23.6	32.7
5	5908	2323	245	55	100.9	30.5	23.9	26.9

0	5978	2376	223	48	102.1	31.6	21.6	24.6

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6377	2387	258	56	109.1	31.3	25.4	27.4
5	6530	2503	265	55	111.8	32.9	26.3	27.3
10	6788	2552	276	80	116.4	33.4	25.4	37.6
15	5248	2101	194	45	89.3	27.9	18.4	22.7
20	6847	2622	245	62	117.4	34.8	22.9	31.0
25	6606	2498	260	59	113.2	32.9	25.3	29.0
30	6509	2427	248	59	111.5	32.0	23.8	28.9
35	6349	2417	234	76	108.6	32.0	20.5	36.1
40	6475	2422	257	64	110.9	31.8	24.5	30.8
45	6250	2417	273	61	106.9	31.5	26.9	29.3
50	6544	2498	297	65	112.1	32.4	29.6	30.9
55	6462	2389	267	64	110.6	31.2	25.9	30.5
60	6297	2511	220	71	107.7	33.5	19.0	34.6

L 15 70 STEP = 5

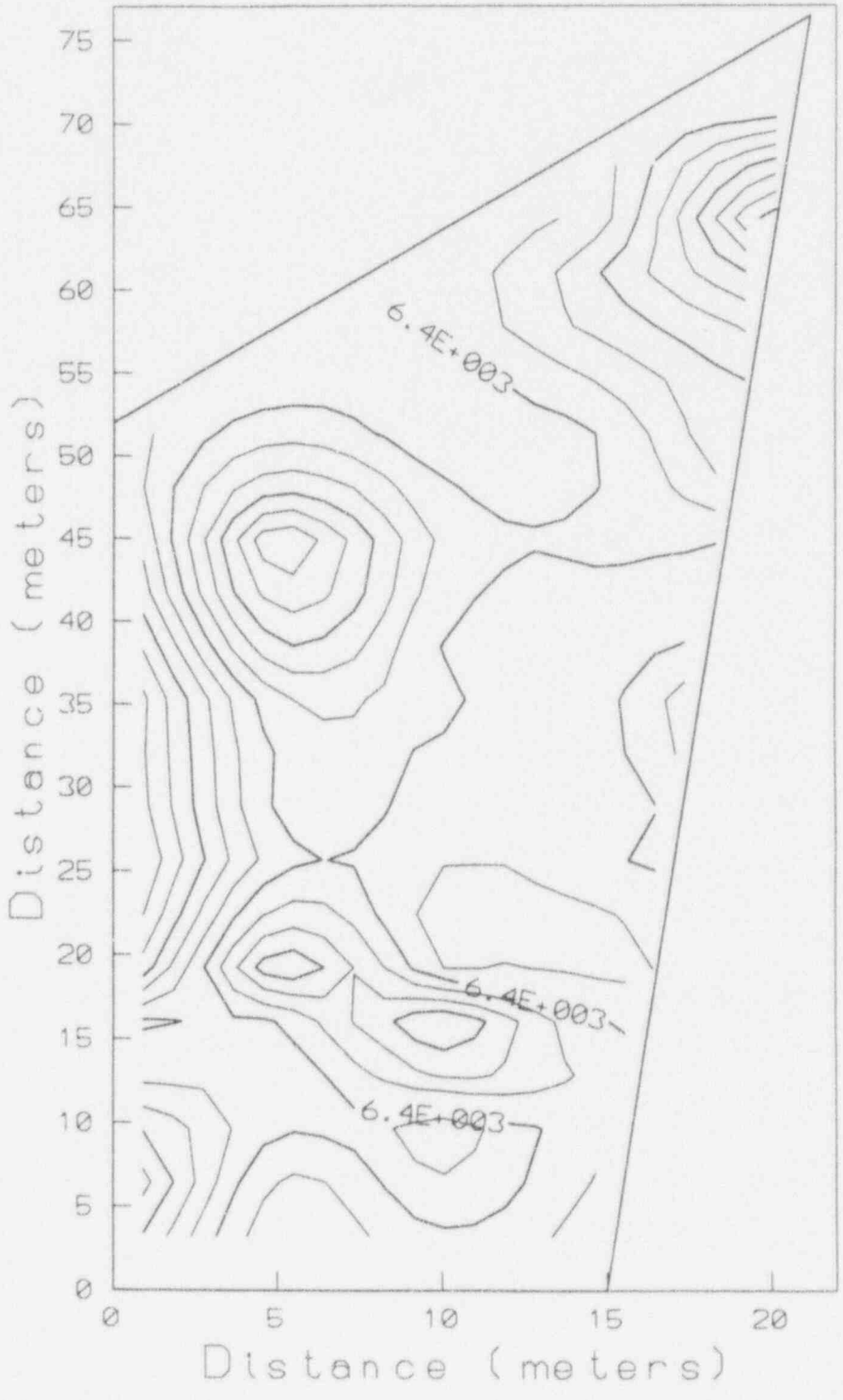
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
70	6050	2310	214	58	103.4	30.7	19.6	28.6
65	6193	2388	247	60	105.9	31.4	23.6	29.2
60	5746	2270	238	49	98.0	29.8	23.6	24.3
55	6139	2425	227	65	105.0	32.2	20.5	31.7
50	6497	2510	258	57	111.2	33.1	25.2	28.3
45	6321	2382	257	62	108.2	31.2	24.8	29.8
40	6513	2390	248	81	111.5	31.4	21.9	37.8
35	6461	2462	248	58	110.6	32.5	23.9	28.6
30	6596	2491	294	55	113.0	32.3	30.1	26.8
25	6409	2438	239	60	109.7	32.2	22.5	29.5
20	6719	2538	271	62	115.1	33.3	26.4	30.2
15	6383	2442	223	49	109.2	32.5	21.4	25.3
10	6237	2488	233	56	106.7	33.1	22.1	28.2
5	6057	2351	236	64	103.5	31.0	21.9	30.9
0	5995	2320	221	52	102.4	30.8	21.1	26.0

H 20 30 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
30	5986	2262	221	53	102.3	29.9	21.0	26.2
35	5529	2161	197	59	94.2	28.7	17.5	28.7
40	6605	2636	277	61	113.1	34.7	27.2	30.1
45	6396	2466	257	81	109.5	32.4	22.9	37.9
50	5543	2140	245	57	94.5	27.9	23.9	27.0
55	5761	2314	217	49	98.3	30.7	20.8	24.9
60	5289	2053	191	41	90.0	27.3	18.4	21.0
65	4318	1747	155	36	72.9	23.3	14.6	18.3
70	5888	2351	214	55	100.5	31.3	19.8	27.5

END OF DATA

AREA 2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6.4E+003
6.4E+003
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Distance (meters)
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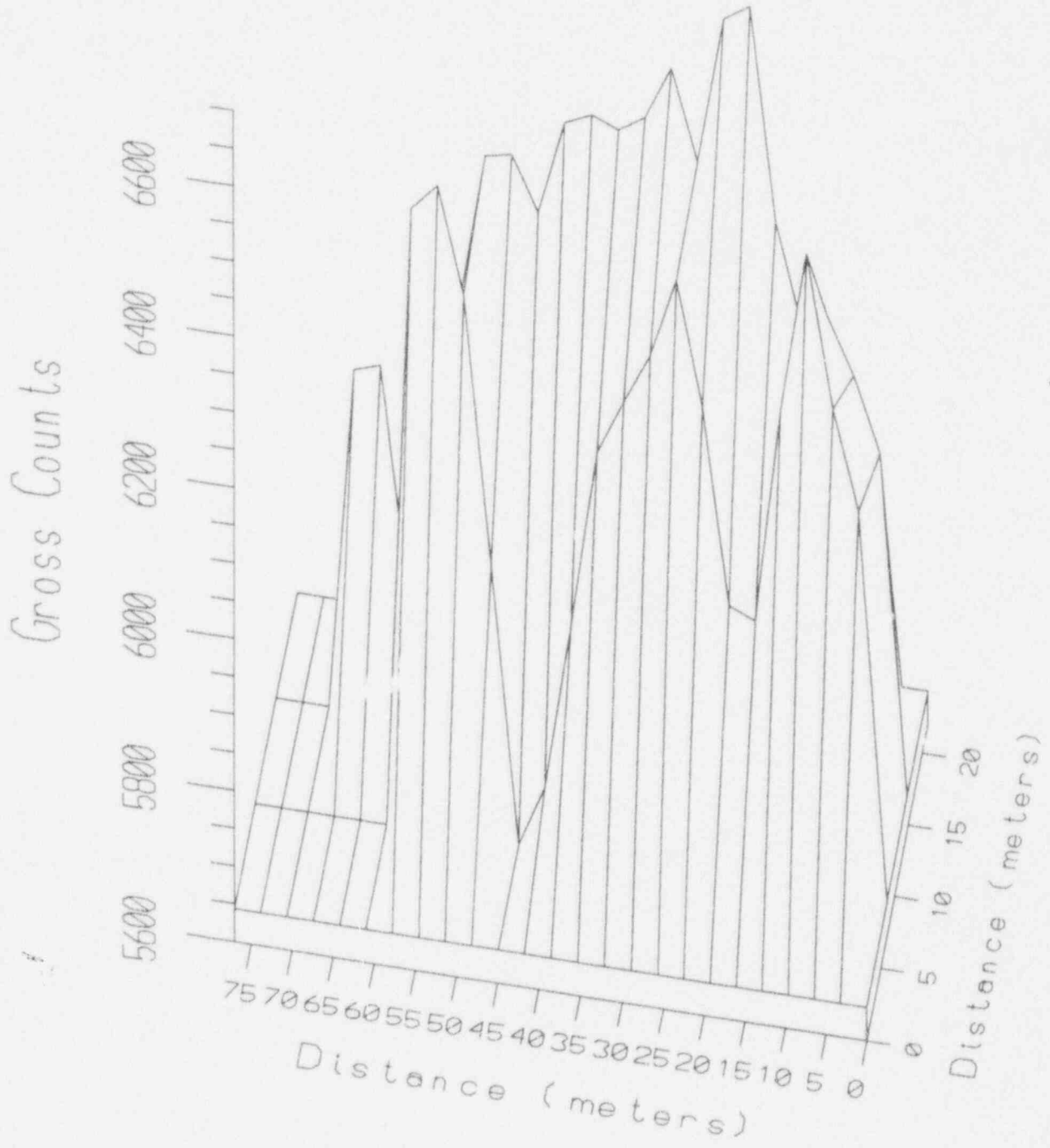
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
0
5
10
15
20

AREA 2


Gross Counts
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5800
6000
6200
6400
6600
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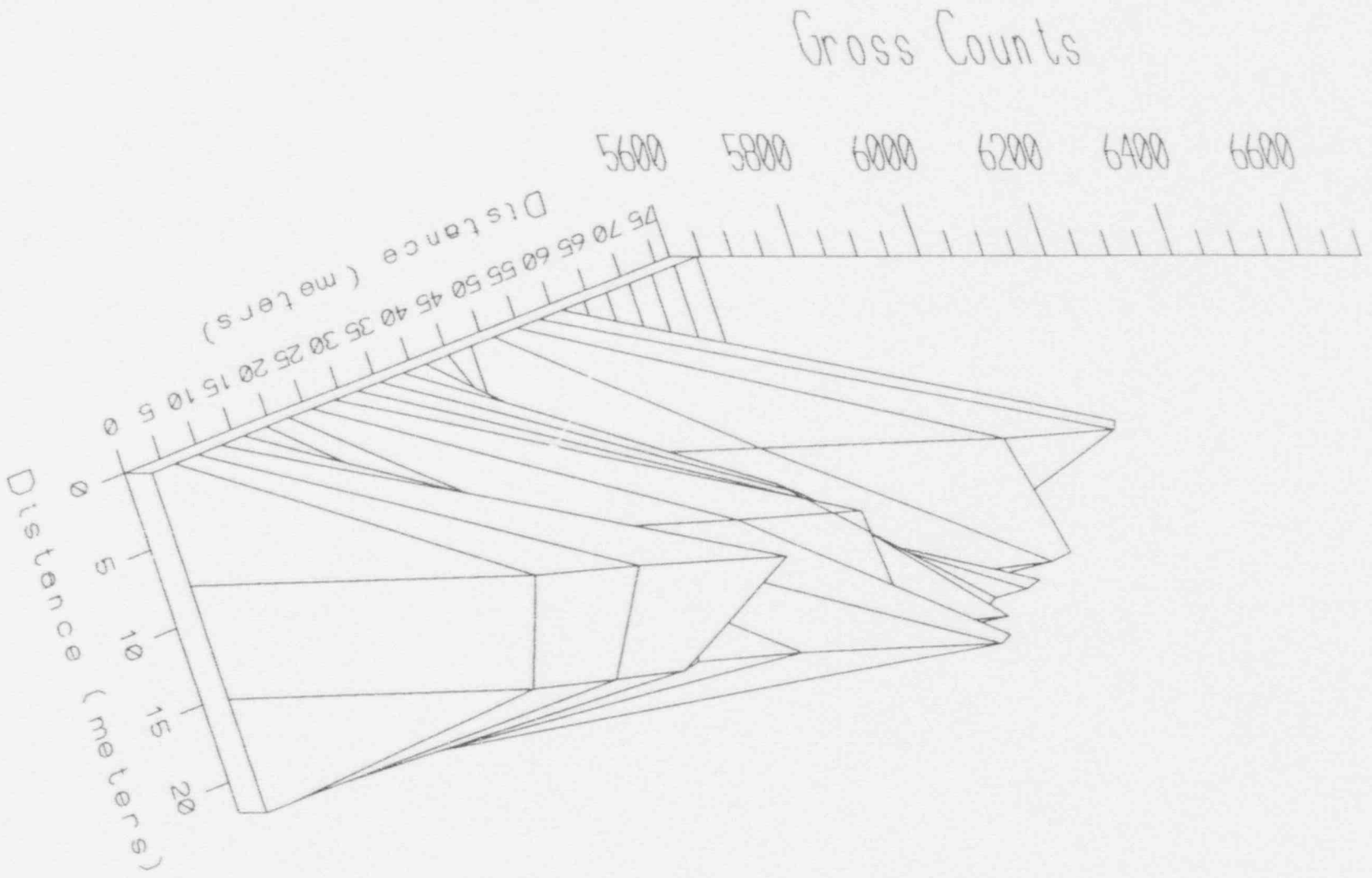
Distance (meters)
0
5
10
15
20
Distance (meters)


Gross Counts
5600
5800
6000
6200
6400
6600
Distance (meters)
0
5
10
15
20
Distance (meters)
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

APPENDIX E

GAMMA SURVEY DATA FOR AREA 3

Area 3

AREA 3

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 116

CALIBRATION CONSTANTS:

-1
BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484 -411 -40
-37 4331 -3016
132 -533 13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 052093 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7340	2842	263	53	126.1	37.8	25.8	27.9
5	6691	2553	265	78	114.7	33.6	24.2	26.0

H 0 15 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K		
15	7688	2869	298	79	132.2	37.8	28.0	
20	7538	2827	310	93	129.5	37.0	28.3	
25	8086	3018	309	90	139.2	39.8	28.3	[illegible]
30	7732	2886	319	81	133.0	37.7	30.5	38.6
35	7401	2790	281	88	127.1	36.8	25.1	41.7
40	6710	2595	266	75	115.0	34.2	24.5	35.8
45	6683	2652	273	63	114.5	34.9	26.4	31.0
50	6761	2520	260	82	115.9	33.2	23.2	38.5
55	6433	2448	260	73	110.1	32.1	24.1	34.5
60	6070	2254	244	67	103.7	29.5	22.8	31.6
65	5514	2151	211	61	94.0	28.4	19.1	29.2

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

L 5 70 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]

65	5695	2143	211	56	97.1	28.3	19.6	27.1
60	6015	2279	241	55	102.8	29.9	23.4	26.8
55	5919	2271	210	75	101.1	30.2	17.6	35.5
50	6660	2616	252	73	114.1	34.7	22.9	35.3
45	6817	2626	270	75	116.9	34.6	25.0	35.9
40	7032	2717	267	76	120.7	35.9	24.4	36.7
35	7905	2983	294	68	136.0	39.5	28.4	34.1
30	7324	2763	270	63	125.8	36.6	25.9	31.5
25	7657	2862	346	104	131.6	37.0	32.0	47.5
20	7725	2965	325	86	132.8	38.8	30.8	40.9
15	8130	3054	322	86	140.0	40.1	30.3	41.3

L 5 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	8521	3412	350	82	146.8	45.0	33.9	40.6
0	9051	3481	355	110	156.1	45.9	31.9	52.3

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7768	3010	282	95	133.6	40.0	24.3	45.4
5	8864	3381	301	96	152.9	45.1	26.3	47.0

H 10 15 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
15	8266	3169	339	105	142.3	41.6	30.6	49.3
20	9013	3427	324	96	155.5	45.5	29.2	46.8
25	8550	3182	367	95	147.3	41.4	35.2	44.8
30	8054	2935	354	76	138.6	38.0	35.5	36.2
35	8239	3078	370	102	141.9	39.9	35.0	47.2
40	9270	3623	368	89	160.0	47.8	35.4	44.0

H 10 50 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
50	6855	2587	254	76	117.5	34.2	22.9	36.4
55	7083	2579	286	73	121.5	33.7	27.3	34.6

L 15 55 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
55	7631	2871	312	74	131.2	37.6	30.3	35.8

L 15 50 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
50	7739	2893	333	77	133.1	37.7	32.7	36.8

L 15 40 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
40	9426	3483	412	91	162.7	45.3	41.1	43.6
35	8715	3303	380	95	150.2	43.0	36.7	45.0

H 20 35 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
35	8357	3125	348	74	143.9	40.9	34.7	36.2
40	8463	3209	368	77	145.8	41.8	36.9	37.5
45	8161	3105	372	91	140.5	40.3	36.3	42.7

H 25 35 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
35	7628	2792	317	89	131.1	36.4	29.7	41.6
40	7630	2838	374	71	131.2	36.4	38.6	33.4

L 25 30 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
30	7900	2847	365	72	135.9	36.6	37.4	34.0
25	6085	2331	250	64	104.0	30.6	23.7	30.5
20	8442	3144	354	96	145.4	41.0	33.4	45.2
15	8759	3335	350	90	151.0	43.9	33.3	43.6
10	9200	3404	364	89	158.8	44.7	35.1	43.2
5	9320	3535	409	92	160.9	46.0	40.5	44.3
0	10021	3734	444	109	173.2	48.5	43.3	51.5

H 20 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	10960	4214	499	102	189.7	54.8	50.5	49.6
5	9894	3711	373	100	171.0	49.0	34.9	48.8

H 15 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]

0	10250	3930	414	127	177.2	51.7	37.6	60.1
5	9836	3732	408	101	169.9	48.9	39.4	48.7

H 30 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	8555	3186	363	94	147.4	41.5	34.7	44.4
5	9172	3386	419	105	158.3	43.7	40.8	48.8
10	8175	3085	294	90	140.7	40.9	26.3	43.5
15	8131	3073	323	92	140.0	40.4	29.9	43.8
20	5914	2241	235	68	101.0	29.4	21.5	32.1
25	7402	2805	273	90	127.2	37.1	23.8	42.7
30	7572	2841	319	76	130.1	37.1	31.0	36.4
35	5942	2258	243	57	101.5	29.6	23.5	27.5

L 35 30 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
30	6515	2534	280	65	111.6	33.1	27.3	31.3
25	7403	2789	307	83	127.2	36.5	28.9	39.2
20	6035	2275	260	61	103.1	29.6	25.4	28.9
15	7635	2815	318	79	131.3	36.7	30.7	37.5
10	8192	3027	371	88	141.0	39.1	36.5	41.2
5	8659	3157	364	95	149.3	41.1	34.8	44.7
0	9372	3513	360	105	161.8	46.3	33.0	50.3

H 40 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	9395	3502	368	90	162.2	46.1	35.4	44.0
5	6919	2657	277	80	119.2	34.9	25.4	38.0
10	8235	3045	379	81	142.7	39.3	38.2	38.3
15	8042	2963	368	69	138.4	38.3	37.9	33.2
20	7542	2852	328	90	129.6	37.1	30.9	42.0
25	6279	2428	297	46	107.4	31.4	31.4	22.8

H 45 0 STEP = 5

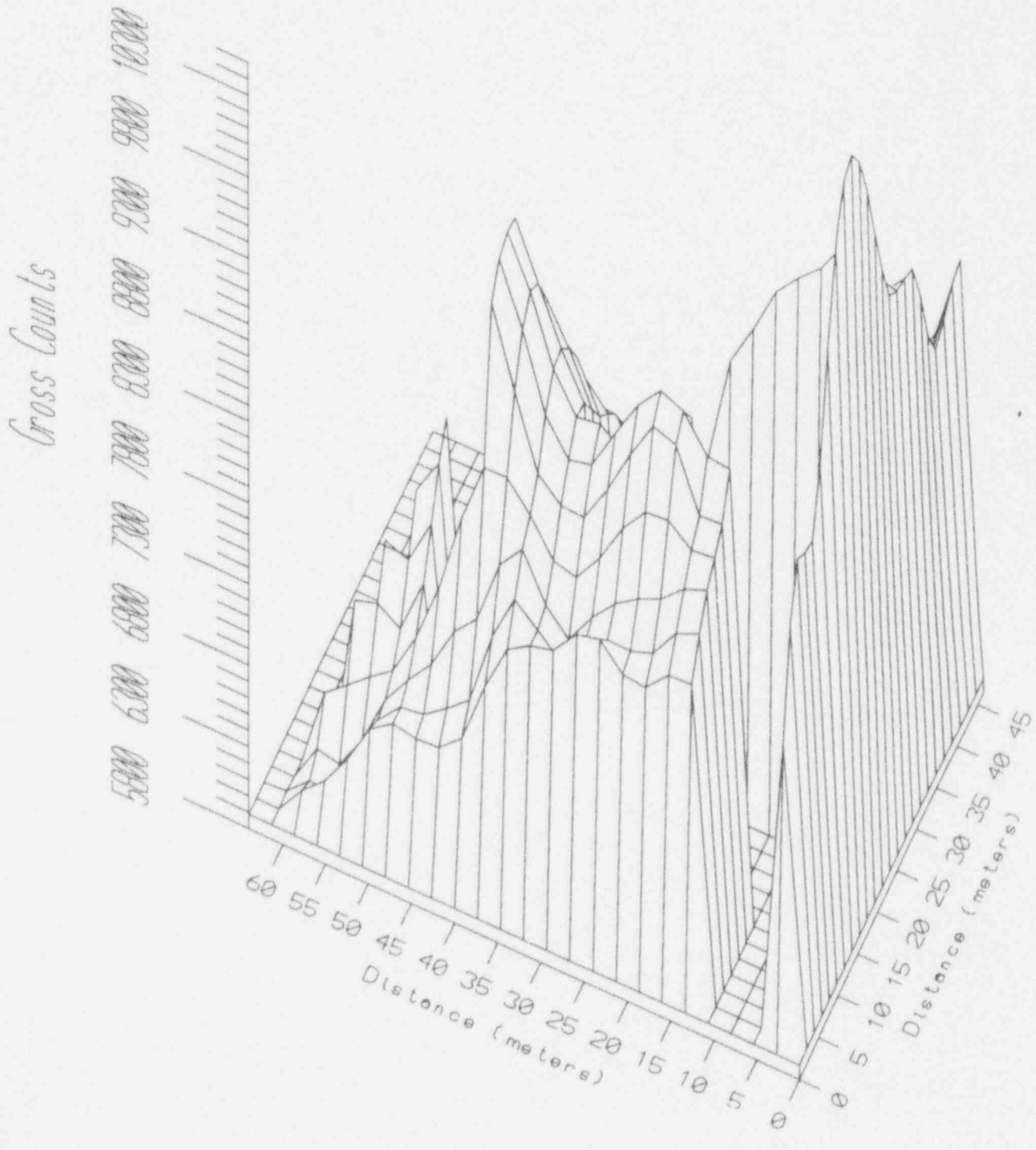
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	9079	3317	351	83	156.6	43.6	34.0	40.6
5	7843	2993	330	81	134.9	39.2	31.8	38.9
10	7491	2834	298	85	128.7	37.2	27.5	40.4
15	6907	2588	292	60	118.5	33.8	29.3	29.3
20	7029	2641	302	64	120.6	34.4	30.1	30.9

END OF DATA

AREA 3


7.2E+003
Distance (meters)
0
5
10
15
20
25
30
35
40
45
50
55
60
Distance (meters)
0
5
10
15
20
25
30
35
40
45

AREA 3


Gross Counts
500 600 600 700 700 800 800 900 900 1000
60 55 50 45 40 35 30 25 20 15 10 5 0
Distance (meters)
0 5 10 15 20 25 30 35 40 45
Distance (meters)

APPENDIX F

GAMMA SURVEY DATA FOR AREA 4

AREA 4

AREA 4

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 118

CALIBRATION CONSTANTS:

-1
BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484 -411 -40
-37 4331 -3016
132 -533 13672

*** DUMP OF DATA MEMORY ***

HEADER: 052593 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	5807	2229	204	71	99.1	29.6	17.2	33.8
5	5567	2160	187	52	94.9	28.9	16.8	26.0
10	5483	2168	141	71	93.4	29.5	9.1	34.5
15	5670	2165	190	55	96.7	28.9	16.9	27.2
20	5595	2124	175	88	95.4	28.		
25	5502	2117	166	74	93.8	28.		
30	5672	2185	188	74	96.7	29.		
35	5885	2292	192	82	100.5	30		
40	6081	2272	218	85	103.9	30		
45	6098	2307	231	70	104.2	30		
50	5855	2221	191	85	100.0	29.		
55	5124	1985	195	59	87.1	26.		
60	5113	1951	163	63	86.9	26.		
65	6459	2476	226	89	110.6	32.8	16.2	41.6
70	5989	2185	205	66	102.3	29.0	17.9	31.5
75	7016	2526	258	90	120.4	33.3	22.2	41.9
80	5720	2129	208	91	97.6	28.1	16.0	41.5
85	6415	2361	231	84	109.8	31.2	19.4	39.2
90	6994	2576	240	85	120.0	34.2	20.3	40.3
95	6390	2389	197	90	109.4	32.0	14.4	42.3
100	5978	2255	215	90	102.1	29.9	16.9	41.5

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

105	5166	1965	157	76	87.8	26.4	11.0	35.5
110	5112	1934	164	65	86.9	25.8	12.9	30.8
115	4913	1894	159	67	83.4	25.3	12.1	31.5
120	4786	1825	124	59	81.2	24.8	8.4	28.5
125	4912	1889	166	60	83.4	25.2	13.7	28.5
130	4766	1859	157	74	80.8	24.8	11.3	34.3
135	4827	1866	168	64	81.9	24.8	13.6	30.0
140	4745	1843	160	60	80.4	24.6	12.9	28.4
145	4841	1870	120	61	82.1	25.5	7.6	29.6
150	4776	1848	147	56	81.0	24.8	11.6	27.0
155	4692	1772	127	63	79.5	24.0	8.5	29.9
160	4782	1819	143	70	81.1	24.4	9.8	32.7
165	4774	1888	159	61	81.0	25.2	12.7	29.0
170	4798	1878	152	55	81.4	25.2	12.3	26.6
175	5918	2266	211	73	101.1	30.1	17.9	34.6
180	6130	2380	197	83	104.8	31.9	15.1	39.4
185	6735	2507	230	84	115.4	33.3	19.1	39.8
190	6390	2385	196	85	109.4	32.0	14.7	40.2
195	6587	2535	191	86	112.8	34.2	13.8	41.3
200	6015	2327	205	80	102.8	31.0	16.4	37.8
205	5647	2112	148	64	96.3	28.6	10.7	31.3
210	6402	2455	186	79	109.6	33.1	13.9	38.2
215	6401	2448	204	77	109.6	32.8	16.4	37.1
220	6096	2360	224	67	104.2	31.3	20.0	32.3
225	6229	2366	226	75	106.5	31.3	19.6	35.6

L 5 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6318	2438	217	87	108.1	32.5	17.2	40.9
220	7023	2597	238	96	120.5	34.5	19.0	44.9
215	6849	2558	239	108	117.4	33.9	18.1	49.7
210	6927	2614	221	89	118.8	35.0	17.4	42.4
205	6721	2469	251	102	115.2	32.5	20.3	46.7
200	6976	2642	232	104	119.7	35.2	17.4	48.5
195	7092	2628	241	82	121.7	35.0	20.6	39.3
190	7044	2596	260	88	120.9	34.2	22.6	41.3
185	6984	2557	205	89	119.8	34.4	15.4	42.4
180	6783	2558	242	77	116.3	33.9	21.3	36.9
175	6709	2476	218	90	115.0	33.0	17.1	42.3
170	6475	2433	206	79	110.9	32.6	16.5	37.8
165	6806	2528	245	77	116.7	33.5	21.7	36.7
160	6896	2507	224	91	118.3	33.4	17.7	42.7
155	7103	2679	235	89	121.9	35.8	19.1	42.4
150	7161	2689	256	99	122.9	35.6	20.9	46.2
145	6940	2575	252	80	119.0	34.1	22.3	38.0
140	7065	2657	256	94	121.2	35.2	21.4	44.0
135	5979	2193	189	75	102.1	29.3	15.0	35.5
130	6367	2293	228	77	109.0	30.3	19.7	36.1
125	6274	2280	205	82	107.3	30.3	16.3	38.4
120	6232	2242	197	78	106.6	29.9	15.7	36.8
115	6165	2255	211	75	105.4	29.9	17.7	35.4

110	6274	2218	211	86	107.3	29.4	16.8	39.7
105	6504	2311	251	89	111.4	30.2	21.6	40.7
100	6469	2300	230	85	110.8	30.3	19.3	39.4
95	6002	2238	190	65	102.5	29.9	15.9	31.5
90	6788	2483	251	94	116.4	32.7	21.0	43.4
85	7199	2601	253	106	123.6	34.4	20.0	48.8
80	5503	1999	181	85	93.8	26.6	13.2	39.0
75	6627	2375	224	82	113.5	31.5	18.7	38.5
70	6550	2387	243	95	112.2	31.4	19.9	43.6
65	6436	2320	227	88	110.2	30.6	18.6	40.7
60	6808	2507	241	100	116.7	33.2	19.1	46.2
55	6810	2437	240	92	116.7	32.2	19.8	42.6
50	7127	2587	231	90	122.3	34.5	18.6	42.5
45	7124	2532	268	101	122.3	33.2	22.5	46.2
40	7076	2595	250	88	121.4	34.4	21.3	41.4
35	6988	2632	243	89	119.9	35.0	20.2	42.1
30	7114	2690	228	106	122.1	36.0	16.7	49.5
25	6797	2497	221	73	116.5	33.3	19.0	35.4
20	6747	2441	265	90	115.6	31.9	23.2	41.4
15	7250	2641	259	91	124.5	34.9	22.1	42.7
10	7137	2722	241	75	122.5	36.3	21.1	36.8
5	7037	2589	233	92	120.7	34.5	18.7	43.3
0	6810	2481	235	92	116.7	32.9	19.1	42.9

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6753	2580	238	69	115.7	34.3	21.4	33.8
5	6972	2611	258	79	119.6	34.5	23.1	37.7
10	7404	2685	289	106	127.2	35.2	24.6	48.6
15	7197	2651	239	97	123.6	35.3	19.0	45.5
20	7333	2672	249	106	125.9	35.5	19.4	49.1
25	6407	2364	229	92	109.7	31.3	18.4	42.5
30	6681	2503	212	77	114.5	33.5	17.4	37.2
35	6926	2561	234	84	118.8	34.1	19.6	39.9
40	6376	2342	227	80	109.1	31.0	19.3	37.5
45	6670	2500	216	88	114.3	33.4	16.9	41.6
50	6585	2521	221	92	112.8	33.6	17.2	43.2
55	6578	2478	232	78	112.7	32.9	20.0	37.2
60	6636	2493	209	101	113.7	33.4	14.9	47.0
65	6871	2604	203	93	117.8	35.1	14.7	44.3
70	6825	2528	224	90	117.0	33.7	17.8	42.4
75	7472	2775	255	92	128.4	36.9	21.3	43.7
80	6129	2242	205	78	104.8	29.8	16.7	36.7
85	7725	2861	288	92	132.8	37.7	25.5	43.5
90	7859	2822	287	93	135.2	37.2	25.4	43.8
95	7359	2642	284	113	126.4	34.6	23.4	51.3
100	7019	2604	221	83	120.4	34.9	17.9	39.9
105	6604	2457	247	75	113.1	32.4	22.2	35.6
110	6723	2525	221	80	115.2	33.7	18.3	38.3
115	6001	2303	200	79	102.5	30.7	15.9	37.4
120	6542	2442	209	110	112.0	32.6	14.1	50.5

125	6764	2441	206	93	115.9	32.7	15.3	43.6
130	6982	2572	270	88	119.8	33.8	23.9	41.0
135	7268	2695	242	96	124.8	35.9	19.4	45.2
140	7074	2614	258	94	121.4	34.5	21.7	43.8
145	6992	2501	245	82	119.9	33.1	21.3	38.7
150	7242	2740	256	96	124.3	36.4	21.2	45.2
155	7217	2702	229	88	123.9	36.2	18.4	42.2
160	7361	2624	261	98	126.4	34.6	21.8	45.5
165	7102	2669	250	98	121.9	35.4	20.3	45.8
170	7156	2586	246	75	122.8	34.3	21.9	36.1
175	7072	2572	232	88	121.4	34.2	18.9	41.6
180	7267	2770	228	98	124.8	37.2	17.3	46.6
185	7227	2755	224	87	124.1	37.0	17.8	42.1
190	7356	2708	273	107	126.3	35.7	22.4	49.3
195	7160	2638	242	85	122.9	35.1	20.4	40.5
200	7087	2637	259	100	121.6	34.8	21.3	46.4
205	7117	2650	261	70	122. .	35.0	24.3	34.1
210	7678	2776	277	118	132.0	36.6	21.9	54.0
215	6550	2475	208	69	112.2	33.2	17.7	33.8
220	5818	2288	186	77	99.3	30.7	14.3	36.7
225	5876	2282	205	80	100.3	30.4	16.5	37.6

L 15 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	5415	2066	146	51	92.2	28.0	11.7	25.8
220	6265	2350	208	85	107.2	31.3	16.3	39.9
215	8072	2918	316	114	138.9	38.2	27.1	52.3
210	6781	2493	235	102	116.2	33.0	18.2	47.0
205	5809	2284	166	59	99.2	30.9	13.6	29.6
200	7960	2873	266	126	137.0	38.2	19.6	57.9
195	7816	2894	263	98	134.4	38.5	21.7	46.5
190	8038	2893	289	107	138.3	38.2	24.3	49.8
185	7903	2827	284	106	136.0	37.3	23.8	49.2
180	7849	2834	277	116	135.0	37.5	22.0	53.4
175	7747	2813	269	104	133.2	37.3	22.0	48.6
170	7917	2862	257	110	136.2	38.1	19.9	51.4
165	7742	2824	280	113	133.1	37.3	22.6	52.1
160	7619	2805	276	91	131.0	37.1	24.1	43.1
155	7798	2893	281	103	134.1	38.3	23.6	48.3
150	7378	2747	272	90	126.7	36.3	23.8	42.5
145	7674	2818	255	106	131.9	37.5	20.0	49.6
140	7757	2848	279	104	133.4	37.7	23.3	48.5
135	7464	2754	261	103	128.2	36.5	21.2	48.0
130	7575	2780	275	102	130.2	36.7	23.0	47.5
125	7720	2796	277	102	132.7	36.9	23.3	47.5
120	7767	2740	302	96	133.6	35.8	27.1	44.5
115	8139	2921	312	111	140.1	38.3	26.9	51.2
110	7733	2876	263	111	133.0	38.3	20.6	51.8
105	7815	2836	311	96	134.4	37.1	28.2	44.7
100	7859	2899	262	116	135.2	38.6	19.9	53.9
95	7579	2675	303	118	130.3	34.8	25.3	53.2

90	7788	2754	254	102	133.9	36.6	20.3	47.7
85	7901	2815	280	134	135.9	37.1	20.8	60.7
80	7552	2677	249	95	129.8	35.6	20.4	44.6
75	7329	2779	255	94	125.9	37.0	21.2	44.5
70	7872	2830	255	107	135.4	37.7	19.9	50.1
65	7730	2814	257	92	132.9	37.4	21.6	43.8
60	7515	2742	252	87	129.1	36.5	21.4	41.6
55	8011	2944	283	117	137.9	39.0	22.5	54.2
50	7948	2859	274	128	136.8	37.8	20.5	58.5
45	7766	2904	278	111	133.6	38.5	22.5	51.6
40	7615	2869	241	99	130.9	38.4	18.8	47.2
35	7709	2784	267	98	132.6	36.9	22.4	46.0
30	7662	2792	261	111	131.7	37.1	20.4	51.5
25	7416	2649	261	106	127.4	35.0	21.0	48.9
20	7317	2635	273	102	125.7	34.6	22.9	47.0
15	7319	2634	257	75	125.7	34.9	23.3	36.1
10	7268	2699	230	84	124.8	36.1	18.9	40.5
5	7345	2684	268	81	126.2	35.4	24.1	38.6
0	7042	2600	235	78	120.8	34.6	20.2	37.6

H 20 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7127	2648	231	84	122.3	35.4	19.1	40.3
5	7130	2558	262	109	122.4	33.6	21.0	49.7
10	6434	2366	217	91	110.1	31.4	17.0	42.3
15	6944	2590	246	97	119.1	34.3	19.9	45.2
20	6997	2659	242	81	120.0	35.4	20.8	38.9
25	7176	2631	261	92	123.2	34.7	22.3	43.0
30	7167	2666	253	94	123.0	35.3	21.0	44.1
35	7619	2703	297	91	131.0	35.3	27.0	42.3
40	7965	2987	281	76	137.1	39.7	25.9	37.6
45	7681	2780	282	108	132.1	36.6	23.4	49.9
50	7125	2609	247	116	122.3	34.6	18.3	53.0
55	7691	2755	291	108	132.2	36.2	24.6	49.6
60	7720	2770	267	118	132.7	36.7	20.6	54.2
65	6771	2505	241	82	116.1	33.2	20.7	38.8

H 25 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	5887	2222	218	85	100.5	29.3	17.8	39.2
5	6672	2433	225	95	114.3	32.3	17.6	44.1
10	7014	2571	206	100	120.3	34.5	14.5	47.0
15	6716	2555	210	82	115.1	34.3	16.6	39.5
20	6993	2568	257	95	120.0	33.9	21.6	44.1
25	6860	2572	208	80	117.6	34.6	16.6	38.7
30	7342	2639	244	115	126.1	35.0	18.0	52.8
35	7378	2660	284	105	126.7	34.9	24.1	48.1
40	6811	2490	237	104	116.8	33.0	18.2	47.8

H 30 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6977	2561	240	114	119.7	34.0	17.6	52.1
5	5307	1999	177	57	90.3	26.6	15.2	27.5
10	6761	2521	227	81	115.9	33.6	19.0	38.6
15	7350	2722	271	107	126.2	35.9	22.1	49.4
20	6763	2521	240	92	115.9	33.4	19.7	42.9
25	7569	2726	276	117	130.1	35.9	21.9	53.4

L 35 25 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
25	7095	2539	266	95	121.8	33.3	22.8	43.8
20	6897	2620	236	109	118.3	34.9	17.5	50.4
15	6882	2549	245	90	118.0	33.7	20.5	42.2
10	6939	2493	253	91	119.0	32.8	21.5	42.2
5	6759	2416	229	100	115.9	32.0	17.6	46.0
0	5693	2125	209	55	97.1	28.1	19.4	26.7

L 20 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	4934	1926	137	49	83.8	26.1	10.8	24.6
220	7095	2551	247	96	121.8	33.7	20.2	44.6
215	6653	2416	220	93	114.0	32.1	17.1	43.3
210	5975	2294	187	70	102.1	30.8	15.0	33.9
205	7427	2697	246	91	127.6	35.9	20.4	43.1
200	7849	2819	280	111	135.0	37.2	22.8	51.3
195	8310	3075	301	133	143.1	40.6	23.3	61.0
190	8046	2903	311	105	138.5	38.1	27.3	48.7
185	8298	2954	278	114	142.9	39.2	22.1	53.1
180	6272	2378	188	72	107.3	32.0	14.9	35.0
175	7610	2794	242	107	130.8	37.3	18.3	50.1
170	7851	2834	308	108	135.0	37.1	26.7	49.7
165	7426	2675	254	120	127.6	35.4	18.8	54.8
160	7641	2823	251	119	131.4	37.6	18.3	55.0
155	7465	2693	256	98	128.3	35.7	21.0	45.8
150	7000	2545	214	110	120.1	34.0	14.6	50.8
145	6899	2464	241	102	118.3	32.6	19.0	46.8
140	6723	2462	226	82	115.2	32.7	18.8	38.8
135	6334	2388	234	83	108.4	31.6	19.9	38.8
130	6420	2424	215	70	109.9	32.3	18.5	33.9

L 25 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6588	2464	214	63	112.8	32.9	19.0	31.2
220	6523	2375	233	81	111.7	31.4	19.9	38.0
215	6542	2443	213	79	112.0	32.6	17.4	37.7
210	6756	2575	228	85	115.8	34.3	18.7	40.5
205	6787	2514	242	77	116.3	33.3	21.3	36.7
200	7022	2584	256	78	120.5	34.1	23.0	37.2
195	6668	2428	225	92	114.3	32.2	17.8	42.8
190	7058	2663	257	87	121.1	35.3	22.2	41.2
185	7156	2680	207	90	122.8	36.1	15.4	43.3
180	7020	2625	238	78	120.4	35.0	20.6	37.6
175	7459	2772	262	105	128.2	36.8	21.1	48.9
170	7446	2661	234	109	127.9	35.5	17.2	50.6
165	7774	2723	286	116	133.7	35.7	23.3	52.9
160	6742	2527	213	83	115.6	33.8	17.0	39.7

L 30 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6092	2218	224	72	104.1	29.2	19.7	33.8
220	6260	2291	218	86	107.1	30.4	17.4	40.0
215	6752	2505	220	84	115.7	33.4	17.8	39.9
210	7003	2584	224	83	120.1	34.5	18.3	39.8
205	6745	2465	236	87	115.6	32.6	19.7	40.7
200	6764	2501	243	84	115.9	33.1	20.8	39.5
195	6565	2346	255	86	112.4	30.7	22.4	39.6
190	6872	2580	243	79	117.8	34.2	21.2	37.8
185	6651	2510	225	75	114.0	33.4	19.3	36.2
180	7433	2658	290	112	127.7	34.8	24.2	50.9

L 35 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6277	2290	204	86	107.4	30.5	15.8	40.1
220	6799	2510	217	82	116.6	33.5	17.6	39.2
215	6623	2498	216	77	113.5	33.4	17.9	37.1
210	6724	2570	233	80	115.2	34.2	19.8	38.3
205	6315	2277	226	70	108.0	30.1	20.1	33.2
200	6646	2449	231	81	113.9	32.5	19.6	38.3
195	6639	2455	218	78	113.7	32.7	18.2	37.3
190	6407	2346	206	91	109.7	31.3	15.5	42.4
185	6996	2599	244	82	120.0	34.5	21.0	39.1

L 40 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6278	2268	238	73	107.4	29.8	21.4	34.2

220	6618	2413	224	96	113.4	32.0	17.4	44.4
215	6481	2368	201	61	111.0	31.7	17.6	30.2
210	6649	2510	236	75	113.9	33.3	20.7	36.0
205	6566	2393	248	92	112.5	31.4	20.9	42.3
200	6829	2515	260	82	117.1	33.1	23.2	38.5

L 45 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6751	2508	226	80	115.7	33.4	19.0	38.2
220	6719	2512	232	91	115.1	33.4	18.7	42.6
215	6595	2465	213	75	113.0	32.9	17.8	36.2
210	6240	2227	238	91	106.7	29.2	19.8	41.4
205	6649	2389	221	79	113.9	31.7	18.5	37.4
200	7996	2871	290	106	137.6	37.9	24.5	49.3

L 50 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6813	2528	224	77	116.8	33.7	19.0	37.1
220	6685	2454	224	80	114.6	32.6	18.8	38.0
215	6348	2344	237	92	108.6	30.9	19.5	42.3
210	6573	2389	250	90	112.6	31.4	21.3	41.4
205	8001	2883	296	114	137.7	37.9	24.6	52.5

L 55 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6524	2448	217	77	111.7	32.6	18.1	36.9
220	6198	2316	183	61	106.0	31.2	15.3	30.3
215	6685	2455	227	75	114.6	32.6	19.6	35.9

L 60 225 STEP = 5

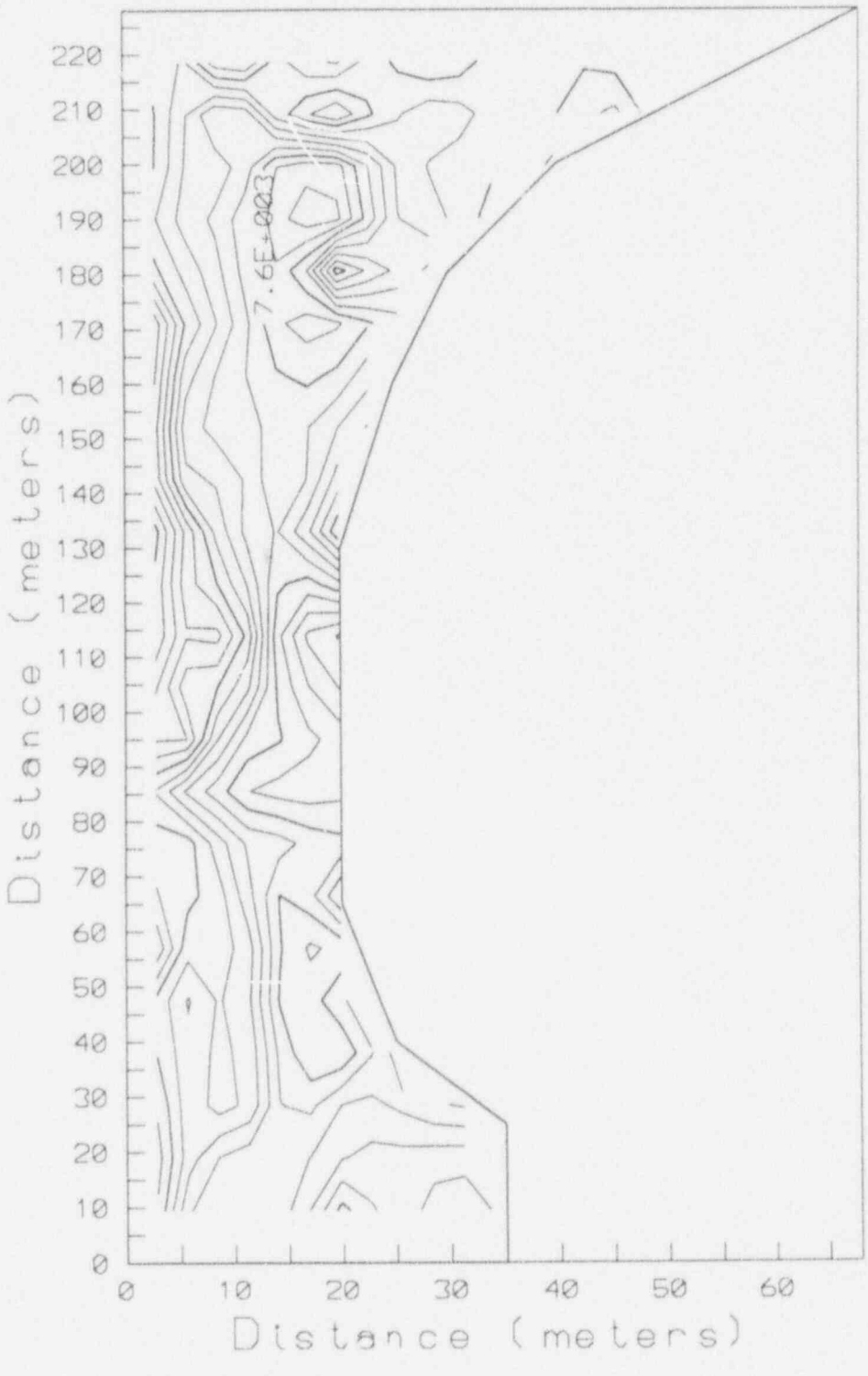
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6671	2467	204	79	114.3	33.1	16.2	38.0
220	6591	2492	205	68	112.9	33.4	17.3	33.5

L 65 225 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
225	6668	2509	235	78	114.3	33.3	20.3	37.2

END OF DATA

AREA 4


7.6E+003
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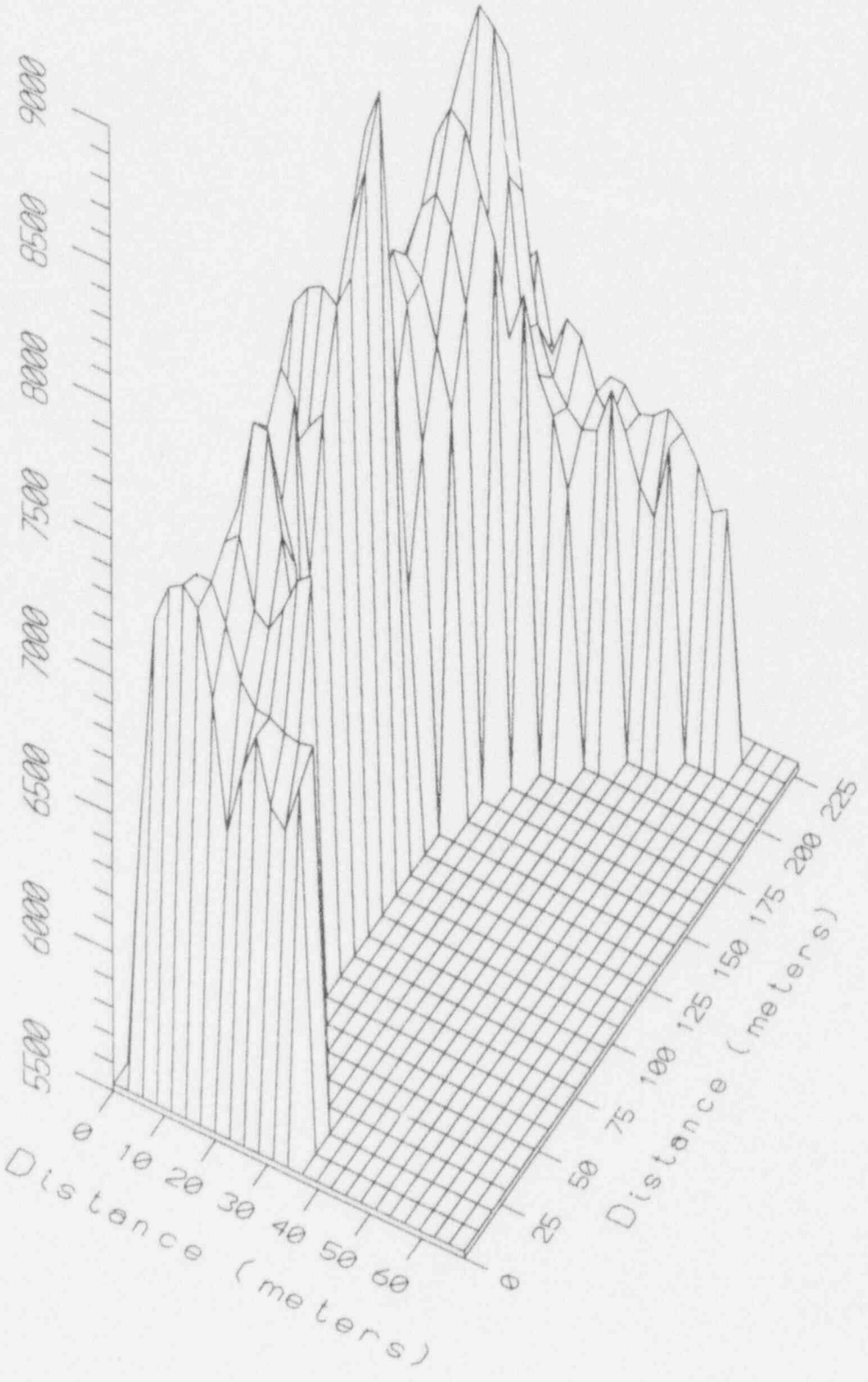
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
Distance (meters)
0
10
20
30
40
50
60

AREA 4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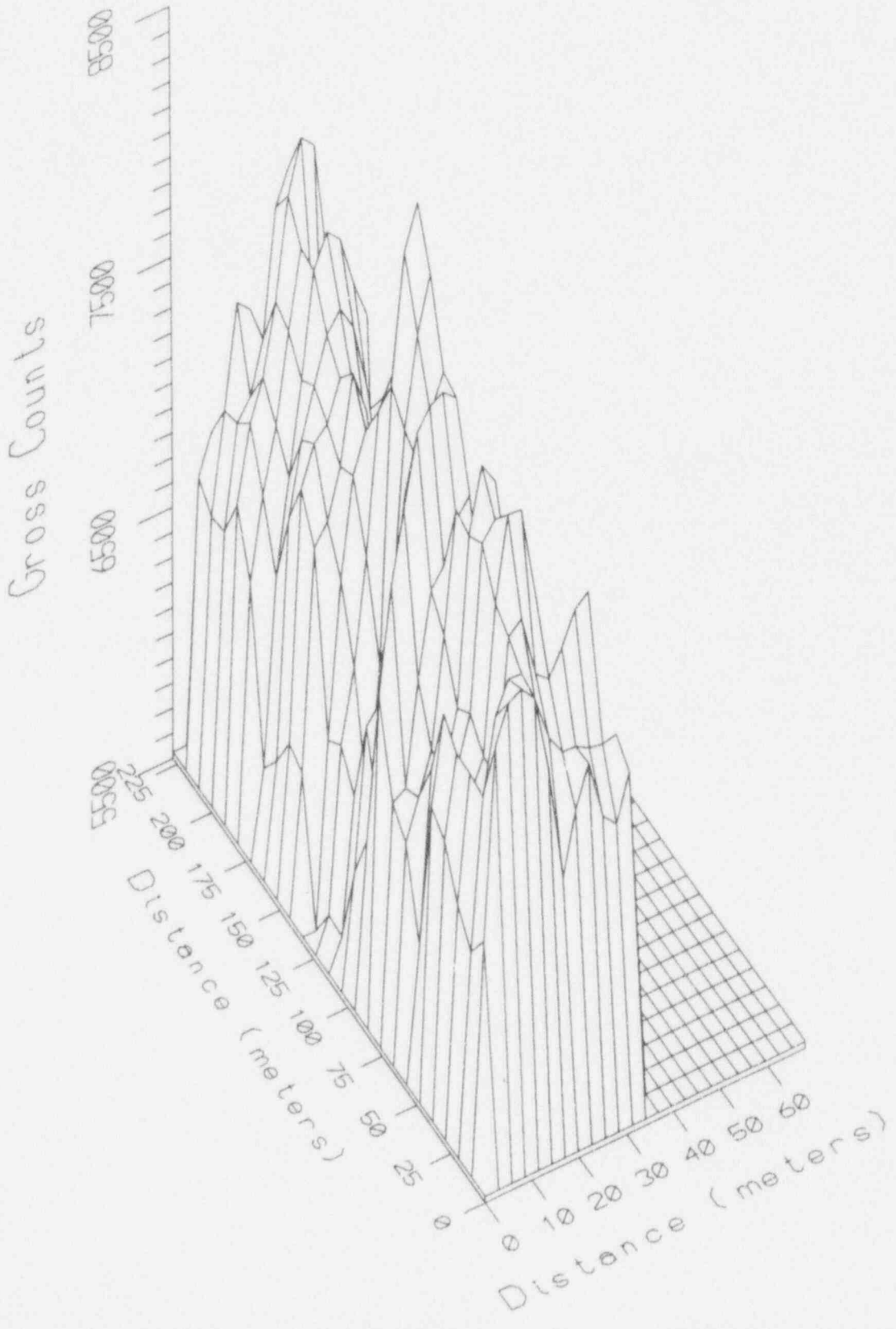
0 10 20 30 40 50 60
Distance (meters)
0 25 50 75 100 125 150 175 200 225
Distance (meters)

AREA 4


Gross Counts
8500
7500
6500
5500
225
200
175
150
125
100
75
50
25
0
Distance (meters)
0
10
20
30
40
50
60
Distance (meters)

APPENDIX G

GAMMA SURVEY DATA FOR AREA 5

AREA 5

AREA 5

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 118

CALIBRATION CONSTANTS:

-1
BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484 -411 -40
-37 4331 -3016
132 -533 13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 052593 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	4386	1744	143	52	74.1	23.4	11.6	25.0
5	7111	2704	225	96	122.0	36.2	17.2	45.6
10	5478	2186	181	56	93.3	29.3	15.6	27.8
15	7097	2623	284	97	121.8	34.:		
20	5959	2373	199	72	101.8	31.!		
25	7205	2648	268	93	123.7	34.!		
30	6969	2586	235	99	119.5	34.		
35	7197	2617	261	88	123.6	34.		
40	6946	2496	244	112	119.1	33		

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

H 5 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	5308	1998	163	70	90.3	26.8	12.2	33.1
5	7115	2649	252	98	122.1	35.1	20.6	45.7
10	7068	2666	239	84	121.3	35.5	20.1	40.3
15	7117	2702	263	75	122.1	35.8	24.0	36.3
20	7019	2579	261	83	120.4	34.0	23.2	39.1
25	6676	2599	214	80	114.4	34.9	17.3	38.7

30	6755	2641	242	65	115.8	35.2	22.2	32.3
35	7805	2866	279	87	134.2	37.9	24.8	41.6
40	7537	2813	266	102	129.5	37.3	21.8	47.8
45	7226	2626	239	86	124.1	34.9	20.0	40.9

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7133	2747	212	96	122.4	37.0	15.4	45.9
5	7098	2655	262	84	121.8	35.1	23.1	39.8
10	6955	2604	243	101	119.3	34.6	19.2	46.9
15	6985	2571	250	81	119.8	34.0	21.9	38.5
20	7002	2613	248	76	120.1	34.7	22.1	36.6
25	6864	2574	231	81	117.7	34.3	19.4	38.8
30	6805	2590	224	79	116.7	34.6	18.7	38.1
35	6883	2567	219	65	118.0	34.4	19.3	32.4
40	6989	2647	230	95	119.9	35.4	18.0	44.8
45	7222	2643	256	84	124.0	35.0	22.3	39.9
50	6841	2569	260	77	117.3	33.9	23.6	36.7
55	6684	2552	227	101	114.5	34.0	17.1	47.0
60	6933	2583	244	94	118.9	34.3	20.0	43.9

L 15 60 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
60	6899	2611	225	84	118.3	34.9	18.4	40.3
55	7224	2733	262	74	124.0	36.2	23.9	36.0
50	6987	2697	215	88	119.9	36.3	16.6	42.4
45	7125	2683	232	92	122.3	35.9	18.5	43.7
40	6760	2621	235	73	115.9	34.9	20.6	35.6
35	7052	2650	237	91	121.0	35.3	19.2	43.1
30	6846	2512	237	85	117.4	33.3	19.9	40.1
25	6980	2576	229	79	119.7	34.4	19.4	38.0
20	7015	2663	263	74	120.4	35.2	24.1	35.8
15	6940	2663	219	79	119.0	35.7	18.0	38.5
10	7068	2648	237	88	121.3	35.3	19.5	41.9
5	6976	2643	234	72	119.7	35.3	20.6	35.3
0	7061	2649	245	88	121.2	35.2	20.5	41.7

H 20 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6840	2551	228	98	117.3	34.0	17.5	45.7
5	7000	2657	214	66	120.1	35.7	18.5	33.2
10	6973	2538	268	81	119.6	33.3	24.3	38.1
15	6746	2613	248	72	115.6	34.7	22.4	35.0
20	7055	2660	259	93	121.1	35.2	21.9	43.6
25	6897	2621	245	70	118.3	34.8	22.2	34.2

30	7010	2649	260	74	120.3	35.0	23.8	35.7
35	7089	2661	247	87	121.7	35.4	20.9	41.3
40	7029	2583	217	91	120.6	34.6	16.7	43.1
45	6975	2653	232	68	119.6	35.4	20.7	33.8
50	7011	2616	225	89	120.3	35.0	17.9	42.3
55	6669	2670	240	79	114.3	35.6	20.7	38.2
60	7186	2764	247	88	123.4	36.8	20.7	42.2

L 25 60 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
60	6753	2500	252	76	115.7	33.0	22.7	36.1
55	6616	2384	213	93	113.3	31.7	16.2	43.2
50	6810	2570	225	83	116.7	34.3	18.5	39.7
45	6986	2650	275	96	119.8	34.8	23.7	44.5
40	6937	2665	272	81	119.0	35.1	24.7	38.5
35	7044	2725	231	70	120.9	36.5	20.3	34.9
30	7143	2688	257	95	122.6	35.6	21.4	44.6
25	7028	2606	228	95	120.6	34.8	17.8	44.7
20	6771	2540	225	73	116.1	33.9	19.4	35.5

L 25 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	7286	2728	236	90	125.1	36.5	19.1	43.0
0	7073	2727	248	91	121.4	36.3	20.6	43.2

H 30 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6976	2657	201	93	119.7	35.9	14.4	44.5
5	7476	2859	286	89	128.5	37.7	25.6	42.3

H 30 25 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
25	7127	2721	267	96	122.3	36.0	22.6	44.9
30	7254	2809	235	83	124.6	37.7	19.5	40.5
35	7037	2655	222	88	120.7	35.6	17.6	42.1
40	6943	2555	247	78	119.1	33.8	21.8	37.2
45	6772	2510	245	81	116.1	33.2	21.3	38.3
50	6946	2603	231	86	119.1	34.7	19.0	41.0
55	6695	2499	239	72	114.7	33.1	21.4	34.7
60	6866	2567	210	72	117.7	34.5	17.5	35.4

L 35 60 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
60	6914	2586	250	79	118.6	34.2	22.1	37.7
55	6835	2588	221	80	117.2	34.6	18.2	38.6
50	6944	2579	240	77	119.1	34.3	21.0	37.0
45	6943	2656	243	78	119.1	35.3	21.2	37.7
40	7357	2765	256	95	126.4	36.7	21.2	44.9
35	7060	2683	228	70	121.1	35.9	19.9	34.8
30	7222	2741	240	79	124.0	36.6	20.6	38.5

L 35 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	7752	2855	258	103	133.3	38.0	20.7	48.5
0	7067	2694	231	76	121.3	36.0	19.8	37.2

H 40 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7086	2713	214	81	121.6	36.5	17.1	39.6
5	7293	2767	257	89	125.2	36.8	21.9	42.4
10	7373	2821	250	84	126.6	37.6	21.4	40.7
15	7333	2730	267	92	125.9	36.1	23.0	43.3

H 40 30 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
30	6962	2634	253	81	119.4	34.9	22.2	38.7
35	7144	2747	271	79	122.6	36.3	24.6	38.0
40	7039	2700	233	82	120.8	36.1	19.5	39.7
45	6984	2596	234	80	119.8	34.6	19.9	38.4
50	6864	2726	191	77	117.7	37.0	14.4	38.4
55	6962	2679	233	71	119.4	35.8	20.5	35.1
60	6929	2621	235	69	118.8	34.9	21.0	34.0

L 45 65 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
65	6936	2594	234	71	119.0	34.6	20.7	34.7
60	7117	2701	252	78	122.1	35.9	22.3	37.7
55	7124	2700	233	94	122.3	36.1	18.4	44.6
50	7029	2685	239	80	120.6	35.8	20.5	38.7
45	7171	2723	242	89	123.1	36.3	20.0	42.5
40	7111	2711	230	100	122.0	36.3	17.4	47.1

35	6894	2658	220	69	118.2	35.7	19.0	34.4
30	6949	2796	203	86	119.2	37.9	15.1	42.2
25	7007	2637	242	67	120.2	35.1	22.1	33.1
20	7320	2759	259	85	125.7	36.6	22.5	40.7
15	7398	2725	255	80	127.1	36.2	22.5	38.6
10	7212	2812	218	75	123.8	37.9	18.0	37.5
5	7206	2737	226	80	123.7	36.7	18.7	39.1
0	7295	2838	243	83	125.3	38.0	20.5	40.5

H 50 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6722	2560	241	80	115.2	34.0	20.9	38.2
5	7067	2678	204	82	121.3	36.1	15.7	40.0
10	7129	2700	252	72	122.4	35.9	22.9	35.3
15	7323	2810	247	82	125.8	37.5	21.2	39.9
20	7321	2791	241	82	125.7	37.3	20.4	39.9
25	7303	2773	266	82	125.4	36.8	23.7	39.4
30	7059	2672	274	76	121.1	35.2	25.4	36.4
35	6913	2693	237	76	118.6	36.0	20.5	37.1
40	6980	2671	215	72	119.7	35.9	18.1	35.7
45	6900	2518	220	83	118.3	33.6	17.9	39.6
50	7207	2804	247	82	123.7	37.4	21.2	39.9
55	7066	2723	225	70	121.2	36.5	19.5	35.0
60	7053	2642	259	86	121.0	34.9	22.6	40.7
65	7025	2629	259	83	120.5	34.7	22.8	39.4

L 55 65 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
65	7078	2744	214	95	121.5	37.0	15.8	45.5
60	6896	2637	242	95	118.3	35.1	19.5	44.6
55	7091	2763	239	85	121.7	36.9	19.9	41.0
50	7106	2722	234	88	122.0	36.4	19.0	42.2
45	7010	2629	242	87	120.3	35.0	20.3	41.3
40	7073	2693	238	77	121.4	35.9	20.6	37.5
35	7076	2716	227	68	121.4	36.4	19.9	34.1
30	7065	2696	242	81	121.2	35.9	20.7	39.1
25	7431	2838	274	82	127.7	37.6	24.7	39.6
20	7247	2749	252	92	124.4	36.6	21.0	43.7
15	7183	2804	239	84	123.3	37.5	20.0	40.8
10	7226	2748	234	80	124.1	36.8	19.7	39.0
5	6982	2699	228	83	119.8	36.1	18.7	40.2
0	7290	2792	256	72	125.2	37.2	23.3	35.6

H 60 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]

0	7146	2777	243	72	122.7	37.1	21.6	35.7
5	7402	2778	255	84	127.2	37.0	22.1	40.4
10	7233	2714	251	84	124.2	36.1	21.6	40.3
15	7259	2768	269	101	124.6	36.6	22.4	47.2
20	7321	2800	254	82	125.7	37.3	22.1	39.7
25	7321	2774	250	83	125.7	37.0	21.5	40.1
30	7175	2725	258	83	123.2	36.2	22.6	39.8
35	6956	2641	259	82	119.3	34.9	22.9	39.0
40	6903	2530	255	71	118.4	33.4	23.5	34.1
45	7144	2734	237	91	122.6	36.5	19.1	43.4
50	6774	2576	216	78	116.1	34.5	17.8	37.8
55	7201	2728	253	93	123.6	36.2	21.0	44.0
60	6803	2623	230	83	116.6	35.0	19.1	39.8
65	6908	2597	243	80	118.5	34.5	21.1	38.3

L 65 65 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
65	6944	2702	229	92	119.1	36.2	18.1	43.8
60	7008	2699	242	67	120.2	36.0	22.0	33.4
55	6891	2574	233	92	118.2	34.3	18.7	43.3
50	6825	2577	245	82	117.0	34.2	21.2	39.0
45	7059	2724	214	89	121.1	36.7	16.3	42.9
40	7206	2783	225	85	123.7	37.4	18.1	41.4
35	7139	2658	238	86	122.5	35.4	19.8	41.1
30	7163	2752	202	81	123.0	37.2	15.5	40.0
25	7177	2694	258	79	123.2	35.7	23.0	38.0
20	7377	2787	251	92	126.7	37.1	20.8	43.8
15	7245	2816	250	71	124.4	37.6	22.6	35.3
10	7294	2814	200	71	125.3	38.2	16.1	36.1
5	7260	2831	213	92	124.7	38.2	15.8	44.6
0	7186	2668	255	69	123.4	35.4	23.5	33.9

H 70 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7441	2865	259	91	127.8	38.2	21.9	43.6
5	7269	2831	225	68	124.8	38.1	19.6	34.6
10	7378	2799	240	87	126.7	37.4	19.8	42.0
15	7282	2850	276	65	125.0	37.8	26.4	32.6
20	7323	2763	284	74	125.8	36.4	26.8	35.8
25	6743	2624	238	72	115.6	34.9	21.1	35.2
30	6561	2606	208	72	112.4	35.1	17.2	35.6
35	6574	2618	227	69	112.6	35.0	20.0	34.1
40	6583	2585	206	64	112.8	34.8	17.7	32.3
45	5928	2349	185	60	101.2	31.6	15.6	30.0
50	6185	2411	193	72	105.8	32.4	15.5	35.1
55	5993	2392	192	68	102.4	32.1	15.8	33.4
60	6075	2379	193	89	103.8	31.9	14.0	41.9
65	5914	2370	172	67	101.0	32.1	13.3	33.2

L 75 65 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
65	5818	2291	174	70	99.3	30.9	13.4	34.1
60	6777	2571	238	96	116.2	34.1	19.0	44.8
55	6776	2615	249	92	116.2	34.7	20.7	43.2
50	6805	2626	243	93	116.7	34.9	19.9	43.7
45	6914	2703	200	79	118.6	36.6	15.5	39.0
40	6266	2460	211	87	107.2	32.9	16.4	41.1
35	5732	2263	180	71	97.8	30.4	14.1	34.3
30	5979	2380	181	75	102.1	32.1	13.7	36.4
25	5999	2388	180	58	102.5	32.3	15.1	29.4
20	5595	2206	190	55	95.4	29.5	16.9	27.3
15	5779	2381	176	58	98.6	32.2	14.6	29.5
10	6676	2570	209	59	114.4	34.5	18.6	30.1
5	7108	2663	242	85	122.0	35.4	20.4	40.6
0	7105	2771	228	78	121.9	37.2	19.1	38.4

H 80 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7070	2720	221	77	121.3	36.5	18.3	37.9
5	7627	2935	235	87	131.1	39.5	19.0	42.6
10	7535	2903	266	82	129.5	38.6	23.5	39.9
15	7953	2974	269	108	136.8	39.6	21.5	50.8
20	7892	2977	241	101	135.8	40.0	18.5	48.4
25	7764	2993	281	102	133.5	39.7	23.6	48.3
30	7334	2783	232	85	126.0	37.3	19.0	41.2
35	7060	2719	249	82	121.1	36.2	21.5	39.5
40	7052	2703	218	85	121.0	36.3	17.3	41.1
45	7265	2720	247	94	124.7	36.2	20.2	44.4
50	7034	2584	249	84	120.7	34.2	21.5	39.8
55	7176	2747	244	95	123.2	36.6	19.7	45.0
60	7297	2680	263	84	125.3	35.4	23.2	39.9
65	5831	2228	186	63	99.5	29.8	15.6	30.8

L 85 65 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
65	7168	2792	229	95	123.0	37.5	17.7	45.4
60	7423	2788	278	85	127.5	36.8	25.0	40.5
55	7307	2851	245	92	125.5	38.1	20.0	44.2
50	7266	2813	201	90	124.8	38.1	14.5	43.9
45	7420	2817	265	102	127.5	37.4	21.7	47.8
40	6962	2707	216	100	119.4	36.4	15.6	47.3
35	6941	2645	231	85	119.1	35.3	19.0	40.7
30	7367	2886	226	76	126.5	38.9	18.9	38.1

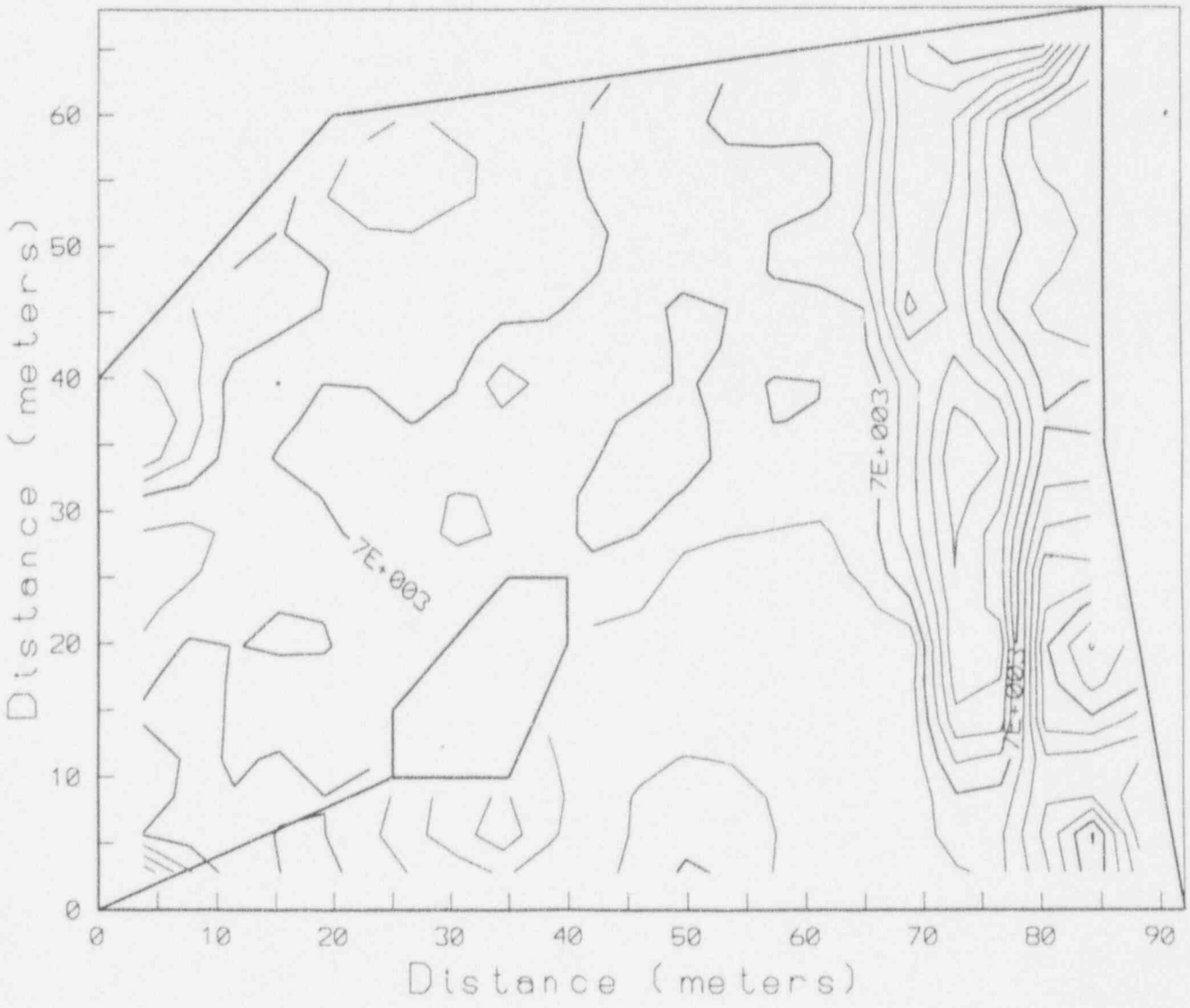
25	7627	2903	254	77	131.1	38.8	22.4	38.1
20	8478	3221	268	108	146.1	43.2	21.1	51.8
15	8080	3041	285	108	139.1	40.4	23.5	50.8
10	7299	2851	234	76	125.3	38.3	20.0	37.8
5	8449	3241	271	105	145.6	43.5	21.7	50.6
0	8123	3021	267	116	139.8	40.3	20.5	54.3

H 90 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7330	2805	249	87	125.9	37.4	21.0	41.9
5	6700	2573	233	69	114.8	34.3	20.8	33.8
10	7222	2742	228	76	124.0	36.8	19.3	37.4

END OF DATA

AREA 5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20
30
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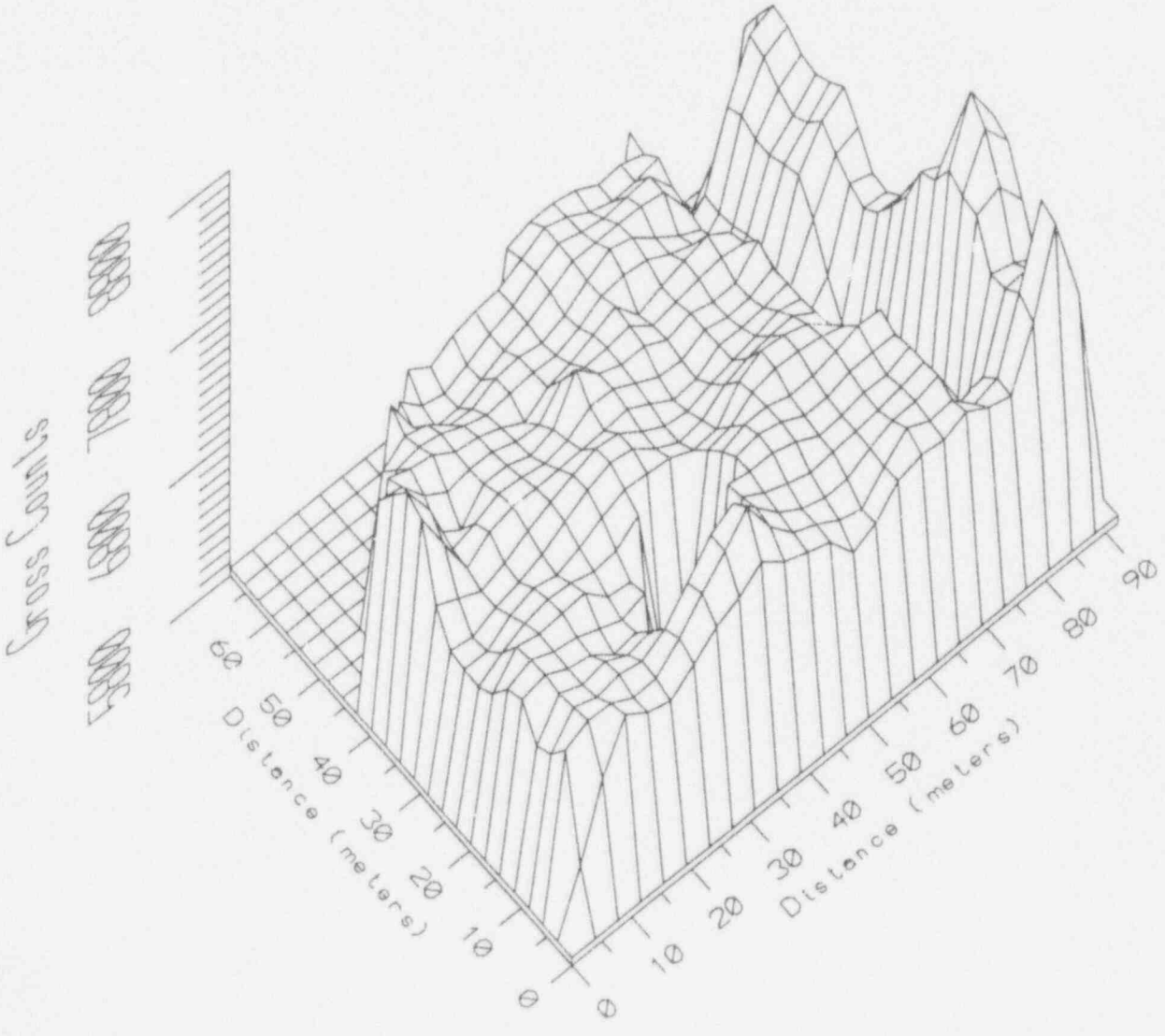
30
40
50
60
7E+003
7E+003
7E+003

AREA 5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Distance (meters)
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10
20
30
40
50
60
70
80
90
Distance (meters)
0
10
20
30
40
50
60

APPENDIX H

GAMMA SURVEY DATA FOR AREA 6

AREA 6

AREA 6

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 118

CALIBRATION CONSTANTS:

-1
"BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7"

CAL TOT - C5 = 586

"CALIBRATION MATRIX - C6,...,C14"

484 -411 -40
-37 4331 -3016
132 -533 13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 060293 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6798	2519	241	92	116.5	33.4	19.8	42.9
5	6641	2440	248	84	113.8	32.1	21.5	39.2
10	6702	2449	221	69	114.9	32.6	19.4	33.5
15	6852	2503	236	79	117.5	33.2	20.4	37.6
20	6686	2499	199	76	114.6	33		
25	6896	2587	225	82	118.3	34		
30	7540	2795	242	90	129.6	37		
35	7036	2662	242	101	120.7	35		
40	6808	2559	202	71	116.7	34		
45	6960	2586	250	83	119.5	34		
50	6891	2534	231	94	118.2	34		
55	6983	2648	205	86	119.8	35		
60	6892	2615	220	79	118.2	35		
65	7106	2715	230	86	122.0	36.3	18.7	41.4
70	6968	2657	235	80	119.5	35.5	20.0	38.6
75	6572	2476	224	86	112.6	33.0	18.2	40.6
80	7497	2750	256	87	128.8	36.5	22.0	41.5

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

L 5 80 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
80	7118	2636	232	100	122.2	35.2	17.8	46.8
75	6795	2614	232	69	116.5	34.9	20.6	34.0
70	7134	2681	233	80	122.4	35.8	19.7	38.8
65	7053	2590	227	106	121.0	34.5	16.6	49.2
60	6943	2608	214	64	119.1	35.0	18.7	32.2
55	7048	2612	225	73	120.9	34.9	19.3	35.8
50	6993	2625	218	82	120.0	35.2	17.6	39.6
45	6717	2448	237	70	115.1	32.4	21.4	33.7
40	6927	2577	255	92	118.8	34.0	21.6	42.9
35	6962	2588	220	83	119.4	34.6	17.8	39.8
30	7107	2642	216	90	122.0	35.5	16.6	43.0
25	6831	2581	238	80	117.1	34.3	20.4	38.3
20	6515	2415	217	85	111.6	32.2	17.4	40.0
15	6747	2522	227	82	115.6	33.6	18.9	39.1
10	6884	2525	249	89	118.0	33.4	21.1	41.6
5	6942	2623	238	74	119.1	34.9	20.9	36.0

H 10 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	6806	2540	254	82	116.7	33.5	22.4	38.7
10	7064	2642	247	93	121.2	35.1	20.4	43.7
15	7194	2700	213	97	123.5	36.3	15.5	46.1
20	6966	2678	225	87	119.5	35.9	18.0	41.8
25	7031	2546	235	72	120.6	33.9	20.8	34.9
30	6802	2630	238	83	116.6	35.0	20.1	39.7
35	6900	2627	213	73	118.3	35.3	17.8	36.0
40	7013	2570	254	94	120.3	33.9	21.3	43.7
45	6909	2519	208	81	118.5	33.8	16.5	38.9
50	6406	2472	205	80	109.6	33.1	16.3	38.4
55	7162	2686	236	94	122.9	35.8	18.8	44.5
60	6875	2596	207	79	117.9	34.9	16.5	38.4
65	6916	2629	223	94	118.6	35.2	17.2	44.5
70	7112	2667	223	80	122.1	35.7	18.4	38.9
75	6886	2591	211	87	118.1	34.8	16.3	41.6
80	6744	2552	250	96	115.6	33.7	20.6	44.5

L 15 80 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[pprn]
80	6735	2588	215	78	115.4	34.7	17.6	37.9
75	6830	2536	216	77	117.1	33.9	17.9	37.2
70	7032	2651	233	76	120.7	35.4	20.1	37.0
65	7245	2733	242	88	124.4	36.5	20.1	42.1
60	7248	2681	270	92	124.4	35.4	23.4	43.1
55	7017	2587	223	86	120.4	34.6	17.9	41.0
50	6972	2668	253	83	119.6	35.4	22.0	39.6
45	6846	2554	226	72	117.4	34.1	19.6	35.1

40	7053	2679	223	61	121.0	35.9	20.1	31.1
35	6889	2611	242	96	118.1	34.7	19.5	44.9
30	6679	2514	223	70	114.4	33.5	19.5	34.2
25	6644	2524	222	70	113.8	33.7	19.3	34.2
20	6315	2390	199	77	108.0	32.0	15.9	36.9
15	6887	2543	231	90	118.1	33.8	18.7	42.4
10	6877	2630	216	75	117.9	35.3	18.0	36.8
5	7177	2655	229	91	123.2	35.5	18.2	43.2

H 20 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	7054	2556	259	106	121.0	33.7	20.8	48.5
10	6791	2627	216	85	116.4	35.2	17.1	40.9
15	6754	2543	221	68	115.8	34.0	19.4	33.5
20	7071	2600	261	100	121.3	34.3	21.6	46.2
25	6813	2576	227	63	116.8	34.4	20.6	31.5
30	6829	2593	216	61	117.1	34.8	19.3	30.9
35	6848	2576	224	76	117.4	34.4	19.0	36.9
40	6963	2682	219	83	119.4	36.0	17.6	40.2
45	7198	2788	235	94	123.6	37.3	18.6	44.9
50	7097	2682	217	79	121.8	36.0	17.7	38.6
55	7141	2703	236	83	122.6	36.1	19.8	40.0
60	7151	2710	191	83	122.7	36.8	13.9	40.8
65	7098	2640	220	84	121.8	35.4	17.7	40.5
70	7137	2710	233	62	122.5	36.3	21.3	31.5
75	6917	2626	228	79	118.6	35.1	19.2	38.2
80	6928	2601	234	82	118.8	34.6	19.7	39.3

L 25 80 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
80	7268	2731	256	80	124.8	36.3	22.6	38.6
75	6843	2589	213	68	117.3	34.8	18.3	33.8
70	7148	2684	234	81	122.7	35.9	19.7	39.2
65	7163	2608	215	79	123.0	35.0	17.5	38.4
60	6994	2545	234	80	120.0	33.8	20.0	38.2
55	7199	2732	250	75	123.6	36.4	22.3	36.6
50	6849	2589	213	62	117.4	34.8	18.8	31.3
45	7103	2669	237	73	121.9	35.6	20.8	35.8
40	6886	2590	248	82	118.1	34.3	21.5	39.0
35	6551	2400	242	69	112.2	31.6	22.2	33.0
30	6883	2545	207	63	118.0	34.2	18.0	31.7
25	6789	2572	209	77	116.4	34.5	17.0	37.5
20	6863	2606	231	99	117.7	34.7	17.8	46.3
15	6841	2580	244	80	117.3	34.2	21.2	38.2
10	6685	2529	214	64	114.6	33.9	18.8	31.9

H 30 10 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
10	6886	2524	239	92	118.1	33.5	19.5	43.0
15	6645	2501	230	74	113.8	33.3	20.0	35.6
20	6850	2562	239	79	117.5	34.0	20.7	37.8
25	6726	2512	224	89	115.3	33.5	17.9	41.9
30	7015	2574	218	74	120.4	34.5	18.4	36.1
35	6942	2650	232	78	119.1	35.4	19.8	37.8
40	6998	2614	236	82	120.1	34.8	20.0	39.3
45	6795	2561	192	81	116.5	34.6	14.4	39.4
50	6953	2583	240	91	119.3	34.3	19.7	42.8
55	7160	2683	232	84	122.9	35.9	19.2	40.4
60	6946	2637	242	82	119.1	35.1	20.7	39.3
65	7126	2754	216	91	122.3	37.1	16.4	43.8
70	7096	2695	208	71	121.8	36.3	17.2	35.5
75	7502	2809	252	93	128.9	37.4	20.8	44.3
80	7387	2772	255	86	126.9	36.9	21.9	41.2
85	5952	2307	175	67	101.7	31.1	13.7	32.9

L 35 85 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
85	7604	2849	289	101	130.7	37.5	24.9	47.2
80	7495	2817	248	83	128.8	37.6	21.2	40.3
75	7383	2749	258	97	126.8	36.5	21.3	45.6
70	7130	2710	234	78	122.4	36.2	20.0	38.0
65	6958	2589	226	78	119.4	34.6	19.1	37.7
60	7170	2745	222	93	123.1	36.9	17.0	44.5
55	7063	2681	233	93	121.2	35.8	18.5	44.1
50	6928	2563	222	86	118.8	34.2	17.8	40.9
45	6944	2618	228	83	119.1	35.0	18.8	39.8
40	7050	2692	238	89	121.0	35.9	19.5	42.4
35	6924	2657	205	84	118.8	35.8	15.7	40.8
30	7108	2667	221	78	122.0	35.8	18.3	38.1
25	7143	2681	222	67	122.6	36.0	19.4	33.6
20	6806	2563	232	88	116.7	34.1	19.0	41.6
15	6696	2475	251	74	114.7	32.6	22.8	35.2
10	6998	2636	234	78	120.1	35.2	20.0	37.8

H 40 10 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
10	7128	2701	241	70	122.3	36.0	21.6	34.6
15	6981	2628	244	88	119.8	34.9	20.4	41.7
20	6904	2669	204	91	118.4	36.0	14.9	43.7
25	6895	2567	268	87	118.2	33.7	23.7	40.6
30	6774	2454	209	91	116.1	32.8	15.8	42.8
35	6822	2529	218	78	117.0	33.8	18.1	37.6
40	6971	2633	245	84	119.6	35.0	20.9	40.0

45	6924	2585	288	88	118.8	33.7	26.2	40.8
50	6905	2551	200	92	118.4	34.3	14.4	43.7
55	7019	2662	214	88	120.4	35.8	16.5	42.3
60	7326	2789	244	77	125.8	37.3	21.3	37.8
65	6990	2693	248	77	119.9	35.8	21.9	37.3
70	7204	2652	269	83	123.7	35.0	24.1	39.3
75	6764	2583	228	79	115.9	34.5	19.2	38.1
80	6911	2655	221	84	118.5	35.6	17.8	40.5
85	7580	2840	266	99	130.3	37.7	22.1	46.7

L 45 85 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
85	7589	2847	266	97	130.4	37.8	22.2	45.9
80	6868	2647	231	87	117.8	35.3	18.8	41.5
75	7059	2674	224	83	121.1	35.8	18.2	40.1
70	7260	2733	222	84	124.7	36.7	17.8	40.8
65	6871	2596	234	84	117.8	34.6	19.5	40.1
60	7178	2734	205	78	123.2	36.9	16.2	38.6
55	7125	2772	197	75	122.3	37.6	15.4	37.7
50	7048	2695	239	74	120.9	36.0	21.0	36.3
45	7080	2667	222	90	121.5	35.7	17.4	43.0
40	7156	2656	243	88	122.8	35.3	20.3	41.8
35	6999	2698	213	79	120.1	36.3	17.2	38.7
30	7004	2616	260	85	120.2	34.5	22.8	40.1
25	7188	2699	237	93	123.4	36.0	19.0	44.1
20	6807	2571	207	71	116.7	34.6	17.2	35.1
15	7092	2681	240	75	121.7	35.7	21.0	36.6
10	6848	2593	210	62	117.4	34.9	18.4	31.4

H 50 15 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
15	6895	2572	234	96	118.2	34.2	18.5	44.9
20	6997	2542	224	79	120.0	33.9	18.8	38.0
25	7004	2632	215	73	120.2	35.3	18.0	36.0
30	6719	2529	240	85	115.1	33.5	20.3	40.1
35	7075	2680	214	75	121.4	36.1	17.7	37.0
40	7225	2690	213	84	124.0	36.2	16.7	40.8
45	6981	2619	231	84	119.8	34.9	19.1	40.2
50	6713	2598	220	85	115.0	34.8	17.6	40.7
55	6987	2563	208	81	119.9	34.4	16.5	39.1
60	7079	2668	228	68	121.5	35.7	20.1	33.9
65	6976	2780	227	67	119.7	37.4	20.0	33.9
70	7051	2696	223	82	121.0	36.2	18.2	39.8
75	7148	2686	240	66	122.7	35.8	21.8	32.9
80	6988	2684	235	76	119.9	35.8	20.3	37.1
85	7627	2848	257	91	131.1	37.9	21.6	43.6
90	6194	2448	194	72	105.9	32.9	15.6	35.2

L 55 90 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
90	7093	2665	219	78	121.7	35.8	18.1	38.1
85	7610	2878	261	83	130.8	38.3	22.8	40.3
80	7180	2724	259	86	123.3	36.1	22.5	41.0
75	7063	2702	217	78	121.2	36.3	17.8	38.3
70	7153	2667	250	80	122.8	35.4	21.9	38.4
65	6864	2649	224	73	117.7	35.5	19.2	35.9
60	7078	2725	234	80	121.5	36.5	19.8	38.9
55	6979	2672	222	88	119.7	35.8	17.5	42.2
50	7060	2692	215	95	121.1	36.2	16.0	45.3
45	6678	2554	211	80	114.4	34.3	17.0	38.6
40	6933	2630	207	73	119.8	35.4	17.0	36.1
35	6843	2643	223	82	117.3	35.4	18.2	39.6
30	6889	2670	230	90	118.1	35.7	18.4	42.9
25	6075	2178	241	59	103.8	28.4	23.2	28.0
20	6353	2300	227	70	108.7	30.4	20.2	33.3
15	6625	2409	225	75	113.5	33.1	19.3	36.1

H 60 15 STEP = 5

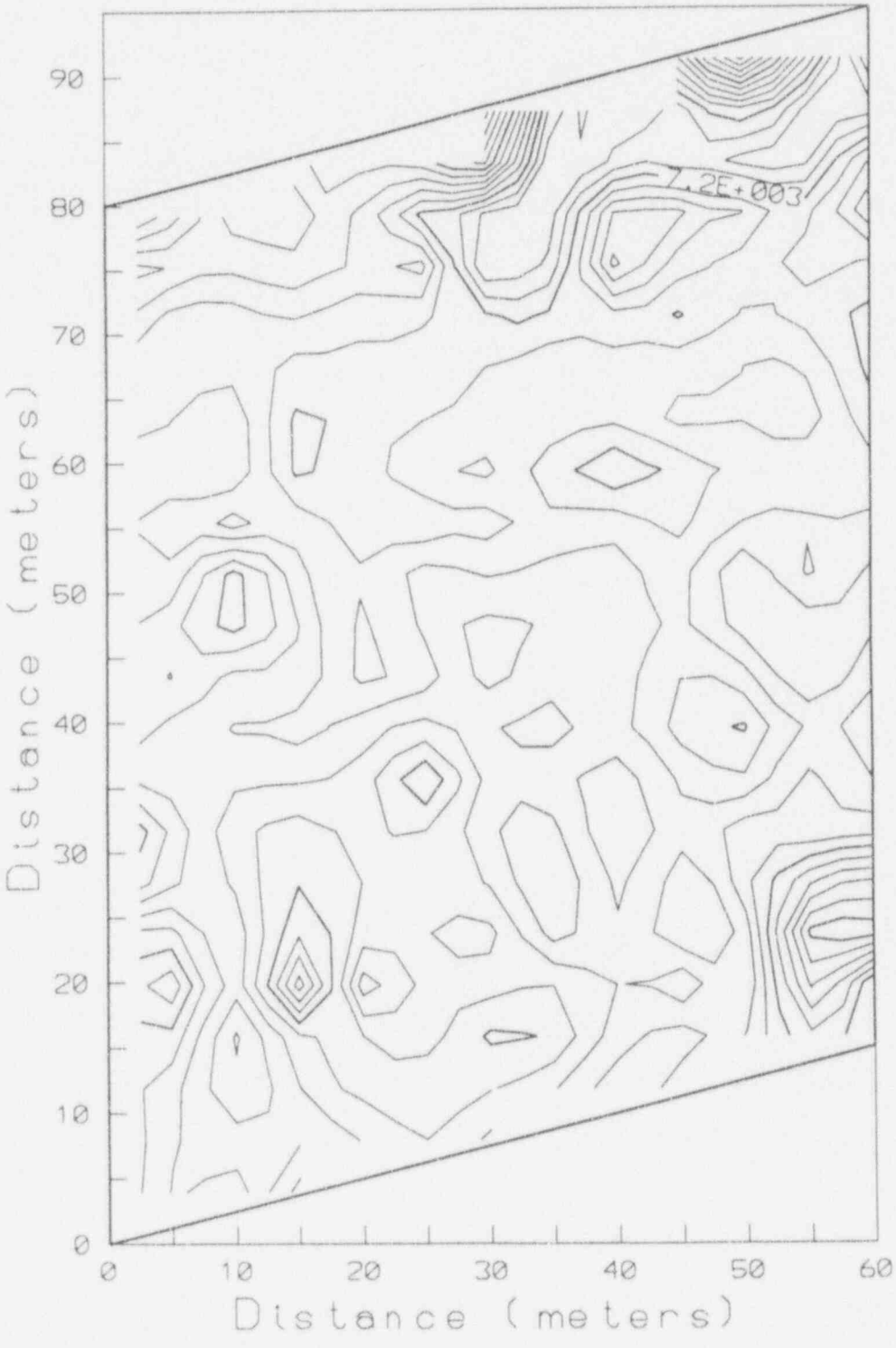
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
15	6810	2608	238	67	116.7	34.7	21.6	33.1
20	6808	2534	243	83	116.7	33.6	20.9	39.3
25	5972	2208	196	63	102.0	29.4	16.9	30.5
30	6762	2632	243	64	115.9	35.0	22.5	31.9
35	6992	2565	230	71	119.9	34.2	20.2	34.7
40	7090	2621	242	94	121.7	34.8	19.6	44.1
45	6942	2617	237	91	119.1	34.8	19.3	43.0
50	6825	2596	196	91	117.0	35.0	14.0	43.5
55	6974	2593	240	77	119.6	34.5	21.0	37.1
60	7078	2690	229	62	121.5	36.0	20.8	31.5
65	7230	2713	218	76	124.1	36.5	18.1	37.5
70	7257	2741	224	75	124.6	36.8	18.9	37.1
75	7129	2648	226	69	122.4	35.4	19.8	34.2
80	6752	2571	210	72	115.7	34.5	17.5	35.4
85	7087	2741	212	79	121.6	37.0	17.0	38.9
90	7923	2992	237	113	136.3	40.3	16.9	53.5
95	6848	2599	227	97	117.4	34.7	17.5	45.5

L 65 95 STEP = 5

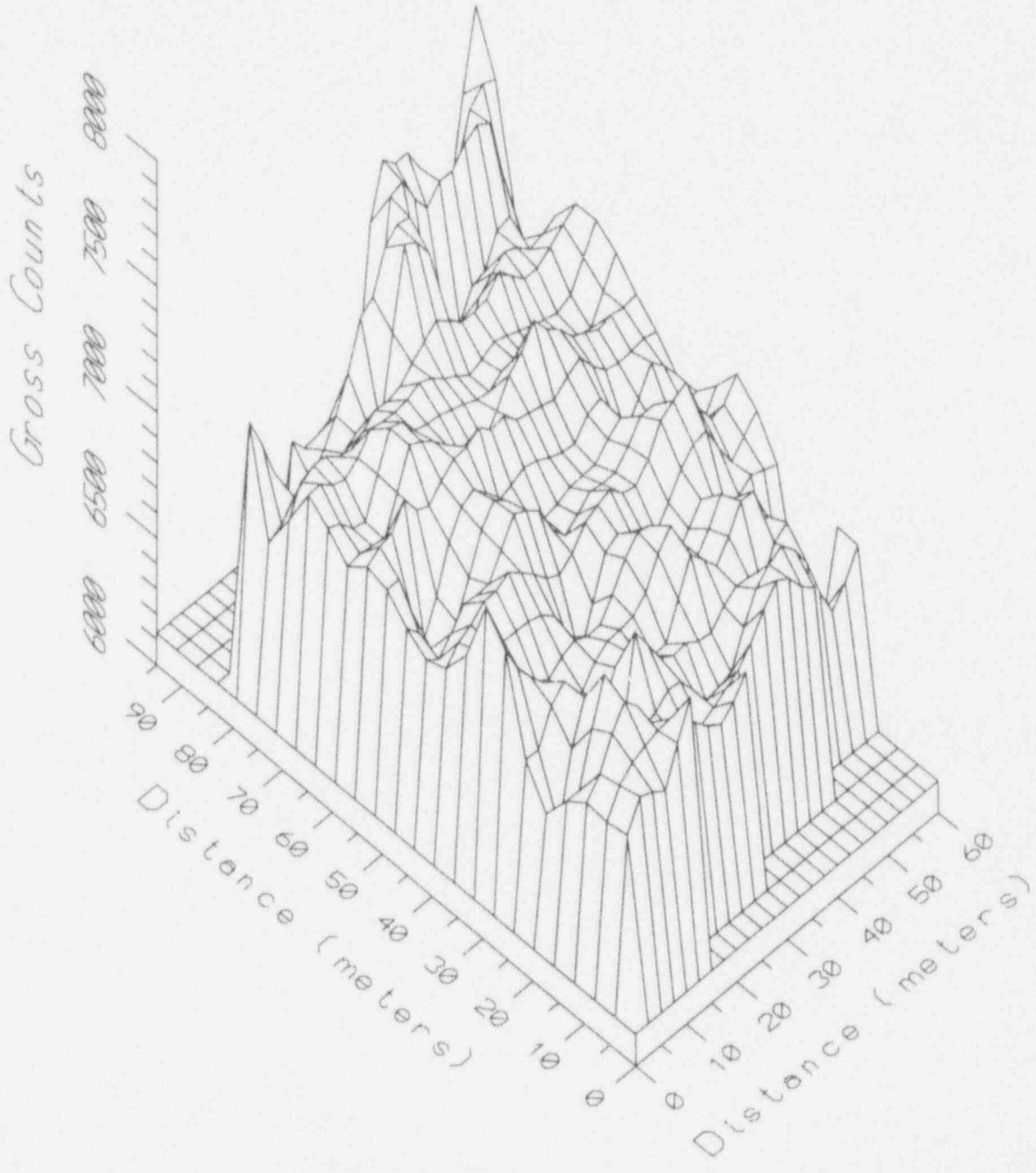
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]

END OF DATA

AREA 6


7.2E+003
Distance (meters)
Distance (meters)
0
10
20
30
40
50
60
70
80
90

AREA 6


Gross Counts
6000 6500 7000 7500 8000
90 80 70 60 50 40 30 20 10 0
Distance (meters)
0 10 20 30 40 50 60
Distance (meters)

APPENDIX I

GAMMA SURVEY DATA FOR AREA 7

AREA 7

AREA 7

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 118

CALIBRATION CONSTANTS:

-1
BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484 -411 -40
-37 4331 -3016
132 -533 13672

*** DUMP OF DATA MEMORY ***

HEADER: 060293 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6703	2483	208	92	114.9	33.2	15.6	43.3
5	6693	2519	230	95	114.7	33.5	18.1	44.3
10	6528	2474	205	81	111.8	33.2	16.2	38.8
15	7120	2638	253	93	122.2	34.9	21.1	43.6
20	6122	2193	204	85	104.7	29.1	16.0	39.4
25	6091	2287	169	83	104.1			
30	6203	2265	204	96	106.1			
35	6128	2269	203	90	104.8			
40	6182	2330	190	87	105.7			
45	6236	2378	189	61	106.7			
50	6162	2337	191	74	105.4			
55	6196	2347	188	97	106.0			
60	6018	2249	198	85	102.8			
65	6260	2344	165	98	107.1			
70	6232	2276	228	97	106.6	30.0	17.9	44.2
75	6303	2352	209	79	107.8	31.3	17.0	37.4
80	6208	2343	203	72	106.2	31.3	16.9	34.6
85	6043	2275	181	77	103.3	30.6	13.6	36.8
90	5976	2233	191	87	102.1	29.8	14.1	40.5
95	5993	2256	198	84	102.4	30.1	15.2	39.3
100	6034	2351	183	83	103.1	31.6	13.3	39.5

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

105	6084	2174	195	77	104.0	28.9	15.6	36.1
110	6131	2377	209	77	104.8	31.7	17.2	36.7
115	6207	2307	220	76	106.1	30.6	18.8	35.9

L 5 110 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
110	6835	2608	215	97	117.2	35.0	15.9	45.7
105	6232	2259	195	82	106.6	30.2	15.0	38.5
100	6122	2301	203	77	104.7	30.7	16.5	36.5
95	6154	2350	203	85	105.2	31.4	15.7	40.0
90	6024	2357	198	96	102.9	31.5	14.0	44.6
85	6188	2244	169	86	105.8	30.3	11.3	40.5
80	6191	2254	239	76	105.9	29.6	21.3	35.3
75	6337	2375	238	77	108.4	31.3	20.9	36.2
70	6247	2307	179	93	106.9	31.0	11.9	43.5
65	6515	2419	216	93	111.6	32.2	16.6	43.3
60	6544	2455	201	101	112.1	32.9	13.9	47.0
55	6537	2383	187	98	111.9	32.0	12.4	45.7
50	6611	2423	227	86	113.3	32.1	18.6	40.3
45	6750	2438	222	79	115.7	32.4	18.6	37.6
40	6663	2444	224	81	114.2	32.5	18.7	38.4
35	6417	2370	238	80	109.8	31.2	20.7	37.5
30	6536	2430	219	101	111.9	32.3	16.2	46.6
25	6750	2461	247	114	115.7	32.4	18.7	51.6
20	6772	2463	227	109	116.1	32.7	16.5	49.9
15	6503	2404	236	108	111.4	31.7	17.8	49.1
10	6429	2399	221	78	110.1	31.9	18.6	37.0
5	6791	2401	240	111	116.4	31.6	18.1	50.3
0	6447	2329	257	84	110.4	30.4	22.8	38.6

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7132	2544	277	118	122.4	33.2	22.1	53.1
5	6538	2389	247	81	112.0	31.4	21.7	37.8
10	6856	2499	246	88	117.6	33.0	20.8	41.1
15	6473	2360	234	109	110.8	31.1	17.5	49.4
20	6526	2378	231	106	111.8	31.4	17.4	48.3
25	6527	2377	262	84	111.8	31.0	23.4	38.7
30	6291	2282	227	75	107.6	30.1	19.8	35.2
35	6565	2437	229	87	112.4	32.3	18.8	40.7
40	6537	2397	234	99	111.9	31.7	18.4	45.4
45	6401	2378	197	104	109.6	31.8	13.2	48.0
50	6356	2318	239	96	108.8	30.5	19.4	43.8
55	6569	2441	259	68	112.5	32.0	24.4	32.5
60	6410	2390	209	95	109.7	31.9	15.5	44.2
65	6248	2257	223	81	106.9	29.8	18.8	37.7
70	6360	2375	231	94	108.8	31.4	18.5	43.3
75	6351	2358	254	111	108.7	30.8	20.0	49.9

80	6293	2373	238	84	107.7	31.3	20.3	39.1
85	6278	2322	246	86	107.4	30.4	21.2	39.6
90	6293	2298	246	85	107.7	30.1	21.3	39.1
95	6423	2348	269	74	109.9	30.6	25.3	34.4
100	6291	2309	212	88	107.6	30.7	16.6	40.9
105	6821	2517	240	105	116.9	33.3	18.5	48.3

L 15 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	6175	2280	210	89	105.6	30.3	16.3	41.2
95	6246	2333	180	88	106.8	31.4	12.5	41.5
90	6219	2315	216	76	106.4	30.7	18.2	36.0
85	6395	2342	230	97	109.5	30.9	18.1	44.4
80	6208	2255	220	85	106.2	29.8	18.0	39.3
75	6470	2409	256	92	110.8	31.6	21.9	42.2
70	6301	2315	245	101	107.8	30.3	19.7	45.7
65	6255	2232	213	92	107.0	29.5	16.5	42.2
60	6424	2333	225	92	110.0	30.9	17.9	42.4
55	6206	2237	228	94	106.1	29.4	18.3	42.8
50	6461	2351	238	102	110.6	30.9	18.7	46.4
45	6554	2415	248	95	112.2	31.8	20.6	43.6
40	6566	2387	244	93	112.5	31.4	20.3	42.8
35	6584	2394	239	93	112.8	31.6	19.6	42.9
30	6640	2436	250	96	113.8	32.0	20.7	44.1
25	6752	2493	223	89	115.7	33.2	17.8	41.9
20	6607	2403	249	99	113.2	31.6	20.3	45.2
15	6788	2460	246	98	116.4	32.4	20.0	45.1
10	6802	2470	271	92	116.6	32.3	23.8	42.2
5	6570	2369	273	98	112.5	30.8	23.6	44.3

H 20 5 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
5	6354	2258	251	105	108.7	29.4	20.2	47.1
10	6710	2469	239	105	115.0	32.6	18.4	48.1
15	6861	2445	265	97	117.6	32.0	22.6	44.3
20	5890	2116	239	88	100.6	27.5	20.4	39.7
25	6530	2396	250	88	111.8	31.5	21.5	40.6
30	6630	2447	254	95	113.6	32.2	21.3	43.7
35	5789	2134	232	92	98.8	27.9	19.1	41.5
40	4295	1573	158	66	72.5	20.7	12.4	29.8
45	6281	2308	223	116	107.4	30.5	15.5	52.2
50	6143	2227	263	89	105.0	28.9	23.3	40.2
55	6192	2300	224	95	105.9	30.4	17.6	43.6
60	6103	2210	215	107	104.3	29.2	15.4	48.3
65	6164	2204	222	111	105.4	29.0	16.0	49.8
70	6613	2372	252	102	113.3	31.1	20.5	46.3
75	6388	2313	237	91	109.3	30.4	19.6	41.8
80	6650	2365	254	107	113.9	30.9	20.3	48.3

85	6378	2300	229	98	109.2	30.3	18.0	44.7
90	6013	2228	195	83	102.7	29.7	15.0	38.8
95	5605	2124	196	102	95.6	28.2	13.5	46.2

L 25 90 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
90	5145	1976	158	73	87.5	26.5	11.4	34.3
85	6122	2283	206	93	104.7	30.4	15.4	43.0
80	6038	2096	204	107	103.2	27.7	14.1	48.0
75	6257	2285	226	108	107.0	30.1	16.7	48.8
70	6317	2308	240	84	108.1	30.3	20.6	38.8
65	6075	2208	258	91	103.8	28.6	22.5	41.0
60	6107	2221	229	97	104.4	29.2	18.1	44.0
55	5956	2120	227	86	101.7	27.7	19.0	39.1
50	6103	2244	193	94	104.3	30.0	13.7	43.4
45	6550	2402	230	88	112.2	31.8	18.9	41.0
40	6347	2306	250	84	108.6	30.2	21.9	38.7
35	6565	2307	255	92	112.4	30.1	21.9	41.9
30	6819	2446	236	108	116.9	32.3	17.8	49.3
25	6546	2297	255	101	112.1	30.0	21.1	45.5
20	6762	2496	247	100	115.9	32.9	19.9	46.0
15	7030	2536	249	113	120.6	33.5	18.9	51.5
10	6914	2556	269	114	118.6	33.5	21.4	51.6
5	6727	2385	240	118	115.3	31.4	17.5	53.1

H 30 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6667	2421	219	108	114.2	32.2	15.6	49.4
5	6923	2518	244	113	118.7	33.3	18.3	51.5
10	6979	2516	246	105	119.7	33.2	19.3	48.2
15	6810	2479	260	107	116.7	32.5	21.0	48.6
20	6857	2482	253	108	117.6	32.7	20.0	49.1
25	6623	2426	243	90	113.5	32.0	20.4	41.7
30	6355	2353	223	107	108.7	31.2	16.3	48.7
35	6559	2424	247	96	112.3	31.9	20.3	44.1
40	6492	2325	236	111	111.2	30.6	17.7	50.0
45	6462	2295	237	109	110.6	30.1	18.0	49.1
50	6354	2349	228	90	108.7	31.1	18.5	41.6
55	6337	2231	253	80	108.4	29.0	22.8	36.7
60	6349	2364	258	101	108.6	30.9	21.4	45.7
65	6247	2236	222	91	106.9	29.5	17.7	41.7
70	6237	2282	236	96	106.7	30.0	19.1	43.7
75	6123	2314	232	81	104.7	30.5	19.9	37.7
80	5899	2164	196	114	100.7	28.7	12.4	51.3
85	5151	1907	178	76	87.6	25.3	13.8	34.9

L 35 80 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
80	5140	1979	181	77	87.4	26.3	14.0	35.6
75	5963	2151	198	89	101.9	28.6	14.9	40.9
70	6016	2163	229	112	102.8	28.3	16.8	49.9
65	6251	2284	208	90	106.9	30.4	16.0	41.7
60	6349	2356	245	78	108.6	31.0	21.8	36.5
55	6195	2293	227	88	105.9	30.3	18.6	40.6
50	6285	2292	229	108	107.5	30.2	17.1	48.8
45	6400	2270	239	82	109.5	29.8	20.7	37.9
40	6380	2320	237	86	109.2	30.5	20.1	39.7
35	6404	2311	229	94	109.6	30.5	18.3	43.1
30	6283	2257	231	103	107.5	29.7	17.8	46.6
25	7092	2553	247	95	121.7	33.8	20.3	44.2
20	6947	2555	288	85	119.2	33.3	26.5	39.4
15	6939	2489	269	107	119.0	32.6	22.1	48.5
10	7042	2520	265	89	120.8	33.1	23.2	41.3
5	6702	2427	223	99	114.9	32.2	16.9	45.7
0	7371	2515	248	132	126.6	33.2	17.1	59.2

H 40 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7619	2783	266	122	131.0	36.8	20.1	55.9
5	6616	2420	234	97	113.3	32.0	18.6	44.7
10	7020	2608	245	120	120.4	34.6	17.7	54.7
15	6616	2392	257	74	113.3	31.3	23.7	34.8
20	6266	2252	246	90	107.2	29.4	20.9	41.0
25	6297	2325	238	87	107.7	30.6	20.1	40.2
30	6398	2261	244	86	109.5	29.6	21.0	39.4
35	6346	2352	200	112	108.6	31.4	12.9	51.1
40	6317	2329	235	72	108.1	30.7	21.1	34.1
45	6114	2190	224	96	104.5	28.8	17.6	43.5
50	6113	2263	222	86	104.5	29.9	18.2	39.8
55	6243	2298	235	80	106.8	30.2	20.4	37.2
60	6457	2340	229	102	110.5	30.9	17.5	46.5
65	5989	2236	204	80	102.3	29.7	16.4	37.5
70	5885	2152	217	84	100.5	28.3	17.8	38.6
75	5324	2009	188	60	90.6	26.6	16.4	28.6

L 45 70 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
70	5265	1962	205	92	89.6	25.7	15.8	41.3
65	5968	2209	190	82	101.9	29.5	14.4	38.4
60	5957	2196	231	73	101.8	28.8	20.6	34.0
55	6434	2252	238	101	110.1	29.5	18.9	45.6
50	6549	2418	238	105	112.2	31.9	18.4	47.9
45	6275	2346	235	83	107.3	30.9	20.0	38.6

40	6225	2214	231	97	106.5	29.0	18.4	43.9
35	6173	2181	219	111	105.6	28.7	15.6	49.7
30	6427	2307	215	100	110.0	30.6	15.9	45.8
25	6279	2274	256	92	107.4	29.6	22.0	41.7
20	7901	2835	318	112	135.9	37.0	27.7	51.1
15	6812	2479	250	101	116.8	32.7	20.2	46.3
10	6918	2486	271	94	118.6	32.5	23.6	43.1
5	6874	2424	238	103	117.9	32.0	18.5	47.1
0	7905	2871	291	112	136.0	37.8	24.1	51.7

H 50 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7600	2692	260	124	130.6	35.6	19.2	56.4
5	7172	2612	268	109	123.1	34.4	21.7	49.8
10	7144	2501	252	94	122.6	33.0	21.1	43.5
15	7381	2644	266	113	126.8	34.8	21.0	51.6
20	7727	2695	300	125	132.9	35.1	24.3	56.2
25	6488	2341	228	103	111.1	30.9	17.3	46.9
30	6285	2245	221	96	107.5	29.6	17.2	43.8
35	6199	2253	228	109	106.0	29.6	16.9	49.0
40	6362	2330	254	83	108.9	30.5	22.5	38.3
45	6212	2234	215	90	106.2	29.5	16.9	41.4
50	6331	2274	217	97	108.3	30.1	16.5	44.4
55	6141	2204	245	108	105.0	28.7	19.2	48.2
60	5410	2039	170	79	92.1	27.3	12.3	36.8

L 55 55 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
55	5388	2041	190	67	91.8	27.1	16.0	31.6
50	5938	2125	214	81	101.4	28.0	17.7	37.3
45	6273	2275	233	109	107.3	29.9	17.5	49.1
40	5439	1958	205	83	92.6	25.7	16.6	37.6
35	5729	2094	205	97	97.7	27.6	15.2	43.9
30	5766	2062	193	95	98.4	27.3	13.8	43.1
25	5853	2107	222	79	99.9	27.6	19.0	36.3
20	6116	2193	230	96	104.5	28.8	18.4	43.4
15	6943	2460	240	129	119.1	32.5	16.4	57.9
10	7643	2767	282	120	131.4	36.4	22.3	54.7
5	7874	2851	284	124	135.5	37.6	22.1	56.7
0	7939	2899	282	114	136.6	38.3	22.7	52.8

H 60 0 STEP = 5

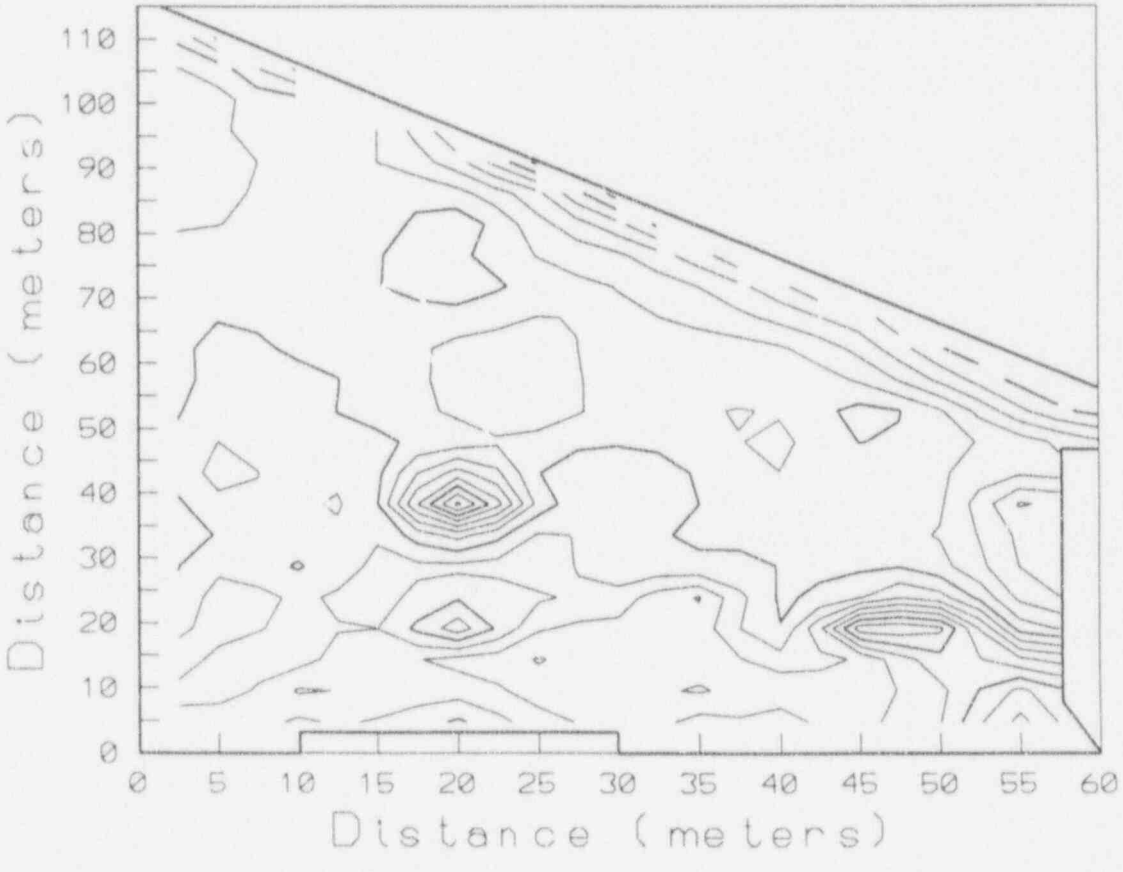
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6725	2409	262	86	115.3	31.5	23.2	39.7

H 60 45 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
45	6377	2260	233	104	109.1	29.7	18.0	46.9
50	5395	1987	167	91	91.9	26.5	10.9	41.6

END OF DATA

AREA 7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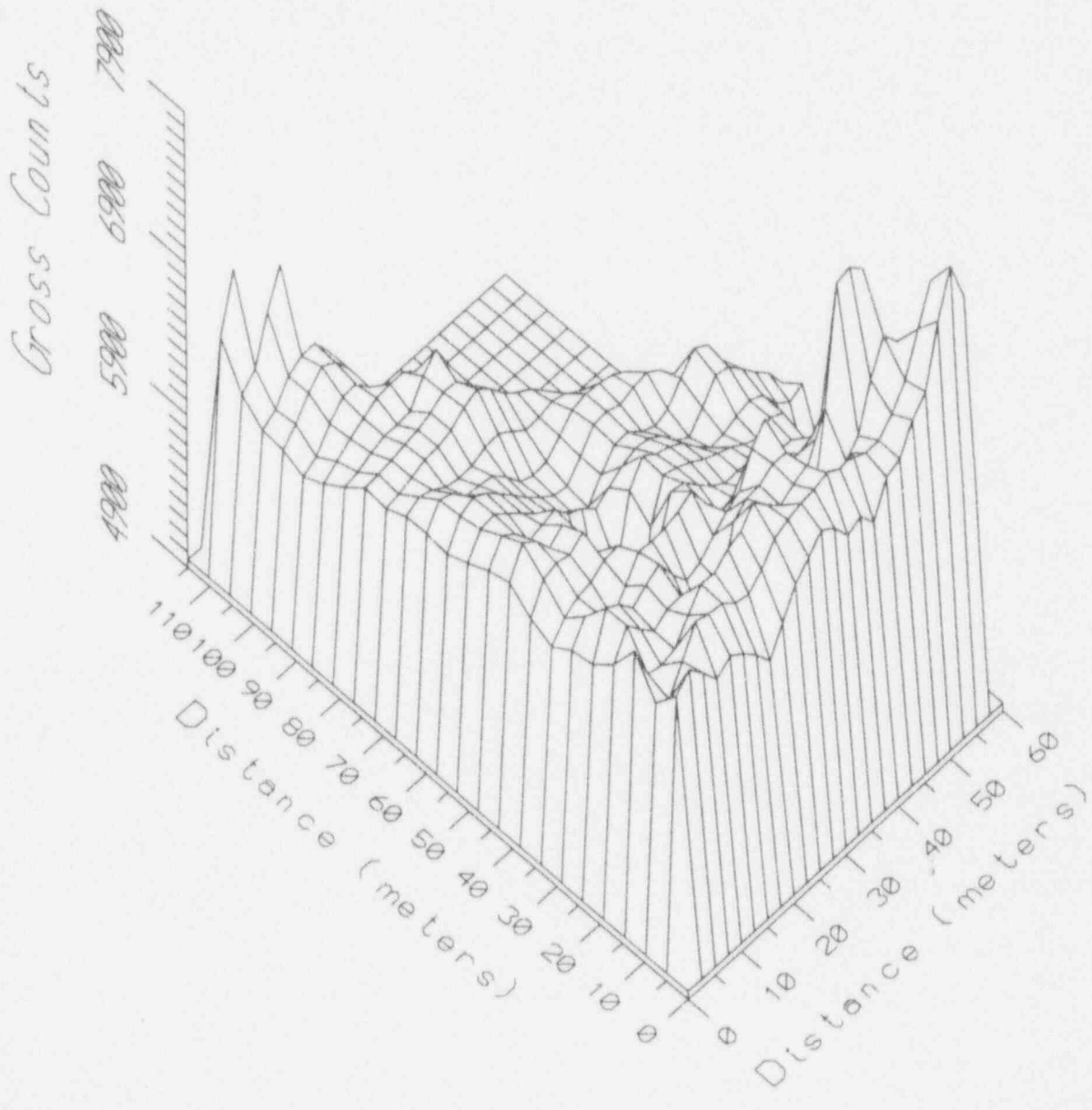
Distance (meters)

AREA 7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6400
7200
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Distance (meters)
0 10 20 30 40 50 60
Distance (meters)

APPENDIX J

GAMMA SURVEY DATA FOR AREA 8

AREA 8

AREA 8

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 118

CALIBRATION CONSTANTS:

-1
BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484 411 -40
-37 4331 -3016
132 -533 13672

*** DUMP OF DATA MEMORY ***

HEADER: 052693 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7422	2665	281	109	127.5	35.0	23.3	49.8
5	9754	3392	340	143	168.5	4[illegible]	[illegible]	[illegible]
10	10009	3574	349	161	173.0			
15	9587	3427	353	144	165.6			
20	9168	3283	317	145	158.2			

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

H 5 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4				
0	6725	2507	218	74	115.3	33.5	18.5	35.9
5	9687	3476	344	156	167.3	45.9	26.3	71.3
10	10175	3643	339	165	175.9	48.4	24.7	75.7
15	9552	3334	377	123	165.0	43.5	33.8	56.7
20	9294	3390	318	136	160.4	45.0	24.9	63.2

L 10 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]

20	9532	3386	337	152	164.6	44.7	25.9	69.4
15	9627	3452	333	139	166.3	45.7	26.5	64.4
10	10116	3526	371	156	174.9	46.3	29.8	71.1
5	9407	3386	355	131	162.4	44.5	30.1	60.5
0	7005	2690	243	80	120.2	35.8	21.0	38.6

H 15 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7985	2890	308	105	137.4	37.9	26.9	48.7
5	9772	3447	332	144	168.8	45.7	25.9	66.5
10	10349	3579	377	150	179.0	47.0	31.1	68.7
15	9334	3255	323	148	161.1	43.0	24.6	67.5
20	9124	3249	332	141	157.4	42.8	26.4	64.5

L 20 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	9276	3254	359	140	160.1	42.5	30.0	63.6
15	9641	3393	365	159	166.5	44.4	28.9	71.9
10	9975	3470	389	194	172.4	45.2	28.8	86.2
5	9905	3462	382	150	171.2	45.2	31.8	68.2
0	7960	2927	317	116	137.0	38.3	27.1	53.2

H 25 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7565	2826	263	94	130.0	37.5	22.1	44.6
5	9753	3427	355	148	168.5	45.1	28.5	67.7
10	9602	3279	345	145	165.8	43.0	27.7	66.0
15	9286	3221	317	133	160.3	42.6	25.2	61.3
20	9167	3289	327	144	158.2	43.4	25.4	65.9

L 30 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	9430	3357	331	135	162.8	44.4	26.7	62.4
15	9290	3279	356	138	160.3	42.9	29.7	63.0
10	10341	3660	369	177	178.8	48.2	27.5	80.3
5	9578	3376	350	149	165.4	44.4	27.9	68.0
0	7478	2774	245	88	128.5	37.0	20.4	42.2

H 35 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7792	2816	286	110	134.0	37.1	23.7	50.8
5	9548	3400	363	157	164.9	44.6	28.8	71.1
10	10281	3555	379	163	177.8	46.6	30.2	73.9
15	9332	3337	362	154	161.1	43.7	29.0	69.7
20	9126	3283	350	132	157.5	43.1	29.5	60.6

L 40 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	9475	3335	334	145	163.6	44.0	26.2	66.4
15	9465	3316	358	174	163.4	43.4	26.7	77.8
10	9726	3435	353	133	168.0	45.2	29.6	61.6
5	9370	3361	349	127	161.8	44.2	29.7	58.9
0	8005	2864	289	124	137.8	37.7	22.8	56.6

H 45 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	8029	2964	277	109	138.2	39.4	22.5	51.1
5	9730	3469	330	148	168.1	46.0	25.3	68.2
10	10066	3531	364	160	174.0	46.5	28.5	72.9
15	9302	3257	343	134	160.6	42.8	28.4	61.4
20	9559	3401	387	143	165.1	44.3	33.2	65.0

L 50 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	9230	3261	322	152	159.3	43.1	24.1	69.2
15	9139	3154	349	146	157.7	41.2	28.3	65.9
10	9503	3291	333	146	164.1	43.4	26.0	66.7
5	9731	3408	402	148	168.1	44.2	34.7	66.8
0	8062	2960	279	113	138.8	39.3	22.4	52.7

H 55 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	8037	2914	287	102	138.3	38.5	24.4	47.9
5	9465	3244	339	150	163.4	42.6	26.5	68.0
10	9475	3322	360	149	163.6	43.5	29.2	67.6
15	9010	3213	321	152	155.4	42.4	24.0	69.0
20	9486	3357	329	141	163.8	44.4	25.9	64.9

L 60 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	8991	3254	328	143	155.1	42.9	25.7	65.4
15	8886	3189	341	128	153.2	41.8	28.8	58.7
10	9393	3379	317	144	162.2	44.8	24.0	66.4
5	9735	3466	351	151	168.2	45.7	27.7	69.1
0	7913	2891	301	99	136.1	38.0	26.6	46.3

H 65 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7843	2804	251	98	134.9	37.4	20.3	46.4
5	9436	3189	340	126	162.9	41.8	28.9	57.9
[illegible]	9421	3266	323	137	162.7	43.1	25.6	63.0
15	8969	3270	319	129	154.7	43.3	25.8	59.8
20	8199	2966	285	118	141.2	39.3	22.7	54.7

L 70 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	8929	3128	294	126	154.0	41.5	22.9	58.4
15	9118	3167	277	152	157.3	42.3	18.3	69.5
10	9318	3245	322	157	160.8	42.8	23.6	71.2
5	9604	3312	309	146	165.9	44.0	22.9	67.1
0	7948	2752	261	108	136.8	36.5	20.7	50.1

H 75 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7855	2868	286	106	135.1	37.9	24.0	49.3
5	9406	3292	345	144	162.4	43.2	27.8	65.6
10	9480	3222	390	153	163.7	41.7	32.9	68.3
15	8611	3069	309	129	148.4	40.5	24.7	59.2
20	8673	3137	290	154	149.5	41.7	19.9	70.0

L 80 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	8211	3003	325	132	141.4	39.3	26.6	59.9
15	8571	3051	336	131	147.7	39.9	28.0	59.5
10	9841	3529	359	132	170.0	46.5	30.4	61.4
5	8710	3060	306	127	150.2	40.4	24.5	58.4
0	7632	2875	255	107	131.2	38.3	19.9	50.3

H 85 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7206	2651	260	108	123.7	35.0	20.7	49.7
5	8832	3121	295	124	152.3	41.4	23.3	57.6
10	8849	3111	319	127	152.6	41.0	26.1	58.4
15	8892	3043	301	119	153.4	40.2	24.6	55.1
20	9448	3418	373	144	163.1	44.7	31.3	65.7

L 90 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	8430	2998	296	132	145.2	39.6	22.8	60.3
15	8646	3042	303	131	149.0	40.1	23.8	60.0
10	9015	3082	339	135	155.5	40.3	28.0	61.2
5	9017	3202	327	134	155.5	42.2	26.4	61.5
0	7136	2673	243	77	122.5	35.6	21.3	37.3

H 95 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7208	2675	263	105	123.7	35.3	21.3	48.5
5	8658	3039	343	143	149.2	39.6	27.9	64.3
10	9281	3193	377	138	160.2	41.4	32.6	62.3
15	9021	3294	347	143	155.6	43.2	28.1	65.2
20	8173	2907	297	117	140.7	38.3	24.4	53.8

L 100 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	8386	3071	280	97	144.5	40.9	23.8	46.5
15	9741	3511	329	124	168.3	46.6	27.2	58.6
10	9458	3334	322	142	163.3	44.1	24.9	65.4
5	7506	2745	254	91	129.0	36.5	21.3	43.2
0	6916	2599	206	101	118.6	34.9	14.4	47.5

H 105 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6891	2574	225	79	118.2	34.4	18.8	38.1
5	7366	2722	249	100	126.5	36.2	19.9	46.9
10	8984	3180	314	150	155.0	42.0	23.3	68.2
15	9263	3276	336	116	159.9	43.2	29.1	54.2
20	9045	3250	288	135	156.0	43.3	21.2	62.7

L 110 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	8551	3125	291	117	147.4	41.5	23.4	54.8
15	9330	3332	335	124	161.1	44.0	28.2	57.8
10	8491	3030	325	109	146.3	39.7	28.6	50.6
5	7741	2781	272	106	133.1	36.8	22.3	49.2
0	6512	2416	221	70	111.5	32.1	19.3	33.8

H 115 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6134	2362	186	72	104.9	31.8	14.7	35.0
5	7816	2806	274	110	134.4	37.1	22.2	50.9
10	7742	2872	261	117	133.1	38.2	19.8	54.3
15	7763	2815	275	105	133.5	37.2	22.7	48.9
20	7478	2780	259	80	128.5	36.9	22.9	38.7

L 120 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	7865	2836	281	120	135.3	37.4	22.1	55.0
15	7632	2865	244	107	131.2	38.3	18.5	50.4
10	7689	2900	257	100	132.2	38.7	20.7	47.5

H 125 15 STEP = 5

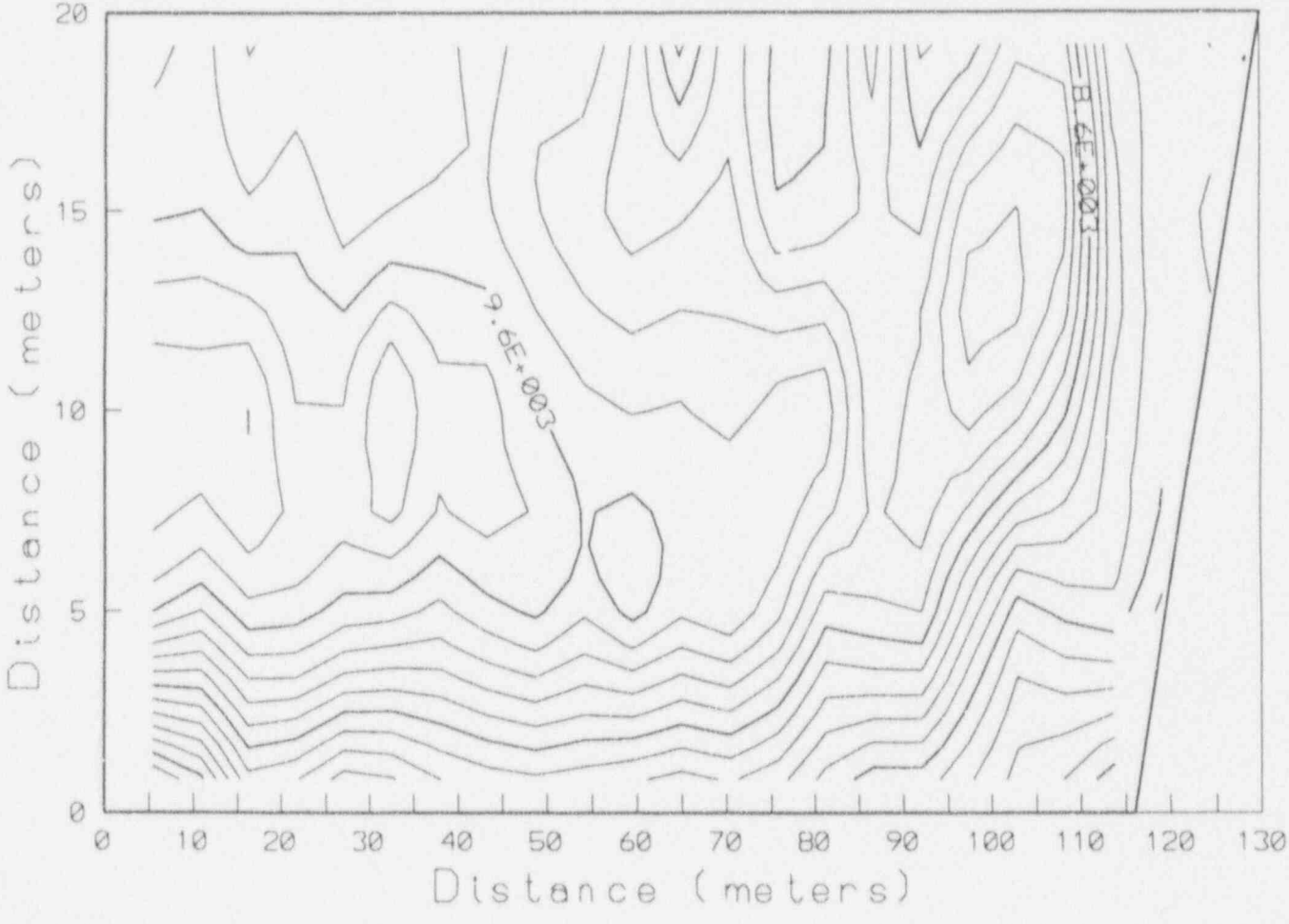
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
15	7865	2962	258	99	135.3	39.6	20.9	47.3
20	7523	2733	228	101	129.3	36.6	17.1	47.7

H 130 20 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
20	7358	2685	275	99	126.4	35.3	23.4	45.9

END OF DATA

AREA 8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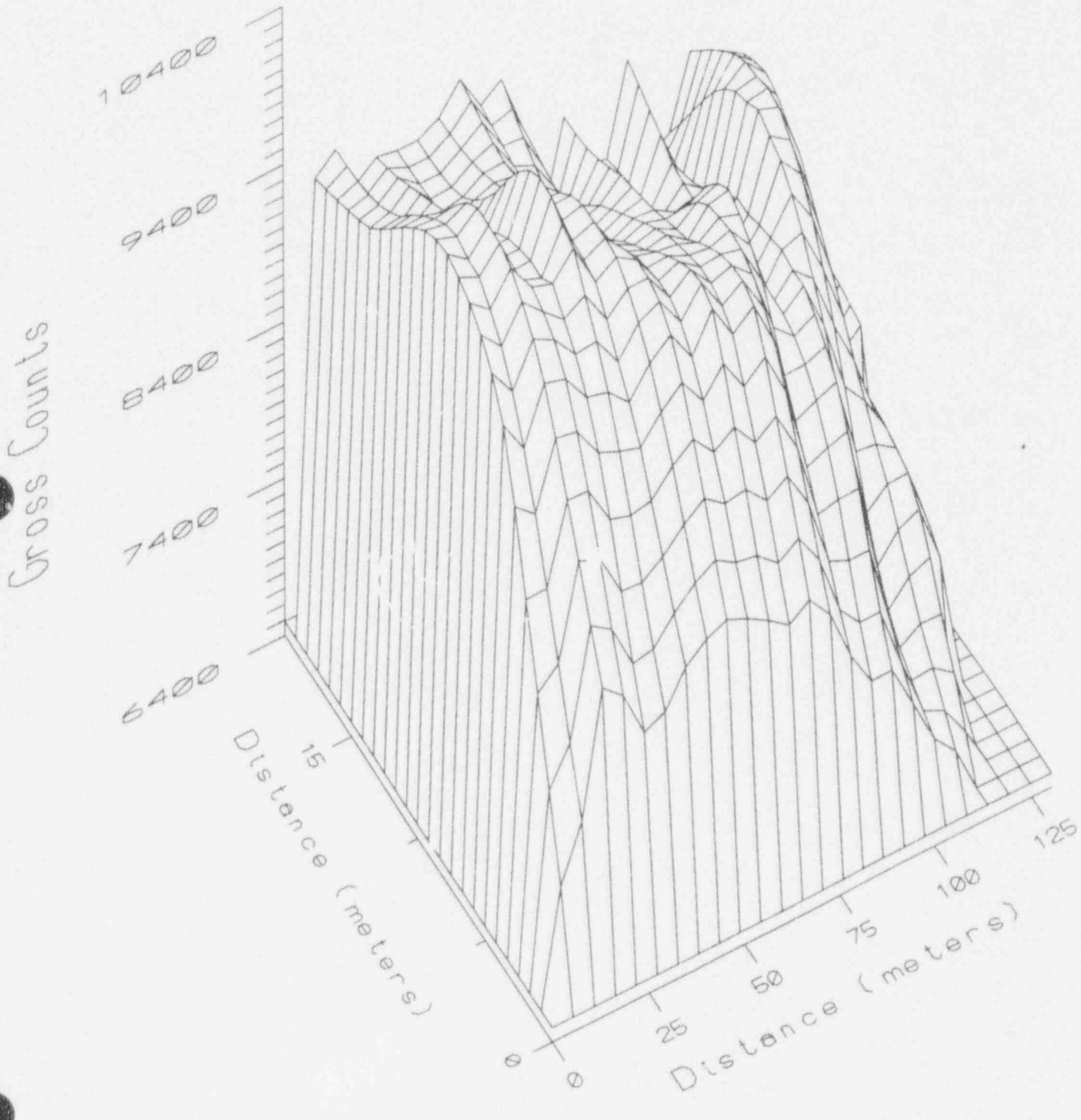
AREA 8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Distance (meters)
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100
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I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

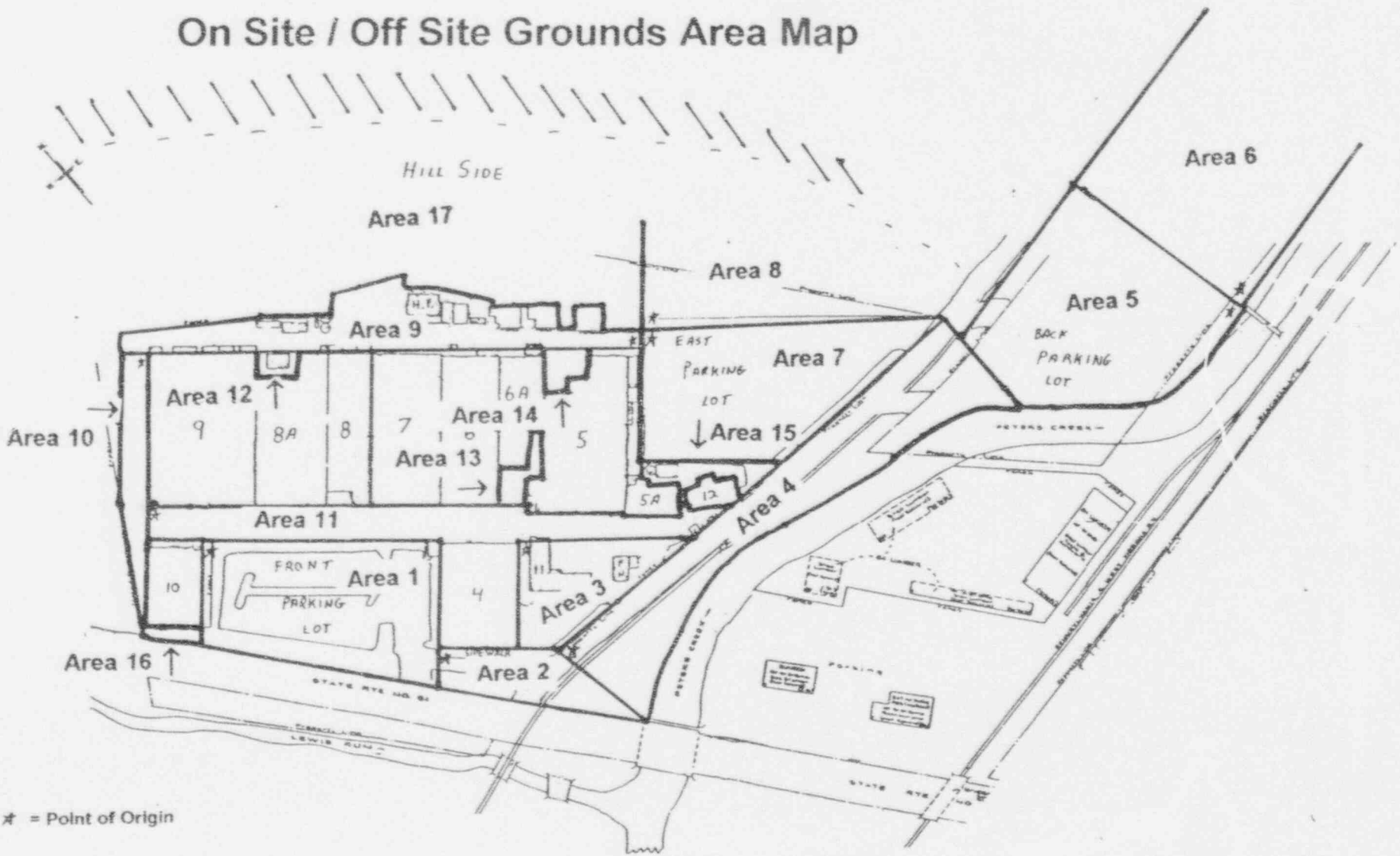
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	TOP OF HILL
FORM S/N:	30-015
DISK CODE:	GRND-021

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	11141 CPM
	R/S	L-2088	N/A	N/A	uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
1	N/A	N/A	N/A	11700	N/A	N/A	STARTED AT EASTERN MOST
2	"	"	"	11922	"	"	TELEPHONE POLE AT TOP OF
3	"	"	"	12694	"	"	HILL AND CONTINUED EVERY
4	"	"	"	12316	"	"	20m FOLLOWING THE LINE
5	"	"	"	12744	"	"	OF TELEPHONE POLES.
6	"	"	"	13361	"	"	
7	"	"	"	12880	"	"	
8	"	"	"	12059	"	"	
9	"	"	"	11356	"	"	
10	"	"	"	11703	"	"	
11	"	"	"	11455	"	"	
12	"	"	"	11368	"	"	
13	"	"	"	10842	"	"	
14	"	"	"	11297	"	"	
15	"	"	"	11401	"	"	

SURVEYOR: TODD BRAUTIGAM SURVEYOR SIGNATURE: Todd Brautigam

On Site / Off Site Grounds Area Map



APPENDIX K

GAMMA SURVEY DATA FOR AREA 9

AREA 9

AREA 9

*** DUMP DATA MEMORY OF GR-256 ***

ROI: # 1 10 255
2 12 20
3 51 59
4 106 118

CALIBRATION CONSTANTS:

-1
BACKGROUND [MIN] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484 -411 -40
-37 4331 -3016
132 -533 13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 060193 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6610	2500	254	72	113.2	32.9	23.3	34.4
5	6710	2425	233	104	115.0	32	17.8	47.6
10	7929	2984	299	101	136.4	3		
15	7877	2977	261	103	135.5	3		
20	7306	2722	265	96	125.5	3(		
25	6849	2580	244	87	117.4	3-		
30	5983	2368	225	74	102.2	3		
35	5368	1962	209	70	91.4	25		

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

H 0 50 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
50	7407	2695	269	118	127.2	35.5	20.9	53.8
55	6219	2262	251	76	106.4	29.5	22.8	35.2

H 0 70 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]

70	4909	1829	163	70	83.3	24.3	12.4	32.4
75	7176	2621	244	98	123.2	34.8	19.5	45.7
80	8147	2990	298	120	140.3	39.5	24.2	55.4
85	5995	2165	240	90	102.4	28.2	20.3	40.7
90	7132	2592	252	108	122.4	34.3	19.7	49.6
95	6742	2543	227	79	115.6	33.9	19.1	37.9
100	4795	1825	163	71	81.3	24.3	12.3	32.8
105	6336	2263	244	85	108.4	29.6	21.1	39.0
110	6864	2504	254	106	117.7	33.0	20.3	48.4

H 0 120 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
120	6379	2390	207	83	109.2	31.9	16.4	39.3

H 0 135 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
135	7970	3027	279	111	137.1	40.2	22.5	52.1
140	8851	3265	320	106	152.6	43.2	28.0	50.4
145	7635	2809	295	94	131.3	36.9	26.3	44.0
150	4338	1623	151	55	73.3	21.5	12.5	25.6
155	4881	1757	167	57	82.8	23.3	14.2	26.7
160	7493	2666	311	104	128.8	34.6	27.7	47.3

H 0 185 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
185	6503	2354	241	79	111.4	31.0	21.2	36.9

H 0 200 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
200	7720	2820	278	95	132.7	37.3	24.0	44.8

H 0 210 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
210	7056	2577	237	81	121.1	34.3	20.2	38.7
215	7204	2713	262	103	123.7	35.9	21.3	47.9

L 5 215 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
215	6929	2629	239	90	118.8	35.0	19.6	42.6
210	6967	2654	215	76	119.5	35.7	17.7	37.3
205	7413	2711	328	96	127.3	35.1	30.5	43.9
200	8239	2987	341	86	141.9	38.9	32.8	40.7
195	7781	2882	281	108	133.8	38.1	23.2	50.3
190	7708	2828	314	95	132.5	36.9	28.7	44.2
185	8104	2992	317	105	139.5	39.3	28.0	48.9
180	7879	2831	321	110	135.5	36.9	28.2	50.3
175	9902	3651	360	144	171.1	48.3	29.3	66.8
170	8781	3125	332	138	151.4	41.0	26.8	62.7
165	7571	2916	278	97	130.1	38.7	23.7	46.0
160	6935	2671	264	80	118.9	35.3	23.7	38.2
155	7132	2640	231	86	122.4	35.2	18.9	41.1
150	6514	2496	246	73	111.5	33.0	22.2	35.0
145	7112	2689	261	80	122.1	35.6	23.3	38.4
140	7844	2839	291	107	134.9	37.4	24.6	49.5
135	7845	2866	270	94	134.9	38.0	23.0	44.7
130	6977	2646	264	113	119.7	34.9	20.8	51.7
125	8429	2988	324	110	145.2	39.1	28.4	50.8
120	7664	2863	266	97	131.8	38.0	22.2	45.9
115	7014	2535	259	84	120.3	33.4	22.9	39.4
110	6185	2280	222	93	105.8	30.1	17.5	42.7
105	6124	2268	200	77	104.7	30.2	16.1	36.4
100	5984	2262	222	81	102.2	29.9	18.6	37.7
95	7375	2671	269	101	126.7	35.2	22.5	46.8
90	7364	2737	249	89	126.5	36.4	20.9	42.4
85	6865	2576	232	87	117.7	34.3	19.0	41.2
80	6816	2483	242	96	116.9	32.8	19.6	44.4
75	6358	2434	178	78	108.8	32.9	13.0	37.8
70	5422	2045	189	68	92.3	27.1	15.8	32.0
65	5389	2018	185	71	91.8	26.8	15.0	33.2
60	5781	2128	186	67	98.7	28.4	15.4	32.0
55	6735	2468	221	81	115.4	32.9	18.3	38.5
50	6628	2503	255	75	113.5	33.0	23.2	35.7
45	5548	2076	211	85	94.6	27.3	17.0	38.8
40	5359	2050	161	77	91.2	27.6	11.3	36.2
35	5659	2210	181	76	96.5	29.6	13.8	36.1
30	5910	2268	197	76	100.9	30.3	15.8	36.1
25	6523	2470	213	99	111.7	33.0	15.6	46.0
20	6800	2530	254	87	116.6	33.4	21.9	40.7
15	7407	2788	242	115	127.2	37.2	17.6	53.4
10	7150	2724	253	79	122.7	36.2	22.3	38.2
5	6937	2565	250	81	119.0	33.9	21.9	38.4
0	6269	2420	216	76	107.2	32.3	18.1	36.4

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7082	2627	257	94	121.5	34.7	21.6	43.9

5	7691	2775	287	114	132.2	36.5	23.5	52.2
10	7615	2777	265	123	130.9	36.8	19.8	56.3
15	7791	2890	280	101	134.0	38.3	23.7	47.5
20	6111	2322	199	71	104.5	31.0	16.5	34.2
25	6835	2517	239	81	117.2	33.4	20.6	38.4
30	7828	2874	268	114	134.6	38.2	20.9	52.9
35	6104	2346	223	88	104.3	31.1	18.0	40.9
40	6018	2230	196	81	102.8	29.7	15.3	38.0
45	6255	2356	232	64	107.0	31.1	21.4	30.9
50	5719	2143	189	60	97.6	28.6	16.4	29.1
55	6207	2277	227	72	106.1	30.0	20.1	34.0
60	6368	2375	248	89	109.0	31.2	21.2	41.0
65	5858	2191	197	83	100.0	29.2	15.3	38.6
70	5592	2061	181	65	95.3	27.5	15.0	31.0
75	5650	2147	193	75	96.4	28.6	15.5	35.2
80	6056	2267	223	75	103.5	29.9	19.3	35.2
85	6374	2305	228	87	109.1	30.4	18.8	40.2
90	6510	2515	209	82	111.5	33.7	16.6	39.3
95	6170	2294	223	86	105.5	30.3	18.3	39.9
100	6152	2324	208	86	105.2	30.9	16.3	40.2
105	6121	2295	232	88	104.6	30.2	19.3	40.5
110	6122	2328	207	76	104.7	31.0	17.1	36.1
115	7164	2705	245	81	123.0	36.0	21.1	39.1
120	6956	2672	242	84	119.3	35.6	20.5	40.2
125	7337	2791	262	102	126.0	37.0	21.3	47.8
130	5140	1909	207	77	87.4	24.9	17.4	34.9
135	5794	2165	214	84	98.9	28.6	17.4	38.7

H 10 155 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
155	5815	2102	214	66	99.3	27.7	19.1	31.0
160	6131	2343	188	82	104.8	31.5	14.0	39.0
165	6926	2745	237	94	118.8	36.7	18.9	44.7
170	7352	2771	257	89	126.3	36.8	21.9	42.4
175	7163	2709	246	87	123.0	36.1	20.7	41.5
180	6921	2675	237	87	118.7	35.7	19.6	41.6
185	6884	2634	264	98	118.0	34.7	22.1	45.5
190	7000	2651	261	98	120.1	35.0	21.7	45.6
195	7396	2789	257	105	127.1	37.1	20.4	49.1
200	6938	2715	216	76	119.0	36.5	17.8	37.5
205	6956	2642	241	75	119.3	35.2	21.2	36.4
210	7021	2706	247	68	120.5	36.0	22.6	33.7

H 15 30 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
30	7632	2809	265	83	131.2	37.3	23.4	40.0

H 15 60 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
60	5653	2145	216	77	96.4	28.3	18.3	35.7

H 15 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	5765	2199	176	63	98.4	29.6	14.3	30.8
105	3931	1488	145	64	66.1	19.6	11.0	28.9
110	4751	1888	143	55	80.6	25.5	11.1	26.8
115	5535	2187	188	70	94.3	29.2	15.3	33.4
120	5446	2082	167	65	92.8	28.0	13.1	31.3
125	5673	2229	184	56	96.8	29.9	16.0	27.9
130	5118	1973	187	63	87.0	26.1	16.0	29.7
135	8105	3032	283	96	139.5	40.3	24.3	45.9
140	8182	2975	315	87	140.9	39.1	29.4	41.5
145	7184	2678	254	88	123.3	35.5	21.7	41.7
150	6784	2571	237	96	116.3	34.2	18.9	44.8

H 20 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	5763	2234	208	77	98.3	29.6	17.2	36.2
105	4907	1923	175	64	83.3	25.6	14.4	30.1
110	5016	1935	161	65	85.2	25.9	12.5	30.8
115	5539	2185	191	69	94.4	29.2	15.8	33.0
120	5629	2247	174	83	96.0	30.2	12.2	39.2
125	5168	2042	175	66	87.9	27.3	14.1	31.4
130	6506	2373	225	105	111.4	31.4	16.7	47.9

H 25 100 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
100	4133	1581	141	52	69.7	21.0	11.5	24.4
105	5154	1941	159	61	87.6	26.0	12.6	29.2
110	5250	1979	199	72	89.3	26.1	16.8	33.3
115	5501	2155	208	69	93.7	28.5	18.0	32.6
120	6063	2413	197	72	103.6	32.4	16.0	35.0
125	5325	2106	172	69	90.6	28.2	13.4	33.0

END OF DATA

AREA 9


200
180
160
140
120
100
80
60
40
20
0
Distance (meters)
0
5
10
15
20
25
Distance (meters)

AREA 9

Gross Counts
400 450 500 550 600 650 700 750 800 850 900 950
200 180 160 140 120 100 80 60 40 20 0
Distance (meters)
0 5 10 15 20 25
Distance (meters)

APPENDIX L

GAMMA SURVEY DATA FOR AREA 10

AREA 10

*** DUMP DATA MEMORY OF GR-256 ***

# 1	10	255
# 2	12	20
# 3	51	59
# 4	106	118

CALIBRATION CONSTANTS:

BACKGROUND [MIN^{-1}] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484	-411	-40
-37	4331	-3016
132	-533	13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 051893 TIME: 20 S GR-256 SERIAL NUMBER: 1561

H 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	8525	3310	359	95	146.9	43.4	34.0	45.4

H 0 10 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
10	7188	2738	304	63	123.4	35.8	29.8	33.3
15	7493	2881	292	64	128.8	38.0	28.6	32.1
20	6064	2382	212	71	103.6	31.8	18.1	34.2
25	8464	3229	362	70	145.8	42.2	36.7	34.8
30	4478	1711	174	43				
35	6492	2505	248	78				
40	7894	2981	309	87				
45	4486	1660	170	52				
50	5147	1964	176	62				
55	7858	2998	354	81				
60	7446	2965	279	83				
65	7670	2939	299	83				
70	7064	2708	312	66				
75	7220	2801	307	69	124.0	36.7	30.2	33.5

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

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5 110 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
110	7805	2976	353	65	134.2	38.6	36.3	31.9

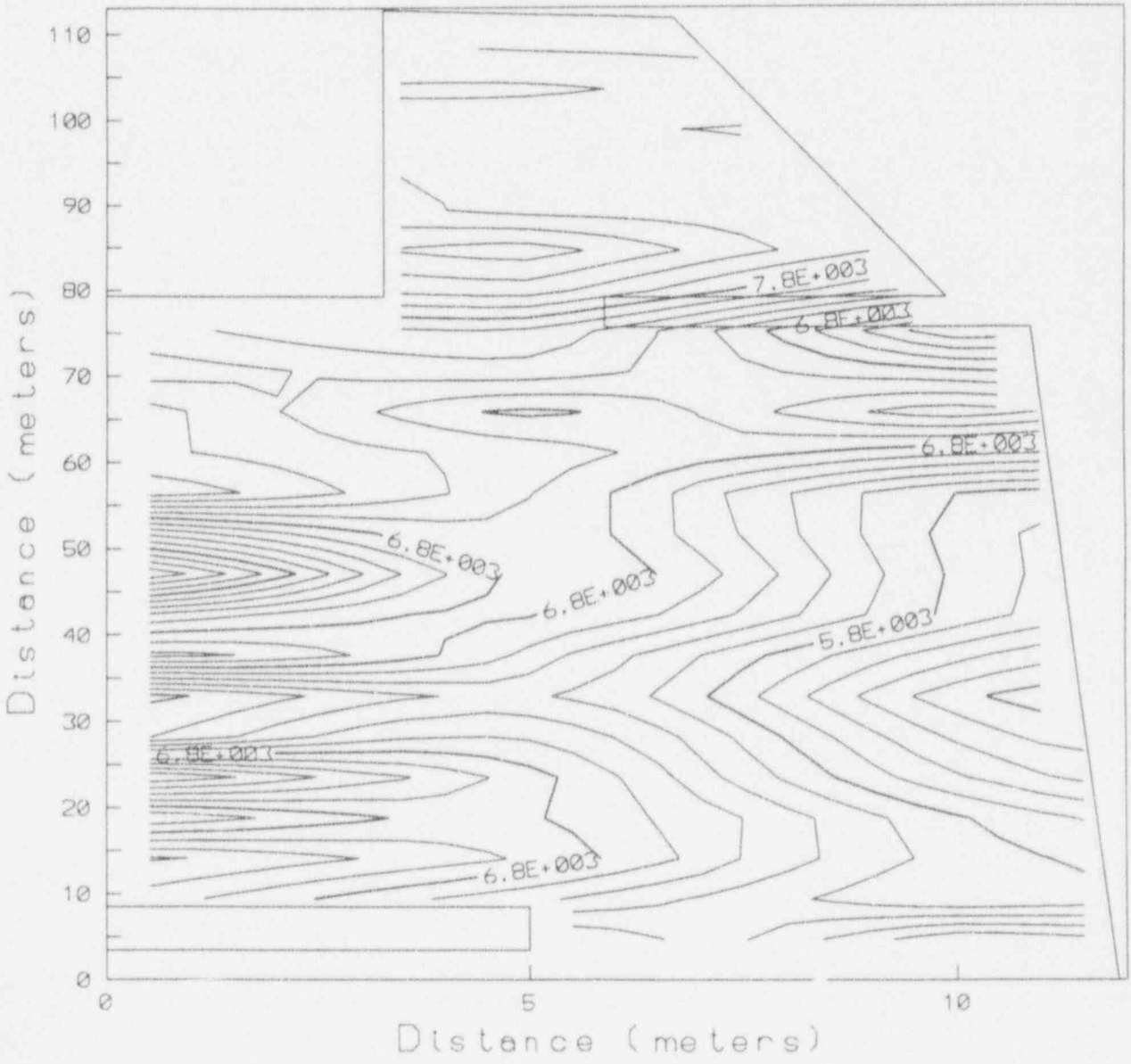
105	8342	3188	346	72	143.7	41.8	34.5	35.7
100	7973	3054	325	80	137.2	40.1	31.2	38.8
95	8188	3042	329	72	141.0	39.9	32.5	35.4
90	8068	3050	323	89	138.9	40.1	30.1	42.5
85	8724	3367	316	87	150.4	44.8	29.1	43.0
80	8296	3204	322	79	142.9	42.3	30.8	39.0
75	7561	2967	290	71	130.0	39.3	27.6	35.3
70	7344	2789	308	78	126.1	36.5	29.5	37.2
65	6569	2587	248	57	112.5	34.3	23.8	28.7
60	7241	2762	269	65	124.3	36.6	25.6	32.4
55	6903	2716	243	60	118.4	36.2	22.7	30.5
50	7188	2891	283	59	123.4	38.3	27.8	30.2
45	7271	2843	278	86	124.9	37.6	24.8	41.2
40	6697	2631	265	67	114.8	34.7	25.1	32.7
35	6419	2528	242	44	109.9	33.5	24.3	23.3
30	6702	2526	236	73	114.9	33.5	20.9	35.2
25	6889	2695	265	64	118.1	35.7	25.3	31.7
20	6894	2675	236	72	118.2	35.7	20.8	35.4
15	7030	2833	226	70	120.6	38.1	19.5	35.4
10	6537	2500	249	63	111.9	33.0	23.5	30.8
5	5708	2224	179	63	97.4	29.9	14.7	30.8
0	6312	2468	191	64	108.0	33.3	15.9	32.0

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	6776	2659	213	71	116.2	35.8	17.9	35.3
5	6783	2687	250	73	116.3	35.7	22.5	35.6
10	5687	2191	197	55	97.0	29.2	17.8	27.1
15	5932	2308	204	48	101.3	30.8	19.2	24.6
20	5719	2257	195	41	97.6	30.2	18.7	21.7
25	5219	2087	176	54	88.8	27.9	15.3	26.7
30	4971	1913	195	58	84.4	25.2	17.6	27.3
35	4616	1735	167	49	78.2	22.9	15.0	23.4
40	5742	2188	207	61	98.0	29.0	18.6	29.4
45	5523	2055	216	60	94.1	27.0	20.0	28.4
50	5731	2223	213	62	97.8	29.4	19.2	29.9
55	5503	2060	218	52	93.8	27.0	21.0	25.1
60	6337	2470	255	63	108.4	32.5	24.3	30.6
65	7672	2838	321	69	131.9	37.0	31.9	33.5
70	6942	2645	263	55	119.1	35.0	25.9	27.9
75	5939	2381	246	61	101.4	31.3	23.4	29.6

END OF DATA

AREA 10


110
100
90
80
70
60
50
40
30
20
10
0
Distance (meters)
0
5
10
Distance (meters)
7.8E+003
6.8E+003
6.8E+003
6.8E+003
6.8E+003
6.8E+003
5.8E+003
6.8E+003
6.8E+003

AREA 10

Gross Counts
Distance (meters)
0 10 20 30 40 50 60 70 80 90 100 110
Distance (meters)
0 5 10

APPENDIX M

GAMMA SURVEY DATA FOR AREA 11

AREA 11

*** DUMP DATA MEMORY OF GR-256 ***

AREA 11

ROI: # 1 10 255
      # 2 12 20
      # 3 51 59
      # 4 106 118

CALIBRATION CONSTANTS:

BACKGROUND [MIN^{-1}] - C1,...,C4 = 507 40 14 7

CAL TOT - C5 = 586

CALIBRATION MATRIX - C6,...,C14

484	-411	-40
-37	4331	-3016
132	-533	13672

*** D U M P O F D A T A M E M O R Y ***

HEADER: 051993 TIME: 20 S GR-256 SERIAL NUMBER: 1561

Y 0 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7393	2881	279	77	127.0	38.2	25.7	37.6
5	7551	2926	262	61	129.8	39.0	24.9	31.5
10	6726	2609	229	82				
15	8338	3079	344	98				
20	7882	3025	317	85				
25	8540	3271	341	87				
30	9256	3489	385	78				
35	8749	3240	369	100				
40	8115	2996	333	90				
45	8116	3075	344	99				
50	8072	3076	300	92				
55	8070	2972	346	73	138.9	38.7	34.7	35.2
60	5572	2152	209	59	95.0	28.5	19.0	28.4
65	7962	3048	318	91	137.0	40.1	29.3	43.4
70	7811	2930	284	71	134.3	38.8	26.8	35.2
75	8388	3157	332	73	144.5	41.5	32.6	36.2
80	8410	3175	339	104	144.9	41.7	30.7	48.9
85	6817	2587	248	67	116.9	34.3	22.9	32.8
90	8085	3017	350	83	139.2	39.3	34.2	39.5
95	6472	2506	220	71	110.8	33.5	19.0	34.6
100	6805	2582	234	75	116.7	34.4	20.4	36.3
105	6030	2313	211	68	103.0	30.8	18.3	32.7
110	6018	2346	208	51	102.8	31.3	19.4	25.9
115	6568	2475	275	69	112.5	32.3	26.4	32.8
120	7389	2910	272	63	126.9	38.7	26.0	32.1
125	6927	2660	280	96	118.8	34.9	24.4	44.5
130	6891	2622	267	73	118.2	34.6	24.8	35.1

ALTHOUGH THE INSTRUMENT PROVIDES CALCULATIONS OF 'Uekv', K[%], U[ppm], AND Th[ppm]; THE ROI's WERE MODIFIED FOR THIS STUDY AND THEREFORE THESE CALCULATIONS ARE NOT VALID.

135	7750	2974	296	78	133.3	39.3	27.7	38.1
140	7517	2829	270	66	129.2	37.5	25.6	33.0
145	7999	3063	326	88	137.7	40.2	30.6	42.1
150	4549	1724	175	54	77.0	22.7	15.6	25.2
155	5941	2256	217	66	101.5	29.9	19.3	31.6
160	5652	2146	224	73	96.4	28.2	19.7	33.9

L 5 235 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
235	8563	3284	308	88	147.6	43.6	28.0	43.2
230	7756	2924	309	88	133.4	38.4	28.6	41.8
225	7013	2738	268	66	120.3	36.2	25.4	32.7

L 5 190 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
190	8526	3292	314	106	146.9	43.7	27.2	50.6
185	8159	3104	324	78	140.5	40.8	31.2	38.2
180	8290	3141	308	71	142.8	41.6	29.7	35.7
175	8540	3171	322	96	147.2	41.8	29.3	45.8
170	8013	3062	308	71	137.9	40.4	29.8	35.4
165	7022	2700	238	78	120.5	36.0	20.5	37.9
160	6044	2288	236	62	103.3	30.1	22.1	29.8
155	6462	2485	240	65	110.6	32.9	22.2	31.7
150	6298	2416	231	69	107.7	32.0	20.7	33.2
145	6765	2523	255	80	116.0	33.3	22.7	37.8
140	6814	2571	264	82	116.8	33.8	23.6	38.7
135	6977	2680	279	62	119.7	35.3	27.3	30.6
130	7065	2714	251	73	121.2	36.1	22.6	35.7
125	6896	2636	243	77	118.3	35.1	21.3	37.2
120	6487	2490	235	76	111.1	33.0	20.5	36.3
115	6783	2588	231	61	116.3	34.5	21.2	30.6
110	6277	2411	243	62	107.4	31.8	22.9	30.2
105	6344	2451	241	73	108.6	32.4	21.6	34.9
100	6227	2435	214	55	106.5	32.5	19.7	27.8
95	6048	2324	228	63	103.4	30.7	21.0	30.5
90	6698	2531	257	61	114.8	33.4	24.7	30.0
85	6104	2314	264	63	104.3	30.1	25.7	29.8
80	6762	2562	238	57	115.9	34.1	22.5	28.8
75	6529	2562	255	63	111.8	33.8	24.2	31.0
70	6269	2461	227	71	107.2	32.7	20.0	34.3
65	6468	2465	242	70	110.7	32.6	22.0	33.7
60	6618	2515	236	71	113.4	33.4	21.1	34.4
55	6344	2446	229	59	108.6	32.5	21.3	29.3
50	6531	2538	233	64	111.8	33.8	21.3	31.6
45	6204	2365	267	61	106.1	30.8	26.2	29.2
40	5930	2259	237	69	101.3	29.7	21.7	32.5
35	6956	2706	287	77	119.3	35.5	26.9	36.8
30	7069	2640	280	79	121.3	34.7	25.9	37.4
25	6841	2576	273	83	117.3	33.8	24.7	38.9
20	7128	2730	250	77	122.3	36.3	22.1	37.5
15	7057	2688	298	76	121.1	35.1	28.5	36.1
10	7088	2705	270	70	121.6	35.7	25.4	34.2
5	6697	2586	230	63	114.8	34.5	20.9	31.5
0	7154	2833	257	72	122.8	37.7	23.4	35.7

H 10 0 STEP = 5

STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
0	7318	2818	278	62	125.7	37.3	27.0	31.2
5	6805	2588	271	83	116.7	34.0	24.4	39.0
10	6921	2650	279	65	118.7	34.8	27.0	31.8
15	7021	2663	296	76	120.5	34.8	28.2	36.0
20	7080	2625	265	64	121.5	34.6	25.3	31.5
25	7043	2657	257	56	120.8	35.2	25.0	28.4
30	7000	2682	277	66	120.1	35.3	26.7	32.3
35	6783	2642	255	45	116.3	35.0	25.7	23.9
40	6632	2547	288	67	113.6	33.2	28.2	32.0
45	6526	2524	233	71	111.8	33.6	20.7	34.5
50	6633	2580	257	74	113.6	34.1	23.5	35.5
55	6227	2526	209	42	106.5	33.9	20.2	23.0
60	6229	2460	217	53	106.5	32.8	20.3	27.1
65	6385	2493	256	72	109.3	32.8	23.6	34.4
70	6313	2417	235	77	108.0	32.0	20.5	36.5
75	6068	2351	248	67	103.7	30.9	23.2	31.9
80	6447	2523	226	71	110.4	33.6	19.8	34.6
85	6327	2470	250	52	108.3	32.6	24.7	26.2
90	6380	2465	258	47	109.2	32.4	26.2	24.0
95	6343	2382	257	61	108.5	31.2	24.8	29.4
100	6386	2429	221	71	109.3	32.3	19.2	34.3
105	6207	2351	204	62	106.1	31.4	17.9	30.5
110	6334	2428	250	75	108.4	31.9	22.6	35.4
115	6322	2425	262	64	108.2	31.8	25.2	30.7
120	6589	2499	252	81	112.9	32.9	22.3	38.2
125	6735	2609	272	59	115.4	34.3	26.7	29.2
130	7190	2749	296	74	123.4	36.0	28.3	35.6
135	6993	2692	257	57	120.0	35.7	24.9	29.0
140	7005	2765	265	57	120.2	36.7	25.8	29.2
145	7035	2740	265	66	120.7	36.3	25.0	32.7
150	6826	2688	248	48	117.0	35.8	24.5	25.4
155	6404	2443	251	79	109.6	32.1	22.4	37.1
160	7009	2744	265	60	120.2	36.4	25.6	30.3
165	7484	2907	261	59	128.6	38.8	25.0	30.6
170	7903	3029	281	74	136.0	40.3	26.1	36.9
175	8148	3070	327	87	140.3	40.3	30.8	41.7
180	7764	2918	303	85	133.5	38.4	28.1	40.6
185	6482	2493	222	76	111.0	33.2	18.8	36.6
190	7062	2702	262	72	121.2	35.8	24.1	35.1
195	6692	2655	253	73	114.7	35.2	22.9	35.5
200	6477	2510	244	77	110.9	33.2	21.6	36.7
205	6478	2515	282	60	110.9	32.8	28.0	29.1
210	5995	2349	222	65	102.4	31.2	20.0	31.5
215	5517	2088	209	47	94.0	27.6	20.2	23.3
220	5453	2095	195	56	92.9	27.8	17.6	27.2
225	6820	2540	248	76	116.9	33.6	22.1	36.3
230	7031	2664	286	55	120.6	35.0	28.8	27.6

H 5 240 STEP = 5

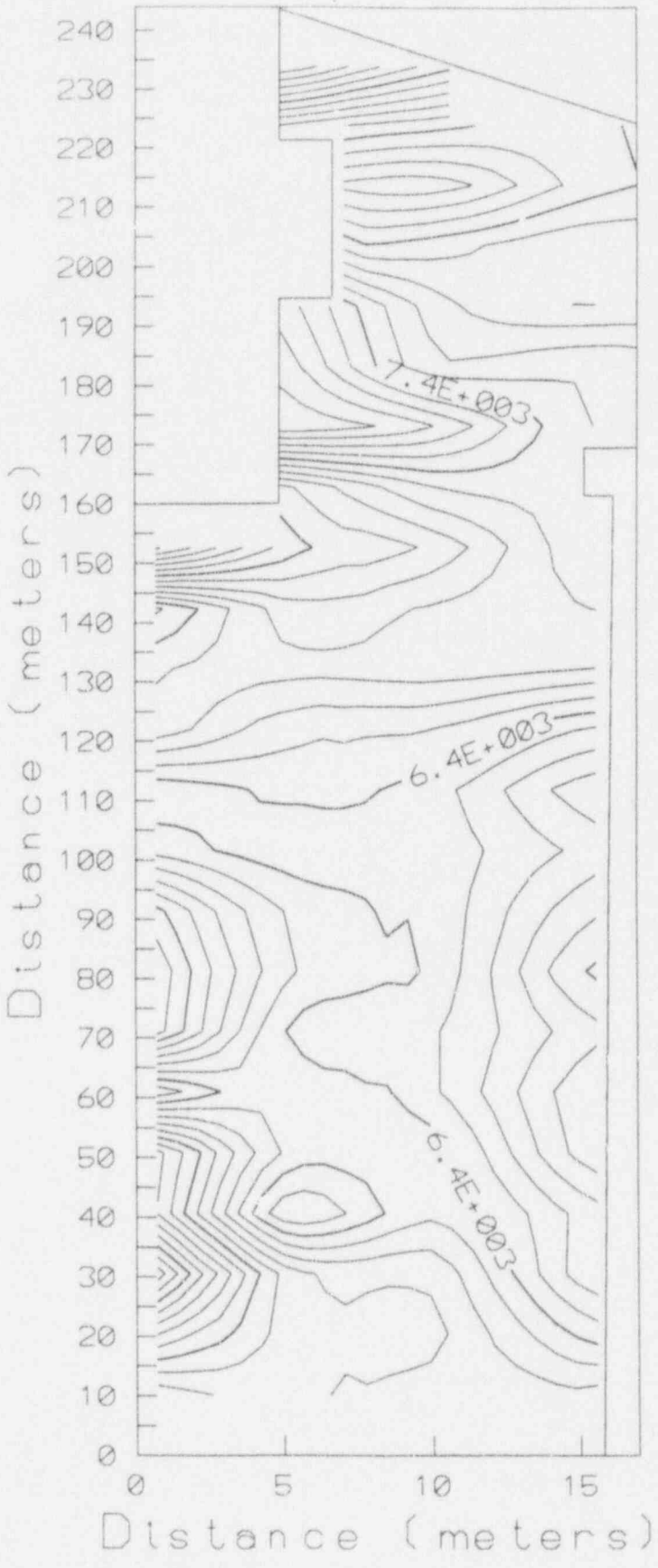
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
240	7418	2874	285	78	127.4	38.0	26.4	37.9

L 15 220 STEP = 5

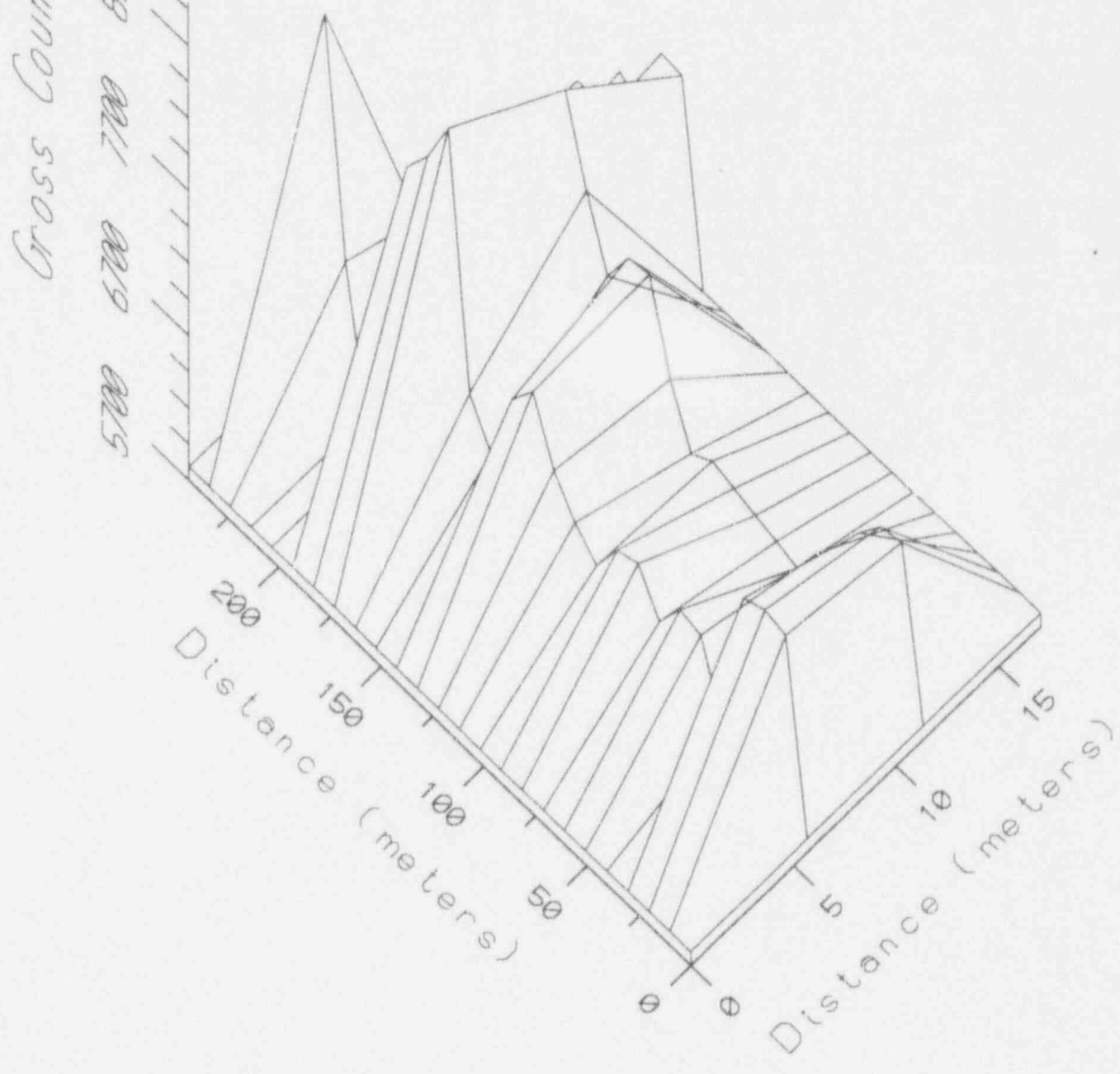
STATION	ROI#1	ROI#2	ROI#3	ROI#4	Uekv	K[%]	U[ppm]	Th[ppm]
220	6041	2287	223	60	103.2	30.3	20.6	29.2
215	6264	2327	278	68	107.2	30.1	27.0	31.7
210	6380	2394	276	66	109.2	31.1	26.9	31.2
205	6860	2609	270	83	117.6	34.3	24.3	39.1
200	6562	2584	245	67	112.4	34.3	22.5	32.9
195	6347	2461	261	64	108.6	32.3	25.0	30.9
190	7036	2692	267	76	120.7	35.6	24.4	36.6
185	7125	2807	267	74	122.3	37.2	24.5	36.3
180	7389	2883	267	80	126.9	38.3	23.9	39.0
175	7084	2732	278	83	121.6	36.0	25.2	39.5
170	7322	2764	277	90	125.7	36.5	24.4	42.5
165	7661	2827	275	85	131.7	37.4	24.5	40.7
160	6754	2520	236	83	115.8	33.4	20.0	39.3
155	7314	2809	298	84	125.6	36.9	27.6	39.9
150	7404	2795	283	81	127.2	36.9	26.0	38.8
145	7489	2925	266	80	128.7	39.0	23.7	39.2
140	6935	2707	270	72	118.9	35.8	25.2	35.0
135	7043	2607	261	74	120.8	34.4	23.9	35.6
130	6971	2721	254	70	119.6	36.2	23.3	34.5
125	6556	2507	249	70	112.3	33.1	22.9	33.7
120	5943	2259	201	71	101.5	30.1	16.8	33.9
115	5753	2219	228	60	98.2	29.2	21.4	28.8
110	5634	2190	236	51	96.1	28.7	23.2	24.9
105	5740	2186	224	56	97.9	28.8	21.2	27.1
100	6038	2348	214	76	103.2	31.2	17.9	36.1
95	5636	2155	230	58	96.1	28.3	21.9	27.7
90	5659	2177	231	60	96.5	28.6	21.8	28.6
85	5379	2081	203	62	91.6	27.5	18.1	29.5
80	5376	2102	210	50	91.5	27.7	20.0	24.5
75	5571	2149	220	45	95.0	28.3	21.7	22.5
70	5729	2240	207	69	97.7	29.8	17.8	32.9
65	5658	2223	225	48	96.5	29.3	22.0	24.0
60	5405	2135	202	44	92.0	28.3	19.5	22.3
55	5307	2044	222	53	90.3	26.7	21.4	25.3
50	5538	2121	215	48	94.4	28.0	20.9	23.7
45	5777	2252	204	55	98.6	30.0	18.6	27.3
40	5944	2268	240	58	101.5	29.8	23.0	28.0
35	6008	2300	242	59	102.6	30.2	23.2	28.5
30	5874	2307	229	51	100.3	30.5	22.2	25.5
25	5883	2317	204	68	100.5	30.9	17.4	32.9
20	6383	2415	237	62	109.2	31.9	22.1	30.3
15	6596	2568	264	74	113.0	33.8	24.4	35.4
10	6861	2659	240	70	117.6	35.4	21.5	34.5
5	7963	2951	316	92	137.0	38.7	29.1	43.4
0	8003	3013	329	83	137.7	39.5	31.5	39.8

END OF DATA

AREA 11


240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Distance (meters)
7.4E+003
6.4E+003
6.4E+003
0
5
10
15
Distance (meters)

AREA 11


Gross Counts
200
150
100
50
0
Distance (meters)
0
5
10
15
Distance (meters)

APPENDIX N

GAMMA SURVEY DATA FOR AREA 12

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

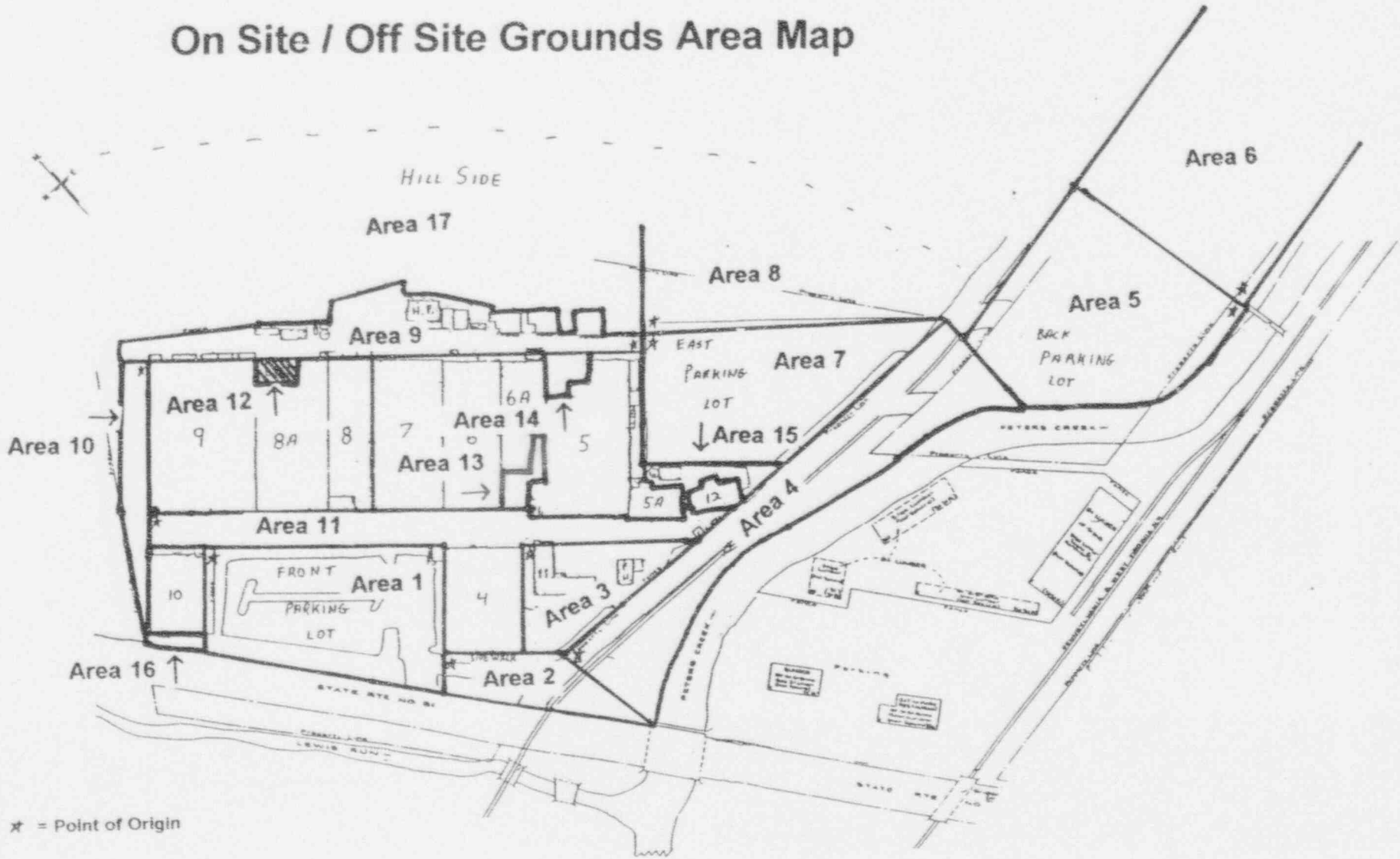
SURVEY TYPE:	SEE COMMENTS
SURVEY DATE:	6-1-93
LOCATION:	AREA 12
FORM S/N:	30-010
DISK CODE:	GRND-016

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9341 CPM
	R/S	L-2088	N/A	N/A	uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
3, -3	N/A	N/A	N/A	9209	N/A	N/A	CONCRETE
3, -6	"	"	"	10757	"	"	"
6, -6	"	"	"	13103	"	"	DIRT
9, -6	"	"	"	12259	"	"	"
12, -6	"	"	"	14182	"	"	"
15, -6	"	"	"	15333	"	"	"
15, -3	"	"	"	12262	"	"	"
15, 0	"	"	"	10456	"	"	"

SURVEYOR:	TODD BRAUTIGAM	SURVEYOR SIGNATURE:	Todd Brautigam

On Site / Off Site Grounds Area Map



APPENDIX O

GAMMA SURVEY DATA FOR AREA 13

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

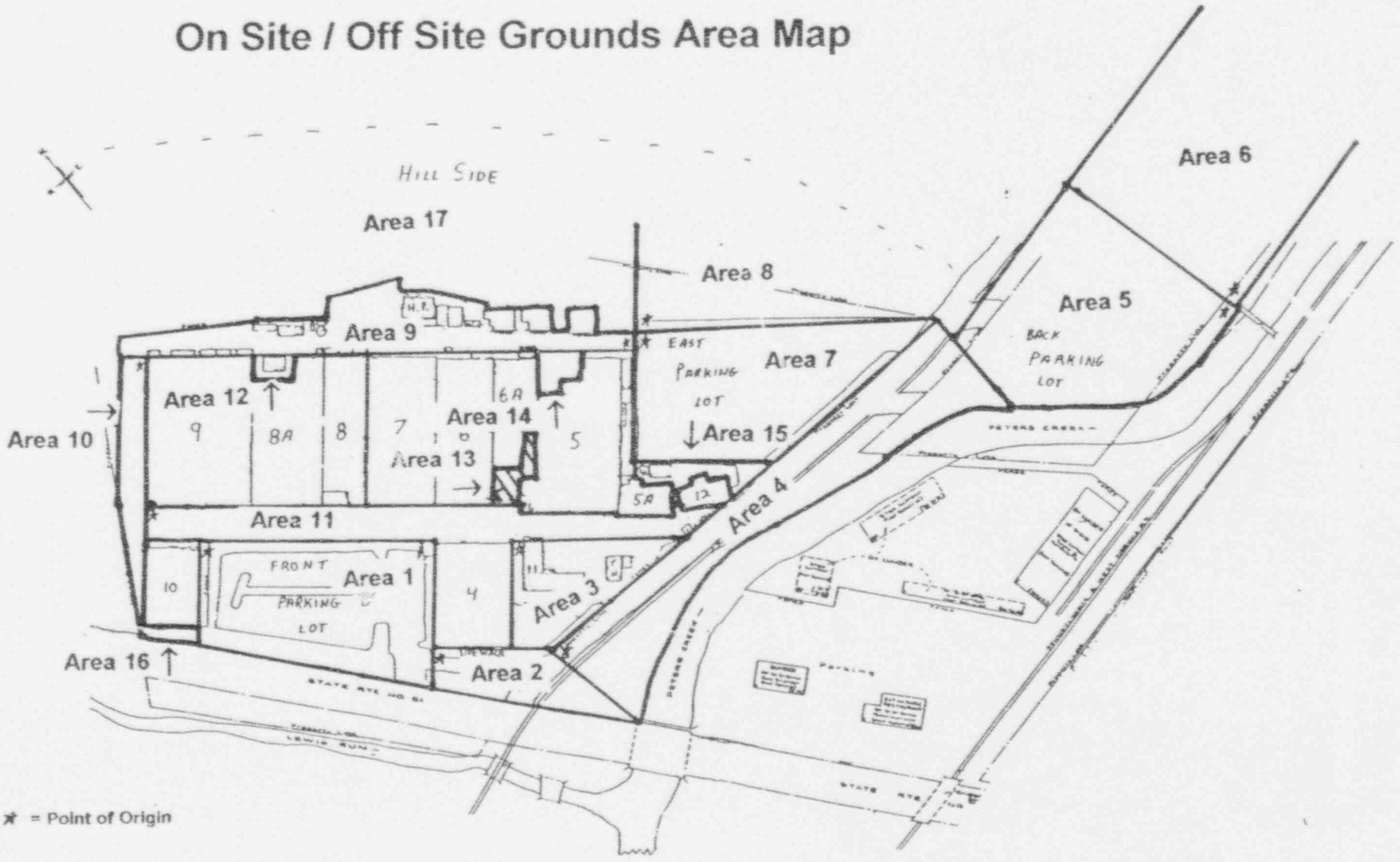
SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-4-93
LOCATION:	AREA 13
FORM S/N:	30-011
DISK CODE:	GRND-017

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	10210 CPM
	R/S	L-2088	N/A	N/A	uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
1, -3	N/A	N/A	N/A	9658	N/A	N/A	
5, -3	"	"	"	10569	"	"	
3, -6	"	"	"	9945	"	"	
1, -9	"	"	"	9334	"	"	
5, -9	"	"	"	8156	"	"	
3, -12	"	"	"	9175	"	"	
1, -15	"	"	"	8824	"	"	
5, -15	"	"	"	10399	"	"	
3, -18	"	"	"	11001	"	"	
0, -18	"	"	"	9269	"	"	
-3, -18	"	"	"	8922	"	"	
-6, -18	"	"	"	8404	"	"	
-3, -23	"	"	"	9632	"	"	
-6, -23	"	"	"	5792	"	"	
-3, -28	"	"	"	9479	"	"	
-6, -28	"	"	"	8120	"	"	

SURVEYOR:	TODD BRAUTIGAM	SURVEYOR SIGNATURE:	Todd Brautigam

On Site / Off Site Grounds Area Map



APPENDIX P

GAMMA SURVEY DATA FOR AREA 14

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE PAGE 1 OF 1

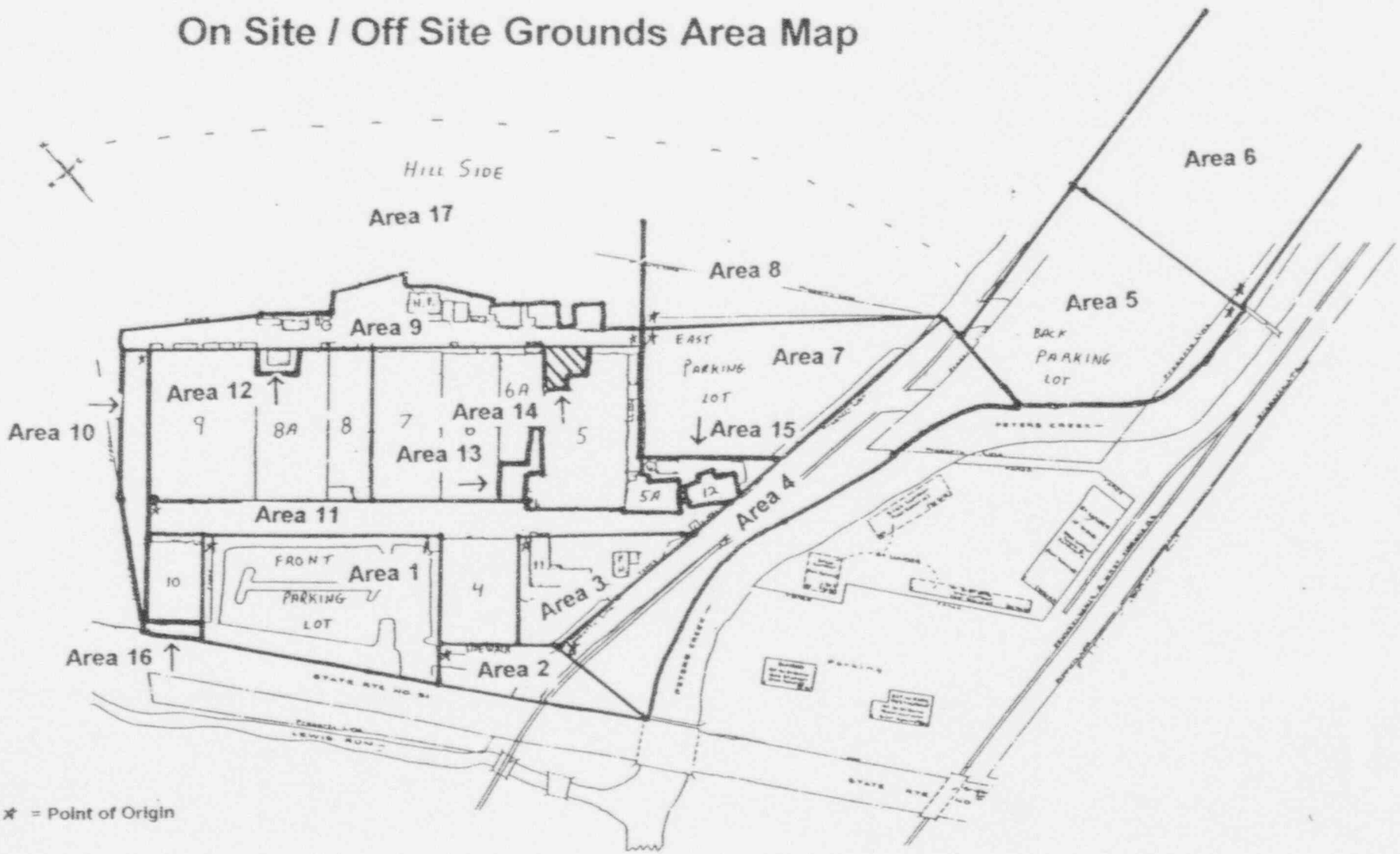
SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-1-93
LOCATION:	AREA 14
FORM S/N:	30-012
DISK CODE:	GRND-018

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9341 CPM
	R/S	L-2088	N/A	N/A	uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.3	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	AVG CPM	L GAMMA 1 CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, -5	N/A	N/A	N/A	9631	N/A	N/A	
5, -10	"	"	"	10073	"	"	
10, 0	"	"	"	8937	"	"	
10, -5	"	"	"	9378	"	"	
10, -10	"	"	"	10055	"	"	
15, 0	"	"	"	9142	"	"	
15, -5	"	"	"	9216	"	"	
15, -10	"	"	"	9247	"	"	
5, -15	"	"	"	9937	"	"	
10, -15	"	"	"	10000	"	"	
15, -15	"	"	"	10033	"	"	

SURVEYOR:	TODD BRAUTIGAM	SURVEYOR SIGNATURE:	Todd Brautigam

On Site / Off Site Grounds Area Map



★ = Point of Origin

APPENDIX Q

GAMMA SURVEY DATA FOR AREA 15

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

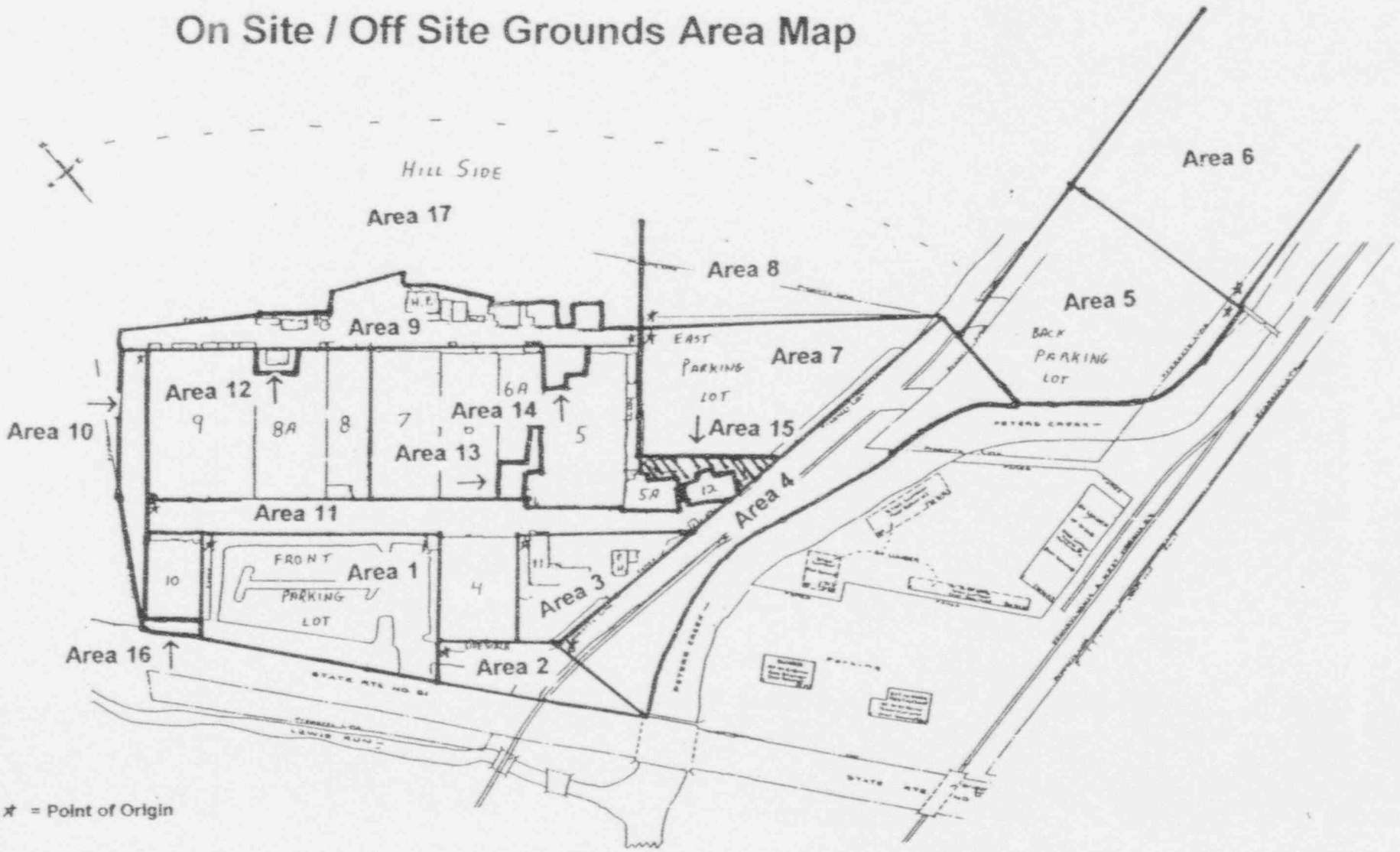
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	AREA 15
FORM S/N:	30-013
DISK CODE:	GRND-019

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	8829 CPM
	R/S	L-2088	N/A	N/A	uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, -2	N/A	N/A	N/A	9146	N/A	N/A	
7, 0	"	"	"	8204	"	"	
10, -2	"	"	"	9769	"	"	
15, -2	"	"	"	10490	"	"	
20, -2	"	"	"	10616	"	"	BETWEEN BRICK BUILDINGS
20, -5	"	"	"	12783	"	"	"
25, 0	"	"	"	8158	"	"	"
30, -1	"	"	"	9060	"	"	
35, 1	"	"	"	8248	"	"	
35, -2	"	"	"	9032	"	"	
38, -8	"	"	"	9767	"	"	

SURVEYOR:	TODD BRAUTIGAM	SURVEYOR SIGNATURE:	Todd Brautigam

On Site / Off Site Grounds Area Map



★ = Point of Origin

APPENDIX R

GAMMA SURVEY DATA FOR AREA 16

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

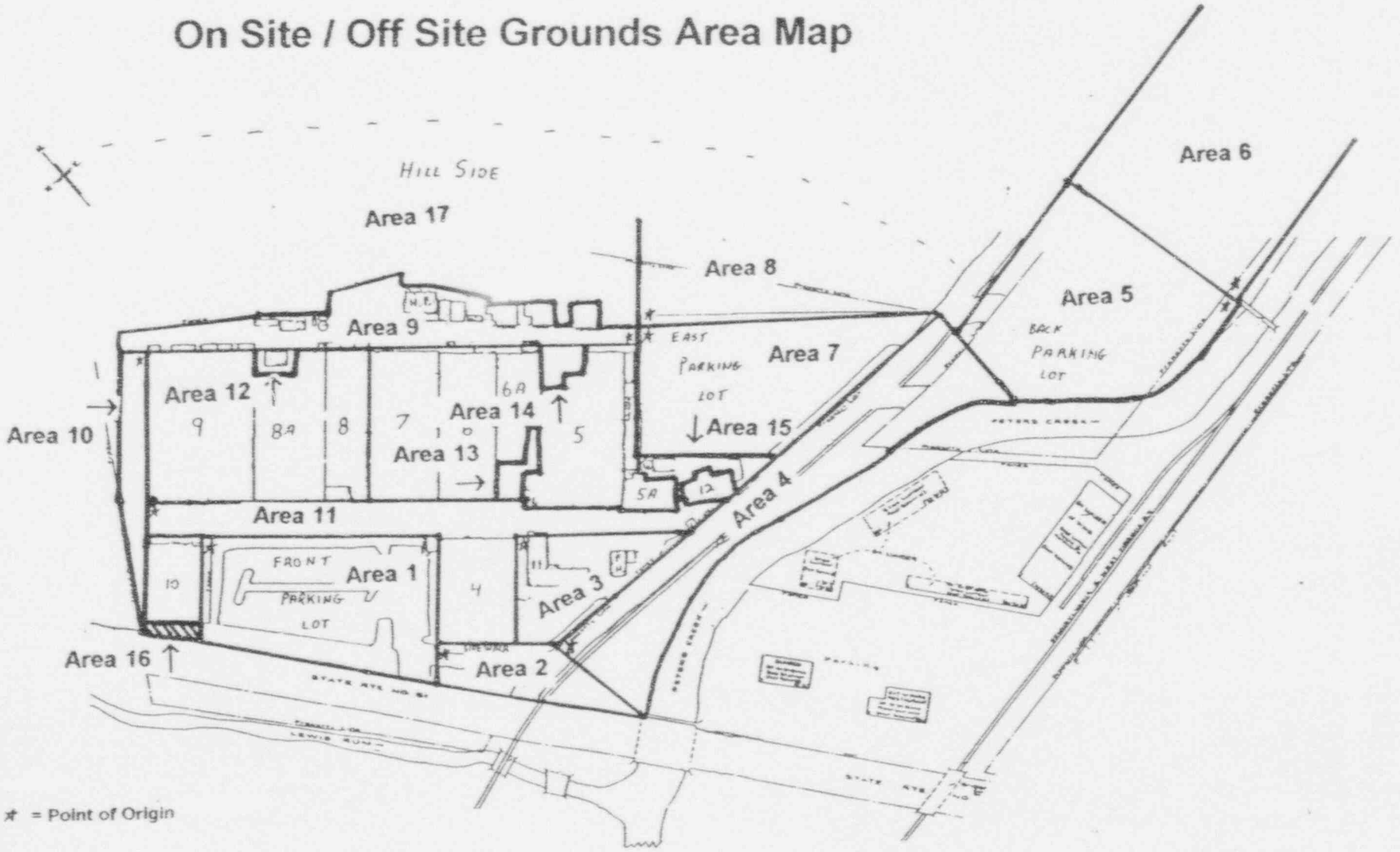
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-4-93
LOCATION:	AREA 16
FORM S/N:	30-014
DISK CODE:	GRND-020

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	10210 CPM
	R/S	L-2088	N/A	N/A	uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
0, -1	N/A	N/A	N/A	10398	N/A	N/A	
3, -1	"	"	"	11183	"	"	
6, -2	"	"	"	12080	"	"	
9, -2	"	"	"	11639	"	"	
12, -1	"	"	"	12736	"	"	
12, -3	"	"	"	12098	"	"	
15, -2	"	"	"	12188	"	"	
15, -4	"	"	"	10612	"	"	
18, -1	"	"	"	12869	"	"	
18, -4	"	"	"	11442	"	"	

SURVEYOR:	TODD BRAUTIGAM	SURVEYOR SIGNATURE:	Todd Brautigam

On Site / Off Site Grounds Area Map



APPENDIX S

RADIOLOGICAL SURVEY DATA SHEETS FOR PAVED SURFACE SAMPLE POINTS

& S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

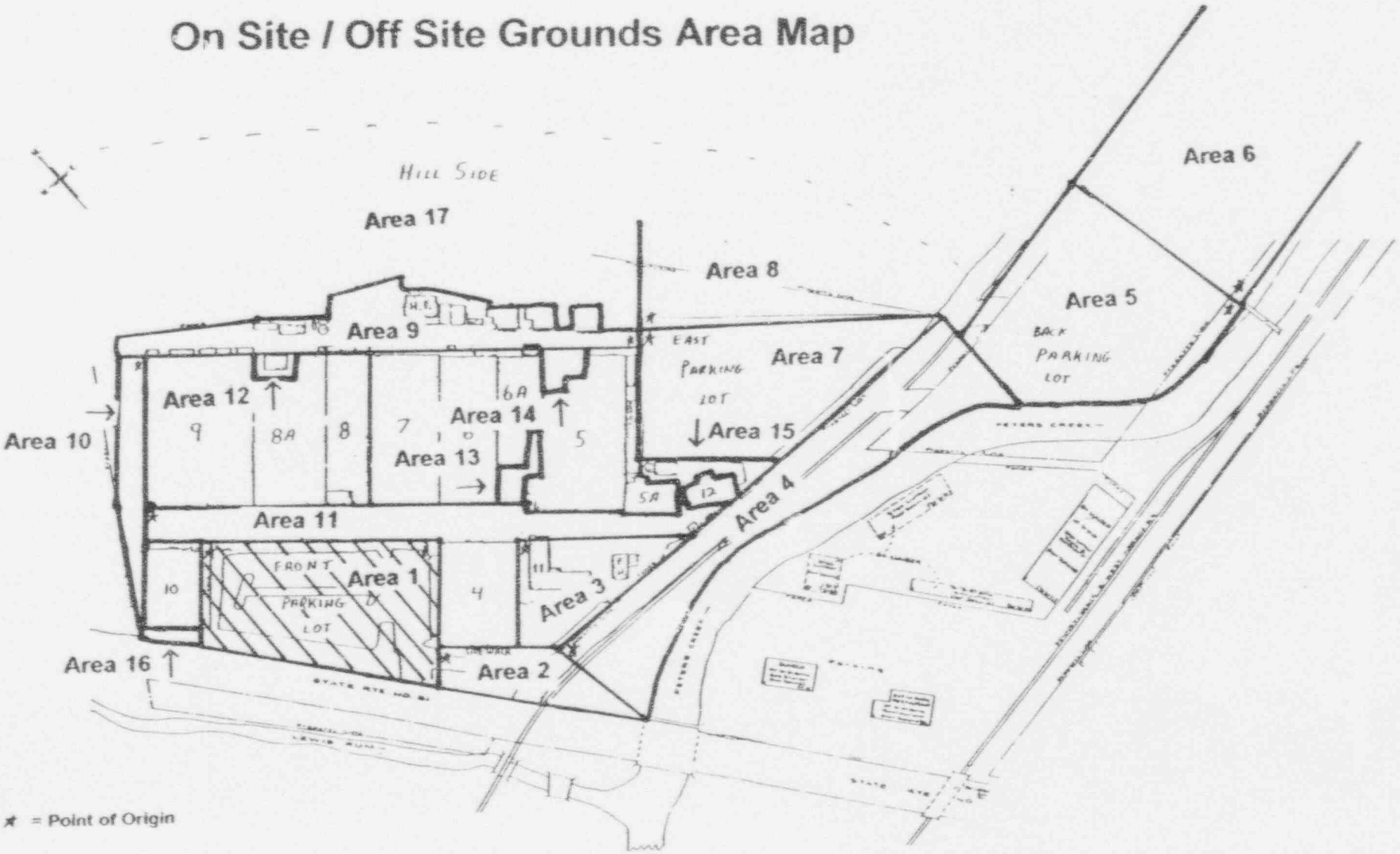
SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	AREA 1
FORM S/N:	30-016
DISK CODE:	GRND-022

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9341 CPM
*	R/S	L-2088	N/A	N/A	9.8 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	361 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
20, 5	1	10237	8900	9592	9.7	409	
"	2	SCAN APPLIES		8867	10.0	411	
"	3	TO ENTIRE		9374	10.3	424	
"	4	10m x 10m		9380	11.0	413	
"	5	AREA		10009	10.8	415	
50, 90	1	9895	7600	7823	8.9	393	
"	2	SCAN APPLIES		8457	9.0	407	
"	3	TO ENTIRE		7865	8.9	392	
"	4	10m x 10m		7282	8.6	343	
"	5	AREA		7624	8.8	365	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



✗ = Point of Origin

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE PAGE 1 OF 1

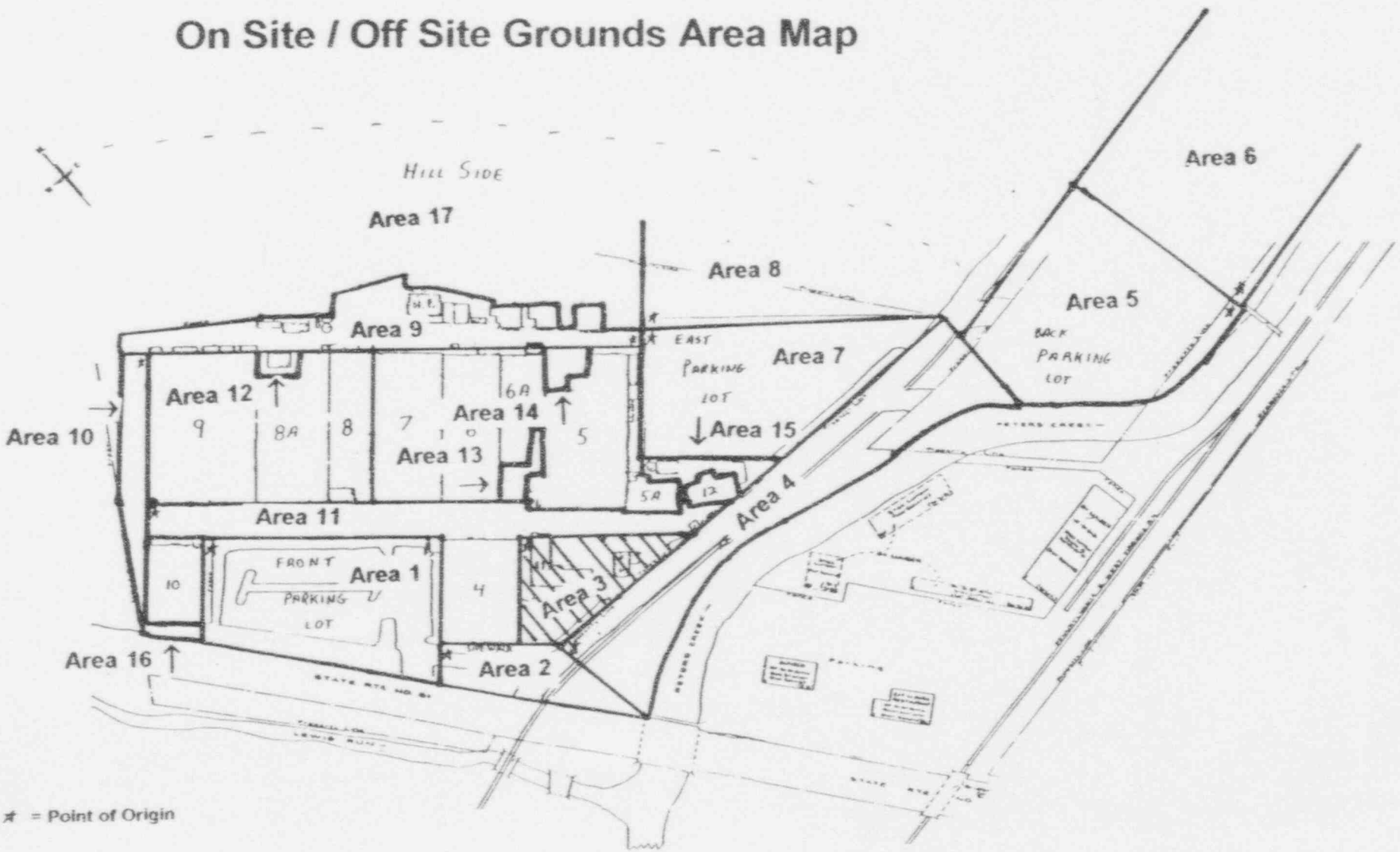
SURVEY TYPE:	[X] PAVED
	[ ] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	AREA 3
FORM S/N:	30-017
DISK CODE:	GRND-023

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	11899 CPM
*	R/S	L-2088	N/A	N/A	11.2 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	407 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
15, 5	1	14355	12000	12509	13.5	445	
"	2	SCAN APPLIES		12660	13.6	426	
"	3	TO ENTIRE		11640	13.1	450	
"	4	10m x 10m		11389	12.9	415	
"	5	AREA		12849	14.4	470	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR:	TODD BRAUTIGAM / LARRY SMITH	SURVEYOR SIGNATURE:	

On Site / Off Site Grounds Area Map

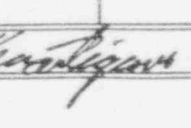


★ = Point of Origin

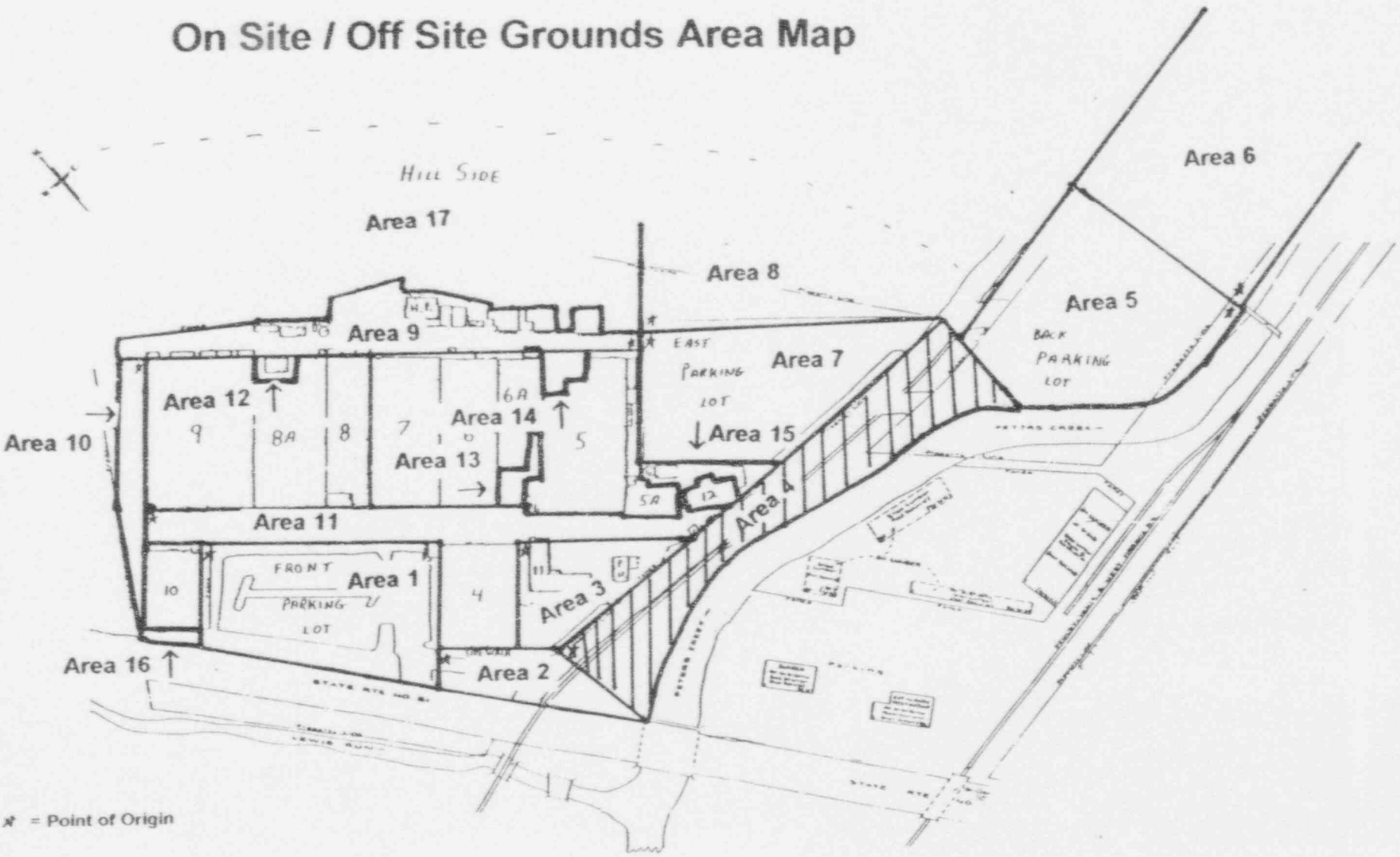
SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	AREA 4
FORM S/N:	30-018
DISK CODE:	GRND-024

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9341 CPM
*	R/S	L-2088	N/A	N/A	9.8 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	361 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, 15	1	11571	10300	9842	10.1	426	
"	2	SCAN APPLIES		9883	10.1	438	
"	3	TO ENTIRE		10580	10.0	419	
"	4	10m x 10m		10256	10.1	447	
"	5	AREA		9741	10.1	440	
5, 50	1	12651	10400	10026	9.9	432	
"	2	SCAN APPLIES		9341	10.0	436	
"	3	TO ENTIRE		10911	9.9	449	
"	4	10m x 10m		10687	10.4	484	
"	5	AREA		9447	9.7	440	
10, 150	1	13302	10200	10006	9.9	486	
"	2	SCAN APPLIES		9756	9.7	414	
"	3	TO ENTIRE		10047	10.1	432	
"	4	10m x 10m		9532	9.6	412	
"	5	AREA		8358	9.6	444	
15, 215	1	10222	8800	8080	9.1	488	
"	2	SCAN APPLIES		8490	9.1	383	
"	3	TO ENTIRE		8021	8.6	393	
"	4	10m x 10m		8093	9.5	435	
"	5	AREA		8506	9.4	448	

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE: 

On Site / Off Site Grounds Area Map



I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE PAGE 1 OF 1

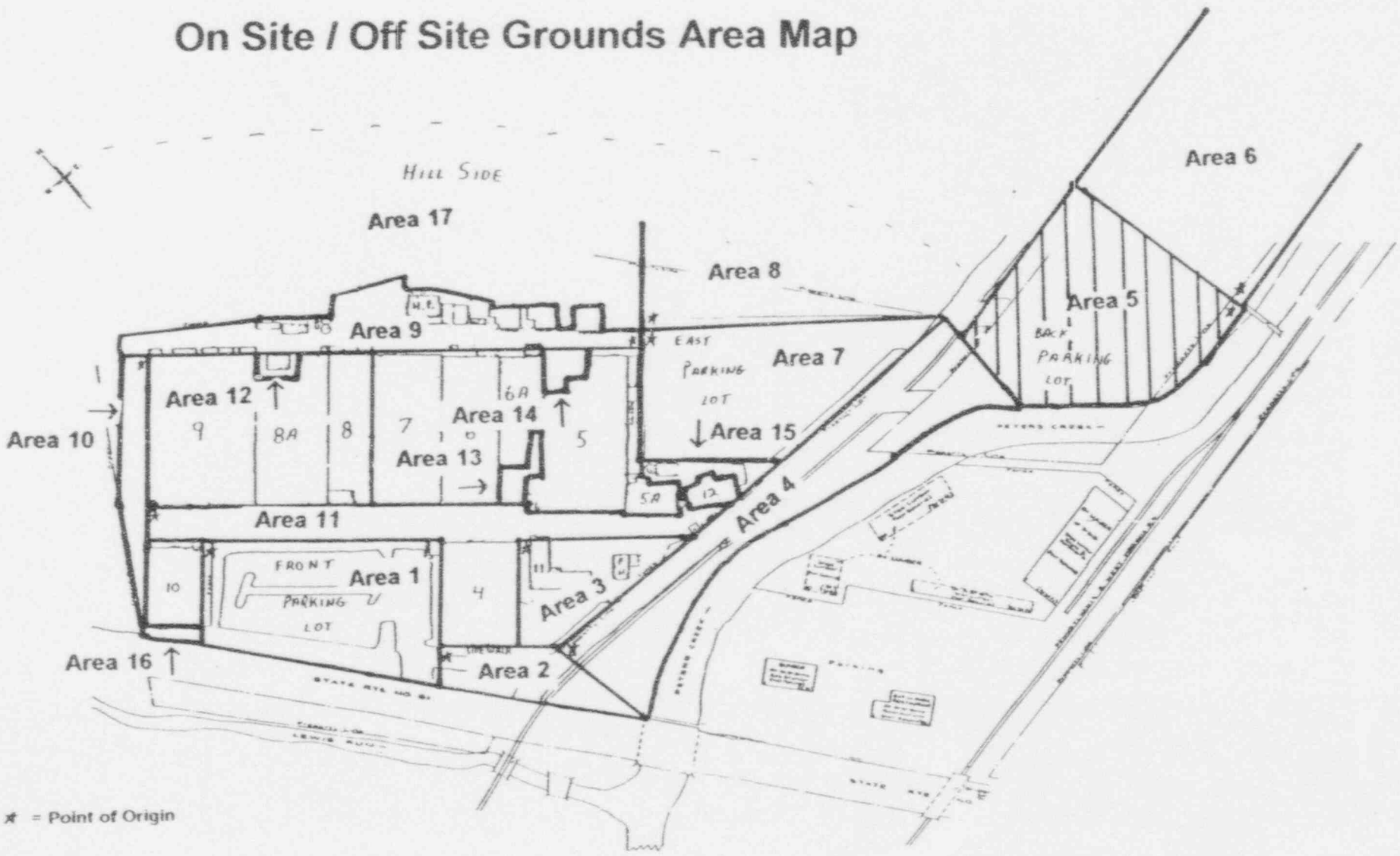
SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	AREA 5
FORM S/N:	30-019
DISK CODE:	GRND-025

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9341 CPM
*	R/S	L-2088	N/A	N/A	9.8 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	361 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
85, 60	1	9439	8300	8012	8.3	405	
"	2	SCAN APPLIES		8438	8.6	425	
"	3	TO ENTIRE		8340	8.7	449	
"	4	10m x 10m		9022	9.1	425	
"	5	AREA		7693	8.4	373	
80, 15	1	11674	10400	9579	9.2	464	
"	2	SCAN APPLIES		9661	9.6	418	
"	3	TO ENTIRE		7690	8.9	461	
"	4	10m x 10m		7860	9.4	447	
"	5	AREA		10022	9.8	503	
30, 5	1	12346	9800	9857	9.8	474	
"	2	SCAN APPLIES		10928	9.7	572	
"	3	TO ENTIRE		9932	9.8	464	
"	4	10m x 10m		9824	9.7	470	
"	5	AREA		9401	9.6	479	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



★ = Point of Origin

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

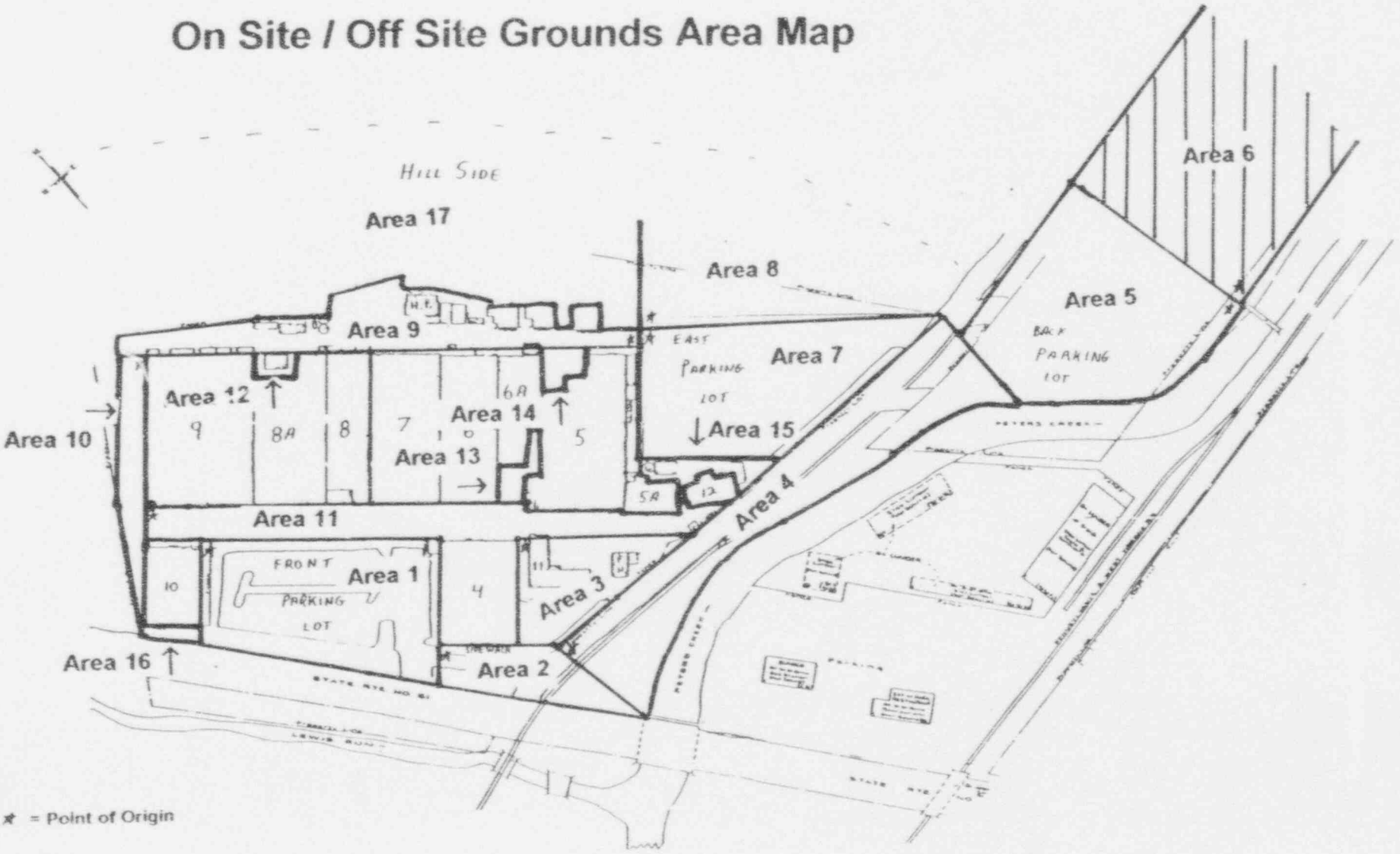
SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	AREA 6
FORM S/N:	30-020
DISK CODE:	GRND-026

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9341 CPM
*	R/S	L-2088	N/A	N/A	9.8 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	361 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
35, 75	1	12939	9850	9872	9.3	515	
"	2	SCAN APPLIES		9728	9.4	484	
"	3	TO ENTIRE		9865	10.0	514	
"	4	10m x 10m		10218	9.7	477	
"	5	AREA		10175	9.8	450	
45, 60	1	11977	10400	9904	10.0	506	
"	2	SCAN APPLIES		10071	9.6	467	
"	3	TO ENTIRE		10291	10.0	525	
"	4	10m x 10m		9854	9.5	499	
"	5	AREA		10020	9.6	502	
60, 70	1	11953	10500	9857	9.6	446	
"	2	SCAN APPLIES		10284	10.0	472	
"	3	TO ENTIRE		9611	9.3	516	
"	4	10m x 10m		9802	9.7	514	
"	5	AREA		9594	9.6	452	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE:

On Site / Off Site Grounds Area Map



★ = Point of Origin

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

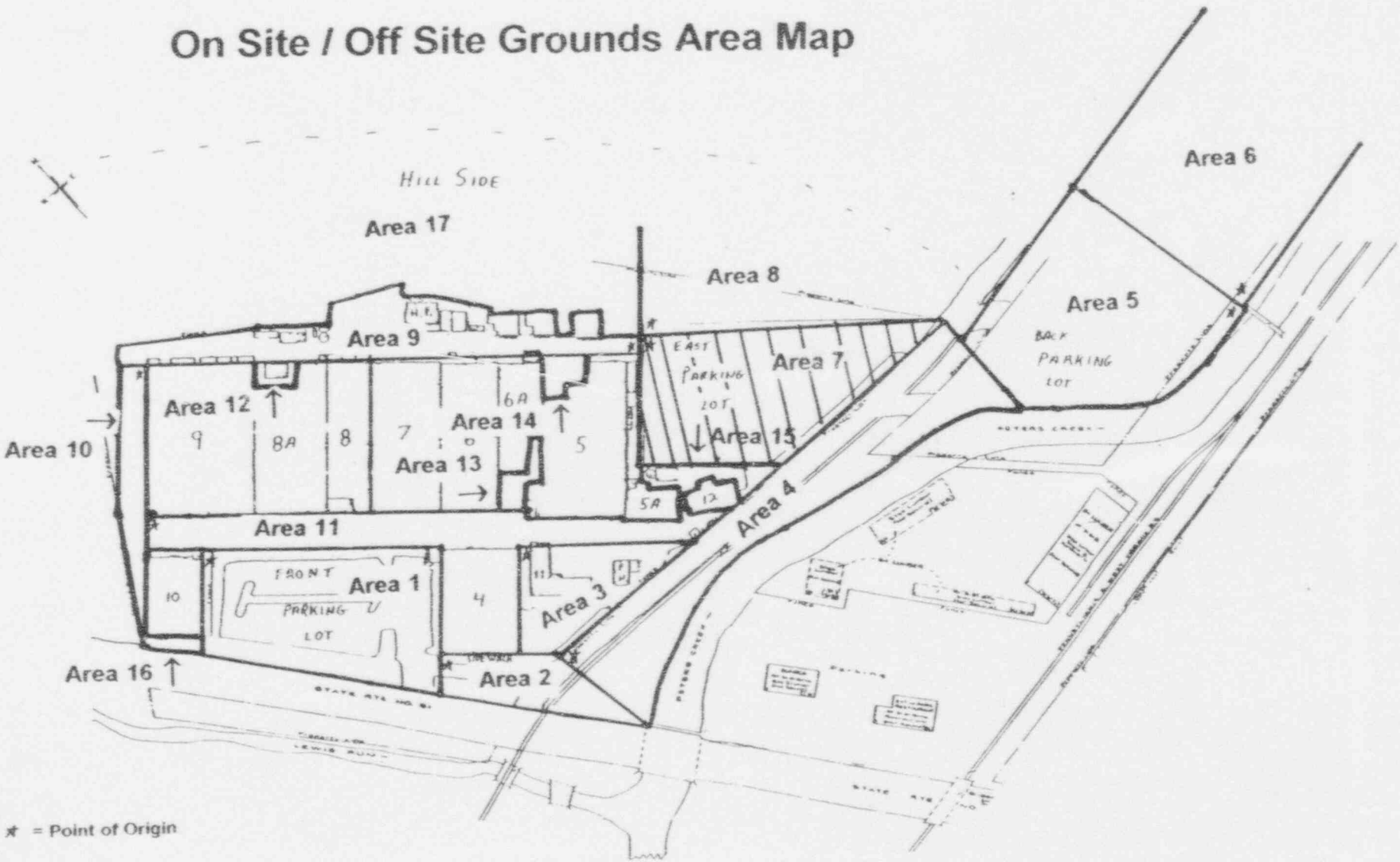
SURVEY TYPE:	[X] PAVED
	[ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 7
FORM S/N:	30-021
DISK CODE:	GRND-027

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	7385 CPM
*	R/S	L-2088	N/A	N/A	9.1 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	321 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, 110	1	10753	9000	8836	9.1	443	
"	2	SCAN APPLIES		8859	9.2	392	
"	3	TO ENTIRE		8967	9.7	397	
"	4	10m x 10m		9035	9.8	394	
"	5	AREA		8938	9.1	463	
35, 25	1	10677	8500	8502	9.1	410	
"	2	SCAN APPLIES		8412	9.0	388	
"	3	TO ENTIRE		8704	9.4	459	
"	4	10m x 10m		8427	9.5	384	
"	5	AREA		8673	9.5	450	
45, 20	1	10000	8400	8405	9.3	476	
"	2	SCAN APPLIES		8796	9.4	437	
"	3	TO ENTIRE		7710	9.4	459	
"	4	10m x 10m		9214	9.5	460	
"	5	AREA		8917	9.5	472	
55, 5	1	12974	9800	10138	10.6	476	
"	2	SCAN APPLIES		9753	10.2	420	
"	3	TO ENTIRE		11116	12.0	440	1m FROM BRICK CHIMNEY
"	4	10m x 10m		9988	10.5	417	
"	5	AREA		9816	9.8	474	

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



★ = Point of Origin

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 9
FORM S/N:	30-022
DISK CODE:	GRND-028

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9641 CPM
*	R/S	L-2088	N/A	N/A	10.6 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	380 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, 175	1	13172	11500	11263	11.8	420	
"	2	SCAN APPLIES		11175	11.4	517	
"	3	TO ENTIRE		10239	10.9	409	
"	4	10m x 10m		10809	10.9	456	
"	5	AREA		11700	11.1	520	
5, 140	1	13145	11200	10862	10.7	437	
"	2	SCAN APPLIES		11136	11.0	487	
"	3	TO ENTIRE		8429	9.2	346	
"	4	10m x 10m		8537	10.0	447	
"	5	AREA		11976	10.5	530	
10, 125	1	15000	12000	11686	11.4	468	
"	2	SCAN APPLIES		10318	11.5	476	
"	3	TO ENTIRE		9780	10.4	464	
"	4	10m x 10m		9661	10.1	456	
"	5	AREA		10331	10.1	458	
5, 80	1	13730	10500	9723	9.9	425	
"	2	SCAN APPLIES		9761	9.9	564	
"	3	TO ENTIRE		8791	9.4	433	
"	4	10m x 10m		8810	9.5	403	
"	5	AREA		10185	10.5	479	

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

SURVEY TYPE:	[X] PAVED
	[ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 9
FORM S/N:	30-022
DISK CODE:	GRND-029

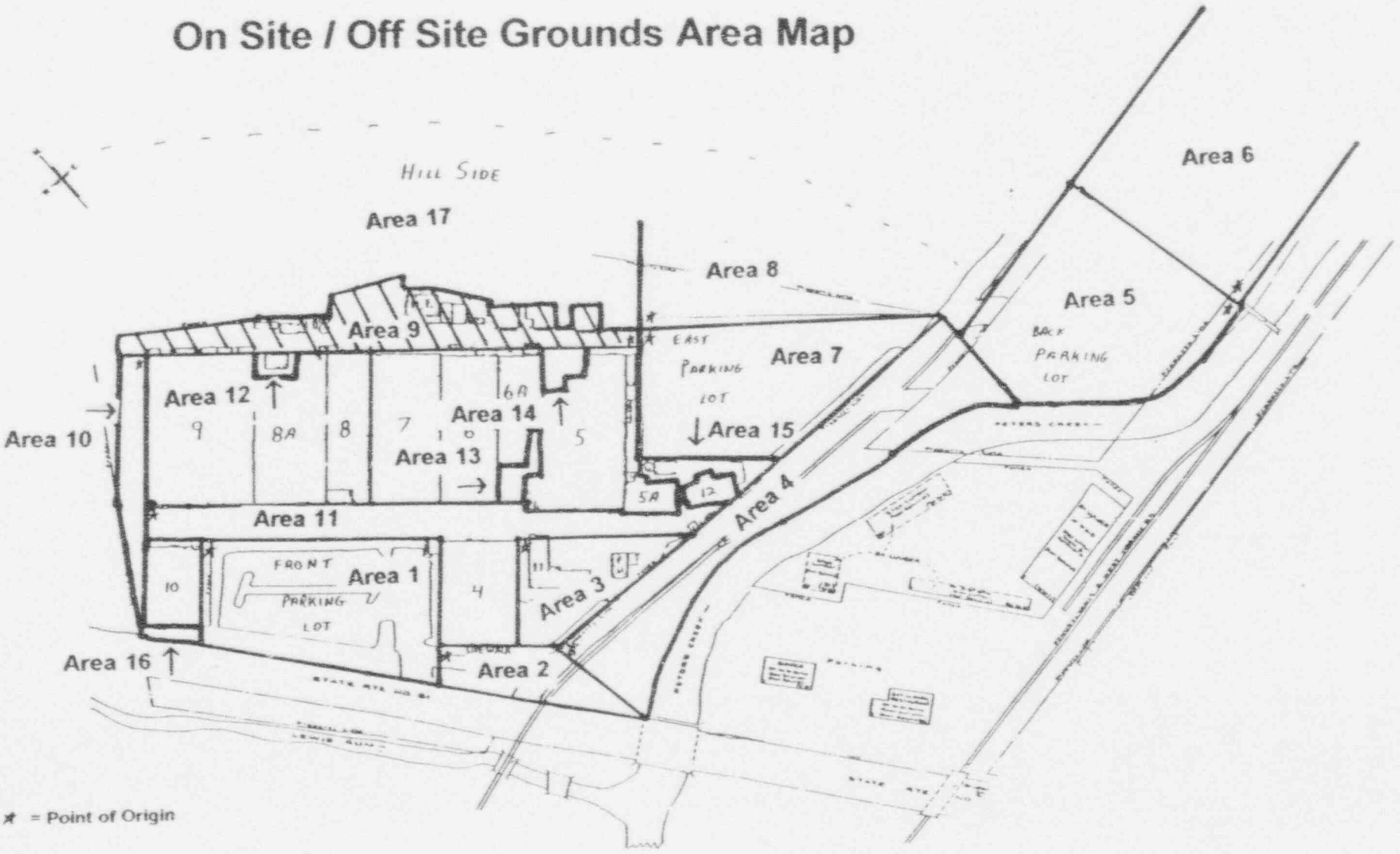
* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9641 CPM
*	R/S	L-2088	N/A	N/A	10.6 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	380 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, 30	1	10492	9000	8496	9.5	411	
"	2	SCAN APPLIES		9851	9.6	417	
"	3	TO ENTIRE		8967	9.3	399	
"	4	10m x 10m		8716	9.1	365	
"	5	AREA		7694	8.4	429	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH

SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

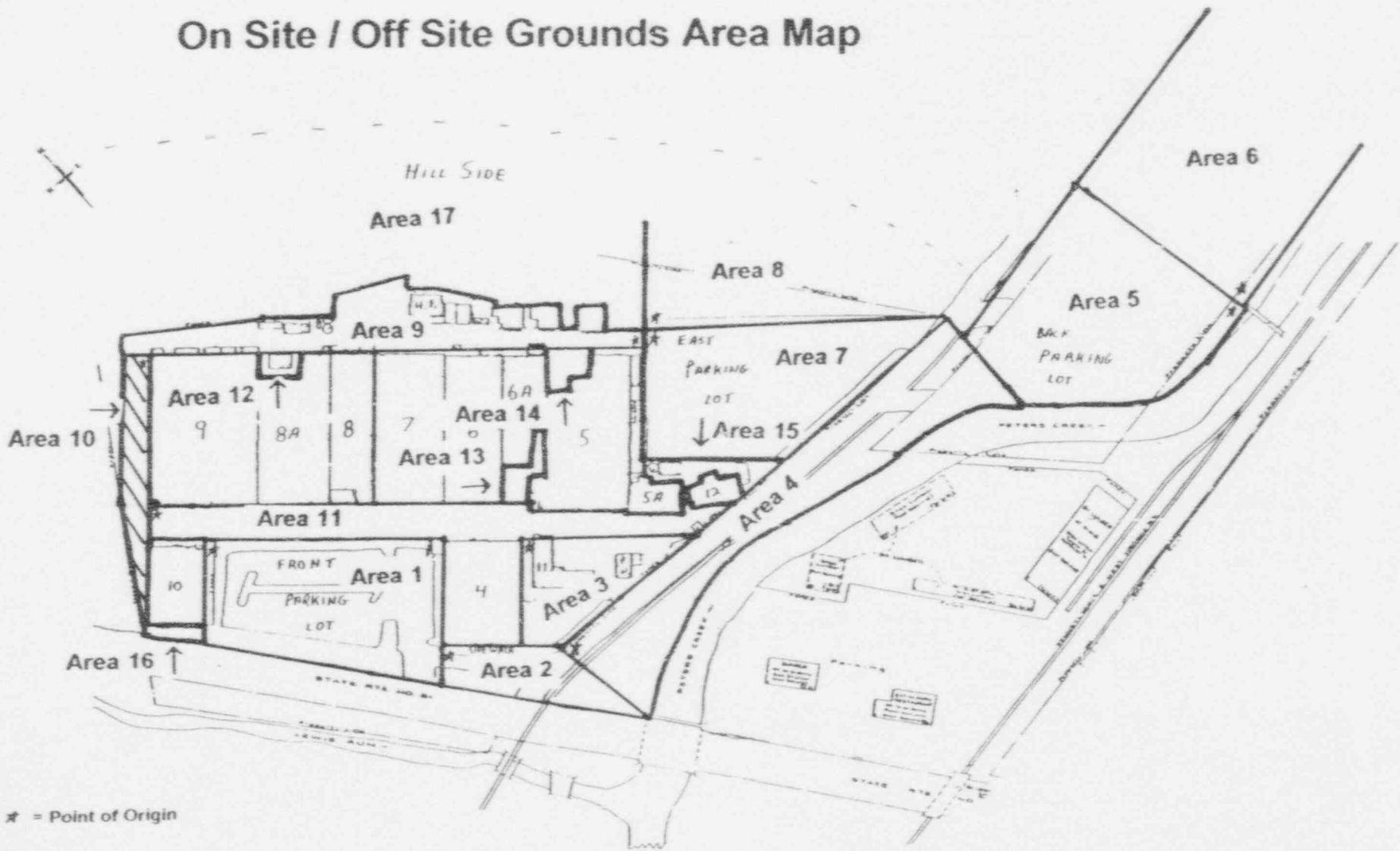
SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 10
FORM S/N:	30-023
DISK CODE:	GRND-030

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	7380 CPM
*	R/S	L-2088	N/A	N/A	9.1 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	321 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, 70	1	12876	11500	11274	11.1	485	
"	2	SCAN APPLIES		9767	10.7	450	
"	3	TO ENTIRE		11736	11.1	499	
"	4	10m x 10m		10621	10.9	421	
"	5	AREA		10906	11.0	439	
5, 45	1	12884	10200	11364	10.8	454	
"	2	SCAN APPLIES		11071	11.5	467	
"	3	TO ENTIRE		8334	10.0	475	
"	4	10m x 10m		7946	9.1	478	
"	5	AREA		11421	11.0	507	
5, 15	1	15668	11700	11364	11.0	486	
"	2	SCAN APPLIES		11039	11.0	486	
"	3	TO ENTIRE		9921	10.3	406	
"	4	10m x 10m		9422	10.3	421	
"	5	AREA		10737	10.6	457	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 11
FORM S/N:	30-024
DISK CODE:	GRND-031

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	7380 CPM
*	R/S	L-2088	N/A	N/A	9.1 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	321 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
5, 235	1	14564	10700	10067	10.7	448	
"	2	SCAN APPLIES		11322	12.3	454	
"	3	TO ENTIRE		8739	11.0	364	
"	4	10m x 10m		10325	10.0	442	
"	5	AREA		9878	10.0	473	
5, 175	1	14852	12500	11914	11.5	450	
"	2	SCAN APPLIES		12212	11.4	466	
"	3	TO ENTIRE		11336	11.0	476	
"	4	10m x 10m		11031	11.5	470	
"	5	AREA		11500	12.0	401	
5, 90	1	13216	10500	10961	10.6	443	
"	2	SCAN APPLIES		8982	9.7	469	
"	3	TO ENTIRE		9308	10.2	458	
"	4	10m x 10m		10918	10.3	445	
"	5	AREA		9956	10.9	437	
10, 20	1	14600	12500	10843	10.9	459	
"	2	SCAN APPLIES		11523	11.3	448	
"	3	TO ENTIRE		10738	10.8	475	
"	4	10m x 10m		11466	10.7	487	
"	5	AREA		11547	11.2	519	

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 11
FORM S/N:	30-024
DISK CODE:	GRND-032

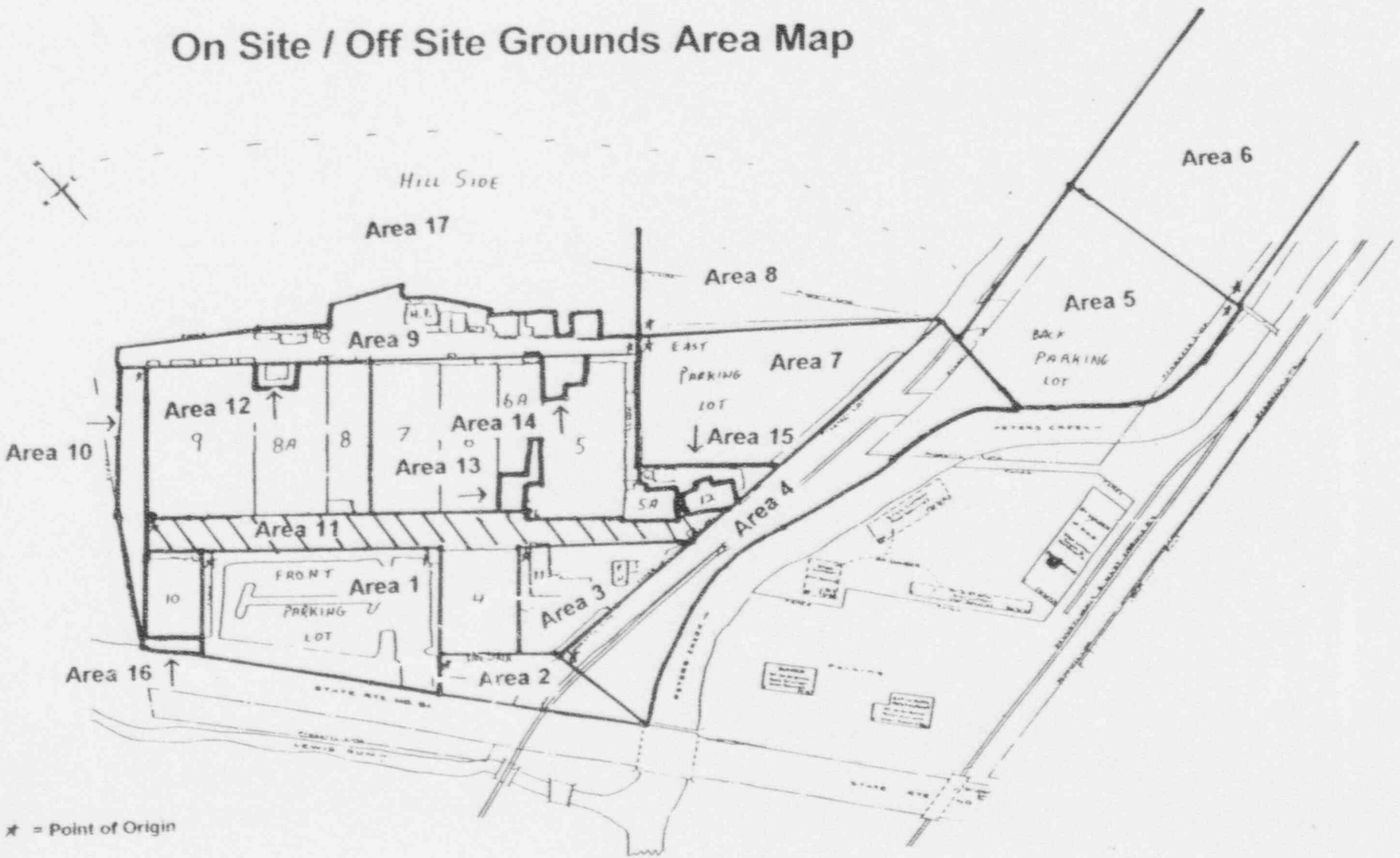
* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	7380 CPM
*	R/S	L-2088	N/A	N/A	9.1 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	321 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
15, 10	1	13107	10800	10309	10.4	418	
"	2	SCAN APPLIES		9797	10.3	430	
"	3	TO ENTIRE		10795	11.0	471	
"	4	10m x 10m		11101	11 8	406	
"	5	AREA		10569	10.7	465	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH

SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



★ = Point of Origin

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE PAGE 1 OF 1

SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-7-93
LOCATION:	AREA 13
FORM S/N:	30-025
DISK CODE:	GRND-033

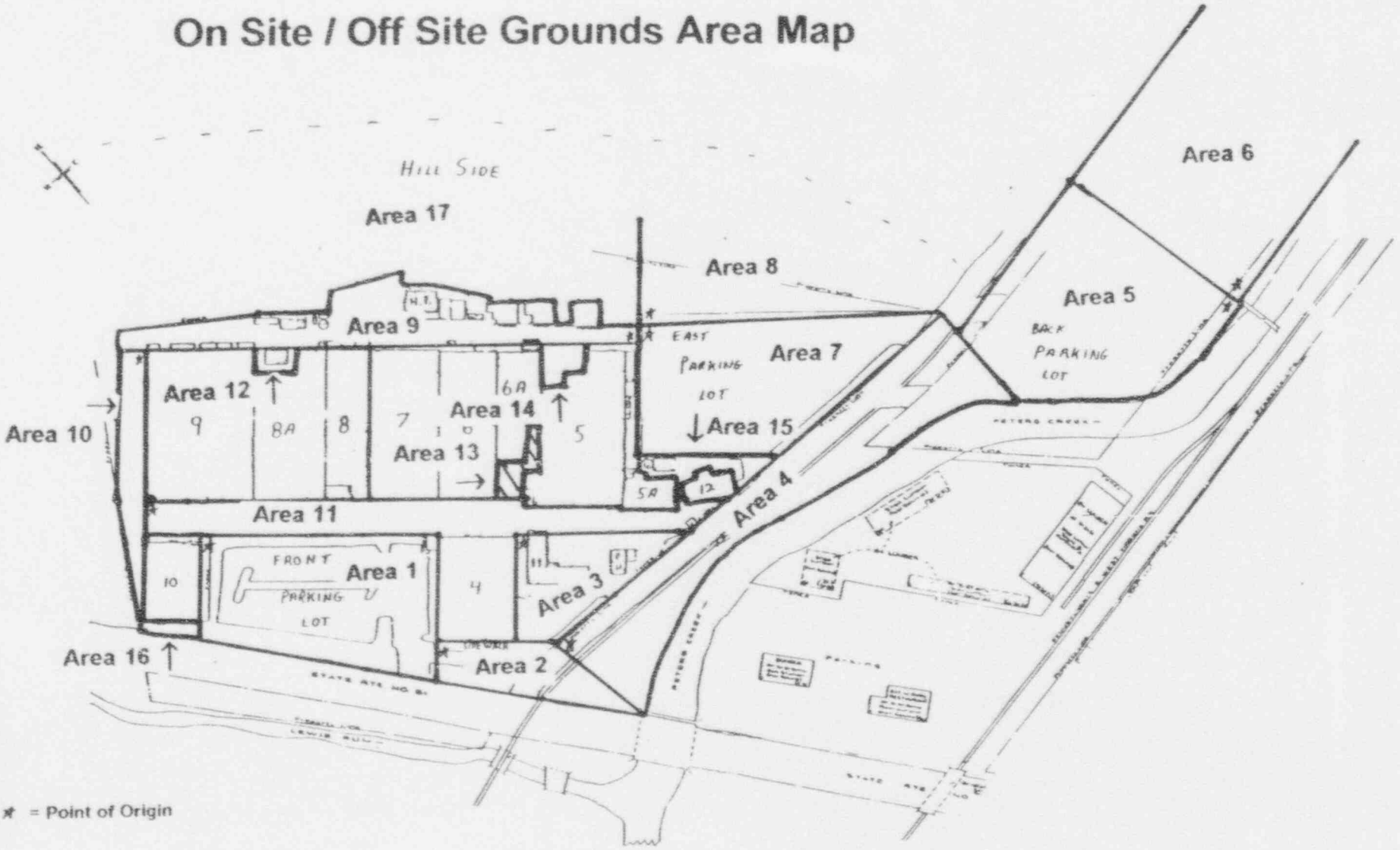
* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	11899 CPM
*	R/S	L-2088	N/A	N/A	11.2 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	407 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
-5, -25	1	11071	9500	7671	9.6	401	ASPHALT
"	2	SCAN APPLIES		8144	9.4	409	ASPHALT
"	3	TO ENTIRE		8826	10.1	404	CONCRETE
"	4	10m x 10m		9798	11.0	513	CONCRETE
"	5	AREA		7773	10.2	412	ASPHALT
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH

SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

SURVEY TYPE:	[X] PAVED [ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 14
FORM S/N:	30-026
DISK CODE:	GRND-034

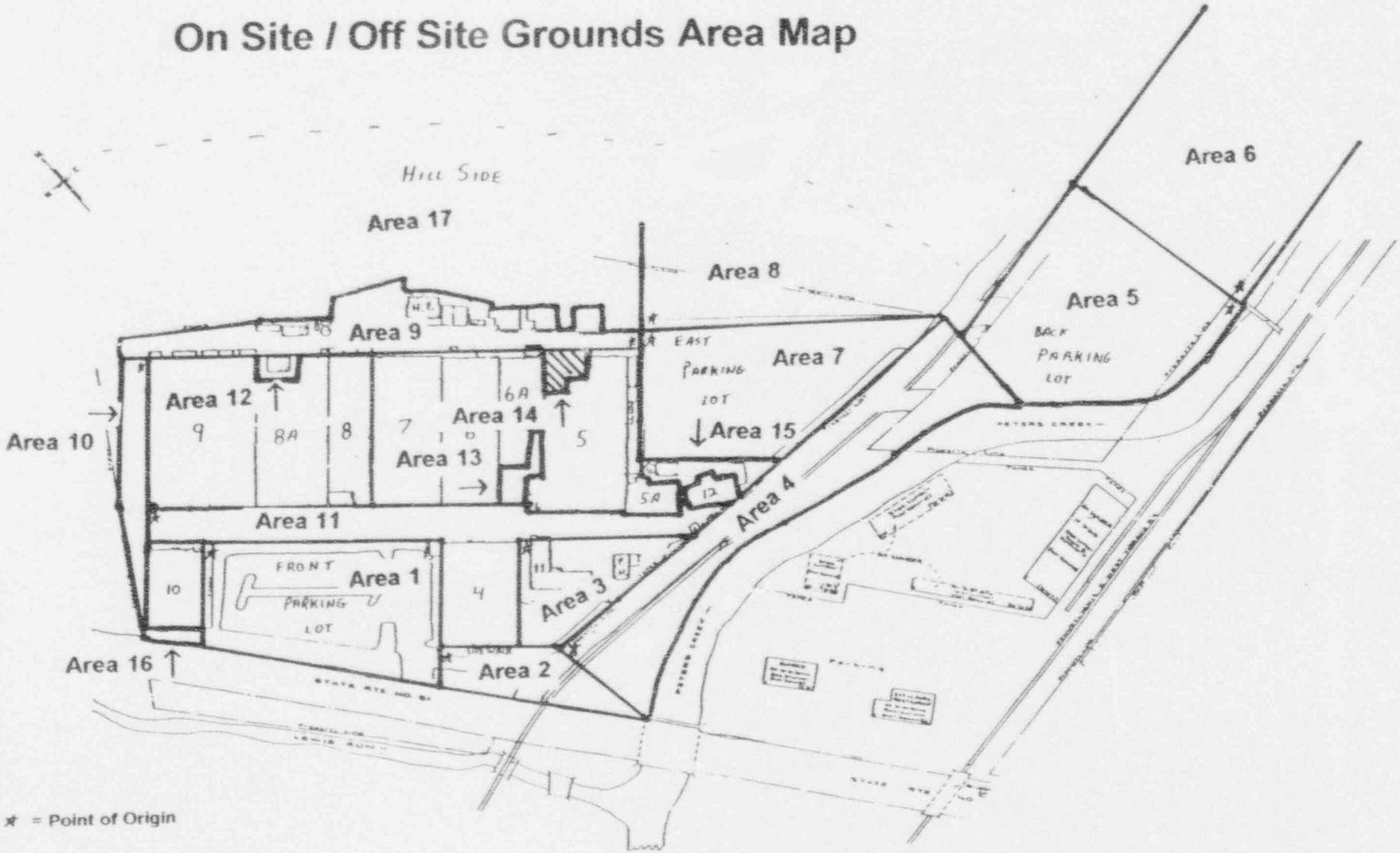
* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	9460 CPM
*	R/S	L-2088	N/A	N/A	9.9 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	383 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
10, -10	1	12000	9500	9615	10.2	422	
"	2	SCAN APPLIES		9241	9.6	439	
"	3	TO ENTIRE		9188	9.5	424	
"	4	10m x 10m		9662	10.8	425	
"	5	AREA		10038	10.4	426	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH

SURVEYOR SIGNATURE: Todd Brautigam Larry SM

On Site / Off Site Grounds Area Map



★ = Point of Origin

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

SURVEY TYPE:	[X] PAVED
	[ ] UNPAVED
SURVEY DATE:	6-8-93
LOCATION:	AREA 15
FORM S/N:	30-027
DISK CODE:	GRND-035

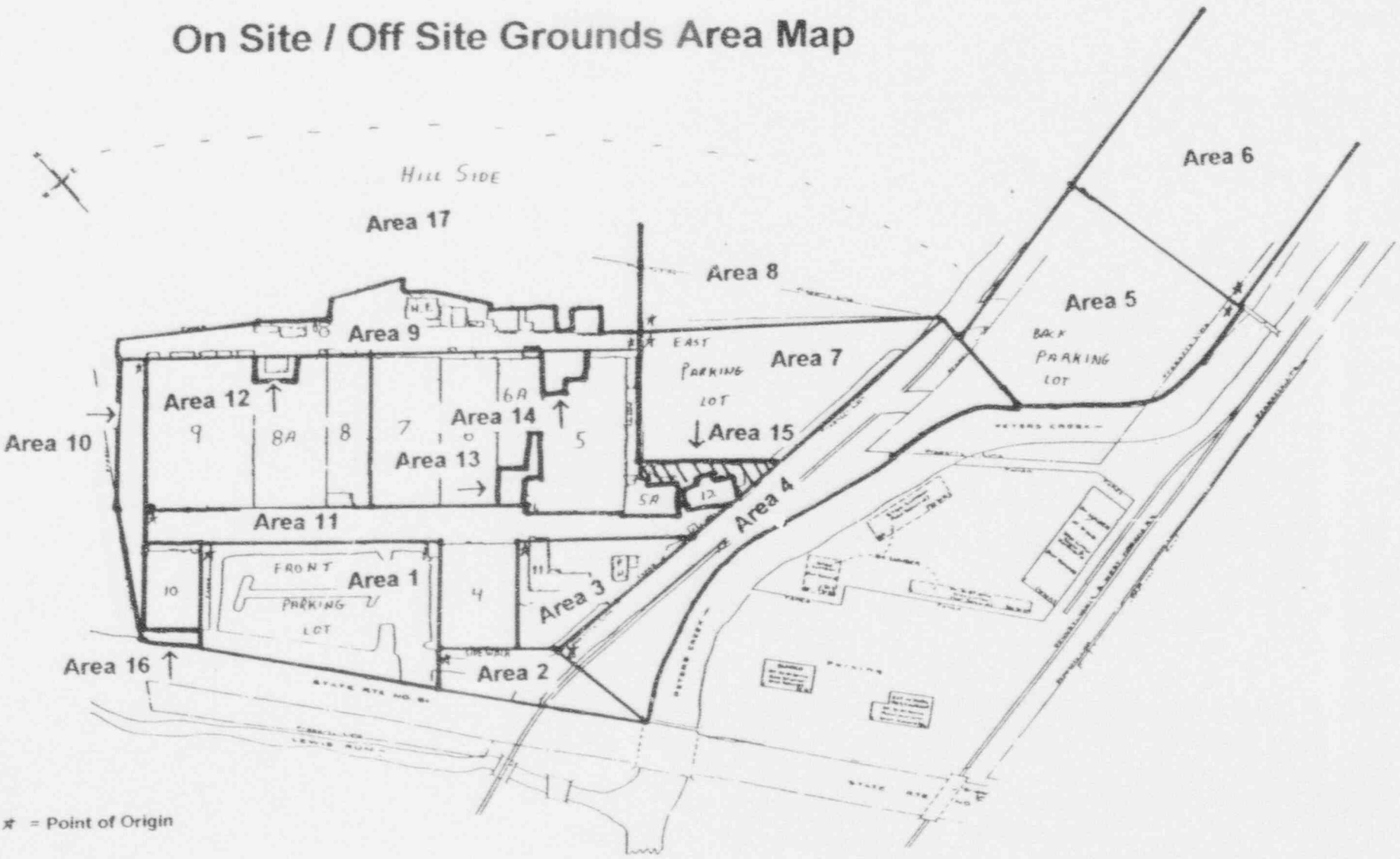
* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	7760 CPM
*	R/S	L-2088	N/A	N/A	9.6 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
*	ESP - 2	1593	28.3	3.1	362 CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
25, 0	1	10508	8500	8260	8.8	409	
"	2	SCAN APPLIES		7680	8.7	448	
"	3	TO ENTIRE		7367	8.8	454	
"	4	10m x 10m		7680	9.5	409	
"	5	AREA		8798	9.7	491	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TODD BRAUTIGAM / LARRY SMITH

SURVEYOR SIGNATURE: Todd Brautigam Larry Smith

On Site / Off Site Grounds Area Map



APPENDIX T

RADIOLOGICAL SURVEY DATA SHEETS

FOR UNPAVED SURFACE SAMPLE POINTS

I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE PAGE 1 OF 1

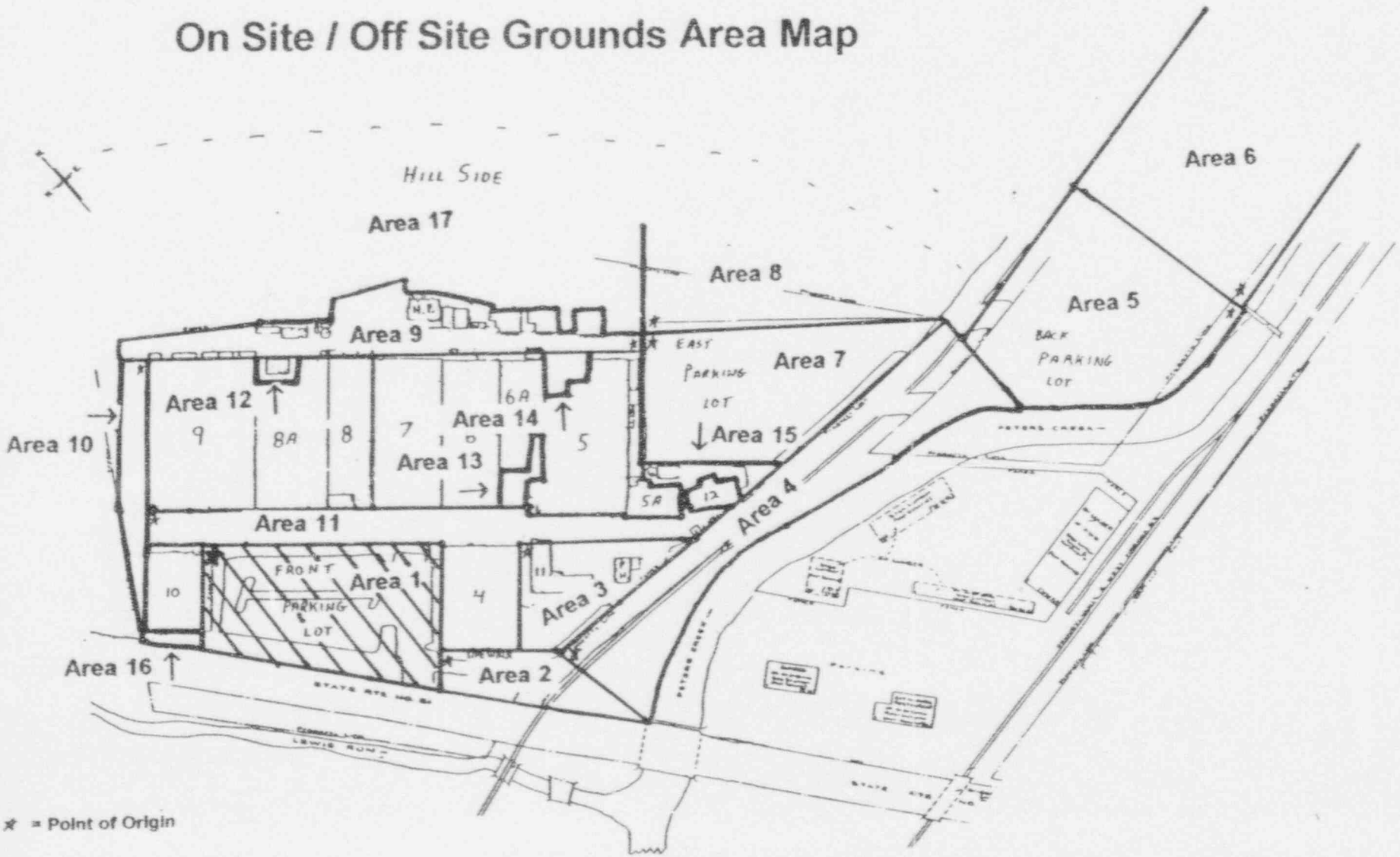
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-3-93
LOCATION:	AREA 1
FORM S/N:	30-007
DISK CODE:	GRND-011

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	8714 CPM
*	R/S	L-2088	N/A	N/A	10.5 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
30,0	1	14963	12500	12223	12.7	N/A	SAMP #751
"	2	SCAN APPLIES		12073	11.5	"	NEAR BRICK BUILDING
"	3	TO ENTIRE		12233	11.7	"	AREA APPROX. 10m X 4m
"	4	10m x 10m		12220	11.7	"	
"	5	AREA		11161	12.4	"	
20,100	1	14863	12900	12555	11.5	N/A	SAMP #758
"	2	SCAN APPLIES		12393	11.7	"	
"	3	TO ENTIRE		12346	11.7	"	
"	4	10m x 10m		11981	11.5	"	
"	5	AREA		11973	11.1	"	
40,100	1	15385	12200	11984	11.2	N/A	SAMP #757
"	2	SCAN APPLIES		12649	12.2	"	
"	3	TO ENTIRE		12533	12.4	"	
"	4	10m x 10m		11463	11.0	"	
"	5	AREA		11607	11.4	"	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR:	Todd Brautigam / Larry Smith	SURVEYOR SIGNATURE:	Larry D. Smith Todd Brautigam

On Site / Off Site Grounds Area Map



H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE PAGE 1 OF 1

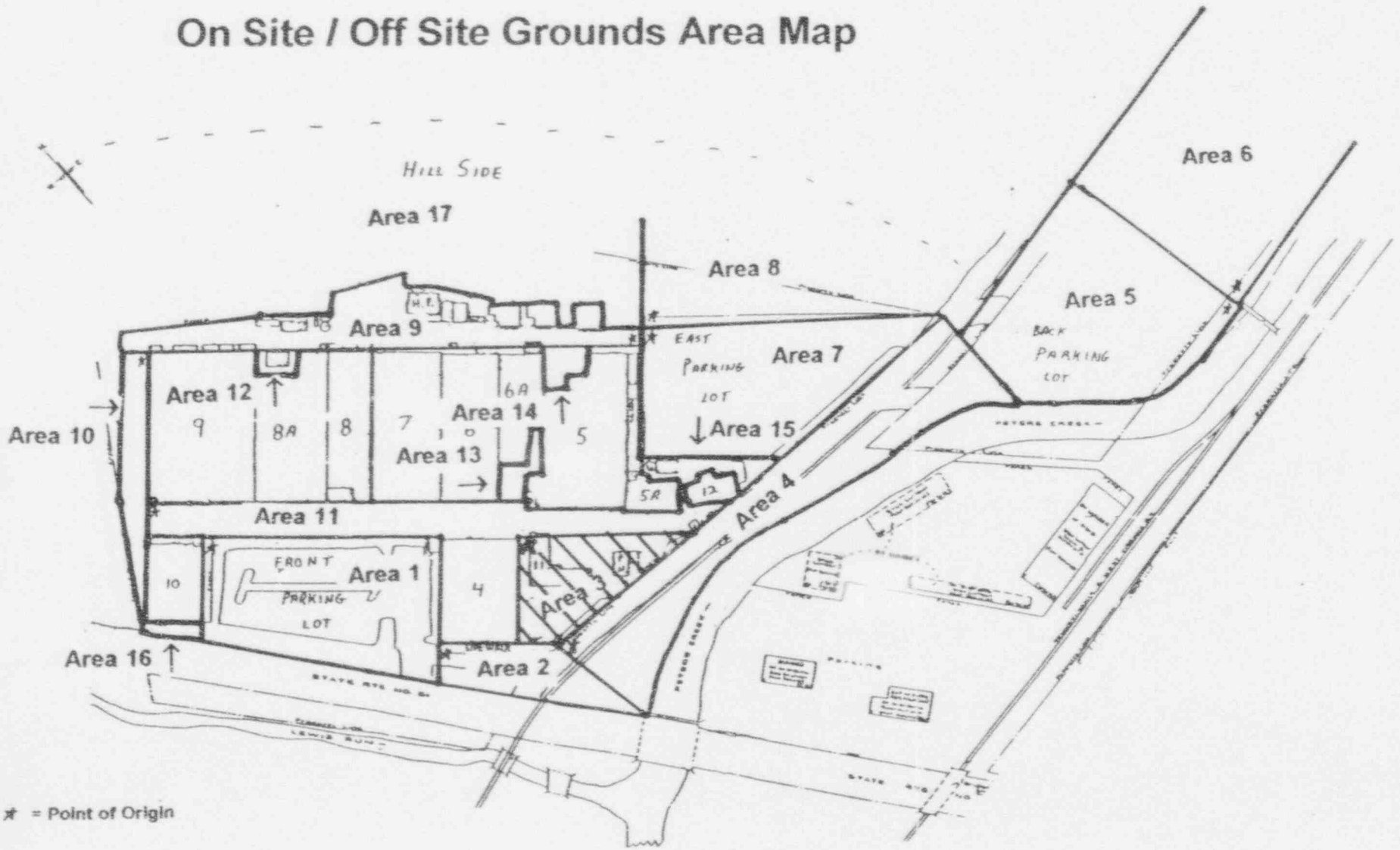
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-3-93
LOCATION:	AREA 3
FORM S/N:	30-006
DISK CODE:	GRND-010

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	8714 CPM
*	R/S	L-2088	N/A	N/A	10.5 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
15,40	1	16394	13800	14506	13.0	N/A	SAMP #753
"	2	SCAN APPLIES		14437	13.9	"	
"	3	TO ENTIRE		14229	13.6	"	
"	4	10m x 10m		14031	12.5	"	
"	5	AREA		13986	13.0	"	
25,0	1	20271	12700	14713	13.3	N/A	SAMP #752
"	2	SCAN APPLIES		14623	13.4	"	
"	3	TO ENTIRE		14008	12.6	"	
"	4	10m x 10m		15079	13.2	"	
"	5	AREA		15509	14.5	"	
40,0	1	17850	15000	14161	13.4	N/A	SAMP #756
"	2	SCAN APPLIES		13680	12.2	"	
"	3	TO ENTIRE		13136	11.4	"	
"	4	10m x 10m		13394	12.9	"	
"	5	AREA		14921	14.2	"	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: Todd Brautigam / Larry Smith SURVEYOR SIGNATURE: Todd Brautigam

On Site / Off Site Grounds Area Map



I H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

SURVEY TYPE:	[ ] PAVED [X] UNPAVED	
SURVEY DATE:	6-3-93	
LOCATION:	AREA 4	
FORM S/N:	30-003	
DISK CODE:	GRND-007	

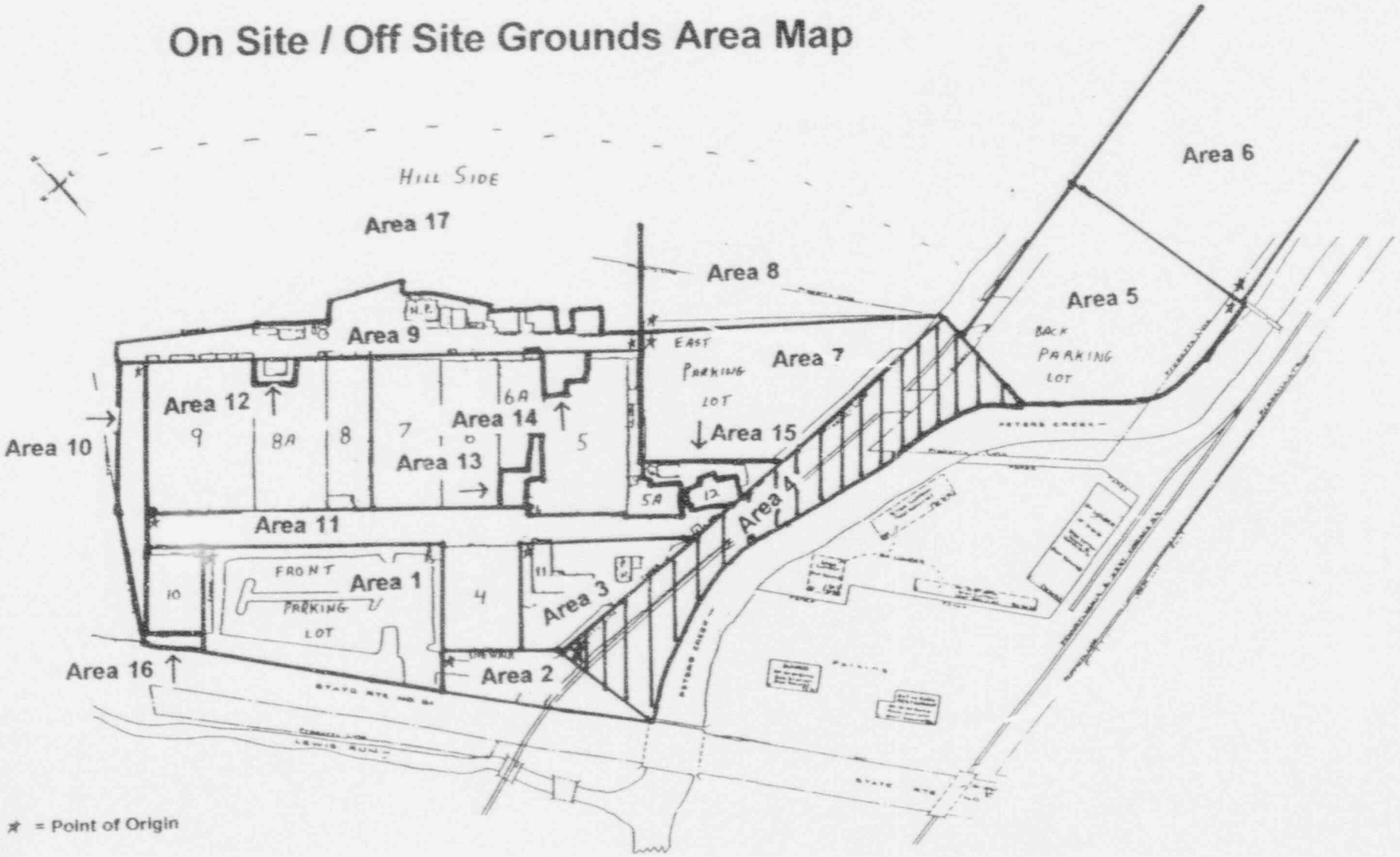
* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	8714 CPM
*	R/S	L-2088	N/A	N/A	10.5 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
20,185	1	15268	12000	10872	10.9	N/A	SAMP #754
"	2	SCAN APPLIES		11108	10.8	"	
"	3	TO ENTIRE		11459	10.7	"	
"	4	10m x 10m		10919	10.8	"	
"	5	AREA		11093	10.6	"	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: TB / LS

SURVEYOR SIGNATURE: [signatures]

On Site / Off Site Grounds Area Map



[H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

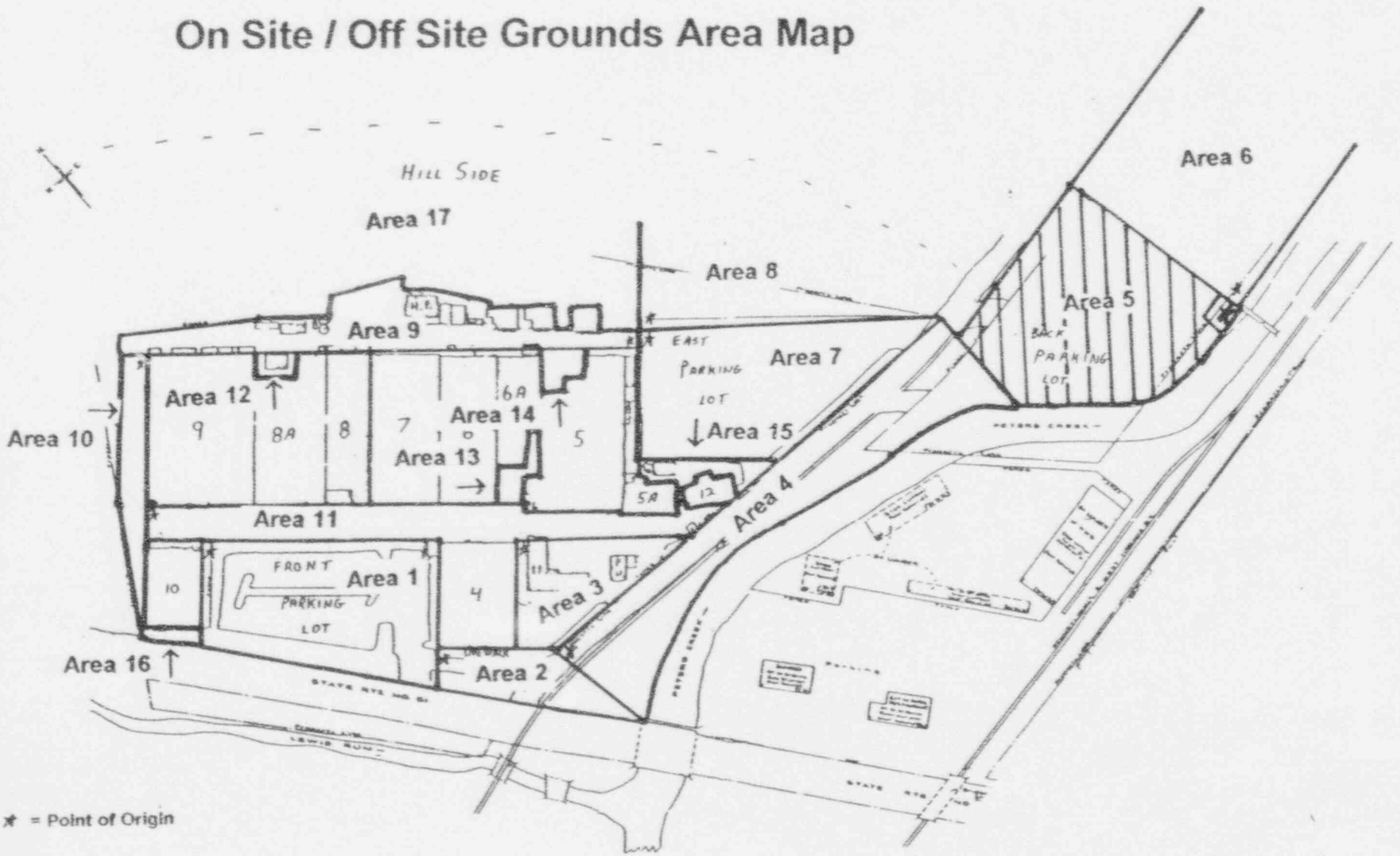
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-3-93
LOCATION:	AREA 5
FORM S/N:	30-005
DISK CODE:	GRND-009

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	8714 CPM
*	R/S	L-2088	N/A	N/A	10.5 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
85,20	1	12346	10700	10444	10	N/A	SAMP #755
"	2	SCAN APPLIES		10226	9.8	"	
"	3	TO ENTIRE		10855	10.4	"	
"	4	10m x 10m		11135	9.6	"	
"	5	AREA		10001	9.6	"	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR:	Todd Brautigam / Larry Smith	SURVEYOR SIGNATURE:	Larry Smith Todd Brautigam

On Site / Off Site Grounds Area Map



DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-3-93
LOCATION:	AREA 8
FORM S/N:	30-009
DISK CODE:	GRND-013

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	12211 CPM
	R/S	L-2088	N/A	N/A	uR/hr
*	PRM - 7	234	N/A	N/A	10 uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
10,10	1	19170	14000	16234	16	N/A	SAMP #761
"	2	SCAN APPLIES		19219	17	"	
"	3	TO ENTIRE		17975	18	"	
"	4	10m x 10m		15442	17	"	
"	5	AREA		17352	17	"	
30,10	1	21144	15000	18484	15	N/A	SAMP #762
"	2	SCAN APPLIES		19081	16	"	
"	3	TO ENTIRE		21205	18	"	
"	4	10m x 10m		14964	15	"	
"	5	AREA		13969	15	"	
50,10	1	16998	14400	13845	16	N/A	SAMP #763
"	2	SCAN APPLIES		15202	15	"	
"	3	TO ENTIRE		14889	16	"	
"	4	10m x 10m		14467	15	"	
"	5	AREA		16346	17	"	
70,10	1	16129	13000	14331	15	N/A	SAMP #764
"	2	SCAN APPLIES		14432	14	"	
"	3	TO ENTIRE		14486	14	"	
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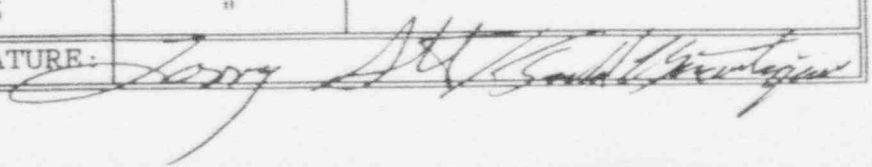
"	5	AREA		15182	16	"	

SURVEYOR:	Todd Brautigam / Larry Smith	SURVEYOR SIGNATURE:	

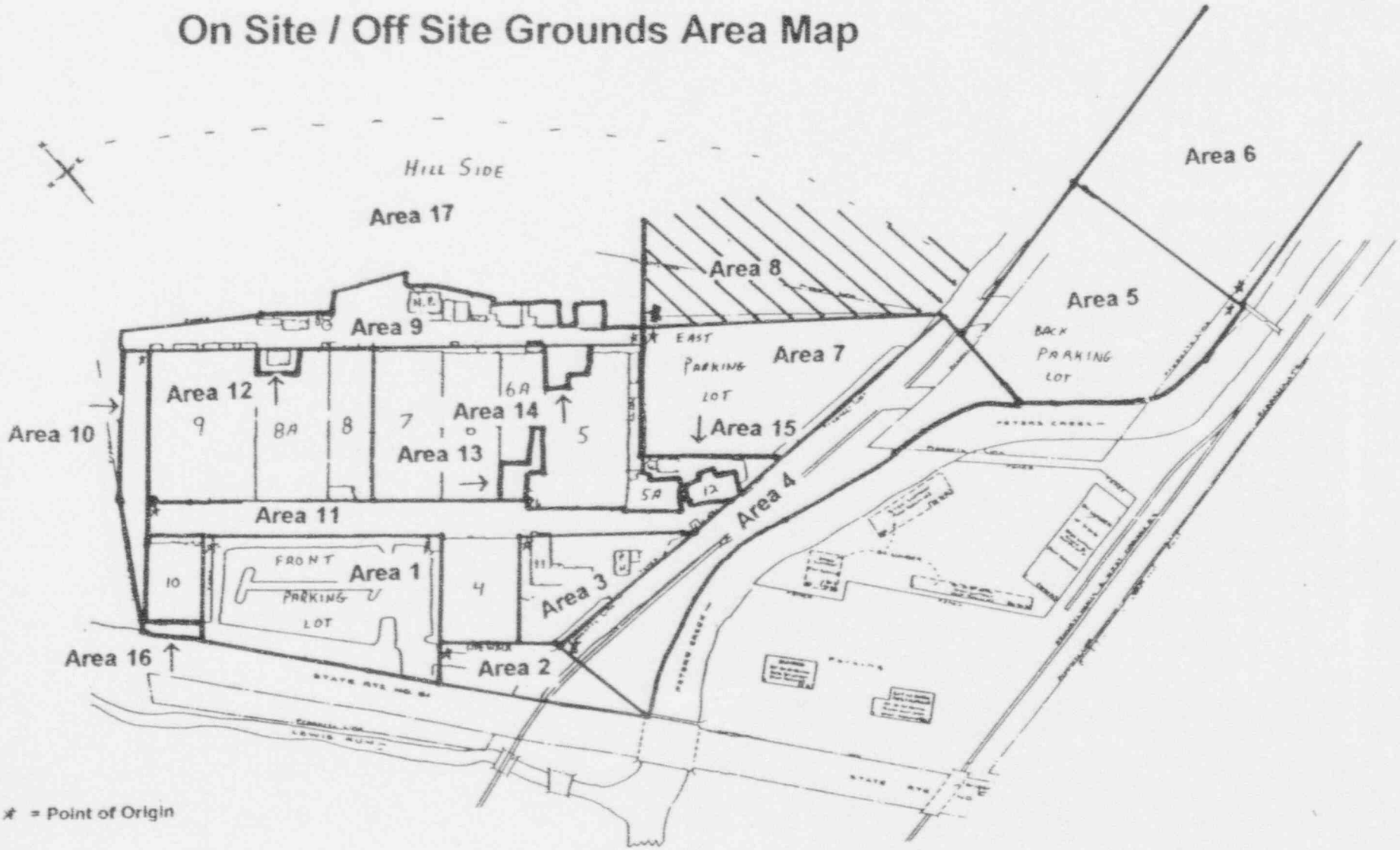
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-3-93
LOCATION:	AREA 8
FORM S/N:	30-009
DISK CODE:	GRND-014

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	12211 CPM
	R/S	L-2088	N/A	N/A	uR/hr
*	PRM - 7	234	N/A	N/A	10 uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
90,10	1	15190	13000	13521	15	N/A	SAMP #765
"	2	SCAN APPLIES		16486	15	"	
"	3	TO ENTIRE		16542	13	"	
"	4	10m x 10m		14301	15	"	
"	5	AREA		16226	15	"	
110,10	1	14493	11000	14464	13	N/A	SAMP #766
"	2	SCAN APPLIES		14932	14	"	
"	3	TO ENTIRE		12592	14	"	
"	4	10m x 10m		11461	13	"	
"	5	AREA		13382	13	"	
40,20	1	16578	13200	14404	16	N/A	SAMP #767
"	2	SCAN APPLIES		15450	17	"	
"	3	TO ENTIRE		15576	17	"	
"	4	10m x 10m		15211	15	"	
"	5	AREA		14843	17	"	
80,5	1	15958	13100	16563	14	N/A	SAMP #768
"	2	SCAN APPLIES		14746	13	"	
"	3	TO ENTIRE		14439	15	"	
"	4	10m x 10m		12311	14	"	
"	5	AREA		14601	14	"	

SURVEYOR:	Todd Brautigam / Larry Smith	SURVEYOR SIGNATURE:	

On Site / Off Site Grounds Area Map



* = Point of Origin

[H & S FORM 007 DECOMMISIONING DATA SHEET - GROUNDS ONSITE / OFFSITE

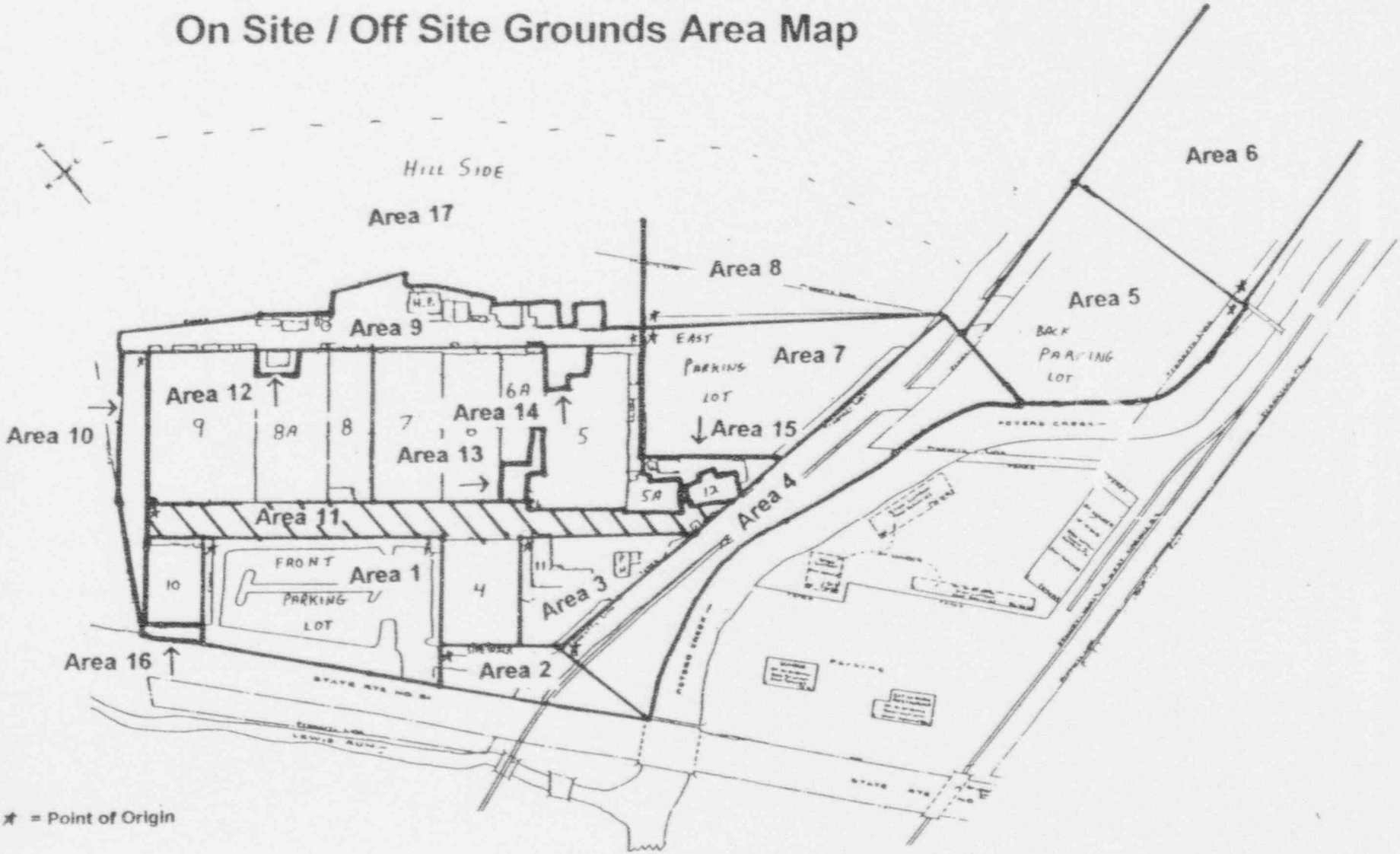
SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	6-3-93
LOCATION:	AREA 11
FORM S/N:	30-004
DISK CODE:	GRND-008

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	8714 CPM
*	R/S	L-2088	N/A	N/A	10.5 uR/hr
	PRM - 7	234	N/A	N/A	uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
0,30	1	15916	12900	13843	13.1	N/A	SAMP #750
"	2	SCAN APPLIES		13661	12.6	"	NEAR BRICK BUILDING
"	3	TO ENTIRE		12795	12.1	"	AREA APPROX. 10m X 3m
"	4	10m x 10m		13508	12.2	"	
"	5	AREA		14275	12.7	"	
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR:	Todd Brautigam / Larry Smith	SURVEYOR SIGNATURE:	Larry Smith Todd Brautigam

On Site / Off Site Grounds Area Map



SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	5-26-93
LOCATION:	AREA #17
FORM S/N:	30-002
DISK CODE:	GRND-003

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
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	R/S	L-2088	N/A	N/A	uR/hr
*	PRM - 7	234	N/A	N/A	18 uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
@ Soil	1	15070	13000	14132	19	N/A	Sample point @ 5 meters
Sample #717	2	SCAN APPLIES		13082	17	"	west of 0' reference rear
"	3	TO ENTIRE		16803	20	"	east gate.
"	4	10m x 10m		13815	17	"	"
"	5	AREA		13828	17	"	"
@ Soil	1	17219	13514	14235	17	"	Sample point @ 30 meters
Sample #718	2	SCAN APPLIES		14920	17	"	west of 0' reference rear
"	3	TO ENTIRE		14551	15	"	east gate.
"	4	10m x 10m		15196	16	"	"
"	5	AREA		13877	16	"	"
@ Soil	1	17150	13800	14061	19	"	Sample point @ 50 meters
Sample #719	2	SCAN APPLIES		13675	16	"	west of 0' reference rear
"	3	TO ENTIRE		13099	18	"	east gate.
"	4	10m x 10m		13579	16	"	"
"	5	AREA		13376	17	"	"
@ Soil	1	15350	12800	13310	19	"	Sample point @ 70 meters
Sample #720	2	SCAN APPLIES		13934	17	"	west of 0' reference rear
"	3	TO ENTIRE		13796	17	"	east gate.
"	4	10m X 10m		11503	15	"	"
"	5	AREA		13607	16	"	"

SURVEYOR: Arthur Taylor/Mike Shaffer SURVEYOY SIGNATURE: Larry Stt for Arthur Taylor

SURVEY TYPE:	[ ] PAVED [x] UNPAVED
SURVEY DATE:	5/26/93
LOCATION:	AREA #17
FORM S/N:	30-002
DISK CODE:	GRND-004

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	13584 CPM
	R/S	L-2088	N/A	N/A	uR/hr
*	PRM - 7	234	N/A	N/A	18 uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
@ Soil	1	17950	14600	12736	15	N/A	Sample point @ 85 meters
Sample #721	2	SCAN APPLIES		14406	18	"	west of 0' reference rear
"	3	TO ENTIRE		13579	17	"	east gate.
"	4	10m x 10m		12229	16	"	"
"	5	AREA		12637	15	"	"
@ Soil	1	16840	12800	12470	16	"	Sample point @ 100 meters
Sample #722	2	SCAN APPLIES		17061	20	"	west of 0' reference rear
"	3	TO ENTIRE		13924	17	"	east gate.
"	4	10m x 10m		13550	17	"	"
"	5	AREA		14826	16	"	"
@ Soil	1	14870	13213	13876	16	"	Sample point @ 115 meters
Sample #723	2	SCAN APPLIES		14082	20	"	west of 0' reference rear
"	3	TO ENTIRE		14611	17	"	east gate.
"	4	10m x 10m		14567	17	"	"
"	5	AREA		14865	16	"	"
	1						
"	2	SCAN APPLIES					
"	3	TO ENTIRE					
"	4	10m x 10m					
"	5	AREA					

SURVEYOR: Arthur Taylor/Mike Shaffer

SURVEYOR SIGNATURE: Arthur Taylor for Arthur Taylor

SURVEY TYPE:	[ ] PAVED [X] UNPAVED
SURVEY DATE:	5/27/93
LOCATION:	AREA #17
FORM S/N:	30-002
DISK CODE:	GRND-005

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	12136 CPM
	R/S	L-2088	N/A	N/A	uR/hr
*	PRM - 7	234	N/A	N/A	16 uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
@ Soil	1	14789	13364	13836	18	N/A	Sample point @ 140 meters
Sample #724	2	SCAN APPLIES		13931	21	"	west of 0' reference rear
"	3	TO ENTIRE		13332	18	"	east gate.
"	4	10m x 10m		11020	14	"	"
"	5	AREA		14666	15	"	"
@ Soil	1	17893	13461	12944	17	"	Sample point @ 165 meters
Sample #725	2	SCAN APPLIES		15611	18	"	west of 0' reference rear
"	3	TO ENTIRE		13598	19	"	east gate.
"	4	10m x 10m		15988	17	"	"
"	5	AREA		15965	16	"	"
@ Soil	1	18250	13150	14595	17	"	Sample point @ 180 meters
Sample #726	2	SCAN APPLIES		14524	18	"	west of 0' reference rear
"	3	TO ENTIRE		15192	17	"	east gate.
"	4	10m x 10m		13645	18	"	"
"	5	AREA		13712	17	"	"
@ Soil	1	16625	13100	14074	17	"	Sample point @ 195 meters
Sample #727	2	SCAN APPLIES		13973	17	"	west of 0' reference rear
"	3	TO ENTIRE		14413	19	"	east gate.
"	4	10m x 10m		12584	17	"	"
"	5	AREA		13293	16	"	"

SURVEYOR: Arthur Taylor/Mike Shaffer SURVEYOR SIGNATURE: Terry Stott for Arthur Taylor

SURVEY TYPE:	[ ] PAVED [x] UNPAVEL
SURVEY DATE:	5/27/93
LOCATION:	AREA #17
FORM S/N:	30-002
DISK CODE:	GRND-006

* IF USED	INSTRUMENT	S/N	EFF %	CORR FAC	BKG
*	PRS - 1	346	N/A	N/A	12136 CPM
	R/S	L-2088	N/A	N/A	uR/hr
*	PRM - 7	234	N/A	N/A	16 uR/hr
	FLMON	91943	28.8	3.47	CPM
	ESP - 2	1595	27.4	3.9	CPM

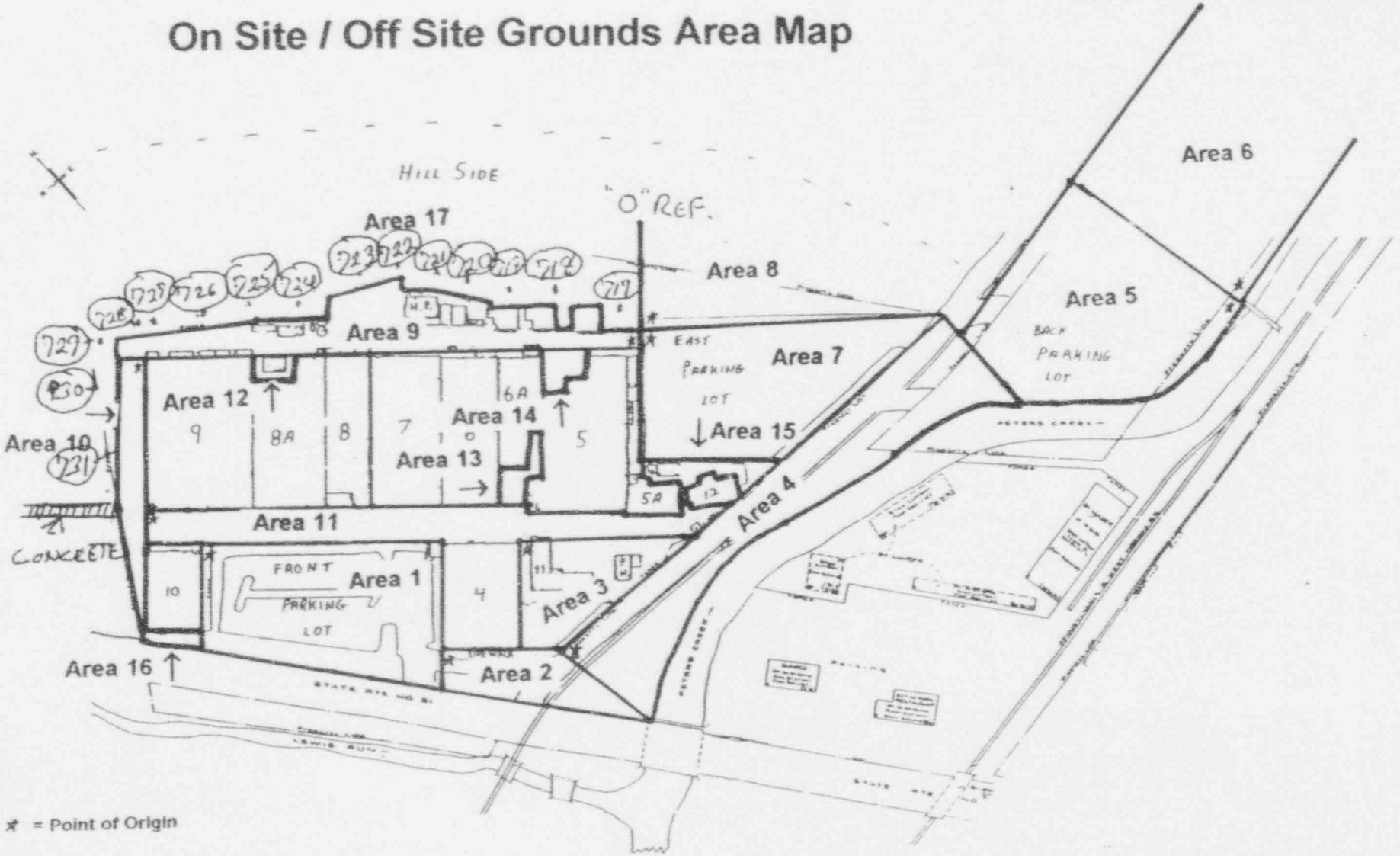
X,Y COORDINATES	POINT NUMBER	L E GAMMA SCAN MAX CPM	L E GAMMA SCAN AVG CPM	L E GAMMA 1 MIN CT	GAMMA @1m 1 MIN AVG	BETA CONT 1 MIN CT	COMMENTS
@ Soil	1	17654	13825	15450	18	N/A	Sample point @ 210 meters
Sample #728	2	SCAN APPLIES		13474	19	"	west of 0' reference rear
"	3	TO ENTIRE		14432	18	"	east gate.
"	4	10m x 10m		14700	19	"	"
"	5	AREA		13557	19	"	"
@ Soil	1	15827	12791	15205	19	"	Sample point @ 225 meters
Sample #729	2	SCAN APPLIES		13614	18	"	west of 0' reference rear
"	3	TO ENTIRE		13783	20	"	east gate.
"	4	10m x 10m		13684	17	"	"
"	5	AREA		14188	18	"	"
@ Soil	1	15890	13551	13733	17	"	Sample point @ 20 meters
Sample #730	2	SCAN APPLIES		13570	16	"	south of 225 meter point
"	3	TO ENTIRE		13374	16	"	west of 0' reference rear
"	4	10m x 10m		11851	14	"	east gate. (Rdgs. span at
"	5	AREA		12688	15	"	5 meter X 2.5 meter area)
@ Soil	1	14670	11883	12336	16	"	Sample point @ 40 meters
Sample #731	2	SCAN APPLIES		11531	15	"	south of 225 meter point
"	3	TO ENTIRE		11755	17	"	west if 0' reference rear
"	4	10m x 10m		12382	15	"	east gate. (Rdgs. span at
"	5	AREA		11734	14	"	5 meter X 2.5 meter area)

SURVEYOR: Arthur Taylor/Mike Shaffer

SURVEYOR SIGNATURE: Arthur Taylor for Mike Shaffer

SAMPLE#	LOCATION
717	5 METERS
718	30 METERS
719	50 METERS
720	20 METERS
721	85 METERS
722	100 METERS
723	1.5 METERS
724	145 METERS
725	165 METERS
726	180 METERS
727	195 METERS
728	210 METERS
729	225 METERS
730	40M SOUTH OF 225M
731	40M SOUTH OF 225M

On Site / Off Site Grounds Area Map



★ = Point of Origin

"OFFICIAL RECORD COPY" ML 10 1176946

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY OF THE STORM DRAIN SYSTEM ON THE SITE

(SURVEY SECTION 32)

JUNE 8, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #041

FINAL RADIOLOGICAL SURVEY

OF THE STORM DRAIN SYSTEM ON THE SITE

(SURVEY SECTION 32)

TABLE OF CONTENTS

FINAL RADIOLOGICAL SURVEY

OF THE STORM DRAIN SYSTEM ON THE SITE

(Survey Section 32)

Purpose

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 for the site located in Large, PA. This report is one of a series of reports that presents the necessary information to establish that the site meets all applicable regulatory requirements so that the license can be terminated by the United States Nuclear Regulatory Commission.

Scope

This report documents the results of the final radiological survey of the storm drain system on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. The storm drain system survey included the surface catch basins on the site and three large catch basins under Buildings 5, 6 and 8 on the site. A discussion is presented of the activities conducted to remove accumulated sediment from the storm drain piping and large catch basins under the process buildings. The storm drains discharge into the two streams adjacent to the site. Information regarding the radiological survey of these adjacent streams is presented in a separate report (Report #040).

Description Of Storm Drain System

Figure 1 presents an overall view of the site plot plan and Figure 2 presents a schematic drawing of the major elements of the storm drain system. There are three separate storm drain systems:

1) A storm drain system which collects surface water from the area in front of Building 4 and discharges into Lewis Run.

2) A storm drain system which collects surface water from the road and area between the buildings and discharges into Peters Creek.

3) A storm drain system which runs beneath the majority of the process buildings and discharge into Peters Creek. All of the discharges from the Monitored Drain Line system (see Report #002) were directed into this portion of the storm drain. Also a number of floor drains within Buildings 5 through 9 were found to be directed into this portion of the system. (see Report #010).

Figure 4 shows the location of 22 surface catch basins on the site which are connected to the various portions of the storm drain system.

Some of the buildings on the site are remnants of the period during the 1800's when the site operated as a whiskey distillery. Building 5, 6 and 8 are included in this category. The storm drain system under each of these three buildings consists of a long catch basin (sometimes referred to as a chamber or vault) that is large enough to physically enter and spans the width of each building. Figure 3 provides a cross sectional view of each of these three catch basins.

Discussion

In order to conduct a radiological survey of the storm drain system on the site, two aspects were considered:

1) A review of the storm drain system under the process buildings including taking samples of the sediment in the three catch basins under Buildings 5, 6 and 8.

2) Collection of sediment samples from the surface catch basins on the site.

Table 1 presents the analytical results for the 19 sediment samples taken from the catch basins beneath Buildings Number 6 and 8 on the site. These results (based on gamma spectrometry) indicated that the average uranium concentration in the sediment would exceed 30 pCi/gram of sediment. It was therefore decided to undertake a program to remove and collect the sediment from the main portion of the storm drain system beneath the process buildings. This was accomplished by two methods. The sediment on the floor of the three large catch basins was manually removed since these three structures are physically large enough to permit entry. The remainder of the main storm drain line was flushed using a high pressure water spray system. All the waster and sediment was collected and stored in holding tanks. Analysis of the water after a period of settling indicated that the water met applicable discharge limits and was therefore discharged to the sanitary waste system. All of the collected sediment was placed in drums. As the sediment was placed in the drums, periodic samples were taken and composited into one sample per drum as a representative sample of the contents. Table 1 presents the analytical results for each of the 45 drums collected. A remotely controlled television camera system was used to inspect those sections of the main storm drain piping that could not be physically entered to assure that the sediment removal efforts were effective.

A limited radiological survey was then made for each of the three large catch basins under Buildings 5, 6 and 8. It was not possible to completely stop the flow of water into each of these structures and therefore the survey was limited to the following elements:

1) The gamma dose rate at 1 meter above the floor.

2) Gamma count rate using the Eberline Model PRS-1 survey instrument with a NaI probe. This measurement is for comparative purposes only since the results cannot be directly compared against the acceptance criteria.

3) Beta scans of the floor surfaces for an area of about 1 square meter around the survey point. Both the maximum and average cpm readings were recorded. Because of the wet conditions, an Eberline Model E-520 with a GM pancake probe was used for these measurements. This selection did not permit making integrated measurements over a one minute period for total fixed activity.

4) Swipe samples were taken and analyzed for removable alpha and beta activity.

Analysis of Results for Catch Basins Under Buildings 5, 6 and 8

Appendix A incorporates all of the analytical laboratory report sheets for all of the samples taken. Appendix B incorporates the radiological survey data sheets for the final radiological survey made in each of the three large catch basins.

The top portion of Table 1 presents the gamma spectrometry results for the 19 initial samples taken from the two large catch basins beneath Buildings 6 and 8 and from a breaking point made into the storm drain pipe beneath Building 5. These results averaged 2.36 pCi of U-235 per gram of sediment with a range of 0.21 to 9.36 pCi of U-235 per gram of sediment. Using a value of 30 (see Report #004 for justification) for the ratio of U-235/U-total, this would indicate that the total uranium content of the sediment would exceed the acceptance criteria of 30 pCi/gram.

Table 1 also presents the analytical results (both alpha and gamma spectrometry) for the 45 drums and one deposit sample of sediment collected during the storm drain cleanout activities. The average gamma spectrometry results are essentially identical to the results obtained for the initial 19 samples discussed above. The alpha spectrometry analysis provides a more accurate measurement of total uranium activity. These alpha spectrometry results are presented in Table 1. A statistical analysis is presented at the bottom of Table 1. Those drums of sediment which exceed the acceptance criteria of 30 pCi of total uranium per gram of sediment will be disposed of as radioactive material. The average activity of the drums was 30.3 pCi of total uranium per gram of sediment based on the alpha spectrometry results.

Based on this analytical information, the following statements can be made:

1) Using the gamma spectrometry results and a ratio of 30 to calculate the total uranium activity of the sediment over estimates the uranium value by a factor of about 2.

2) The use of the value of 30 for the ratio of U-235/U-total is conservative. The value of that ratio is approximately 21 based on these analytical results by alpha spectrometry.

3) The isotopic enrichment of the uranium is about 18% U-235 based on these values. This is lower than the value of 65% U-235 given in Report #004 for samples taken from the Monitored Drain Line System holding tanks.

All of the sediment has been removed from the Storm Drain System beneath the process buildings.

Table 2 presents the radiological survey data for the three catch basins beneath Buildings 5, 6 and 8 with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence.

Analysis of Results for the Surface Catch Basins

Sediment samples were taken from the 22 surface catch basins shown on Figure 3 for analysis. The results for the alpha and gamma spectrometry analysis of these samples is presented in Table 3. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence. Also included for comparison purposes in this table are the results obtained (see Report #007) for background soil samples. A comparison of these results indicates that there is no obvious difference between the sediment samples taken from the surface catch basins and the background soil results.

Current Status

The main storm drain line that runs beneath the process buildings has been cleaned of all sediment. Access ways exist into the three long catch basins under Buildings 5, 6 and 8 to permit future inspections of these structures. All of the surface catch basins were cleaned out. The entire storm drain system continues to remain operational however there are no further discharges to this system from the Monitored Drain Line System since the latter has been completely removed (see Report #002). The pipe chase within Building #9 has been cleaned (see Report #010) so there is no further potential for contamination to enter the storm drain system via the floor drains in the pipe chase system.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the storm drain system meets all the radiological acceptance criteria at the 95% confidence level. Therefore, the storm drain system can be released for unrestricted use. There is no potential for this system to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site and no discharges of radioactive material are being made to the storm drain system.

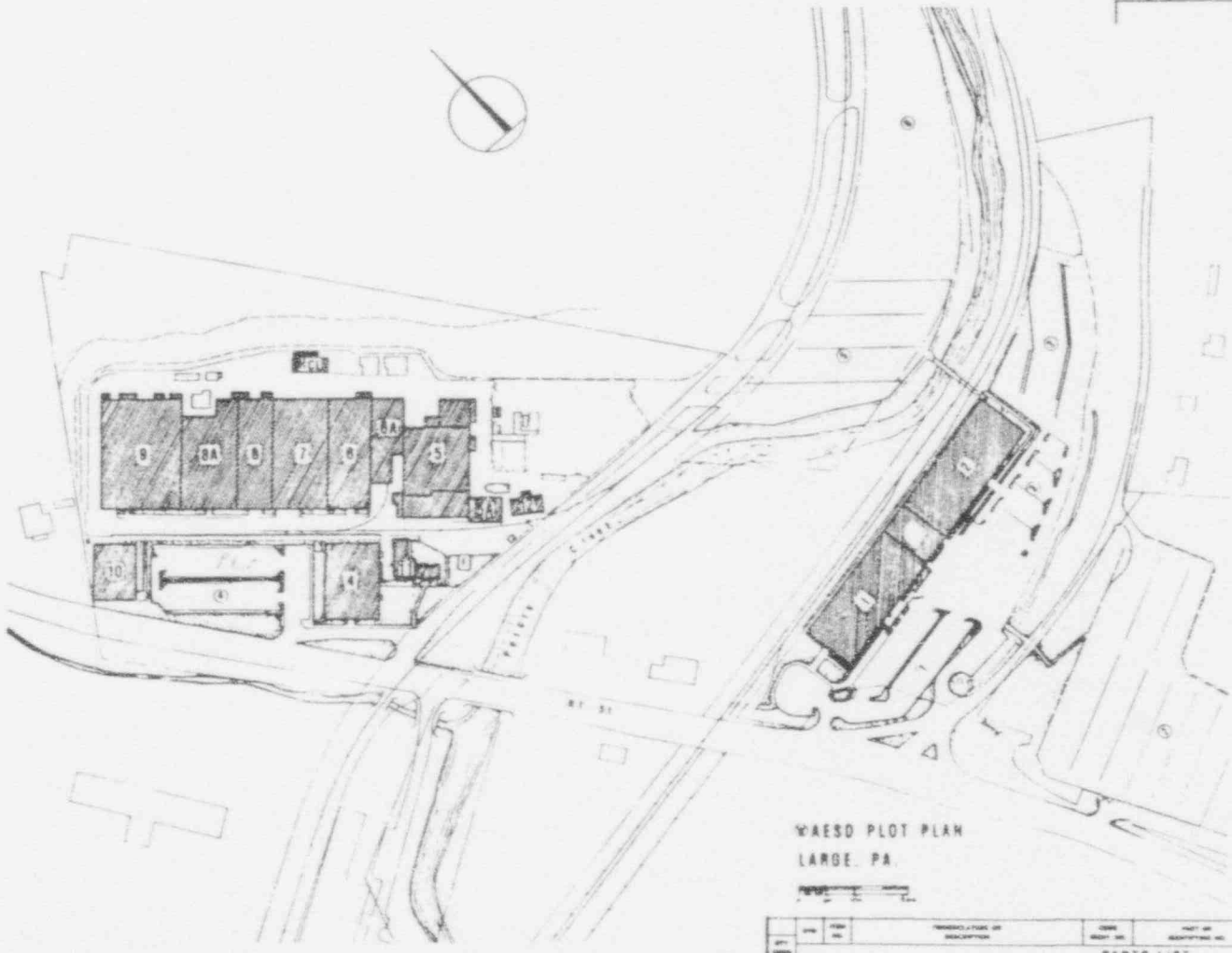


FIGURE 1
SITE PLOT PLAN

PARTS LIST

Westinghouse Advanced Energy Systems Division

TRACTS A + B
PLOT PLAN

D | 14683 | JN-043

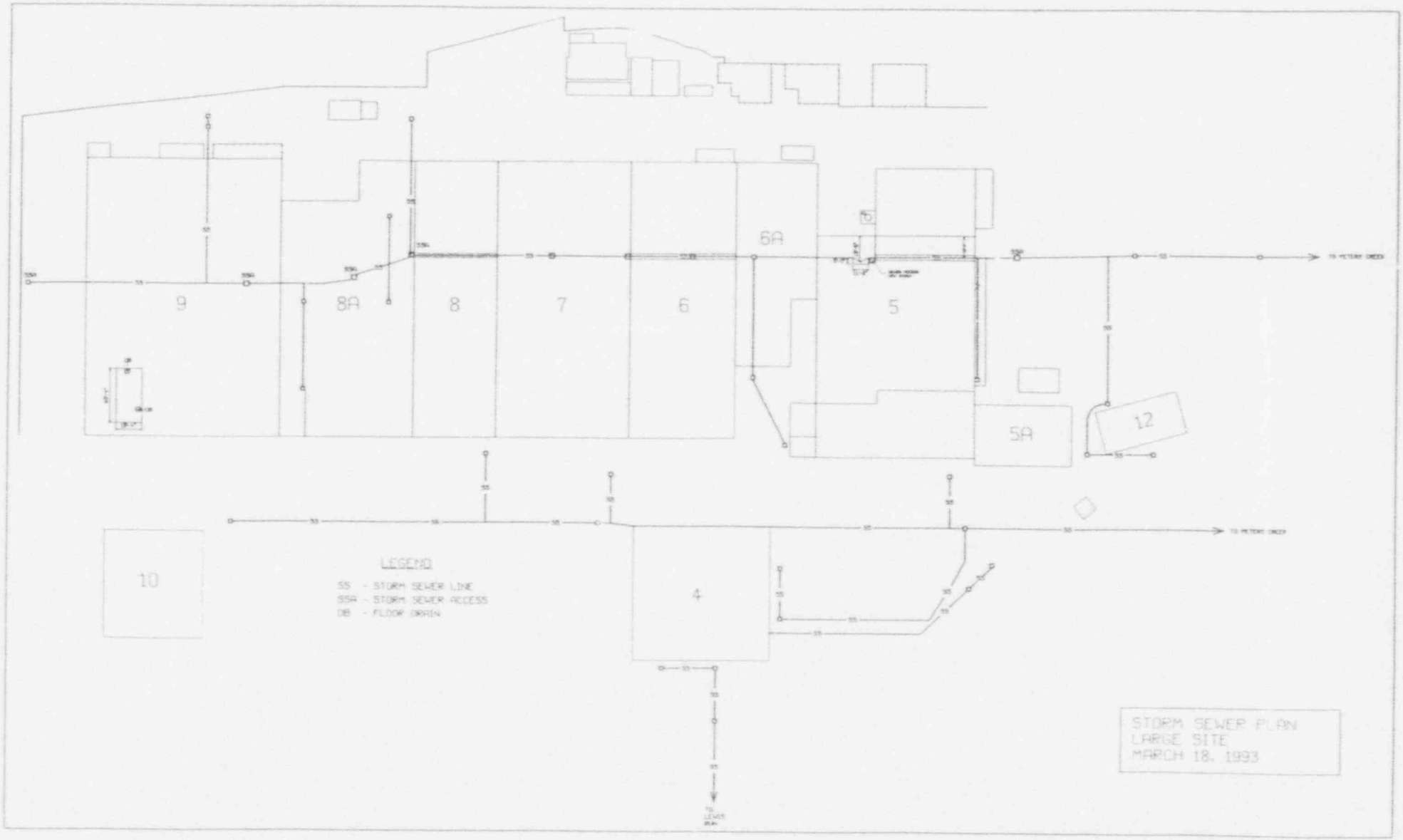


FIGURE 2
STORM DRAIN LINE SYSTEM SCHEMATIC

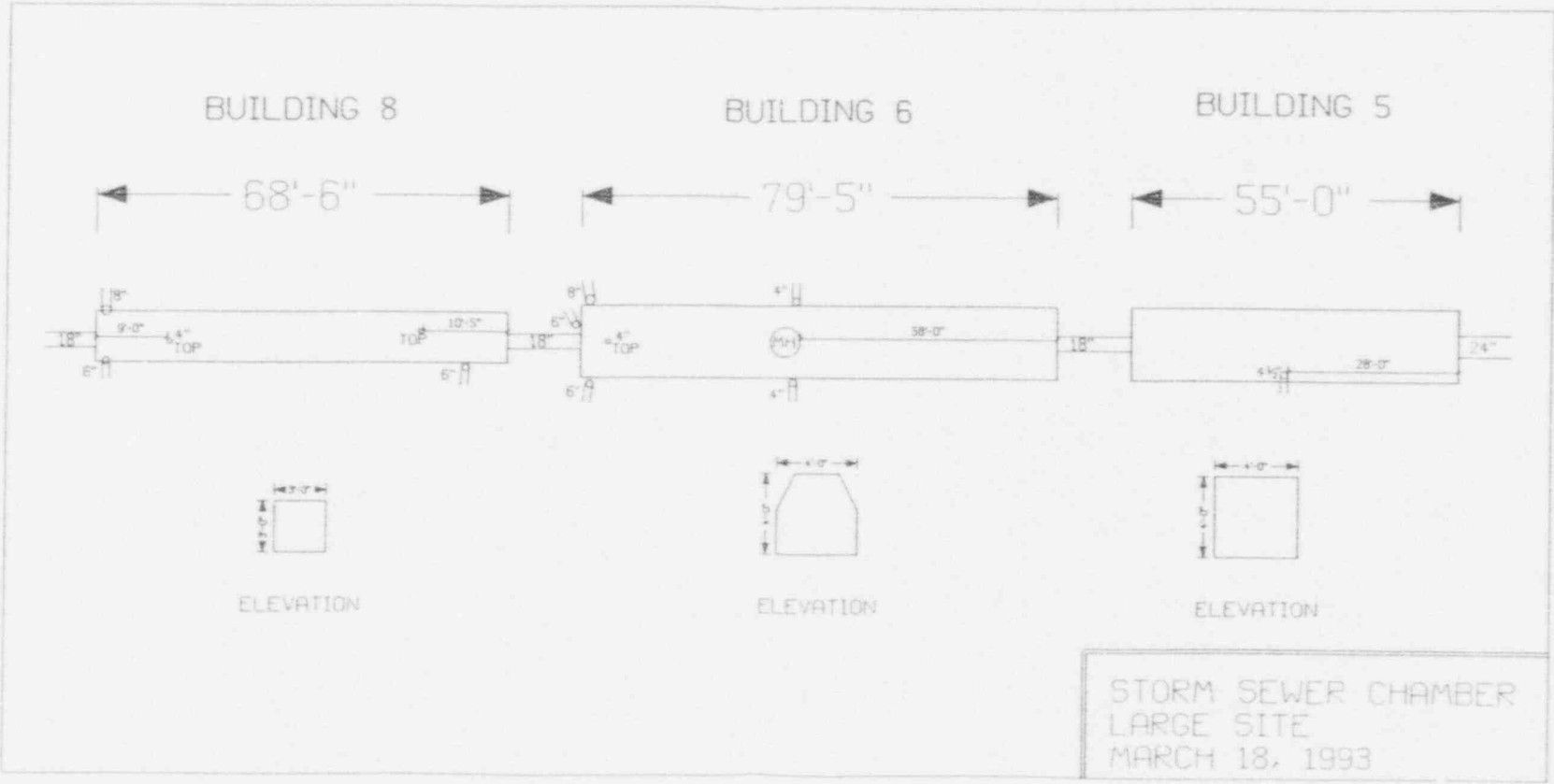
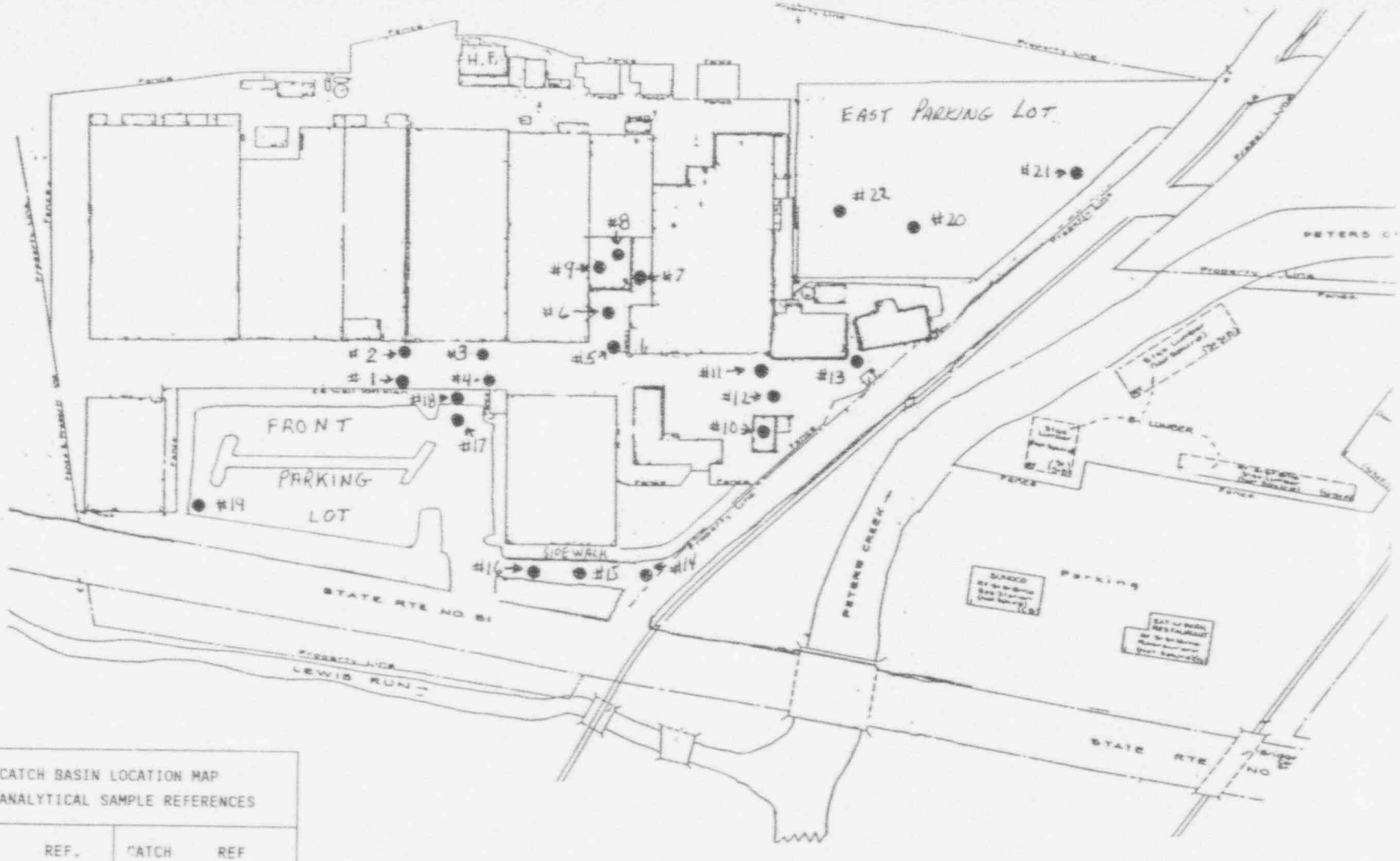


FIGURE 3
STORM DRAIN LINE – LARGE CATCH BASINS SCHEMATIC



CATCH BASIN LOCATION MAP AND ANALYTICAL SAMPLE REFERENCES			
CATCH BASIN	REF. SAMPLE #	CATCH BASIN	REF SAMPLE #
1	519	12	708
2	520	13	709
3	521	14	N/A
4	522	15	710
5	523	16	711
6	524	17	712
7	525	18	713
8	705	19	714
9	706	20	715
10	623	21	716
11	707	22	544,545

FIGURE 4
SITE PLOT PLAN SHOWING LOCATION OF SURFACE CATCH BASINS

TABLE 1

ANALYTICAL RESULTS FOR STORM DRAIN SAMPLES

PROJ ID	DESCRIPTION	GAMMA SPECTROMETRY LAB ID	GAMMA SPECTROMETRY U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	PERCENT U-235
535	BLDG. 6 STORM DRAIN VAULT- 0'	92-3115	2.19E+00									
536	BLDG. 6 STORM DRAIN VAULT- 10'	92-3116	2.27E+00									
537	BLDG. 6 STORM DRAIN VAULT- 20'	92-3117	1.25E+00									
538	BLDG. 6 STORM DRAIN VAULT- 30'	92-3118	6.91E+00									
539	BLDG. 6 STORM DRAIN VAULT- 40'	92-3119	9.36E+00									
540	BLDG. 6 STORM DRAIN VAULT- 50'	92-3120	3.80E+00									
541	BLDG. 6 STORM DRAIN VAULT- 60'	92-3121	1.12E+00									
542	BLDG. 6 STORM DRAIN VAULT- 70'	92-3122	1.18E+00									
543	BLDG. 6 STORM DRAIN VAULT- 77'	92-3123	9.42E-01									
551	BLDG. 8 STORM DRAIN VAULT- 0'	93-061	1.46E+00									
552	BLDG. 8 STORM DRAIN VAULT- 10'	93-062	3.67E+00									
553	BLDG. 8 STORM DRAIN VAULT- 20'	93-063	6.33E-01									
554	BLDG. 8 STORM DRAIN VAULT- 30'	93-064	1.68E+00									
555	BLDG. 8 STORM DRAIN VAULT- 40'	93-065	2.35E+00									
556	BLDG. 8 STORM DRAIN VAULT- 50'	93-066	2.45E+00									
557	BLDG. 8 STORM DRAIN VAULT- 60'	93-067	<2.10E-01									
558	BLDG. 8 STORM DRAIN VAULT- 68'	93-068	7.27E-01									
559	BLDG. 5 STORM DRAIN BREAK IN POINT	93-113	1.67E+00									
561	BLDG. 6 BLACK SLUDGE SAMPLE	93-162	1.02E+00									

STASTICAL ANALYSIS OF SAMPLES #535-561:

NUMBER OF SAMPLES	19
MINIMUM	2.10E-01
MAXIMUM	9.36E+00
AVERAGE	2.36E+00
STANDARD DEVIATION	2.22E+00

562	BLDG. 6 STORM DRAIN VAULT- DRUM A	93-138	1.81E+00									
	COMP OF 562,563,564,566,569,571,572	AVG.=	1.45E+00	93- 138	2.80E-01	1.31E+01	6.30E-01	7.80E-01	1.48E+01	YES	23.5	11.15%
563	BLDG. 6 STORM DRAIN VAULT- DRUM B	93-139	1.18E+00	SEE #562								
564	BLDG. 6 STORM DRAIN VAULT- DRUM C	93-140	1.39E+00	SEE #562								

TABLE 1

ANALYTICAL RESULTS FOR STORM DRAIN SAMPLES

PROJ ID	DESCRIPTION	GAMMA SPECTROMETRY		ALPHA SPECTROMETRY RESULTS					IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	PERCENT U-235
		LAB ID	U-235 pCi/gm	LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm			
565	BLDG. 6 STORM DRAIN VAULT- DRUM D	93-141	3.47E+00								
	COMPOSITE OF 565,575,576	AVG.=	3.47E+00	93- 141	2.80E-01	3.36E+01	<1.90E+00	<1.20E+00	3.70E+01	NO	19.5	19.73%
566	BLDG. 6 STORM DRAIN VAULT- DRUM E	93-142	1.54E+00	SEE #562								
567	BLDG. 6 STORM DRAIN VAULT- DRUM F	93-143	2.21E+00									
	COMPOSITE OF 567,568,573,577	AVG.=	2.56E+00	93- 143	<2.50E-01	1.92E+00	9.00E-01	5.80E-01	3.65E+00	YES	4.1	19.43%
568	BLDG. 6 STORM DRAIN VAULT- DRUM G	93-144	2.78E+00	SEE #567								
569	BLDG. 6 STORM DRAIN VAULT- DRUM H	93-145	1.86E+00	SEE #562								
570	BLDG. 6 STORM DRAIN VAULT- DRUM I	93-146	1.17E+00									
571	BLDG. 6 STORM DRAIN VAULT- DRUM J	93-147	1.08E+00	SEE #562								
572	BLDG. 6 STORM DRAIN VAULT- DRUM K	93-148	1.33E+00	SEE #562								
573	BLDG. 6 STORM DRAIN VAULT- DRUM L	93-149	2.63E+00	SEE #567								
574	BLDG. 6 STORM DRAIN VAULT- DRUM M	93-150	6.26E+00	93- 150	<8.00E-02	6.16E+01	<3.40E+00	<1.30E+00	6.64E+01	NO	19.5	28.85%
575	BLDG. 6 STORM DRAIN VAULT- DRUM N	93-151	3.58E+00	SEE #565								
576	BLDG. 6 STORM DRAIN VAULT- DRUM O	93-152	3.06E+00	SEE #565								
577	BLDG. 6 STORM DRAIN VAULT- DRUM P	93-153	2.62E+00	SEE #567								
579	BLDG. 5 STORM DRAIN VAULT- DRUM A	93-238	2.64E-01									
	COMPOSITE OF 579,580,583,584	AVG.=	4.60E-01	93- 238	7.00E-02	1.59E+01	<1.20E+00	<9.40E-01	1.81E+01	YES	15.1	16.55%
580	BLDG. 5 STORM DRAIN VAULT- DRUM B	93-239	5.19E-01	SEE #579								
581	BLDG. 5 STORM DRAIN VAULT- DRUM C	93-240	5.19E+00	93- 240	8.00E-02	2.00E+01	9.10E-01	5.20E-01	2.15E+01	YES	23.6	21.35%
582	BLDG. 5 STORM DRAIN VAULT- DRUM D	93-241	1.59E+00	93- 241	2.50E-01	1.60E+01	6.80E-01	6.00E-01	1.75E+01	YES	25.8	14.96%
583	BLDG. 5 STORM DRAIN VAULT- DRUM E	93-242	7.84E-01	SEE #579								
584	BLDG. 5 STORM DRAIN VAULT- DRUM F	93-243	<2.70E-01	SEE #579								
585	BLDG. 5 STORM DRAIN VAULT- DRUM G	93-244	1.22E+00	93- 244	<2.60E-01	7.95E+01	<4.30E+00	<1.90E+00	8.60E+01	NO	20.0	25.98%
586	BLDG. 5 STORM DRAIN VAULT- DRUM H	93-245	2.80E+00	93- 245	2.10E-01	6.66E+01	3.00E+00	1.25E+00	7.11E+01	NO	23.7	27.11%
587	DEPOSITS-E. PARKING LOT STORM DRAIN	93-246	7.12E-01									
588	CLEANOUT DEBRIS- E. PARKING LOT- A	93-271	1.03E+00	93- 271	6.90E-01	1.80E+01	8.40E-01	6.90E-01	2.02E+01	YES	24.1	15.87%
589	CLEANOUT DEBRIS- E. PARKING LOT- B	93-272	1.53E+00	93- 272	2.50E-01	1.60E+01	6.80E-01	6.00E-01	1.75E+01	YES	25.8	14.96%
590	CLEANOUT DEBRIS- E. PARKING LOT- C	93-273	1.61E+00	93- 273	6.80E-01	2.04E+01	9.20E-01	7.70E-01	2.28E+01	YES	24.8	15.64%
591	CLEANOUT DEBRIS- E. PARKING LOT- D	93-274	1.53E+00	93- 274	3.80E-01	3.61E+01	1.61E+00	8.80E-01	3.90E+01	NO	24.2	22.10%
592	CLEANOUT DEBRIS- E. PARKING LOT- E	93-275	1.83E+00	93- 275	5.20E-01	2.39E+01	1.10E+00	7.50E-01	2.63E+01	YES	23.9	18.54%
598	CLEANOUT DEBRIS- E. PARKING LOT- F	93-281	1.38E+00	93- 281	1.80E-01	2.71E+01	1.29E+00	9.50E-01	2.95E+01	YES	22.9	17.41%

TABLE 1

ANALYTICAL RESULTS FOR STORM DRAIN SAMPLES

PROJ ID	DESCRIPTION	GAMMA SPECTROMETRY LAB ID	GAMMA SPECTROMETRY U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	PERCENT U-235
593	CLEANOUT DEBRIS- BLDG. 8 -A	93-276	1.93E+00	93- 276	<2.00E-02	8.05E+00	4.60E-01	8.20E-01	9.35E+00	YES	20.3	8.02%
594	CLEANOUT DEBRIS- BLDG. 8 -B	93-277	1.07E+00	93- 277	<1.00E-02	2.97E+01	1.33E+00	6.90E-01	3.17E+01	NO	23.9	23.01%
595	CLEANOUT DEBRIS- BLDG. 8 -C	93-278	9.55E-01	93- 278	<3.00E-02	1.35E+01	6.10E-01	9.70E-01	1.51E+01	YES	24.8	8.90%
596	CLEANOUT DEBRIS- BLDG. 8 -D	93-279	6.16E-01									
597	CLEANOUT DEBRIS- BLDG. 8 -E	93-280	2.17E+00	93- 280	<3.00E-02	2.60E+01	1.28E+00	9.20E-01	2.82E+01	YES	22.1	17.76%
599	CLEANOUT DEBRIS- BLDG. 8 & 9 - DRUM	93-306	2.04E+00									
600	CLEANOUT DEBRIS- BLDG. 8 & 9 - DRUM	93-307	1.23E+00									
601	CLEANOUT DEBRIS- SWIMMING POOL	93-308	2.44E+00									
603	SLUDGE FROM TANKS USED FOR CLEANUP	93-310	2.23E+00									
604	SLUDGE FROM TANKS USED FOR CLEANUP	93-311	3.63E+00									
605	SLUDGE FROM TANKS USED FOR CLEANUP	93-312	4.71E+00									
606	SLUDGE FROM TANKS USED FOR CLEANUP	93-338	5.39E+00									
607	SLUDGE FROM TANKS USED FOR CLEANUP	93-339	3.79E+00									
608	SLUDGE FROM TANKS USED FOR CLEANUP	93-340	3.24E+00									
609	SLUDGE FROM TANKS USED FOR CLEANUP	93-341	1.11E+00									

STASTICAL ANALYSIS OF SAMPLES #562-609:									
NUMBER OF SAMPLES	46	19	19	19	19	19		19	19
MINIMUM	2.64E-01	1.00E-02	1.92E+00	4.60E-01	5.20E-01	3.65E+00		4.06	8.02%
MAXIMUM	6.26E+00	6.90E-01	7.95E+01	4.30E+00	1.90E+00	8.60E+01		25.78	28.85%
AVERAGE	2.10E+00	2.39E-01	2.77E+01	1.42E+00	9.01E-01	3.03E+01		21.65	18.28%
STANDARD DEVIATION	1.36E+00	2.02E-01	1.99E+01	1.02E+00	3.21E-01	2.12E+01		4.89	5.53%
LIMIT	1					30			
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.669					1.669			
DATA TEST PARAMETER	2.44					38.41			
"NUMBER OF SAMPLES" FACTOR	-0.81					-0.01			
DOES DATA SATISFY LIMIT CRITERIA?	NO					NO			
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	NO					NO			

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR STORM DRAIN CATCH BASINS BENEATH BUILDINGS 5, 6, AND 8

SURFACE DESCRIPTION	GRID	X,Y REFERENCE POINT	GAMMA SURVEY @1 METER (microR/hr)	LOW ENERGY GAMMA @ CONTACT 1 MIN. COUNT (mR/hr)	BETA/ GAMMA ON CONTACT (mr/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
Building 5 - Catch	@ 10'	1	11	9474	N/A	-24.4	-48.7	N/A	N/A	-0.26	-2.49
Basin Close Out		2	12	9552	"	-48.7	-73.1	"	"	-0.26	-2.49
"	@ 20'	3	13	13248	"	24.4	0.0	"	"	-0.26	-2.49
"		4	10	9506	"	-73.1	-97.4	"	"	-0.26	-2.49
"	@ 30'	5	11	10176	"	0.0	-48.7	"	"	7.74	3.59
"		6	11	9186	"	-97.4	-121.8	"	"	-0.26	-2.49
"	@ 40'	7	12	9772	"	-73.1	-97.4	"	"	-0.26	3.59
"		8	12	9972	"	0.0	-48.7	"	"	-0.26	-2.49
"	@ 50'	9	11	9412	"	-48.7	-73.1	"	"	-0.26	3.41
"		10	10	9766	"	-48.7	-97.4	"	"	7.66	-0.48
Building 6	@ 10'	1	10	9624	"	24.4	-48.7	"	"	-0.26	3.59
Catch Basin		2	10	9464	"	24.4	0.0	"	"	-0.26	3.41
"	@ 20'	3	11	9722	"	48.7	0.0	"	"	-0.26	-2.49
"		4	10	9886	"	73.1	-24.4	"	"	7.74	-2.49
"	@ 30'	5	11	10080	"	48.7	-24.4	"	"	-0.26	-2.49
"		6	11	9742	"	73.1	-24.4	"	"	-0.26	3.41
"	@ 40'	7	10	9720	"	24.4	-48.7	"	"	-0.26	-2.49
"		8	10	9854	"	48.7	-48.7	"	"	-0.26	3.41
"	@ 50'	9	10	9440	"	0.0	-73.1	"	"	-0.26	3.59
"		10	12	9418	"	24.4	0.0	"	"	-0.26	9.31
"	@ 60'	11	10	9722	"	24.4	-24.4	"	"	-0.26	9.31
"		12	11	9732	"	0.0	-24.4	"	"	-0.26	-2.49
"	@ 70'	13	12	10150	"	48.7	0.0	"	"	-0.26	9.66
"		14	10	9646	"	24.4	-24.4	"	"	-0.26	-2.49
Building 8 Catch	N/A	See Map	15	9720	"	73.1	-24.4	"	"	7.74	3.59
Basin Floor	"	"	15	9950	"	73.1	-24.4	"	"	-0.26	-2.49
"	"	"	13	10672	"	48.7	-48.7	"	"	7.51	9.31
"	"	"	13	10272	"	97.4	0.0	"	"	-0.26	3.59
"	"	"	11	10680	"	73.1	0.0	"	"	-0.26	15.74
"	"	"	12	10132	"	73.1	0.0	"	"	-0.26	3.41
"	"	"	11	9722	"	73.1	0.0	"	"	-0.26	3.59

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR STORM DRAIN CATCH BASINS BENEATH BUILDINGS 5, 6, AND 8

SURFACE DESCRIPTION	GRID	X,Y REFERENCE POINT	GAMMA SURVEY @1 METER (microR/hr)	LOW ENERGY GAMMA @ CONTACT 1 MIN. COUNT (mR/hr)	BETA/ GAMMA ON CONTACT (mr/hr)	SCAN RESULTS MAXIMUM BETA (dpm/100cm^2)	SCAN RESULTS AVERAGE BETA (dpm/100cm^2)	TOTAL FIXED ACTIVITY ALPHA (dpm/100cm^2)	TOTAL FIXED ACTIVITY BETA (dpm/100cm^2)	REMOVABLE ACTIVITY ALPHA (dpm/100cm^2)	REMOVABLE ACTIVITY BETA (dpm/100cm^2)
"	"	"	15	10616	"	97.4	24.4	"	"	-0.26	3.59
"	"	"	11	9890	"	97.4	24.4	"	"	-0.26	-2.49
"	"	"	11	10102	"	48.7	-24.4	"	"	-0.26	9.66
"	"	"	11	10526	"	48.7	0.0	"	"	-0.26	-2.49
"	"	"	12	10286	"	24.4	-48.7	"	"	7.51	3.41

STASTICAL ANALYSIS

NUMBER OF SAMPLES	36	36	36	36	36	36	
MINIMUM	10.00	9186	-97.4	-121.8	-0.26	-2.49	
MAXIMUM	15.00	13248	97.4	24.4	7.74	15.74	
AVERAGE	11.42	9968	25.7	-33.1	1.05	2.07	
STANDARD DEVIATION	1.40	666	50.3	35.5	2.95	4.73	
LIMIT	15		15,000	5,000	1,000	1,000	
FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE:	1.691		1.691	1.691	1.691	1.691	
DATA TEST PARAMETER	11.81		39.89	-23.15	1.89	3.40	
"NUMBER OF SAMPLES" FACTOR	2.56		297.44	141.98	338.69	210.77	
DOES DATA SATISFY LIMIT CRITERIA?	YES		YES	YES	YES	YES	
WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN?	YES		YES	YES	YES	YES	

TABLE 3

ANALYTICAL RESULTS FOR STORM DRAIN SURFACE CATCH BASIN SAMPLES

PROJ ID	DESCRIPTION	GAMMA SPECTROMETRY		ALPHA SPECTROMETRY RESULTS						IS	RATIO OF	
		LAB ID	U-235 pCi/gm	LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	U-TOTAL <30 pCi/gm	U-TOTAL TO U-235	PERCENT U-235
519	CATCH BASIN #1	92-2979	<3.50E-01									
520	CATCH BASIN #2	92-2980	<2.00E-01									
521	CATCH BASIN #3	92-2981	<1.90E-01									
522	CATCH BASIN #4	92-2982	<2.80E-01									
523	CATCH BASIN #5	92-2983	<2.40E-01									
	COMPOSITE OF CATCH BASINS #1-5	AVG.=2.52E-01		92-2979	<1.60E-01	1.63E+00	<1.00E-01	<2.10E-01	2.10E+00	YES	21.0	6.89%
524	CATCH BASIN #6	92-2984	<2.30E-01									
525	CATCH BASIN #7	92-2985	<2.50E-01									
705	CATCH BASIN #8	93- 739	<2.90E-01									
706	CATCH BASIN #9	93- 740	<1.90E-01									
623	CATCH BASIN #10	93- 457	2.37E-01									
707	CATCH BASIN #11	93- 741	<3.90E-01									
	COMPOSITE OF CATCH BASINS #6-11	AVG.=2.65E-01		92-2984	<1.60E-01	8.50E-01	<1.70E-01	5.70E-01	1.75E+00	YES	10.3	4.43%
708	CATCH BASIN #12	93- 742	<4.00E-01									
709	CATCH BASIN #13	93- 743	<3.30E-01									
N/A	CATCH BASIN #14 (NO SEDIMENT WAS AVAILABLE TO SAMPLE AT THIS LOCATION)											
710	CATCH BASIN #15	93- 744	<9.90E-02									
711	CATCH BASIN #16	93- 745	<2.80E-01									
712	CATCH BASIN #17	93- 746	<1.40E-01									
	COMPOSITE OF CATCH BASINS #12-17	AVG.=2.50E-01		93- 742	<2.50E-01	1.42E+00	<2.20E-01	6.90E-01	2.58E+00	YES	11.7	4.72%
713	CATCH BASIN #18	93- 747	<4.30E-01									
714	CATCH BASIN #19	93- 748	<4.00E-01									
715	CATCH BASIN #20	93- 749	<2.80E-01									
716	CATCH BASIN #21	93- 750	1.16E-01									
544	CATCH BASIN #22	92-3167	3.43E-01									
545	CATCH BASIN #22, DUPLICATE	92-3168	2.57E-01									

TABLE 3

ANALYTICAL RESULTS FOR STORM DRAIN SURFACE CATCH BASIN SAMPLES

PROJ ID	DESCRIPTION	GAMMA SPECTROMETRY LAB ID	GAMMA SPECTROMETRY U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS LAB ID	U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	IS U-TOTAL <30 pCi/gm	RATIO OF U-TOTAL TO U-235	PERCENT U-235
	COMPOSITE OF CATCH BASINS #18-22	AVG.=3.04E-01		93- 747	<1.60E-01	3.34E+00	<2.40E-01	2.56E+00	6.30E+00	YES	26.3	1.44%
STASTICAL ANALYSIS:												
	NUMBER OF SAMPLES		22		4	4	4	4	4		4	4
	MINIMUM		9.90E-02									
	MAXIMUM		4.30E-01									
	AVERAGE		2.69E-01		1.83E-01	1.81E+00	1.83E-01	1.01E+00	3.18E+00		17.3	4.37%
	STANDARD DEVIATION		9.08E-02		3.90E-02	9.28E-01	5.40E-02	9.14E-01	1.82E+00		6.6	1.94%
	LIMIT		1						30			
	FACTOR FOR COMPARISON OF											
	SURVEY DATA @95% CONFIDENCE:		1.721						2.353			
	DATA TEST PARAMETER		0.30						5.33			
	"NUMBER OF SAMPLES" FACTOR		8.05						14.70			
	DOES DATA SATISFY											
	LIMIT CRITERIA?		YES						YES			
	WERE AN ADEQUATE NUMBER											
	OF SAMPLES TAKEN?		YES						YES			

	BACKGROUND SOIL RESULTS (SEE REPORT #007 FOR INFORMATION)	GAMMA SPEC. U-235 pCi/gm	ALPHA SPECTROMETRY RESULTS U-233 pCi/gm	U-234 pCi/gm	U-235 pCi/gm	U-238 pCi/gm	U-TOTAL pCi/gm	RATIO OF U-TOTAL TO U-235	%U-235
	AVERAGE	3.24E-01	1.67E-02	4.61E-01	5.98E-02	4.49E-01	9.86E-01	29.5	1.95%
	STANDARD DEVIATION	1.01E-01	6.96E-03	2.45E-01	8.76E-02	2.19E-01	4.89E-01	13.2	2.12%

APPENDIX A

ANALYTICAL LABORATORY REPORT SHEETS

Sample Number	Date	Comments	Sample Number	Date	Comments
501-B -95	10/07/92	Pipe Chases in Bldg. 9.	526-	10/23/92	Incinerator mortor
502-D -124	10/07/92	"	527-	10/23/92	Incinerator brick
503-D -141	10/07/92	"	528-	10/28/92	On site bkg. soil (See Bkg. Deter-
504-H -18	10/07/92	"	529-	10/28/92	mination file 1 (BKG-DET1)
505-I -16	10/07/92	"	530-	10/28/92	"
506-E -81	10/07/92	"	531-	10/28/92	"
507-D -88	10/07/92	"	532-	10/28/92	"
508-C -01	10/07/92	"	533-	10/28/92	"
509-C -24	10/07/92	"	534-	10/29/92	P-trap sludge in Pipe chase "I"
510-B -165	10/07/92	"	535- -00	11/10/92	Bldg. 6 Sub floor Sewer samples
511-G -01	10/07/92	"	536- -10	11/10/92	East to west in distances stated
512-A -111	10/07/92	"	537- -20	11/10/92	in sample numbers (See also bldg. 6
513-B -132	10/07/92	"	538- -30	11/10/92	map for location)
514-B -105	10/07/92	"	539- -40	11/10/92	"
515-B -142	10/07/92	"	540- -50	11/10/92	"
516-D -45	10/07/92	"	541- -60	11/10/92	"
517	10/13/92	Sump pump pit in Bldg. 9 Sludge	542- -70	11/10/92	"
518-	10/16/92	Incinerator Brick sample	543- -77	11/10/92	"
519-	10/16/92	Catch Basin #1 (See map)	544-	11/18/92	East rear parking lot storm drain
520-	10/16/92	Catch Basin #2 (See map)	545-	11/18/92	catch basin.
521-	10/16/92	Catch Basin #3 (See map)	546-	11/20/92	P-Trap @ 42' in pipe chase "E"
522-	10/16/92	Catch Basin #4 (See map)	547-	11/25/92	Off site bkg. determination
523-	10/16/92	Catch Basin #5 (See map)	548-	11/25/92	samples
524-	10/16/92	Catch Basin #6 (See map)	549-	11/25/92	"
525-	10/16/92	Catch Basin #7 (See map)	550-	11/25/92	"

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

FILE FORM CODE: SOILLOGB

Sample Number	Date	Comments	Sample Number	Date	Comments
551- 0'	1/13/93	Building 8 Storm Drain	576- Drum O	2/2/93	Building 6 Storm Catch Basin Debris
552- 10'	1/13/93	Catch Basin	577- Drum P	2/2/93	"
553- 20'	1/13/93	"	578- Storm Drain	2/4/93	Out Flow at Creek
554- 30'	1/13/93	"	579- Drum A	2/11/93	Building 5 Catch Basin Debris
555- 40'	1/13/93	"	580- Drum B	2/11/93	"
556- 50'	1/13/93	"	581- Drum C	2/11/93	"
557- 60'	1/13/93	"	582- Drum D	2/11/93	"
558- 68'	1/13/93	"	583- Drum E	2/11/93	"
559-	1/20/93	Building 5 Storm Drain Break In	584- Drum F	2/11/93	"
560-	1/27/93	Core Bore Building 5	585- Drum G	2/11/93	"
561-	1/28/93	Building 6 Storm Drain Tar Sludge	586- Drum H	2/11/93	"
562- Drum A	2/1/93	Building 6 Storm Catch Basin Debris	587-	2/11/93	Deposits in Storm Drain E. Park Lot
563- Drum B	2/1/93	"	588- Drum A	2/11/93	East Parking Lot Storm Drain
564- Drum C	2/1/93	"	589- Drum B	2/11/93	Pipe Debris
565- Drum D	2/1/93	"	590- Drum C	2/11/93	"
566- Drum E	2/1/93	"	591- Drum D	2/11/93	"
567- Drum F	2/1/93	"	592- Drum E	2/11/93	"
568- Drum G	2/1/93	"	593- Drum A	2/17/93	Bldg. #8 Catch Basin Debris
569- Drum H	2/1/93	"	594- Drum B	2/17/93	"
570- Drum I	2/1/93	"	595- Drum C	2/17/93	"
571- Drum J	2/1/93	"	596- Drum D	2/17/93	"
572- Drum K	2/1/93	"	597- Drum E	2/17/93	"
573- Drum L	2/2/93	"	598- Drum F	2/17/93	E. Parking Lot Storm Drain Debris
574- Drum M	2/2/93	"	599- In Drum	2/19/93	Bldg. 8 & 9 Storm Drain Clean Up
575- Drum N	2/2/93	"	600- In Drum	2/19/93	Debris

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

FILE FORM CODE: SOILOG15

Sample Number	Date	Comments	Sample Number	Date	Comments
699- - See Maps	05/12/93	East Parking Lot #6	724 - @ 140 meters	05/26/93	Grounds Survey Sample Area #17
700- - See Maps	05/12/93	East Parking Lot #10	725 - @ 165 meters	05/26/93	" "
701- - See Maps	05/12/93	East Parking Lot #11	726 - @ 185 meters	05/26/93	" "
702- - See Maps	05/12/93	East Parking Lot #13	727 - @ 195 meters	05/26/93	" "
703- - See Maps	05/12/93	East Parking Lot #15	728 - @ 210 meters	05/26/93	" "
704- - See Maps	05/12/93	East Parking Lot #16	729 - @ 225 meters	05/26/93	" "
705- - See Maps	05/20/93	Catch Basin #8	730 - @ 20 meters	05/26/93	" "
706- - See Maps	05/20/93	Catch Basin #9	731 - @ 40 meters	05/26/93	" "
707- - See Maps	05/20/93	Catch Basin #11	732 - X = 10 Y =-10	06/03/93	Bldg. #5 Roof "B" Material
708- - See Maps	05/20/93	Catch Basin #12	733 - X = 30 Y =+5	06/03/93	Bldg. #8A Roof Material
709- - See Maps	05/20/93	Catch Basin #13	734 - X = 10 Y =-50	06/03/93	Bldg. #9 Roof Material
710- - See Maps	05/20/93	Catch Basin #15	735 - @ Vent #12	06/03/93	" "
711- - See Maps	05/20/93	Catch Basin #16	736 - @ Vent #31	06/03/93	" "
712- - See Maps	05/20/93	Catch Basin #17	737 - X = 15 Y = +1	06/03/93	Hydrogen Bldg. Roof Material
713- - See Maps	05/20/93	Catch Basin #18	738 - X = 15 Y = -2	06/03/93	" "
714- - See Maps	05/20/93	Catch Basin #19	739 - X = 14 Y = -2	06/03/93	" "
715- - See Maps	05/20/93	Catch Basin #20	740 - X = 14 Y = -1	06/03/93	" "
716- - See Maps	05/24/93	Catch Basin #21	741 - X = 10 Y =-10	06/03/93	Bldg. #5 Roof Gravel
717 - @ 5 meters	05/26/93	Grounds Survey Sample Area #17	742 - X = 30 Y = +5	06/03/93	Bldg. #8A Roof Gravel
718 - @ 30 meters	05/26/93	Grounds Survey Sample Area #17	743 - X = 10 Y =-50	06/03/93	Bldg. #9 Roof Gravel
719 - @ 50 meters	05/26/93	" "	744 - @ Vent #12	06/03/93	" "
720 - @ 70 meters	05/26/93	" "	745 - @ Vent #31	06/03/93	" "
721 - @ 85 meters	05/26/93	" "	746 - X = 15 Y = +1	06/03/93	Hydrogen Bldg. Roof - Gravel
722 - @ 100 meters	05/26/93	" "	747 - X = 15 Y = -2	06/03/93	" "
723 - @ 123 meters	05/26/93	" "	748 - X = 14 Y = -2	06/03/93	" "

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Sample Number	Date	Comments	Sample Number	Date	Comments
601- -	2/22/93	Pool Sludge Storm Sewer Cleanout	624- - See Maps	5/06/93	Stream Sampling
602- - Bldg. 9 Mezz	2/24/93	Drilled Concrete Powder from	625- - See Maps	5/06/93	Location "A"
		Survey Sec. 10-8-2 Mezzanine	626- - See Maps	5/06/93	" "
603- -	2/24/93	Residual Sludge from Tanks of	627- - See Maps	5/06/93	" "
		Water from Storm Drain Clean Up	628- - See Maps	5/06/93	" "
604- -	2/24/93	" "	629- - See Maps	5/06/93	" "
605- -	2/24/93	" "	630- - See Maps	5/06/93	" "
606- -	2/24/93	" "	631- - See Maps	5/06/93	" "
607- -	2/24/93	" "	632- - See Maps	5/06/93	" "
608- -	2/24/93	" "	633- - See Maps	5/06/93	" "
609- -	2/24/93	" "	634- - See Maps	5/06/93	" "
610- -	2/24/93	Pipe Chase Debris Disp. for Shipping	635- - See Maps	5/06/93	Location "B"
611- - Drum #9	3/24/93	MDL #20 Dirt Disp. for Shipping	636- - See Maps	5/06/93	" "
612- - Drum #31	3/24/93	Pipe Chase Debris Disp. for Shipping	637- - See Maps	5/06/93	" "
613- - Drum #32	3/24/93	" "	638- - See Maps	5/06/93	" "
614- - Drum #35	3/24/93	" "	639- - See Maps	5/06/93	" "
615- - Drum #37	3/24/93	" "	640- - See Maps	5/06/93	" "
616- - Drum #41	3/24/93	" "	641- - See Maps	5/06/93	" "
617- - Drum #42	3/24/93	" "	642- - See Maps	5/06/93	" "
618- - Drum #47	3/24/93	" "	643- - See Maps	5/06/93	" "
619- - Drum #51	3/24/93	" "	644- - See Maps	5/06/93	" "
620- - #50	3/24/93	" "	645- - See Maps	5/06/93	" "
621- - #53	3/24/93	" "	646- - See Maps	5/06/93	" "
622- - #44	3/24/93	Dirt Disposition	647- - See Maps	5/10/93	Location "C"
623- -	4/07/93	On Site Catch Basin #10 Fire Hse	648- - See Maps	5/10/93	" "

Sample Number Sequence starting with 001 - M. D. L. Pipe Section/ Pipe Chase Number - Sample point distance (in feet from north or east reference point)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 14904

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 0/16/92
Reported: 0/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ October 16, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis) pCi/gram	2 sigma
519	92-2979	<3.5E-01	
520	92-2980	<2.0E-01	
521	92-2981	<1.9E-01	
522	92-2982	<2.8E-01	
523	92-2983	<2.4E-01	
524	92-2984	<2.3E-01	
525	92-2985	<2.5E-01	

GAMMA SPECTROMETRY ANALYSIS (@ October 16, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis) pCi/gram	2 sigma	Th-228 (Wet Basis) pCi/gram	2 sigma
518 *	92-2978	3.28E-01	+/- 3.1E-01	3.42E+00	+/- 1.0E+00

* Fire Brick Sample

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14904
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved:

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14932

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/10/92
Reported: 2/09/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ November 10, 1992)

Originator ID ------>	Soil #535		Soil #536		Soil #537	
Lab Sample ID ------>	92-3115		92-3116		92-3117	
NUCLIDE	pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
K-40	1.22E+01	+/- 4.2E+00	1.16E+01	+/- 4.0E+00	5.06E+00	+/- 4.0E+00
U-235	2.19E+00	+/- 3.1E-01	2.27E+00	+/- 3.2E-01	1.25E+00	+/- 4.2E-01
Ra-226	8.56E-01	+/- 4.2E-01	6.25E-01	+/- 4.9E-01	1.25E+00	+/- 5.9E-01
Ra-228	2.04E+00	+/- 1.2E+00	nd		nd	
Th-228	1.62E+00	+/- 7.3E-01	1.03E+00	+/- 7.0E-01	8.38E-01	+/- 5.2E-01
Cs-137	2.53E-01	+/- 2.1E-01	<1.9E-01		4.17E-01	+/- 2.4E-01

Originator ID ------>	Soil #538		Soil #539		Soil #540	
Lab Sample ID ------>	92-3118		92-3119		92-3120	
NUCLIDE	pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
K-40	1.75E+01	+/- 4.6E+00	1.34E+01	+/- 4.6E+00	1.09E+01	+/- 4.7E+00
U-235	6.91E+00	+/- 5.0E-01	9.36E+00	+/- 5.9E-01	3.80E+00	+/- 4.7E-01
Ra-226	1.13E+00	+/- 4.4E-01	8.[illegible]-01	+/- 6.4E-01	9.56E-01	+/- 5.4E-01
Ra-228	<3.6E+00		nd		nd	
Th-228	1.48E+00	+/- 7.5E-01	nd		1.39E+00	+/- 8.5E-01
Cs-137	1.50E+00	+/- 3.7E-01	8.29E-01	+/- 3.2E-01	4.85E-01	+/- 4.1E-01

Remarks: Gamma Spectrometry Analysis
Sampled dried, milled, and seived
nd - not detected

References: Request# 14932
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: [signature]

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reque:# 14932

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 11/10/92
Reported: 12/09/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ November 10, 1992)

Originator ID ------>	Soil #541		Soil #542		Soil #543	
Lab Sample ID ------>	92-3121		92-3122		92-3123	
NUCLIDE	pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
K-40	1.81E+01	+/- 5.5E+00	9.23E+00	+/- 3.3E+00	9.07E+00	+/- 4.1E+00
U-235	1.12E+00	+/- 4.4E-01	1.18E+00	+/- 2.6E-01	9.42E-01	+/- 2.2E-01
Ra-226	8.97E-01	+/- 5.1E-01	1.14E+00	+/- 3.4E-01	1.12E+00	+/- 5.2E-01
Ra-228	nd		1.31E+00	+/- 1.2E+00	<1.4E+00	
Th-228	1.84E+00	+/- 7.8E-01	1.30E+00	+/- 5.7E-01	1.12E+00	+/- 7.6E-01
Cs-137	<4.1E-01		2.53E-01	+/- 1.7E-01	5.60E-01	+/- 2.6E-01

Remarks: Gamma Spectrometry Analysis
Sampled dried, milled, and seived
nd - not detected

References: Request# 14932
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 2

Approved: Mark Kovac ak

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14936

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/23/92
Reported: 2/2/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ November 20, 1992)

Originator ID	Lab.Spl#	U-235 (Dry Basis) pCi/gram	2 sigma	Cs-137 (Dry Basis) pCi/gram	2 sigma	U-238 (Dry Basis) pCi/gram	2 sigma
544	92-3167	1.43E-01	+/- 1.7E-01	<1.3E-1		<3.1E+1	
545	92-3168	2.57E-01	+/- 1.5E-01	2.03E-01	+/- 1.5E-01	<3.2E+1	
546	92-3169	6.36E+01	+/- 1.4E+00	<3.2E-1		6.47E+01	+/- 5.1E+01

Originator ID	Lab.Spl#	Co-57 (Dry Basis) pCi/gram	2 sigma
544	92-3167	<7.5E-2	
545	92-3168	<1.0E-1	
546	92-3169	1.08E+00	+/- 3.5E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14936
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kaercher

Westinghouse Electric Corporation
NSD - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14973

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/14/93
Reported: 1/18/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Jan 14, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
551	93-061	U-235	1.46E+00	+/- 6.7E-02
		Co-60	7.15E-02	+/- 5.1E-02
		Cs-137	3.83E-01	+/- 4.9E-02
		Eu-155	1.34E-01	+/- 7.8E-02
552	93-062	U-235	3.67E+00	+/- 6.7E-02
		Cs-137	3.78E-01	+/- 4.7E-02
		Eu-155	2.76E-01	+/- 8.1E-02
553	93-063	U-235	6.33E-01	+/- 1.2E-01
		Cs-137	2.51E-01	+/- 1.1E-01
554	93-064	U-235	1.68E+00	+/- 4.8E+00
		Co-60	1.15E-01	1.1E-01
555	93-065	U-235	2.35E+00	+/- 2.7E-01
		Cs-137	3.89E-01	+/- 1.6E-01
556	93-066	U-235	2.45E+00	+/- 1.5E-01
		Cs-137	1.27E-01	+/- 1.0E-01
557	93-067	U-235	<2.1E-01	
558	93-068	U-235	7.27E-01	+/- 2.7E-01

Remarks: [illegible] Spectrometry Analysis

Reference: Request# 14973
Procedure: [illegible]
Analyst: MTF, [illegible], FRC

Approved: [signature]

Westinghouse Electric Corporation
NSD - Analytical Laboratory
Waltz Mill Site

REPORT

Reque: t# 14977

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/21/93
Reported: 1/22/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ January 21, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
559	93-113	U-235	1.67E+00	+/- 7.6E-02
		Be-7	1.11E+00	+/- 3.4E-01
		Cs-137	3.88E-01	+/- 5.4E-02

Remarks: Gamma Spectrometry Analysis

References: Request# 14977
Procedures: A-524
Analyst: WTF, MRK, FRC

Approved:

Westinghouse Electric Corporation
NSD - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 14989

TO: Joseph Nardi/Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /28/93
Reported: /23/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ January 28, 1993)

Orig ID	Lab.Spl#	Nuclide	(Dry Basis) pCi/gram	2 sigma
560	93-161	U-235	only isotope detected	
Concrete coring - Qualitative only				
561	93-162	U-235	1.02E+00	+/- 4.7E-01
		Ra-226	9.68E-01	+/- 4.4E-01

Remarks: Gamma Spectrometry Analysis
93-162 dried, ground, and sieved

References: Request# 14989
Procedures: A-524
Analyst: WTF, MRK, FRC

Approved: [signature]

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
REPORT Waltz Mill Site Reques # 14985

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/2/93
Reported: 1/6/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ February 2, 1993)

(Dry Basis)

Orig ID	Lab.Spl#	Nuclide	pCi/gram	2 sigma
562	93-138	U-235	1.81E+00	+/- 1.9E-01
		Cs-137	3.90E-01	+/- 2.0E-01
563	93-139	U-235	1.18E+00	+/- 1.7E-01
		Cs-137	4.09E-01	+/- 1.9E-01
564	93-140	U-235	1.39E+00	+/- 4.4E-01
		Cs-137	4.39E-01	+/- 2.6E-01
565	93-141	U-235	3.47E+00	+/- 5.0E-01
566	93-142	U-235	1.54E+00	+/- 2.1E-01
		Cs-137	2.71E-01	+/- 1.7E-01
567	93-143	U-235	2.21E+00	+/- [illegible] 01
		Co-60	4.36E-01	+/- [illegible]

Remarks: Gamma Spectrometry Analysis

References: Request# 14985
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Kawchak

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14985

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/2/93
Reported: 4/6/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ February 2, 1993)

Orig ID	Lab.Spl#	Nuclide	(Dry Basis) pCi/gram	2 sigma
568	93-144	U-235	2.78E+00	+/- 2.2E-01
		Cs-137	6.79E-01	+/- 2.4E-01
569	93-145	U-235	1.86E+00	+/- 4.0E-01
		Cs-137	4.13E-01	+/- 2.3E-01
570	93-146	U-235	1.17E+00	+/- 2.3E-01
		Cs-137	4.47E-01	+/- 2.4E-01
571	93-147	U-235	1.08E+00	+/- 2.0E-01
		Cs-137	2.52E-01	+/- 1.7E-01
572	93-148	U-235	1.33E+00	+/- 1.5E-01
		Cs-137	5.32E-01	+/- 9.7E-02
573	93-149	U-235	2.63E+00	+/- 3.4E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 14985
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 2

Approved: Mark Kaminski

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14985

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/2/93
Reported: 4/6/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ February 2, 1993)

Orig ID	Lab.Spl#	Nuclide	(Dry Basis) pCi/gram	2 sigma
574	93-150	U-235	6.26E+00	+/- 3.3E-01
		Cs-137	7.09E-01	+/- 2.4E-01
575	93-151	U-235	3.58E+00	+/- 4.5E-01
		Cs-137	6.25E-01	+/- 3.1E-01
576	93-152	U-235	3.06E+00	+/- 3.7E-01
		Cs-137	4.89E-01	+/- 2.2E-01
577	93-153	U-235	2.62E+00	+/- 3.9E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 14985
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 3

Approved: [signature]

REPORT

Westinghouse Electric Corporation
NSD - Analytical Laboratory
Waltz Mill Site

Request 14997

TO: A. J. Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2 11/93
Reported: 2 18/93

[RESULTS OF ANALYSIS]

Gamma spectrometry results: (@ February 11,1993) (Wet Basis)

Originator ID	Lab Spl#	U-235 pCi/gram	U-235 2 sigma	Cs-137 pCi/gram	Cs-137 2 sigma
578 *	93-237	1.17E-01	+/- 3.6E-02	< 4.2E-2	
579	93-238	2.64E-01	+/- 2.2E-01	< 2.3E-1	
580	93-239	5.19E-01	+/- 1.1E-01	1.69E-01	+/- 1.2E-01
581	93-240	5.19E 00	+/- 3.4E-01	8.53E-01	+/- 1.8E-01
582	93-241	1.59E 00	+/- 2.9E-01	1.97E-01	+/- 1.6E-01
583	93-242	7.84E-01	+/- 1.1E-01	2.14E-01	+/- 7.5E-02
584	93-243	<2.7E-01		<1.8E-01	
585	93-244	1.22E 00	+/- 2.6E-01	3.94E-01	+/- 1.8E-01
586	93-245	2.30E 00	+/- 1.7E-01	2.07E-01	+/- 1.3E-01
587	93-246	7.12E-01	+/- 3.6E-01	<2.3E-01	

Remarks: Gamma Spectrometry Analysis
* PREVIOUSLY REPORTED

References: Request# 14997

Procedures: A-524
Analyst: WTF,FRC,MRK

Approved: _____

Westinghouse Electric Corporation
NSD - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 15003

TO: Joseph Nardi/Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /18/93
Reported: /25/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ February 18, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
588	93-271	U-235	1.03E+00	+/- 2.1E-01
		Cs-137	2.70E-01	+/- 1.4E-01
589	93-272	U-235	1.53E+00	+/- 1.4E-01
		Cs-137	1.89E-01	+/- 1.1E-01
590	93-273	U-235	1.61E+00	+/- 2.3E-01
		Cs-137	4.20E-01	+/- 1.9E-01
591	93-274	U-235	1.53E+00	+/- 1.3E-01
		Cs-137	2.11E-01	+/- 1.2E-01
592	93-275	U-235	1.83E+00	+/- 3.2E-01
		Cs-137	1.94E-01	+/- 1.3E-01
593	93-276	U-235	1.93E+00	+/- 1.8E-01
		Cs-137	2.87E-01	+/- 1.4E-01
594	93-277	U-235	1.07E+00	+/- 2.7E-01
		Cs-137	5.30E-01	+/- 1.9E-01
595	93-278	U-235	9.55E-01	+/- 1.5E-01
		Cs-137	3.48E-01	+/- 1.5E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15003
Procedures: A-524
Analyst: WTF, MRK, FRL

Approved:

REPORT

Westinghouse Electric Corporation
NSD - Analytical Laboratory
Waltz Mill Site

Reque t# 15003

TO: Joseph Nardi/Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/18/93
Reported: 2/25/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ February 18, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
596	93-279	U-235	6.16E-01	+/- 2.9E-01
597	93-280	U-235	2.17E+00	+/- 1.9E-01
		Cs-137	1.97E-01	+/- 1.4E-01
598	93-281	U-235	1.38E+00	+/- 2.6E-01
		Cs-137	3.29E-01	+/- 1.5E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15003
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 2

Approved: [signature]

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 15007

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /25/93
Reported: /22/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ February 25, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
599	93-306	U-235	2.04E+00	+/- 2.2E-01
600	93-307	U-235	1.23E+00	+/- 1.3E-02
601	93-308	U-235	2.44E+00	+/- 2.3E-01
		Cs-137	2.60E-01	+/- 1.5E-01
602	93-309	U-235	<4.6E-01	
		Co-60	<5.3E-01	
603	93-310	U-235	2.23E+00	+/- 1.8E-01
		Cs-137	1.46E-01	+/- 1.2E-01
604	93-311	U-235	3.63E+00	+/- 3.4E-01
		Cs-137	2.90E-01	+/- 1.4E-01
605	93-312	U-235	4.71E+00	+/- 2.3E-01
		Cs-137	1.47E-01	+/- 1.4E-01

Remarks: Gamma Spectrometry Analysis (As received)

References: Request# 15007
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Hawbaker

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15012

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/3/93
Reported: 3/18/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ March 3, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
606	93-338	U-235	5.39E+00	+/- 1.2E-01
		Cs-137	2.32E-01	+/- 5.8E-02
607	93-339	U-235	3.79E+00	+/- 2.5E-01
		Cs-137	2.80E-01	+/- 1.4E-01
608	93-340	U-235	3.24E+00	+/- 2.4E-01
		Cs-137	2.69E-01	+/- 1.8E-01
609	93-341	U-235	1.11E+01	+/- 1.1E-01
		Cs-137	3.32E-01	+/- 1.6E-01

Remarks: Gamma Spectrometry Analysis

References: Request# 15012
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: [signature]

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15043

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 4/7/93
Reported: 4/26/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ April 27, 1993)

Orig ID	Lab.Spl#	Nuclide	(Dry Basis) pCi/gram	2 sigma
623	93-457	U-235	2.37E-01	+/- 1.5E-02
		Cs-137	7.59E-01	+/- 2.4E-01
		Ra-226	1.01E+00	+/- 3.8E-01
		Ra-228	1.86E+00	+/- 9.2E-01
		Th-228	8.34E-01	+/- 4.6E-01

Remarks: Gamma Spectrometry Analysis
Sample dried, ground, & sieved

References: Request# 15043
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Lawrchak

Westinghouse Electric Corporation
Chemistry & Materials Technology - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15080

TO: Joseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/25/93
Reported: 6/3/93

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ May 25, 1993)

Orig ID	Lab.Spl#	Nuclide	(Wet Basis) pCi/gram	2 sigma
705	93-739	U-235	<2.9E-01	
706	93-740	U-235	<1.9E-01	
707	93-741	U-235	<3.9E-01	
708	93-742	U-235	<4.0E-01	
709	93-743	U-235	<3.3E-01	
710	93-744	U-235	<9.9E-02	
711	93-745	U-235	<2.8E-01	
		Cs-137	1.75E-01	+/- 1.6E-01
712	93-746	U-235	<1.4E-01	
713	93-747	U-235	<4.3E-01	
		Cs-137	3.83E-01	+/- 2.8E-01
714	93-748	U-235	<4.0E-01	
		Be-7	3.72E+00	+/- 2.0E+00
715	93-749	U-235	<2.8E-01	
716	93-750	U-235	1.16E-01	+/- 9.5E-02

Remarks: Gamma Spectrometry Analysis

References: Request# 15080
Procedures: A-524
Analyst: WTF, MRK, FRC
Page 1

Approved: [signature]

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/7/93
Reported: 6/23/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl# 92-2984,2985,93-739,740,741

ID 524,525,623,705,706,& 707

NUCLIDE	pCi/gram	2 sigma
U-238	5.70E-01	+/- 3.5E-01
U-235	<1.7E-01	
U-234	8.50E-01	+/- 4.1E-01
U-233	<1.6E-01	

Lab.Spl# 93-742,743,744,745,& 746

ID 708,709,710,711,& 712

NUCLIDE	pCi/gram	2 sigma
U-238	6.90E-01	4.0E-01
U-235	<2.2E-01	
U-234	1.42E+00	+/- 5.7E-01
U-233	<2.5E-01	

Lab.Spl# 93-747,748,749,750,92-3167.& 92-3168

ID 713,714,715,716,544,& 545

NUCLIDE	pCi/gram	2 sigma
U-238	2.56E+00	+/- 6.2E-01
U-235	<2.4E-01	
U-234	3.34E+00	+/- 7.1E-01
U-233	<1.6E-01	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15069A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC

Approved: Mark Fawcett

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14985A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/2/93
Reported: 5/18/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl# 93-138,139,140,142,145,147,& 148
ID 562,563,564,566,569,571,& 572

NUCLIDE	pCi/gram	2 sigma
U-238	7.80E-01	+/- 1.2E-01
U-235	6.30E-01	+/- 1.1E-01
U-234	1.31E+01	+/- 4.8E-01
U-233	2.80E-01	+/- 1.2E-01

Lab.Spl# 93-141,151,& 152
ID 565,575,& 576

NUCLIDE	pCi/gram	2 sigma
U-238	<1.2E+00	
U-235	<1.9E+00	
U-234	3.36E+01	+/- 4.8E-01
U-233	2.80E-01	+/- 1.2E-01

Lab.Spl# 93-150
ID 574

NUCLIDE	pCi/gram	2 sigma
U-238	<1.3E+00	
U-235	<3.4E+00	
U-234	6.16E+01	+/- 1.1E+00
U-233	<8.0E-02	

Remarks: Uranium Alpha Spectrometry Analysis
(93-143,144,149,153 COMPOSITE TO BE RE-ANALYZED)

References: Request# 14985A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 1

Approved:

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14985A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/2/93
Reported: 6/22/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl# 93-143,144,149,153

ID 567,568,573,& 577

NUCLIDE	pCi/gram	2 sigma
U-238	5.80E-01	+/- 2.1E-01
U-235	9.00E-01	+/- 3.0E-01
U-234	1.92E+01	+/- 1.2E+00
U-233	<2.5E-01	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 14985A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 2

Approved:

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14997A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/11/93
Reported: 4/27/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-240	
ID	581	
NUCLIDE	pCi/gram	2 sigma
U-238	5.20E-01	+/- 1.3E-01
U-235	9.10E-01	+/- 1.8E-01
U-234	2.00E+01	+/- 7.8E-01
U-233	8.00E-02	+/- 8.0E-02

Lab.Spl#	93-241	
ID	582	
NUCLIDE	pCi/gram	2 sigma
U-238	6.00E-01	+/- 1.1E-01
U-235	6.80E-01	+/- 9.0E-02
U-234	1.60E+01	+/- 4.0E-01
U-233	2.50E-01	+/- 9.0E-02

Lab.Spl#	93-245	
ID	586	
NUCLIDE	pCi/gram	2 sigma
U-238	1.25E+00	+/- 1.1E-01
U-235	3.00E+00	+/- 1.8E-01
U-234	6.66E+01	+/- 7.9E-01
U-233	2.10E-01	+/- 7.0E-02

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 14997A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 1

Approved:

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14997A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/11/93
Reported: 5/2/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-244		Lab.Spl#	93-238,239,242,&243	
ID	585		ID	579,580,583,&584 Composite	
NUCLIDE	pCi/gram	2 sigma	NUCLIDE	pCi/gram	2 sigma
U-238	<1.9E+00		U-238	<9.4E-01	
U-235	<4.3E+00		U-235	<1.2E+00	
U-234	7.95E+01	+/- 3.4E+00	U-234	1.59E+01	+/- 4.5E-01
U-233	<2.6E-01		U-233	7.00E-02	+/- 6.0E-02

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 14997A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC

Approved:

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15003A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/18/93
Reported: 4/26/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-271	
ID	588	
NUCLIDE	pCi/gram	2 sigma
U-238	6.90E-01	+/- 9.0E-02
U-235	8.40E-01	+/- 1.0E-01
U-234	1.80E+01	+/- 4.5E-01
U-233	6.90E-01	+/- 1.4E-01

Lab.Spl#	93-272	
ID	589	
NUCLIDE	pCi/gram	2 sigma
U-238	6.00E-01	+/- 1.1E-01
U-235	6.80E-01	+/- 9.0E-02
U-234	1.60E+01	+/- 4.0E-01
U-233	2.50E-01	+/- 9.0E-02

Lab.Spl#	93-273	
ID	590	
NUCLIDE	pCi/gram	2 sigma
U-238	7.70E-01	+/- 1.0E-01
U-235	9.20E-01	+/- 1.2E-01
U-234	2.04E+01	+/- 5.2E-01
U-233	6.80E-01	+/- 1.5E-01

Lab.Spl#	93-274	
ID	591	
NUCLIDE	pCi/gram	2 sigma
U-238	8.80E-01	+/- 1.1E-01
U-235	1.61E+00	+/- 1.4E-01
U-234	3.61E+01	+/- 5.8E-01
U-233	3.80E-01	+/- 7.0E-02

Lab.Spl#	93-275	
ID	592	
NUCLIDE	pCi/gram	2 sigma
U-238	7.50E-01	+/- 9.0E-02
U-235	1.10E+00	+/- 1.2E-01
U-234	2.39E+01	+/- 5.2E-01
U-233	5.20E-01	+/- 1.2E-01

Lab.Spl#	93-276	
ID	593	
NUCLIDE	pCi/gram	2 sigma
U-238	8.20E-01	+/- 1.0E-01
U-235	4.60E-01	+/- 8.0E-02
U-234	8.05E+00	+/- 3.0E-01
U-233	<2.0E-02	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15003A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC
Page 1

Approved: Mark Kawchak

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15003A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 2/18/93
Reported: 4/26/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-277	
ID	594	
NUCLIDE	pCi/gram	2 sigma
U-238	6.90E-01	+/- 9.0E-02
U-235	1.33E+00	+/- 1.3E-01
U-234	2.97E+01	+/- 5.6E-01
U-233	<1.0E-01	

Lab.Spl#	93-278	
ID	595	
NUCLIDE	pCi/gram	2 sigma
U-238	9.70E-01	+/- 1.1E-01
U-235	6.10E-01	+/- 9.0E-02
U-234	1.35E+01	+/- 4.0E-01
U-233	<3.0E-02	

Lab.Spl#	93-280	
ID	597	
NUCLIDE	pCi/gram	2 sigma
U-238	9.20E-01	+/- 1.3E-01
U-235	1.28E+00	+/- 1.6E-01
U-234	2.60E+01	+/- 6.7E-01
U-233	<3.0E-02	

Lab.Spl#	93-281	
ID	598	
NUCLIDE	pCi/gram	2 sigma
U-238	9.50E-01	+/- 1.1E-01
U-235	1.29E+00	+/- 1.4E-01
U-234	2.71E+01	+/- 5.8E-01
U-233	1.80E-01	+/- 7.0E-02

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15003A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC

Approved: Mark Kanuchak

Westinghouse Electric Corporation
CMT - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 15069A

TO: Joeseph Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/3/93
Reported: 6/23/93

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl#	93-633,634,635,636,637,638, 639,640,641,642,643,& 644
ID	670,671,672,673,674,675,676, 677,678,679,680,& 681

NUCLIDE	pCi/gram	2 sigma
U-238	<3.1E-01	
U-235	<2.9E-01	
U-234	<7.4E-01	
U-233	1.74E+00	+/- 8.5E-01

Lab.Spl#	93-645,646,647,648,649,650, 651,652,653,654,& 655
ID	682,683,684,685,686,687, 688,689,690,691,& 692

NUCLIDE	pCi/gram	2 sigma
U-238	5.60E-01	+/- 4.3E-01
U-235	<1.5E-01	
U-234	1.99E+00	+/- 6.6E-01
U-233	<1.6E-01	

Lab.Spl#	92-2979,2980,2981,2982,& 2983
ID	519,520,521,522,& 523

NUCLIDE	pCi/gram	2 sigma
U-238	<2.1E-01	
U-235	<1.0E-01	
U-234	1.63E+00	+/- 4.3E-01
U-233	<1.6E-01	

Remarks: Uranium Alpha Spectrometry Analysis

References: Request# 15069A
Procedures: OI 86-4, A-529
Analyst: WTF, MRK, FRC

Approved: Mark Kowalski

APPENDIX B

RADIOLOGICAL SURVEY DATA SHEETS FOR STORM SEWER CATCH BASINS UNDER BUILDINGS 5, 6 AND 8

IH & S FORM: FDS-REV1
LARGE SITE 9/92

DECOMMISSIONING FIELD DATA SHEET

	uR/hr GAMMA	LOW ENERGY GAMMA	BETA/GAMMA	ALPHA	BETA	FLOOR MONITOR ALPHA	FLOOR MONITOR BETA
INSTRUMENT:	R/S	PRM-7	ESP-2	ESP-2	E-520	LUDLUM	LUDLUM
S/N:	L-2088	234	N/A	N/A	5245	N/A	N/A
EFFICIENCY:	N/A	N/A	N/A	N/A	20.5%	N/A	N/A
CORR. FAC.:	N/A	N/A	N/A	N/A	4.87	N/A	N/A
BACKGROUND:		11	9618 Ct	mr/hr	cpm	55 cpm	cpm cpm

COUNTING EQUIPMENT				
	ALPHA		BETA	
COUNTER#	TENNELEC 1	ALPHA	TENNELEC 1	GM
BKG.	1.24 cpm	cpm	.10 cpm	cpm
EFF.	37.85 %	%	49.88 %	%
C.F.	2.64		2.0	

SURVEY DATE: 2/24/93

COUNT DATE: 2/24/93

SURFACE DESCRIPTION	GRID	X,Y REFERENCE POINT	GAMMA @ 1 M. uR/hr	LOW ENERGY GAMMA @ CONTACT 1 Min. gross ct.	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
						MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Building 5 - Catch	@ 10'	1	11	9474	N/A	50	45	N/A	N/A	-0.264	-2.49	
Basin Close Out		2	12	9552	"	45	40	"	"	-0.264	-2.49	
"	@ 20'	3	13	13,248	"	60	55	"	"	-0.264	-2.49	
"		4	10	9506	"	40	35	"	"	-0.264	-2.49	
"	@ 30'	5	11	10,176	"	55	45	"	"	7.741	3.59	
"		6	11	9186	"	35	30	"	"	-0.264	-2.49	
"	@ 40'	7	12	9772	"	40	35	"	"	-0.264	3.59	
"		8	12	9972	"	55	45	"	"	-0.264	-2.49	
"	@ 50'	9	11	9412	"	45	40	"	"	-0.264	3.41	
"		10	10	9766	"	45	35	"	"	7.661	-0.48	

FORM SERIAL #: 1-029
(Survey Section - Sequential survey #)

LOCATION # 1-4-1
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: IV
(Group I, II, III, IV)

DISK FILE CODE: FDS-0285

SURVEYOR SIGNATURE: MS

LB5100W Low Background Counting System -- Smear Analysis

Date: 2/25/93
Counting Unit id: 1
Data file name: C:\LB5100\UNIT1\BLDG5CB.XLD
Batch Ended: 2/25/93 10:21
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1485

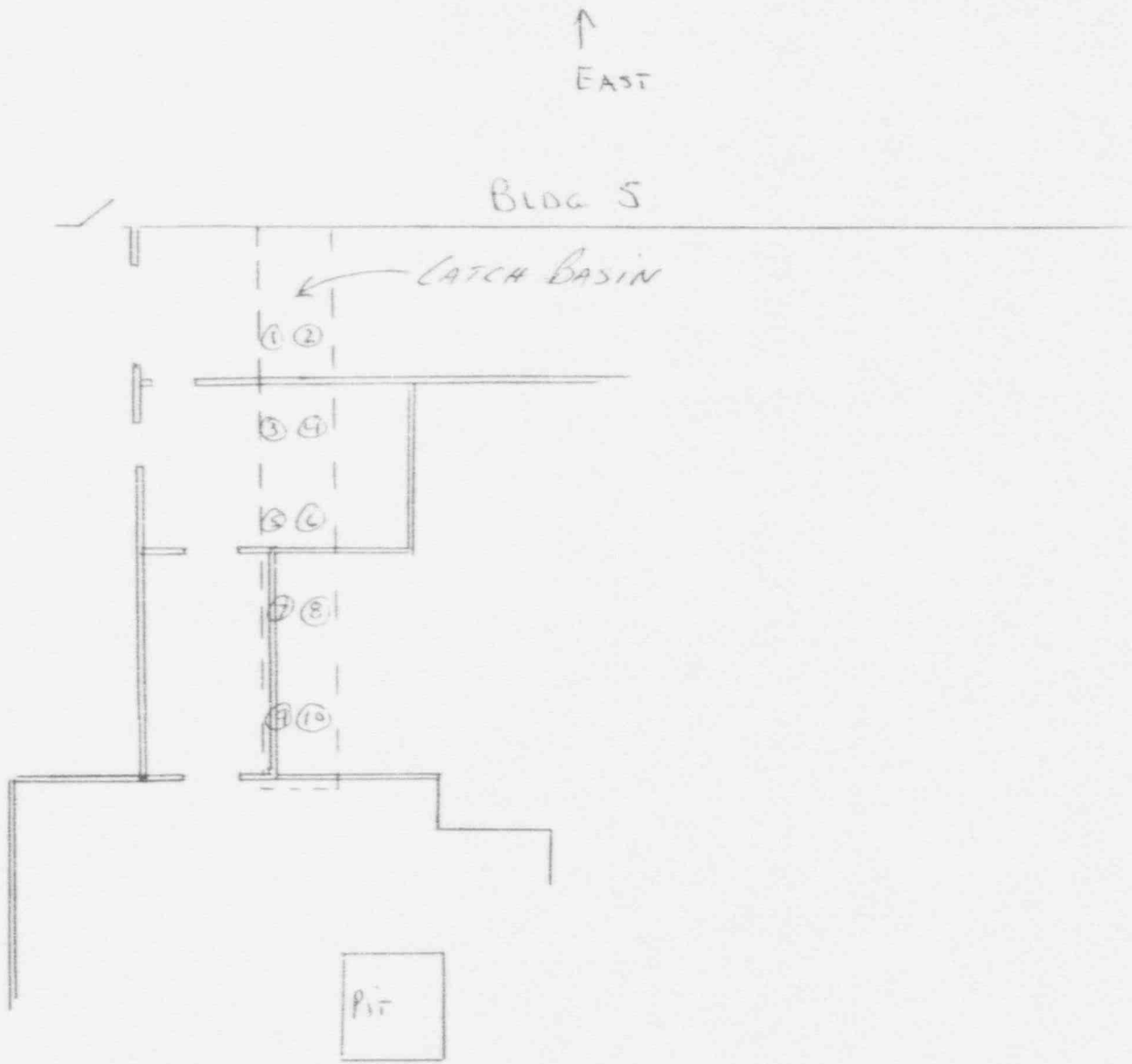
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: po210ab
Alpha Efficiency: 37.85%
Alpha to Beta Crosstalk: 4.92%
Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
Beta Efficiency: 49.88%
Beta into Alpha Crosstalk: 0.36%
Beta Background (CPM): 1.24

Batch ID: bldg 5 catch basin close out

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.264	1.63	<MDA	28.84	-2.49	3.93	<MDA	34.63	0.33	-0.100	1.24	2/25/93 10:16
2	-0.264	1.60	<MDA	28.10	-2.49	3.87	<MDA	33.88	0.34	-0.100	1.24	2/25/93 10:17
3	-0.264	1.60	<MDA	28.10	-2.49	3.87	<MDA	33.88	0.34	-0.100	1.24	2/25/93 10:17
4	-0.264	1.63	<MDA	28.84	-2.49	3.93	<MDA	34.63	0.33	-0.100	1.24	2/25/93 10:18
5	7.741	8.17	At Al	28.84	3.59	7.24	<MDA	34.63	0.33	2.930	1.79	2/25/93 10:18
6	-0.264	1.63	<MDA	28.84	-2.49	3.93	<MDA	34.63	0.33	-0.100	1.24	2/25/93 10:19
7	-0.264	1.63	<MDA	28.84	3.59	7.24	<MDA	34.63	0.33	-0.100	1.79	2/25/93 10:19
8	-0.264	1.63	<MDA	28.84	-2.49	3.93	<MDA	34.63	0.33	-0.100	1.24	2/25/93 10:20
9	-0.264	1.60	<MDA	28.10	3.41	7.06	<MDA	33.88	0.34	-0.100	1.70	2/25/93 10:20
10	7.661	4.67	At Al	11.27	0.48	3.02	<MDA	15.88	1.00	2.900	0.24	2/25/93 10:21


EAST
BLDG 5
CATCH BASIN
1
2
3
4
5
6
7
8
9
10
PIT

IT & S FORM: FDS-REV1
LARGE SITE 9/92

DECOMMISSIONING FIELD DATA SHEET

INSTRUMENT:	R/S	PRM-7	LOW ENERGY GAMMA PRS-1	BETA/GAMMA ESP-2	ALPHA ESP-2	BETA E-520	FLOOR MONITOR ALPHA LUDLUM	FLOOR MONITOR BETA LUDLUM
(uR/hr GAMMA)								
S/N:	L-2088	234	246	N/A	N/A	5245	N/A	N/A
EFFICIENCY:	N/A	N/A	N/A	N/A	N/A	20.5%	N/A	N/A
CORR. FAC.:	N/A	N/A	N/A	N/A	N/A	4.87	N/A	N/A
BACKGROUND:		11	9373 Cts.	mr/hr	cpm	40 cpm	cpm	cpm

COUNTING EQUIPMENT	ALPHA		BETA	
COUNTER#	TENNELEC 1	ALPHA	TENNELEC 1	GM
BKG.	1.24 cpm	cpm	.10 cpm	cpm
EFF.	37.85 %	%	49.88 %	%
C.F.	2.64		2.0	

SURVEY DATE: 2/24/93

COUNT DATE: 2/24/93

SURFACE DESCRIPTION	GRID	X,Y REFERENCE POINT	GAMMA @ 1 M. uR/hr	LOW ENERGY GAMMA @ CONTACT 1 Min. gross ct.	BETA/GAMMA CONT. mr/hr	SCAN CONTACT GROSS CPM MAX BETA	SCAN CONTACT GROSS CPM AVG BETA	CONTACT GROSS 1 MIN.CT. ALPHA	CONTACT GROSS 1 MIN.CT. BETA	SMEAR LEVELS IN DPM/100cm2 ALPHA	SMEAR LEVELS IN DPM/100cm2 BETA	COMMENTS
Building 6	@ 10'	1	10	9624	N/A	45	30	N/A	N/A	-0.264	3.59	East to West
Catch Basin		2	10	9464	"	45	40	"	"	-0.264	3.41	"
"	@ 20'	3	11	9722	"	50	40	"	"	-0.264	-2.49	"
"		4	10	9886	"	55	35	"	"	7.741	-2.49	"
"	@ 30'	5	11	10,080	"	50	35	"	"	-0.264	-2.49	"
"		6	11	9742	"	55	35	"	"	-0.264	3.41	"
"	@ 40'	7	10	9720	"	45	30	"	"	-0.264	-2.49	"
"		8	10	9854	"	50	30	"	"	-0.264	3.41	"
"	@ 50'	9	10	9440	"	40	25	"	"	-0.264	3.59	"
"		10	12	9418	"	45	40	"	"	-0.264	9.31	"
"	@ 60'	11	10	9722	"	45	35	"	"	-0.264	9.31	"
"		12	11	9732	"	40	35	"	"	-0.264	-2.49	"
"	@ 70'	13	12	10,150	"	50	40	"	"	-0.264	9.66	"
"		14	10	9646	"	45	35	"	"	-0.264	-2.49	

FORM SERIAL #: 4-013 (Survey Section - Sequential survey #)	LOCATION # 4-3-1 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: IV (Group I, II, III, IV)	DISK FILE CODE: FDS-0275	SURVEYOR SIGNATURE: AS

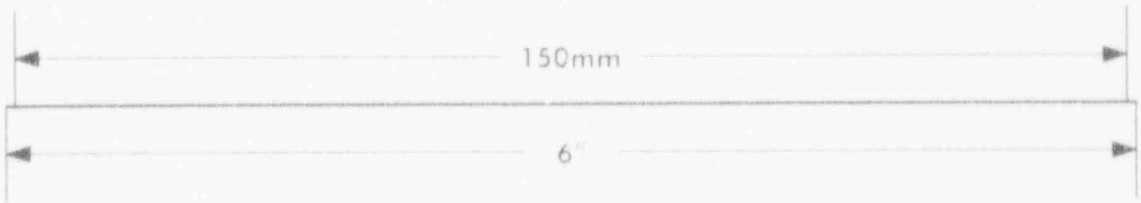
2

IMAGE EVALUATION TEST TARGET (MT-3)

PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
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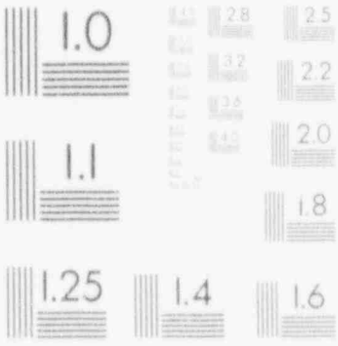
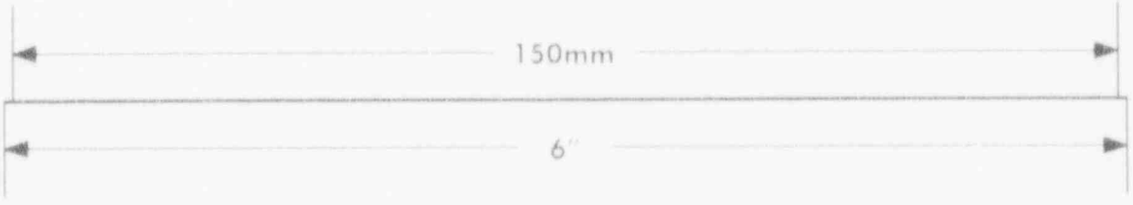
IMAGE EVALUATION TEST TARGET (MT-3)

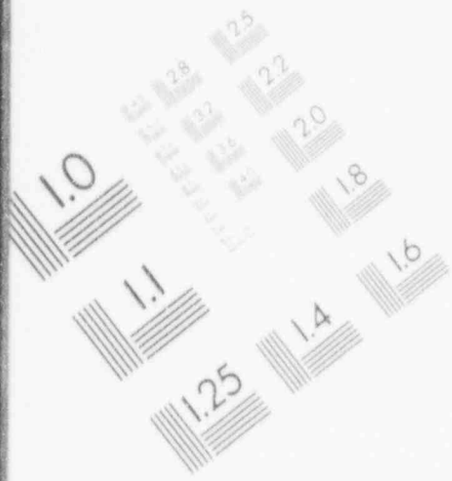


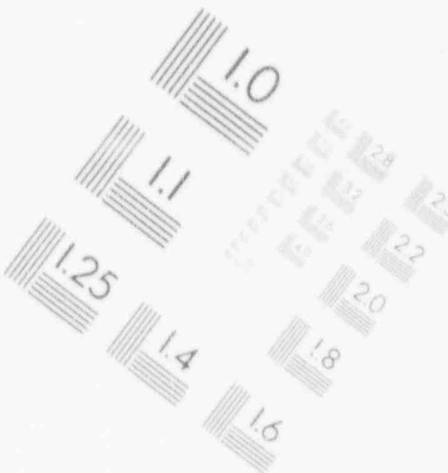


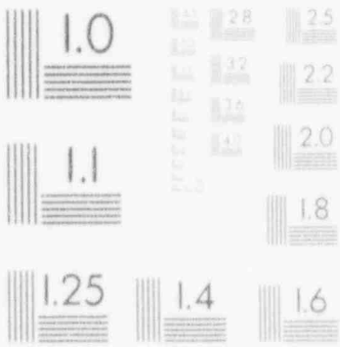
PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

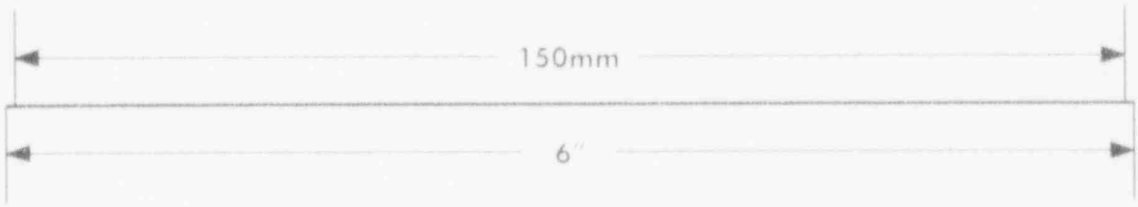
2

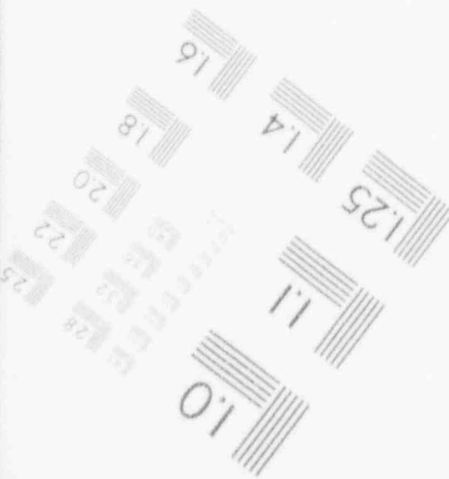
IMAGE EVALUATION TEST TARGET (MT-3)

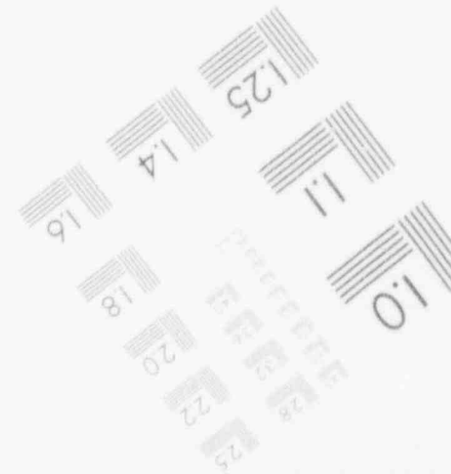












PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

LB5100W Low Background Counting System – Smear Analysis

Date: 2/24/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\FILE06CB.XLD
Batch Ended: 2/24/93 10:59
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1435

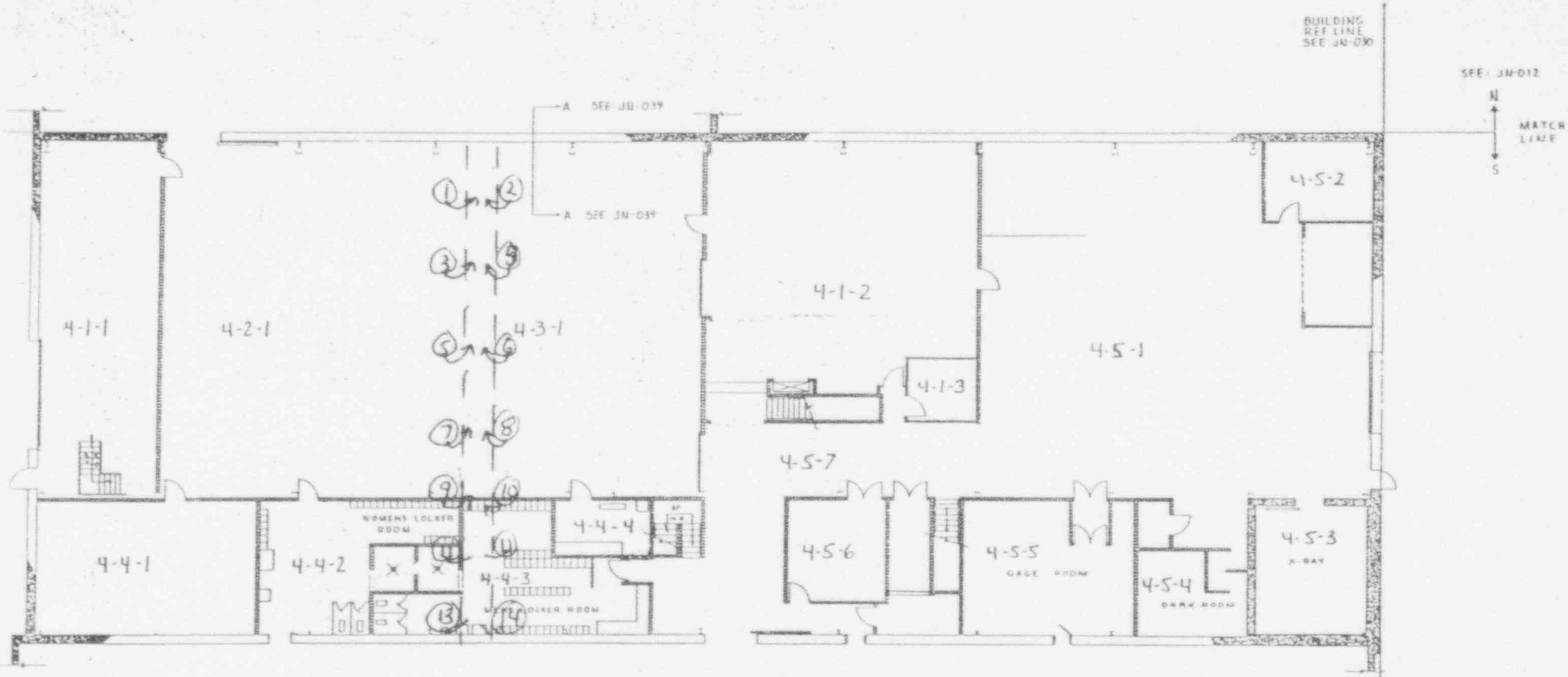
Application Revision: 2
Application Version: Standard

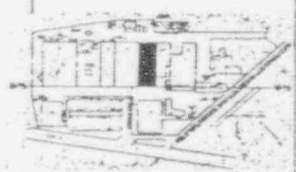
Alpha efficiency log file: po210ab
Alpha Efficiency: 37.85%
Alpha to Beta Crosstalk: 4.92%
Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
Beta Efficiency: 49.88%
Beta into Alpha Crosstalk: 0.36%
Beta Background (CPM): 1.24

Batch ID: MS - Bldg 6 catch basin close out

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	-0.264	1.63	<MDA	28.84	3.59	7.24	<MDA	34.63	0.33	-0.100	1.79	2/24/93 10:53
2	-0.264	1.60	<MDA	28.10	3.41	7.06	<MDA	33.88	0.34	-0.100	1.70	2/24/93 10:53
3	-0.264	1.60	<MDA	28.10	2.49	3.87	<MDA	33.88	0.34	-0.100	1.24	2/24/93 10:54
4	7.741	8.17	AI AL	28.84	2.49	3.93	<MDA	34.63	0.33	2.930	1.24	2/24/93 10:54
5	-0.264	1.60	<MDA	28.10	2.49	3.87	<MDA	33.88	0.34	-0.100	1.24	2/24/93 10:55
6	-0.264	1.60	<MDA	28.10	3.41	7.06	<MDA	33.88	0.34	-0.100	1.70	2/24/93 10:55
7	-0.264	1.63	<MDA	28.84	2.49	3.93	<MDA	34.63	0.33	-0.100	1.24	2/24/93 10:56
8	-0.264	1.60	<MDA	28.10	3.41	7.06	<MDA	33.88	0.34	-0.100	1.70	2/24/93 10:56
9	-0.264	1.63	<MDA	28.84	3.59	7.24	<MDA	34.63	0.33	-0.100	1.79	2/24/93 10:57
10	-0.264	1.60	<MDA	28.10	9.31	9.20	<AL	33.88	0.34	-0.100	4.64	2/24/93 10:57
11	-0.264	1.60	<MDA	28.10	9.31	9.20	<AL	33.88	0.34	-0.100	4.64	2/24/93 10:58
12	-0.264	1.60	<MDA	28.10	2.49	3.87	<MDA	33.88	0.34	-0.100	1.24	2/24/93 10:58
13	-0.264	1.63	<MDA	28.84	9.66	9.45	<AL	34.63	0.33	-0.100	4.82	2/24/93 10:59
14	-0.264	1.63	<MDA	28.84	2.49	3.93	<MDA	34.63	0.33	-0.100	1.24	2/24/93 10:59





LEGEND
BRICK
CONC BLOCK EXT
CONC BLOCK INT
DRYWALL & PANELING
SCALE FEET
0 5 10 15 20 25

PARTS LIST

QTY REQD	SYM	ITEM NO.	NOMENCLATURE OR DESCRIPTION	CODE IDENT NO.	PART OR IDENTIFYING NO.	MATERIAL	SPECIFICATION	ZONE

UNLESS OTHERWISE SPECIFIED
TOLERANCES — DO NOT SCALE

Westinghouse Advanced Energy Systems Division
Pittsburgh, Pennsylvania

FIRST FLOOR
BUILDING No 6
WAESD LARGE, PA

SIZE	CODE IDENT NO.	DWG NO.	REV
D	14683	JN-011	A

DWG CODE NO.

7 6 5 4 3 2 1

IH & S FORM: FDS-REV1
LARGE SITE 9/92

DECOMMISSIONING FIELD DATA SHEET

PAGE -

	uR/hr GAMMA	LOW ENERGY GAMMA	BETA/GAMMA	ALPHA	BETA	FLOOR MONITOR ALPHA	FLOOR MONITOR BETA
INSTRUMENT:	R/S	PRM-7	ESP-2	ESP-2	E-520	LUDLUM	LUDLUM
S/N:	L-2088	234	246	N/A	5245	N/A	N/A
EFFICIENCY:	N/A	N/A	N/A	N/A	20.5%	N/A	N/A
CORR. FAC.:	N/A	N/A	N/A	N/A	4.87	N/A	N/A
BACKGROUND:		15	10436 Cts.	mr/hr	~~48~~ 40 cpm	40 cpm	cpm cpm

ADM 6/8/93

COUNTING EQUIPMENT				
	ALPHA		BETA	
COUNTER#	TENNELEC 1	ALPHA	TENNELEC 1	GM
BKG.	1.24 cpm	cpm	.1 cpm	cpm
EFF.	37.85 %	%	49.88 %	%
C.F.	2.64		2.0	

SURVEY DATE: 2/22/93

COUNT DATE: 2/22/93

SURFACE DESCRIPTION	GRID	X,Y REFERENCE POINT	GAMMA @ 1 M. uR/hr	LOW ENERGY GAMMA @ CONTACT 1 Min. gross ct.	BETA/GAMMA CONT.mr/hr	SCAN CONTACT GROSS CPM		CONTACT GROSS 1 MIN.CT.		SMEAR LEVELS IN DPM/100cm2		COMMENTS
						MAX BETA	AVG BETA	ALPHA	BETA	ALPHA	BETA	
Building 8 Catch	N/A	See Map	15	9,720	N/A	55	35	N/A	N/A	7.741	3.59	Close Out
Basin Floor	"	"	15	9,950	"	55	35	"	"	-0.264	-2.49	Survey
"	"	"	13	10,672	"	50	30	"	"	7.506	9.31	"
"	"	"	13	10,272	"	60	40	"	"	-0.264	3.59	"
"	"	"	11	10,680	"	55	40	"	"	-0.264	15.74	"
"	"	"	12	10,132	"	55	40	"	"	-0.264	3.41	"
"	"	"	11	9,722	"	55	40	"	"	-0.264	3.59	"
"	"	"	15	10,616	"	60	45	"	"	-0.264	3.59	"
"	"	"	11	9,890	"	60	45	"	"	-0.264	-2.49	"
"	"	"	11	10,102	"	50	35	"	"	-0.264	9.66	"
"	"	"	11	10,526	"	50	40	"	"	-0.264	-2.49	"
"	"	"	12	10,286	"	45	30	"	"	7.506	3.41	"

FORM SERIAL #: 28E-004 (Survey Section - Sequential survey #)	LOCATION # 28E-1-1 (Survey Section - Unit # - Sub Unit #)	SURVEY CLASSIFICATION: I (Group I, II, III, IV)	DISK FILE CODE: FDS-0266

BY: LARRY SMITH

LB5100W Low Background Counting System -- Smear Analysis

Date: 2/23/93
Counting Unit id: 1
Data file name: C:\LBX\UNIT1\FEB08CB.XLD
Batch Ended: 2/23/93 7:52
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1435

Application Revision: 2
Application Version: Standard

Alpha efficiency log file: po210ab
Alpha Efficiency: 37.85%
Alpha to Beta Crosstalk: 4.92%
Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
Beta Efficiency: 49.88%
Beta into Alpha Crosstalk: 0.36%
Beta Background (CPM): 1.24

Batch ID: Bldg. 8 Catch basin close out survey

	Alpha Activity				Beta Activity				Count	Alpha	Beta	Completion
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	time (min)	CPM	CPM	TOD
1	7.741	8.17	At AL	28.84	3.59	7.24	<MDA	34.63	0.33	2.930	1.79	2/23/93 7:47
2	-0.264	1.60	<MDA	28.10	-2.49	3.87	<MDA	33.88	0.34	-0.100	-1.24	2/23/93 7:48
3	7.506	7.94	At AL	28.10	9.31	9.20	<AL	33.88	0.34	2.841	4.64	2/23/93 7:48
4	-0.264	1.63	<MDA	28.84	3.59	7.24	<MDA	34.63	0.33	-0.100	1.79	2/23/93 7:49
5	-0.264	1.63	<MDA	28.84	15.74	11.24	<AL	34.63	0.33	-0.100	7.85	2/23/93 7:50
6	-0.264	1.60	<MDA	28.10	3.41	7.06	<MDA	33.88	0.34	-0.100	1.70	2/23/93 7:50
7	-0.264	1.63	<MDA	28.84	3.59	7.24	<MDA	34.63	0.33	-0.100	1.79	2/23/93 7:51
8	-0.264	1.63	<MDA	28.84	3.59	7.24	<MDA	34.63	0.33	-0.100	1.79	2/23/93 7:51
9	-0.264	1.63	<MDA	28.84	-2.49	3.93	<MDA	34.63	0.33	-0.100	-1.24	2/23/93 7:52
10	-0.264	1.63	<MDA	28.84	9.66	9.45	<AL	34.63	0.33	-0.100	4.82	2/23/93 7:52

LB5100W Low Background Counting System – Smear Analysis

Date: 2/23/93
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\BLD8CBXC.XLD
Batch Ended: 2/23/93 12:31
Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%
High Voltage Setting: 1435

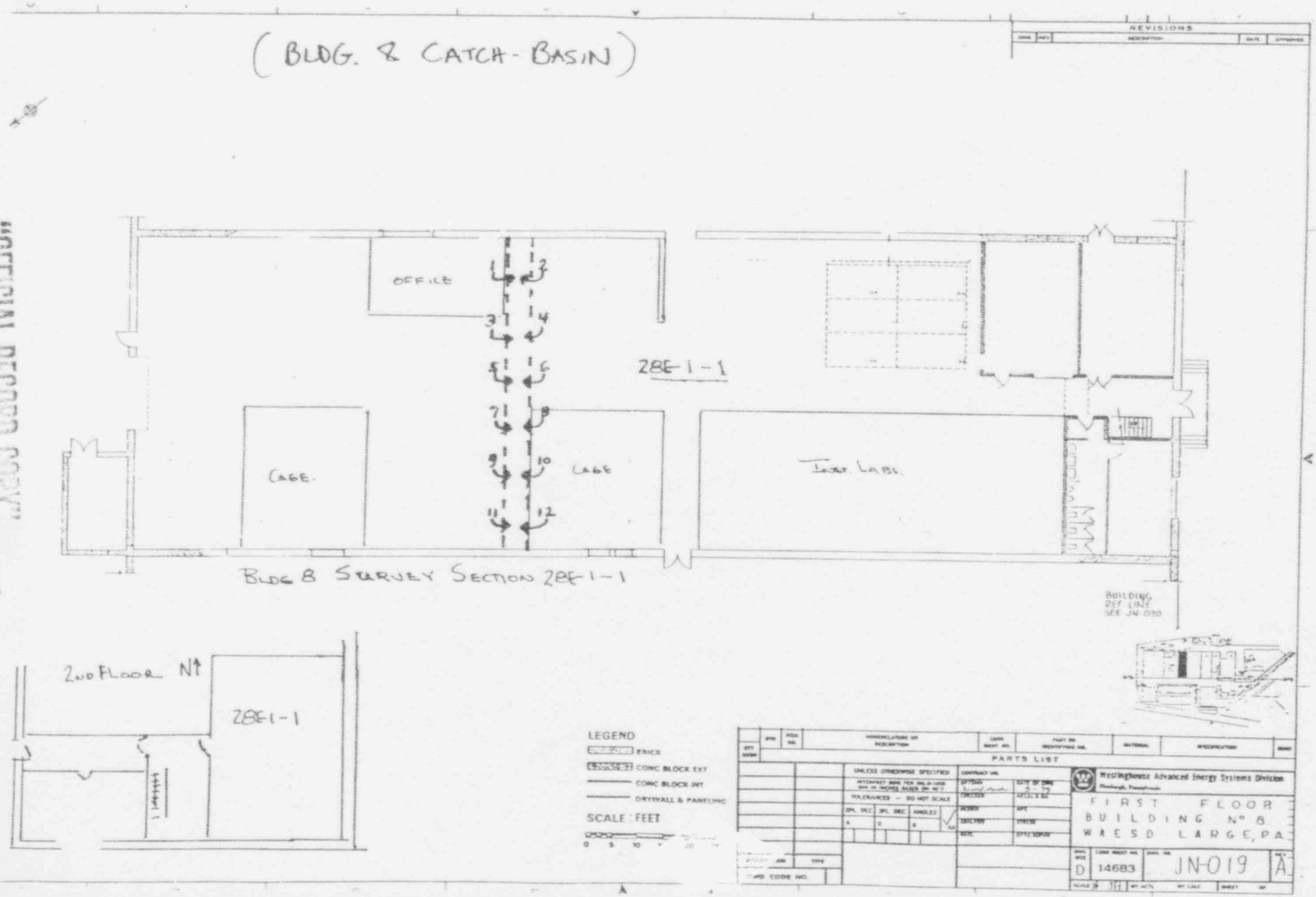
Application Revision: 2
Application Version: Standard

Alpha efficiency log file: po210ab
Alpha Efficiency: 37.85%
Alpha to Beta Crosstalk: 4.92%
Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
Beta Efficiency: 49.88%
Beta into Alpha Crosstalk: 0.36%
Beta Background (CPM): 1.24

Batch ID: TSB - Bldg 8 catch basin close out

	Alpha Activity				Beta Activity						
Carrier	DPM	σ	flags	MDA	DPM	σ	flags	MDA	Count time (min)	Alpha CPM	Beta CPM	Completion TOD
11	-0.264	1.60	<MDA	28.10	-2.49	3.67	<MDA	33.88	0.34	0.100	-1.24	2/23/93 12:30
12	7.506	7.94	At AL	28.10	3.41	7.06	<MDA	33.88	0.34	2.841	1.70	2/23/93 12:31



ML 10

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