

MATERIALS LICENSE

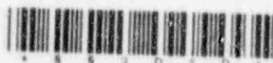
Amendment No. 30

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with letter dated March 17, 1997	
1. Department of the Army Commander U.S. Army Industrial Operations Command		3. License Number SUC-1380 is amended in its entirety to read as follows:	
2. ATTN: AMSIO-DMW Rock Island, IL 61299-6000		4. Expiration Date November 30, 2002	
		5. Docket or Reference No. 040-08767, SUB-1195	
6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License	
A. Depleted uranium	A. Solid Metal alloy	A. 42,000,000 Kilograms	
B. Depleted uranium	B. Solid Metal alloy	B. 14,000 Kilograms	
9. Authorized Use:			
A. To be used for receipt, storage and transfer of military devices containing depleted uranium components.			
B. For possession and storage incident to decommissioning of facilities.			

CONDITIONS

10. A. Licensed material listed in subitem 7.A. may be stored in bulk quantities at the Sierra Army Depot, Herlong, California; Seneca Army Depot, Romulus, New York; Hawthorne Army Ammunition Plant, Hawthorne, Nevada; the Letterkenny Army Depot, Chambersburg, Pennsylvania; Crane Army Activity, Crane, Indiana; Bluegrass Army Depot, Richmond, Kentucky; Anniston Army Depot, Anniston, Alabama; Tooele Army Depot, Tooele, Utah; McAlester Army Ammunition Plant, McAlester, Oklahoma; and Red River Army Depot, Texarkana, Texas. Licensed material for deployment may be stored at temporary locations at U.S. Army bases anywhere in the United States.
- B. Licensed material listed in Subitem 7.B. may be stored at the Lake City Army Ammunition plant, Independence, Missouri, incident to decommissioning of facilities.



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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

SUC-1380

Docket or Reference Number

040-08767, SUB-1195

Amendment No. 30

11. A. Licensed material shall be used by, or under the supervision of, Stephen R. Mapley, Kelly Crooks, Gary W. Buckrop, or Patricia A. Haworth.
- B. The Radiation Safety Officer for this license is Kelly Crooks.
- C. First alternative Radiation Safety Officer for this license is Gary W. Buckrop.
- D. Second Alternate Radiation Safety Officer for this license is Patricia A. Haworth.
12. This license does not authorize the firing of ammunition containing licensed material.
13. The license shall not store more than 10,000,000 kilograms of licensed material at each bulk location and not more than 50,000 kilograms at each temporary storage location.
14. The licensee shall maintain records of information important to safe and effective decommissioning at the Department of the Army HQ, U.S. Army Industrial Operations Command, Rock Island, Illinois per the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.
15. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated November 20, 1996; and
- B. Letter dated march 17, 1997 (with enclosures).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date

JUN 13 1997

By

Loren J. Huster

Nuclear Materials Licensing Branch, Region III

COPY

(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

Program Code: 11300
Status Code: 0
Fee Category: EX 14 2B
Exp. Date: 20021130
Fee Comments: DECOMM. & OTHER V
Decon Fin Assur Req'd: Y
.....

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: ARMY, DEPARTMENT OF THE
Received Date: 970324
Docket No: 4008767
Control No.: 302444
License No.: SUC-1380
Action Type: Amendment

2. FEE ATTACHED

Amount: -----
Check No.: -----

3. COMMENTS

Signed D. Hersey
Date 3-26-97

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/))

1. Fee Category and Amount: -----

2. Correct Fee Paid. Application may be processed for:

Amendment -----
Renewal -----
License -----

3. OTHER -----

Signed -----
Date -----

FEE EXEMPT



DEPARTMENT OF THE ARMY
U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE
5158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MARYLAND 21010-5422

REPLY TO
ATTENTION OF

MCHB-DS-HP (40)

21 JAN 1996 1997 GWB

MEMORANDUM FOR Commander, U.S. Army Materiel Command,
ATTN: AMCSG (LTC Kelsey), 5001 Eisenhower
Avenue, Alexandria, VA 22333-0001

SUBJECT: Industrial Radiation Survey No. 27-MH-5113-96,
Facility Close-Out and Termination Survey, McAlester Army
Ammunition Plant, McAlester, OK, 18 July 1996 -
30 August 1996

1. Copies of subject report with Executive Summary are enclosed. Findings, recommendations, all specific requests by the Department of the Army Licensee, and the personnel of McAlester Army Ammunition Plant, were addressed and staffed with the appropriate personnel assigned to support this project.

2. The final laboratory analyses of wipe test samples and soil samples were completed on 2 October 1996 for these areas.

FOR THE COMMANDER:

Encl

Harris Edge
HARRIS EDGE
Program Manager
Industrial Health Physics

CF (w/encl):
HQDA(DASA-ESOH/MR. FATZ)
HQDA(DAIM-ED-R/MR. SCHROEDER)
CDR, MEDCOM, ATTN: MCHO-CL-W (EXSUM ONLY)
CDR, AMC, ATTN: AMCSF-P (2 CY)
CDR, ACALA, ATTN: AMSTA-AC-SF (2 CY)
CDR, IOC, ATTN: AMSIO-DMS
CDR, ATCOM, ATTN: AMSAV-X/RPO (2 CY)
CDR, CECOM, ATTN: AMSEL-SF (2 CY)
CDR, TACOM, ATTN: AMSTA-CZ (2 CY)

Readiness thru Health

05 FEB 1997



DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND
ROCK ISLAND, ILLINOIS 61299-6000



REPLY TO
ATTENTION OF

March 17, 1997

Radioactive Waste
Disposal Division

Regional Administrator
U.S. Nuclear Regulatory Commission
Nuclear Materials Licensing Branch
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Dear Sir:

We request you amend license number SUC-1380 and remove the capability to store manufacturing equipment contaminated with depleted uranium at McAlester Army Ammunition Plant, McAlester, Oklahoma. We removed all of the equipment for disposal or recycle, and our release surveys show no contamination of facilities due to the storage of the equipment.

We will release the storage structures for unrestricted use upon your approval, but may use them for storage of depleted uranium ammunition in the future. We discuss the affected line items of our SUC-1380 license below:

a. Line item numbers 6C, 7C, and 8C. We request you remove these items entirely.

b. Line item number 10B. We request you change this item to read as follows:

"Licensed material listed in subitem 7B may be stored at the Lake City Army Ammunition Plant, Independence, Missouri, incident to decommissioning of facilities."

RECEIVED

MAR 24 1997

REGION III

Pm. 3-19-97 **TEL EXEMPT**

Printed on Recycled Paper

MAR 24 1997

We shipped most of the equipment to Scientific Ecology Group, Incorporated, Oak Ridge, Tennessee, in July and August 1995. Scientific Ecology Group took possession of the equipment under license number R-73016-F96 for smelting into shielding blocks. We have enclosed the shipping manifests.

We made two smaller shipments in March 1991 and June 1994 to the Defense Consolidation Facility, Snelling, South Carolina, and to the Barnwell, South Carolina, low-level radioactive waste burial site. Chem-Nuclear Systems, Incorporated, operates the Defense Consolidation Facility (under South Carolina license number 287-4) and the Barnwell disposal facility (under Nuclear Regulatory Commission license number 39-23004-01). We have enclosed the shipping manifests.

In August 1995, Chemrad Tennessee Corporation surveyed two of the buildings (numbers 603 and 608) that stored the equipment. Chemrad found no contamination and published their report in October 1995. We have enclosed the report.

After Chemrad finished their survey report, we realized that part of a third building (number 1503) also stored some equipment. Since building 1503 currently has ammunition in storage, we contacted the U.S. Army Center for Health Promotion and Preventive Medicine to survey the building and perform verification surveys in building numbers 603 and 608. The U.S. Army Center for Health Promotion found no contamination and published their report in January 1997. We have enclosed the report.

We would appreciate your prompt attention in this matter, since the McAlester installation would like to use the three buildings for the storage of other military items. Except for the small amount of ammunition stored in building 1503, these three buildings remain empty.

The points of contact are Messrs. Kelly Crooks, Bill Huber, and Gary Buckrop, AMSIO-DMW, (309) 782-0338/2966/2969 respectively, electronic mail addresses kcrooks@ria-emh2.army.mil, bhuber@ria-emh2.army.mil, and gbuckrop@ria-emh2.army.mil.

Sincerely,



Stephen R. Mapley
Chief, Radioactive Waste
Disposal Division

Enclosures



DEPARTMENT OF THE ARMY
U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE
5158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MARYLAND 21010-5422

REPLY TO
ATTENTION OF

MCHB-DC-OIP

21 JAN 1996

INDUSTRIAL RADIATION SURVEY NO. 27-MH-5113-96
FACILITY CLOSE-OUT AND TERMINATION SURVEY
MCALESTER ARMY AMMUNITION PLANT
MCALESTER, OKLAHOMA
18 July 1996 - 30 AUGUST 1996

1. REFERENCES. See Appendix A for a list of references.
2. AUTHORITY. Memorandum, AMSIO-DMW, 1 April 1996, subject: License Termination Surveys for Magazines Used to Store Manufacturing Equipment Contaminated with Depleted Uranium (DU).
3. PURPOSE.
 - a. To assess radiological contamination, if any, remaining in three magazines (50PC603, 50PC608 and 50PC1503) at McAlester Army Ammunition Plant (AAP), resulting from the storage of contaminated equipment. This report addresses only those magazines identified in the Nuclear Regulatory Commission (NRC) Licence Number SUC-1380 and verified by Mr. Luther Winburn, Department of the Army Civilian (DAC), McAlester APP Radiation Protection Officer (RPO).
 - b. To verify the results of previous surveys conducted in magazines 50PC503 and 50PC608 and to determine if any residual radioactivity remaining after cessation of activities at McAlester AAP is in compliance with the NRC and State of Oklahoma requirements and guidelines.
4. GENERAL.
 - a. Meetings and briefings were conducted with MAJ David Carpenter, U.S. Air Force, Deputy Commander, McAlester AAP; Mr. John Watson, DAC, Chief, Safety Office, McAlester AAP;

Readiness thru Health

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Mr. Luther Winburn, DAC, McAlester AAP RPO, Ms. Constance S. Rosser, Health Physicist, U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), ORISE Participant and Mr. David Hays, Health Physicist, U.S. Army Corps of Engineers (CE), South West Tulsa District, to discuss findings and recommendations.

b. Project management for the Close-Out and Termination Survey was conducted through USACHPPM. Additional technical radiation protection support was contracted and provided by the CE Southwest Tulsa District and CE, Sacramento District.

c. The study was performed by Ms. Constance Rosser, Health Physicist, USACHPPM, ORISE Participant; Mr. David Hays, Health Physicist, CE, Southwest Tulsa District; and Mr. Hans Honerlah, Health Physicist, CE, Sacramento District, during the period.

d. The above mentioned survey personnel are qualified Health Physicists and have varied expertise in radiological health issues. Each individual was provided occupational health and safety training at McAlester AAP to administer a safe working environment.

e. Laboratory analyses were performed by the Radiologic, Classic, and Clinical Chemistry Division (RCCCD), Directorate of Laboratory Services, USACHPPM.

f. List of abbreviations are found in Appendix B.

5. BACKGROUND.

a. Summary of Chronology.

(1) A history of the use, storage and disposal of radioactive material for the magazines is documented in Appendix C. The three magazines surveyed were identified as having been used to store radiologically contaminated equipment. The equipment was wrapped in heavy duty plastic tarps and fixed to pallets with metal bands, then transported to McAlester for storage. Equipment was not unwrapped or taken off pallets during storage.

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(2) None of the magazines used to store and maintain radioactive items had operations in them that authorized the dismantling or repair of radioactive commodities or the use of any unsealed radioactive materials.

(3) All equipment was surveyed as it was removed from the magazines by Scientific Ecology Group (SEG), and magazines 50PC603 and 50PC608 were surveyed by SEG and it's subcontractor Chemrad Tennessee Corporation. All surveys were documented, copies are on file with the Industrial Operations Command (IOC) NRC License Manager.

(4) The IOC NRC License Manager, received a letter from the NRC outlining the process of releasing the site and referencing NUREG/CR-5849 dated 5 April 1995. A copy of this document is contained in Appendix D.

(5) The USACHPPM began preparation for performing a radiological verification survey in June 1996. The USACHPPM survey team conducted the survey in two phases. Phase one was completed on 18 July 1996. Phase two was completed on 30 August 1996.

(6) Three magazines were identified for close-out surveys. These included 50PC603, 50PC608, and 50PC1503.

b. Site Condition at Time of Verification Survey.

(1) Magazine 50PC505 was used as the base of operations for the termination survey. This magazine was also used as a reference area for the survey.

(2) Magazine 50PC1503 contained several pallets of munitions, the other magazines were vacant at the time of the survey.

(3) No magazines were identified as having radiological contamination levels above the limits specified by the NRC or State of Oklahoma.

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c. Identity of Pptential Contaminants/Release Guidanelines. Depleted uranium is the isotope of interest. The release guidelines for potential contaminants are listed in Appendix E.

6. RADIATION SURVEYS AND RESULTS.

a. Instrument/Equipment.

(1) A list of instruments, parameters, and calibrated efficiencies are provided in Appendix F. Minimum Detectable Activities (MDA) of each instrument is supplied with the radiological survey data summary tables in Appendix G. All survey meters are calibrated on a quarterly basis and after each maintenance and repair. Efficiencies were determined with a radioisotope traceable to the National Institute of Standards and Technology (NIST) which had energies similar to the energies of the isotopes of interest at McAlester AAP.

(2) After calibration, an efficiency factor was calculated for each alpha and beta instrument to correlate the meter reading to the actual radioactivity present.

(3) A conversion factor was applied to extrapolate from the probe surface area to a normalized 100 square centimeter (cm²) surface area. The equation to convert counts per minute (cpm) to disinterations per minute (dpm)/100 cm² can be found in the NUREG/CR-5849, page 8.2, Section 8.1.1.

(4) The efficiency value for each instrument coupled with the surface area conversion factor was used to record the final reading into standardized regulatory criteria expressed in dpm per 100 cm². The monitoring values for gross alpha and gross beta in the tables of Appendix G are presented in the converted values of dpm/100cm².

(5) The sensitivity of the gamma survey meter was 1 μ R/hr.

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(6) All portable survey meters were checked for operability prior to packaging and shipping to McAlester AAP, upon arrival at the survey site, before each day of surveying, midday of surveying, end of each day of surveying, and after any malfunctions or repairs. Chapter 5, page 17, of the NUREG/CR-5849 was used as a reference for the field instruments. A quality control (QC) variation of $\pm 2\sigma$ was used. See Appendix F for the daily QC checks data.

(a) Alpha. Operational instrument checks were performed with a NIST traceable thorium-230 source with an activity of 18,200 dpm verified on 20 February 1995. All operational checks were made at approximately 2 millimeters from contact with the alpha source. The same procedures were used for each check to assure reproducibility. There were two alpha instruments prepared for this survey. The mean operational check on Instrument #1, serial number (SN) 118238, was 5,706 cpm/probe area ± 2 sigma. The mean operational check on Instrument #2, SN 110003, was 5,634 cpm/probe area ± 2 sigma. Instrument #2, SN 110003, was used for the alpha surveys.

(b) Beta. Operational instrument checks were performed with a NIST traceable technetium-99 source with an activity of 8,160 dpm verified 20 February 1995. All operational checks were made at approximately 1 centimeter (cm) from the beta source. The same procedures were used for each check to assure reproducibility. There were two beta instruments prepared for this survey. The mean operational check on Instrument #1, SN 118238 was 2,607 cpm/probe area ± 2 sigma. The mean operational check on Instrument #2, SN 110003, was 2,318 cpm/probe area ± 2 sigma. Instrument #1, SN 118238 was used for the beta-gamma surveys.

(c) Gamma. Operational instrument checks were performed with a NIST traceable cesium-137 source with an activity of 0.778 μ Ci, verified 20 February 1995. The same procedures were used for each check to assure reproducibility. All operational

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checks were made at approximately 1 cm from the gamma source. The mean operational check on Instrument #3, SN 129-436 was 550 microroentgen per hour ($\mu\text{R/hr}$) ± 2 sigma.

b. Instrumentation Survey.

(1) The instrumentation survey was conducted in accordance with the procedures outlined in NUREG 5849, Manual for Conducting Radiological Surveys in Support of License Termination, Draft Report for Comment, June 1992, for an area classification of "unaffected". The floor plans are identical for each magazine. An example of the magazine floor plans is contained in Appendix C.

(a) The surveys were conducted by randomly selecting thirty data points in each magazine. Both instrument readings and wipe samples were taken at each location.

(b) Ten to 25 percent of lower wall and floor surfaces were scanned for alpha, beta-gamma, and gamma radiations.

(2) Flag values, or action levels, for alpha and beta monitoring measurements were established for each type of survey instrument used. Flag values were established by taking 75% of the guideline values found in Appendix E. If any instrument exceeded the flag values, a more thorough investigation was performed. The purpose was to determine if the detected radiation was above established guidelines.

(3) In addition to surveying the identified magazines, random samples were performed on areas where residual radioactivity would likely be found. Cracks in walls and floors, seams where walls met floors, holes in the walls, drains entering the magazines, vents on the roof, and other likely areas were surveyed for residual radioactivity.

c. SURVEY RESULTS.

(1) Background Results. Background measurements were taken from a nonimpacted reference area (a magazine of identical construction located on McAlester AAP). The magazine (50PC505) designated for these measurements was in the general location/group of 50PC magazines. According to McAlester AAP personnel, this magazine had no history of any known storage of radioactive material. Thirty background measurements were taken for each type of radiation monitored. The average background values were established at a 95% confidence level. All magazine doors remained open throughout the survey.

(a) Alpha. Background instrumentation readings showed a background of 2.5 ± 3.3 cpm/probe area for all instruments used. After corrections were made for the probe area and efficiency, the background was established at 11 ± 14 dpm/100 cm². All alpha radiation measurements were taken at approximately 0.5 cm or less from the background surface.

(b) Beta. Background instrumentation readings showed a background of 325 ± 80 cpm/probe area for the instrument used. After correction for probe area and efficiency, the background was established at $1,397 \pm 344$ dpm/100 cm². All measurements were taken at approximately 1 cm from the background surface.

(c) Gamma. Background instrumentation readings varied from 8.3 to 11.9 μ R/hr for the instrument used. The average background gamma exposure was 11.0 ± 1.7 μ R/hr. All gamma measurements were taken at approximately 1 m from any surface area.

(2) Instrumentation Survey Results.

(a) Alpha Instrumentation Results. All readings were taken at approximately 0.5 cm or less from the surface for an integrated count time of 1 minute for each reading. The maximum detected alpha activity was not distinguishable from background.

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The MDA was determined to be 44 dpm/100 cm² for both instruments. In addition to the MDA, flag values were also calculated. The flag value for all instruments and probes were based on any readings above background. All alpha activity results and location of survey results are presented in Appendix G.

(b) Beta-Gamma Instrumentation Results. All readings were taken at approximately 1 cm or less from the surface for an integrated count time of 1 minute for each reading. The maximum detected beta activity was not distinguishable from background. The MDA was determined to be 362 dpm/100 cm² the instrument. In addition to the MDA, flag values were also calculated. The flag value for all instruments and probes were based on any readings above background. All beta-gamma survey results and locations are presented in Appendix G.

(c) Gamma Instrumentation Results. Each sample location was surveyed at approximately 1 meter from the surface and the exposure reading was recorded from the instrumentation survey. The highest exposure reading at approximately 1 m was 14.6 μ R/hr. All exposure readings were less than 5 μ R/hr above background which is the current unrestricted use limit.

(3) Scans. Instrument scans were conducted on at least 10 percent of lower walls and floor surfaces. A flag of three times the background count rate was used. The approximated MDA for the scanning technique was 3,916 dpm/100 cm².

(4) Wipe Test Surveys. Wipe test surveys were performed to determine the presence of removable contamination on surface areas. Wipe test surveys were performed at each survey point in all magazines. All wipe test samples were collected and analyzed for gross alpha, and gross beta activity. If any radioactivity was found higher than 50% of the guideline values, then a gamma spectral analysis was performed for that sample. Blank swipes were used to screen for cross contamination. These quality assurance wipe results can be found throughout Appendix G.

1. INTRODUCTION

This report documents the UltraSonic Ranging and Data System (USRADS® System) and Interior Ranging and Data System (INRADS™ System) surveys conducted for the Interior Radiological Survey of Building MAC603F and Building MAC608F located at McAlester Army Ammunition Plant. The area was surveyed using man-carried survey instrumentation for floor surveys, the USRADS System, and the INRADS System for wall and column surveys. This report describes the survey methods and presents the survey findings.

The survey was conducted for Scientific Ecology Group, Inc. (SEG) by Chemrad Tennessee Corporation (Chemrad) under subcontract #TN-92535-H-TW. The field surveys began August 29, 1995 and were completed August 30, 1995.

2. USRADS AND SURVEY INSTRUMENT CONFIGURATION

2.1 Description of the USRADS System

The USRADS System was used to automatically correlate survey instrument data with the geographical location of that data during the surveys. The USRADS survey team consisted of a minimum of two Chemrad personnel. The survey of the floors was conducted by the "surveyor" carrying the radiation instrumentation and electronic data gathering and positioning equipment (the "Data Pack") over the floor survey areas. During the wall surveys, a Chemrad designed cart assembly with mounted radiation instrumentation and positioning equipment, was pushed by a surveyor along each wall. A second person, the "operator", operated a mobile base station consisting of a host microcomputer and a Master Receiver. The data collected by the Data Pack was transmitted to the base station Master Receiver via radio frequency link (RF) each second.

The USRADS System incorporates three technologies:

- 1) radio frequency (RF) communications are used for system timing and data transfer,
- 2) ultrasonics are used to determine distance by propagation time of the ultrasonic signal, and
- 3) microcomputers are used to collect data, calculate distances, display data, store data, and reduce data.

The USRADS/INRADS Systems use an ultrasonic signal emitted from the surveyor's Data Pack at one second intervals. At the same instant, an RF transmission is broadcast from the surveyor's Data Pack to the Master Receiver. Since RF transmissions travel at the speed of light and are essentially instantaneous as compared to the speed of sound, the RF transmission is used to mark the start of the ultrasonic signal. In the floor surveys, each Stationary Receiver has an ultrasonic receiver and an RF transmitter. When the Stationary Receiver receives the ultrasonic pulse, it transmits an RF signal. This RF signal is received by the Master Receiver and is used as a stop signal for that particular Stationary Receiver, thus establishing the time-of-flight of the ultrasonic signal from the Data Pack to that Stationary Receiver's location. The microcomputer can then determine the distance between the surveyor and each Stationary Receiver's location. Through this method, the surveyor's exact location is established each second throughout each walkover/wall survey.

One Stationary Receiver is used to determine the location of the INRADS

instrumentation along the wall during the performance of wall surveys. The INRADS system is moved along the wall at a fixed height.

The USRADS software automatically correlates the survey instrument data collected with the correct location of the surveyor. The location and corresponding data values are then plotted on a grid map displayed on the host computer.

The data for that one-second time period is also posted at the top of the computer screen. The plotted position remains on the computer screen while the data collected are replaced each second to conserve screen space for plotting the track of the surveyor. At any time during the survey, the operator may look at the surveyor's track lines to determine if any areas have been missed. The surveyor may return to any areas deemed insufficiently surveyed and obtain the necessary coverage.

When proper survey coverage has been accomplished, the operator runs the data reduction routines on the microcomputer. Several software routines enable the operator to review coverage and identify anomalies or other points of interest.

2.2 Color Track Maps and Contour Plots

2.2.1 Color Track Maps

Track Maps are graphic illustrations of survey coverage produced during the USRADS surveys. The Track Maps correlate the detector signals to the surveyor's location as the survey is occurring using changing colors to designate instrument reading levels. The color Track Maps show the locations of the Stationary Receivers used (a diamond (◇) symbol with the SR number adjacent), while the path taken by the surveyor is shown as a series of small dots. For locations with data exceeding the selected threshold value, the surveyor's position is indicated by larger color-filled circle symbols on the Track Map.

The color Track Maps are generated on the computer display in real-time during the conduct of each survey. The color Track Maps are valuable tools in identifying general trends and providing verification of findings while the survey is in progress. Copies of the color Track Maps are included with this report. Quality controls such as thoroughness of coverage, generally acceptable rates of increase (see below), clustering of color changes, and verification of suspect findings by adjacent tracks are performed visually by the computer operator during the survey.

"Generally acceptable rates of increase" refers to readings that increase as a surveyor approaches a radioactive source and decrease as the surveyor passes the source. These readings are confirmed by a gradual increase/decrease on adjacent tracks. Suspect

readings frequently are indicated by localized increases in magnitude without a gradual increase/decrease or confirmation on adjacent passes.

The survey data are replayed at the conclusion of the survey to verify data integrity.

Color Track Map nomenclature is as follows:

<u>Survey</u>	<u>Map Title</u>	<u>Meaning</u>
Gamma (NaI)	dpm/100 cm ²	Disintegrations per minute/100 cm ²
Beta/Gamma (Pancake)	dpm/100 cm ²	Disintegrations per minute/100 cm ²
Beta/Gamma (Floor Monitor)	dpm/100 cm ²	Disintegrations per minute/100 cm ²

Track Maps are provided for floor surveys and wall surveys. Statistical data only are provided for the columns surveyed.

2.2.2 Threshold Level

The threshold cutoff was used to set the level at which the location symbol on the Track Map changed from a small dot to a large color-filled circle. Thus, the level threshold was useful in identifying locations with elevated measurements. For purposes of this survey, all thresholds were set at the 1000 dpm/100 cm² level.

2.2.3 Color Codes

Color codes are set to increasing measurement values indicated by Black, Green, and Red on color Track Maps. The levels associated with these colors are documented on each plot.

The following color levels were used to generate Color Track Maps for the McAlester floor, wall, and column surveys:

NaI (dpm/100 cm ²)	Color	Pancake (dpm/100 cm ²)	Color
< 1000	black	< 1000	black
1000 - 5000	green	1000 - 5000	green
> 5000	red	> 5000	red

2.2.4 Quality Point Determination

A quality point was established for each survey grid. Before and after the survey of each grid, a 60-second count at an established quality point was conducted. The quality point was selected at a location near one of the base leg Stationary Receivers. The location was noted on the Track Maps.

2.3 Contour Maps

Contour Maps are included for the sites surveyed at the McAlester facility. These provide a graphic illustration of the contours of radiation levels detected. The color contours used for contour maps, in increasing order, are Black, Green, and Red.

Contouring parameters for the McAlester floor and wall surveys are as follows:

NaI Surface (dpm/100 cm ²)	Color
1000	green
5000	red

Pancake Probe (dpm/100 cm ²)	Color
1000	green
5000	red

For purposes of this report, Contour Maps are provided for floor surveys and wall surveys. Statistical data only is provided for the columns surveyed.

2.4 Radiological Instrumentation Used In the McAlester Survey

2.4.1 Man-Carried Survey Instrumentation

The walkover radiological characterization of the McAlester floor sites were conducted with two instruments:

- 1) A Model 44-2 1" X 1" sodium iodide detector probe (NaI scintillation crystal) was coupled to a Ludlum Model 3 count rate meter for near-surface gamma detection data. The probe was suspended from a rigid arm in close proximity to the surface. The arm permitted the detector to swing in a path approximately 1.5 meters wide while the surveyor transected the survey area. The rate meter was interfaced to the Data Pack and data accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.
- 2) A Ludlum Model 44-9 open window G-M pancake detector was mounted adjacent to the Model 44-2 sodium iodide probe (see Item 1 above), and was coupled to a Ludlum Model 3 count ratemeter for near surface beta/gamma detection. The ratemeter was interfaced to the Data Pack, and data accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.

2.4.2 Cart-Mounted INRADS Wall Survey Instrumentation

The radiological characterization of the McAlester wall sites were conducted with six instruments:

- 1) Four Model 44-2 1" X 1" sodium iodide detector probes (NaI scintillation crystal) were coupled to Ludlum Model 3 count rate meters for near-surface gamma detection data. The probes were extended from a cart assembly mounted in close proximity to the wall surface. The probes surveyed a vertical surface of approximately six feet. The rate meters were interfaced to the Data Pack and data accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.
- 2) Two Ludlum Model 12 ratemeters with Model 43-37 Gas Flow Proportional Floor Monitors for near-surface beta detection. The probes were extended from the cart assembly mounted in close proximity to the wall surface. The probes surveyed a vertical surface of approximately six feet. The rate meters were interfaced to the Data Pack and data

accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.

2.4.3 Instrument Calibration and Response Checks

The radiation instrumentation was calibrated by the manufacturer or a qualified vendor before initiating the surveys. Calibrations were coordinated by Chemrad and records are retained at Chemrad's Oak Ridge office. Each radiation survey instrument received a daily response check before use in the field. This daily response check included battery checks and a source check. All daily response checks were performed at the staging site using a Cs-137 or a Tc-99 source. Instruments not within $\pm 20\%$ were removed from service.

2.4.4 Background Readings

Chemrad performed background readings during the McAlester survey for reference purposes. The 60-second background readings were taken at a designated 'clean' area on August 30, 1995. Background statistics are found in Appendix C.

2.4.5 Instrument Response Characteristics

Table 1, Beta Instrument Response Characteristics, gives the detector limits and response characteristics for the beta sensitive detectors used in the McAlester project.

Table 1
Beta Instrument Response Characteristics

Tc-99	Active Area cm ²	Window Thickness mg/cm ²	Backgr'nd cpm	Detector Efficiency Tc-99 cnts/dis	Counting Time min	MDA Static dpm/ 100 cm ² (4)	Scan Rate cm/sec	Avg. Probe Dimension In Scan Direction cm	Beta Scanning Sensitivity dpm/ 100cm ² (1) (5)
Ludium 44-9 GM Pancake	15.5	1.7	53	0.1	1	2432	100	4	13758 (3)

Table 2, Alpha Instrument Response Characteristics, gives the response characteristics and gamma scanning sensitivity for the alpha sensitive detectors used on the project.

Table 2
Alpha Instrument Response Characteristics

Th-230	Active Area cm ²	Window Thickness mg/cm ²	Backg'nd cpm	Detector Efficiency Th-230 cts/dis	Counting Time min	MDA Static dpm/ 100 cm ² (4)	Scan Rate cm/sec	Avg. Probe Dimension In Scan Direction	Alpha Scanning Sensitivity dpm/ 100cm ² (1) (6)
Ledum 43-37 Proportional Floor Monitor	425	0.8	65	0.10	0.2	94	25	15.2	452

Table 3, Gamma Instrument Response Characteristics, gives the response characteristics and gamma scanning sensitivity for the gamma sensitive detectors used on the project.

Table 3
Gamma Instrument Response Characteristics

Detector	Background	Gamma Scanning Sensitivity (7)
Ledum 44-2 NaI	1800	175,000 cpm/mR/h by calibration

Notes to Tables 1 through 3 as referenced in each table:

- (1) Assumes a 10 cm x 10 cm source size.
- (2) The detector windows were not covered with any additional protection for field work.
- (3) USRADS scanning surveys have identified numerous elevated readings that correlate to static readings less than 5000 dpm/100 cm², indicating that this calculation is overly conservative.
- (4) Reference: NUREG/CR-5849, equation 5-2, p.5.7, and DOE, Draft Environmental Implementation Guide for Radiological Survey Procedures, p. 5.12, equation 5-7, for approximating MDA with an integrated measurement over a preset time:

$$MDA = \frac{2.71 + 4.65 \sqrt{(B \cdot t)}}{t \cdot E \cdot A/100}$$

where MDA = activity level in disintegrations/minute/100 cm² at 95% confidence level.
B = background in counts per minute
t = counting time in minutes
E = detector efficiency in counts per minute
A = active probe area in cm²

(5) Reference: DOE, Draft Environmental Implementation Guide for Radiological Survey Procedures, p. 5.12 equation 5-7 for use in approximating the Detection Limit:

$$\text{Scanning Detection Limit} = \frac{2.32 \cdot \sqrt{(B \cdot t)}}{t \cdot E \cdot A/100}$$

where Detection Limit = activity level in disintegrations/minute/100 cm² at 95% confidence level.
B * t ≥ 1

(6) Reference: NUREG/CR-5849, pp. 5-8, 5-9 for use in approximating the MDA for general scanning practices:

$$MDA = \frac{3 \cdot B}{E \cdot A/100}$$

(7) Reference: DOE, Draft Environmental Implementation Guide for Radiological Survey Procedures, p. 5.14, Table 5-8.

3. QUALITY CONTROL

3.1 General Considerations and Quality Objectives

Data quality objectives for the McAlester project were established to meet particular contractor requirements in addition to Chemrad's requirements. Quality Control measures were implemented throughout the Chemrad survey process to prevent the introduction of unreliable data. Some particular organizational objectives of the Chemrad QA/QC program were designed to:

- 1) identify problems that effect quality of the Chemrad survey results;
- 2) prepare a systematic process to provide solutions for any problems relating to quality issues;
- 3) ensure implementation of solutions, with monitoring of problem resolution until corrected.

Some specific Quality Control measures that were taken throughout the Macalester survey included:

- 1) quality and redundancy measurements on each grid surveyed to ensure the ability to reproduce data. If the measurements were not within Chemrad's allowable margin of error, a determination of the cause of the difference was made.
- 2) realtime, ongoing monitoring of the survey and the individual data channels by the computer operator to note as soon as possible any discrepancies in the data;
- 3) cross check routines of Stationary Receiver locations to confirm accuracy of the surveyor's coordinates;
- 4) daily checks of radiological and geophysical instruments to verify accuracy of data readings;
- 5) analysis of the survey data to determine any failure of the Chemrad survey routine;
- 6) review and analysis of the data by Chemrad's data processing staff.

3.1.1 Precision

According to Environmental Protection Agency guidelines, precision is defined as the measure of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Precision is best described in terms of standard deviation. Various measures of precision exist depending upon the "prescribed similar circumstances."

Quality and Redundancy (Q & R) measurements were taken by the USRADS equipment on each survey grid to insure the precision of the data. For Q & R readings, a location was selected to collect initial integrated counts for all instruments prior to the conduct of the survey. Upon conclusion of the survey, this position was required and another integrated count was made to provide a redundant check on each of the instruments and the data compared. If the measurements were not within acceptable limits, the cause of the discrepancy was determined. Corrective actions, if necessary, were taken to assure that precision was maintained throughout the conduct of the USRADS surveys. If readings varied by more than $\pm 20\%$ from the Quality and Redundancy mean readings, Chemrad first determined which instrument or instruments were not within the acceptable range. If it was determined that a pancake or NaI detector had malfunctioned, the instrument was repaired or replaced and the grid site was resurveyed.

The USRADS operator observed the incoming data stream along with the graphic display of the Track Map data during the conduct of the surveys. In this manner, data taken sequentially and on adjacent paths were readily compared to assure the mutual agreement among the individual measurements along a path, on adjacent paths, and in regions where clustering may be indicative of findings of interest.

Chemrad utilized daily response checks for its radiological instrumentation at the beginning of each survey day (see section 3.2 Instrument Calibration, Background and Response Checks) to ensure precision. If any instrument deviated more than $\pm 20\%$, the survey meter was removed from service until the problem was corrected.

3.1.2 Accuracy

According to Environmental Protection Agency guidelines, accuracy is defined as the degree of agreement between the observed measurement value and the true value.

Instrument accuracy was verified by submitting the instruments to calibration prior to the initiation of the work and resubmitting on a frequency not to exceed six months. Chemrad radiological instruments were calibrated to known radiation sources that were calibrated to an NIST (National Institute for Standards and Testing) referenced source.

Positional accuracy was assured by use of the initial USRADS System setup procedures

that automatically calibrate the system for the speed of sound, consistent with the current meteorological conditions at the site.

Quality controls such as thoroughness of coverage, generally acceptable rates of increase (see below), clustering of color changes, and verification of suspect findings by adjacent tracks are performed visually by the computer operator during the conduct of the survey.

"Generally acceptable rates of increase" refers to readings that increase as a surveyor approaches a radioactive source and decrease as the surveyor passes the source of elevation. These readings are confirmed by a gradual increase/decrease on adjacent tracks. Suspect readings frequently are indicated by localized increases in magnitude without a gradual increase/decrease or confirmation on adjacent passes

3.1.3 Completeness

According to Environmental Protection Agency guidelines, completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under correct normal conditions.

Chemrad attempted to meet or exceed all standards of completeness for its data collection. Data readings were recorded each second during the survey to provide a very complete characterization of the areas surveyed.

Chemrad determined completeness of data by requiring a prescribed survey methodology as determined in the Statement of Work, Chemrad's own internal requirements, and frequent meetings with the prime contractor. Data were monitored in the field and as processed. Some specific actions taken by Chemrad included:

- 1) Analysis of each grid site prior to each survey by a trained Chemrad Field Team Supervisor to determine necessary and applicable survey procedures to ensure complete and thorough surveys of each site;
- 2) Review of the survey tracks by the survey operator as they were generated during the survey;
- 3) Comparison of the survey Track Maps with Autocad maps of the survey area.

3.1.4 Representativeness

According to Environmental Protection Agency guidelines, representativeness expresses

the degree to which data represent the medium/environment where samples/measurements were obtained. Chemrad's methodology ensures representativeness by taking readings every second during the survey. When the color Track Maps are assembled, adjacent tracks produce readings to confirm the representativeness of the survey information.

3.1.5 Comparability

According to Environmental Protection Agency guidelines, comparability expresses the confidence with which one data set may be compared to another. Some methods Chemrad uses to provide comparability are:

- 1) survey methodology was consistent throughout the McAlester survey;
- 2) data reduction software routines were consistent throughout the survey.

4. USRADS SURVEY AND PRESENTATION PROTOCOLS

4.1 Radiation Survey Methodology

The two walkover radiological surveys were conducted as a single walkover of each survey grid. The grid was traversed at approximately 2 feet per second on parallel transects spaced approximately 3 feet center to center.

Floor surveys were typically conducted in the following manner:

- 1) Chemrad survey teams arrived on site;
- 2) Chemrad Field Survey Supervisor analyzed the site for the best deployment of survey equipment;
- 3) Stationary Receivers were deployed in standard Chemrad manner with adaptation for obstacles that were site specific;
- 4) Stationary Receiver coordinates on fixed reference points (corners) were entered into the host computer;
- 5) Site setup was then performed to determine the location of Stationary Receivers with 30 second counts at each stationary receiver;
- 6) The radiation instruments were mounted on the surveyor;
- 7) A 60 second count at a known point (at one of the Stationary Receivers) was taken to record the 'quality check' data;
- 8) When the 'quality check' was completed, the surveyor moved to a starting point to begin the survey;
- 9) When the survey was completed, the surveyor returned to the 'quality check' point to perform a 60 second redundancy check;
- 10) The survey data were then analyzed to determine the quality and completeness of the data, and determine whether bias points should be established;
- 11) The data were copied to diskette for processing at the Chemrad offices;
- 12) Equipment 'teardown' was performed;

- 13) The Chemrad survey crew then departed to the next survey site.

INRADS wall surveys were performed in a similar manner with only one SR being placed at a prescribed height in one corner of each wall surveyed. A speed of sound was next determined for positioning purposes. When each survey was completed, the surveyors moved the INRADS cart assembly down each wall. When completed, the data were analyzed and copied to diskette.

4.2 Explanation of Data

The USRADS/INRADS radiation surveys were conducted on a survey grid basis. Grid and survey designations attempted to identify the specific site, i.e. MAC608ww (a) designated the 'west wall' of Building 608F. Survey nomenclature normally followed for radiation traverses were usually identified as "A, C or D" on survey files.

The above is consistent with the data plots and files previously submitted. This naming convention is also used in the color Track Maps included in this report.

Consolidated Track Maps and survey contour plots are provided as appendices at the end of this report.

4.3 Problems Encountered During the Survey

USRADS surveys may be impacted by environmental, site, and equipment problems. At the McAlester facility, an electrical circuit caused a small delay on the first day of the survey. The problem was discovered and corrected. No loss of data occurred. During standard background checks, Chemrad noticed that one of the NaI detectors used in the wall survey was reading well below the other NaI detectors. It was removed from service and replaced with another detector with acceptable readings. No other problems were noted during the survey.

5. REPORT ORGANIZATION

Data for the radiological surveys are presented in the following sections:

5.1 Site Summaries

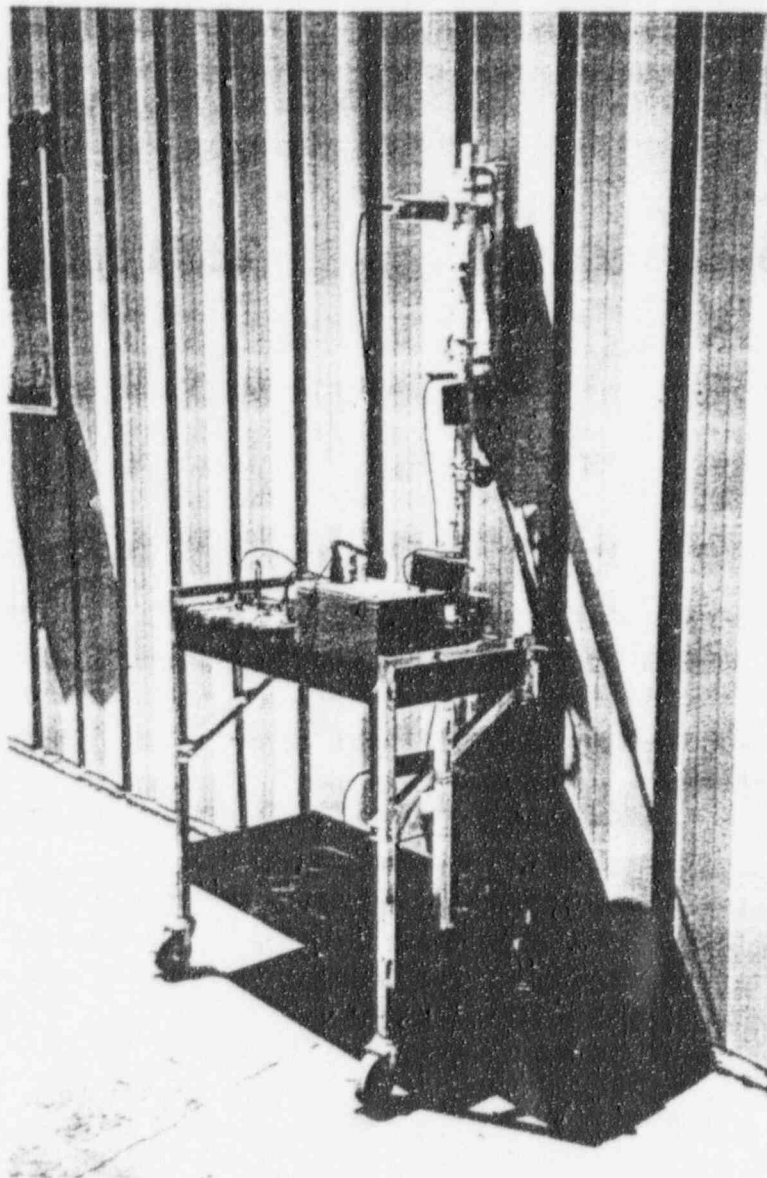
The McAlester survey areas are divided into 2 Site Summaries. Each Site Summary represents a separate site area with color contour maps and track maps provided for each data channel and a narrative of findings and field observations for that site. A statistical analysis of each survey site is provided in each site summary narrative. The Site Summaries and color contour maps are presented in Appendices A-1 through A-2.

5.2 Calibration Sheets

Calibration sheets for all of the Radiological Instrumentation used for this survey are provided in Appendix B.

5.3 Background Statistics

Background statistics for the McAlester survey are reported in Appendix C.



The INRADS System

USACHEPM

U.S. Army Center for Health Promotion and Preventive Medicine



INDUSTRIAL RADIATION SURVEY NO. 27-MH-5113-96
FACILITY CLOSE-OUT AND TERMINATION SURVEY
MCALESTER ARMY AMMUNITION PLANT
MCALESTER, OKLAHOMA
18 July 1996 - 30 AUGUST 1996

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AMCSG, 5001 Eisenhower Avenue, Alexandria, VA 22333-0001.

Readiness Thru Health

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U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE

The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) lineage can be traced back over a half century to the Army Industrial Hygiene Laboratory which was established at the beginning of World War II under the direct jurisdiction of The Army Surgeon General. It was originally located at the Johns Hopkins School of Hygiene and Public Health with a staff of three and an annual budget not to exceed three thousand dollars. Its mission was to conduct occupational health surveys of Army-operated industrial plants, arsenals, and depots. These surveys were aimed at identifying and eliminating occupational health hazards within the Department of Defense's (DOD) industrial production base and proved to be extremely beneficial to the Nation's war effort.

Most recently, the organization has been nationally and internationally known as the U.S. Army Environmental Hygiene Agency (AEHA) and is located on the Edgewood area of Aberdeen Proving Ground, Maryland. Its mission had been expanded to support the worldwide preventive medicine programs of the Army, DOD and other Federal agencies through consultations, supportive services, investigations and training.

On 1 August 1994, the organization was officially redesignated the U.S. Army Center for Health Promotion and Preventive Medicine and is affectionately referred to as the CHPPM. As always, our mission focus is centered upon the Army Imperatives to that we are optimizing soldier effectiveness by minimizing health risk. The CHPPM's mission is to provide worldwide scientific expertise and services in the areas of:

- Clinical and field preventive medicine
- Environmental and occupational health
- Health promotion and wellness
- Epidemiology and disease surveillance
- Related laboratory services

The Center's quest has always been one of customer satisfaction, technical excellence and continuous quality improvement. Our vision is to be a world-class center of excellence for enhancing military readiness by integrating health promotion and preventive medicine into America's Army. To achieve that end, CHPPM holds everfast to its core values which are steeped in our rich heritage:

- Integrity is our foundation
- Excellence is our standard
- Customer satisfaction is our focus
- Our people are our most valuable resource
- Continuous quality improvement is our pathway

Once again, the organization stands on the threshold of even greater challenges and responsibilities. The CHPPM structure has been reengineered to include General Officer leadership in order to support the Army of the future. The professional disciplines represented at the Center have been expanded to include a wide array of medical, scientific, engineering, and administrative support personnel.

As the CHPPM moves into the next century, we are an organization fiercely proud of our history, yet equally excited about the future. The Center is destined to continue its development as a world-class organization with expanded preventive health care services provided to the Army, DOD, other Federal agencies, the Nation, and the world community.

U.S. ARMY CENTER FOR HEALTH PROMOTION
AND PREVENTIVE MEDICINE
SURVEY REPORT



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE
5150 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MARYLAND 21010-5422

21 JAN 1997

MCHB-DS-HP (40)

MEMORANDUM FOR Commander, U.S. Army Materiel Command,
ATTN: AMCSG (LTC Kelsey), 5001 Eisenhower
Avenue, Alexandria, VA 22333-0001

SUBJECT: Industrial Radiation Survey No. 27-MH-5113-96,
Facility Close-Out and Termination Survey, McAlester Army
Ammunition Plant, McAlester, OK, 18 July 1996 -
30 August 1996

1. Copies of subject report with Executive Summary are enclosed. Findings, recommendations, all specific requests by the Department of the Army Licensee, and the personnel of McAlester Army Ammunition Plant, were addressed and staffed with the appropriate personnel assigned to support this project.

2. The final laboratory analyses of wipe test samples and soil samples were completed on 2 October 1996 for these areas.

FOR THE COMMANDER:

Encl

Harris Edge
HARRIS EDGE
Program Manager
Industrial Health Physics

CF (w/encl):
HQDA(DASA-ESOH/MR. FATZ)
HQDA(DAIM-ED-R/MR. SCHROEDER)
CDR, MEDCOM, ATTN: MCHO-CL-W (EXSUM ONLY)
CDR, AMC, ATTN: AMCSF-P (2 CY)
CDR, ACALA, ATTN: AMSTA-AC-SF (2 CY)
CDR, IOC, ATTN: AMSIO-DMS
CDR, ATCOM, ATTN: AMSAV-X/RPO (2 CY)
CDR, CECOM, ATTN: AMSEL-SF (2 CY)
CDR, TACOM, ATTN: AMSTA-CZ (2 CY)

Readiness thru Health



DEPARTMENT OF THE ARMY
U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE
6158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MARYLAND 21010-5422

REPLY TO
ATTENTION OF

EXECUTIVE SUMMARY
INDUSTRIAL RADIATION SURVEY NO. 27-MH-5113-96
FACILITY CLOSE-OUT AND TERMINATION SURVEY
MCALESTER ARMY AMMUNITION PLANT
MCALESTER, OKLAHOMA
18 July 1996 - 30 AUGUST 1996

1. PURPOSE. This survey was conducted to determine the presence and extent of health hazards in three storage magazines at McAlester Army Ammunition Plant and to verify that any residual radioactivity is in compliance with the Nuclear Regulatory Commission and the State of Oklahoma regulations and guidelines for decontamination of facilities prior to release for unrestricted use.

2. CONCLUSION. A review of the survey results indicated that there were no radiological health hazards identified as a result of the storage of radiological contaminated equipment in magazines at McAlester Army Ammunition Plant. This report includes both environmental and building material samples that were taken during this time period.

3. RECOMMENDATIONS. Recommend the three magazines surveyed (listed below) be released for unrestricted use:

- a. 50PC1503.
- b. 50PC603.
- c. 50PC608.

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

(a) The gross alpha activity ranged from a low of -0.27 ± 0.53 dpm/100 cm² to a high of 1.9 ± 1.6 dpm/100 cm². The lower level detection (LLD) at 95% confidence level was determined to be less than 1 dpm/100 cm². All gross alpha activity results and locations where wipe tests were taken are included in Appendix G.

(b) The gross beta-gamma activity ranged from a low of less than -0.94 ± 1.2 dpm/100 cm² to a high of 4.8 ± 2.5 dpm/100 cm². The LLD at 95% confidence level was determined to be less than 3 dpm/100 cm². All gross beta-gamma activity results and locations where wipe tests were taken are included in Appendix G.

(5) Due to the nondestructive nature of the Close-Out and Termination Survey of the magazines, building samples were taken from previously damaged areas and analyzed to determine levels of naturally occurring isotopes. Environmental data collected during this termination survey includes four soil samples. The collection process of the soil samples was followed according to the U.S. Army Environmental Hygiene Agency (USAEHA) TG No. 155, Environmental Sampling Guide, February 1993. The samples were taken in front of the loading platforms of the three subject magazines and the reference magazine as a background sample. These areas are considered the most likely to accumulate any possible contamination from the movement of equipment into and out of the magazines. The results can be found in Appendix H.

7. CONCLUSIONS.

a. A review of the survey results indicated that there were no results above the release criteria for release of property for unrestricted use and no radiological health hazards identified as a results of the storage of contaminated equipment in the magazines that were surveyed.

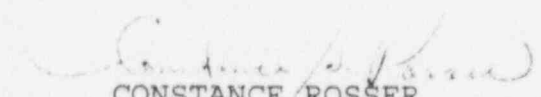
b. A list of magazines that were surveyed are included in Appendix C along with diagrams.

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

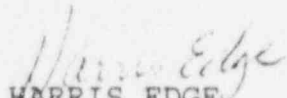
c. Environmental sampling data results are provided in Appendix H of this report. The results of this data prove to be normal for this area of the country.

d. Building samples and other like samples are also provided in this report.

8. RECOMMENDATIONS. Recommend that the three magazines listed in Appendix C be released for unrestricted use.


CONSTANCE ROSSER
Health Physicist
Industrial Health Physics Program
ORISE Participant

APPROVED:


HARRIS EDGE
Program Manager
Industrial Health Physics

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

APPENDIX A

REFERENCES

1. NUREG/CR-5849, Manual for Conducting Radiological Surveys in Support of License Termination, Draft Report for Comment, June 1992.
2. NRC Reg Guide 1.86, Termination of Operating Licenses for Nuclear Reactors, June 1974.
3. AR 385-11, Ionizing Radiation Protection (Licensing, Control, Transportation, Disposal, and Radiation Safety), 1 May 1980.
4. Title 10, Code of Federal Regulations (CFR), Part 20, Standards for Protection Against Radiation, 1993 Rev.
5. Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material, August 1987.
6. NUREG-1500, Working Draft Regulatory Guide on Release Criteria for Decommissioning: NRC Staff's Draft for Comment, August 1994.
7. USAEHA TG No. 155, Environmental Sampling Guide, February 1993.
8. MEMORANDUM 05 April 1996, SUBJECT: USNRC to IOC Gary Buckrop, docket number 040-08767.

Indust Rⁿ Surv No. 27-MH-5113-96, Facility Close-out and Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

APPENDIX B

ABBREVIATIONS

APP	Army Ammunition Plant
ARPO	Alternate Radiation Protection Officer
bkg	background
BRAC	Base Realignment and Closure
cal	calibration
CE	Corps of Engineers
cm	centimeter
cm ²	centimeter square
CECOM	Communications-Electronics Command
cpm	counts per minute
COE	Corps of Engineers
cs	cesium
DAC	Department of the Army Civilian
dpm	disintegrations per minute
eff	efficiency
H-3	hydrogen-3 (tritium)
inst	instrument
IOC	Industrial Operations Command
LLD	Lower Level of Detection
MACOM	major Army command
MDA	Minimum Detectable Activity
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
NSS	Nuclear Support Services
NUREG	Nuclear Regulatory Guide
Pu	Plutonium
QC	quality control
RPO	Radiation Protection Officer
SEG	Scientific Ecology Group
SN	serial number
Sr	Strontium
USAEHA	U.S. Army Environmental Hygiene Agency
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
μR/hr	microrentgen per hour
μCi	microcurie

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and
Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

APPENDIX C

INSTALLATION HISTORY
INSTALLATION DIAGRAM/MAP
MAGAZINE FLOOR PLAN DIAGRAMS

HISTORY OF MCALESTER ARMY AMMUNITION PLANT
AND
BACKGROUND OF MAGAZINE USE AND SURVEYS

42

On 10 June 1996, Congress announced the selection of McAlester, Oklahoma, as the site for its new Ammunition Depot. Construction of the Ammunition Depot began in August 1942 and commissioning ceremonies took place just 9 months later, 20 May 1943. McAlester AAP has approximately 2000 storage magazines, 270 permanent buildings, 400 miles of roadway, and 200 miles of railroad track. All of these facilities are located on about 45,000 acres of land in Oklahoma. From day one up to the present, McAlester AAP has responded to the needs of the nations throughout all armed conflicts. Below is a list of the events that led to the surveys of the magazines.

1. Three magazines at McAlester AAP were scheduled to be used as storage locations for equipment contaminated with depleted uranium. The site was added as an amendment to NRC License SUC-1380.

2. The equipment was wrapped in heavy duty plastic tarps and fixed to pallets with metal bands, then transported to McAlester for storage. Equipment was not unwrapped or taken off pallets during storage.

3. During storage, quarterly surveys were performed and documented by the McAlester RPO.

4. The contaminated equipment was removed from magazine 50PC1503 on 6 September 1991, from 50PC603 in July 1995, and from 50PC608 in July 1995.

5. Since September 1991, magazine 50PC1503 has been used for small amounts of munition storage. All containers being removed from the magazine were surveyed.

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6. The IOC surveyed the magazines on 20 May 1992, memorandum, AMSMC-SFS, Gavin Ziegler, subject: Radiation Protection Survey Trip Report, dated 28 July 1992.

7. In March of 1995, IOC contacted the NRC regarding the magazines.

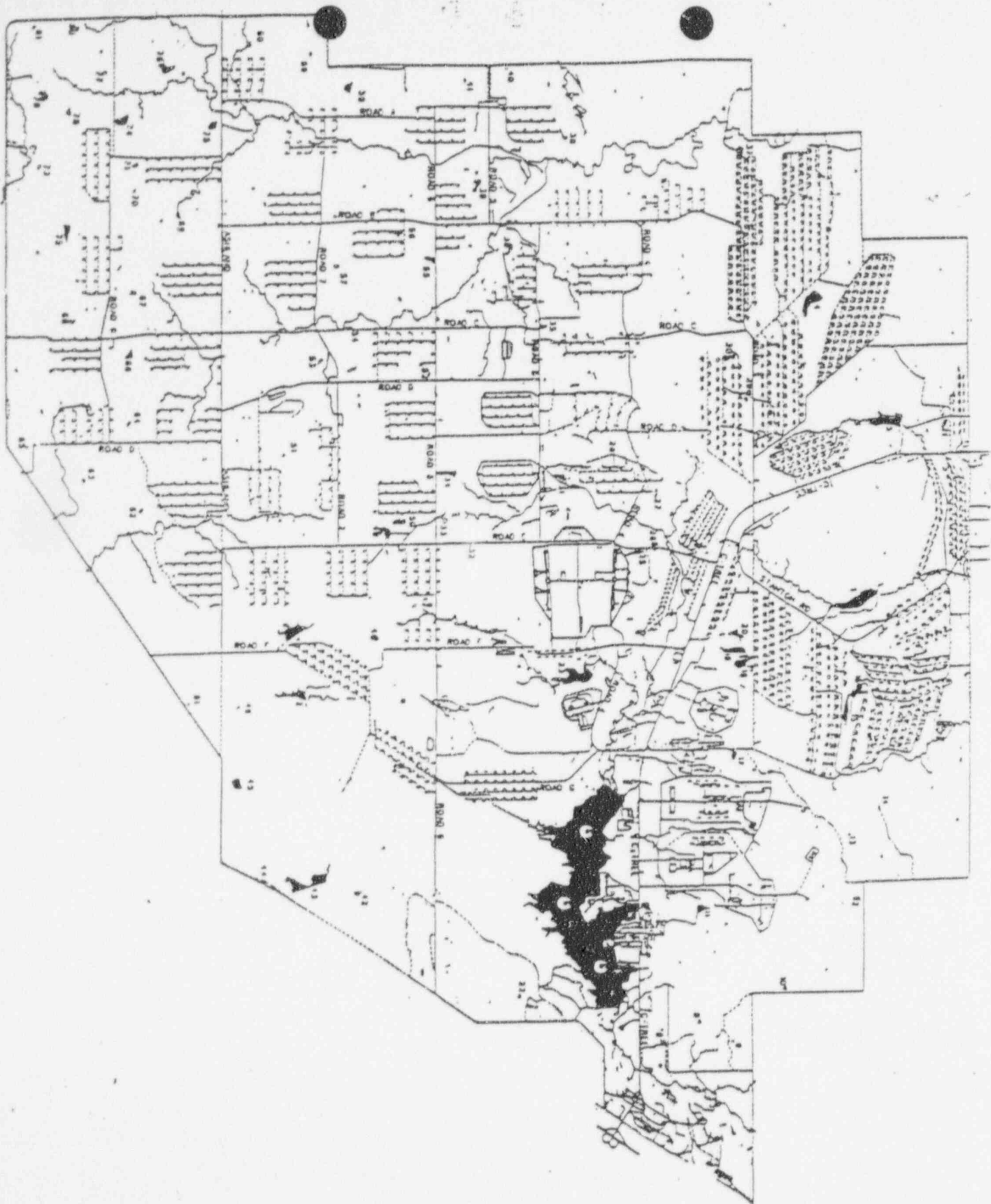
8. The NRC forwarded a letter referencing NUREG\CR 5849 and license amendment to IOC on 5 April 1995.

9. Contaminated equipment was removed and surveyed by SEG from McAlester AAP in July 1995.

10. The SEG contracted CHEMRAD to perform surveys of magazines 50PC603 and 50PC608 in August 1995. The surveys were completed in August with a final report from Chemrad dated 16 October 1995.

11. The SEG forwarded a letter to IOC summarizing the findings of both SEG and Chemrad surveys, dated 1 December 1995.

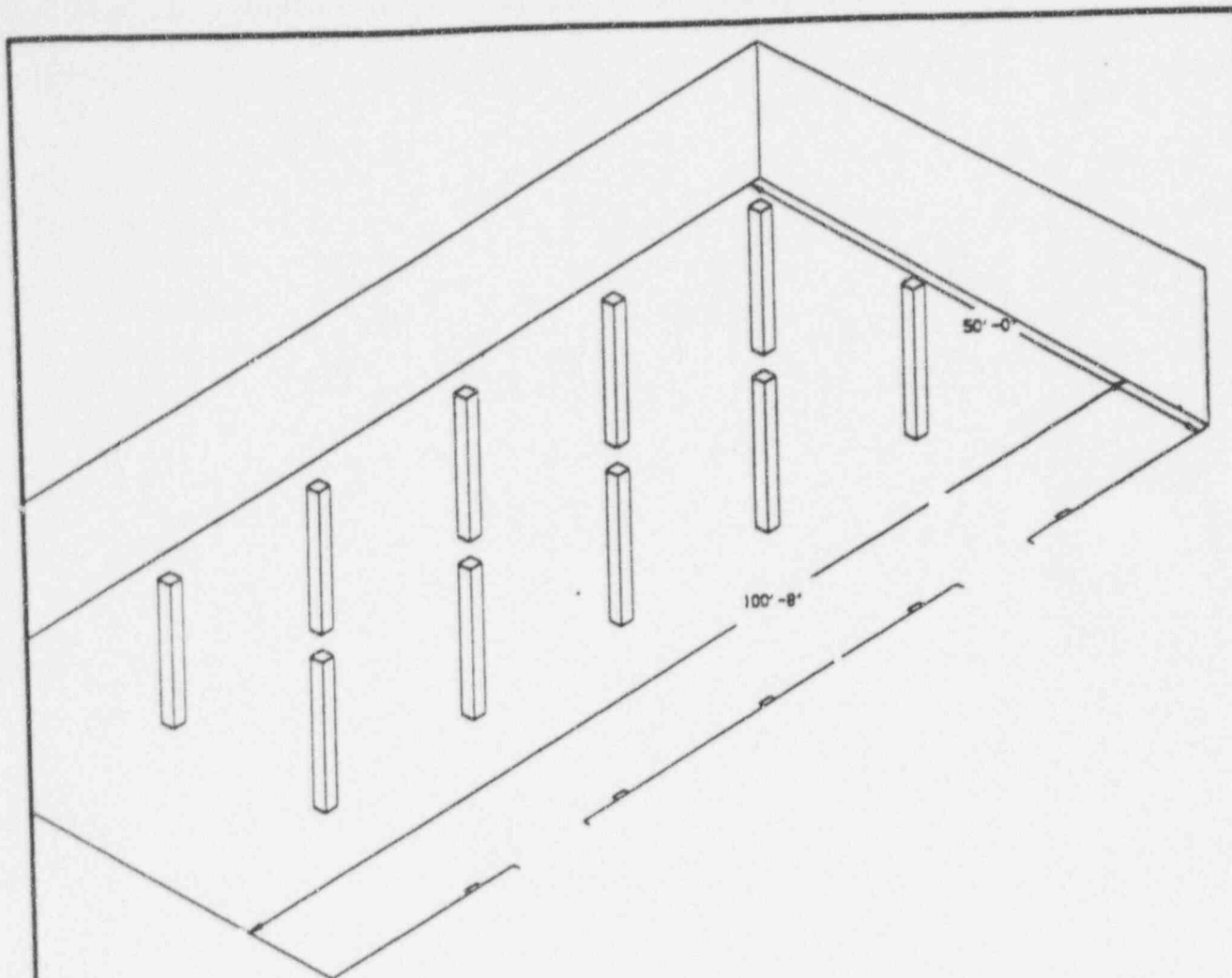
12. The IOC requested support from USACHPPM on 1 April 1996, memorandum, AMSIO-DMW, subject: License Termination Surveys for Magazines Used to Store Manufacturing Equipment Contaminated with Depleted Uranium (DU), 1 April 1996.



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Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

MCALESTER ARMY AMMUNITION PLANT MAGAZINES
SCHEDULED FOR UNRESTRICTED RELEASE

1. 50PC603
2. 50PC608
3. 50PC1503



ISOMETRIC VIEW

CONSTRUCTION DRAWINGS

DRAWINGS NOT CITED IN DOD STD 6055.9,
CHAPTER 5, 15 JANUARY 1992
APPROVED MAX LBS NEW NOT KNOWN.

Y & D NO. 173649
Y & D NO. 363020
Y & D NO. 544839 THRU 544842

100'-8" L X 50'-0" W X 15'-0" (MAX) 13'-0" (MIN) H RECTANGULAR MAGAZINE

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and
Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

APPENDIX D

INDUSTRIAL OPERATIONS COMMAND
WRITTEN CORRESPONDENCE WITH
THE NUCLEAR REGULATORY COMMISSION

Amcom

*This letter
resulted in
amendment #7
to SUC-1380*

31 OCT 1986

AMSC-SF

SUBJECT: Amendment Request for Nuclear Regulatory Commission (NRC) License
SUC 1380 to Include Equipment Storage at McAlester Army Ammunition
Plant (AAP)

THRU: Commander
U.S. Army Materiel Command
ATTN: AMCSF-P
5001 Eisenhower Avenue
Alexandria, VA 22333-0001

TO: U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

1. As the Single Manager for Conventional Ammunition (SMCA), the Army has the responsibility for managing ammunition production for all services (Army, Navy, Air Force, Marine Corps). Under certain circumstances the Army furnishes equipment to private contractors producing the ammunition. When production is complete or the equipment is no longer needed by the contractor it is returned to the Army. If the equipment is determined obsolete it is disposed of; if it is suitable for other requirements but no immediate need exists it is put in storage.

2. The Army has furnished equipment to private contractors for use in the production of munitions which contain Depleted Uranium (DU) penetrators. During production several pieces of equipment became contaminated. A review has been made of the equipment presently used or stored at contractor facilities under NRC or agreement State licenses issued to the contractor. Several pieces are no longer useful and will be disposed of as radioactive waste. Other pieces are required to meet mobilization requirements and must be maintained by the Army. These pieces would be stored until determined obsolete or until needed for current or increased production of DU rounds.

3. The Army currently requires a licensed storage facility of approximately 4,400 square feet for industrial plant equipment containing an estimated 60 pounds of DU. This request for amendment to NRC License SUC 1380 is for a quantity of 500 pounds of DU for approximately 20,000 square feet of equipment storage area to allow for contingencies in the future without additional amendments.

AMSMC-SF

SUBJECT: Amendment Request for Nuclear Regulatory Commission (NRC) License
SUC 1360 to Include Equipment Storage at McAlester Army Ammunition
Plant (AAP)

4. Request authorized use be granted for storage at McAlester AAP incident to decontamination or disposal. McAlester AAP is a Government owned and operated facility. No production of DU penetrators will be performed; equipment will be stored only. Equipment will be packaged and shipped to McAlester AAP in accordance with Department of Transportation requirements. Once at McAlester AAP, equipment will remain packaged and be put in storage. Code of Federal Regulation Title 10 and applicable Army regulations will be followed. Packages and storage area will be monitored on a quarterly basis to ensure the material remains contained.

5. Request this amendment request be handled expeditiously as an alternate method of handling this equipment would be required if disapproved.

6. Point of contact is Mr. Ralph Cardenuto, FTS 367-2969, commercial (309) 782-2969.

7. AMCCOM - Providing Leaders the Decisive Edge.

FOR THE COMMANDER:

MURRAY G. SWINDLER
Colonel, GS
Chief of Staff

SMCNC-SF (385-11c)

Mc Alester aaf

27 April 1987

MEMORANDUM FOR RECORD

SUBJECT: Receipt and Storage of Depleted Uranium (DU) Contaminated Equipment
at Storage Magazine 50PC-603.

1. Between 1500 and 1700 on 27 April 1987, a PDR-27C, ID No. 1205, radiacmeter with calibration due date of 16 June 1987, was used to conduct a radiation survey at storage magazine 50PC-603 on three (3) pieces of equipment and the inside of Schneider National semi-trailer #185614. The survey was done on the back doors of the trailer before opening, the floor and the walls inside the trailer before any equipment was moved, and the floor of the trailer after each piece was removed. The monitoring revealed no radiation present on the back doors of the trailer, on the equipment, or inside the trailer.

2. Forklifts PF-126 and PF-130 were used to move the equipment. The equipment was set on reinforced plastic sheeting inside the magazine with adequate aisle space for future quarterly radiation monitoring. A listing of MCAAP personnel involved in the move of the equipment or present at the scene is at enclosure 1.

3. There was no radioactive waste accumulation.

1 encl
as stated

L.V. Maxwell
L.V. MAXWELL
Chief, Safety Office

Amson

Dorothy Malone	Safety RPO	SMCMC-SF
Jerry Tollett	Warehouse Worker Fmn	SMCMC-AOS-R
Don Crews	Rigger	SMCMC-IS
Mike Greenway	Rigger	SMCMC-AO
Roy Holiday	Warehouse Worker	SMCMC-AOS-R
Paul Pingleton	Whse Wkr Leader	SMCMC-AOS-R
Bill Health	Warehouse Worker	SMCMC-AOS-R
C.W. Barnes	Warehouse Worker	SMCMC-AOS-R

AMSMC-SFS (335-11m)

14 OCT 1986

MEMORANDUM THRU Commander, U.S. Army Materiel Command, ATTN: AMSF-P, 5001
Eisenhower Avenue, Alexandria, VA 22333-0001

MEMORANDUM FOR U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt
Road, Glen Ellyn, IL 60137

SUBJECT: Amendment Request for Nuclear Regulatory Commission (NRC) License SUC
1380

1. In our amendment request dated 31 October 1986, we requested that McAlester Army Ammunition Plant (AAP) be added to SUC 1380 as a storage facility for manufacturing equipment contaminated with depleted uranium. In paragraph 4 of that request we stated that the storage area would be monitored quarterly to ensure the contamination remained contained.

2. The equipment is presently stored at a remote ammunition storage area which is enclosed by a security fence. Access is restricted with security guards posted at all entrances. The igloos containing the equipment are locked and only radiation protection personnel have access to the keys.

3. The equipment is wrapped in two layers of plastic and sits on wood skids. All survey results for the last 3 years have been negative.

4. Due to the difficulty of gaining access to the storage area, coupled with the negative survey results, we are requesting that the license be amended to allow McAlester AAP to perform annual, rather than quarterly, surveys.

5. Point of contact for this action is Mr. David Nelson, AMSMC-SFS, AV 793-2966.

FOR THE COMMANDER:

SIGNED

DAVID P. SKOGMAN
Ch. Systems, Chemical, & Radiation Div

Amcsmc

AMSMC-SFS (385-11m)

14 MAY 1990

MEMORANDUM THRU Commander, U.S. Army Materiel Command, ATTN: AMCSF-P, 5001
Eisenhower Avenue, Alexandria, VA 22333-0001

FOR Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn,
IL 60137

SUBJECT: Nuclear Regulatory Commission (NRC) License SUC 1380

1. The NRC License SUC 1380 covers depleted uranium contaminated equipment stored at McAlester Army Ammunition Plant in McAlester, OK. The purpose of this memorandum is to inform you of recent developments involving the contaminated equipment.

2. During the week of 21 May 1990, Chem-Nuclear Systems, Incorporated, under contract with the U.S. Army for radioactive waste disposal services, will be inspecting the equipment for eventual decontamination or disposal. The equipment will be resealed upon completion of the inspection. A copy of the scope of work for the contractor is enclosed for your information.

3. Point of contact for this action is Mrs. Kathryn LaFrenz, AMSMC-SFS, DSN 793-2965 or (309) 782-2965.

FOR THE COMMANDER:

DAVID P. SKOGMAN
SIGNED

DAVID P. SKOGMAN
Ch. Systems, Chemical, & Radiation Div

Enc 1

DESCRIPTION OF WORK McAlester AAF

To provide for the removal of machinery contaminated with depleted uranium from McAlester AAF, McAlester, Oklahoma.

SCOPE OF WORK:

1. The Contractor will inspect, inventory and mark the DU contaminated machines for eventual shipment. The Contractor will perform all tasks in accordance with all applicable federal and state laws and criteria.

2. Transportation will not be required.

3. Chem-Nuclear Systems Inc. will provide two brokers who will inspect, inventory and mark the machines for eventual disposal at the burial site or decontamination at the Consolidation facility. Machines contaminated with DU and oil will be sent to the Consolidation facility for decontamination. Machines contaminated with only DU will be sent directly to the burial site.

The broker will make sure that after each machine is inspected it is resealed in its original plastic cover.

4. Starting date for the job will be 21 May 1990, McAlester, Okla and will take 5 days to complete.



CHEM-NUCLEAR SYSTEMS, INC.

220 Stoneridge Drive • Columbia, South Carolina 29210

May 31, 1990
DOC-0397.90

HQ, US Army, AMCCOM
(ATTN: AMSMC-SFR/Morris)
Rock Island, IL 61299-6000

RE: INSPECTION OF MATERIAL, McALESTER ARMY AMMUNITION PLANT

Dear Mr. Morris:

Chem-Nuclear visited the McAlester Army Ammunition Plant on May 21-24, 1990 and conducted an inspection of material located in bunkers 603, 608 and 1503. A detailed inventory and general area survey was also performed. The general area dose rates were basically background with individual hot spots up to 3mR/hr. No loose surface contamination was detected in the bunkers.

The items were strapped to heavy duty skids and wrapped numerous times with a durable plastic to form a package. It would be easy, but time consuming, to construct solid sides, tops, and bottoms around each package.


Bunker 1503 has the least amount of material and could be emptied using two to three trucks. The other bunkers are full and would require at least seven trucks each.

The packages with hot spots and packages that were evaluated to have the potential to be the most contaminated were opened and swipes were taken on their surfaces. Only one package produced significant contamination, (22,000 dpm, beta/gamma). No oil or excessive grease was observed on any of the evaluated packages. There was no evidence of oil leakage or any other hazardous wastes being present, with the exception of a lead heating pot. This could not be evaluated on-site.

Our recommendation for this material is to send several truck loads of material simultaneously to the DCF for in-depth inspection and/or decon, for determination of free release or disposal. If decontamination is impossible, major volume reduction is probable based on what was observed at McAlester A.A.P.

If you have any further questions, please contact me at 803-256-0450.

Sincerely,


Roger W. Johnson
Manager, Defense Operations

RWJ/rs

Amcom
13 MAR 1995

Safety Office

Administrator
Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Dear Sir:

This office manages license number SUC-1380 for the U.S. Army Armament, Munitions and Chemical Command. License amendment number 7 authorized the storage of depleted uranium contaminated equipment, incident to decontamination or disposal, at McAlester Army Ammunition Plant, McAlester, Oklahoma. This letter is meant to inform you of pending developments which may lead to final disposition of all of this equipment.

Currently, the equipment is wrapped in plastic, sits on wooden skids, and is stored in two secure buildings. On a quarterly basis, surveys are performed around the equipment. In June 1994, eight pieces of this equipment were disposed of at the low-level radioactive waste disposal site in Barnwell, South Carolina.

The U.S. Army Armament, Munitions and Chemical Command Radioactive Waste Disposal Office has been in contact with Scientific Ecology Group, Incorporated, about the possibility of recycling the equipment into shielding material. When funds become available, Scientific Ecology Group, Incorporated, will be placed on contract to inspect the equipment and determine its suitability for this purpose. The inspection will include opening the plastic wrap, surveying the contents, and rewrapping the equipment. If found suitable, the equipment will be monitored, packaged, and shipped in accordance with applicable regulations, Code of Federal Regulations, Titles 10 and 49, and Army Regulations, by Scientific Ecology Group, Incorporated, to their Oak Ridge, Tennessee, smelting facility.


Oak Ridge, Scientific Ecology Group, Incorporated, will survey the dunnage and, if found to be clean, the dunnage will be free released. Contaminated material will be treated as radioactive waste. The waste will be incinerated at Scientific Ecology Group, Incorporated's Oak Ridge incinerator, or compacted and forwarded to the Department of Defense Richland Consolidation Facility, Richland, Washington, for interim storage. This facility is owned by Allied Technology Group, and is under contract to the Department of the Army. The equipment will be recycled into ingots for use by the Department of Energy as shielding material.

After the equipment is removed from McAlester, surveys will be performed to ensure that the two buildings can be released for unrestricted use. The Army intends on utilizing these buildings for the storage of other material. If the surveys show that the buildings are clean, then a request to close this portion of the SUC-1380 license will be submitted with the survey results.

If the Nuclear Regulatory Commission requests further information, please provide as soon as possible since the funds to begin the above actions could be available as early as May 1995.

The point of contact for this action is Mr Gary Buckrop, (309) 872-2969.

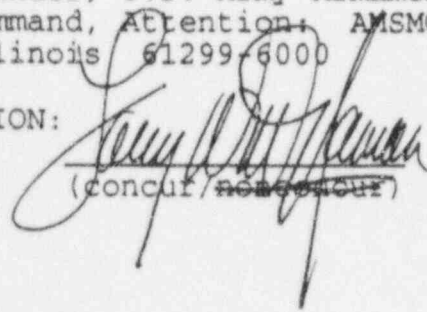
Sincerely,


SIGNED
Glenn S. Leach
Acting Chief, Safety Office

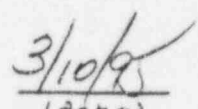
Copies Furnished:
Commander, U.S. Army Armament, Munitions and Chemical
Command, Attention: AMSMC-RW, Rock Island,
Illinois 61299-6000

COORDINATION:
AMSMC-RW

YC


(concur/nonconcur)

(signature)


(date)



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

APR 05 1995

Department of the Army
Commander, U.S. Army Armament,
Munitions and Chemical Command
ATTN: Gary Buckrop, AMSMC-RW
Rock Island, IL 61299-6000

Dear Mr. Buckrop:

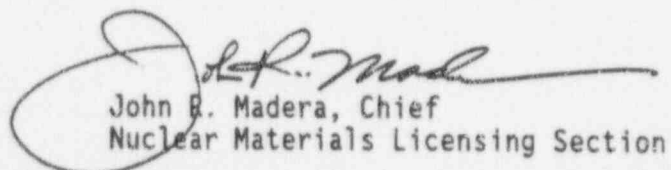
This refers to your letter, dated March 13, 1995, which informed the NRC your intent to transfer radiologically contaminated equipment to Scientific Ecology Group, Inc. and to survey and release the equipment storage area for unrestricted use. The NRC has no objections with the Army proceeding with the transfer of contaminated equipment, as long as the transfer is performed in accordance with 10 CFR Part 40.51, Transfer of Source or Byproduct Material.

The final survey of the storage buildings use to house contaminated equipment, should be performed in accordance with NUREG/CR-5849, Manual for Conducting Radiological Surveys in Support of License Termination. If radiological contamination is identified on building surfaces, the Army should determine if a Decommissioning Plan, in accordance with 10 CFR Part 40.42(c)(2)(i), is required. If required, the Decommissioning Plan should be submitted for NRC review and approval prior to the start of remediation activities.

The final survey report should be submitted as part of a license amendment requesting removal of the storage area from the license. The NRC will review the final survey data and determine if a confirmatory survey should be performed prior to releasing the buildings for unrestricted use.

If you have any questions please call me at 708/829-9834.

Sincerely,


John B. Madera, Chief
Nuclear Materials Licensing Section

License No.: SUC-1380
Docket No.: 040-08767



REF: Y TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND
ROCK ISLAND, ILLINOIS 61299-6000

Authority



S: 19 April 1996

AMSIO-DMW (385-11m)

01 APR 1996

MEMORANDUM FOR Commander, U.S. Army Center for Health Promotion
and Preventive Medicine, ATTN: MCEB-DS-HP
(Mr. Harris Edge), Aberdeen Proving Ground,
MD 21010-5422

SUBJECT: License Termination Surveys for Magazines Used to
Store Manufacturing Equipment Contaminated With Depleted
Uranium (DU)

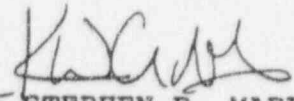
1. The Radioactive Waste Disposal Division of the Headquarters, U.S. Army Industrial Operations Command, manages Nuclear Regulatory Commission (NRC) license number SUC-1380. A portion of this license authorizes the storage of manufacturing equipment contaminated with DU at McAlester Army Ammunition Plant (AAP). In all, three storage magazines were used to store this equipment.
2. This equipment was obsoleted and physically transferred to Scientific Ecology Group (SEG), Jonesboro, TN, in August 1995 and smelted into shielding blocks for use at Department of Energy facilities.
3. After the equipment was removed, two of these magazines were surveyed by a company named CHEMRAD and found to be clean. A copy of CHEMRAD's report can be obtained upon request. The two magazines surveyed by CHEMRAD are empty. The third magazine contains a substantial amount of ammunition and explosives.
4. We request the U.S. Army Center for Health Promotion and Preventive Medicine perform a verification survey in all three storage magazines so that the portion of SUC-1380 which authorizes the storage of this equipment can be terminated. We request you provide a response to this memorandum by 19 April 1996.

AMSIO-DMW

SUBJECT: License Termination Surveys for Magazines Used to Store Manufacturing Equipment Contaminated With Depleted Uranium (DU)

5. The POCs are Mr. Kelly Crooks and Mr. Gary Buckrop, AMSIO-DMW, DSN 793-0338 or (309) 782-0338, and DSN 793-2969 and (309) 782-2969 respectively, E-mail addresses kcrooks@ria-emh2.army.mil and gbuckrop@ria-emh2.army.mil respectively.

FOR THE COMMANDER:


for STEPHEN R. MAPLEY
Chief, Radioactive Waste
Disposal Division

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and
Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

APPENDIX E

RELEASE GUIDELINES

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

Limits for Removable Surface Contamination

Nuclide ^a	Removable ^{b c} (dpm/100 cm ²)	Average (dpm/100 cm ²)	Maximum (dpm/100 cm ²)
U-nat, U-235, U238, and associated decay products	1000	5000	15000
Transurancies, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, and I-129	20	100	300
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, and I-133	200	1000	3000
Beta-gamma emitters (nuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above	1000	5000	15000

^a Where surface contamination by both alpha- and beta-gamma emitting nuclide exists, the limits established for alpha- and beta-gamma emitting nuclide should apply independently.

^b As used in this table, disintegrations per minute (dpm) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

^c The amount of removable radioactive material per 100 cm² of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be reduced proportionally. The entire surface should be wiped.

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and
Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

Reference: Guidelines for Decontamination of Facilities and
Equipment Prior to Release for Unrestricted Use of Termination of
Licenses for Byproducts, Source, or Special Nuclear Material, U.S.
Nuclear Regulatory Commission, Nov ~~1976~~.

1993.

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and
Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

APPENDIX F

INSTRUMENTATION USED
AND
EQUIPMENT DAILY OPERABILITY CHECKS

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

	Alpha	Beta/ Gamma	Alpha	Beta/ Gamma
Readout Make	LU DLUM	LU DLUM	LU DLUM	LU DLUM
Readout Model	2224	2224	2224	2224
Serial Number	118238	118238	110003	110003
Cal. Date	07/23/96	07/23/96	07/24/96	07/24/96
Cal. Eff. to a Tc-99 Source	N/A	31.9%	N/A	28.42%
Cal. Eff. to a Th-230 Source	31.35%	N/A	30.96%	N/A
Probe Make	LU DLUM	LU DLUM	LU DLUM	LU DLUM
Probe Model	43-1-1	43-1-1	43-1-1	43-1-1

	Scanning Floor/ Monitor
Readout Make	LU DLUM
Readout Model	2224
Serial Number	119772
Cal. Date	07/29/96
Cal. Eff. to a Tc-99 + Th-230 source	7.29%
Probe Make	LU DLUM
Probe Model	43-37

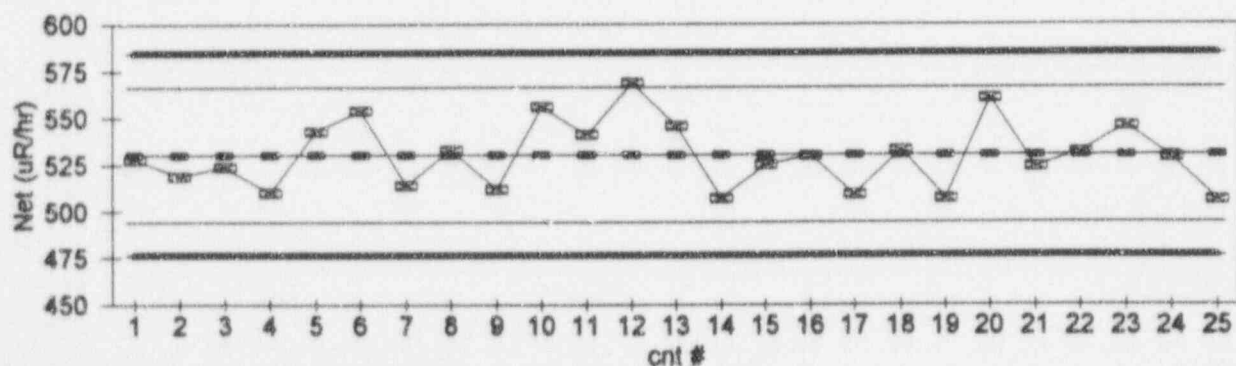
	Gamma
Make	LU DLUM
Model	2350-1
Serial Number	129436
Cal. Date	03/30/96
Cal. to a Cs-137 Source	Correction Factor is 1
Probe Make	LU DLUM
Probe Model	44-2

All instrumentation was supplied by CHPPM and the calibration is traceable to the National Institute of Standards and Technology.

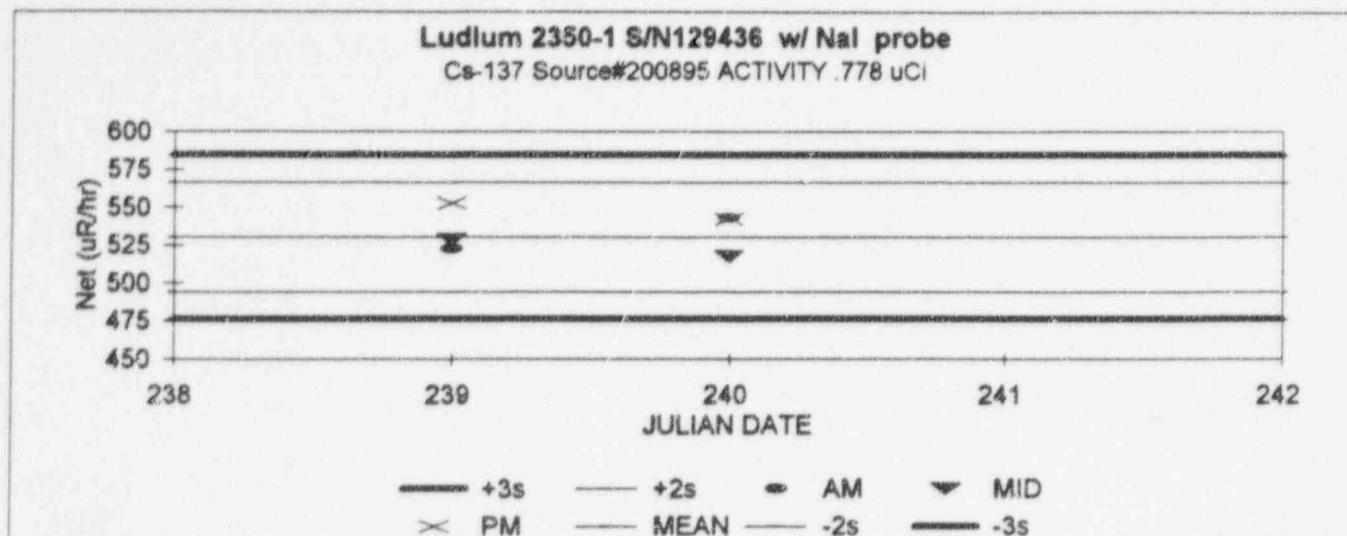
Ludlum 2350-1 S/N129438 w/ NaI probe #44-2 S/N131791
Cs-137 Source#200895 ACTIVITY .778 uCi, as of 20FEB95

Data for Initial QC Limits - collected 21May96

cnt #	gross	bkg	net cnt	+3s	+2s	mean	-2s	-3s
1	537	0	528	584.5	566.5	530.3	494.2	476.1
2	528	0	519	584.5	566.5	530.3	494.2	476.1
3	533	0	524	584.5	566.5	530.3	494.2	476.1
4	519	0	510	584.5	566.5	530.3	494.2	476.1
5	552	0	543	584.5	566.5	530.3	494.2	476.1
6	563	0	554	584.5	566.5	530.3	494.2	476.1
7	523	0	514	584.5	566.5	530.3	494.2	476.1
8	542	0	533	584.5	566.5	530.3	494.2	476.1
9	521	0	512	584.5	566.5	530.3	494.2	476.1
10	565	0	556	584.5	566.5	530.3	494.2	476.1
11	550	0	541	584.5	566.5	530.3	494.2	476.1
12	578	0	569	584.5	566.5	530.3	494.2	476.1
13	555	0	546	584.5	566.5	530.3	494.2	476.1
14	516	0	507	584.5	566.5	530.3	494.2	476.1
15	534	0	525	584.5	566.5	530.3	494.2	476.1
16	538	0	530	584.5	566.5	530.3	494.2	476.1
17	518	0	509	584.5	566.5	530.3	494.2	476.1
18	542	0	533	584.5	566.5	530.3	494.2	476.1
19	516	0	507	584.5	566.5	530.3	494.2	476.1
20	570	0	561	584.5	566.5	530.3	494.2	476.1
21	533	0	524	584.5	566.5	530.3	494.2	476.1
22	541	0	532	584.5	566.5	530.3	494.2	476.1
23	555	0	546	584.5	566.5	530.3	494.2	476.1
24	538	0	529	584.5	566.5	530.3	494.2	476.1
25	515	0	506	584.5	566.5	530.3	494.2	476.1
x-bar			530.3					
s =			18.07					



DAILY INSTRUMENT QC CHART (GAMMA)



-3s	-2s	Mean	+2s	+3s
476.1	494.2	530.3	566.5	584.5

Julian	Date	GROSS						NET		
		AM	BKG	MID	BKG	PM	BKG	AM	MID	PM
238	26-Aug	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0
239	27-Aug	534	11.2	540	11.3	564	11.1	522.8	528.7	552.9
240	28-Aug	555	11.9	530	12.5	554	11.6	543.1	517.5	542.4
241	29-Aug	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0
242	30-Aug	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0

FLOOR MONITOR QC CHECKS
 LUDLUM MODEL 2224 SERIAL NUMBER 119772
 PROBE MODEL 43-37-1 SERIAL NUMBER 122886
 PROBE AREA: 425 CM2

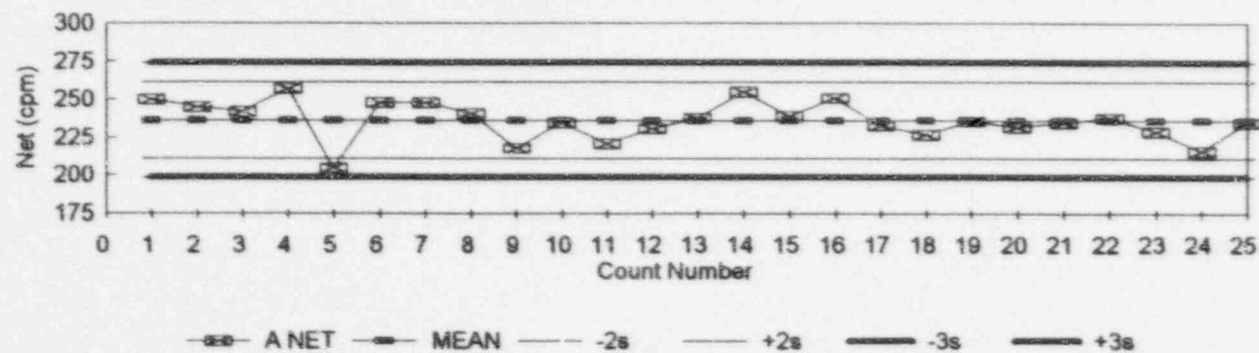
ALPHA SOURCE INFORMATION:				BETA SOURCE INFORMATION:			
DPM	S/N	DATE		DPM	S/N	DATE	
1	18200	2002-95	20-Feb-95	1	8160	2005-95	20-Feb-95

ALPHA	2s	211.2 TO	261.2	3s	198.6 TO	273.8
BETA	2s	1591.1 TO	1780.7	3s	1543.7 TO	1828.1

ALPHA STATISTICS										BETA STATISTICS							
NO.	DATE	A CNTS	B CNTS	A BKGD	B BKGD	A NET	B NET	MEAN	-2s	+2s	-3s	+3s	MEAN	-2s	+2s	-3s	+3s
1	27-Aug-96	252	2141	2	403	250	1738	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
2	27-Aug-96	247	2091	2	403	245	1688	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
3	27-Aug-96	244	2070	2	403	242	1667	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
4	27-Aug-96	259	2036	2	403	257	1633	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
5	27-Aug-96	207	2032	2	403	205	1629	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
6	27-Aug-96	250	1970	2	403	248	1567	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
7	27-Aug-96	250	2126	2	403	248	1723	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
8	27-Aug-96	243	2052	2	403	241	1649	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
9	27-Aug-96	220	2179	2	403	218	1776	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
10	27-Aug-96	237	2115	2	403	235	1712	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
11	27-Aug-96	223	2117	2	403	221	1714	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
12	27-Aug-96	233	2125	2	403	231	1722	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
13	27-Aug-96	240	2104	2	403	238	1701	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
14	27-Aug-96	257	2084	2	403	255	1681	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
15	27-Aug-96	241	2103	2	403	239	1700	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
16	27-Aug-96	253	2040	2	403	251	1637	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
17	27-Aug-96	235	2085	2	403	233	1682	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
18	27-Aug-96	229	2125	2	403	227	1722	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
19	27-Aug-96	238	2110	2	403	236	1707	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
20	27-Aug-96	234	2006	2	403	232	1603	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
21	27-Aug-96	237	2141	2	403	235	1738	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
22	27-Aug-96	240	2116	2	403	238	1713	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
23	27-Aug-96	231	2115	2	403	229	1712	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
24	27-Aug-96	218	2088	2	403	216	1685	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
25	27-Aug-96	235	2051	2	403	235	1648	236.2	211.2	261.2	198.6	273.8	1685.9	1591.1	1780.7	1543.7	1828.1
X-BAR						236.2	1685.9										
s						12.5	47.4										

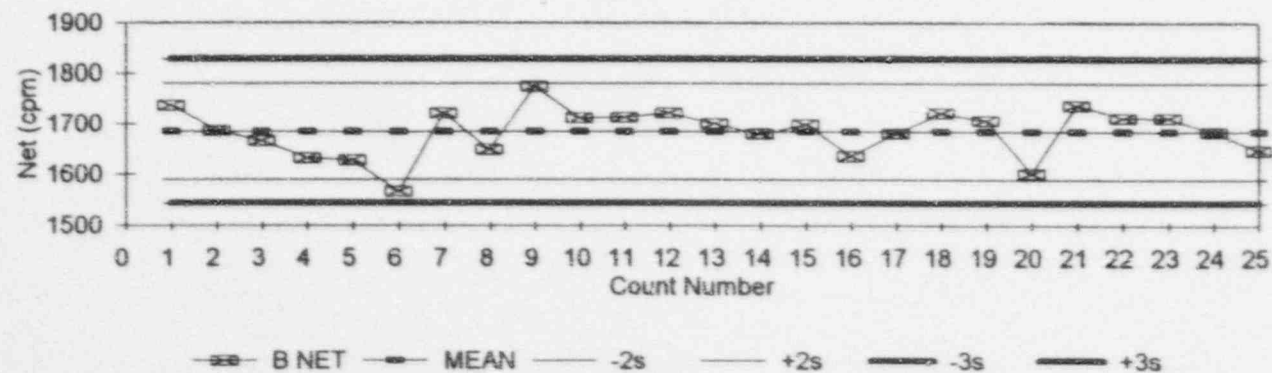
LUDLUM MODEL 2224 SERIAL NUMBER 119772

PROBE MODEL 43-37-1 SERIAL NUMBER 12288



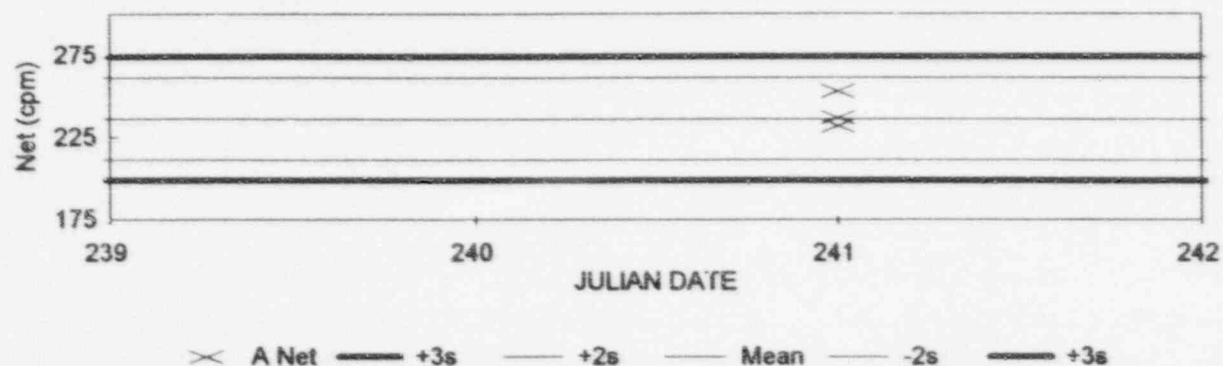
LUDLUM MODEL 2224 SERIAL NUMBER 119772

PROBE MODEL 43-37-1 SERIAL NUMBER 12288



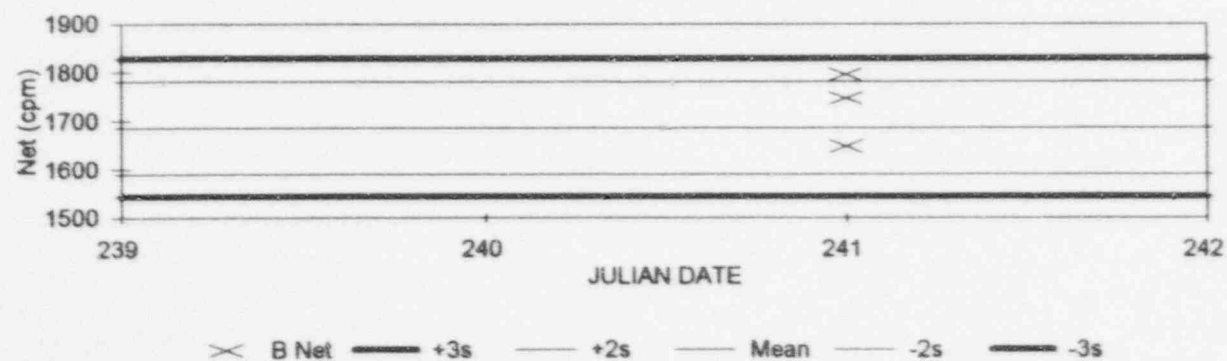
LUDLUM MODEL 2224 SERIAL NUMBER 119772

PROBE MODEL 43-37-1 SERIAL NUMBER 12288



LUDLUM MODEL 2224 SERIAL NUMBER 119772

PROBE MODEL 43-37-1 SERIAL NUMBER 12288



DAILY FLOOR MONITOR SOURCE CHECKS

LUDLUM MODEL 2224 SERIAL NUMBER 119772

PROBE MODEL 43-37-1 SERIAL NUMBER 122886

PROBE MODEL 43-37-1 SERIAL NUMBER122886										ALPHA					BETA				
DAY	DATE	A CNT	B CNT	A BKGD	B BKGD	A NE	B NET	+3s	+2s	mean	-2s	-3s	+3s	+2s	mean	-2s	-3s		
239	26-Aug	n/a	n/a	n/a	n/a	n/a	n/a	274	261	236	211	199	1828	1781	1686	1591	1544		
240	27-Aug	n/a	n/a	n/a	n/a	n/a	n/a	274	261	236	211	199	1828	1781	1686	1591	1544		
240	27-Aug	n/a	n/a	n/a	n/a	n/a	n/a	274	261	236	211	199	1828	1781	1686	1591	1544		
240	27-Aug	n/a	n/a	n/a	n/a	n/a	n/a	274	261	236	211	199	1828	1781	1686	1591	1544		
241	28-Aug	235	2051	3	403	232	1648	274	261	236	211	199	1828	1781	1686	1591	1544		
241	28-Aug	242	2165	5	418	237	1747	274	261	236	211	199	1828	1781	1686	1591	1544		
241	28-Aug	261	2248	8	452	253	1796	274	261	236	211	199	1828	1781	1686	1591	1544		

PROBE MODEL43-1-1 SERIAL NUMBER 010056
 PROBE AREA 75 CM2

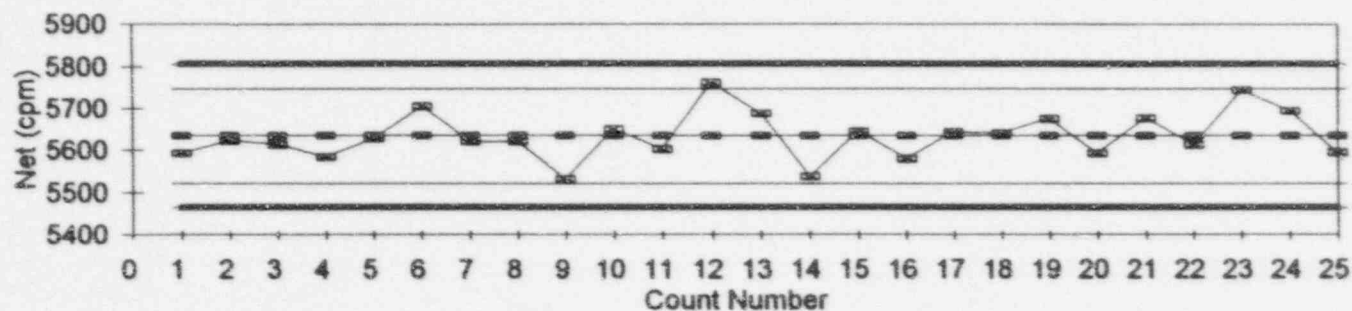
ALPHA SOURCE INFORMATION: BETA SOURCE INFORMATION:
 DPM S/N DATE DPM S/N DATE
 1 18200 2002-95 20-Feb-95 1 8160 2005-95 20-Feb-95

Alpha Ranges 2s 5521.3 5748.4 3s 5464.8 5805.2
 Beta Ranges 2129.4 2508.9 2034.6 2603.7

O.	DATE	ALPHA STATISTICS		BETA STATISTICS													
		A CNTS	B CNTS	A BKGD	B BKGD												
		A NET	B NET	MEAN	-2s												
					+2s												
					-3s												
					+3s												
				MEAN	-2s												
					+2s												
					-3s												
					+3s												
1	26-Aug	5594	3113	1	709	5593	2404	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
2	26-Aug	5624	3112	1	709	5623	2403	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
3	26-Aug	5615	3088	1	709	5614	2379	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
4	26-Aug	5585	3123	1	709	5584	2414	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
5	26-Aug	5629	3036	1	709	5628	2327	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
6	26-Aug	5707	3104	1	709	5706	2395	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
7	26-Aug	5621	2972	1	709	5620	2263	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
8	26-Aug	5622	3109	1	709	5621	2400	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
9	26-Aug	5533	3088	1	709	5532	2379	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
10	26-Aug	5651	3152	1	709	5650	2443	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
11	26-Aug	5604	3060	1	709	5603	2351	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
12	26-Aug	5764	3081	1	709	5763	2372	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
13	26-Aug	5690	3089	1	709	5689	2380	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
14	26-Aug	5539	2988	1	709	5538	2277	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
15	26-Aug	5647	3036	1	709	5646	2327	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
16	26-Aug	5581	3099	1	709	5580	2390	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
17	26-Aug	5646	3009	1	709	5645	2300	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
18	26-Aug	5642	2883	1	709	5641	2174	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
19	26-Aug	5677	2895	1	709	5676	2186	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
20	26-Aug	5594	2840	1	709	5593	2131	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
21	26-Aug	5679	2881	1	709	5678	2172	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
22	26-Aug	5615	2856	1	709	5614	2147	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
23	26-Aug	5746	2936	1	709	5745	2227	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
24	26-Aug	5696	3055	1	709	5695	2346	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
25	26-Aug	5595	3101	1	709	5595	2392	5634.9	5521.3	5748.4	5464.6	5805.2	2319.2	2129.4	2508.9	2034.6	2603.7
		X-BAR		5634.9		2319.2											
		s		56.8		94.9											

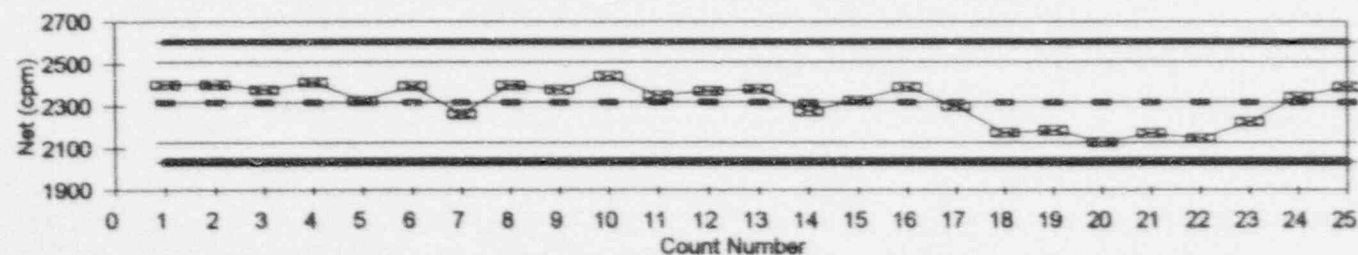
*DUE TO HIGH BACKGROUND INSTRUMENT NOT USED FOR BETA

LUDLUM MODEL 2224 SERIAL NUMBER 110003
PROBE MODEL43-1-1 SERIAL NUMBER 010056



— A NET — MEAN — -2s — +2s — -3s — +3s

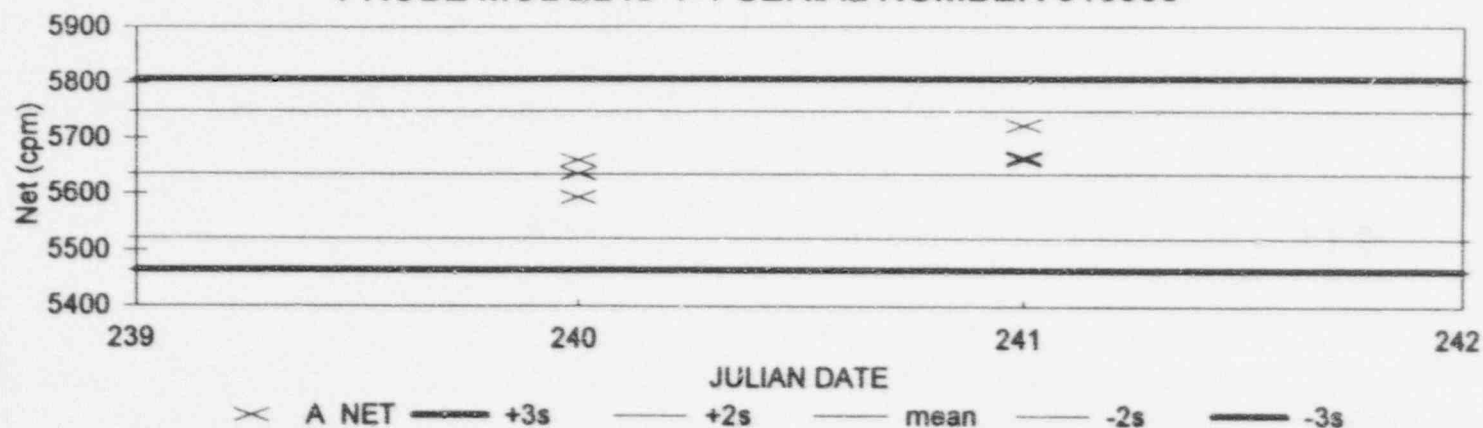
LUDLUM MODEL 2224 SERIAL NUMBER 110003
PROBE MODEL43-1-1 SERIAL NUMBER 010056



— B NET — MEAN — -2s — +2s — -3s — +3s

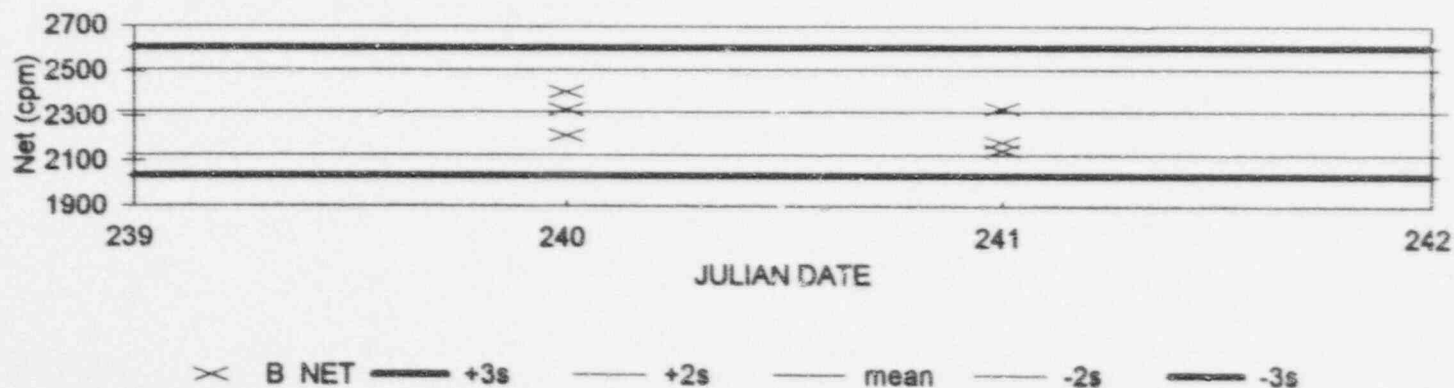
LUDLUM MODEL 2224 SERIAL NUMBER 110003

PROBE MODEL43-1-1 SERIAL NUMBER 010056



LUDLUM MODEL 2224 SERIAL NUMBER 110003

PROBE MODEL43-1-1 SERIAL NUMBER 010056



DAILY FLOOR MONITOR SOURCE CHECKS

LUDLUM MODEL 2224 SERIAL NUMBER 110003

PROBE MODEL43-1-1 SERIAL NUMBER 010056

DAY	DATE	A CNT	B CNT	A BKGD	B BKGD	A NE	B NET	+3s	+2s	mean	-2s	-3s	B NET	+3s	+2s	mean	-2s	-3s
240	27-Aug	5595	3101	0	690	5595	2411	5805	5748	5635	5521	5465	2411	2604	2509	2319	2129	2035
240	27-Aug	5637	2940	0	609	5637	2331	5805	5748	5635	5521	5465	2331	2604	2509	2319	2129	2035
240	27-Aug	5661	2518	0	303	5661	2215	5805	5748	5635	5521	5465	2215	2604	2509	2319	2129	2035
241	28-Aug	5725	2622	2	287	5723	2335	5805	5748	5635	5521	5465	2335	2604	2509	2319	2129	2035
241	28-Aug	5664	2521	2	335	5662	2186	5805	5748	5635	5521	5465	2186	2604	2509	2319	2129	2035
241	28-Aug	5667	2438	1	286	5666	2150	5805	5748	5635	5521	5465	2150	2604	2509	2319	2129	2035
239	26-Aug	n/a	n/a	n/a	n/a	n/a	n/a	5805	5748	5635	5521	5465	n/a	2604	2509	2319	2129	2035

LUDLUM MODEL 2224 SERIAL NUMBER 118238
 PROBE MODEL43-1-1 SERIAL NUMBER 119145
 PROBE AREA 75 CM2

ALPHA SOURCE INFORMATION: BETA SOURCE INFORMATION:

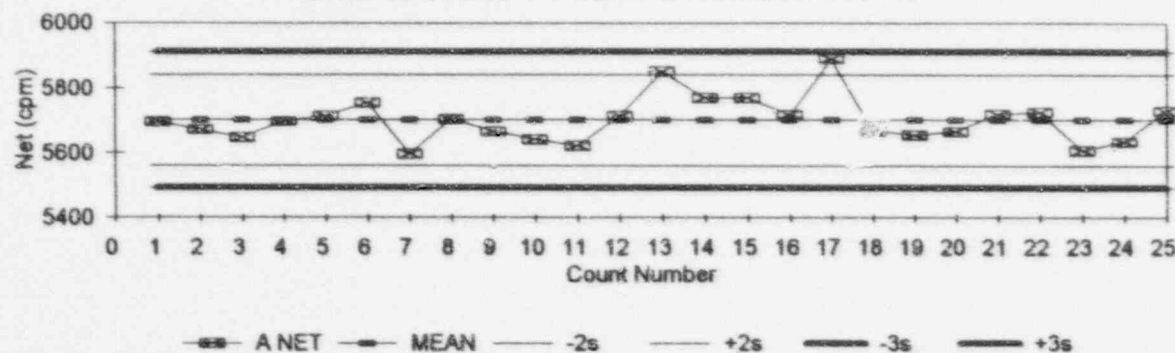
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1	18200	2002-05	20-Feb-95	1	8160	2005-05	20-Feb-95

	2s		3s
Alpha Ranges	5561.5	5842.1	5491.4 5912.2
Beta Ranges	2486.8	2728.6	2426.3 2789.0

NO.	DATE	A CNTS	B CNTS	A BKGD	B BKGD	A NET	B NET	ALPHA STATISTICS					BETA STATISTICS				
								MEAN	-2s	+2s	-3s	+3s	MEAN	-2s	+2s	-3s	+3s
1	26-Aug	5698	2907	1	291	5697	2511	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
2	26-Aug	5673	2772	1	291	5672	2488	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
3	26-Aug	5649	2835	1	291	5648	2544	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
4	26-Aug	5699	2921	1	291	5698	2637	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
5	26-Aug	5715	3000	1	291	5714	2709	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
6	26-Aug	5757	2917	1	291	5756	2626	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
7	26-Aug	5597	2965	1	291	5596	2674	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
8	26-Aug	5705	2970	1	291	5704	2679	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
9	26-Aug	5667	2955	1	291	5666	2664	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
10	26-Aug	5642	2812	1	291	5641	2521	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
11	26-Aug	5622	2989	1	291	5621	2695	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
12	26-Aug	5715	2835	1	291	5714	2544	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
13	26-Aug	5854	2779	1	291	5853	2488	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
14	26-Aug	5773	2894	1	291	5772	2603	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
15	26-Aug	5773	2884	1	291	5772	2593	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
16	26-Aug	5720	2940	1	291	5719	2649	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
17	26-Aug	5892	2922	1	291	5891	2631	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
18	26-Aug	5671	2969	1	291	5670	2678	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
19	26-Aug	5656	2894	1	291	5655	2603	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
20	26-Aug	5667	2889	1	291	5666	2598	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
21	26-Aug	5721	2888	1	291	5720	2597	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
22	26-Aug	5727	2852	1	291	5726	2561	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
23	26-Aug	5609	2860	1	291	5608	2569	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
24	26-Aug	5636	2895	1	291	5635	2604	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
25	26-Aug	5731	2917	1	291	5731	2526	5701.8	5561.5	5842.1	5491.4	5912.2	2607.7	2486.8	2728.6	2426.3	2789.0
						X-BAR		5701.8	2607.7								
						s		70.1	60.5								

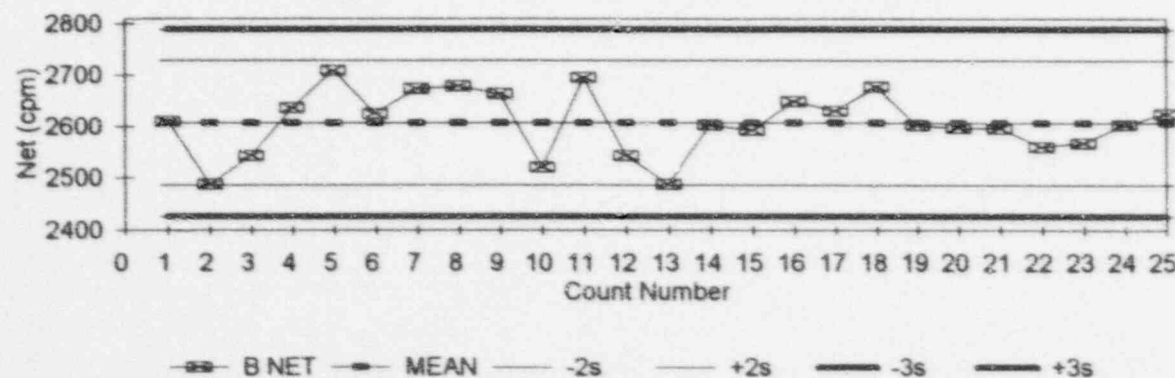
LUDLUM MODEL 2224 SERIAL NUMBER 118238

PROBE MODEL43-1-1 SERIAL NUMBER 119145



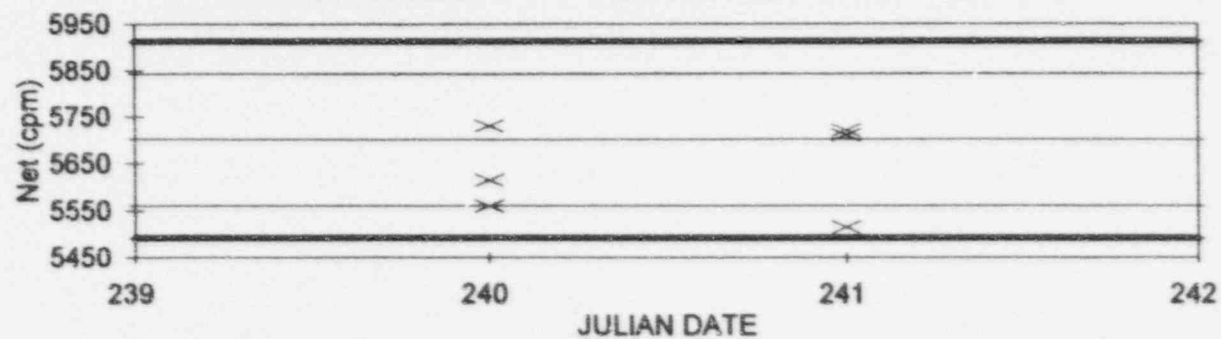
LUDLUM MODEL 2224 SERIAL NUMBER 118238

PROBE MODEL43-1-1 SERIAL NUMBER 119145



LUDLUM MODEL 2224 SERIAL NUMBER 118238

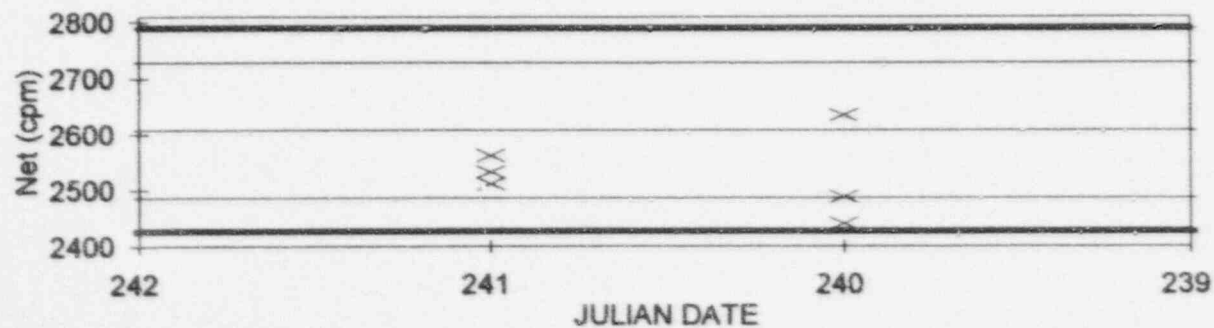
PROBE MODEL43-1-1 SERIAL NUMBER 119145



x A NET — +3s — +2s — mean — -2s — -3s

LUDLUM MODEL 2224 SERIAL NUMBER 118238

PROBE MODEL43-1-1 SERIAL NUMBER 119145



— +3s x B NET — +2s — mean — -2s — -3s

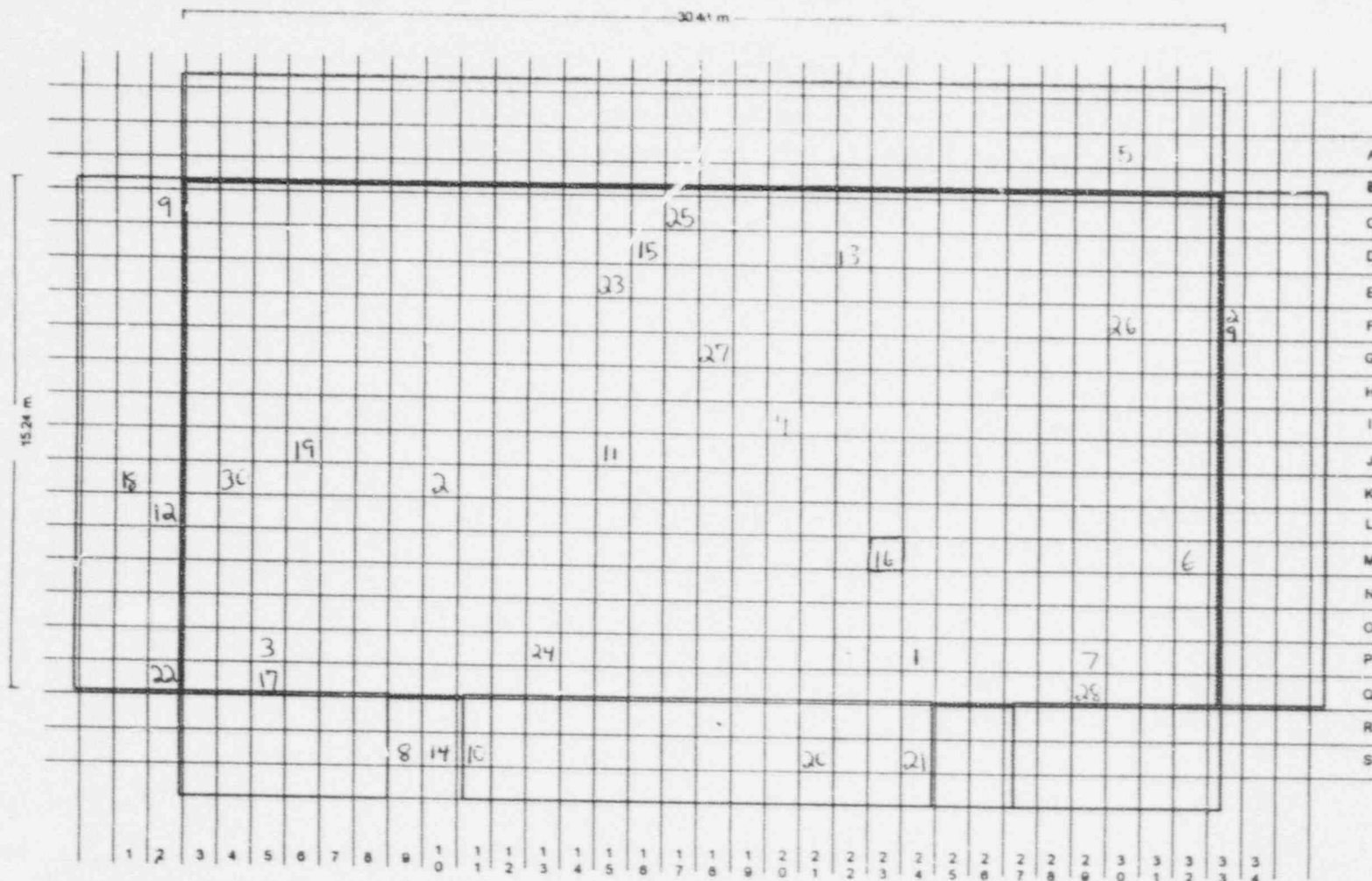
DAILY FLOOR MONITOR SOURCE CHECKS
LUDLUM MODEL 2224 SERIAL NUMBER 118238
PROBE MODEL43-1-1 SERIAL NUMBER 119145


240	27-Aug	5751	2917	0	202	5751	2033	5912	5842	5702	5562	5491	2035	2789	2729	2608	2487	2426
240	27-Aug	5616	2943	1	454	5615	2489	5912	5842	5702	5562	5491	2489	2789	2729	2608	2487	2426
240	27-Aug	5560	2754	0	313	5560	2441	5912	5842	5702	5562	5491	2441	2789	2729	2608	2487	2426
241	28-Aug	5515	2879	0	317	5515	2562	5912	5842	5702	5562	5491	2562	2789	2729	2608	2487	2426
241	28-Aug	5714	2897	3	364	5711	2533	5912	5842	5702	5562	5491	2533	2789	2729	2608	2487	2426
241	28-Aug	5726	2882	5	370	5721	2512	5912	5842	5702	5562	5491	2512	2789	2729	2608	2487	2426
239	26-Aug	n/a	n/a	n/a	n/a	n/a	n/a	5912	5842	5702	5562	5491	n/a	2789	2729	2608	2487	2426
242	29-Aug	n/a	n/a	n/a	n/a	n/a	n/a	5912	5842	5702	5562	5491	n/a	2789	2729	2608	2487	2426

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and
Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

APPENDIX G

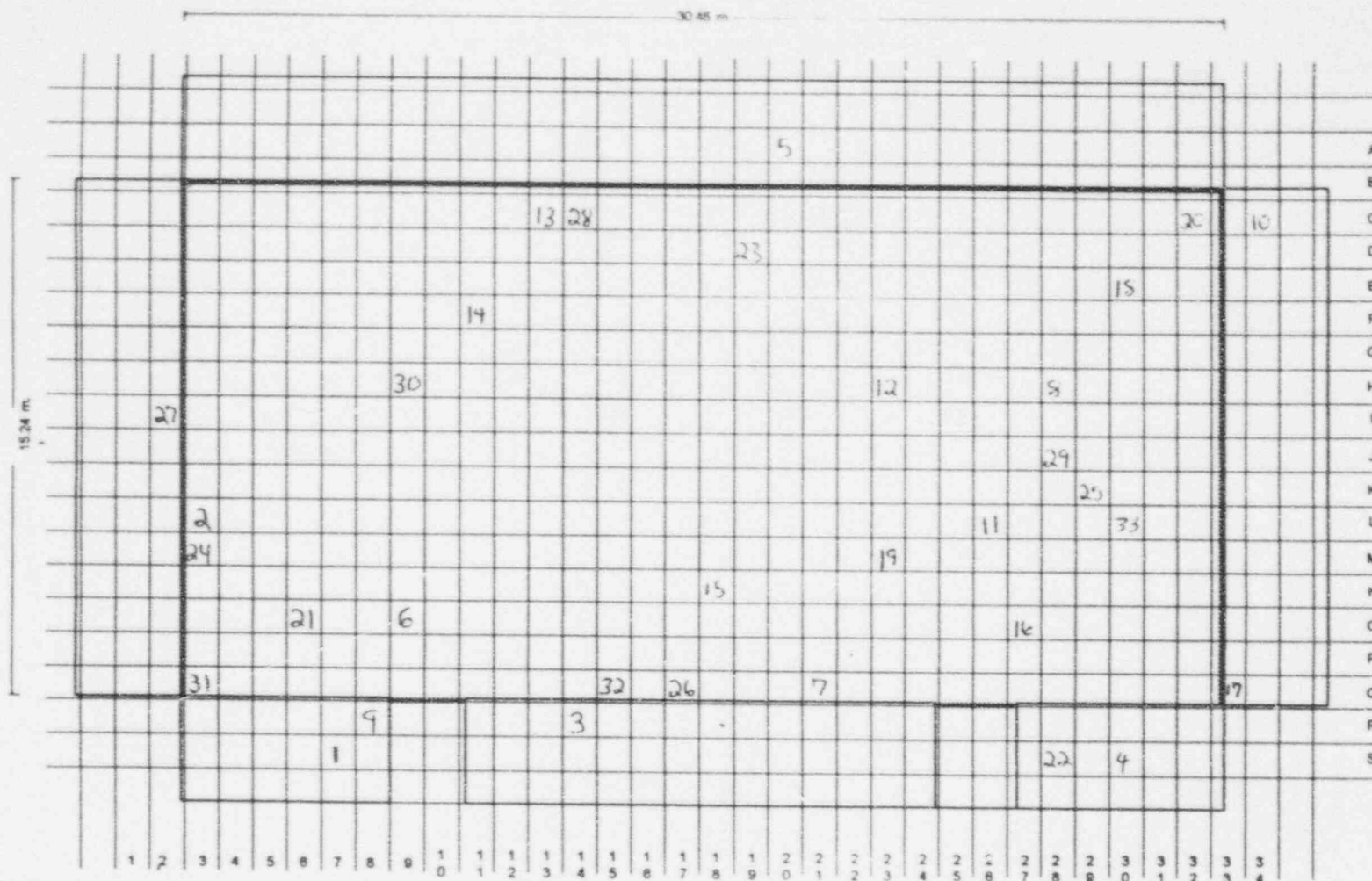
RADIOLOGICAL DATA ANALYSIS
SUMMARY TABLES



 = 1 x 1 meter square grid
 # = sample grid location

McAlester Army
 Ammunition Plant
 Building 50PC Magazines
 Number 505
 Radiological Survey Map

Magazine 50PC505 Background/Reference Area											Y
SAMPLE ID/ LOCATION	MONITORED ACTIVITY (dpm/100cm ²)				Sheet1 WIPE ACTIVITY (dpm/100cm ²)						(uR/hr) Bkgd
	Alpha MDA =>	44 DPM	Beta-Gamma MDA=	362 DPM	LLD =	Alpha	100cm	LLD =	Beta	320cm	
ID#	CPM	DPM	CPM	DPM	Activity	+/-	2σ	Activity	+/-	2σ	Net
1	2	-2.15	348	98.92	0.00	+/-	0.75	0.37	+/-	1.6	0.8
2	0	-10.75	319	-25.81	0.00	+/-	0.75	0.15	+/-	1.5	0.5
3	2	-2.15	388	270.97	0.00	+/-	0.75	1.90	+/-	1.9	-0.5
4	1	-6.45	342	73.12	0.00	+/-	0.75	0.80	+/-	1.7	0.7
5	0	-10.75	279	-197.85	0.54	+/-	1.10	0.76	+/-	1.7	0.3
6	4	6.45	344	81.72	0.27	+/-	0.92	1.20	+/-	1.8	-0.9
7	3	2.15	338	55.91	0.81	+/-	1.20	2.50	+/-	2.1	0.1
8	1	-6.45	277	-206.45	-0.27	+/-	0.53	0.80	+/-	1.7	-2.65
9	4	6.45	264	-262.37	0.00	+/-	0.75	-0.28	+/-	1.4	-0.2
10	3	2.15	271	-232.26	1.60	+/-	1.50	0.05	+/-	1.6	-0.2
11	3	2.15	373	206.45	0.54	+/-	1.10	2.90	+/-	2.2	0.6
12	1	-6.45	280	-193.55	-0.27	+/-	0.53	0.15	+/-	1.5	0
13	3	2.15	366	176.34	0.00	+/-	0.75	0.58	+/-	1.6	0.9
14	0	-10.75	338	55.91	1.10	+/-	1.30	1.20	+/-	1.8	-2.45
15	7	19.35	373	206.45	0.27	+/-	0.92	0.13	+/-	1.5	0.3
16	2	-2.15	340	64.52	-0.27	+/-	0.53	-0.28	+/-	1.4	0.9
17	2	-2.15	355	120.03	0.00	+/-	0.75	1.20	+/-	1.8	-0.76
18	2	-2.15	264	-262.37	-0.27	+/-	0.53	0.58	+/-	1.6	0.2
19	2	-2.15	356	133.33	0.27	+/-	0.92	-0.08	+/-	1.5	0.2
20	3	2.15	306	-81.72	0.00	+/-	0.75	0.15	+/-	1.5	-0.6
21	1	-6.45	244	-348.39	-0.27	+/-	0.53	0.58	+/-	1.6	-0.5
22	0	-10.75	273	-223.66	0.54	+/-	1.10	0.76	+/-	1.7	0.1
23	1	-6.45	340	64.52	0.00	+/-	0.75	0.15	+/-	1.5	0.6
24	5	10.75	338	55.91	0.00	+/-	0.75	0.37	+/-	1.6	0.7
25	1	-6.45	353	120.43	0.54	+/-	1.10	-0.10	+/-	1.5	0.8
26	1	-6.45	361	154.84	-0.27	+/-	0.53	0.58	+/-	1.6	-0.1
27	2	-2.15	347	94.62	1.40	+/-	1.40	0.28	+/-	1.6	0.7
28	4	6.45	372	202.15	0.54	+/-	1.10	2.30	+/-	2	-0.1
29	0	-10.75	283	-180.65	0.00	+/-	0.75	0.15	+/-	1.5	0.5
30	3	2.15	323	-8.60	0.00	+/-	0.75	1.40	+/-	1.9	0.3
31	BLANK	SAMPLE			0.27	+/-	0.92	-0.51	+/-	1.4	
32	BLANK	SAMPLE			-0.27	+/-	0.53	-0.49	+/-	1.4	
33	BLANK	SAMPLE			-0.27	+/-	0.53	1.20	+/-	1.8	
34	BLANK	SAMPLE			0.27	+/-	0.92	0.13	+/-	1.5	
35	BLANK	SAMPLE			0.27	+/-	0.92	-0.73	+/-	1.3	



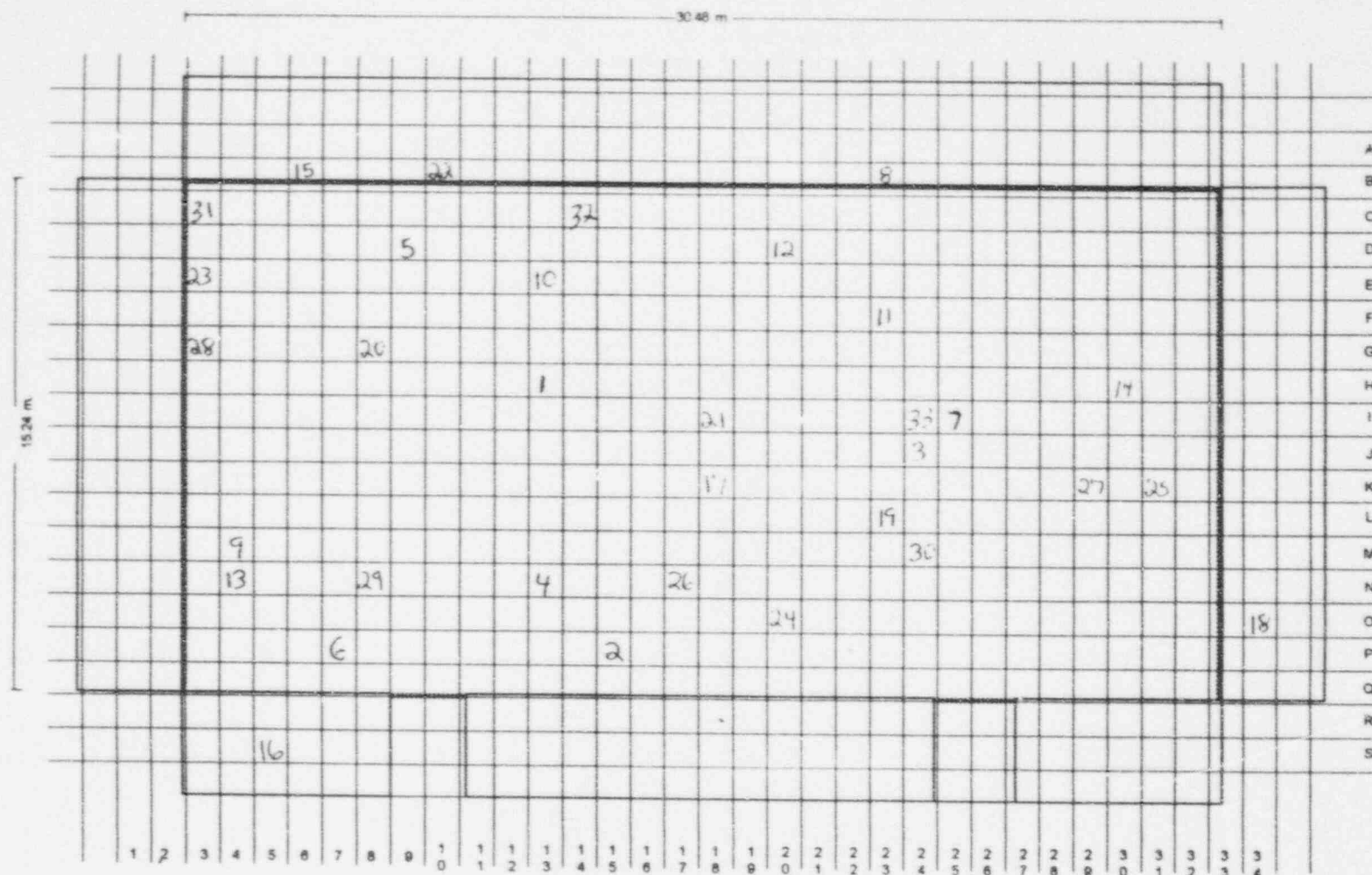
1 x 1 meter square grid
= sample grid location

McAlester Army
Ammunition Plant
Building 50PC Magazines
Number 603
Radiological Survey Map

Magazine 50PC603

Magazine 50PC603											Y
SAMPLE	MONITORED ACTIVITY (dpm/100cm ²)				Sheet1 WIPE ACTIVITY (dpm/100cm ²)						(uR/hr)
ID/ LOCATION	Alpha		Beta-Gamma		Alpha			Beta			Bkgd
	MDA =>	44 DPM	MDA=	362 DPM							11.00
ID#	CPM	DPM	CPM	DPM	Activity	+/-	2σ	Activity	+/-	2σ	Net
1	3	2.15	287	-163.44	0.00	+/-	0.75	1.20	+/-	1.80	-1.32
2	1	-6.45	330	21.51	1.40	+/-	1.40	1.40	+/-	1.90	-0.40
3	3	2.15	285	-172.04	-0.27	+/-	0.53	1.40	+/-	1.90	-1.13
4	0	-10.75	279	-197.85	0.00	+/-	0.75	0.15	+/-	1.50	-1.20
5	1	-6.45	290	-150.54	0.00	+/-	0.75	0.07	+/-	1.50	-1.00
6	4	6.45	295	-129.03	-0.27	+/-	0.53	0.58	+/-	1.60	-0.90
7	6	15.05	323	-8.60	0.54	+/-	1.10	1.80	+/-	2.00	-1.28
8	5	10.75	320	-21.51	1.10	+/-	1.30	2.00	+/-	2.00	-0.30
9	0	-10.75	285	-172.04	0.27	+/-	0.92	1.20	+/-	1.80	-2.20
10	5	10.75	250	-322.58	0.00	+/-	0.75	0.58	+/-	1.60	-1.18
11	1	-6.45	304	-90.32	0.27	+/-	0.92	3.80	+/-	2.30	-0.30
12	5	10.75	299	-111.83	1.40	+/-	1.40	2.00	+/-	2.00	0.60
13	5	10.75	276	-210.75	1.10	+/-	1.30	1.60	+/-	1.90	-1.00
14	3	2.15	319	-25.81	0.00	+/-	0.75	2.70	+/-	2.10	-0.20
15	1	-6.45	315	-43.01	0.81	+/-	1.20	0.31	+/-	1.60	0.30
16	4	6.45	315	-43.01	0.81	+/-	1.20	0.31	+/-	1.60	-0.80
17	2	-2.15	230	-408.60	0.27	+/-	0.92	0.35	+/-	1.50	-1.60
18	3	2.15	340	64.52	0.54	+/-	1.10	2.90	+/-	2.20	-0.10
19	4	6.45	260	-279.57	-0.27	+/-	0.53	0.58	+/-	1.60	-0.50
20	6	15.05	285	-172.04	0.54	+/-	1.10	0.76	+/-	1.70	-1.60
21	5	10.75	299	-111.83	0.81	+/-	1.20	1.80	+/-	2.00	-1.00
22	3	2.15	283	-180.65	0.27	+/-	0.92	-0.94	+/-	1.20	-1.00
23	3	2.15	312	-55.91	0.54	+/-	1.10	2.10	+/-	2.00	-1.10
24	4	6.45	274	-219.35	0.54	+/-	1.10	4.20	+/-	2.40	-0.30
25	5	10.75	316	-38.71	0.54	+/-	1.10	0.76	+/-	1.70	-1.16
26	1	-6.45	313	-51.61	0.00	+/-	0.75	0.80	+/-	1.70	0.50
27	6	15.05	257	-292.47	-0.27	+/-	0.53	-0.07	+/-	1.50	0.00
28	4	6.45	305	-86.02	0.54	+/-	1.10	2.30	+/-	2.00	-0.10
29	5	10.75	363	163.44	0.27	+/-	0.92	0.99	+/-	1.80	0.30
30	6	15.05	276	-210.75	0.81	+/-	1.20	0.53	+/-	1.70	0.70
31	3	2.15	313	-51.61	0.27	+/-	0.92	2.50	+/-	2.10	-1.10
32	4	6.45	291	-146.24	1.60	+/-	1.50	0.69	+/-	1.70	-1.25
33	5	10.75	344	81.72	0.00	+/-	0.75	1.20	+/-	1.80	0.40
34	BLANK	SAMPLE			-0.27	+/-	0.53	0.37	+/-	1.60	
35	BLANK	SAMPLE			-0.27	+/-	0.53	0.15	+/-	1.50	

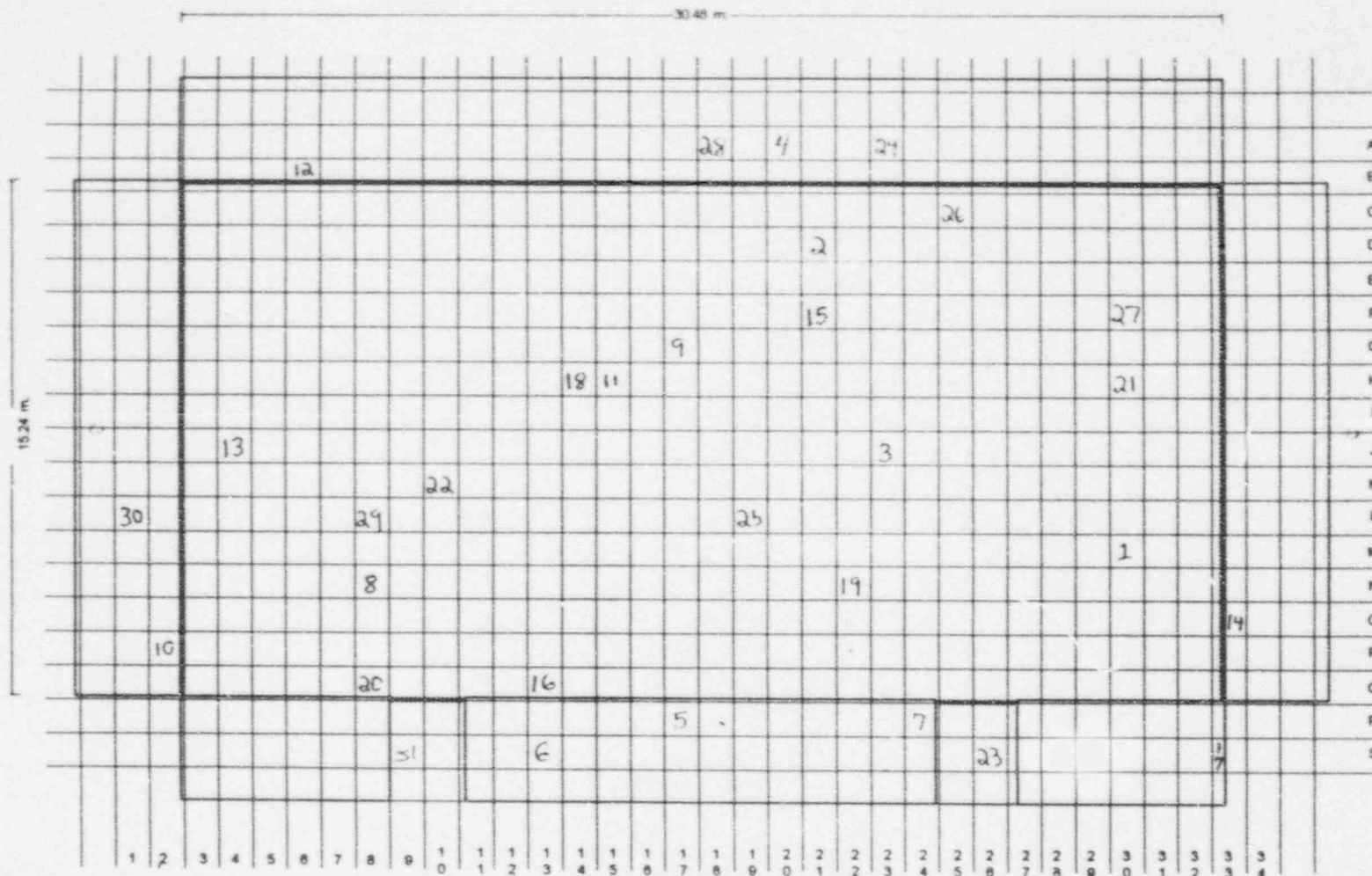
G-7



1x1 meter square grid
= sample grid location

McAlester Army
Ammunition Plant
Building 50PC Magazines
Number 655
Radiological Survey Map

Magazine 50PC608											Y
SAMPLE ID/ LOCATION	MONITORED ACTIVITY (dpm/100cm ²)				Sheet1 WIPE ACTIVITY (dpm/100cm ²)						(uR/hr)
	Alpha MDA =>	44 DPM	Beta-Gamma MDA=	362 DPM	Alpha			Beta			Bkgd 11.0
ID#	CPM	DPM	CPM	DPM	Activity	+/-	2σ	Activity	+/-	2σ	Net
1	3	2.15	387	266.67	1.10	+/-	1.30	1.80	+/-	2.00	1.1
2	3	2.15	339	60.22	1.40	+/-	1.40	0.06	+/-	1.60	1
3	5	10.75	379	232.26	0.81	+/-	1.20	2.00	+/-	2.00	2.3
4	4	6.45	341	68.82	1.40	+/-	1.40	0.71	+/-	1.70	1.4
5	3	2.15	320	-21.51	0.27	+/-	0.92	2.30	+/-	2.00	1.6
6	5	10.75	327	8.60	0.27	+/-	0.92	2.10	+/-	2.00	1.1
7	5	10.75	356	133.33	0.27	+/-	0.92	0.99	+/-	1.80	1.7
8	4	6.45	341	68.82	-0.27	+/-	0.53	0.15	+/-	1.50	3.2
9	4	6.45	380	236.56	1.10	+/-	1.30	-0.14	+/-	1.50	1.7
10	3	2.15	302	-98.92	0.27	+/-	0.92	0.13	+/-	1.50	2
11	3	2.15	374	210.75	0.00	+/-	0.75	1.20	+/-	1.80	1.6
12	2	-2.15	340	64.52	-0.27	+/-	0.53	2.30	+/-	2.00	1.4
13	3	2.15	337	51.61	0.00	+/-	0.75	2.10	+/-	2.00	2.1
14	2	-2.15	331	25.81	0.27	+/-	0.92	0.56	+/-	1.70	1.2
15	5	10.75	310	-64.52	0.27	+/-	0.92	-0.51	+/-	1.40	2.2
16	3	2.15	362	159.14	0.00	+/-	0.75	0.15	+/-	1.50	2.7
17	2	-2.15	310	-64.52	0.00	+/-	0.75	3.60	+/-	2.30	3.1
18	1	-6.45	340	64.52	0.00	+/-	0.75	0.15	+/-	1.50	3.5
19	6	15.05	351	111.83	0.81	+/-	1.20	1.60	+/-	1.90	1
20	5	10.75	344	81.72	1.40	+/-	1.40	0.49	+/-	1.70	2.5
21	2	-2.15	323	-8.60	0.27	+/-	0.92	1.20	+/-	1.80	2.1
22	4	6.45	307	-77.42	0.00	+/-	0.75	0.37	+/-	1.60	1.5
23	1	-6.45	383	249.46	0.54	+/-	1.10	1.20	+/-	1.80	2.3
24	4	6.45	354	124.73	0.54	+/-	1.10	0.98	+/-	1.80	1.1
25	1	-6.45	321	-17.20	1.90	+/-	1.60	4.10	+/-	2.40	1.6
26	3	2.15	369	189.25	0.00	+/-	0.75	0.58	+/-	1.60	1.7
27	5	10.75	309	-68.82	1.90	+/-	1.60	1.50	+/-	1.90	2.2
28	5	10.75	372	202.15	0.00	+/-	0.75	1.20	+/-	1.80	1.1
29	3	2.15	340	64.52	0.54	+/-	1.10	2.30	+/-	2.00	1.8
30	2	-2.15	330	21.51	1.10	+/-	1.30	2.00	+/-	2.00	2
31	10	32.26	322	-12.90	0.54	+/-	1.10	1.40	+/-	1.90	3.5
32	3	2.15	355	129.03	0.27	+/-	0.92	2.50	+/-	2.10	2.5
33	4	6.45	336	47.31	1.10	+/-	1.30	0.73	+/-	1.70	2.5
34	BLANK	SAMPLE			0.54	+/-	1.10	-0.53	+/-	1.40	



1 x 1 meter square grid
= sample grid location

McAlester Army
Ammunition Plant
Building 50PC Magazines
Number 15C3
Radiological Survey Map

Magazine 50PC1503											Y
SAMPLE ID/ LOCATION	MONITORED ACTIVITY (dpm/100cm ²)				Sheet1 WIPE ACTIVITY (dpm/100cm ²)						(uR/hr)
	Alpha MDA =>	44 DPM	Beta-Gamma MDA=	362 DPM	Alpha			Beta			Bkgd 11.0
ID#	CPM	DPM	CPM	DPM	Activity	+/-	2σ	Activity	+/-	2σ	Net
1	0	-10.75	318	-30.11	0.27	+/-	0.92	1.20	+/-	1.80	-1.2
2	4	6.45	383	249.46	-0.27	+/-	0.53	2.30	+/-	2.00	3.3
3	5	10.75	357	137.63	0.00	+/-	0.75	0.80	+/-	1.70	1.8
4	1	-6.45	354	124.73	1.10	+/-	1.30	0.73	+/-	1.70	3.1
5	2	-2.15	319	-25.81	0.27	+/-	0.92	0.13	+/-	1.50	3
6	3	2.15	337	51.61	0.27	+/-	0.92	0.99	+/-	1.80	1.5
7	10	32.26	325	0.00	1.60	+/-	1.50	0.90	+/-	1.80	1.5
8	3	2.15	405	344.09	0.00	+/-	0.75	-0.07	+/-	1.50	-0.2
9	6	15.05	428	443.01	1.10	+/-	1.30	4.80	+/-	2.50	4.4
10	7	19.35	319	-25.81	-0.27	+/-	0.53	1.20	+/-	1.80	0.8
11	1	-6.45	312	-55.91	0.27	+/-	0.92	1.40	+/-	1.90	4.5
12	4	6.45	351	111.83	0.27	+/-	0.92	0.13	+/-	1.50	2.1
13	1	-6.45	363	163.44	0.00	+/-	0.75	2.10	+/-	2.00	-0.5
14	5	10.75	339	60.22	0.27	+/-	0.92	0.13	+/-	1.50	0.3
15	0	-10.75	446	520.43	0.81	+/-	1.20	0.53	+/-	1.70	1.7
16	1	-6.45	393	292.47	0.54	+/-	1.10	1.20	+/-	1.80	1.9
17	6	15.05	364	167.74	0.27	+/-	0.92	0.35	+/-	1.60	0.6
18	2	-2.15	371	197.85	0.27	+/-	0.92	0.56	+/-	1.70	2.2
19	3	2.15	411	369.89	0.00	+/-	0.75	1.40	+/-	1.90	2.4
20	2	-2.15	453	550.54	0.00	+/-	0.75	0.37	+/-	1.60	0.4
21	5	10.75	349	103.23	1.60	+/-	1.50	1.80	+/-	2.00	-0.4
22	6	15.05	381	240.86	0.00	+/-	0.75	1.40	+/-	1.90	2.2
23	2	-2.15	182	-615.05	-0.27	+/-	0.53	1.00	+/-	1.80	-3.3
24	3	2.15	354	124.73	1.10	+/-	1.30	0.30	+/-	1.60	1.8
25	0	-10.75	372	202.15	0.27	+/-	0.92	0.56	+/-	1.70	2.3
26	2	-2.15	360	150.54	0.27	+/-	0.92	0.56	+/-	1.70	1.6
27	1	-6.45	334	38.71	1.10	+/-	1.30	3.50	+/-	2.30	-1.2
28	5	10.75	338	55.91	0.81	+/-	1.20	0.96	+/-	1.80	3.6
29	5	10.75	385	258.06	0.00	+/-	0.75	0.15	+/-	1.50	0.9
30	0	-10.75	348	98.92	-0.27	+/-	0.53	0.37	+/-	1.60	-0.9
31	14	49.46	392	288.17	0.00	+/-	0.75	0.37	+/-	1.60	-2.2
32	BLANK	SAMPLE			0.00	+/-	0.75	0.37	+/-	1.60	
33	BLANK	SAMPLE			-0.27	+/-	0.53	-0.71	+/-	1.30	
34	BLANK	SAMPLE			0.00	+/-	0.75	0.58	+/-	1.60	

Report ID: R1007v6
Report Seq #: 118261

Page: 1 of 2
Run Date: 24-SEP-96 12:30
Date Sent: 24 Sep 96

Report ID: R1007v6
Report Seq #: 118261

Page: 2 of 2
Run Date: 24-SEP-96 12:30
Date Sent: _____

TRANSFER OF RESULTS RECEIPT

U.S. Army Center for Health Promotion and Preventive Medicine
Directorate of Laboratory Sciences
ATTN: MCHB-DC-LLI (Sample Management Laboratory), Bldg E2100
Aberdeen Proving Grounds, MD 21010-5422
(LIMS Generated by fnovobil)

PROJECT OFFICER: CONSTANCE ROSSER
USA CHPPM
ATTN: MCHB-DC-OIP
5158 BLACKHAWK RD
APG, MD 21010-5422

INSTALLATION: MCALESTER AAP
DLS JOB: 6A5866

PROJECT NUMBER: 27-23-3953
LAB REPORTING: RAD

DLS SAMPLES REPORTED:	Y4841	Y4842	Y4843	Y4844	Y4845
	Y4846	Y4847	Y4848	Y4849	Y4850
	Y4851	Y4852	Y4853	Y4854	Y4855
	Y4856	Y4857	Y4858	Y4859	Y4860
	Y4861	Y4862	Y4863	Y4864	Y4865
	Y4866	Y4867	Y4868	Y4869	Y4870
	Y4871	Y4872	Y4873	Y4874	Y4875
	Y4876	Y4877	Y4878	Y4879	Y4880
	Y4881	Y4882	Y4883	Y4884	Y4885
	Y4886	Y4887	Y4888	Y4889	Y4890
	Y4891	Y4892	Y4893	Y4894	Y4895
	Y4896	Y4897	Y4898	Y4899	Y4900
	Y4901	Y4902	Y4903	Y4904	Y4905
	Y4906	Y4907	Y4908	Y4909	Y4910
	Y4911	Y4912	Y4913	Y4914	Y4915
	Y4916	Y4917	Y4918	Y4919	Y4920
	Y4921	Y4922	Y4923	Y4924	Y4925
	Y4926	Y4927	Y4928	Y4929	Y4930
	Y4931	Y4932	Y4933	Y4934	Y4935
	Y4936	Y4937	Y4938	Y4939	Y4940
	Y4941	Y4942	Y4943	Y4944	Y4945
	Y4946	Y4947	Y4948	Y4949	Y4950
	Y4951	Y4952	Y4953	Y4954	Y4955
	Y4956	Y4957	Y4958	Y4959	Y4960
	Y4961	Y4962	Y4963	Y4964	Y4965
	Y4966	Y4967	Y4968	Y4969	Y4970
	Y4971	Y4972	Y4973	Y4974	Y4975
	Y4976	Y4977	Y4978	Y4979	Y4980

G-11

NUMBER OF SAMPLES: 140

ANALYSIS REPORTED: alpha/beta

LAB REMARKS: _____

Please sign and return the attached Results Receipt to the Sample Management Laboratory. Agency carbon copy on file.

Signature of Receipt

Date

Title

CUSTOMER REMARKS: _____

G-12

24 SEP 1996

Additional Data Required for A2LA Accreditation

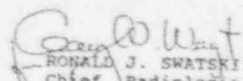
MEMORANDUM FOR Program Manager, Industrial Health Physics, ATTN:
Ms. Rosser

SUBJECT: Results of Wipe Sample Analysis (McAlester AAP)

Sample Collection Date: 28 August 96
Date of Sample Receipt: 06 September 96
Extraction Date: NA
Counting Date: 10-11 September 96
Methods: AB002

1. This report complies with the requirements of the American Association for Laboratory Accreditation (A2LA), therefore, "this report shall not be reproduced except in full without the written approval of the laboratory. The results relate only to the specific examples identified within this report". Other required compliance information is listed in enclosure 1.
2. Results of analyzing wipe test samples, (lab numbers Y4841 through Y4980), for gross alpha and gross beta activity are listed in enclosure 2.
3. Each result lists the activity \pm 1.96 standard deviations due to counting uncertainty, in units of disintegrations per minute per wipe test sample, (dpm/wipe).
4. The lower limits of detection (LLDs) for gross alpha and gross beta are 1 dpm/wipe and 3 dpm/wipe, respectively.
5. Point of contact for additional information on project number 27-23-3953, (report sequence number 116334), is Mr. Thomas Beegle, extension 5-3983.

2 Encls
as


RONALD J. SWATSKI
Chief, Radiologic, Classic and
Clinical Chemistry Division

Enclosure 1, Page 1 of 1

G-14

G-13

Radiologic, Classic & Clinical Chemistry Division

Directorate of Laboratory Sciences
U.S. Army Center for Health Promotion and Preventive Medicine
Aberdeen Proving Ground, MD 21010-5422

Analytical Results

***** Final Branch Report *****

Results of Analyzing Wipe Test Samples

(LIMS Generated by TREEGL 1)

Note: This report shall not be reproduced except in full, without the written approval of the laboratory.

DLS Job: 4A5866

DLS Job Status: JOB IN-PROCESS

Timekeeping#: 27-23-3953

Submitter: CONSTANCE ROSSER

Installation: MCALESTER AAP

RAR Job Status: ALL RESULTS RELEASED BY LAB

Date Released: 18-SEP-96

Signature: 

Ronald Swatski

24 Sep 96
Date

Title: Manager, Radiologic, Classic & Clinical Chemistry Division

Disintegrations per Minute
per Wipe Test Sample
+/- 2 Standard Deviations

Sample Identification	Lab Number	Gross Alpha	Gross Beta
50PC505NC#1	Y4841	0.0 +/- 0.75	0.37 +/- 1.6
50PC505NC#2	Y4842	0.0 +/- 0.75	0.15 +/- 1.5
50PC505NC#3	Y4843	0.0 +/- 0.75	1.9 +/- 1.9
50PC505NC#4	Y4844	0.0 +/- 0.75	0.90 +/- 1.7
50PC505NC#5	Y4845	0.54 +/- 1.1	0.76 +/- 1.7
50PC505NC#6	Y4846	0.27 +/- 0.92	1.3 +/- 1.6
50PC505NC#7	Y4847	0.81 +/- 1.3	2.5 +/- 2.1
50PC505NC#8	Y4848	-0.27 +/- 0.53	0.80 +/- 1.7
50PC505NC#9	Y4849	0.0 +/- 0.75	-0.28 +/- 1.4
50PC505NC#10	Y4850	1.6 +/- 1.5	0.045 +/- 1.6
50PC505NC#11	Y4851	0.54 +/- 1.1	2.9 +/- 2.2
50PC505NC#12	Y4852	-0.27 +/- 0.53	0.15 +/- 1.5
50PC505NC#13	Y4853	0.0 +/- 0.75	0.58 +/- 1.6
50PC505NC#14	Y4854	1.1 +/- 1.3	1.2 +/- 1.6
50PC505NC#15	Y4855	0.27 +/- 0.92	0.13 +/- 1.5
50PC505NC#16	Y4856	-0.27 +/- 0.53	-0.28 +/- 1.4
50PC505NC#17	Y4857	0.0 +/- 0.75	1.2 +/- 1.6
50PC505NC#18	Y4858	-0.27 +/- 0.53	0.58 +/- 1.6
50PC505NC#19	Y4859	0.27 +/- 0.92	-0.082 +/- 1.5
50PC505NC#20	Y4860	0.0 +/- 0.75	0.15 +/- 1.5
50PC505NC#21	Y4861	-0.27 +/- 0.53	0.58 +/- 1.6
50PC505NC#22	Y4862	0.54 +/- 1.1	0.76 +/- 1.7
50PC505NC#23	Y4863	0.0 +/- 0.75	0.15 +/- 1.5
50PC505NC#24	Y4864	0.0 +/- 0.75	0.37 +/- 1.6
50PC505NC#25	Y4865	0.54 +/- 1.1	-0.10 +/- 1.5
50PC505NC#26	Y4866	-0.27 +/- 0.53	0.58 +/- 1.6
50PC505NC#27	Y4867	1.4 +/- 1.4	0.28 +/- 1.6
50PC505NC#28	Y4868	0.54 +/- 1.1	2.3 +/- 2.0
50PC505NC#29	Y4869	0.0 +/- 0.75	0.15 +/- 1.5
50PC505NC#30	Y4870	0.0 +/- 0.75	1.4 +/- 1.9
50PC505NC#31	Y4871	0.27 +/- 0.92	-0.51 +/- 1.4
50PC505NC#32	Y4872	-0.27 +/- 0.53	-0.45 +/- 1.4
50PC505NC#33	Y4873	-0.27 +/- 0.53	1.2 +/- 1.6
50PC505NC#34	Y4874	0.27 +/- 0.92	0.13 +/- 1.5
50PC505NC#35	Y4875	0.27 +/- 0.92	-0.73 +/- 1.3
50PC603NC#1	Y4876	0.0 +/- 0.75	1.2 +/- 1.6
50PC603NC#2	Y4877	1.4 +/- 1.4	1.4 +/- 1.9
50PC603NC#3	Y4878	-0.27 +/- 0.53	1.4 +/- 1.9
50PC603NC#4	Y4879	0.0 +/- 0.75	0.15 +/- 1.5
50PC603NC#5	Y4880	0.0 +/- 0.75	-0.065 +/- 1.5
50PC603NC#6	Y4881	-0.27 +/- 0.53	0.58 +/- 1.6
50PC603NC#7	Y4882	0.54 +/- 1.1	1.8 +/- 2.0
50PC603NC#8	Y4883	1.1 +/- 1.3	2.0 +/- 2.0
50PC603NC#9	Y4884	0.27 +/- 0.92	1.2 +/- 1.9
50PC603NC#10	Y4885	0.0 +/- 0.75	0.58 +/- 1.6

Disintegrations per Minute
per Wipe Test Sample
± 2 Standard Deviations

Disintegrations per Minute
per Wipe Test Sample
± 2 Standard Deviations

Sample Identification	Lab Number	Gross Alpha	Gross Beta
SOPC608NC21	Y4931	0.27 +/- 0.92	1.2 +/- 1.8
SOPC608NC22	Y4932	0.0 +/- 0.75	0.37 +/- 1.6
SOPC608NC23	Y4933	0.54 +/- 1.1	1.2 +/- 1.8
SOPC608NC24	Y4934	0.54 +/- 1.1	0.98 +/- 1.8
SOPC608NC25	Y4935	1.9 +/- 1.6	4.1 +/- 2.4
SOPC608NC26	Y4936	0.0 +/- 0.75	0.58 +/- 1.8
SOPC608NC27	Y4937	1.9 +/- 1.6	1.5 +/- 1.9
SOPC608NC28	Y4938	0.0 +/- 0.75	1.2 +/- 1.8
SOPC608NC29	Y4939	0.5 +/- 1.1	2.3 +/- 2.0
SOPC608NC30	Y4940	1.1 +/- 1.3	2.0 +/- 2.0
SOPC608NC31	Y4941	0.54 +/- 1.1	1.4 +/- 1.9
SOPC608NC32	Y4942	0.27 +/- 0.92	2.5 +/- 2.1
SOPC608NC33	Y4943	1.1 +/- 1.3	0.73 +/- 1.7
SOPC608NC34	Y4944	0.54 +/- 1.1	-0.53 +/- 1.4
SOPC608NC35	Y4945	0.27 +/- 0.92	0.56 +/- 1.7
SOPC1503NC1	Y4946	0.27 +/- 0.92	1.2 +/- 1.8
SOPC1503NC2	Y4947	-0.27 +/- 0.53	2.3 +/- 2.0
SOPC1503NC3	Y4948	0.0 +/- 0.75	0.80 +/- 1.7
SOPC1503NC4	Y4949	1.1 +/- 1.3	0.73 +/- 1.7
SOPC1503NC5	Y4950	0.27 +/- 0.92	0.13 +/- 1.5
SOPC1503NC6	Y4951	0.27 +/- 0.92	0.59 +/- 1.8
SOPC1503NC7	Y4952	1.6 +/- 1.5	0.90 +/- 1.8
SOPC1503NC8	Y4953	0.0 +/- 0.75	-0.065 +/- 1.5
SOPC1503NC9	Y4954	1.1 +/- 1.3	4.8 +/- 2.5
SOPC1503NC10	Y4955	-0.27 +/- 0.53	1.2 +/- 1.8
SOPC1503NC11	Y4956	0.27 +/- 0.92	1.4 +/- 1.9
SOPC1503NC12	Y4957	0.27 +/- 0.92	0.13 +/- 1.5
SOPC1503NC13	Y4958	0.0 +/- 0.75	2.1 +/- 2.0
SOPC1503NC14	Y4959	0.27 +/- 0.92	0.13 +/- 1.5
SOPC1503NC15	Y4960	0.81 +/- 1.2	0.53 +/- 1.7
SOPC1503NC16	Y4961	0.54 +/- 1.1	1.2 +/- 1.8
SOPC1503NC17	Y4962	0.27 +/- 0.92	0.35 +/- 1.6
SOPC1503NC18	Y4963	0.27 +/- 0.92	0.56 +/- 1.7
SOPC1503NC19	Y4964	0.0 +/- 0.75	1.4 +/- 1.9
SOPC1503NC20	Y4965	0.0 +/- 0.75	0.37 +/- 1.6
SOPC1503NC21	Y4966	1.6 +/- 1.5	1.8 +/- 2.0
SOPC1503NC22	Y4967	0.0 +/- 0.75	1.4 +/- 1.9
SOPC1503NC23	Y4968	-0.27 +/- 0.53	1.0 +/- 1.8
SOPC1503NC24	Y4969	1.1 +/- 1.3	0.30 +/- 1.6
SOPC1503NC25	Y4970	0.27 +/- 0.92	0.56 +/- 1.7
SOPC1503NC26	Y4971	0.27 +/- 0.92	0.56 +/- 1.7
SOPC1503NC27	Y4972	1.1 +/- 1.3	3.5 +/- 2.3
SOPC1503NC28	Y4973	0.81 +/- 1.2	0.96 +/- 1.8
SOPC1503NC29	Y4974	0.0 +/- 0.75	0.15 +/- 1.5
SOPC1503NC30	Y4975	-0.27 +/- 0.53	0.37 +/- 1.6

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Sample Identification	Lab Number	Gross Alpha	Gross Beta
SOPC603NC11	Y4886	0.27 +/- 0.92	3.8 +/- 2.3
SOPC603NC12	Y4887	1.4 +/- 1.4	2.0 +/- 2.0
SOPC603NC13	Y4888	1.1 +/- 1.3	1.6 +/- 1.9
SOPC603NC14	Y4889	0.0 +/- 0.75	2.7 +/- 2.1
SOPC603NC15	Y4890	0.81 +/- 1.2	0.31 +/- 1.6
SOPC603NC16	Y4891	0.81 +/- 1.2	0.31 +/- 1.6
SOPC603NC17	Y4892	0.27 +/- 0.92	0.35 +/- 1.6
SOPC603NC18	Y4893	0.54 +/- 1.1	2.9 +/- 2.2
SOPC603NC19	Y4894	-0.27 +/- 0.53	0.58 +/- 1.6
SOPC603NC20	Y4895	0.54 +/- 1.1	0.76 +/- 1.7
SOPC603NC21	Y4896	0.81 +/- 1.2	1.8 +/- 2.0
SOPC603NC22	Y4897	0.27 +/- 0.92	-0.94 +/- 1.2
SOPC603NC23	Y4898	0.54 +/- 1.1	2.1 +/- 2.0
SOPC603NC24	Y4899	0.54 +/- 1.1	4.2 +/- 2.4
SOPC603NC25	Y4900	0.54 +/- 1.1	0.76 +/- 1.7
SOPC603NC26	Y4901	0.0 +/- 0.75	0.80 +/- 1.7
SOPC603NC27	Y4902	-0.27 +/- 0.53	-0.065 +/- 1.5
SOPC603NC28	Y4903	0.54 +/- 1.1	2.3 +/- 2.0
SOPC603NC29	Y4904	0.27 +/- 0.92	0.99 +/- 1.8
SOPC603NC30	Y4905	0.81 +/- 1.2	0.53 +/- 1.7
SOPC603NC31	Y4906	0.27 +/- 0.92	2.5 +/- 2.1
SOPC603NC32	Y4907	1.6 +/- 1.5	0.69 +/- 1.7
SOPC603NC33	Y4908	0.0 +/- 0.75	1.2 +/- 1.8
SOPC603NC34	Y4909	-0.27 +/- 0.53	0.37 +/- 1.6
SOPC603NC35	Y4910	-0.27 +/- 0.53	0.35 +/- 1.5
SOPC608NC1	Y4911	1.1 +/- 1.3	1.8 +/- 2.0
SOPC608NC2	Y4912	1.4 +/- 1.4	0.662 +/- 1.6
SOPC608NC3	Y4913	0.81 +/- 1.2	2.0 +/- 2.0
SOPC608NC4	Y4914	1.4 +/- 1.4	0.71 +/- 1.7
SOPC608NC5	Y4915	0.27 +/- 0.92	2.3 +/- 2.0
SOPC608NC6	Y4916	0.27 +/- 0.92	2.1 +/- 2.0
SOPC608NC7	Y4917	0.27 +/- 0.92	0.99 +/- 1.8
SOPC608NC8	Y4918	-0.27 +/- 0.53	0.15 +/- 1.5
SOPC608NC9	Y4919	1.1 +/- 1.3	-0.14 +/- 1.5
SOPC608NC10	Y4920	0.27 +/- 0.92	0.13 +/- 1.5
SOPC608NC11	Y4921	0.0 +/- 0.75	1.2 +/- 1.8
SOPC608NC12	Y4922	-0.27 +/- 0.53	2.3 +/- 2.0
SOPC608NC13	Y4923	0.0 +/- 0.75	2.1 +/- 2.0
SOPC608NC14	Y4924	0.27 +/- 0.92	0.56 +/- 1.7
SOPC608NC15	Y4925	0.27 +/- 0.92	-0.51 +/- 1.4
SOPC608NC16	Y4926	0.0 +/- 0.75	0.15 +/- 1.5
SOPC608NC17	Y4927	0.0 +/- 0.75	3.6 +/- 2.3
SOPC608NC18	Y4928	0.0 +/- 0.75	0.15 +/- 1.5
SOPC608NC19	Y4929	0.81 +/- 1.2	1.6 +/- 1.9
SOPC608NC20	Y4930	1.4 +/- 1.4	0.49 +/- 1.7

G-17

Disintegrations per Minute
per Wipe Test Sample
+/- 2 Standard Deviations

Sample Identification	Lab Number	Gross Alpha	Gross Beta
50PC1503NC#31	Y4976	0.0 +/- 0.75	0.37 +/- 1.6
50PC1503NC#32	Y4977	0.0 +/- 0.75	0.37 +/- 1.6
50PC1503NC#33	Y4978	-0.27 +/- 0.53	-0.71 +/- 1.3
50PC1503NC#34	Y4979	0.0 +/- 0.75	0.58 +/- 1.6
50PC1503NC#35	Y4980	-0.27 +/- 0.53	-0.71 +/- 1.3

Indust Radn Surv No. 27-MH-5113-96, Facility Close-out and
Termination Survey, McAlester AAP, OK, 18 Jul 96-30 Aug 96

MCHB-DC-LRC (MCHB-DC-OIP/22 Jul 96) (385-11d) 1st End
Mrs Christman/dp/5-3983
SUBJECT: Request for Sample Analysis (McAlester Army Ammunition
Plant, Oklahoma)

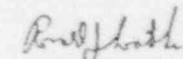
Chief, Radiologic, Classic & Clinical Chemistry Division 25 SEP 1

FOR Program Manager, Industrial Health Physics Program, ATTN:
Ms. Rosser

1. Verbal conversation between Mrs. Christman this office, and
Mr. Edge, IMPP, 16 Sep 96, SAB.
2. The analysis of four building material and four soil samples,
(laboratory numbers Y2066 through Y2073), from McAlester AAP is
complete. The following gamma-emitting isotopes were targeted for
identification in the spectra: thorium-234, the progeny of
uranium-238; lead-214, the progeny of radium-226; promethium-147
and cesium-137. Thorium-234 presence is based on the detection of
the 63 and 92 keV peaks. Lead-214 presence is based on the
detection of the 352 keV peak and either the 241 or 295 keV peaks.
Promethium-147 presence is based on the detection of the 121 keV
peak. Cesium-137 presence is based on the detection of the 661 keV
peak. Results of analyzing the samples are listed on enclosure 1.
3. This report complies with the requirements of the American
Association for Laboratory Accreditation (A2LA), therefore, "this
report shall not be reproduced except in full without the written
approval of the laboratory. The results relate only to the
specified samples identified within this report". Other required
compliance information is listed in enclosure 2.
4. Point of contact for additional information on project number
27-23-5113, (report number 6A5667-R1), is Mrs. A. Christman,
extension 5-3983.

APPENDIX H
ENVIRONMENTAL
AND
BUILDING MATERIAL
LABORATORY ANALYSIS

2 Encls
as


RONALD J. SWATSKI
Chief, Radiologic, Classic and
Clinical Chemistry Division

H-2

H1

22 JUL

MCHB-DC-OIP (40)

22 July 1996

MEMORANDUM FOR Program Manager, Radioisotope Analysis

SUBJECT: Request for Sample Analysis (McAlester Army Ammunition Plant, Oklahoma)

1. Request analysis of the concrete and soil samples delivered on 22 July 1996. The following sample information is provided:

a. Installation: McAlester Army Ammunition Plant (McAAP), Oklahoma

b. XO Number: 73713611

Y2066 Y207

c. Project Number: 27-5113-96

Y2067 Y207

d. Project Officer: Constance S. Rosser

Y2068

e. Number and Type of Samples: 8 Soils

Y2069

f. Analyses Required: Gamma

Y2070

Y2071

g. Samples Delivered: 22 July 1996 to Mr. Gary Wright.

h. Reason for Analysis: Radiation survey of building construction material and outside soil for Buildings 50PC505 (Control Sample), 50PC1503, 50PC603 and 50PC608. The isotopes of interest are Promethium-147, Radium-226 and depleted uranium (munitions).

i. Priority: Results required no later than ¹⁹ August 1996. → Verbal results to project officer upon completion of analyses.

j. Remarks: These samples are USACHPPM Verification Study, Phase I of Scientific Ecology Group (SEG), Inc report on two McAAP munition bunkers surveyed in September 1995. SEG's report indicated several elevated readings above established action limits. In order to complete the verification study, we need to determine if the construction material has contributed to this elevated readings. Based on data reviewed thus far, these buildings are characterized as unaffected area.

2. For additional information please contact Ms. Rosser at 5-7171.

Constance S. Rosser
CONSTANCE S. ROSSER

Health Physicist

Industrial Health Physics Program

5044 B-1

RESULTS OF ANALYZING BUILDING MATERIAL SAMPLES

<u>Sample Identification</u>	<u>Lab Number</u>	<u>Picocuries per Gram \pm 1.96 Standard Deviations</u>			
		<u>Th-234</u>	<u>Pb-214</u>	<u>Pm-147</u>	<u>Cs-137</u>
50 PC 603	Y2066	1 \pm 1	0.2 \pm 0.2	-430 \pm 660#	-0.006 \pm 0.08
50 PC 505	Y2068	2 \pm 2	1 \pm 0.3	-690 \pm 720#	-0.02 \pm 0.08
50 PC 608	Y2070	3 \pm 1^	0.4 \pm 0.2*	-440 \pm 700#	0.005 \pm 0.07
50 PC 1503	Y2072	1 \pm 1*	0.8 \pm 0.2	-320 \pm 690#	0.03 \pm 0.06#
Representative LLD		2	0.3	1200	0.1

RESULTS OF ANALYZING SOIL SAMPLES

<u>Sample Identification</u>	<u>Lab Number</u>	<u>Picocuries per Gram \pm 1.96 Standard Deviations</u>			
		<u>Th-234</u>	<u>Pb-214</u>	<u>Pm-147</u>	<u>Cs-137</u>
50 PC 603	Y2067	1 \pm 2	1.2 \pm 0.3	840 \pm 770#	1.6 \pm 0.2
50 PC 505	Y2069	0.5 \pm 1.3	0.9 \pm 0.3	760 \pm 740#	1.1 \pm 0.2
50 PC 608	Y2071	4 \pm 2	1.6 \pm 0.3	380 \pm 700#	1.9 \pm 0.2
50 PC 1503	Y2073	3 \pm 1^	0.9 \pm 0.2	390 \pm 730#	3.0 \pm 0.3
Representative LLD		2	0.2	1500	0.2

No peaks found

* Key line found, but no supporting peak(s)

^ Supporting peak(s) found, but no key line

Enclosure 1, Page 1 of 1

Additional Data Required for A2LA Accreditation

Sample Collection Date: 17 Jul 96

Date of Sample Receipt: 22 Jul 96

Counting Dates: 30-31 Jul and 13 Sep 96

Method Number: G_002

Enclosure 2, Page 1 of 1

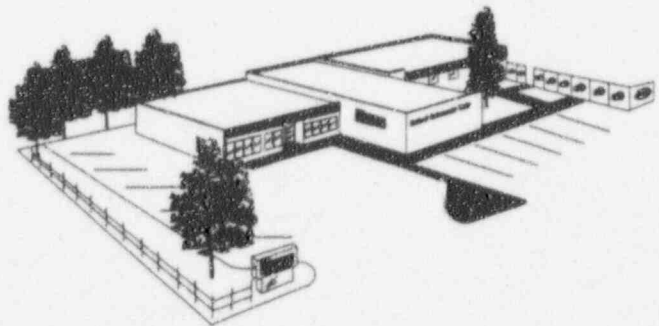
H-5

TOTAL P.05



SCIENTIFIC ECOLOGY GROUP, INC.

McALESTER SURVEY



1234 Columbia Drive SE
Richland, Washington 99352



CHEMRAD

**Final Report
for the
Indoor Radiological Survey
at the
McAlester Army Ammunition Plant
Weapons Storage Sites
Conducted August 29, 1995
Through August 30, 1995
Conducted under Subcontract #TN-92535-H-TW**

**Prepared for
Science Ecology Group
P.O. Box 4789
Oak Ridge, TN 37831**

**Report Submitted
October 16, 1995**

**Chemrad Tennessee Corporation
739 Emory Valley Road
Oak Ridge, TN 37830**

Appendix C**Background Statistical Information**

File Code: 0830SC (H)

Sixty one second counts collected and converted to counts per minute by INRADS.

Signal	Low	High	Mean	Std. Dev.
NaI #1	540	2340	1518.59	342.07
NaI #2	1140	2520	1722.25	378.20
NaI #3	1260	2760	1885.35	325.12
NaI #4	1200	2640	1849.01	314.28
FM #1	0	240	64.22	65.98

File Code: 0830SC (I)

Sixty one second counts collected and converted to counts per minute by INRADS.

Signal	Low	High	Mean	Std. Dev.
NaI #1	840	1920	1272	260.38
NaI #2	840	1800	1353.6	254.61
NaI #3	960	1920	1442.4	251.28
NaI #4	840	1740	1255.2	263.77
FM #2	0	180	55.2	62.26

File Code: MAC603F(S)

Sixty one second counts collected and converted to counts per minute by USRADS.

Signal	Low	High	Mean	Std. Dev.
NaI	880	1620	1208.67	175.42
Pancake	0	140	53	31.42

Appendix A-2

Bldg MAC608F

Included in this appendix section:

- Area Findings Narrative with INRADS Survey Statistics
- Contour Maps for the Floor Surveys
- Track Maps for the Floor Surveys
- Contour Maps for the Wall Surveys for the NaI Readings
- Track Maps for the Wall Surveys

Appendix A-2**Bldg MAC608F**

Date: Floor Survey August 29, 1995
Wall Survey August 30, 1995

Floor Site Coordinates:

Easting: E0 to E65
Northing: N0 to N122

Significant Findings: Floor Survey

Nal readings were relatively uniform throughout the grid area. The number of data readings taken was 3235. The threshold for MAC608F was established at 1000 dpm/100 cm². Readings exceeding 1000 dpm/100 cm² were sporadic and randomly distributed through the survey area. Maximum readings above 1500 dpm/100 cm² were noted in the area around coordinates X1.6, Y96.

Pancake readings were also relatively uniform throughout the grid area. The number of data readings taken was 3235. The threshold for MAC608F was established at 1000 dpm/100 cm². Random readings exceeding 5000 dpm/100 cm² were noted. Typically these elevated readings occurred outside on the loading dock or along the base of the wall, and were probably due to the pancake probe being scraped against the floor and wall. It was noted that momentary increases in the pancake readings occurred when this happened. After analysis of the data, Chemrad required several of these the elevated positions. Manual verification failed to indicate elevated readings at these coordinates. Maximum readings exceeding 10,000 dpm/100 cm² were noted around coordinates X56, Y9. Readings exceeding 6000 dpm/100 cm² were also noted around coordinates X62, Y111. Readings on adjacent passes did not reconfirm the elevated data indicating possible elevation of the detector due to scraping on the floor.

Survey Statistics: Floor Survey:

The radiation instrument statistics for the walkover (floor) portion of the survey were:

File code MAC608FA

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI	604.45	1598.95	1073.76	153.55
Pancake	0.8	10098.9	3013.29	1515.81

Wall and Column Survey

Wall surveys included the areas from corner to corner, floor up to six feet high.

Significant Findings:

NaI readings were randomly distributed throughout the wall and column surveys with no readings exceeding the 5000 dpm/100 cm² threshold.

Floor monitor readings were randomly distributed throughout the wall and column surveys with no readings the exceeding 1000 dpm/100 cm² threshold.

The radiation instrument statistics for the wall portion of the survey were:

File code MC608SW (A) South Wall

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	737.05	1698.4	1171.34	194.73
NaI #2	802.31	2085.47	1362.83	231.61
NaI #3	778.73	2438.18	1628.98	285.79
NaI #4	1027.43	2371.43	1714.20	262.33
Floor Monitor #1	0	584.29	130.01	145.08
Floor Monitor #2	0	749.08	129.55	147.81

File code MC608WW (A) West Wall

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	670.75	1963.6	1213.82	208.15
NaI #2	538.13	2198.69	1434.03	242.19
NaI #3	991.48	2523.28	1654.03	289.61
NaI #4	979.43	2611.43	1757.32	298.31

Floor Monitor #1	0	584.29	118.31	143.09
Floor Monitor #2	0	599.08	124.56	134.24

File code MC608NW (A) East Wall

Detector (dpm/100 cm²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	637.6	1764.7	1193.98	207.10
NaI #2	764.57	2085.47	1452.87	222.67
NaI #3	1076.58	2565.83	1685.41	276.32
NaI #4	1219.43	2851.43	1816.56	292.84
Floor Monitor #1	0	730.63	146.07	160.09
Floor Monitor #2	0	599.08	117.71	130.65

File code MC608EW (A) East Wall

Detector (dpm/100 cm²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	339.25	1831	1079.96	276.91
NaI #2	311.69	2085.47	1245.63	329.76
NaI #3	353.23	2803.43	1551.35	418.42
NaI #4	307.43	2803.43	1551.35	418.42
Floor Monitor #1	0	730.63	126.18	138.07
Floor Monitor #2	0	899.06	122.75	147.12

File code MC608EC (A) East Columns

Detector (dpm/100 cm²)	Minimum	Maximum	Mean	Standard Deviation
--	----------------	----------------	-------------	-------------------------------

NaI #1	604.45	1831	1128.11	202.43
NaI #2	651.35	2123.21	1282.50	234.40
NaI #3	948.93	2140.33	1468.35	238.95
NaI #4	931.43	2467.43	1574.75	281.15
Floor Monitor #1	0	584.29	90.63	108.92
Floor Monitor #2	0	449.08	111.28	129.42

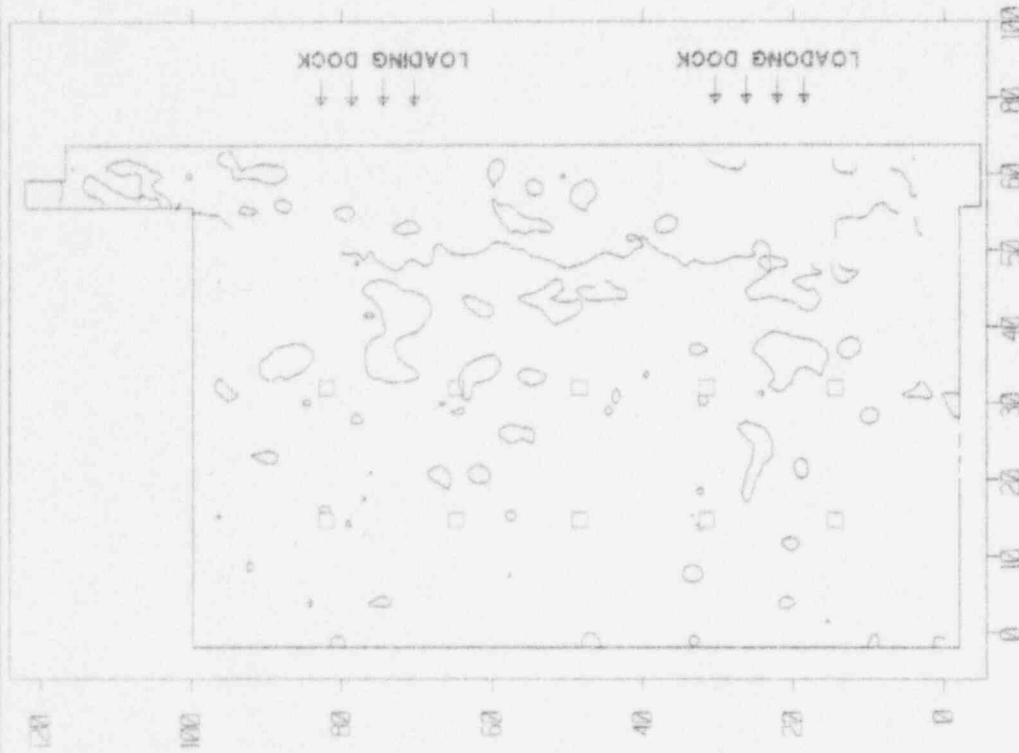
File code MC608WC (A) West Columns

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	637.6	1665.25	1127.35	202.75
NaI #2	689.09	2047.73	1301.28	240.43
NaI #3	906.38	2140.33	1493.74	257
NaI #4	883.43	2323.43	1582.93	284.15
Floor Monitor #1	0	584.29	121.74	127.73
Floor Monitor #2	0	599.29	106.32	124.38



CHEM RAD	
DATE	DESCRIPTION
TIME	CHK
APR	
CHEM RAD, Inc. Corp. One Ridge, TN 37132 (DRAPEL NO) DR BY: R. ELDER SCALE DATE: 4/5/92 FILE NO: 105346	

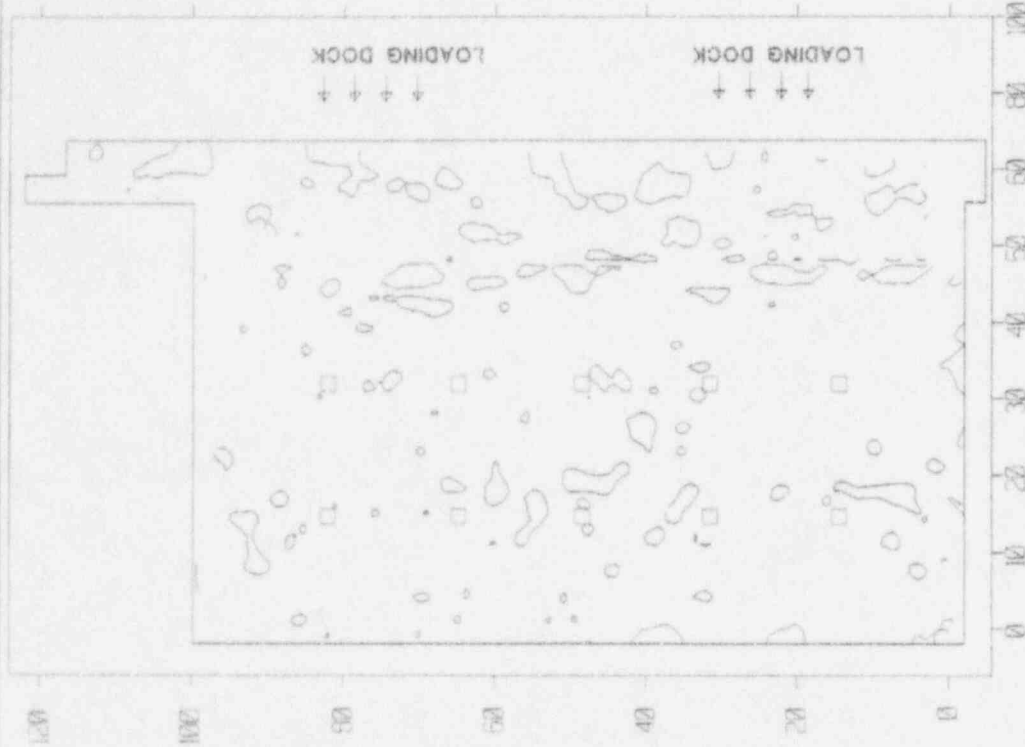
MC ALESTER ARMY AMMUNITION PLANT BUILDING 608 - SOUTH WALL
 USRADs SURVEY RESULTS - NaI PROBE



<p>10000 dpm/100cm²</p> <p>50000 dpm/100cm²</p>		<p>□ = COLUMNS</p>		<p>REVISIONS</p>		<p>CHEMRAD</p>	
DATE	DESCRIPTION	DWN	CHK	APP	DRAWING NO	CHEMRAD, Inc. Corp. One Hudson, 7th Fl. 270330	
					DWN BY: R. ELDER	CHK BY:	
					SCALE	APR 87	
					DATE: 10/5/87	FILE NAME: RRS110	

MCALISTER ARMY AMMUNITION PLANT BUILDING 608 - FLOOR AND LOADING DOCK

USRAD'S SURVEY RESULTS - NoI PROBE



CHEMRAD
 CHEMRAD, Inc. Corp. Oak Ridge, TN 37832
 DRAWING NO.
 DESIGNED BY: R. ELDER
 SCALE: 1/4" = 1' 0"
 DATE: 8/5/95
 FILENAME: 6801B

REVISIONS			
DATE	DESCRIPTION	BY	APP.

□ = COLUMNS

MCALISTER ARMY AMMUNITION PLANT BUILDING 608 - FLOOR AND LOADING DOCK
 USRAPDS SURVEY RESULTS - GM PANCAKE PROBE



CHIEF RAD

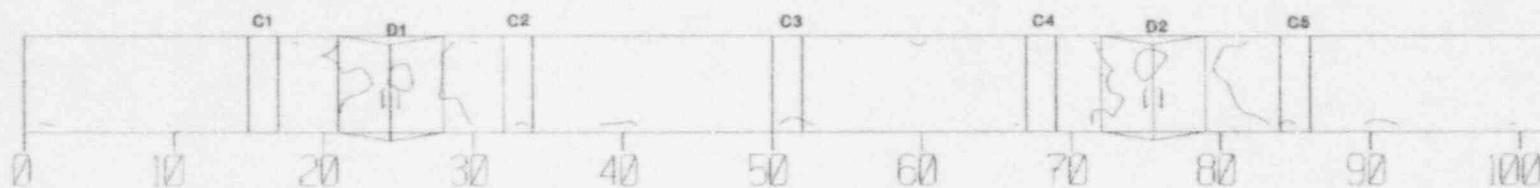
C-40000 To Corp Det Ridge, IN 37930
 DRAWING NO
 DRAWN BY: R. ELDER OK BY:
 SCALE
 DATE 12/5/95
 FILED BY: R. ELDER

REVISIONS			
DATE	DESCRIPTION	BY	CHK

LEGEND

- 10000 dpm/100cm²
- 5000 dpm/100cm²

McALESTER ARMY AMMUNITION PLANT BUILDING 608 - WEST WALL
 LUSRAD'S SURVEY RESULTS - NaI PROBE



5

LEGEND		REVISIONS					CHEMRAD	
<div><div></div>1000 dpm/100cm²</div> <div><div></div>5000 dpm/100cm²</div>		DATE	DESCRIPTION	DWN	CHK	APR	CHEMRAD, Inc. Corp. Oak Ridge, TN 37832	
							DRAWING NO.	
							DWN BY: R. ELDER	
							CHK BY:	
							SCALE:	
							APR BY:	
							DATE: 10/5/95	
							FILENAME: 608E	

McALESTER ARMY AMMUNITION PLANT BUILDING 608 - EAST WALL
 USRADS SURVEY RESULTS - NaI PROBE

USRADS v1.46f Track Map

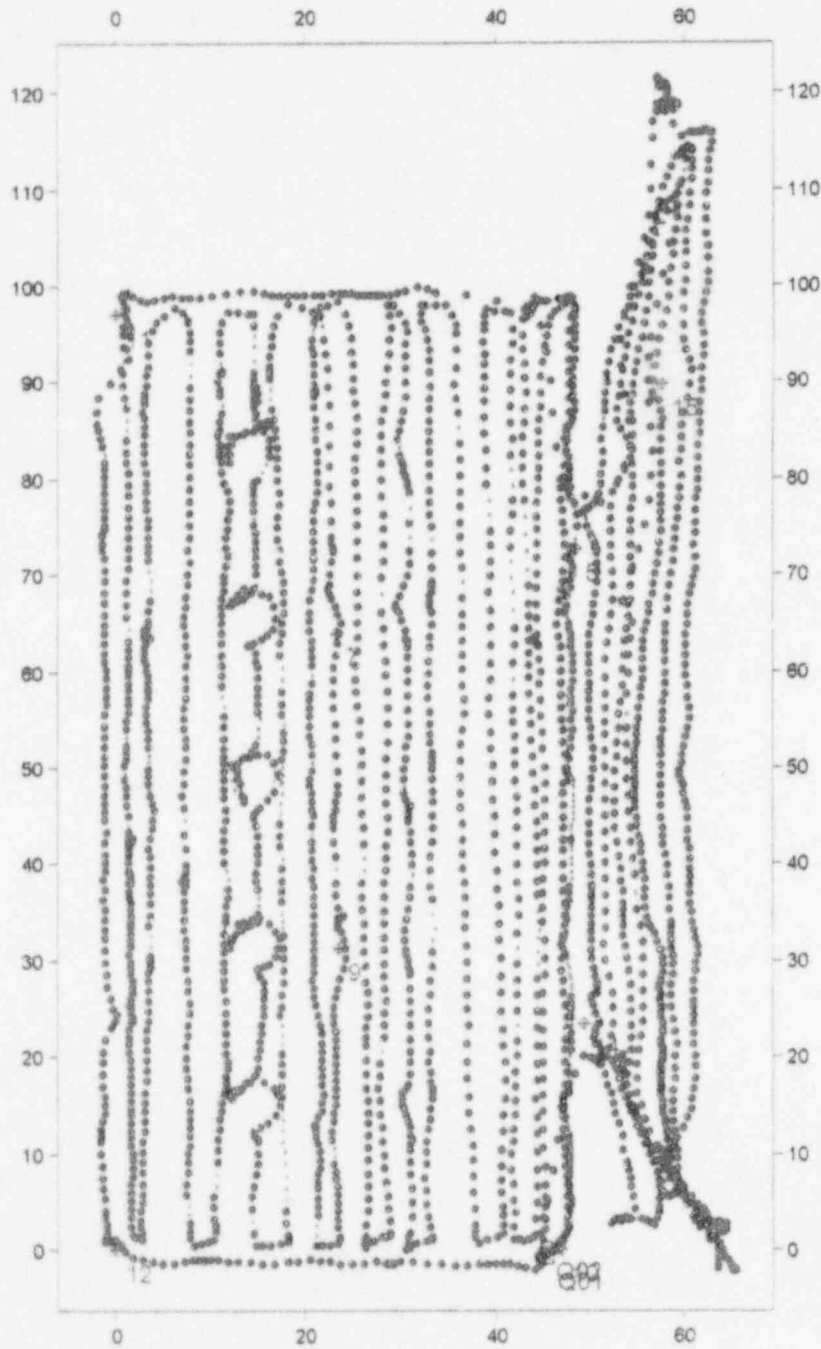
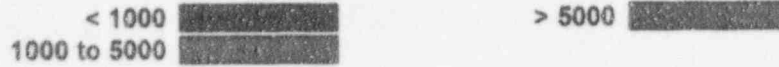
Site: MAC608F (A)

Signal: Pancake (dpm)

Time: 13:29:37 08/29/95

Threshold:

> 1000 •



USRADS v1.46f Track Map

Site: MAC608F (A)

Signal: NaI (dpm)

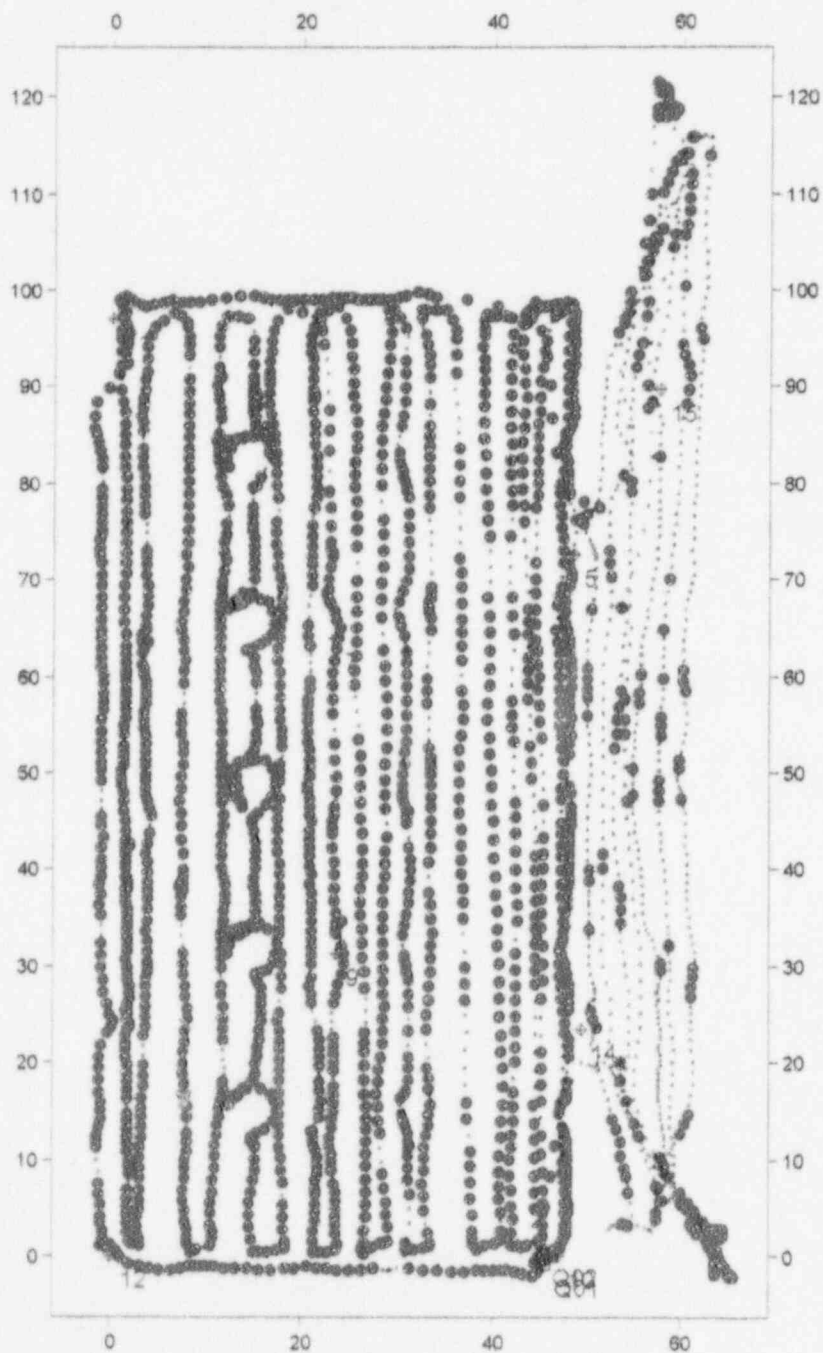
Time: 13:29:37 08/29/95

Threshold:

> 1000 •

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC603SW (A)

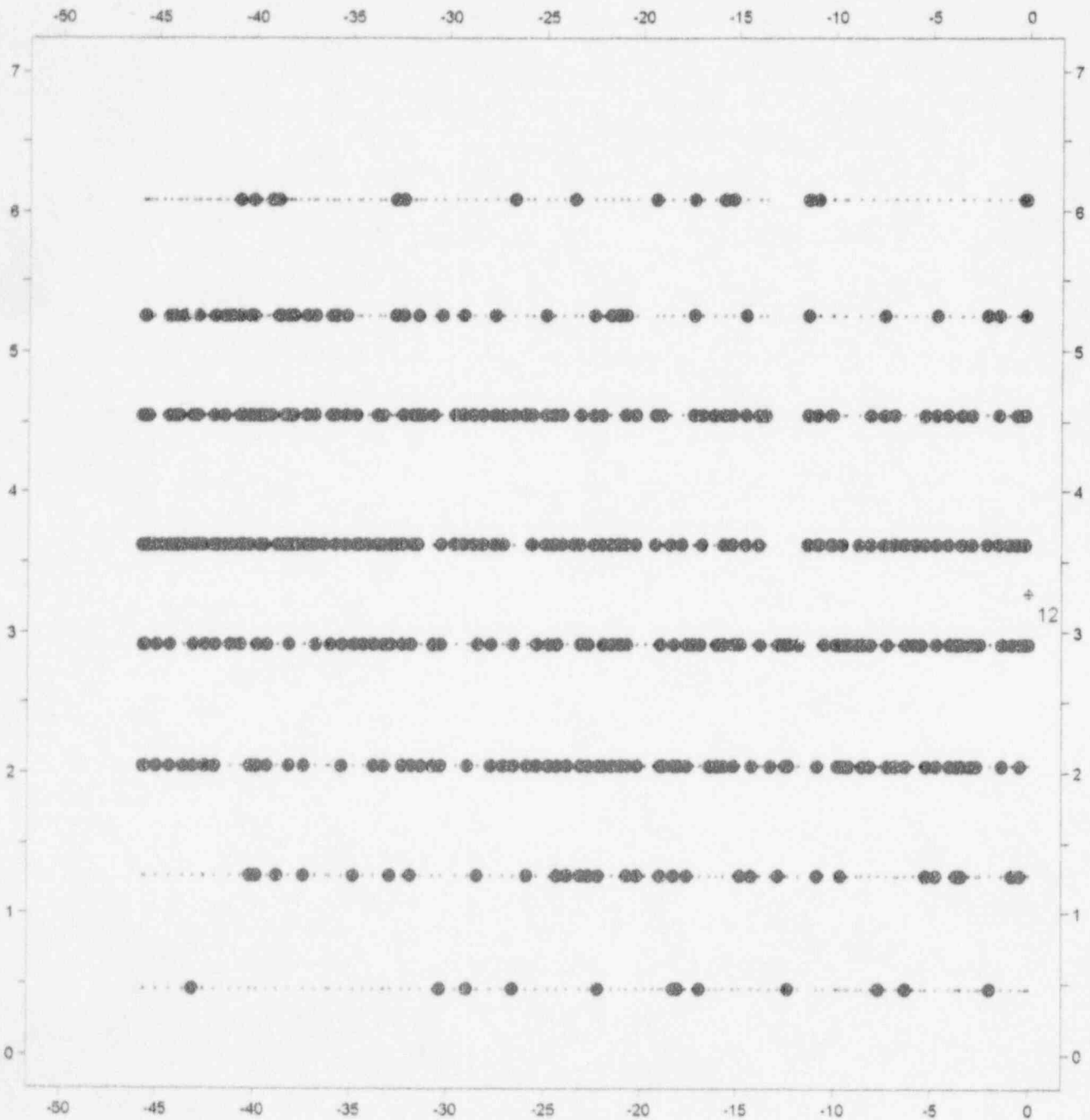
Signal: Nai (dpm)

Time: 08:28:17 08/30/95

Threshold:
> 1000 ●

< 1000
1000 to 5000

> 5000






USRADS v1.46f Track Map

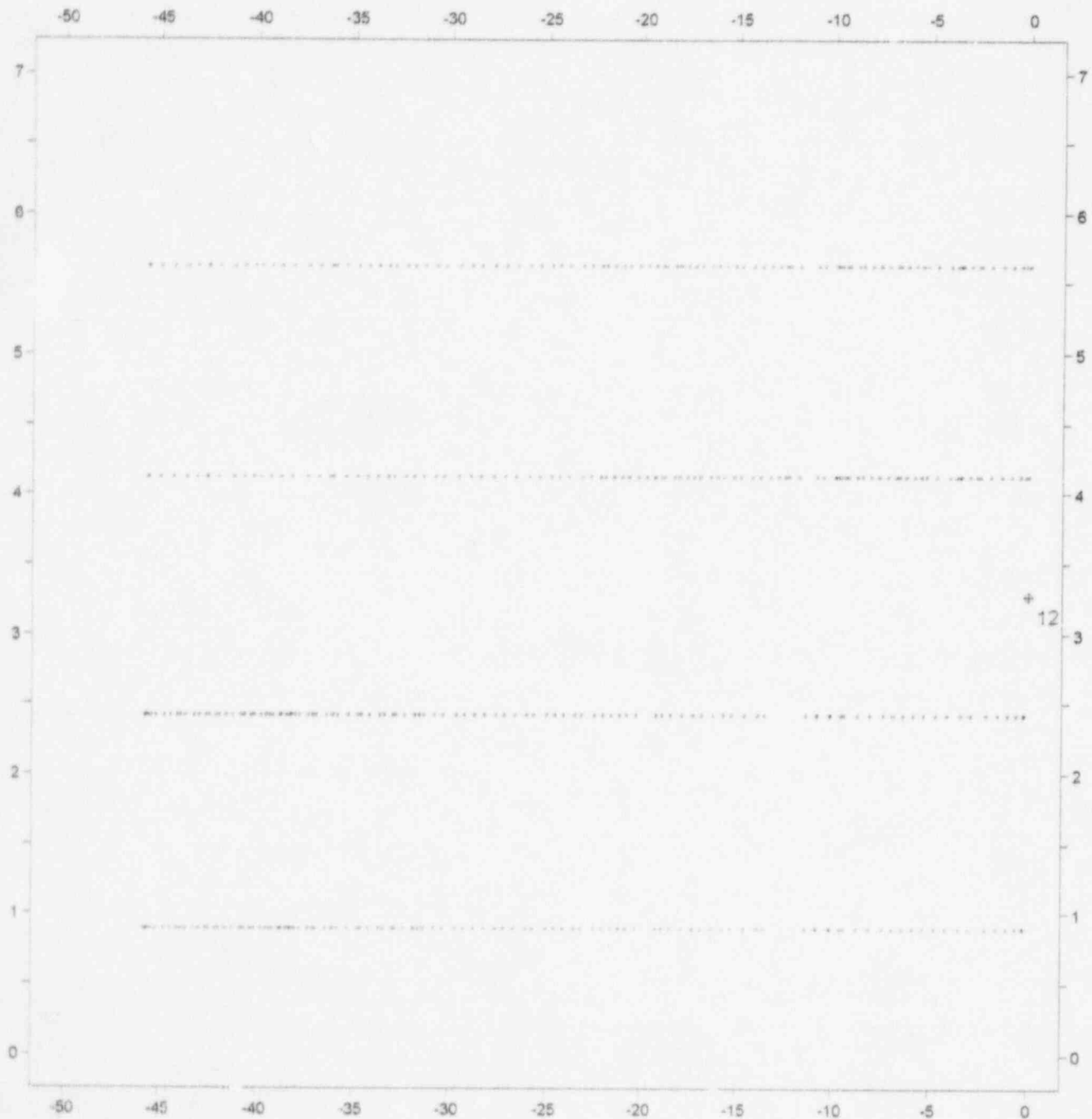
Site: MC603SW (A)

Signal: FM (dpm)

Time: 08:28:17 08/30/95

Threshold:
> 1000 ●

< 1000 
1000 to 5000  > 5000 



USRADS v1.46f Track Map

Site: MC608WW (A)

Signal: NaI (cpm)

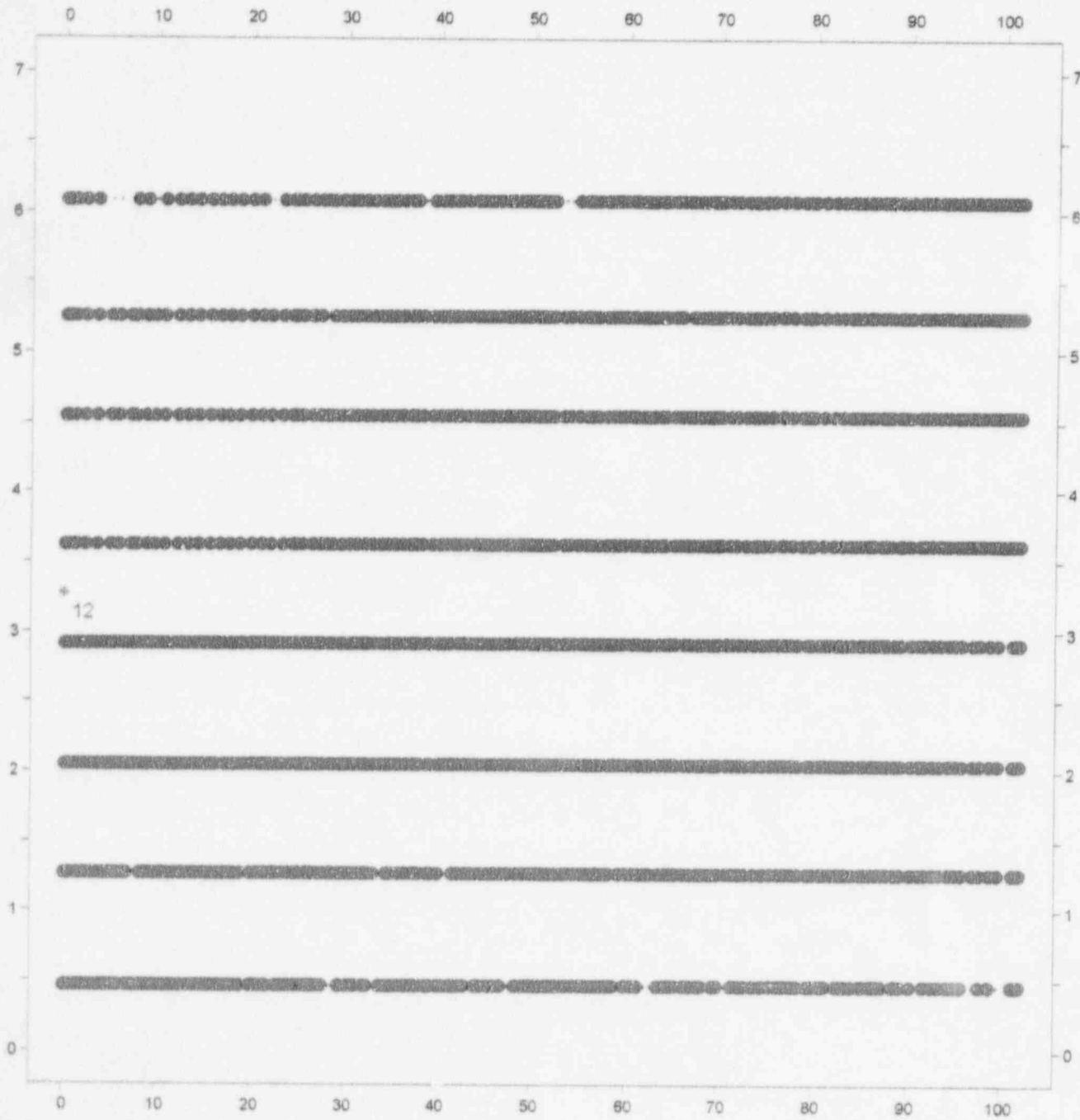
Time: 11:25:16 08/30/95

Threshold:

> 1000 ●

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC608WW (A)

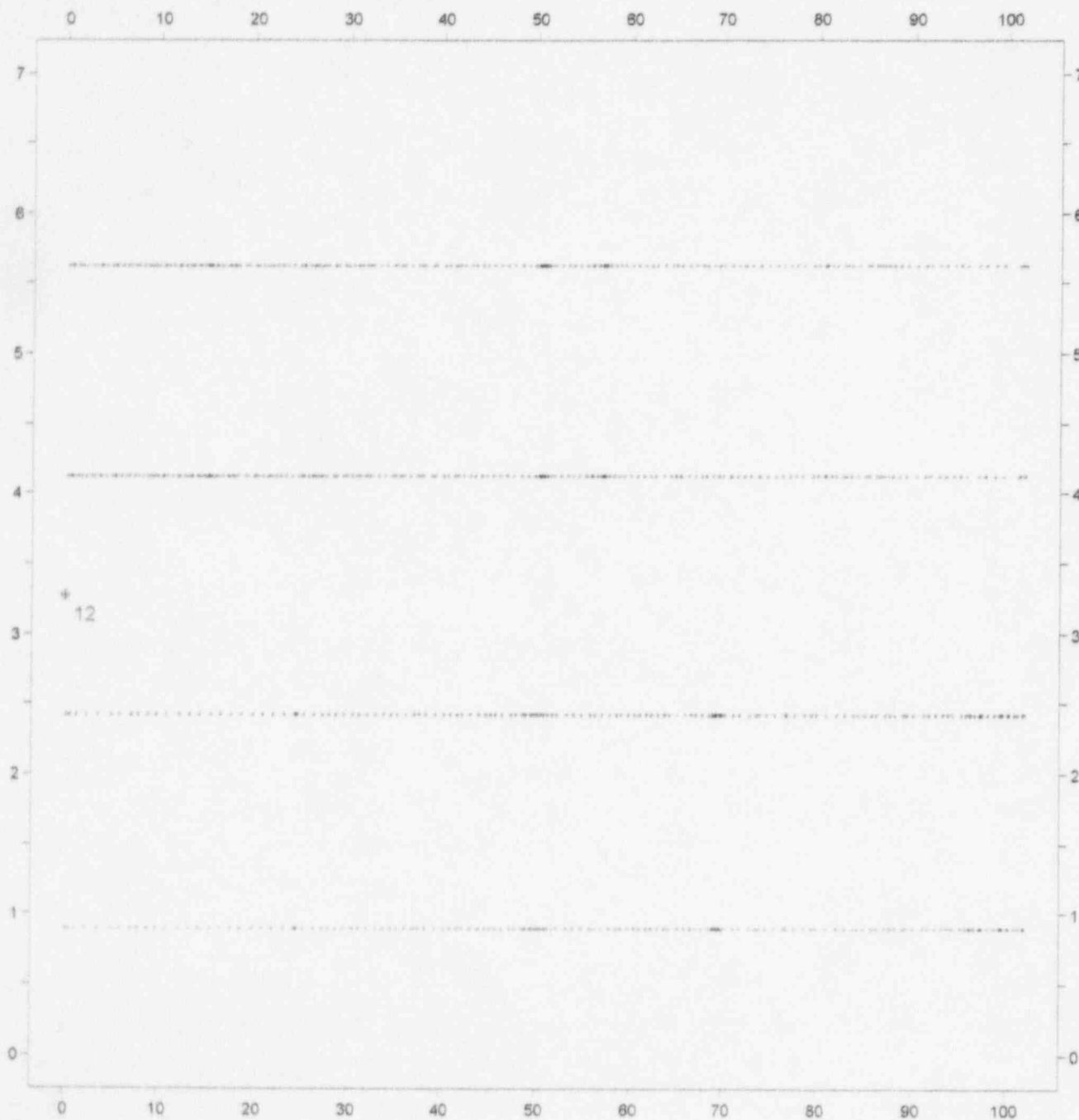
Signal: FM (cpm)

Time: 11:25:16 08/30/95

Threshold:
> 1000 *

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC608SW (B)

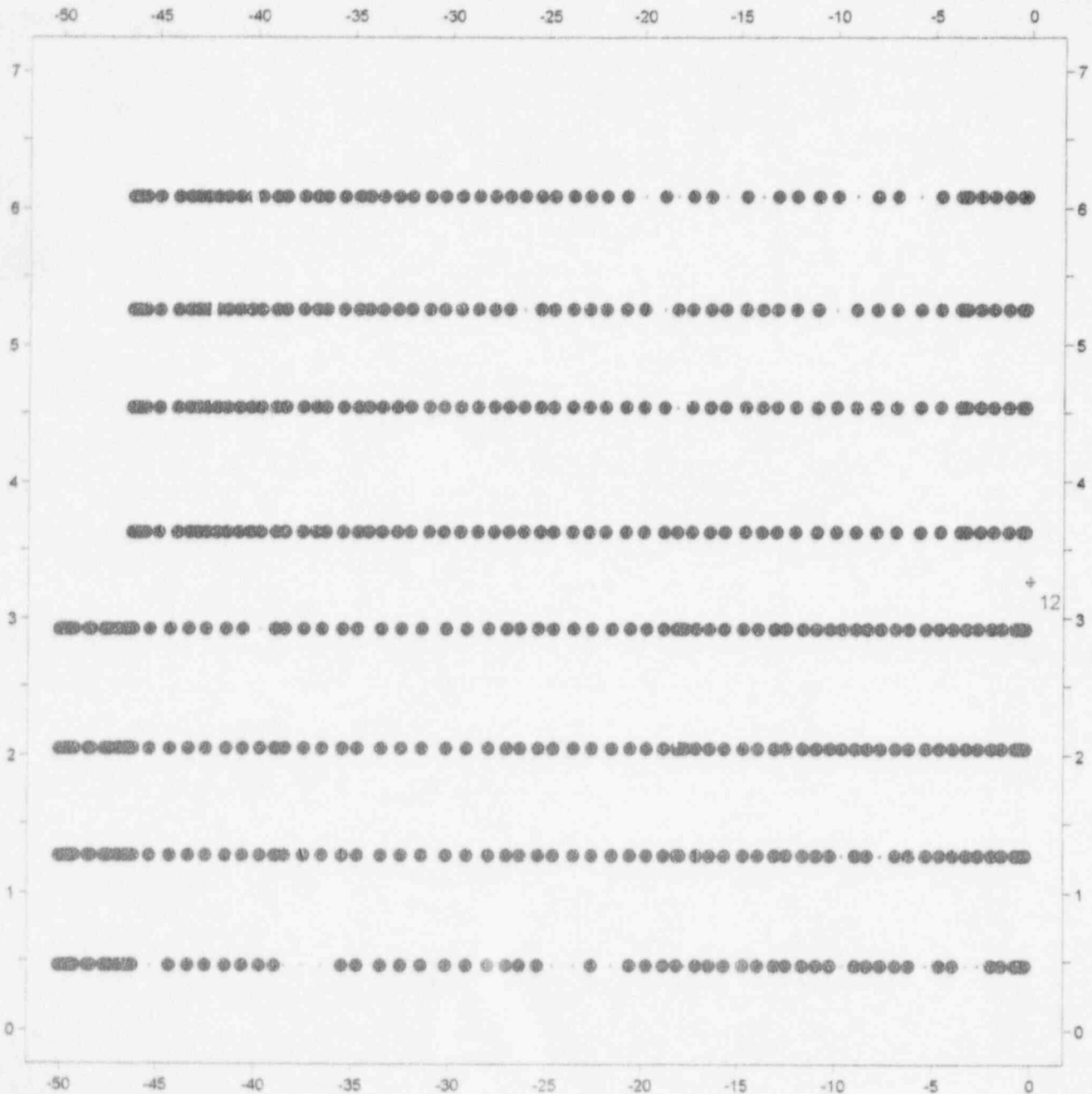
Signal: Nai (dpm)

Time: 11:19:55 08/30/95

Threshold:
> 1000 ●

< 1000
1000 to 5000
5000 to 0

0 to 0
> 0



USRADS v1.46f Track Map

Site: MC608SW (B)

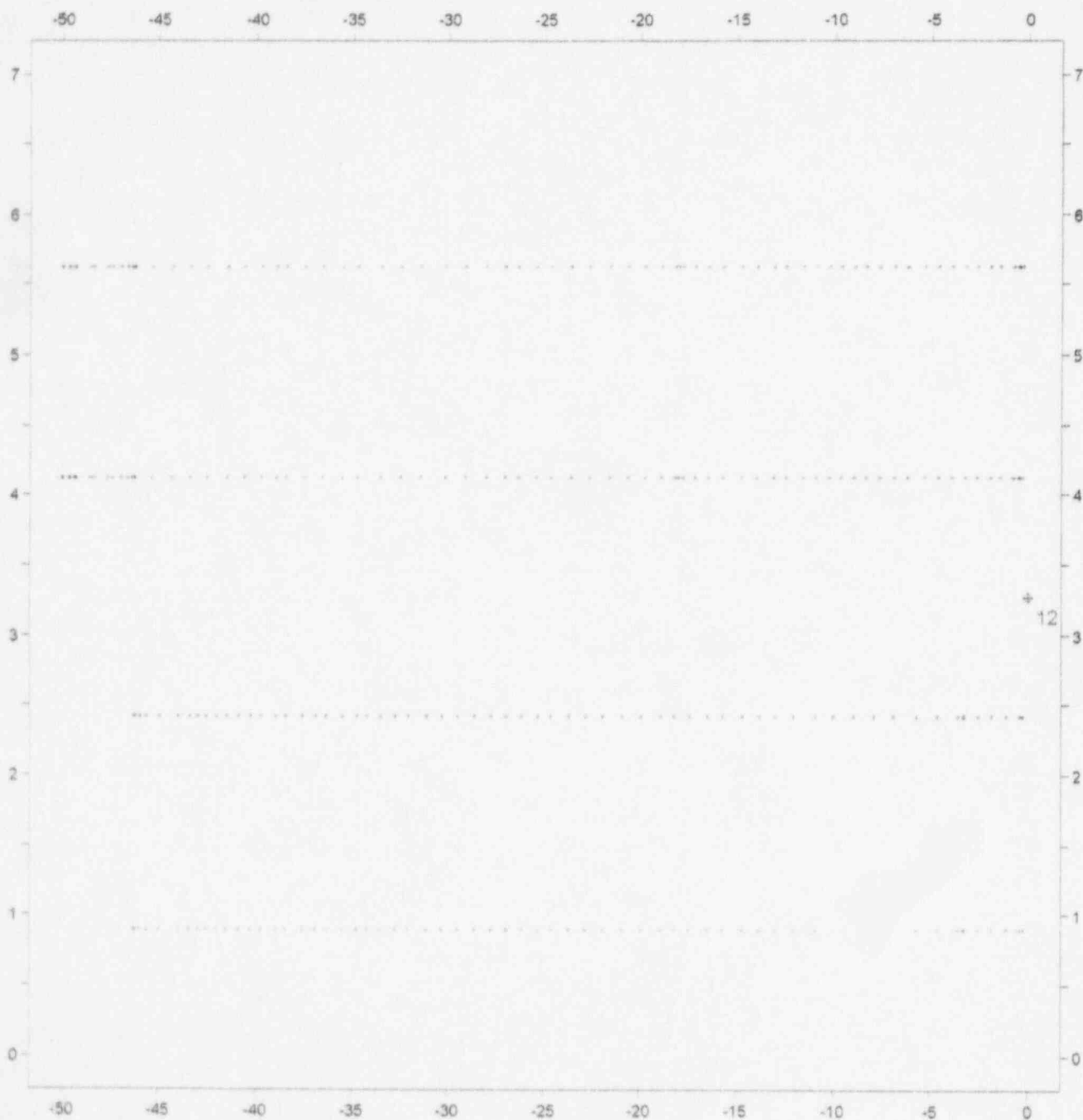
Signal: FM (dpm)

Time: 11:19:55 08/30/95

Threshold:
> 1000 ●

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC608NW (A)

Signal: NaI (dpm)

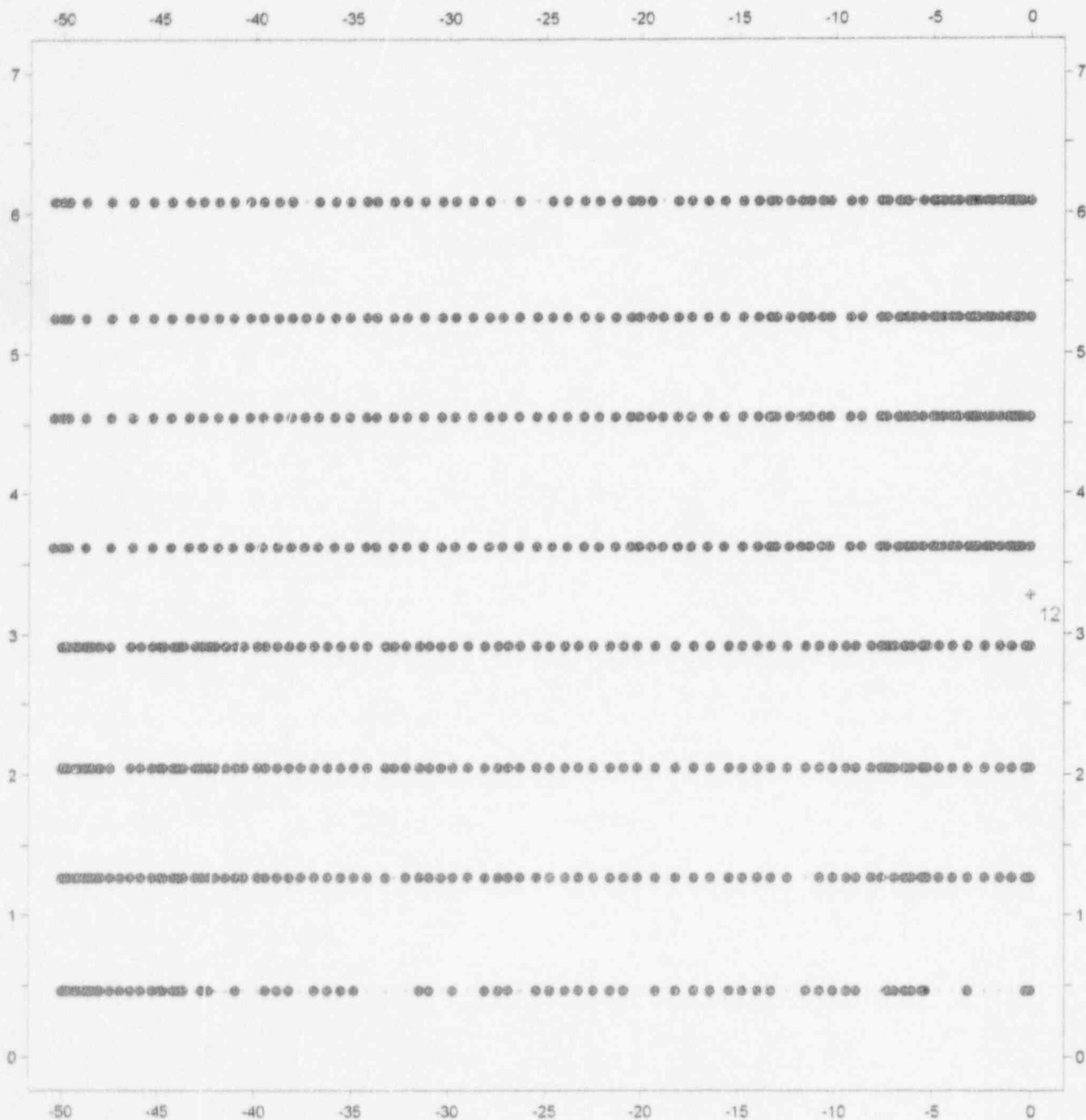
Time: 11:44:17 08/30/95

Threshold:

> 1000 •

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

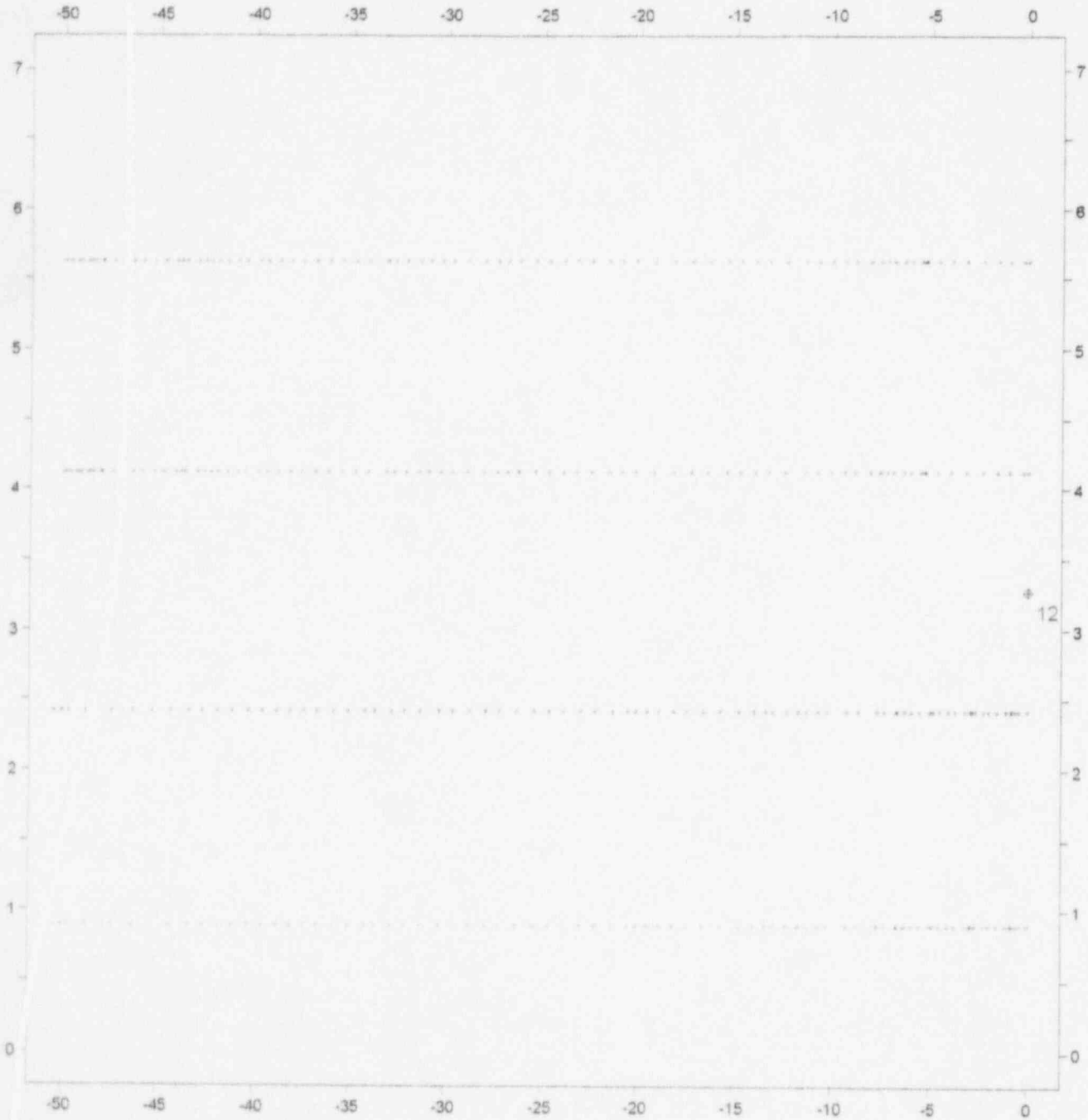
Site: MC608NW (A)

Signal: FM (dpm)

Time: 11:44:17 08/30/95

Threshold:
> 1000 •

< 1000 1000 to 5000 > 5000



USRADS v1.46f Track Map

Site: MC608EW (A)

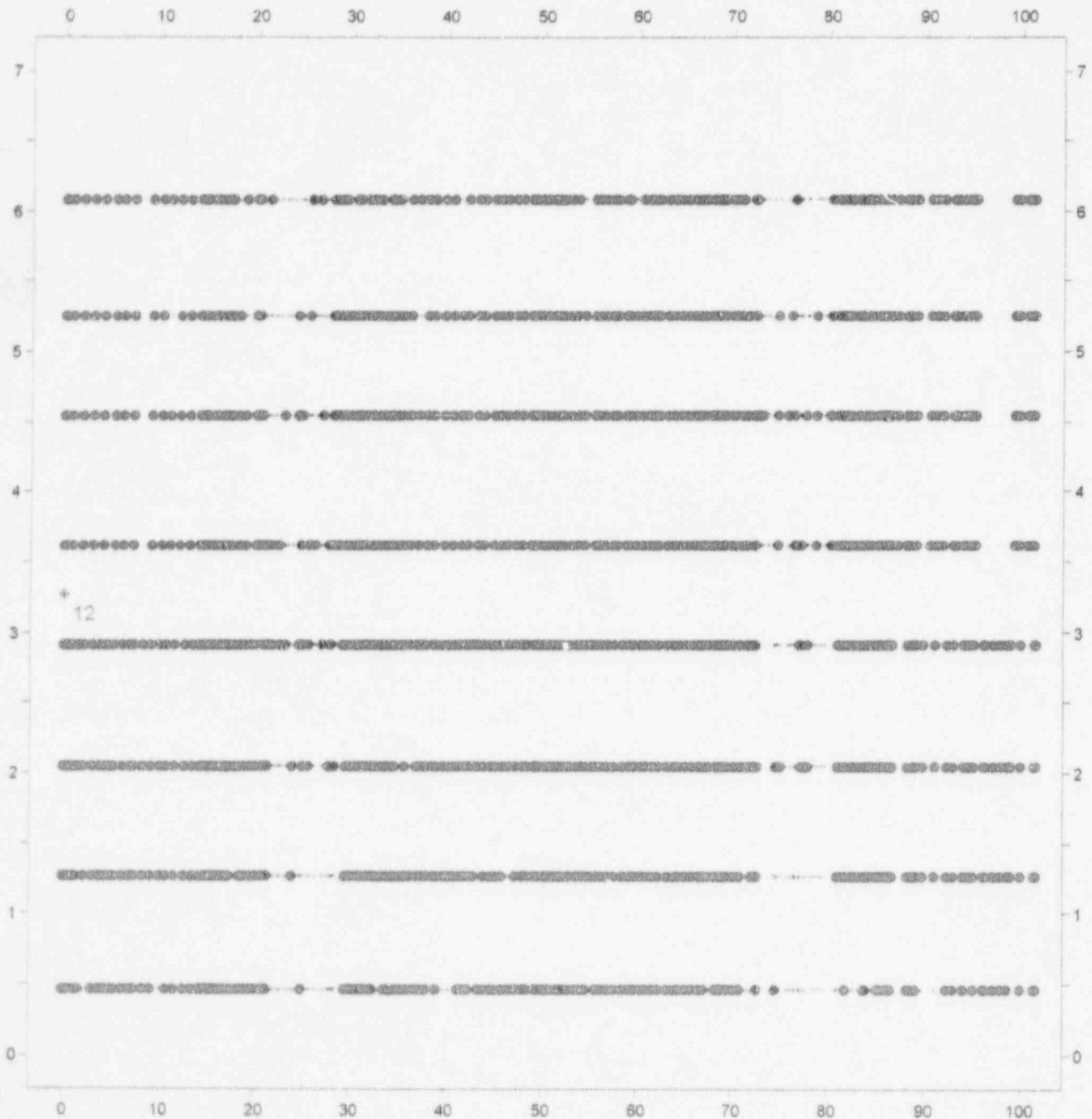
Signal: NaI (dpm)

Time: 11:53:43 08/30/95

Threshold:
> 1000 •

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MCF J8EW (A)

Signal: FM (dpm)

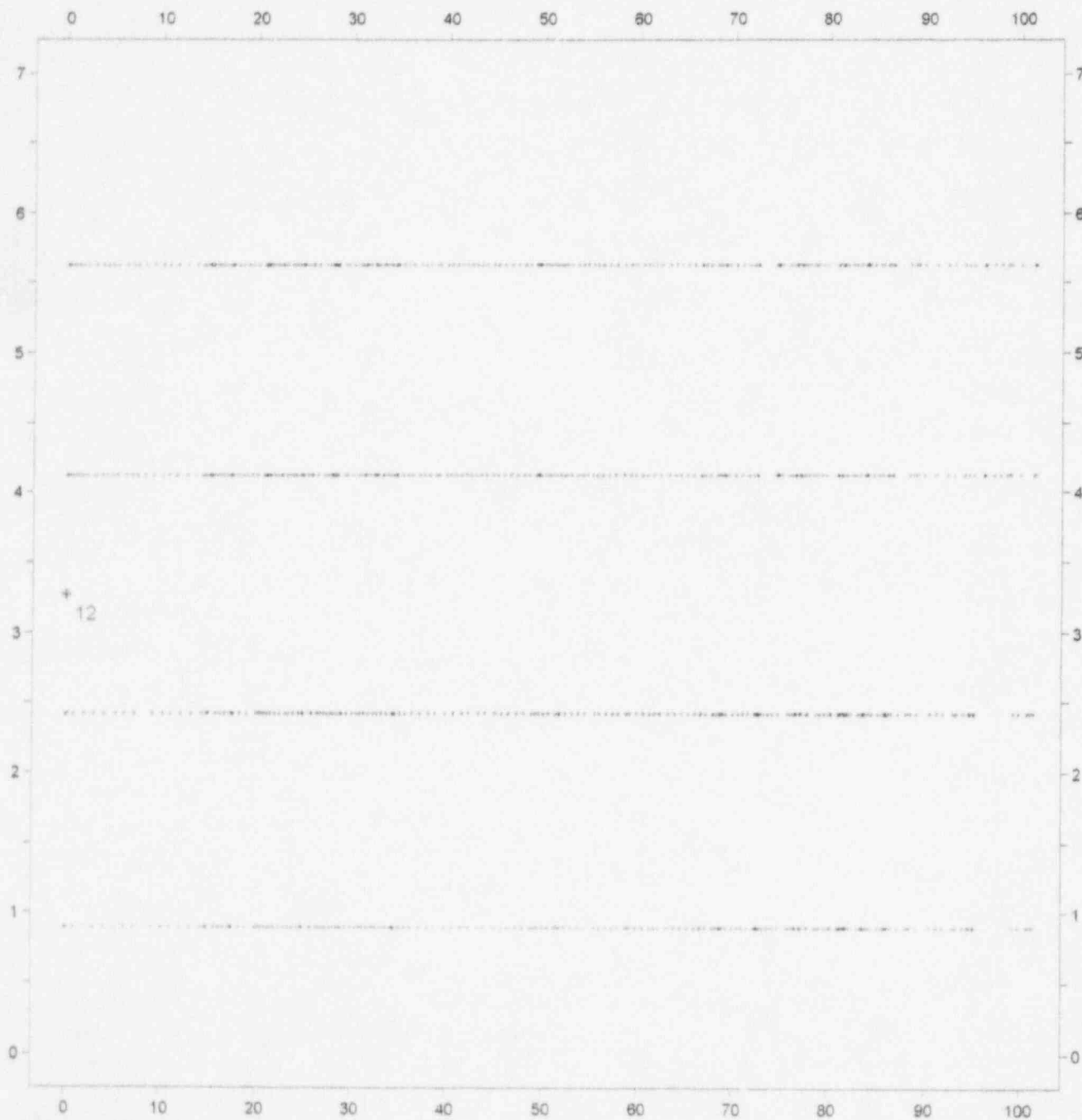
Time: 11:53:43 08/30/95

Threshold:

> 1000 *

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC608EC (A)

Signal: NaI (dpm)

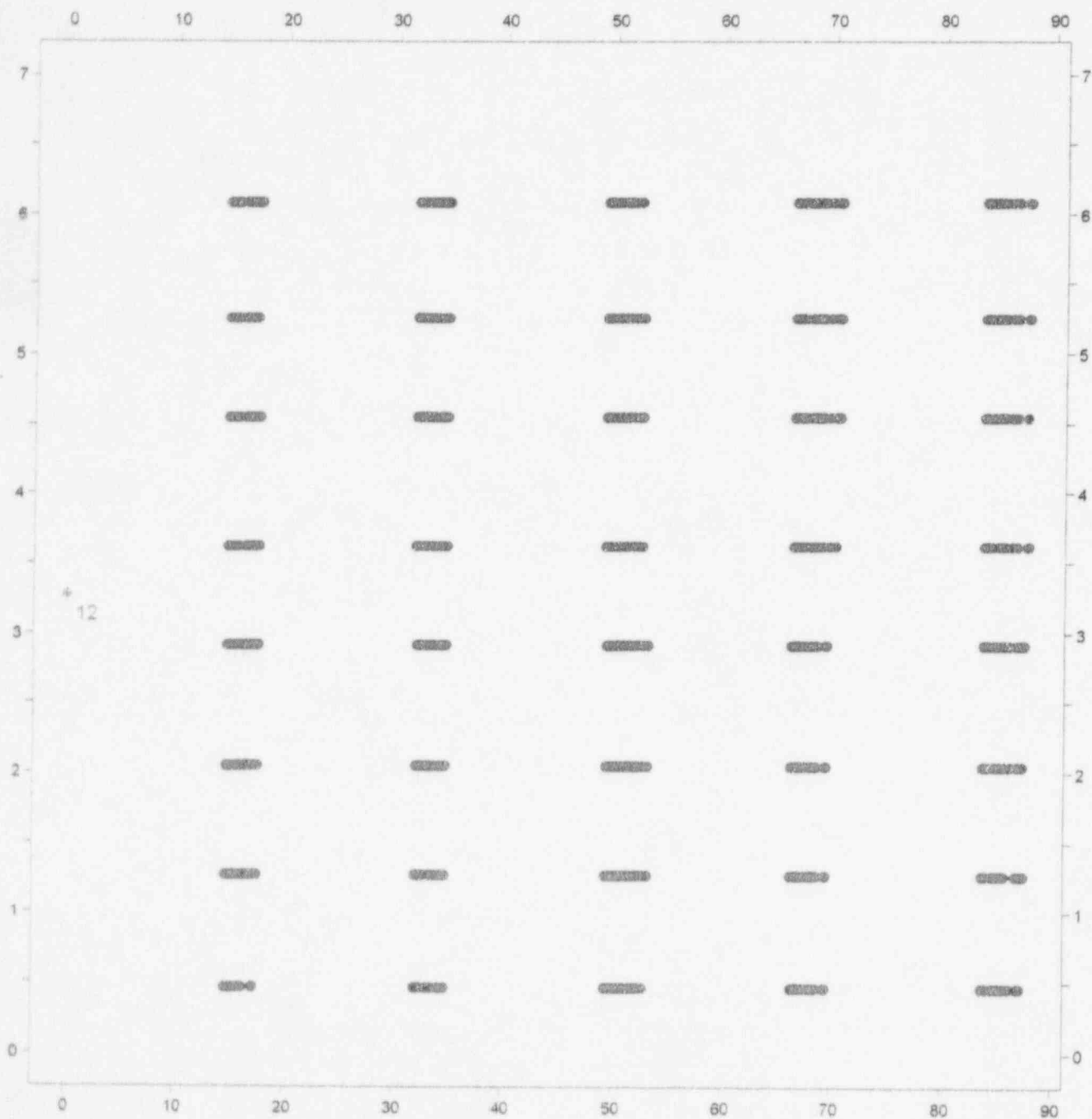
Time: 12:24:13 08/30/95

Threshold:

> 1000 •

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC608EC (A)

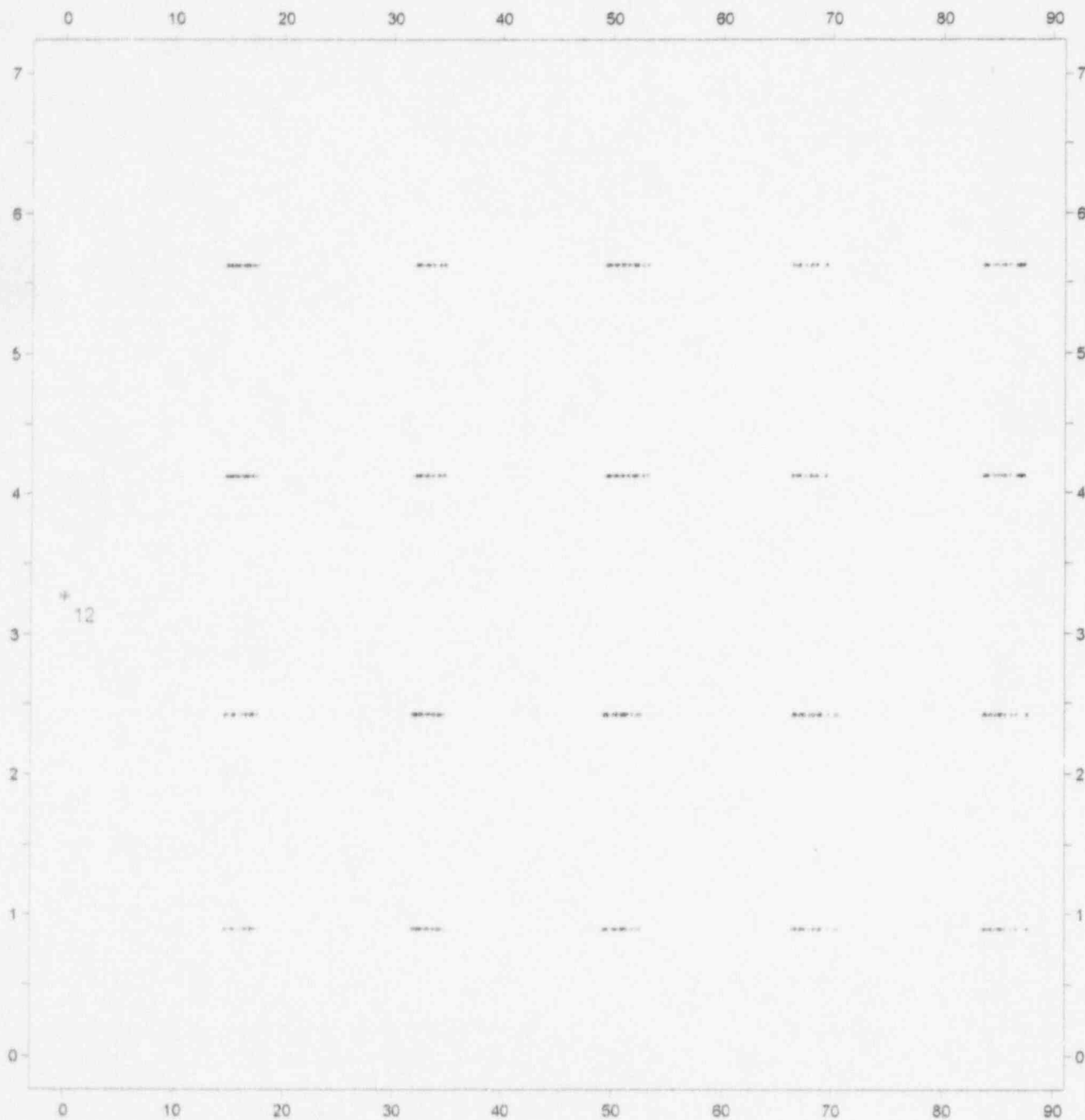
Signal: FM (dpm)

Time: 12:24:13 08/30/95

Threshold:
> 1000 *

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

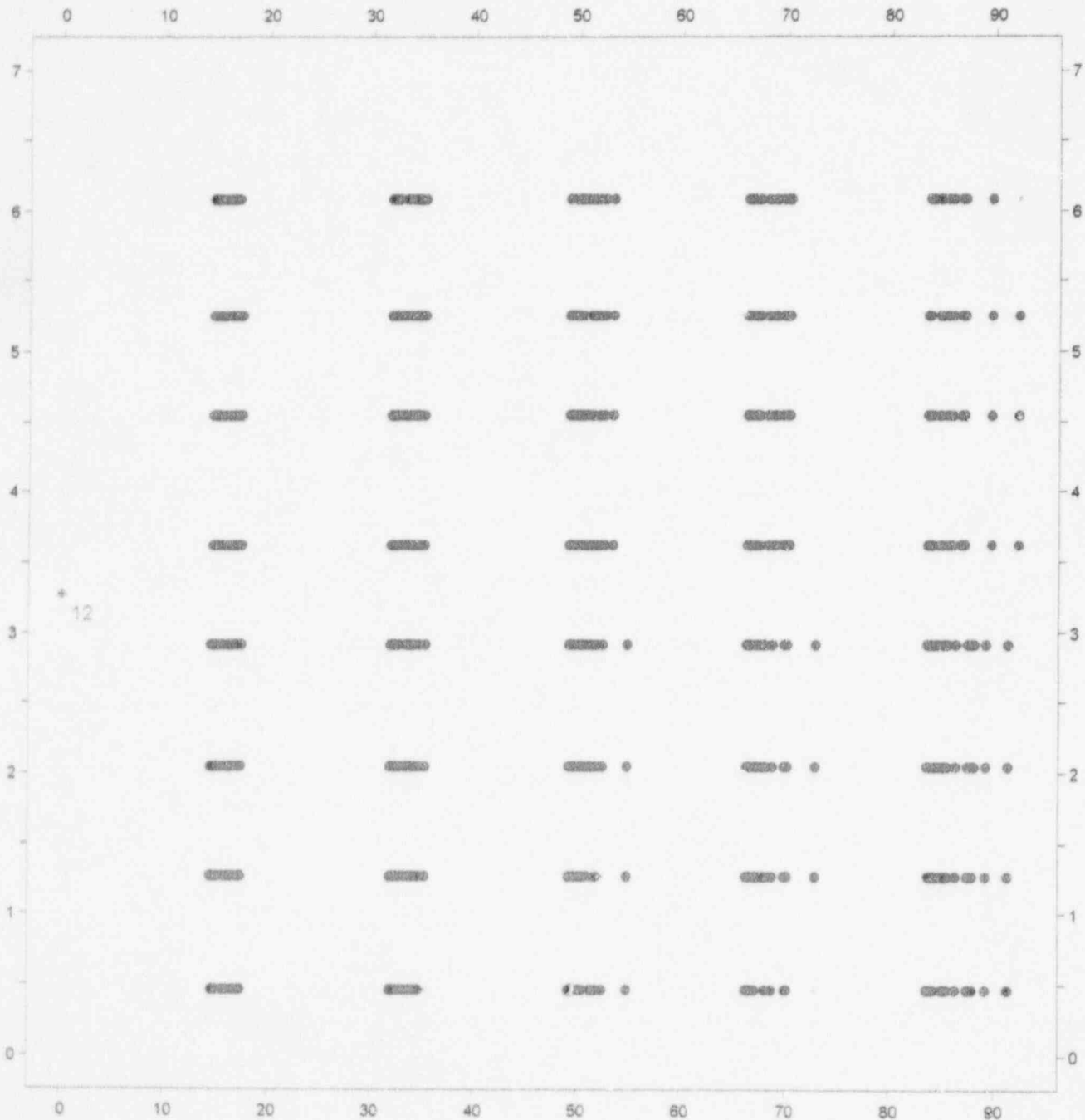
Site: MC608WC (A)

Signal: Nai (dpm)

Time: 12:49:33 08/30/95

Threshold:
> 1000 *

< 1000 1000 to 5000 > 5000



USRADS v1.46f Track Map

Site: MC608WC (A)

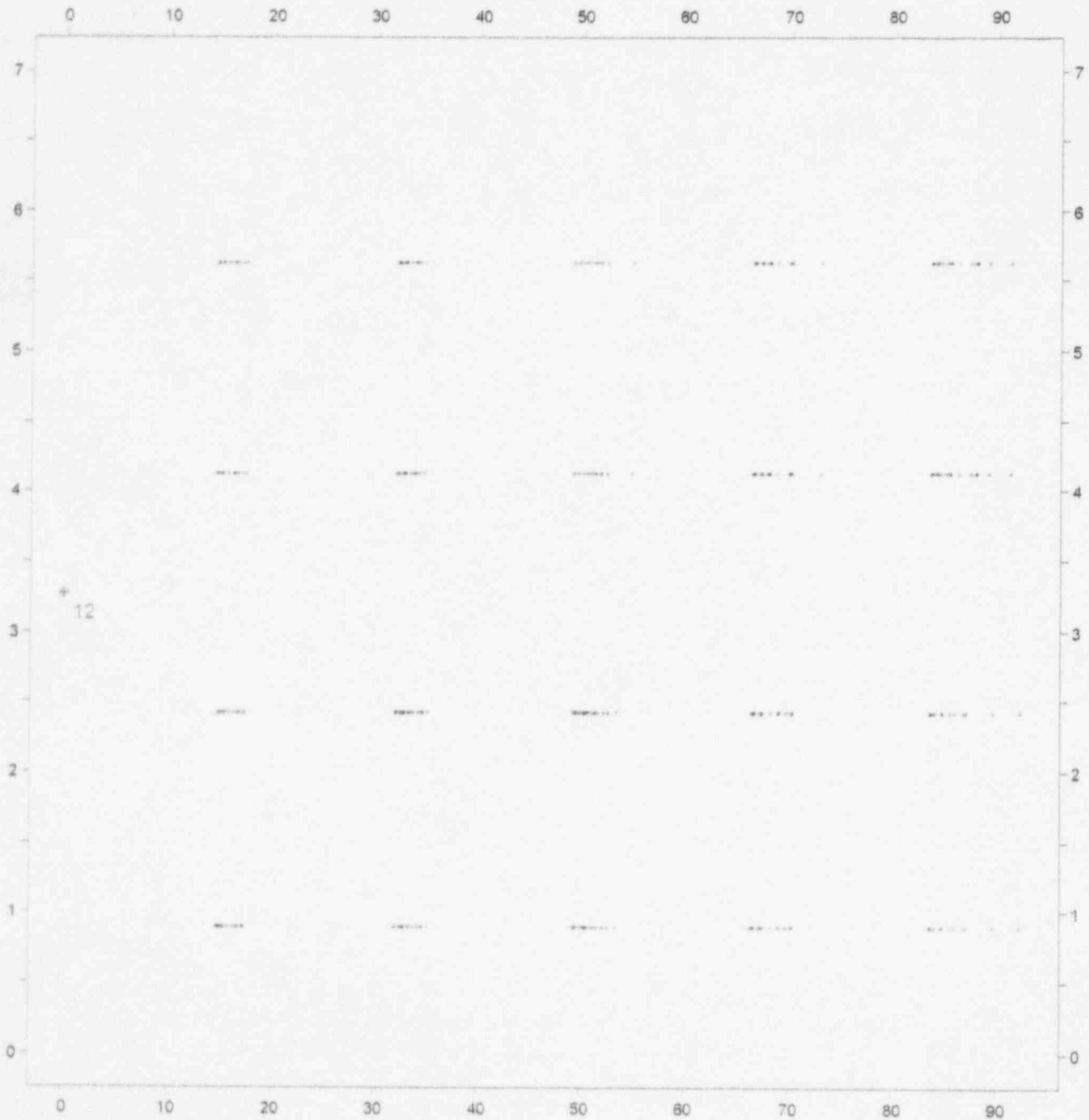
Signal: FM (dpm)

Time: 12:49:33 08/30/95

Threshold:
> 1000 *

< 1000
1000 to 5000

> 5000





Designer and Manufacturer
of
Scientific and Industrial
Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.

POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER PULCIR ORDER NO. 944825

Mfg. Ludlum Measurements, Inc. Model 3 Serial No. 114946

Mfg. Ludlum Measurements, Inc. Model 44-2 Serial No. PR116391

Cal. Date 09/23/94 Cal Due Date 09/23/95 Cal. Interval 1 Year Meterface 202-002

Check mark ☒ applies to applicable instr. and/or detector IAW mfg. spec. T. 72 °F RH 56 % Alt 705.8 mm Hg

☒ New Instrument Instrument Received ☐ Within Toler. $\pm 10\%$ ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair

☒ Mechanical ck. ☒ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity

☒ F/S Resp. ck. ☒ Reset ck. ☐ Window Operation

☒ Audio ck. ☐ Alarm Setting ck. ☒ Batt. ck. (Min. Volt) 2.2 VDC

Instrument Volt Set 250 V Input Sens. 38 mV Det. Oper. 250 V at 38 mV Threshold Dial Ratio = r

☐ HV Readout (2 points) Ref./Inst. / V Ref./Inst. / V

COMMENTS: Calibrated with U cable

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

RANGE/MULTIPLIER	REFERENCE CAL POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
X 100	400kcpm		4K
X 100	100kcpm		1.05K
X 10	40kcpm		4K
X 10	10kcpm		1.05K
X 1	4kcpm		4K
X 1	1kcpm		1.05K
X 0.1	400cpm		4K
X 0.1	100cpm		1.05K

*Uncertainty within $\pm 10\%$ C.F. within $\pm 20\%$

ALL Range(s) Calibrated Electronically

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*	Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of MIL-STD-45462A and ANSI N323-1978. State of Texas Calibration License No. LO-196

Reference Instruments and/or Sources:

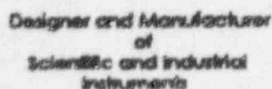
Cs-137 Gamma S/N ☐ 1142 ☐ G112 ☐ M565 ☐ S105 ☐ T1008 ☐ T879 ☐ Neutron Am-241 Be S/N T-3E

☐ Alpha S/N ☐ Beta S/N ☒ Other Am241 \approx 1.59uCi

☒ m 500 S/N 104535 ☐ Oscilloscope S/N ☒ Multimeter S/N A32733

Calibrated By: Rhonda Harris Date 9-23-94

Reviewed By: Stephen Thirington Date 9-23-94



LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4632
SWEETWATER, TEXAS 79556, U.S.A.

Detector 44-2 Serial No. PR113225

Customer CHEMRAD TENNESSEE CORPORATION

Order #. 212310

Counter 3 Serial No. 112918

Counter Input Sensitivity 38 mV

Count Time 6pm Distance Source to Detector SURFACE

Other _____

Signature: E. D. Small

Date 4-30-95



Designer and Manufacturer
of
Scientific and Industrial
Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.

POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-467
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER CHEM RAD

ORDER NO. 212478

Mfg. Ludlum Measurements, Inc. Model 3 Serial No. 91793

Mfg. Ludlum Measurements, Inc. Model 44-2 Serial No. PRO88932

Cal. Date 05/11/95 Cal Due Date 05/11/96 Cal. Interval 1 Year Meterface 202-002

Check mark ☒ applies to applicable instr. and/or detector IAW mfg. spec. T. 74 °F RH 42 % Alt 203.8 mm

- ☐ New Instrument ☐ Instrument Received ☐ Within Toler. $\pm 10\%$ ☐ 10-20% ☐ Out of Tol. ☒ Requiring Repair
- ☒ Mechanical ck. ☒ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
- ☒ F/S Resp. ck. ☒ Reset ck. ☐ Window Operation ☒ Geotropism
- ☒ Audio ck. ☐ Alarm Setting ck. ☒ Batt. ck. (Min. Volt) 2.2 VDC

Instrument Volt Set 850 V Input Sens. 40 mV Det. Oper. 850 V at 40 mV Threshold Dial Ratio =

☐ HV Readout (2 points) Ref./Inst. / V Ref./Inst. /

COMMENTS:

44-2 at 2000 μ R/hr reads = 3.47 K cpm at X 100
1000 μ R/hr reads = 1.7 K cpm at X 100
200 μ R/hr reads = 0.34 K cpm at X 10
100 μ R/hr reads = 0.17 K cpm at X 10

Gamma Calibration: Gm-2 sources positioned perpendicular to source except for M 44-2 in which the front of probe faces source.

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
X 100	400 K cpm	<u>NA</u>	<u>4K</u>
X 100	100 K cpm		<u>1K</u>
X 10	40 K cpm		<u>4K</u>
X 10	10 K cpm		<u>1K</u>
X 1	4 K cpm		<u>4K</u>
X 1	1 K cpm		<u>1K</u>
X 0.1	400 cpm		<u>4K</u>
X 0.1	100 cpm		<u>1K</u>

*Uncertainty within $\pm 10\%$ C.F. within $\pm 20\%$

ALL Range(s) Calibrated Electronically

REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Digital Readout			Log Scale		

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration technique. The calibration system conforms to the requirements of MIL-STD-45462A and ANSI N229-117B. State of Texas Calibration License No. LO-11

Reference Instruments and/or Sources:

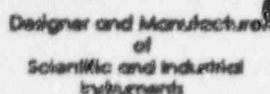
Cs-137 Gamma S/N ☐ 11162 ☐ G112 ☐ M565 ☐ S105 ☐ T1008 ☐ T879 ☐ Neutron Am-241 Be S/N T

☐ Alpha S/N ☐ Beta S/N ☐ Other

☒ m 500 S/N 57885 ☐ Oscilloscope S/N ☒ Multimeter S/N 56110559

Calibrated By: Bill Hendon Date 5-11-95

Reviewed By: Debbie Silman Date 5-15-95



LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-467
SWEETWATER, TEXAS 79556, U.S.A.

Detector 44-2 Serial No. P8088932

Customer CHEMRAD

Order #. 212478

Counter 3 Serial No. 91793

Counter Input Sensitivity 40 mV

Count Time CPM Distance Source to Detector Surface

Other _____

Signature D. Henson

Date 5-11-95



Designer and Manufacturer
of
Scientific and Industrial
Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.

POST OFFICE BOX 810 PH. 915-235-5494

501 OAK STREET FAX NO. 915-235-4672

SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER CHEM RAD ORDER NO. 009628

Alg. Ludlum Measurements, Inc. Model 3 Serial No. 92036

Alg. Ludlum Measurements, Inc. Model 44-9 Serial No. PA088438

Cal. Date 11/28/94 Cal Due Date 11/28/95 Cal Interval 1 Year Surface 202-002

Check mark ☒ applies to applicable instr. and/or detector IAW mfg. spec. T. 71 °F RH 20 % Alt 705.8 mm Hg

☐ New instrument ☐ Instrument Received ☒ Within Tol. ☐ 10% ☐ 100% ☐ Out of Tol. ☐ Requires repair

☒ Mechanical ck. ☒ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity

☒ F/S Resp. ck. ☒ Reset ck. ☐ Window Operation ☒ Geotropism

☒ Alarm ck. ☐ Alarm Setting 2.2 VDC ☒ Batt. ck (Min. Volt) 2.2 VDC

Instrument Volt Sel 900 V Input Sens. 32 mV Dist. Oper 900 V at 32 mV Threshold Dial Ratio =

☐ HV Readout (2 points) Ref./Inst. / V Ref./Inst. / V

COMMENTS: 44-9 7/4 PA088438

5137 EFF. ≈ 23% Dpm

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
X 100	400 K cpm	4K	4K
X 100	100 K cpm	1K	1K
X 10	40 K cpm	4K	4K
X 10	10 K cpm	1K	1K
X 1	4 K cpm	4K	4K
X 1	1 K cpm	1K	1K
X 0.1	400 cpm	4K	4K
X 0.1	100 cpm	1K	1K

*Uncertainty within ± 10% C.F. within ± 20%

ALL Range(s) Calibrated Electronically

REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*
digital output			Log Scale		

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of an International Standards Organization member, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration technique. Calibration system conforms to the requirements of MIL-STD-45662A and ANSI N323-1978. State of Texas Calibration License No. LO-1943

Reference Instruments and/or Sources:

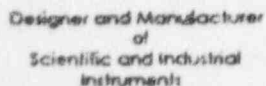
1-137 Gamma S/N ☐ 1162 ☒ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ Neutron Am-241 Be S/N T-304

Alpha S/N ☐ Beta S/N ☐ Other ☐

Gamma S/N 104542 ☐ Oscilloscope S/N ☒ Multimeter S/N 57770263

Calibrated By: Bob Wilkins Date 11/28/94

Reviewed By: James Fleming Date 11-28-94



LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

Customer CHEM RAD Date 11/28/94 Order #. 209658
Model 3 Serial No. 92036 Detector Model 44-2 Serial No. PRO88476
Source Cs-137 194.6 mCi High Voltage 900 V

Signature: Bob Weems Date 11/28/94

TMA/Eberline
601 Scarboro Rd.
Oak Ridge, TN 37830
(615) 481-0683 Fax (615) 483-4621

Ludlum Model 12
CALIBRATION DATA SHEET

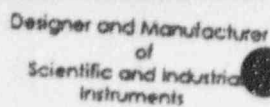
Model 12 SN: 178922 Property of: Chamrock
MP-1 SN: 684 Cal. Exp. Date: 1-5-96
Electrostatic Voltmeter: 2L518 SN: 19805 Cal. Exp. Date: 4-2-96
Model 12 Input Sensitivity: 2 mV * Per Client Request.

Model 12	MP-1	Pre-Cal	Post-Cal	Tolerance
X1	100	<u>100</u>	<u>100</u>	+10 CPM
X1	400	<u>400</u>	<u>400</u>	+10 CPM
X10	1K	<u>1k</u>	<u>1k</u>	+100 CPM
X10	4K	<u>39k</u>	<u>4k</u>	+100 CPM
X100	10K	<u>10K</u>	<u>10K</u>	+1K CPM
X100	40K	<u>40K</u>	<u>40K</u>	+1K CPM
X1000	100K	<u>100K</u>	<u>100K</u>	+10K CPM
X1000	400K	<u>400K</u>	<u>400K</u>	+10K CPM

*High Voltage: 1400 volts * Per Client Request

*

Date of Calibration: 9-7-95 Expiration Date: 3-7-96
Calibrated by: Richard D. Hailen Richard D. Hailen
(Print Name) (Signature)
Reviewed by: _____ Date: _____



LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-46
SWEETWATER, TEXAS 79556, U.S.A.

Bench Test Data For Detector

Detector 43-37 Serial No. PR114208

Customer CHEM RAD

Counter 12 Serial No. 108992

Order #. 943231

Count Time _____ CPM

Counter Input Sensitivity 4 mV

Other Gas Flow 70 cc/min.

Distance, Source to Detector Surface

Window: 0.8 mg/cm^2

High Voltage	Background	Isotope <u>Pu 239</u> Size <u>15.700 cm</u>	Isotope <u>C14</u> Size <u>0.165 cm</u>	Isotope <u>Cs 137</u> Size <u>19.9 Kd</u>	Isotope _____ Size _____
<u>1100</u>	<u>4</u>				

[illegible]

Signature _____

Date 1-22-84

04

TMA/Eberline
601 Scarboro Rd.
Oak Ridge, TN 37830
(615) 481-0683 Fax (615) 483-4621

Ludlum Model 12
CALIBRATION DATA SHEET

Model 12 SN: 108945 Property of: Chem Rad
MP-1 SN: 684 Cal. Exp. Date: 1-5-96
Electrostatic Voltmeter: 518 SN: 19805 Cal. Exp. Date: 4-2-96
Model 12 Input Sensitivity: 2 mV * Per Client Request

Model 12	MP-1	Pre-Cal	Post-Cal	Tolerance
X1	100	<u>100</u>	<u>100</u>	+10 CPM
X1	400	<u>400</u>	<u>400</u>	+10 CPM
X10	1K	<u>1000</u>	<u>1000</u>	+100 CPM
X10	4K	<u>4000</u>	<u>4000</u>	+100 CPM
X100	10K	<u>10000</u>	<u>10000</u>	+1K CPM
X100	40K	<u>40000</u>	<u>40000</u>	+1K CPM
X1000	100K	<u>100000</u>	<u>100000</u>	+10K CPM
X1000	400K	<u>400000</u>	<u>400000</u>	+10K CPM

*High Voltage: 1400 volts * Per Client Request

*

Date of Calibration: 8-25-95 Expiration Date: 2-25-96
Calibrated by: Randall H. Self Randall H. Self
(Print Name) (Signature)
Reviewed by: Marianne McNamee Date: 8-25-95



Designer and Manufacturer
of
Scientific and Industrial
Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER CHEM RAD ORDER NO. 209658

Alg. Ludlum Measurements, Inc. Model 3 Serial No. 92043

Alg. Ludlum Measurements, Inc. Model 44-9 Serial No. PRO88544

Cal Date 11/28/94 Cal Due Date 11/28/95 Cal Interval 1 Year Meterface 202-007

Check mark ☒ applies to applicable instr. and/or detector IAW mfg. spec. T. 71 °F R. 20 % Alt. 705.8 mm

☐ New Instrument ☐ Instrument Received ☒ Within Toler. $\pm 10\%$ ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair

☒ Mechanical ck. ☒ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity

☒ R/S Reconn. ck. ☒ Resol. ck. ☐ Window Operation ☒ Geotronics

☒ Audio ck. ☐ Alarm Setting ck. ☒ Batt. ck. (Min. Volt) 2.2 VDC

Instrument Volt Set 900 V Input Sens. 32 mV Del. Oper. 900 V at 32 mV Threshold Dial Ratio = mV

☐ HV Readout (2 points) Ref./Inst. / V Ref./Inst. / V

COMMENTS: 44-9 S/N PRO88544 44-2 S/N PRO89282

Cs 137 Eff. \approx 23.9 % DPM

22 % DPM

Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
X 100	400 K cpm	4K	4K
X 100	100 K cpm	1K	1K
X 10	40 K cpm	4K	4K
X 10	10 K cpm	1K	1K
X 1	4 K cpm	4K	4K
X 1	1 K cpm	1K	1K
X 0.1	400 cpm	4K	4K
X 0.1	100 cpm	1K	1K

*Uncertainty within $\pm 10\%$ C.F. within $\pm 20\%$

ALL Range(s) Calibrated Electronically

REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*
<u>digital readout</u>			<u>Log Scale</u>		

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of MIL-STD-45662A and ANSI N323-1978. State of Texas Calibration License No. LO-1963

Reference instruments and/or Sources:

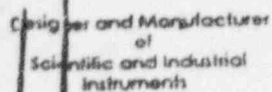
Gamma S/N ☐ 1162 ☒ G112 ☐ M565 ☐ S105 ☐ T1008 ☐ T879 ☐ Neutron Am-241 Be S/N T-30

☐ Alpha S/N ☐ Beta S/N ☐ Other

☒ m 500 S/N 104542 ☐ Oscilloscope S/N ☒ Multimeter S/N 57770263

Calibrated By: Bob Weems Date 11/28/94

Reviewed By: Dimmie Fleming Date 11-28-94



LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

Customer CHEM RAD Date 11/28/94 Order # 209658
Model 3 Serial No. 92A43 Detector Model 44-9 Serial No. FR088544
Source Cs-137 194.6 mCi High Voltage 900 v

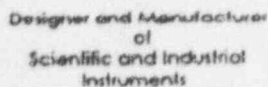
[illegible]

Signature:

Bob Williams

Date _____

11/ 28/94



LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

Detector 44-2 Serial No. PR009282

Customer: CHEN RAD

Order # 209658

Counter 3 Serial No. 92043

Counter input Sensitivity 34 mV

Count Time CPM Distance Source to Detector SURFACE

Other _____

High Voltage _____ Isotope Am 241 Isotope _____ Isotope _____ Isotope _____
Background _____ Size 5.5 cm Size _____ Size _____ Size _____

[illegible]

Signature Bob Weiss

Date 11/28/94



Designer and Manufacturer
of
Scientific and Industrial
Instruments

CERTIFICATE OF CALIBRATION

LUDEM MEASUREMENTS, INC.

POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER CHEMTRAD TENNESSEE CORPORATION

ORDER NO. 212310

Mfg. Lucium Measurements, Inc. Model 3 Serial No. 112918

Mfg. Lucium Measurements, Inc. Model 44-2 Serial No. PR113225

Cal. Date 04/30/95 Cal Due Date 04/30/96 Cal. Interval 1 Year Meterface 202-002

Check mark ☒ applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 42 % Alt 699.8 mm Hg

☐ New Instrument ☐ Instrument Received ☒ Within Toler. $\pm 10\%$ ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair

☒ Mechanical ck. ☒ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Uncertainty

☒ F/S Resp. ck. ☒ Reset ck. ☐ Window Operation ☒ Geotropism

☒ Audio ck. ☐ Alarm Setting ck. ☒ Batt. ck. (Min. Volt) 2.2 VDC

Instrument Volt Set 800 V Input Sens. 38 mV Det. Oper. 800 V at 38 mV Threshold
Dial Ratio =

☐ HV Readout (2 points) Ref./Inst. / V Ref./Inst. / V

COMMENTS:

Gamma Calibration: G4 detectors positioned perpendicular to source except for lid 44-9 in which the front of probe faces source.

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
X 100	400 K cpm	3.95K	4K
X 100	100 K cpm	1 K	1K
X 10	40 K cpm	4.1 K	4K
X 10	10 K cpm	1 K	1K
X 1	4 K cpm	4.05K	4K
X 1	1 K cpm	1 K	1K
X 0.1	400 cpm	4 K	4K
X 0.1	100 cpm	1 K	1K

*Uncertainty within $\pm 10\%$ C.F. within $\pm 20\%$

All Range(s) Calibrated Electronically

REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*
Digital Readout			Log Scale		

Lucium Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of MIL-STD-4542A and ANSI N123-1978. State of Texas Calibration License No. 10-194

Reference Instruments and/or Sources:

Ci-137 Gamma S/N ☐ 1142 ☐ G112 ☐ M545 ☐ S105 ☐ T1008 ☐ T879

☐ Neutron Am-241 Be S/H T-3

☐ Alpha S/N ☐ Beta S/N ☒ Other AM-241 1.6uCi

☒ m 500 S/N 24789 ☐ Oscilloscope S/N ☒ Multimeter S/N 50100581

Calibrated By: ER Summell Date 4-30-95

Reviewed By: Mr. Friedman Date 5-1-85

Appendix A-1

Bldg MAC603F

Included in this appendix section:

- Area Findings Narrative with INRADS Survey Statistics
- Contour Maps for the Floor Surveys
- Track Maps for the Floor Surveys
- Contour Maps for the Wall Surveys for the NaI Readings
- Track Maps for the Wall Surveys

Appendix A-1

Building MAC603F

Survey Dates: Floor Surveys August 29, 1995
Wall Surveys August 30, 1995

Site Coordinates, Floor Survey:

Easting: E0 to E50
Northing: N0 to N100

Site Coordinates, Dock Survey:

Easting: E0 to E15
Northing: N0 to N116

Significant Findings:

Floor Survey

Nal readings were relatively uniform throughout the grid area. The number of data readings taken was 4955. The threshold for MAC603F was established at 1000 dpm/100 cm². Readings exceeding 1000 dpm/100 cm² were sporadic and randomly distributed through the survey area. Readings above 1250 dpm/100 cm² were noted in the area around coordinates X29, Y34. A maximum reading of 1300.6 dpm/100 cm² was recorded.

Pancake readings were also relatively uniform throughout the grid area. The number of data readings taken was 4955. The threshold for MAC603F was established at 1000 dpm/100 cm². A total of 24 sporadic readings in excess of 5000 dpm/100 cm² were noted. Typically these elevated readings occurred along the base of the wall, and were probably due to the pancake probe being scraped against the floor and wall. It was noted that momentary increases in the pancake readings occurred when this happened. After analysis of the data, Chemrad reacquied the elevated positions. Manual verification failed to indicate elevated readings at these coordinates. Readings exceeding 5000 dpm/100 cm² were noted around coordinates X47, Y1, and X47, Y44. Readings exceeding 5000 dpm/100 cm² were also noted around coordinates X35, Y91. Readings on adjacent passes

did not reconfirm the elevated data indicating possible elevation of the detector due to scraping on the floor.

Survey Statistics:

The radiation instrument statistics for the walkover (floor) portion of the survey were:
File code MAC603F

Detector (dpm/100 cm²)	Minimum	Maximum	Mean	Standard Deviation
NaI	295.05	1300.6	841.80	128.76
Pancake	.88	6171.88	1569.83	934.20

Wall and Column Survey

Wall surveys included the areas from corner to corner, and from the floor up to six feet high.

Significant Findings:

NaI readings were randomly distributed throughout the wall and column surveys with no readings exceeding the 5000 dpm/100 cm² threshold.

Floor monitor readings were randomly distributed throughout the wall and column surveys with no readings the exceeding 1000 dpm/100 cm² threshold.

The radiation instrument statistics for the wall portion of the survey were:

File code MC603SW (A) (South Wall)

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	471.85	1201.15	819.04	145.94
NaI #2	575.87	1670.33	950.57	191.99
NaI #3	693.63	1799.93	1129.77	211.51
NaI #4	547.43	1891.43	1203.36	251.29
Floor Monitor #1	0	437.95	112.66	226.37
Floor Monitor #2	0	899.08	130.33	153.16

File code MC603WW (A) West Wall

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	405.55	1300.6	839.29	162.09
NaI #2	500.39	1481.63	956.85	199.88
NaI #3	565.98	1714.83	1097.93	216.83

NaI #4	499.43	1795.43	1168.90	244.79
Floor Monitor #1	0	584.29	101.62	121.46
Floor Monitor #2	0	749.08	118.23	142.37

File code MC603NW' (A) North Wall

Detector (dpm/100 cm²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	405.55	1267.45	833.31	176.09
NaI #2	387.17	1368.41	919.40	186.43
NaI #3	523.43	1714.83	1105.77	235.64
NaI #4	499.43	1843.43	1178.51	248.54
Floor Monitor #1	0	437.95	106.38	117.73
Floor Monitor #2	0	599.08	109.66	127.63

File code MC603EW (A) East Wall

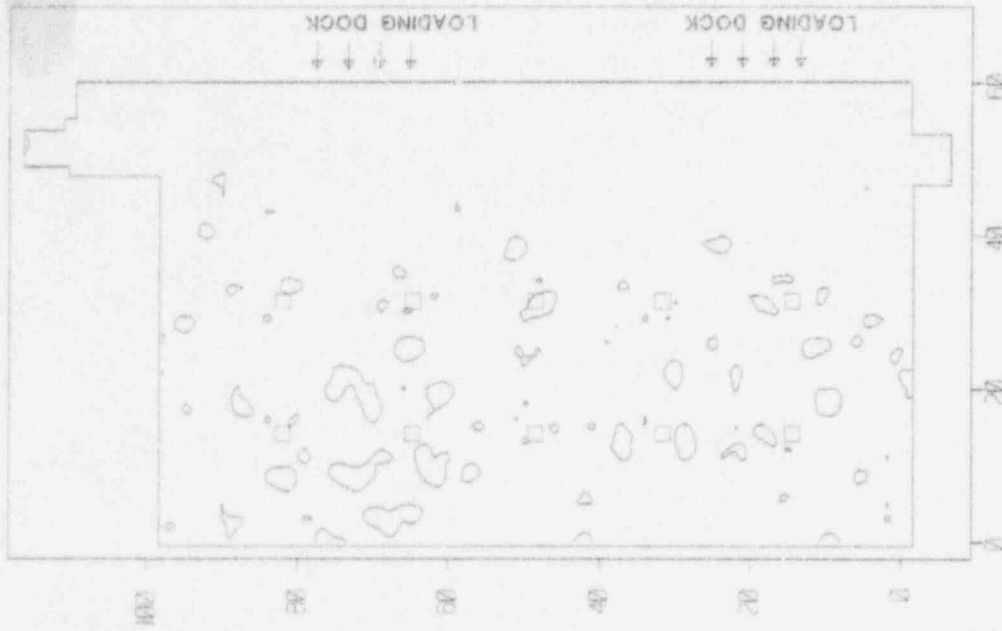
Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	350.3	1090.65	752.09	150.38
NaI #2	387.17	1406.15	858.39	191.74
NaI #3	395.78	1459.53	981.96	206.95
NaI #4	339.43	1587.43	1038.87	219.22
Floor Monitor #1	0	486.73	108.71	81.30
Floor Monitor #2	0	349.08	106.07	74.52

File code MC603EC (A) East Columns

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
NaI #1	648.65	1322.7	958	104.68
NaI #2	726.83	1355.83	1049.22	118.42
NaI #3	849.65	1700.65	1216.03	145.81
NaI #4	979.43	1731.43	1329.76	130.82
Floor Monitor #1	0	340.39	116.83	79.13
Floor Monitor #2	0	349.08	120.67	76.90

File code MC603WC (A) West Columns

Detector (dpm/100 cm ²)	Minimum	Maximum	Mean	Standard Deviation
Nal #1	637.6	1598.95	944.49	173.34
Nal #2	538.13	1783.55	1104.56	211.82
Nal #3	693.63	1970.13	1266.10	223.96
Nal #4	643.43	2083.43	1300.97	264.25
Floor Monitor #1	0	584.29	119.71	121.44
Floor Monitor #2	0	437.95	99.92	120.63



CHEMRAD

DATE	REGION	SWH	CH	APR

CHENRAD, Inc. Corp. Oak Ridge, TN 37832
 DRAWING NO.
 DRAWN BY R. ELDER
 SCALE
 DATE 8/5/95
 FILENAME 603LG

10000 dpm/1000cm²
 5000 dpm/1000cm²
 □ = COLUMNS

MCALISTER ARMY AMMUNITION BUILDING 603 - FLOOR AND LOADING DOCK
 USRAD'S SURVEY RESULTS - NaI PROBE



CHEM RAD	
<div> <div>10000 dpm/100cm²</div> <div>5000 dpm/100cm²</div> </div>	
DATE	TIME
DESCRIPTION	UNIT
CHEMIST: J. R. ELDER DATE: 10/25/55 FILE NO: 10000	

McALESTER ARMY AMMUNITION PLANT BUILDING 603 - WEST WALL
 USRAD'S SURVEY RESULTS - No.1 PROBE



CHEM RAD	
CHEM RAD, Inc. Corp. Oak Ridge, TN 37832	
DATE	APR 04
DESCRIPTION	SWAN 04
DRAWN BY	R. ELDER
STATE	OK BR
DATE	12/5/95
FILE NAME	08366

McALESTER ARMY AMMUNITION PLANT BUILDING 608 - NORTH WALL
 USRAD'S SURVEY RESULTS - NaI PROBE

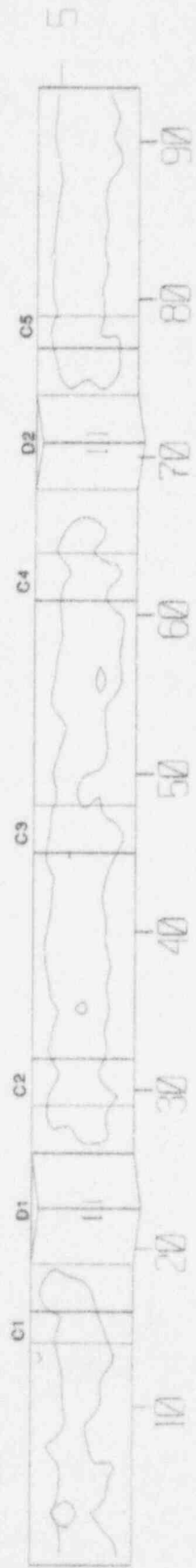


CHEM-RAD
 CHEM-RAD, Inc. Corp. Oak Ridge, TN 37830
 DRAWING NO.
 DESIGNED BY: R. ELDER
 DATE: 8/5/95
 SCALE: 1/4" = 1'-0"
 ELEVATION: 100.00'

DATE	DESCRIPTION	OWN	CHK	APP

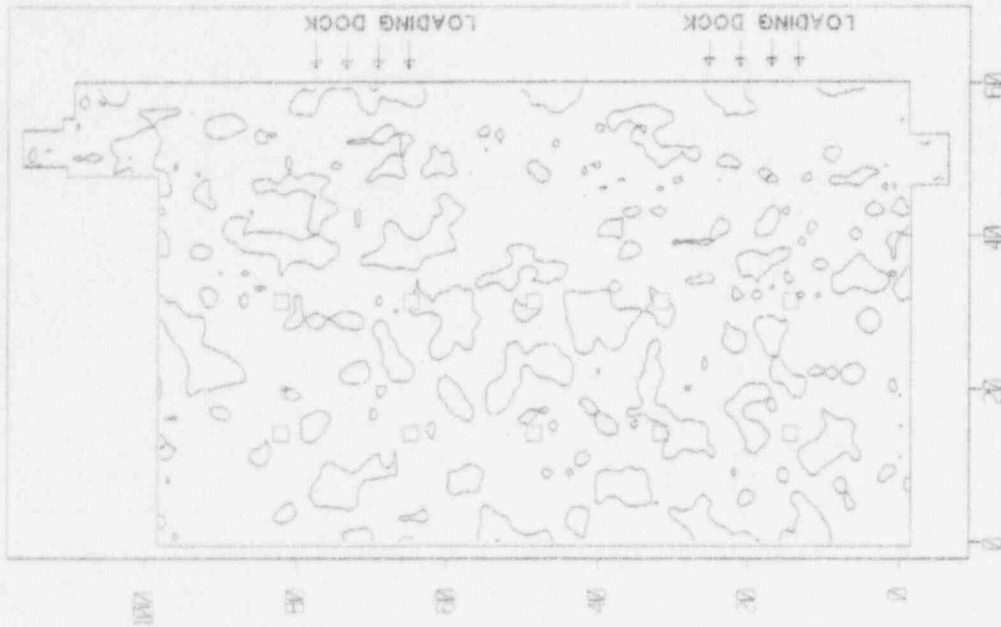
10000 dpm/100cm²
 50000 dpm/100cm²

MCALISTER ARMY AMMUNITION PLANT BUILDING 603 - SOUTH WALL
 USRADS SURVEY RESULTS - NaI PROBE



CHEMRAD	
CHEMRAD, Inc. Corp. Des Moines, IA 50319	
DRAWN BY: R. ELDER	
DATE: 10/15/95	
CHECKED BY: R. ELDER	
DATE: 10/15/95	
FILE NAME: 001010	

McALESTER ARMY AMMUNITION PLANT BUILDING 603 - EAST WALL
 USRADS SURVEY RESULTS - NaI PROBE

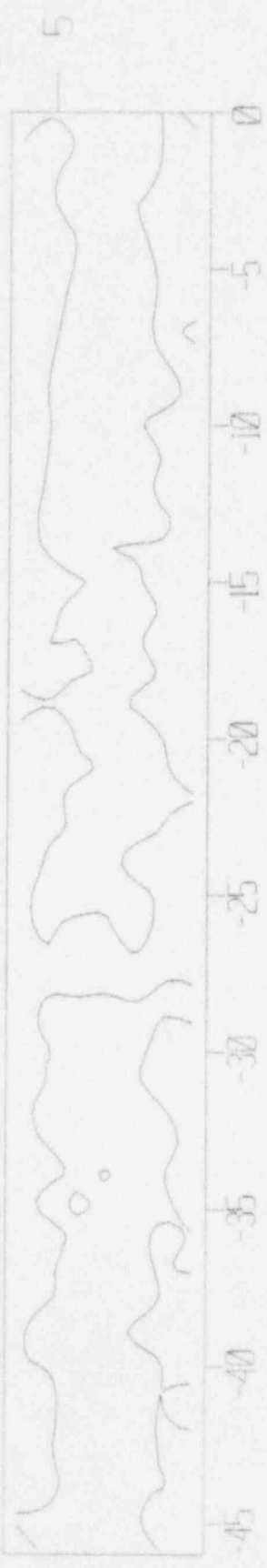


CHEM RAD
CHEM RAD, Inc. Corp. Oak Ridge, TN 37832
DRAWN BY: R. ELDER
DATE: 10/5/95
FLEWEE R0118

REVISIONS	DATE	DESCRIPTION	BY	CHK	APP

10000 dpm/100cm²
5000 dpm/100cm²
□ = COLUMNS

McALESTER ARMY AMMUNITION BUILDING 503 - FLOOR AND LOADING DOCK
USRAIDS SURVEY RESULTS - GM PANCAKE PROBE



CHEMRAD

CHEMRAD Tr. Corp. 200 Bridge St. 37030
 (FBI/DOJ)
 DRAWN BY R. ELDER
 SCALE
 DATE 11/5/95
 FILENAME 603M

DATE	DESCRIPTION	DRN	CHK	APP

10000 dpm/100cm²
 5000 dpm/100cm²

MCLESTER ARMY AMMUNITION PLANT BUILDING 603 - NORTH WALL
 LUSRADS SURVEY RESULTS - NaI PROBE

USRADS v1.46f Track Map

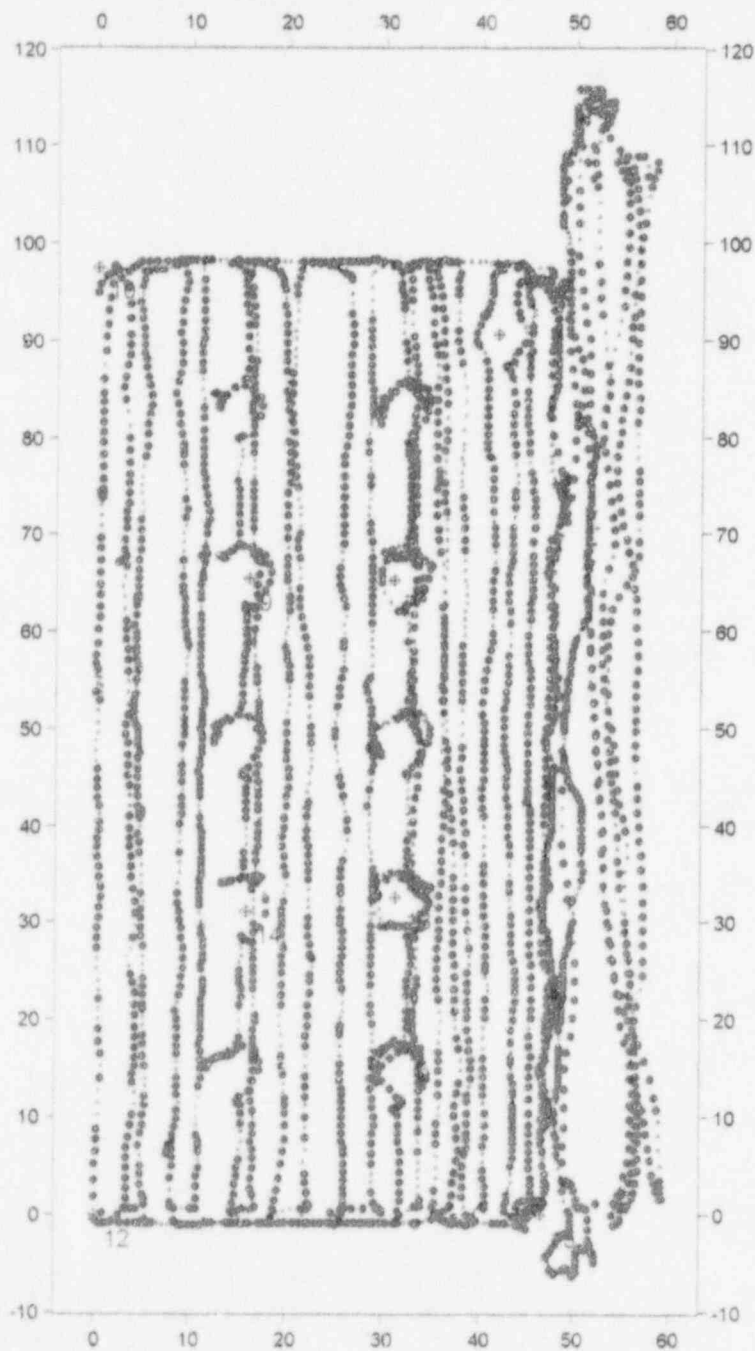
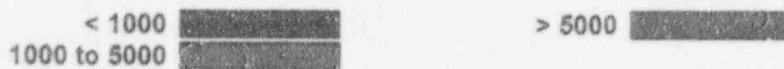
Site: MAC603F ()

Signal: Pancake (dpm)

Time: 10:25:37 08/29/95

Threshold:

> 1000 *



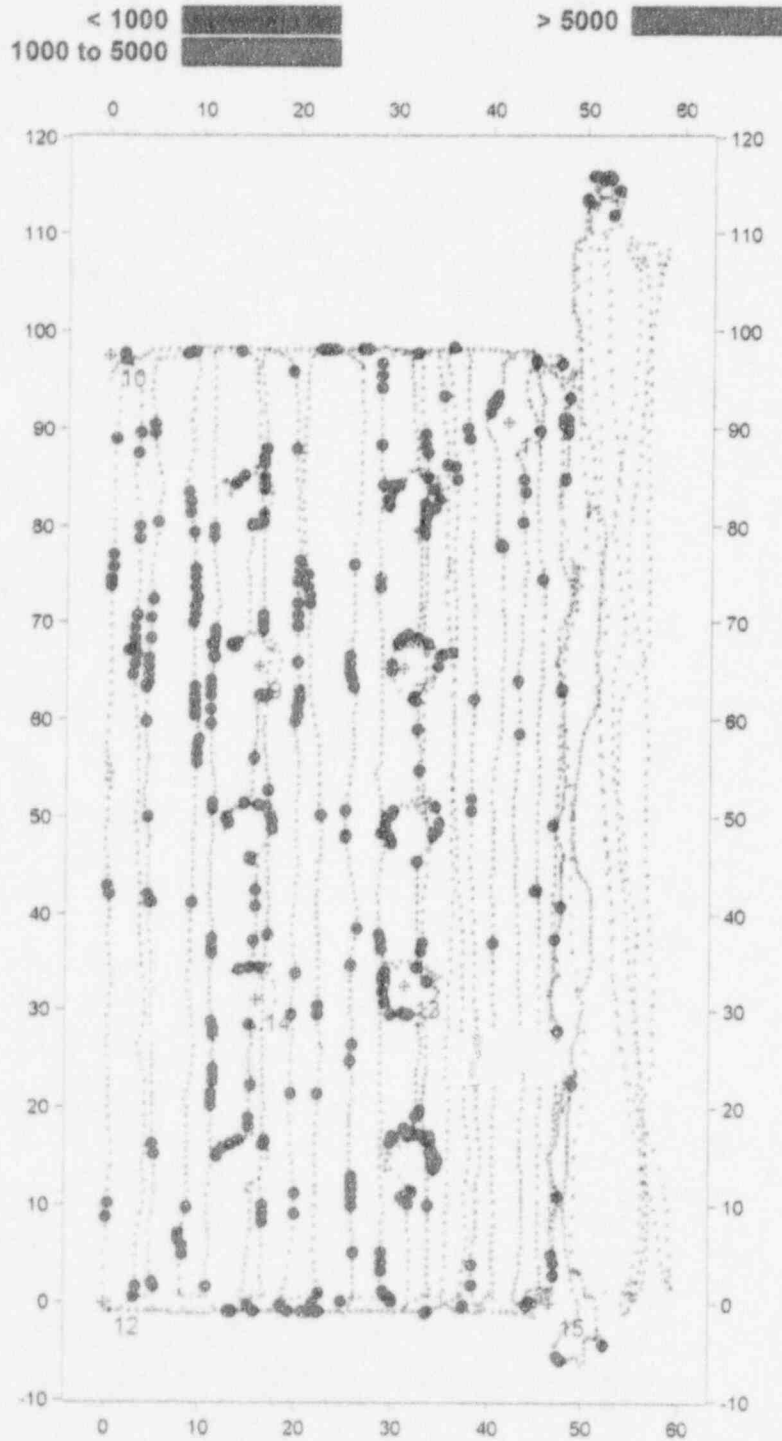
USRADS v1.46f Track Map

Site: MAC603F ()

Signal: NaI (dpm)

Time: 10:25:37 08/29/95

Threshold:
> 1000 •




USRADS v1.46f Track Map

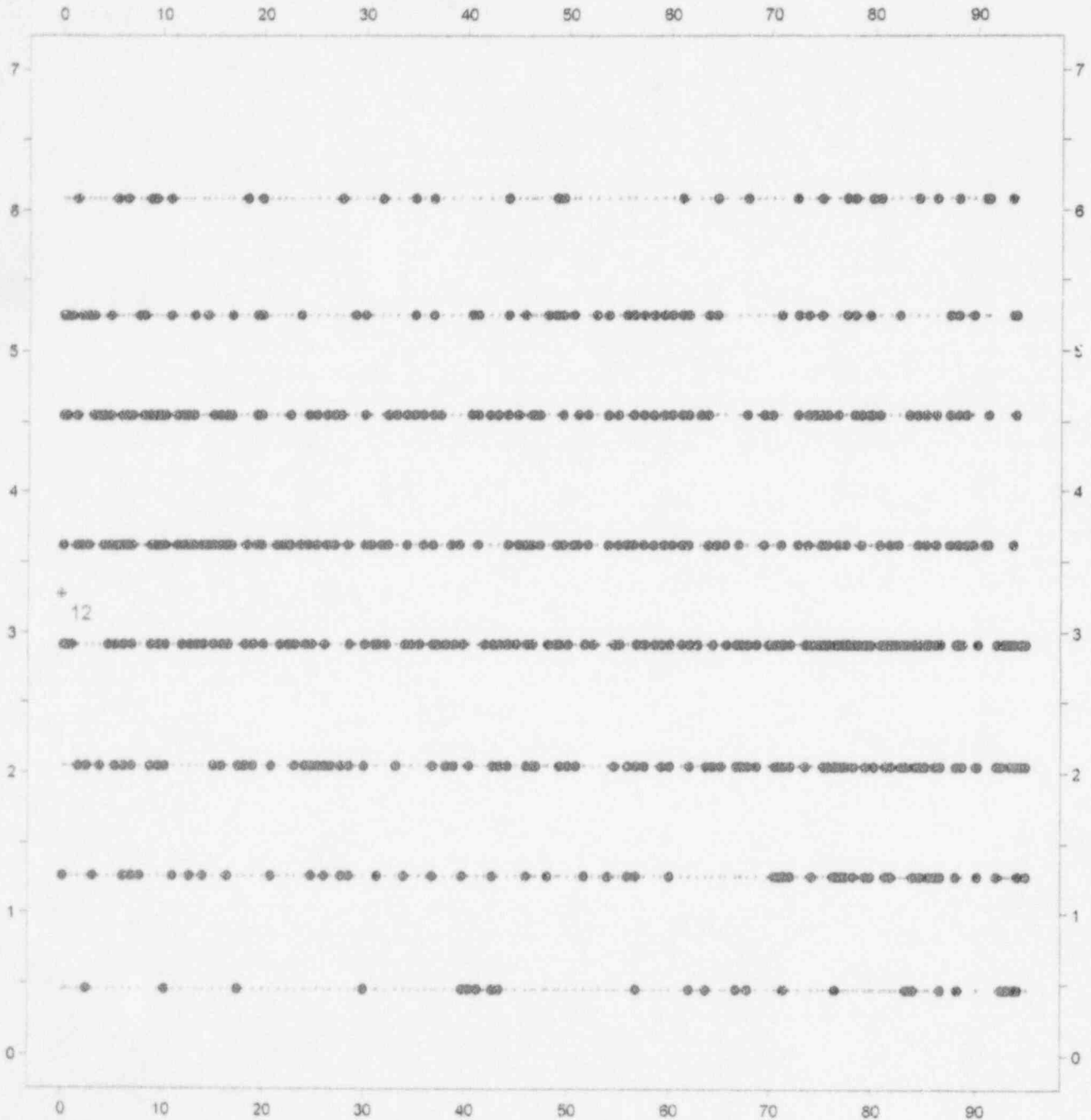
Site: MC603WW (A)

Signal: Nal (dpm)

Time: 08:41:23 08/30/95

Threshold:
> 1000 •

< 1000  > 5000 
1000 to 5000 



USRADS v1.46f Track Map

Site: MC603WW (A)

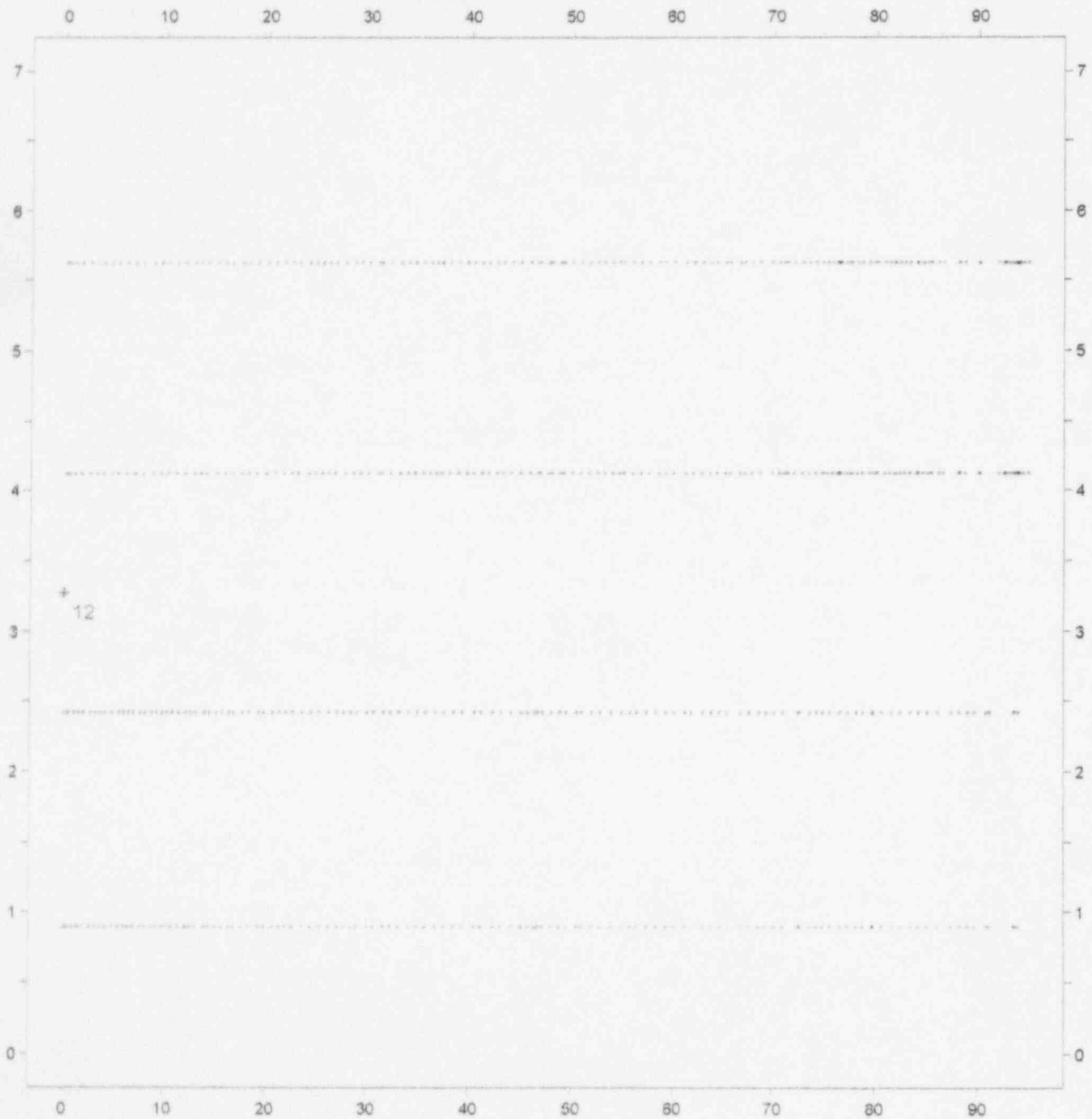
Signal: FM (dpm)

Time: 08:41:23 08/30/95

Threshold:
> 1000 *

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC603NW (A)

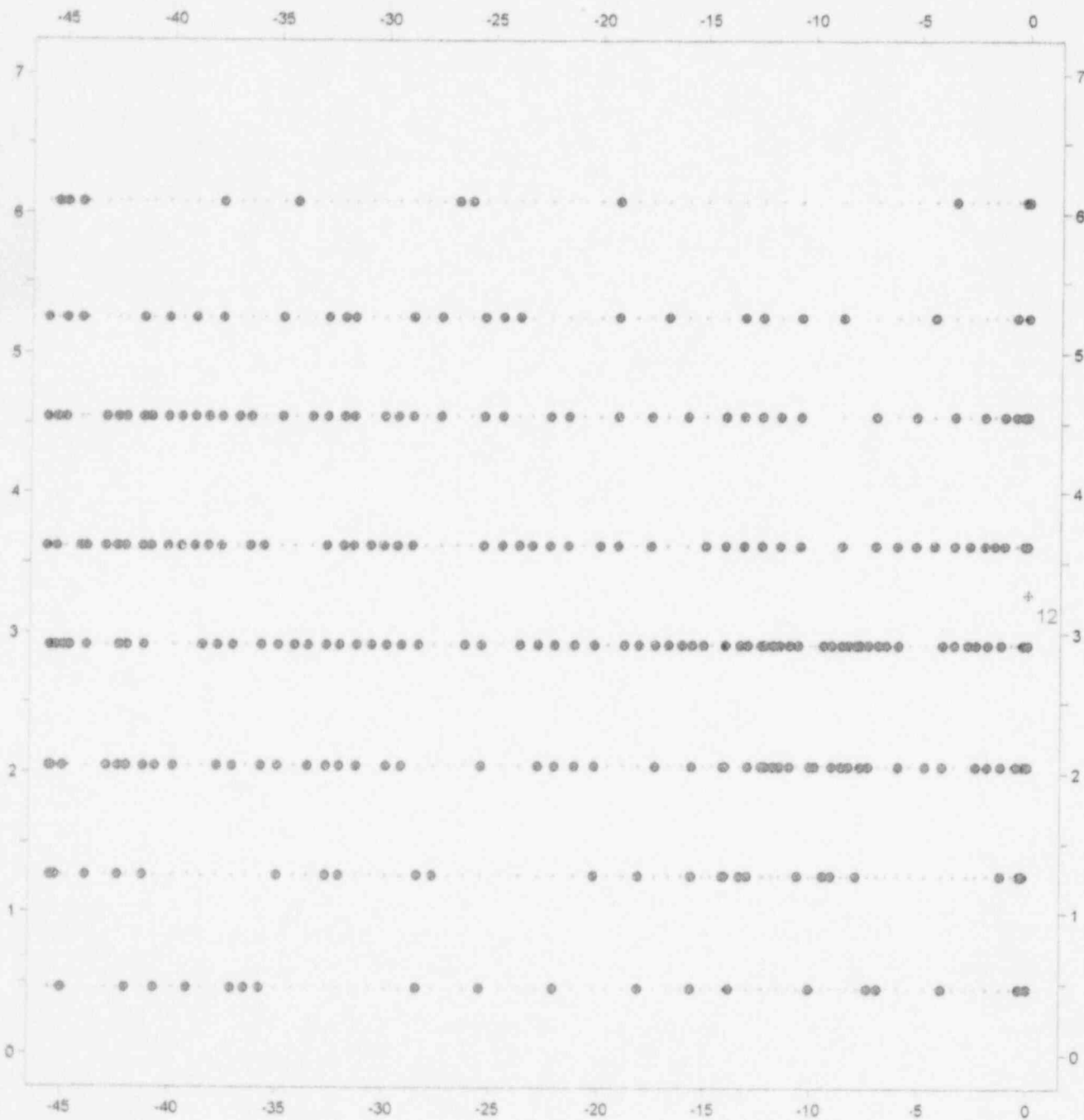
Signal: NaI (dpm)

Time: 08:57:29 08/30/95

Threshold:
> 1000 •

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

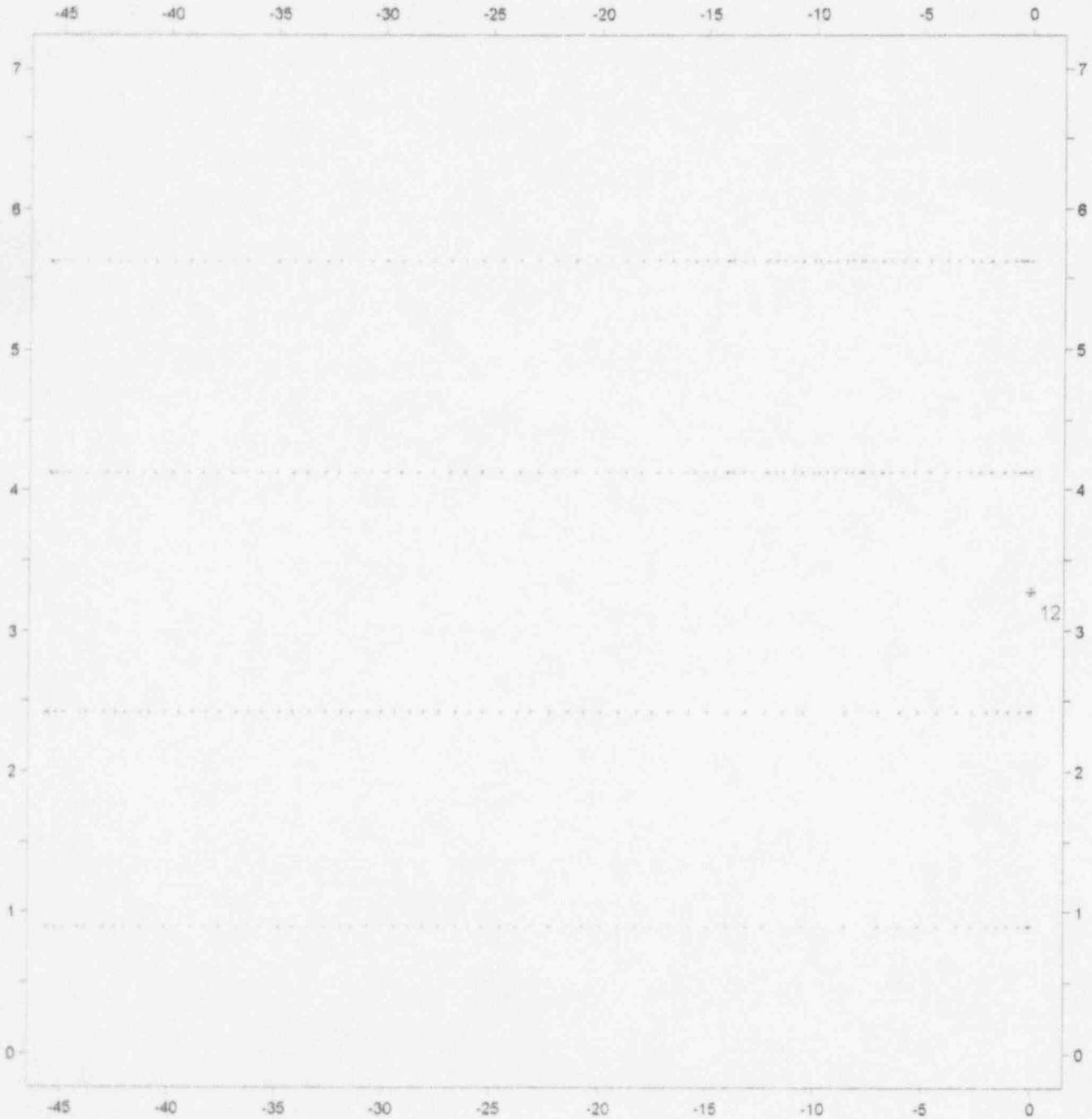
Site: MC603NW (A)

Signal: FM (dpm)

Time: 08:57:29 08/30/95

Threshold:
> 1000 *

< 1000 1000 to 5000 > 5000



USRADS v1.46f Track Map

Site: MC 303EW (A)

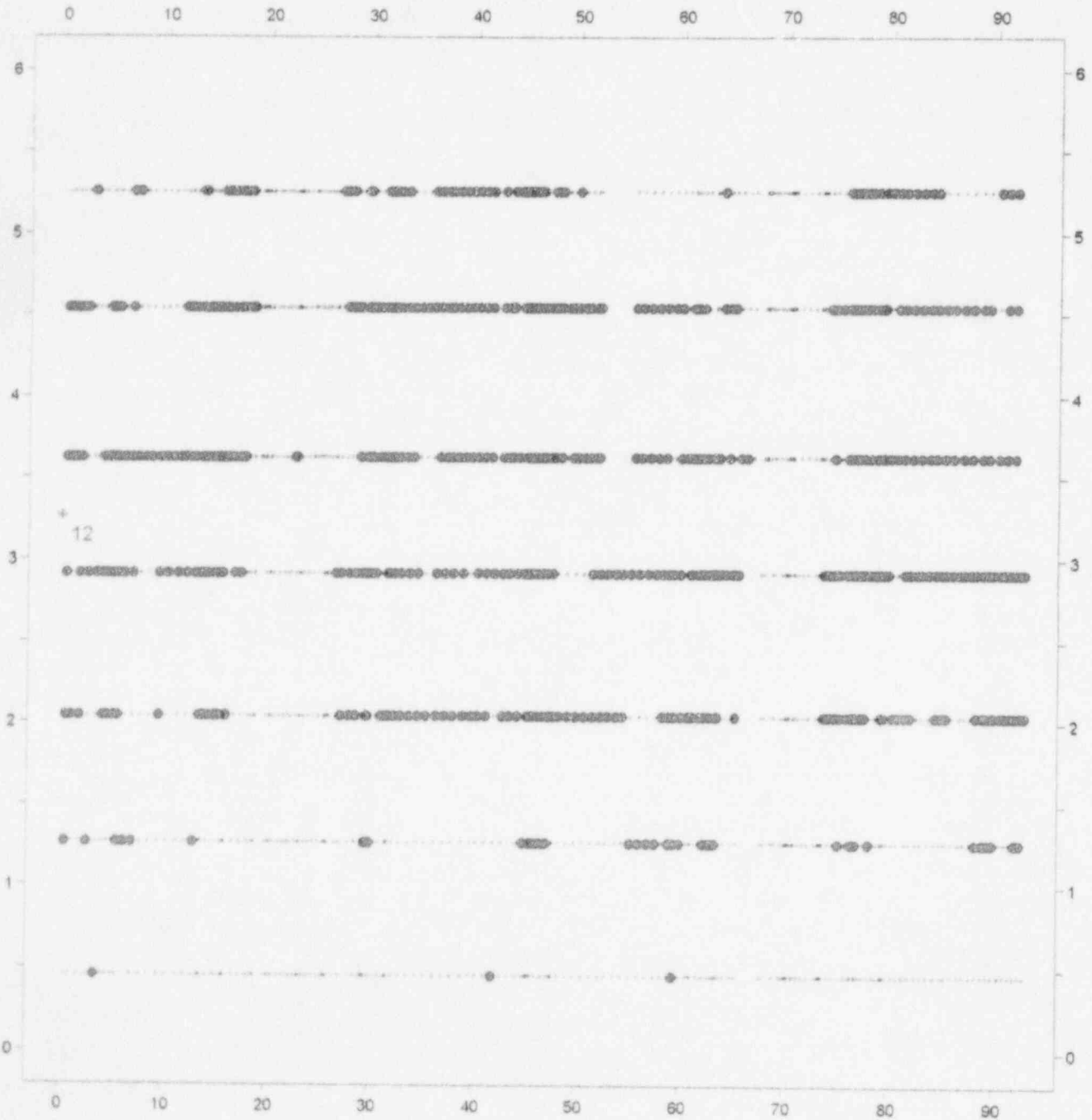
Signal: Nal (dpm)

Time: 09:08:25 08/30/95

Threshold:
> 1000 •

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC603EW (A)

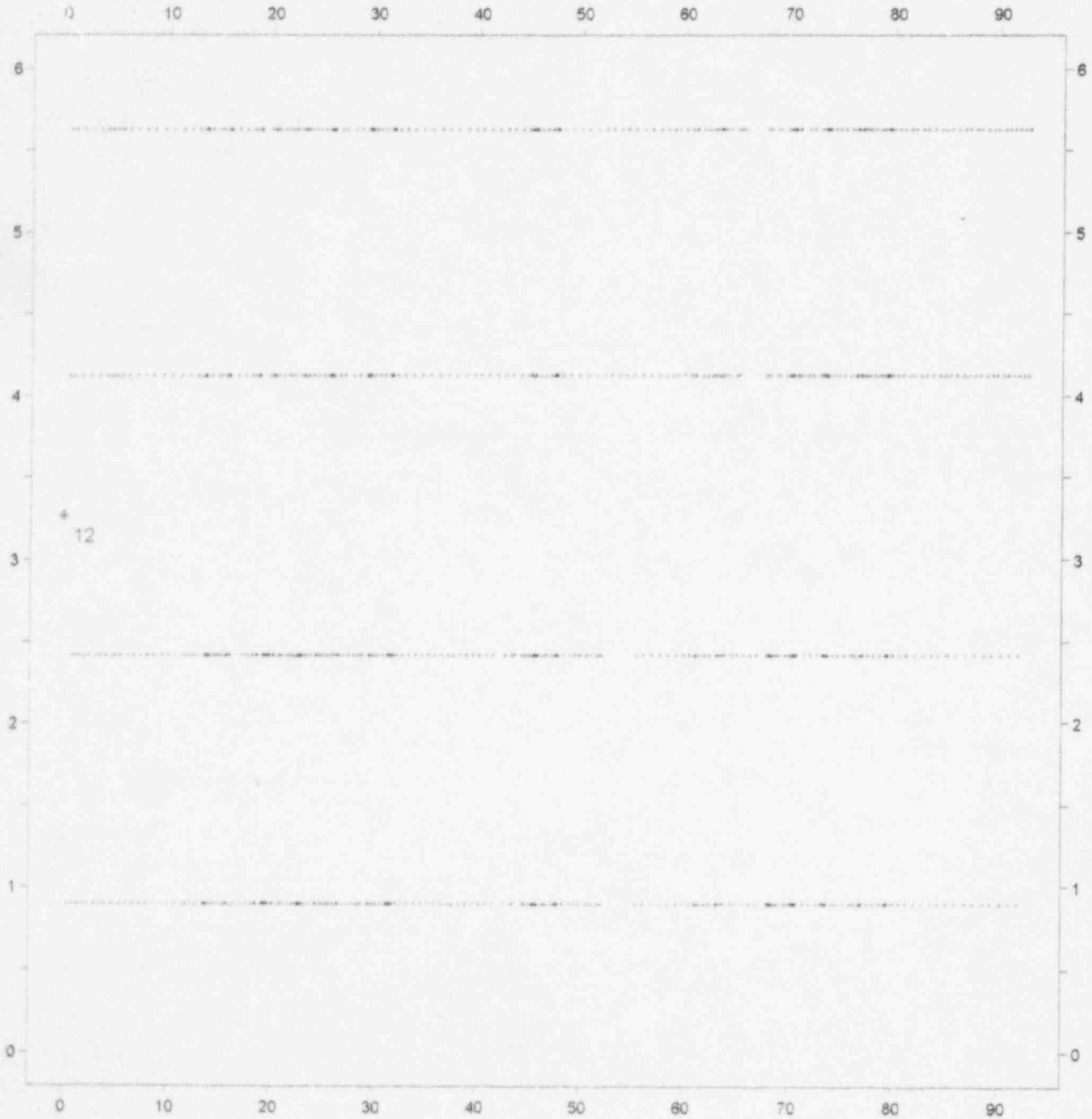
Signal: FM (dpm)

Time: 09:08:25 08/30/95

Threshold:
> 1000 *

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC603EC (A)

Signal: NaI (dpm)

Time: 09:36:02 08/30/95

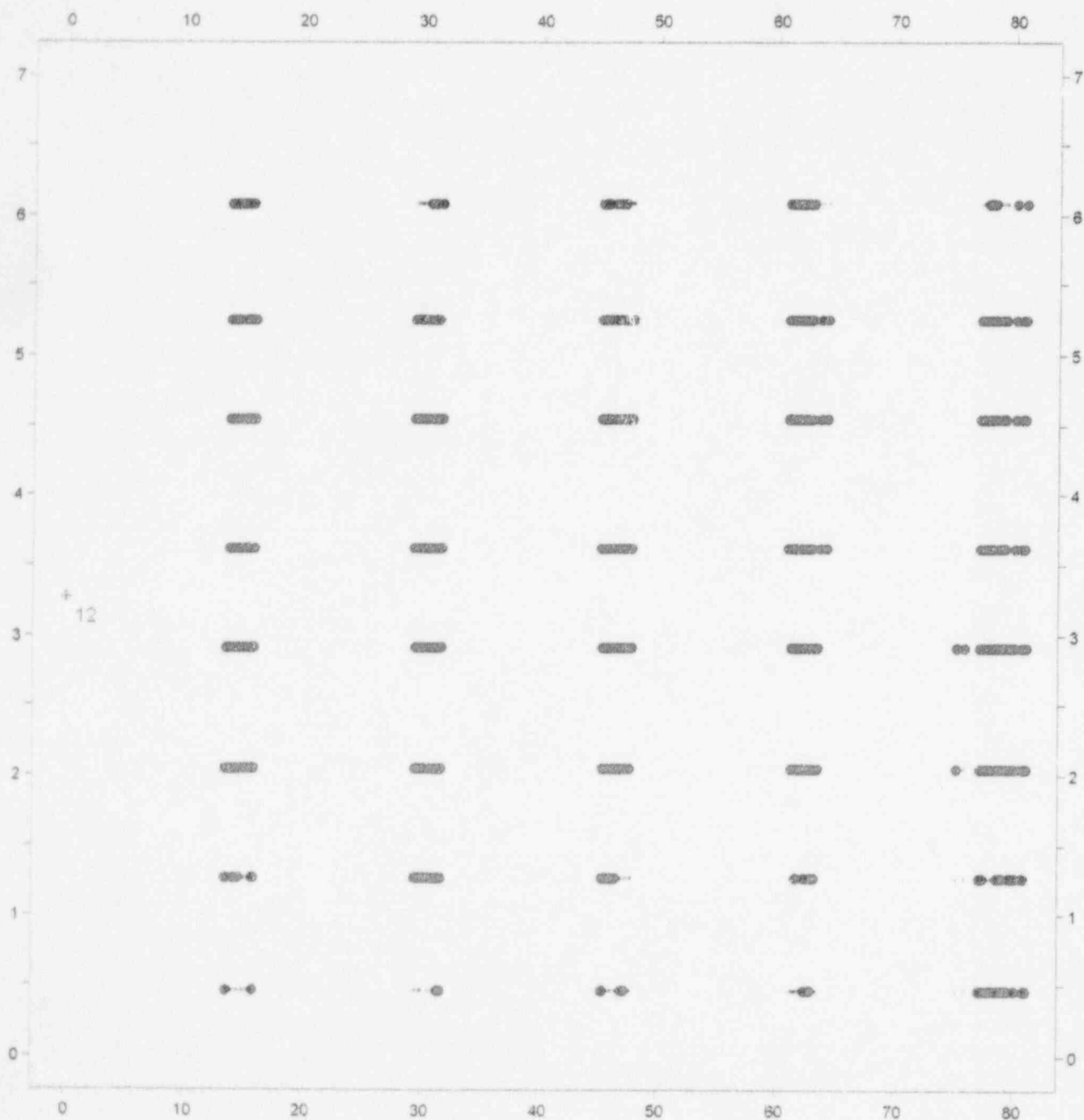
Threshold:

> 1000 •

< 1000

1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC603EC (A)

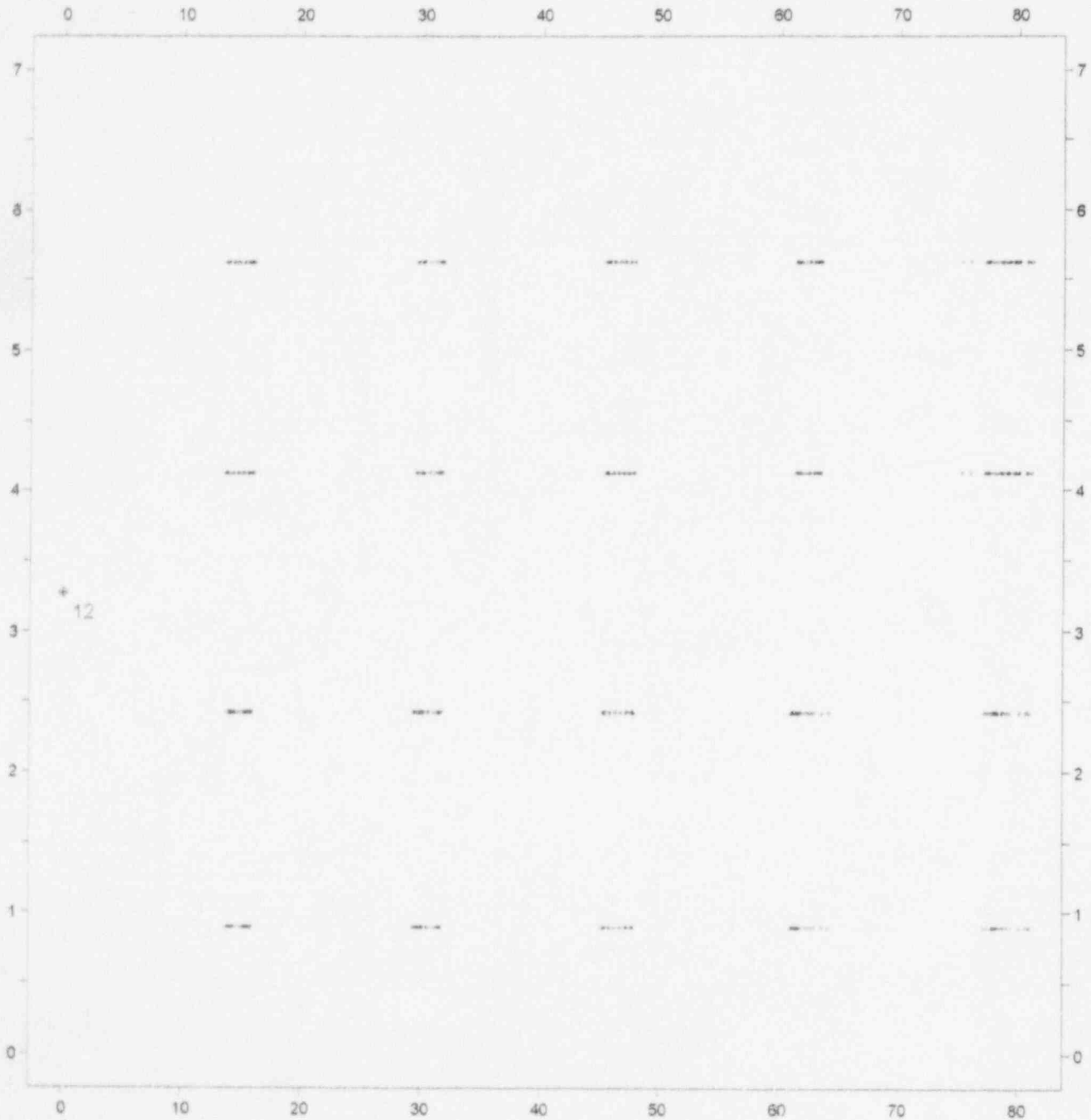
Signal: FM (dpm)

Time: 09:36:02 08/30/95

Threshold:
> 1000 *

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC603WC (B)

Signal: NaI (dpm)

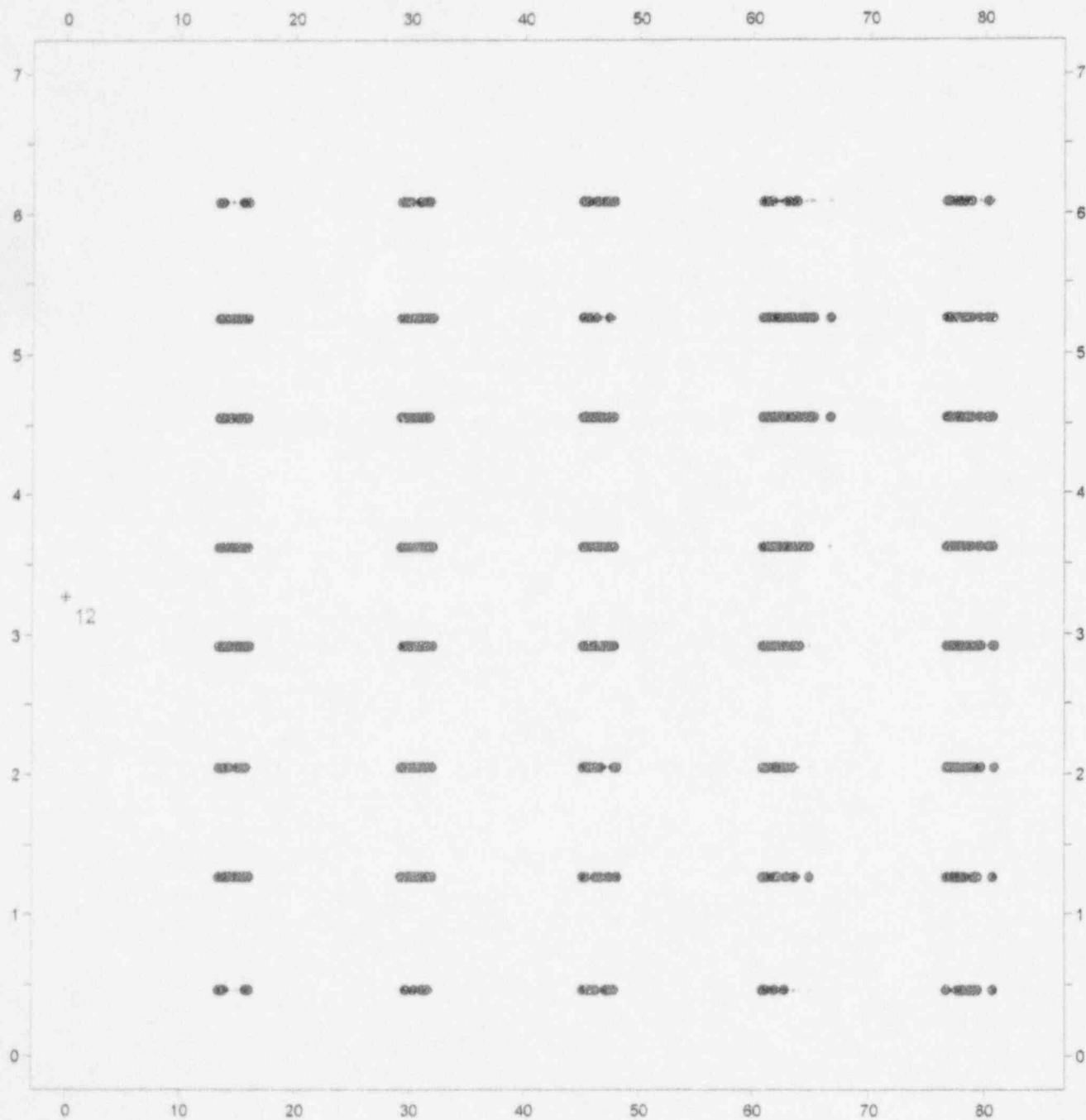
Time: 10:09:54 08/30/95

Threshold:

> 1000 •

< 1000
1000 to 5000

> 5000



USRADS v1.46f Track Map

Site: MC603WC (B)

Signal: FM (dpm)

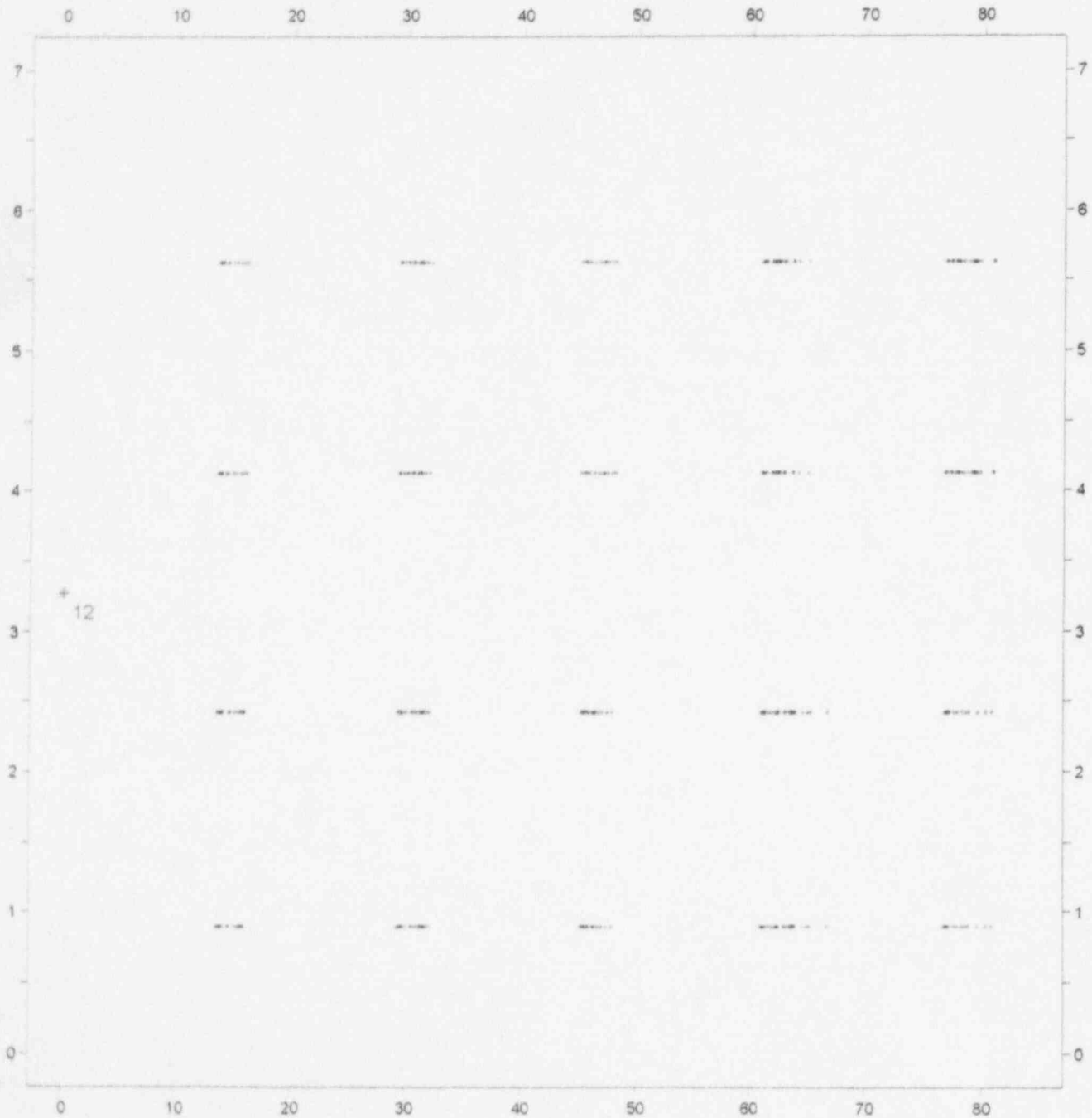
Time: 10:09:54 08/30/95

Threshold:

> 1000 *

< 1000
1000 to 5000

> 5000



1. INTRODUCTION

This report documents the UltraSonic Ranging and Data System (USRADS® System) and Interior Ranging and Data System (INRADS™ System) surveys conducted for the Interior Radiological Survey of Building MAC603F and Building MAC608F located at McAlester Army Ammunition Plant. The area was surveyed using man-carried survey instrumentation for floor surveys, the USRADS System, and the INRADS System for wall and column surveys. This report describes the survey methods and presents the survey findings.

The survey was conducted for Scientific Ecology Group, Inc. (SEG) by Chemrad Tennessee Corporation (Chemrad) under subcontract #TN-92535-H-TW. The field surveys began August 29, 1995 and were completed August 30, 1995.

2. USRADS AND SURVEY INSTRUMENT CONFIGURATION

2.1 Description of the USRADS System

The USRADS System was used to automatically correlate survey instrument data with the geographical location of that data during the surveys. The USRADS survey team consisted of a minimum of two Chemrad personnel. The survey of the floors was conducted by the "surveyor" carrying the radiation instrumentation and electronic data gathering and positioning equipment (the "Data Pack") over the floor survey areas. During the wall surveys, a Chemrad designed cart assembly with mounted radiation instrumentation and positioning equipment, was pushed by a surveyor along each wall. A second person, the "operator", operated a mobile base station consisting of a host microcomputer and a Master Receiver. The data collected by the Data Pack was transmitted to the base station Master Receiver via radio frequency link (RF) each second

The USRADS System incorporates three technologies:

- 1) radio frequency (RF) communications are used for system timing and data transfer,
- 2) ultrasonics are used to determine distance by propagation time of the ultrasonic signal, and
- 3) microcomputers are used to collect data, calculate distances, display data, store data, and reduce data.

The USRADS/INRADS Systems use an ultrasonic signal emitted from the surveyor's Data Pack at one second intervals. At the same instant, an RF transmission is broadcast from the surveyor's Data Pack to the Master Receiver. Since RF transmissions travel at the speed of light and are essentially instantaneous as compared to the speed of sound, the RF transmission is used to mark the start of the ultrasonic signal. In the floor surveys, each Stationary Receiver has an ultrasonic receiver and an RF transmitter. When the Stationary Receiver receives the ultrasonic pulse, it transmits an RF signal. This RF signal is received by the Master Receiver and is used as a stop signal for that particular Stationary Receiver, thus establishing the time-of-flight of the ultrasonic signal from the Data Pack to that Stationary Receiver's location. The microcomputer can then determine the distance between the surveyor and each Stationary Receiver's location. Through this method, the surveyor's exact location is established each second throughout each walkover/wall survey.

One Stationary Receiver is used to determine the location of the INRADS

instrumentation along the wall during the performance of wall surveys. The INRADS system is moved along the wall at a fixed height.

The USRADS software automatically correlates the survey instrument data collected with the correct location of the surveyor. The location and corresponding data values are then plotted on a grid map displayed on the host computer.

The data for that one-second time period is also posted at the top of the computer screen. The plotted position remains on the computer screen while the data collected are replaced each second to conserve screen space for plotting the track of the surveyor. At any time during the survey, the operator may look at the surveyor's track lines to determine if any areas have been missed. The surveyor may return to any areas deemed insufficiently surveyed and obtain the necessary coverage.

When proper survey coverage has been accomplished, the operator runs the data reduction routines on the microcomputer. Several software routines enable the operator to review coverage and identify anomalies or other points of interest.

2.2 Color Track Maps and Contour Plots

2.2.1 Color Track Maps

Track Maps are graphic illustrations of survey coverage produced during the USRADS surveys. The Track Maps correlate the detector signals to the surveyor's location as the survey is occurring using changing colors to designate instrument reading levels. The color Track Maps show the locations of the Stationary Receivers used (a diamond (◇) symbol with the SR number adjacent), while the path taken by the surveyor is shown as a series of small dots. For locations with data exceeding the selected threshold value, the surveyor's position is indicated by larger color-filled circle symbols on the Track Map.

The color Track Maps are generated on the computer display in real-time during the conduct of each survey. The color Track Maps are valuable tools in identifying general trends and providing verification of findings while the survey is in progress. Copies of the color Track Maps are included with this report. Quality controls such as thoroughness of coverage, generally acceptable rates of increase (see below), clustering of color changes, and verification of suspect findings by adjacent tracks are performed visually by the computer operator during the survey.

"Generally acceptable rates of increase" refers to readings that increase as a surveyor approaches a radioactive source and decrease as the surveyor passes the source. These readings are confirmed by a gradual increase/decrease on adjacent tracks. Suspect

readings frequently are indicated by localized increases in magnitude without a gradual increase/decrease or confirmation on adjacent passes.

The survey data are replayed at the conclusion of the survey to verify data integrity.

Color Track Map nomenclature is as follows:

<u>Survey</u>	<u>Map Title</u>	<u>Meaning</u>
Gamma (NaI)	dpm/100 cm ²	Disintegrations per minute/100 cm ²
Beta/Gamma (Pancake)	dpm/100 cm ²	Disintegrations per minute/100 cm ²
Beta/Gamma (Floor Monitor)	dpm/100 cm ²	Disintegrations per minute/100 cm ²

Track Maps are provided for floor surveys and wall surveys. Statistical data only are provided for the columns surveyed.

2.2.2 Threshold Level

The threshold cutoff was used to set the level at which the location symbol on the Track Map changed from a small dot to a large color-filled circle. Thus, the level threshold was useful in identifying locations with elevated measurements. For purposes of this survey, all thresholds were set at the 1000 dpm/100 cm² level.

2.2.3 Color Codes

Color codes are set to increasing measurement values indicated by Black, Green, and Red on color Track Maps. The levels associated with these colors are documented on each plot.

The following color levels were used to generate Color Track Maps for the McAlester floor, wall, and column surveys:

NaI (dpm/100 cm ²)	Color	Pancake (dpm/100 cm ²)	Color
< 1000	black	< 1000	black
1000 - 5000	green	1000 - 5000	green
> 5000	red	> 5000	red

2.4 Radiological Instrumentation Used In the McAlester Survey

2.4.1 Man-Carried Survey Instrumentation

The walkover radiological characterization of the McAlester floor sites were conducted with two instruments:

- 1) A Model 44-2 1" X 1" sodium iodide detector probe (NaI scintillation crystal) was coupled to a Ludlum Model 3 count rate meter for near-surface gamma detection data. The probe was suspended from a rigid arm in close proximity to the surface. The arm permitted the detector to swing in a path approximately 1.5 meters wide while the surveyor transected the survey area. The rate meter was interfaced to the Data Pack and data accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.
- 2) A Ludlum Model 44-9 open window G-M pancake detector was mounted adjacent to the Model 44-2 sodium iodide probe (see Item 1 above), and was coupled to a Ludlum Model 3 count ratemeter for near surface beta/gamma detection. The ratemeter was interfaced to the Data Pack, and data accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.

2.4.2 Cart-Mounted INRADS Wall Survey Instrumentation

The radiological characterization of the McAlester wall sites were conducted with six instruments:

- 1) Four Model 44-2 1" X 1" sodium iodide detector probes (NaI scintillation crystal) were coupled to Ludlum Model 3 count rate meters for near-surface gamma detection data. The probes were extended from a cart assembly mounted in close proximity to the wall surface. The probes surveyed a vertical surface of approximately six feet. The rate meters were interfaced to the Data Pack and data accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.
- 2) Two Ludlum Model 12 ratemeters with Model 43-37 Gas Flow Proportional Floor Monitors for near-surface beta detection. The probes were extended from the cart assembly mounted in close proximity to the wall surface. The probes surveyed a vertical surface of approximately six feet. The rate meters were interfaced to the Data Pack and data

2.2.4 Quality Point Determination

A quality point was established for each survey grid. Before and after the survey of each grid, a 60-second count at an established quality point was conducted. The quality point was selected at a location near one of the base leg Stationary Receivers. The location was noted on the Track Maps.

2.3 Contour Maps

Contour Maps are included for the sites surveyed at the McAlester facility. These provide a graphic illustration of the contours of radiation levels detected. The color contours used for contour maps, in increasing order, are Black, Green, and Red.

Contouring parameters for the McAlester floor and wall surveys are as follows:

NaI Surface (dpm/100 cm²)	Color	Pancake Probe (dpm/100 cm²)	Color
1000	green	1000	green
5000	red	5000	red

For purposes of this report, Contour Maps are provided for floor surveys and wall surveys. Statistical data only is provided for the columns surveyed.

accumulated for a one second interval was transmitted at the same instant as the ultrasonic signal.

2.4.3 Instrument Calibration and Response Checks

The radiation instrumentation was calibrated by the manufacturer or a qualified vendor before initiating the surveys. Calibrations were coordinated by Chemrad and records are retained at Chemrad's Oak Ridge office. Each radiation survey instrument received a daily response check before use in the field. This daily response check included battery checks and a source check. All daily response checks were performed at the staging site using a Cs-137 or a Tc-99 source. Instruments not within $\pm 20\%$ were removed from service.

2.4.4 Background Readings

Chemrad performed background readings during the McAlester survey for reference purposes. The 60-second background readings were taken at a designated 'clean' area on August 30, 1995. Background statistics are found in Appendix C.

2.4.5 Instrument Response Characteristics

Table 1, Beta Instrument Response Characteristics, gives the detector limits and response characteristics for the beta sensitive detectors used in the McAlester project.

Table 1
Beta Instrument Response Characteristics

Tc-99	Active Area cm ²	Window Thickness mg/cm ²	Background cpm	Detector Efficiency Tc-99 cnts/dts	Counting Time min	MDA Static dpm/ 100 cm ² (4)	Scan Rate cm/sec	Avg. Probe Dimension In Scan Direction cm	Beta Scanning Sensitivity dpm/ 100cm ² (1) (5)
Ludlum 44-9 GM Pancake	15.5	1.7	53	0.1	1	2432	100	4	13758 (3)

Table 2, Alpha Instrument Response Characteristics, gives the response characteristics and gamma scanning sensitivity for the alpha sensitive detectors used on the project.

Table 2
Alpha Instrument Response Characteristics

Tb-230	Active Area cm ²	Window Thickness mg/cm ²	Backg'd cpm	Detector Efficiency Tb-230 cts/dis	Counting Time min	MDA Static dpm/ 100 cm ² (4)	Scan Rate cm/sec	Avg. Probe Dimension In Scan Direction	Alpha Scanning Sensitivity dpm/ 100cm ² (1) (6)
Ludlum 43-37 Proportional Floor Monitor	425	0.8	65	0.10	0.2	94	25	15.2	452

Table 3, Gamma Instrument Response Characteristics, gives the response characteristics and gamma scanning sensitivity for the gamma sensitive detectors used on the project.

Table 3
Gamma Instrument Response Characteristics

Detector	Backg'ound	Gamma Scanning Sensitivity (7)
Ludlum 44-2 NaI	1800	175,000 cpm/mR/h by calibration

Notes to Tables 1 through 3 as referenced in each table:

- (1) Assumes a 10 cm x 10 cm source size.
- (2) The detector windows were not covered with any additional protection for field work.
- (3) USRADS scanning surveys have identified numerous elevated readings that correlate to static readings less than 5000 dpm/100 cm², indicating that this calculation is overly conservative.
- (4) Reference: NUREG/CR-5849, equation 5-2, p.5.7, and DOE, Draft Environmental Implementation Guide for Radiological Survey Procedures, p. 5.12, equation 5-7, for approximating MDA with an integrated measurement over a preset time:

$$MDA = \frac{2.71 + 4.65 \sqrt{(B \cdot t)}}{t \cdot E \cdot A/100}$$

where MDA = activity level in disintegrations/minute/100 cm² at 95% confidence level.

B	= background in counts per minute
t	= counting time in minutes
E	= detector efficiency in counts per minute
A	= active probe area in cm ²

(5) Reference: DOE, Draft Environmental Implementation Guide for Radiological Survey Procedures, p. 5.12 equation 5-7 for use in approximating the Detection Limit:

$$\text{Scanning Detection Limit} = \frac{2.32 \cdot \sqrt{(B \cdot t)}}{t \cdot E \cdot A/100}$$

where Detection Limit = activity level in disintegrations/minute/100 cm² at 95% confidence level.

B*t	≥ 1
-----	-----

(6) Reference: NUREG/CR-5849, pp. 5-8, 5-9 for use in approximating the MDA for general scanning practices:

$$MDA = \frac{3 \cdot B}{E \cdot A/100}$$

(7) Reference: DOE, Draft Environmental Implementation Guide for Radiological Survey Procedures, p. 5.14, Table 5-8.

3. QUALITY CONTROL

3.1 General Considerations and Quality Objectives

Data quality objectives for the McAlester project were established to meet particular contractor requirements in addition to Chemrad's requirements. Quality Control measures were implemented throughout the Chemrad survey process to prevent the introduction of unreliable data. Some particular organizational objectives of the Chemrad QA/QC program were designed to:

- 1) identify problems that effect quality of the Chemrad survey results;
- 2) prepare a systematic process to provide solutions for any problems relating to quality issues;
- 3) ensure implementation of solutions, with monitoring of problem resolution until corrected.

Some specific Quality Control measures that were taken throughout the Macalester survey included:

- 1) quality and redundancy measurements on each grid surveyed to ensure the ability to reproduce data. If the measurements were not within Chemrad's allowable margin of error, a determination of the cause of the difference was made.
- 2) realtime, ongoing monitoring of the survey and the individual data channels by the computer operator to note as soon as possible any discrepancies in the data;
- 3) cross check routines of Stationary Receiver locations to confirm accuracy of the surveyor's coordinates;
- 4) daily checks of radiological and geophysical instruments to verify accuracy of data readings;
- 5) analysis of the survey data to determine any failure of the Chemrad survey routine;
- 6) review and analysis of the data by Chemrad's data processing staff.

3.1.1 Precision

According to Environmental Protection Agency guidelines, precision is defined as the measure of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Precision is best described in terms of standard deviation. Various measures of precision exist depending upon the "prescribed similar circumstances."

Quality and Redundancy (Q & R) measurements were taken by the USRADS equipment on each survey grid to insure the precision of the data. For Q & R readings, a location was selected to collect initial integrated counts for all instruments prior to the conduct of the survey. Upon conclusion of the survey, this position was required and another integrated count was made to provide a redundant check on each of the instruments and the data compared. If the measurements were not within acceptable limits, the cause of the discrepancy was determined. Corrective actions, if necessary, were taken to assure that precision was maintained throughout the conduct of the USRADS surveys. If readings varied by more than $\pm 20\%$ from the Quality and Redundancy mean readings, Chemrad first determined which instrument or instruments were not within the acceptable range. If it was determined that a pancake or NaI detector had malfunctioned, the instrument was repaired or replaced and the grid site was resurveyed.

The USRADS operator observed the incoming data stream along with the graphic display of the Track Map data during the conduct of the surveys. In this manner, data taken sequentially and on adjacent paths were readily compared to assure the mutual agreement among the individual measurements along a path, on adjacent paths, and in regions where clustering may be indicative of findings of interest.

Chemrad utilized daily response checks for its radiological instrumentation at the beginning of each survey day (see section 3.2 Instrument Calibration, Background and Response Checks) to ensure precision. If any instrument deviated more than $\pm 20\%$, the survey meter was removed from service until the problem was corrected.

3.1.2 Accuracy

According to Environmental Protection Agency guidelines, accuracy is defined as the degree of agreement between the observed measurement value and the true value.

Instrument accuracy was verified by submitting the instruments to calibration prior to the initiation of the work and resubmitting on a frequency not to exceed six months. Chemrad radiological instruments were calibrated to known radiation sources that were calibrated to an NIST (National Institute for Standards and Testing) referenced source.

Positional accuracy was assured by use of the initial USRADS System setup procedures

that automatically calibrate the system for the speed of sound, consistent with the current meteorological conditions at the site.

Quality controls such as thoroughness of coverage, generally acceptable rates of increase (see below), clustering of color changes, and verification of suspect findings by adjacent tracks are performed visually by the computer operator during the conduct of the survey.

"Generally acceptable rates of increase" refers to readings that increase as a surveyor approaches a radioactive source and decrease as the surveyor passes the source of elevation. These readings are confirmed by a gradual increase/decrease on adjacent tracks. Suspect readings frequently are indicated by localized increases in magnitude without a gradual increase/decrease or confirmation on adjacent passes

3.1.3 Completeness

According to Environmental Protection Agency guidelines, completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under correct normal conditions.

Chemrad attempted to meet or exceed all standards of completeness for its data collection. Data readings were recorded each second during the survey to provide a very complete characterization of the areas surveyed.

Chemrad determined completeness of data by requiring a prescribed survey methodology as determined in the Statement of Work, Chemrad's own internal requirements, and frequent meetings with the prime contractor. Data were monitored in the field and as processed. Some specific actions taken by Chemrad included:

- 1) Analysis of each grid site prior to each survey by a trained Chemrad Field Team Supervisor to determine necessary and applicable survey procedures to ensure complete and thorough surveys of each site;
- 2) Review of the survey tracks by the survey operator as they were generated during the survey;
- 3) Comparison of the survey Track Maps with Autocad maps of the survey area.

3.1.4 Representativeness

According to Environmental Protection Agency guidelines, representativeness expresses

the degree to which data represent the medium/environment where samples/measurements were obtained. Chemrad's methodology ensures representativeness by taking readings every second during the survey. When the color Track Maps are assembled, adjacent tracks produce readings to confirm the representativeness of the survey information.

3.1.5 Comparability

According to Environmental Protection Agency guidelines, comparability expresses the confidence with which one data set may be compared to another. Some methods Chemrad uses to provide comparability are:

- 1) survey methodology was consistent throughout the McAlester survey;
- 2) data reduction software routines were consistent throughout the survey.

4. USRADS SURVEY AND PRESENTATION PROTOCOLS

4.1 Radiation Survey Methodology

The two walkover radiological surveys were conducted as a single walkover of each survey grid. The grid was traversed at approximately 2 feet per second on parallel transects spaced approximately 3 feet center to center.

Floor surveys were typically conducted in the following manner:

- 1) Chemrad survey teams arrived on site;
- 2) Chemrad Field Survey Supervisor analyzed the site for the best deployment of survey equipment;
- 3) Stationary Receivers were deployed in standard Chemrad manner with adaptation for obstacles that were site specific;
- 4) Stationary Receiver coordinates on fixed reference points (corners) were entered into the host computer;
- 5) Site setup was then performed to determine the location of Stationary Receivers with 30 second counts at each stationary receiver;
- 6) The radiation instruments were mounted on the surveyor;
- 7) A 60 second count at a known point (at one of the Stationary Receivers) was taken to record the 'quality check' data;
- 8) When the 'quality check' was completed, the surveyor moved to a starting point to begin the survey;
- 9) When the survey was completed, the surveyor returned to the 'quality check' point to perform a 60 second redundancy check;
- 10) The survey data were then analyzed to determine the quality and completeness of the data, and determine whether bias points should be established;
- 11) The data were copied to diskette for processing at the Chemrad offices;
- 12) Equipment 'teardown' was performed;

- 13) The Chemrad survey crew then departed to the next survey site.

INRADS wall surveys were performed in a similar manner with only one SR being placed at a prescribed height in one corner of each wall surveyed. A speed of sound was next determined for positioning purposes. When each survey was completed, the surveyors moved the INRADS cart assembly down each wall. When completed, the data were analyzed and copied to diskette.

4.2 Explanation of Data

The USRADS/INRADS radiation surveys were conducted on a survey grid basis. Grid and survey designations attempted to identify the specific site, i.e. MAC608ww (a) designated the 'west wall' of Building 608F. Survey nomenclature normally followed for radiation traverses were usually identified as "A, C or D" on survey files.

The above is consistent with the data plots and files previously submitted. This naming convention is also used in the color Track Maps included in this report.

Consolidated Track Maps and survey contour plots are provided as appendices at the end of this report.

4.3 Problems Encountered During the Survey

USRADS surveys may be impacted by environmental, site, and equipment problems. At the McAlester facility, an electrical circuit caused a small delay on the first day of the survey. The problem was discovered and corrected. No loss of data occurred. During standard background checks, Chemrad noticed that one of the NaI detectors used in the wall survey was reading well below the other NaI detectors. It was removed from service and replaced with another detector with acceptable readings. No other problems were noted during the survey.

5. REPORT ORGANIZATION

Data for the radiological surveys are presented in the following sections:

5.1 Site Summaries

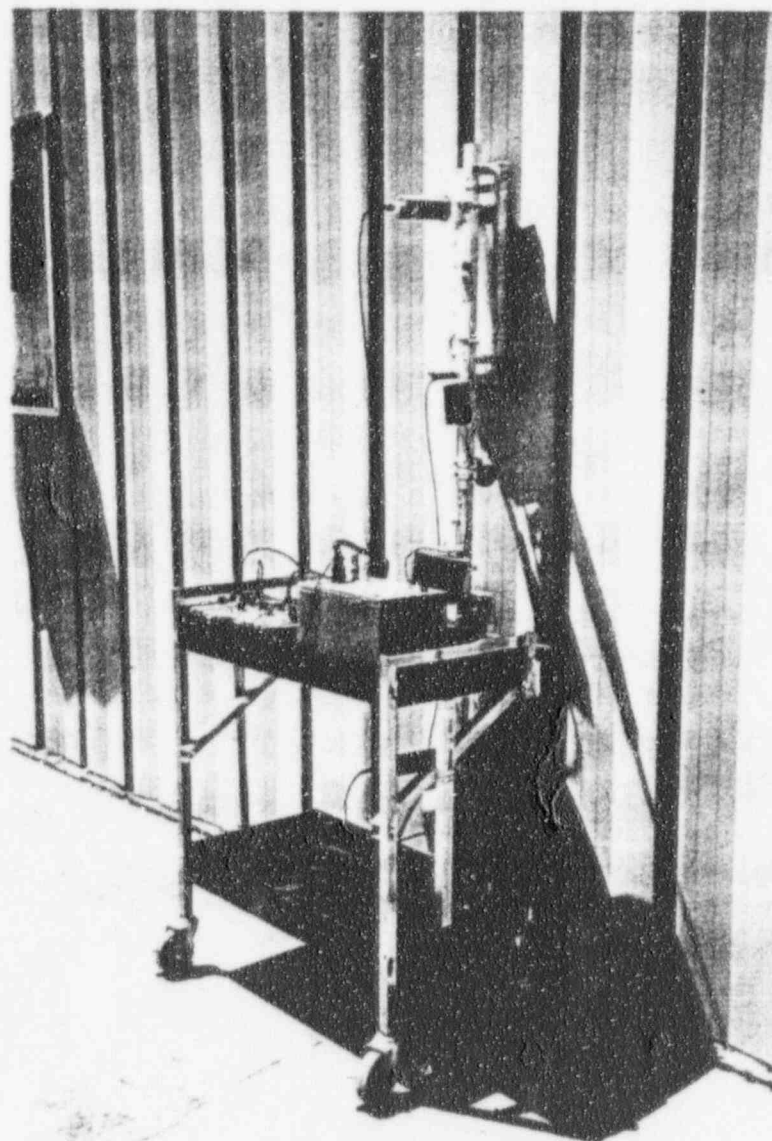
The McAlester survey areas are divided into 2 Site Summaries. Each Site Summary represents a separate site area with color contour maps and track maps provided for each data channel and a narrative of findings and field observations for that site. A statistical analysis of each survey site is provided in each site summary narrative. The Site Summaries and color contour maps are presented in Appendices A-1 through A-2.

5.2 Calibration Sheets

Calibration sheets for all of the Radiological Instrumentation used for this survey are provided in Appendix B.

5.3 Background Statistics

Background statistics for the McAlester survey are reported in Appendix C.



The INRADS System

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Radium Compass Initial Survey

INST. TYPE MOD-3 SER# 111661 CAL DUE 7-24-95

INST. TYPE MOD-3 SER# 67108 CAL DUE 7-24-96

INST. TYPE 1 SER# 1 CAL DUE 1

SURVEY DATE 7-7-95 TIME 0800

RMP#(S)

SURVEY BY M. Kealey / N. Sawyer REMARKS Sealed box and Tagged as RAD MAT.

REVIEW BY Na/S-1 Mill/GS DATE 7-7-95

Inside Box - up to 200K dpm/100cm² BY smearable

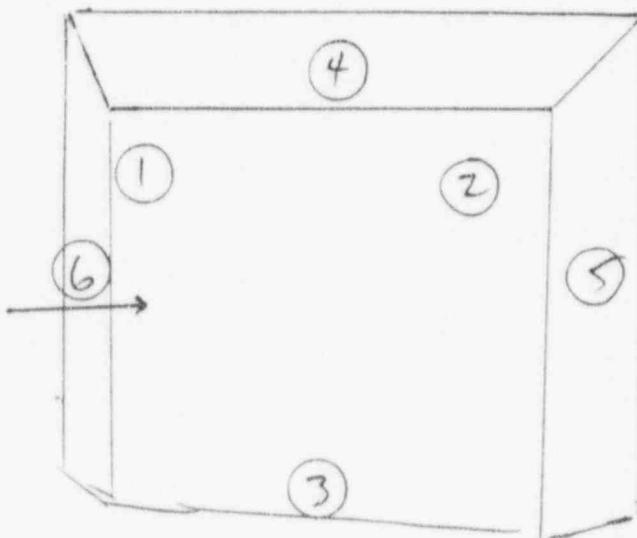
Up to 400K dpm/probe area fixed

Box not directly frisked for alpha due to size of box
no alpha detected smearable

SMEAR RESULTS

	(B, γ)	(α)
1)	< 1000	< 20
2)	< 1000	< 20
3)	< 1000	< 20
4)	< 1000	< 20
5)	< 1000	< 20
6)	< 1000	< 20
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		

o/s Box



MAP LEGEND

⊙	- SMEAR LOCATION
NO.	- GAMMA DOSE RATE
NC.	- CONTACT GAMMA
MBAD/NA	- BETA DOSE RATE
MBAD/NA	- CONTACT BETA
⊗	- AIR SAMPLE LOCATION
ALL DOSE RATES ARE BY PHOR	
UNLESS OTHERWISE NOTED	

SEG

SURVEY# 95-07-0007

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530PURPOSE Unconditional Release of tanksINST. TYPE model 344g SER# 111661 CAL DUE 7-24-95INST. TYPE model 3495 SER# 67109 CAL DUE 7-24-96INST. TYPE model 19 SER# 58126 CAL DUE 11-12-95SURVEY DATE 7-7-95 TIME 0900

RWP#(S) _____

SURVEY BY D. Sawyer / M. K. Kester

REMARKS _____

REVIEW BY D. Sawyer / M. K. Kester DATE 7-7-95

SMEAR RESULTS

dpm/100cm²

(B, γ) (α)

1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		

All smear results are $< 1000 \text{ dpm}/100\text{cm}^2 \text{ B}$
 $< 20 \text{ dpm}/100\text{cm}^2 \alpha$

Direct frisk results $< 1000 \text{ dpm}/100\text{cm}^2 \text{ B}$
 $< 20 \text{ dpm}/100\text{cm}^2 \alpha$

All dose rates less than $8 \mu\text{R}/\text{hr}$.

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

All DOSE RATES ARE BY MINOR
 UNLESS OTHERWISE NOTED

SEG

SURVEY# 95-07-0006

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Weekly Survey PC50-603/608

INST. TYPE MODEL 3 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 SER# 67108 CAL DUE 7-24-96

INST. TYPE MOD 19 SER# 58126 CAL DUE 11-17-95

SURVEY DATE 7-7-95 TIME 1000

RMP#(S)

SURVEY BY M. Keegley / N. Sawyer REMARKS

REVIEW BY John Scott Mueller DATE 7-7-95

SMEAR RESULTS

dpm/100cm²

(B, Y) (α)

1)	
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	
21)	
22)	
23)	
24)	
25)	

Smears (1-50) all <1000 dpm/100cm² BY
<20 dpm/100cm² α

Dose Rates - all <MR/hr (.5)

No detectable contamination
found on gross mass/in.

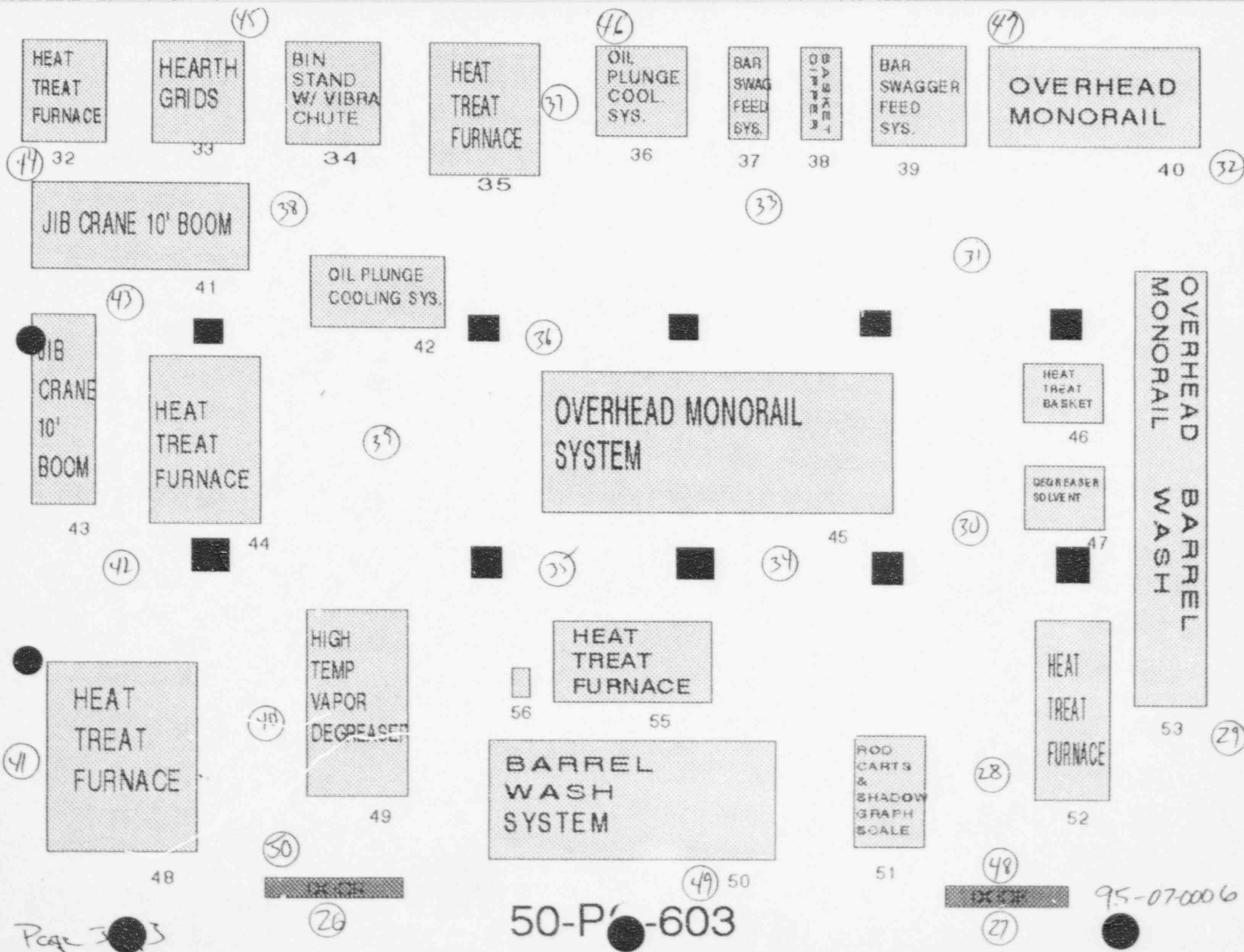
Page 1 of 3

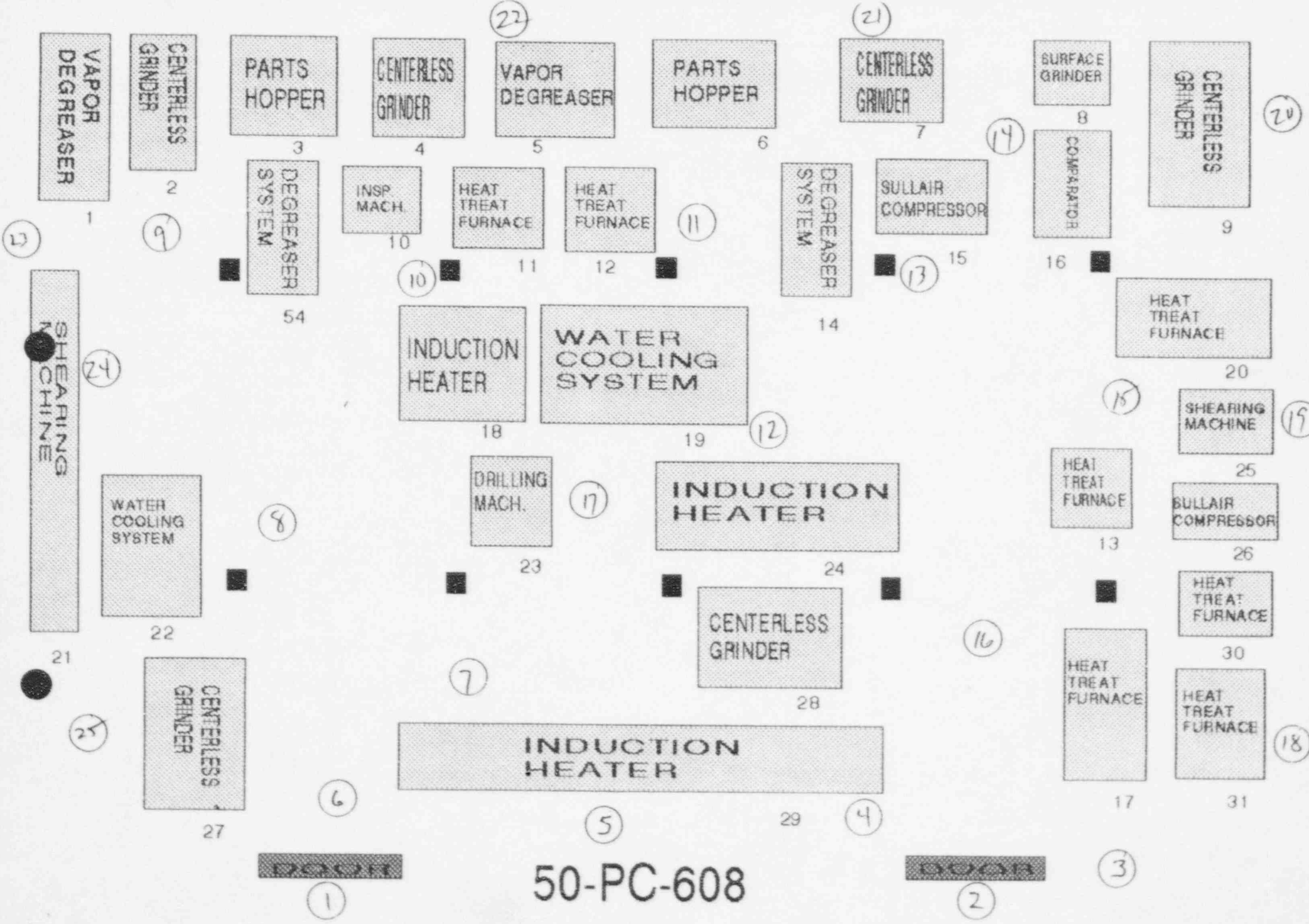
95-07-0006

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC. - CONTACT GAMMA
- MBD/MA - BETA DOSE RATE
- MBD/MC - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MIBOR
UNLESS OTHERWISE NOTED





SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-6-95 TIME 1300

RMP#(S) NIA

SURVEY BY N. Sawyer / M. Keeling

REVIEW BY W. K. L. / M. Keeling

PURPOSE Initial Survey of DU Eq. for Shipment

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL-3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS Separate Survey for each package in file

DATE 7-6-95

MODEL 3 / 44-9 Probe Area 15 cm²
MODEL 3 / 43-5 Probe Area 100 cm²

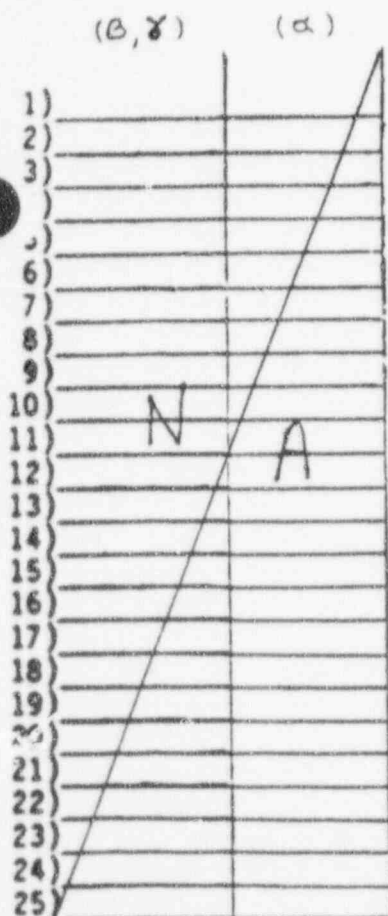
Page 1 of 3

SMEAR RESULTS

dpm/100cm²

No Alpha detected - smearable
50 dpm - 800 dpm - fixed Alpha

See Attached Maps



Contract# DAAA0992G0004 0016

MAP LEGEND

- ⊙ - SMEAR LOCATION
 - NO. - GAMMA DOSE RATE
 - NC. - CONTACT GAMMA
 - MEADINA - BETA DOSE RATE
 - MEADINA - CONTACT BETA
 - ⊗ - AIR SAMPLE LOCATION
- ALL DOSE RATES ARE IN MIN/HR
UNLESS OTHERWISE NOTED

SKID No.	INV CNTRL ID No.	REMARKS ID No.	Avg. Fixed	Range Fixed	EQUIPMENT/MATERIAL DESCRIPTION	TOCL No.	Surface Area ft ²	STORAGE MAGAZINE	DIMENSIONS (inches)			Avg. Smearable	Range Smearable
									L	W	H		
2			150K	20-800K	Centerless Grinder	3415-13542	650	50-PC-608	96	76	76	60K	10-500K
1	F-0508		3K	1-6K	Vapor Degreaser (Part 1)	T77-99083	900	50-PC-608	144	75	60	2K	1-5K
5	F-0508		3K	1-20K	Vapor Degreaser (Part 2)	T77-99083	1200	50-PC-608	115	65	96	3K	1-5K
4			80K	10-350K	Centerless Grinder	3415-23223	650	50-PC-608	96	76	76	50K	10-250K
16			4K	1-10K	Comperator	6635-06391	200	50-PC-608	75	48	67	3K	1-5K
9			100K	20-500K	Centerless Grinder	3415-20263	1100	50-PC-608	96	76	76	60K	10-300K
7			70K	20-250K	Centerless Grinder	3415-23219	1100	50-PC-608	96	76	76	20K	5-100K
8	F-0079		3K	1-5K	Surface Grinder	T77-99013	400	50-PC-608	55	41	89	3K	1-5K
6			10K	1-40K	Parts Hopper #1	T81-95053	850	50-PC-608	112	86	72	5K	1-15K
3			10K	2-40K	Parts Hopper #2	T81-95053	1400	50-PC-608	112	86	72	3K	1-10K
14	F-0010		15K	5-40K	Degreaser System (Part 1)	T77-99014	650	50-PC-608	65	54	90	3K	1-10K
54	F-0010		60K	5-300K	Degreaser System (Part 2)	T77-99014	400	50-PC-608	108	78	65	30K	5-100K
	F-0098		2	—	Conveyor	T77-99020		50-PC-608	—	—	—		
	F-0129		—	—	Pallet Truck	T77-99008		50-PC-608	—	—	—		
11	F-0552		80K	5-250K	Heat Treating Furnace (Part 1)	3424-02030	400	50-PC-608	66	56	60	30K	3-60K
12	F-0552		2K	1-4K	Heat Treating Furnace (Part 2)	3424-02030	350	50-PC-608	72	60	38	1K	1-2K
21	F-0062		20K	5-200K	Shearing Machine (part 1)	T77-92751	1100	50-PC-608	216	42	52	10K	2-30K
25	F-0062		60K	10-200K	Shearing Machine (part 2)	T77-92751	350	50-PC-608	88	48	65	60K	5K-200K
10	F-0067		3K	1-5K	Inspection Machine	3690-05139	700	50-PC-608	72	54	104	3K	1-5K
31	F-0037		5K	1-8K	Ipsen Furnace (Part 1)	T77-99042	2500	50-PC-608	84	60	108	5K	1-8K
17	F-0037		10K	2-30K	Ipsen Furnace (Part 2)		300	50-PC-608	132	86	112	8K	2-20K
20	F-0037		5K	1-10K	Ipsen Furnace (Part 3)		1400	50-PC-608	125	60	108	7K	1-10K
30	F-0037		10K	1-18K	Ipsen Furnace (Part 4)		900	50-PC-608	54	65	102	6K	1-15K
13	F-0037		200K	10-1M	Ipsen Furnace (Part 5)		2000	50-PC-608	84	60	84	100K	10-500K
26	F-0001		3K	1-4K	Compressor (Part 1)	T77-99002	1150	50-PC-608	97	72	60	10K	2-30K
15	F-0001		2K	1-5K	Compressor (Part 2)		300	50-PC-608	120	78	48	1K	1-3K
22	F-0138		2K	1-5K	Water Cooling System (Part 1)	T77-99015	450	50-PC-608	96	66	36	2K	1-3K
19	F-0138		2K	1-5K	Water Cooling System (Part 2)		550	50-PC-608	180	87	48	1K	1-3K
27			100K	5-800K	Centerless Grinder	3415-20262	650	50-PC-608	96	75	75	20K	1-200K
28			60K	10-400K	Centerless Grinder	3415-13646	850	50-PC-608	96	75	75	30K	4-60K
23			15K	1-150K	Drilling Machine	3413-17962	400	50-PC-608	60	42	108	5K	1-50K
24	F-0046		3K	1-5K	Tacco Induction Heater (Part 1)	3424-00689	1200	50-PC-608	132	48	100	2K	1-5K
29	F-0046		3K	1-5K	Tacco Induction Heater (Part 2)		1000	50-PC-608	402	36	55	2K	1-5K
18	F-0046		2K	1-3K	Tacco Induction Heater (Part 3)		500	50-PC-608	88	68	48	1K	1-2K

K = 1000 - 10³

M = MILLION - 10⁶

All Results in dpm

McAlester Army Ammunition Plant
DU Contaminated Equipment

Page 2 of 3

Survey # - 95-07-0005

Date - 7-6-95



McAlister Army Ammunition Plant
DU Contaminated Equipment

SKID No	INV CNTRL ID No	REMARKS	Avg. Fixed	Range Fixed	EQUIPMENT / MATERIAL DESCRIPTION	TOOL No.	Surface Area A ²	STORAGE MAGAZINE	DIMENSIONS (Inches)			Avg. Smearable	Range Smearable
									L	W	H		
33			40K	1-40K	Hearth Grds (12ea)	T77-99204	650	50-PC-603	68	54	36	20K	1-80K
34			2K	1-2K	Bin	T77-99087	250	50-PC-603	55	78	66	2K	1-2K
			↓	↓	Vibra Chute (2ea)	T77-99082	↓	50-PC-603	-	-	-	↓	↓
45	F-0519		3K	1-20K	Overhead MonoRail System	T77-99069	1300	50-PC-603	342	89	48	2K	1-5K
40	F-0525		10K	2-50K	Overhead MonoRail System	T77-99068	1400	50-PC-603	260	72	72	5K	1-30K
46			200K	50-500K	Heat Treatment Baskets (10ea)	T77-99203	700	50-PC-603	105	60	56	60K	5-180K
51	F-0511		15K	1-50K	Rod Carts (4ea)	T77-99261	600	50-PC-603	144	60	77	10K	1-25K
			↓	↓	Shadow Graph Scale	T78-93269-3	↓	50-PC-603	-	-	-	↓	↓
50	F-0534		100K	10-400K	Barrel Wash System	T77-99082	1300	50-PC-603	276	66	79	50K	5-150K
49	F-0518		15K	1-40K	HiTemp Vapor Degreaser	T77-99058	2800	50-PC-603	186	93	104.5	10K	1-40K
47	F-0520		4K	1-15K	Degreaser Solvent Still	T77-99058-2	500	50-PC-603	116	60	92	3K	1-8K
56					Lensmatic Compass			50-PC-603	12	6	8		
38			100K	10-600K	Basket Dumper	T77-99075	300	50-PC-603	100	60	85	20K	5-200K
36	F-0524		400K	10-1M	Oil Plunge Cooling System	T77-99071	2000	50-PC-603	35	92	99	80K	5-200K
42	F-0524		100K	40-200K	Oil Plunge Cooling System	T77-99071	500	50-PC-603	133	60	36	20K	10-50K
37	F-0500		40K	10-400K	Bar Swagger Feed System	T77-99016	200	50-PC-603	96	60	56	20K	5-80K
39	F-0500		10K	5-40K	Bar Swagger Feed System	T77-99016	800	50-PC-603	222	76	60	5K	1-25K
43	F-0540		3K	1-4K	Jib Crane	T77-99076-5	600	50-PC-603	192	84	54	2K	1-4K
41	F-0541		5K	1-10K	Jib Crane	T77-99076-6	600	50-PC-603	193	84	44	5K	1-10K
32	F-0523		30K	1-200K	Heat Treating Furnace (Part 1)	3424-02042	500	50-PC-603	72	72	72	15K	5-60K
44	F-0523		15K	1-50K	Heat Treating Furnace (Part 2)	3424-02042	700	50-PC-603	155	89	88	5K	1-10K
35	F-0523		8K	1-15K	Heat Treating Furnace (Part 3)	3424-02042	500	50-PC-603	128	72	28	4K	1-6K
48	F-0522		10K	10-60K	Heat Treating Furnace (Part 1)	3424-02041	1400	50-PC-603	150	92	72	8K	1-30K
52	F-0522		6K	1-10K	Heat Treating Furnace (Part 2)	3424-02041	1000	50-PC-603	120	71	103	8K	2-15K
55	F-0522		5K	1-30K	Heat Treating Furnace (Part 3)	3424-02041	800	50-PC-603	144	72	30	3K	1-15K
53	F-0537		3K	1-10K	Monorail System	T77-99068-B	1200	50-PC-603	351	72	54	2K	1-10K

K = 10³

M = 10⁶

All Results in dpm



Page 3 of 3

Survey # - 95-07-0005

Date - 7-6-95

SEG

SURVEY# 95-06-0004

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 9-28-95 TIME 1100

RMP#(S)

SURVEY BY M. Keelen / N. Sawyer

REVIEW BY Don Sawyer Miller

PURPOSE Weekly Surveys / Contamination loose

INST. TYPE MOD/3 SER# 111551 CAL DUE 7-24-95

INST. TYPE MOD/3 SER# 6708 CAL DUE 7-24-96

INST. TYPE / SER# / CAL DUE /

REMARKS PC-50-608 / PC-50-603

DATE 6-28-95

ND = NO detectable

SMEAR RESULTS
dpm/100cm²

See Attached Maps

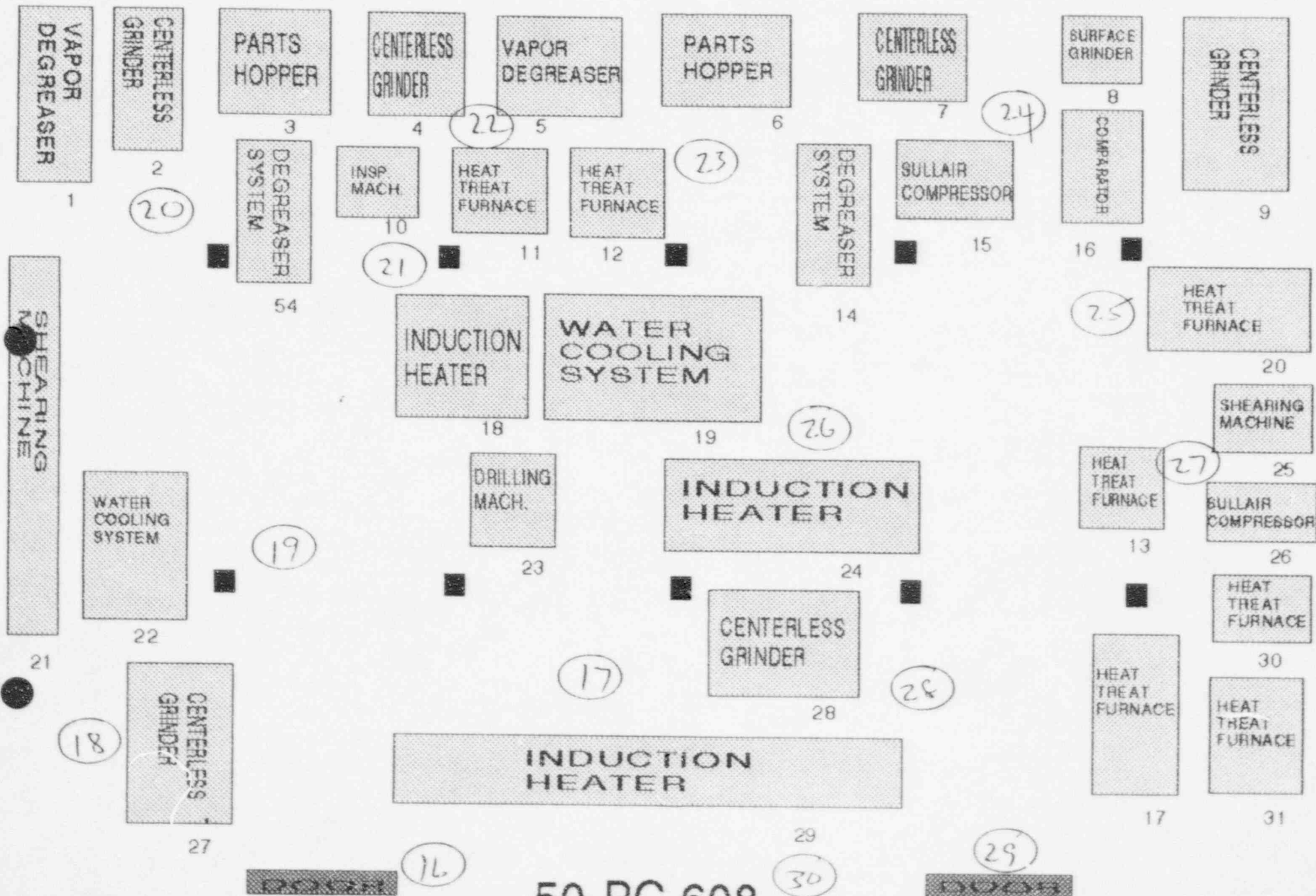
	(B, Y)	(a)
1)	<1K	ND
2)	<1K	
3)	<1K	
4)	<1K	
5)	<1K	
6)	<1K	
7)	<1K	
8)	<1K	
9)	<1K	ND
10)	<1K	
11)	<1K	
12)	<1K	
13)	<1K	
14)	<1K	
15)	<1K	
16)	<1K	
17)	<1K	
18)	<1K	
19)	<1K	
20)	<1K	
21)	<1K	
22)	<1K	
23)	<1K	
24)	<1K	ND
25)	<1K	

- 26) <1K
- 27) <1K
- 28) <1K
- 29) <1K
- 30) <1K

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC. - CONTACT GAMMA
- MBAD/HA - BETA DOSE RATE
- MBAD/HA - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MINOR
UNLESS OTHERWISE NOTED



95-06-004

SEG

SURVEY# 95-06-0003

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE PL50-608/PL50-603 loose Surface contamination

INST. TYPE model 3 43-5 SER# 67108 CAL DUE 7-24-96

INST. TYPE model 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE model 3 44-9 SER# 111637 CAL DUE 7-24-95

SURVEY DATE 6-26-95 TIME 1300

RWP#(S) _____

SURVEY BY Neal Sawyer / M. Koelev

REMARKS Initial survey inside bunker

REVIEW BY M. Koelev / Neal Sawyer

DATE 6-26-95

SMEAR RESULTS

dpm/100cm²

	(B, γ)	(α)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		

PL50-608

	B, γ	α
* Smears 1-40	<1K	<20

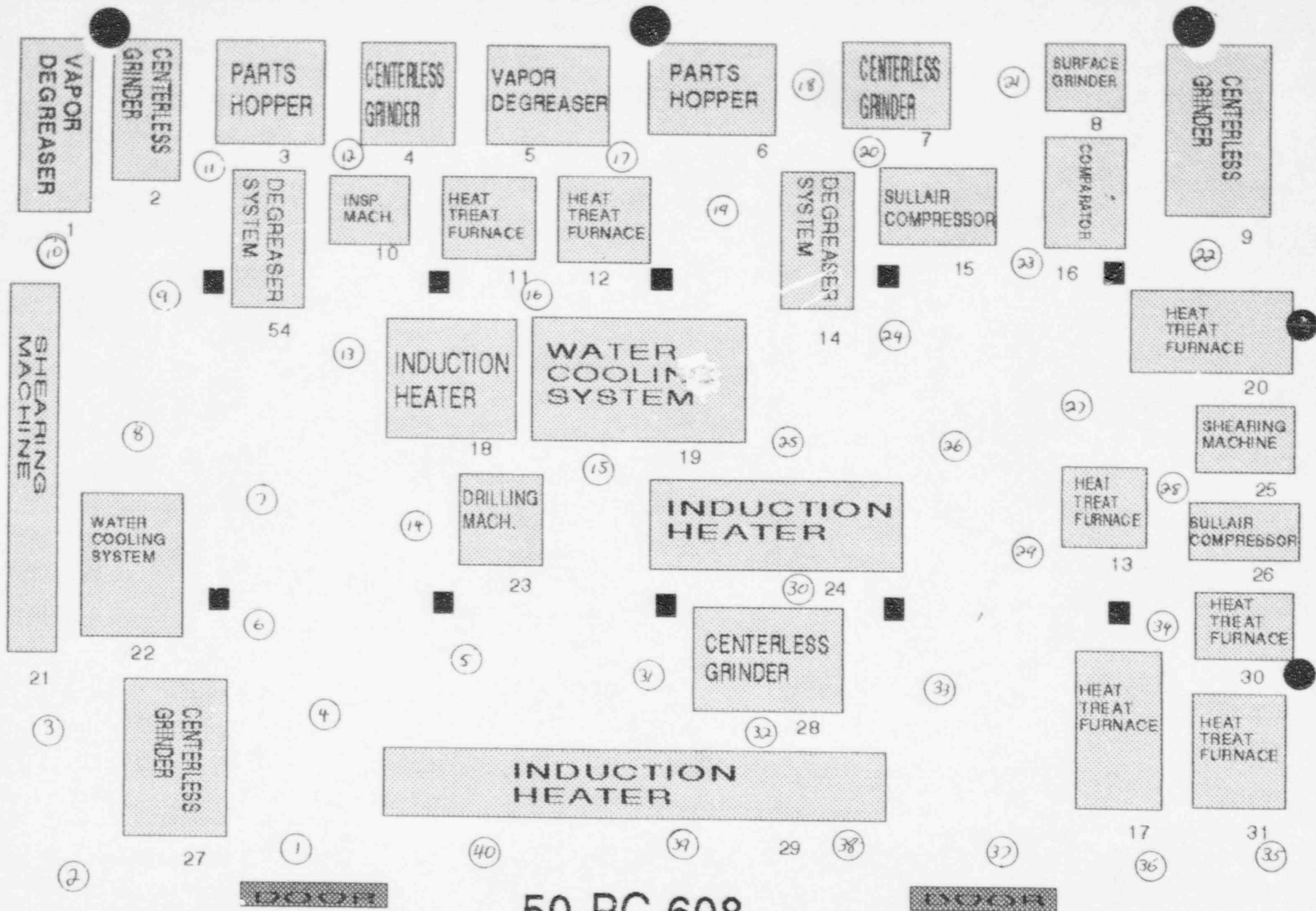
PL50-603

	B, γ	α
* Smears 1-40	<1K	<20

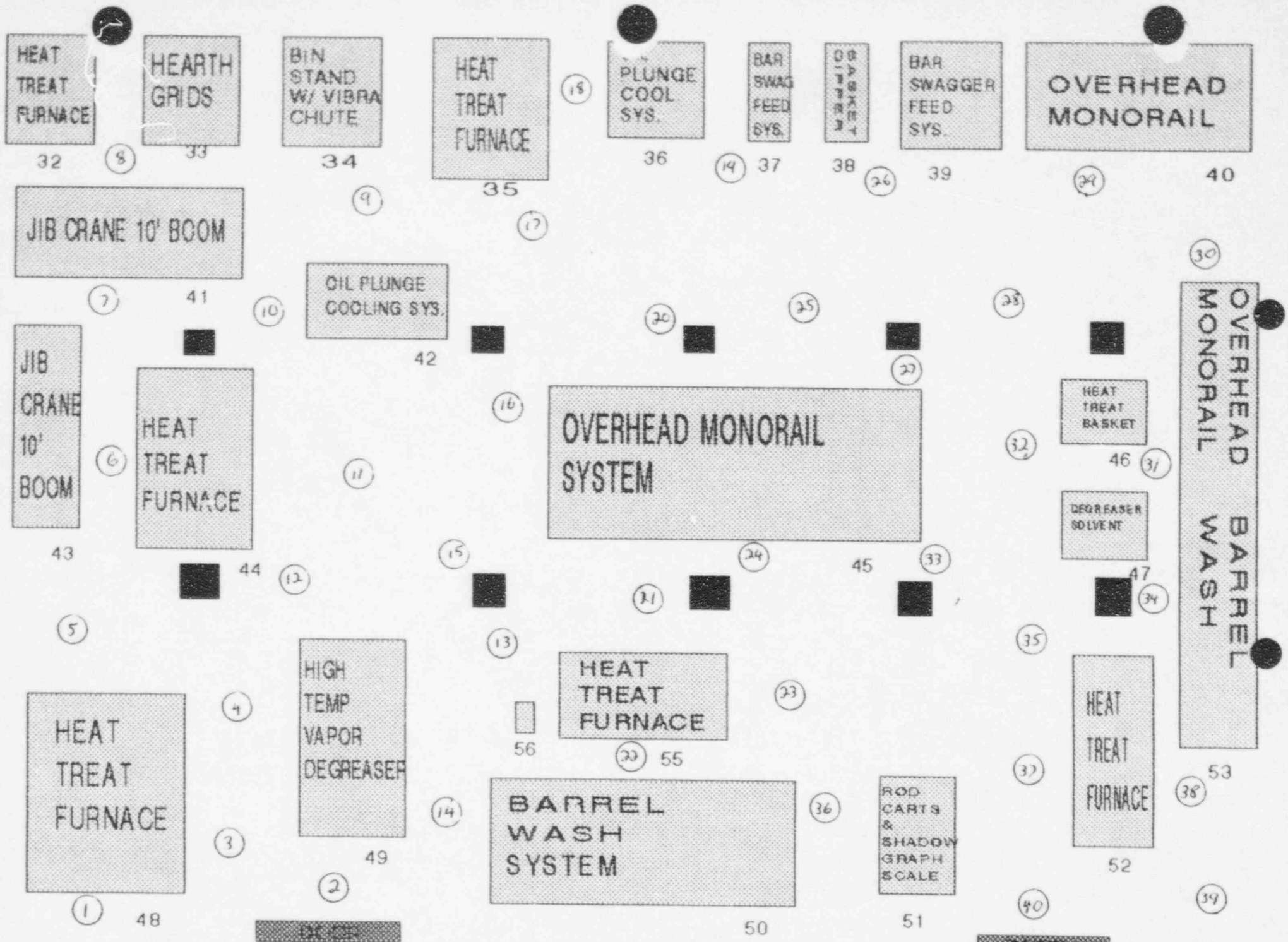
* - See attached maps for smear locations

MAP LEGEND

⊙	- SMEAR LOCATION
NO.	- GAMMA DOSE RATE
NC.	- CONTACT GAMMA
MB/HR	- BETA DOSE RATE
MB/HR	- CONTACT BETA
⊗	- AIR SAMPLE LOCATION
ALL DOSE RATES ARE IN MREM UNLESS OTHERWISE NOTED	



95-06-0003



50-PC-603

95-06-0003

REVIEW BY WILLIAM H. K. DATE 6-26-95

Model 3 # 111661 / # 111637 - BKG. 60-80cpm
Model 3 # 67108 BKG. -

ALL USSE RATES ARE BY MIKE
UNLESS OTHERWISE NOTED

SEG

SURVEY# 95-06-0001

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE PC50-608 / PC50-603

INST. TYPE MODEL 3 SER# 67108 CAL DUE 7-24-96

INST. TYPE MODEL 3 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 SER# 111637 CAL DUE 7-24-95

SURVEY DATE 6-26-95 TIME 0800

RMP#(S)

SURVEY BY N. Sawyer / M. Keefe REMARKS Initial Survey Loading Dock PC50-608

REVIEW BY M. Miller / M. Keefe DATE 6-26-95

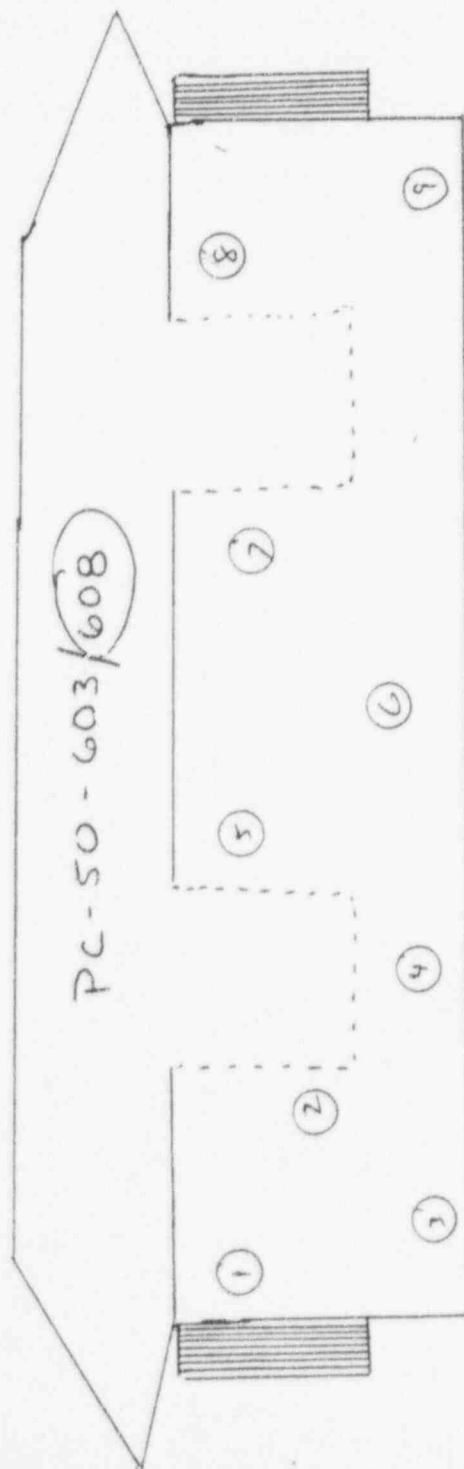
Model 3 # 111661 / 111637 BKG 60-80cpm

Model 3 # 67108 BKG 0

SMEAR RESULTS

dpm/100cm²

	(B, Y)	(A)
1)	<1K	<20
2)	<1K	<20
3)	<1K	<20
4)	<1K	<20
5)	<1K	<20
6)	<1K	<20
7)	<1K	<20
8)	<1K	<20
9)	<1K	<20
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		



LOADING DOCK

Direct frisk of entire area resulted in no detectable counts above bkg B/Y/A.

Particular attention directed @ entrance to bunker (---)

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC. - CONTACT GAMMA
- MB/MA - BETA DOSE RATE
- MC/MC - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MINUTE UNLESS OTHERWISE NOTED

SEG

SURVEY# 95-07-0021

SCIENTIFIC ECOLOGICAL GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-19-95 TIME 0900

RMP#(S) —

SURVEY BY M. Keeley / N. Sawyer REMARKS Post load surveys

REVIEW BY [Signature] DATE 7-19-95

PURPOSE ^{LOADING DOCK/TARPS/FLOOR UNDER SKIDS/}
^{LOADING RAMP/FORKS ON HYSTERS}

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 1-11-96

INST. TYPE / SER# / CAL DUE /

Contract # DAIAA0992G0004-0016

Loading Dock - $<1K / <20 \text{ dpm} / 100 \text{ cm}^2$
no detectable activity
found direct frisk

BKG - 60-80 BY 44-9 \rightarrow cpm
BKG - α 43-5

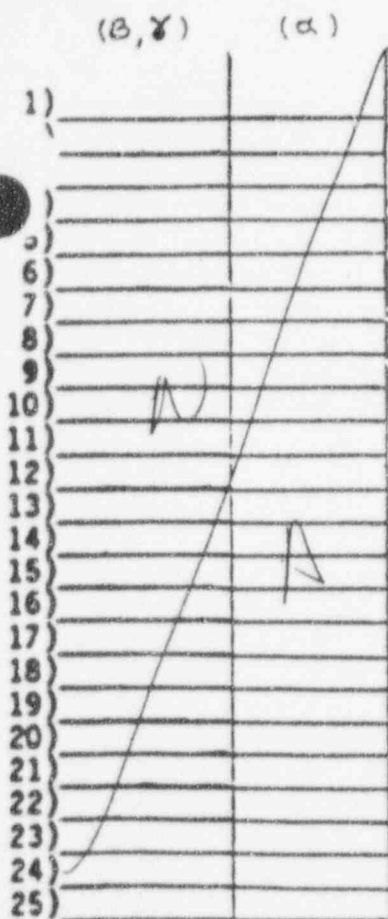
SMEAR RESULTS
dpm/100cm²

TARPS - $<1K / <20 \text{ dpm} / 100 \text{ cm}^2$
no detectable activity found
direct frisk

Floor Under Skids #13/#21/#29
 $<1K / <20 \text{ dpm} / 100 \text{ cm}^2$

Loading Ramp - $<1K / <20 \text{ dpm} / 100 \text{ cm}^2$
no detectable activity
found direct frisk

Forks on Hysters $<1K / <20 \text{ dpm} / 100 \text{ cm}^2$
no detectable activity
found direct frisk

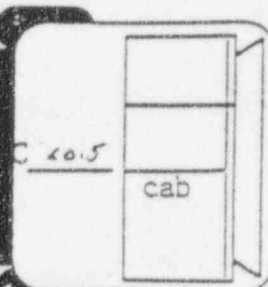


MAP LEGEND

- ① - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NO. - CONTACT GAMMA
- MBRD/NA - BETA DOSE RATE
- MBRD/NA - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

SHIPMENT SURVEY FORM

SURVEY NUMBER -TRAN-95-07-0020C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5MI-017 - T.W. 6790
GROSS 14490MI-035 T.W. 6840
GROSS 17940C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC	BETA/GAMMA	ALPHA
1	11000	4100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13	✓	✓

DATE: 7-18-95 TIME: 1130SHIPMENT NUMBER: 952246TRACTOR #: 156 TRAILER #: 340632INCOMING: EMPTY FULL OUTGOING: EMPTY FULL XTRUCKING COMPANY: HittmanTRAILER TYPE: FLAT X RACTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: M-19
SERIAL NUMBER: 95453
CAL. DUE DATE: 7-25-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: M-3
SERIAL NUMBER: 111661
CAL. DUE DATE: 7-24-95

CONTAMINATION SURVEY INST. - ALPHA

TYPE: M-3
SERIAL NUMBER: 67108
CAL. DUE DATE: 7-24-96HP TECHNICIAN: [Signature]REVIEWED BY: [Signature]
REMARKS: PERFORMED A CONTAMINATION SURVEY
OF THE TRAILER BED VIA DIRECT FRISK. ALL
FIXED CONTAMINATION LEVELS ARECIRCLED NUMBER ON THE ABOVE
DRAWING INDICATES SWIPED
LOCATION.

DPM/100 CM2 BETA/GAMMA

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-18-95 TIME 1030

RMP#(S) —

SURVEY BY M. Keeley / N. Sawyer

REVIEW BY *[Signature]* / M. L. K. y

PURPOSE Floor Under Skids, Tarps and Loading Docks

INST. TYPE MOD 3 43-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MOD 3 43-5 SER# 67108 CAL DUE 7-24-96

INST. TYPE — SER# — CAL DUE —

REMARKS

DATE 7-18-95

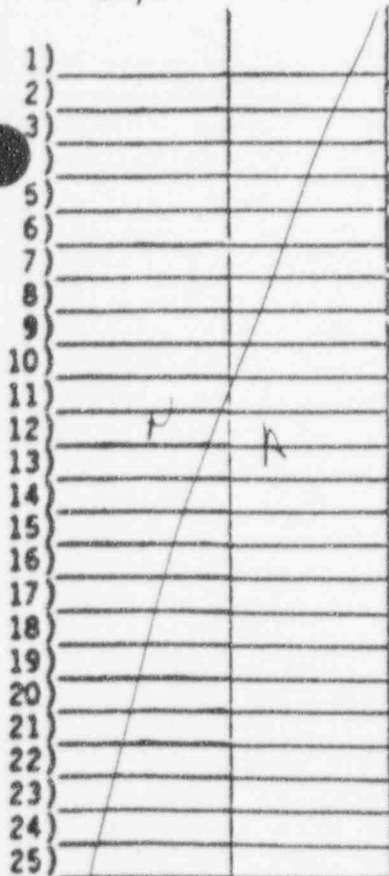
Tarps Under Skids

BKG. 80cpm BV

BKG. 8cpm α

SMEAR RESULTS
dpm/100cm²

(B, γ) (α)



<1K dpm/100cm² BV / no detectable activity
<20 dpm/100cm² α / found direct frisk
43-5/44-9

Loading Docks -

<1K dpm/100cm² BV
<20 dpm/100cm² α
no detectable activity
found direct frisk 43-5/44-9

Floor Area Under Skids #6/#8/#12

<1K dpm/100cm² BV
<20 dpm/100cm² α

Floor Area Under Skids #7/#4/#16

<1K dpm/100cm² BV
<20 dpm/100cm² α

Forks on Hyster

<1K dpm/100cm² BV / no detectable activity
<20 dpm/100cm² α / found direct frisk

Lifting Slings

<1K dpm/100cm² BV
<20 dpm/100cm² α

MAP LEGEND

- ⊙ - SMEAR LOCATION
 - NO. - GAMMA DOSE RATE
 - NG. - CONTACT GAMMA
 - MBAD/MA - BETA DOSE RATE
 - MBAD/MA - CONTACT BETA
 - ⊗ - AIR SAMPLE LOCATION
- ALL DOSE RATES ARE IN MREM
UNLESS OTHERWISE NOTED

SEG

SURVEY# 95-07-0018

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-17-95 TIME 1130

RMP#(S)

SURVEY BY M. Keeley / N. Sawyer REMARKS

REVIEW BY [Signature] DATE 7-17-95

PURPOSE Survey flow under pallets after loading and loading dock

INST. TYPE MODEL 3 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 SER# 67108 CAL DUE 7-24-96

INST. TYPE MODEL 3 SER# 1 CAL DUE 1

Contract# - DAA0992G-0004 0016

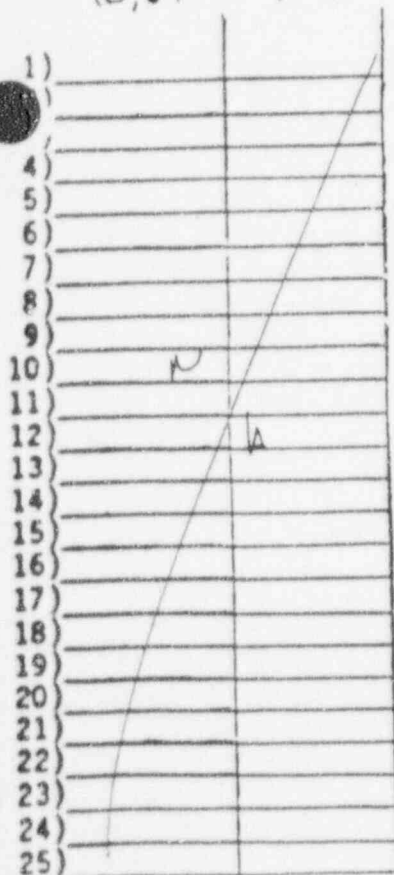
Survey 95-07-0017
covers unconditional release
of tarps under skids

BKG - 80 Bq > cpm

BKG - 10 α

SMEAR RESULTS
dpm/100cm²

(B, γ) (α)



Flow Area Under Skid #1

< 1K dpm/100cm² Bq

< 20 dpm/100cm² α

Flow Area Under Skid #11

< 1K dpm/100cm² Bq

< 20 dpm/100cm² α

Flow Area Under Skid #15

< 1K dpm/100cm² Bq

< 20 dpm/100cm² α

Flow Area Under Skid #19

< 1K dpm/100cm² Bq

< 20 dpm/100cm² α

Flow Area Under Skid #25

< 1K dpm/100cm² Bq

< 20 dpm/100cm² α

Loading Docks

< 1K dpm/100cm² Bq

< 20 dpm/100cm² α

No detectable Bq/α
activity found during
direct frisk.

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBQ/MA - BETA DOSE RATE

MBQ/MA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

SEG

SURVEY# 95-07-0017

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-17-95 TIME 1100

RWP#(S) —

SURVEY BY M. Kealey / N. Sawyer

REVIEW BY Don / Sgt. Michael King

PURPOSE Bas. of Tarps / Forks on Hyster

INST. TYPE MOD-3
44-9

SER# 111661

CAL DUE 7-24-95

INST. TYPE MOD-3
43-5

SER# 67108

CAL DUE 7-24-96

INST. TYPE 1

SER# 1

CAL DUE 1

REMARKS Unconditional Release

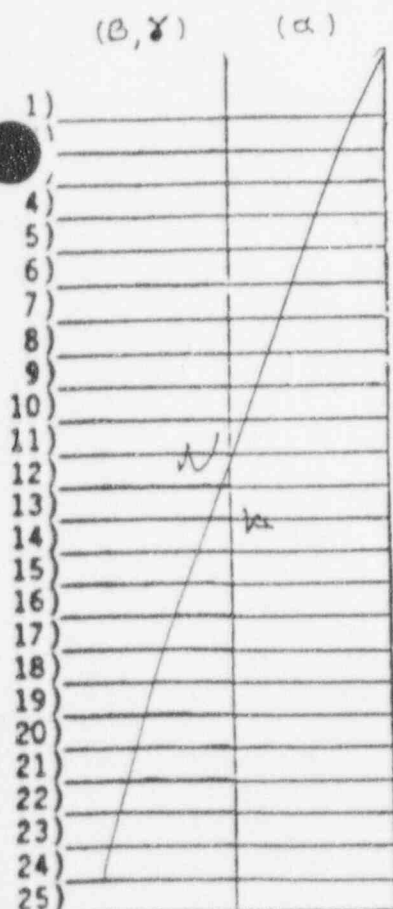
DATE 7-17-95

Contract# - DAAA0992G0004 0016

BKG - ~~0~~

BKG - 80cpm Bx

SMEAR RESULTS
dpm/100cm²



Tarps for Unconditional Release

Smears (1) - (20) taken on tarps

all < 1K dpm/100cm² Bx

< 20 dpm/100cm² α

Direct Frisk of Tarps

no detectable activity found

above Bkg. Bx/α

Forks on Hysters

all < 1K dpm/100cm² Bx

< 20 dpm/100cm² α

no detectable activity found

above Bkg. Bx/α

Tarps from under skids

#1/#11/#15/#19/#25

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

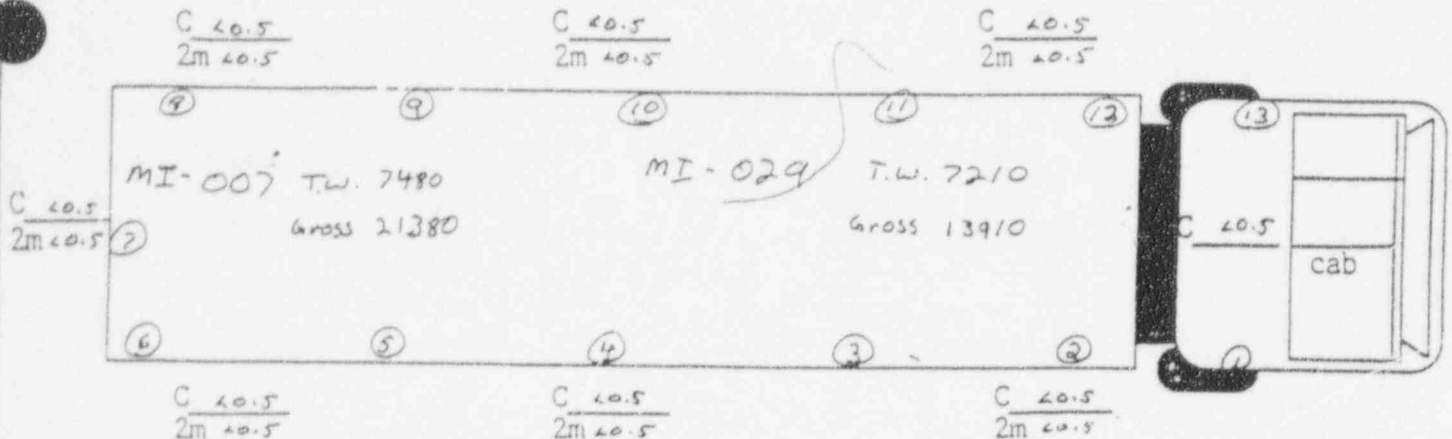
NG - CONTACT GAMMA

ND - BETA DOSE RATE

NB - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

DOSE RATE: 400 mR/hr

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC	BETA/GAMMA	ALPHA
1	41000	4100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

DATE: 7-12-95 TIME: 1200SHIPMENT NUMBER: 952245TRACTOR #: 096 TRAILER #: 990133INCOMING: EMPTY FULL OUTGOING: EMPTY FULL XTRUCKING COMPANY: HittmanTRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: m-17SERIAL NUMBER: 95453CAL. DUE DATE: 7-25-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: m-3SERIAL NUMBER: 111661CAL. DUE DATE: 7-24-95

CONTAMINATION SURVEY INST. - ALPHA

TYPE: m-3SERIAL NUMBER: 67108CAL. DUE DATE: 7-24-96HP TECHNICIAN: Dea/S-1REVIEWED BY: M. Lee

REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

41000 DPM/100 CM2 BETA/GAMMA.

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPE LOCATION.

SEG

SURVEY# 95-07-0015

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Weekly Survey PC 50-608

INST. TYPE MOD 3 SER# 111661 CAL DUE 7-24-95

INST. TYPE MOD-3 SER# 67108 CAL DUE 7-24-96

INST. TYPE 1 SER# 1 CAL DUE 1

SURVEY DATE 7-12-95 TIME 1300

RWP#(S) 1

SURVEY BY M. KEELEY / N. Sawyer REMARKS _____

REVIEW BY Debra Miller DATE 7-13-95

Contract# - DAAA0992G0004 0016

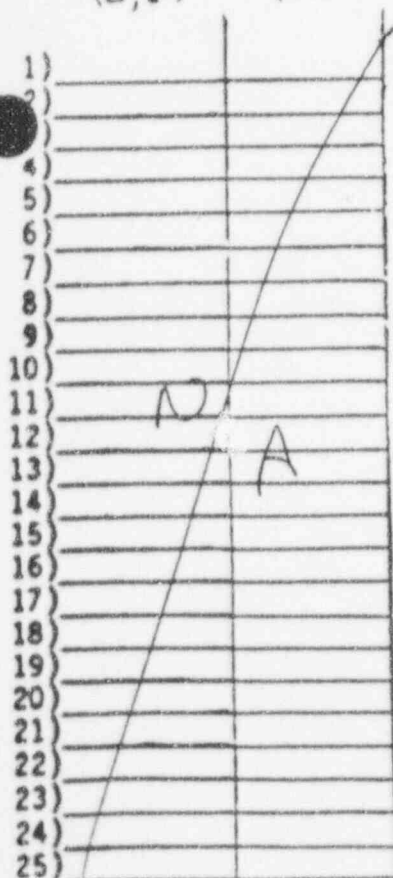
(1) - (30)

☒ - Eq. Shipped

Smears all $< 1000 \text{ dpm}/100 \text{ cm}^2$
 $< 20 \text{ dpm}/100 \text{ cm}^2$

SMEAR RESULTS
dpm/100cm²

(B, Y) (A)



See Attached Map

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC - CONTACT GAMMA
- MBND/MA - BETA DOSE RATE
- MBND/MA - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO

SEG

SURVEY# 95-07-0014

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530PURPOSE Unconditional Release Survey of TarpsINST. TYPE MOD 3 SER# 111661 CAL DUE 7-24-95INST. TYPE MOD 3 SER# 67108 CAL DUE 7-24-96INST. TYPE 1 SER# 1 CAL DUE 1SURVEY DATE 7-12-95 TIME 1200RWP#(S) SURVEY BY M. Kealy / N. Sawyer REMARKS Bags discarded in clean trashREVIEW BY Michelle / [Signature] DATE 8-12-95Tarps for Unconditional ReleaseBKG - ϕ cpm α

BKG = 80 cpm BY

SMEAR RESULTS
dpm/100cm²(B, γ) (a)

	(B, γ)	(a)
1)	<1K	<20
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)	↓	↓
21)		
22)		
23)		
24)		
25)		

Smears ① - ②⑤ taken on

tarps - all <1K dpm/100cm² BY
<20 dpm/100cm² α Direct frisk of tarpsNo detectable activity
found above bkg. BY α

Tarps from under skids

#2/#3/#4/#54/#18/#22/#27/#28

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MBND/MB - BETA DOSE RATE

MBND/MB - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MIN/HR

SHIPMENT SURVEY FORM

SURVEY NUMBER -TRAN- 95-07-0013

Diagram of a trailer with 13 numbered locations (1-13) indicating swiped locations. The diagram shows a rectangular trailer with a cab on the right side. Locations 1-13 are marked with circled numbers. The following text is written on the diagram:

Top left: $\frac{C\ 40.5}{2m\ 40.5}$ (5)

Top middle: $\frac{C\ 40.5}{2m\ 40.5}$ (6)

Top right: $\frac{C\ 40.5}{2m\ 40.5}$ (9)

Center: S/L# MI-009 T.W. 8790 F.W. 19,840

Center: MI-012 T.W. 6700 F.W. 20730

Bottom left: $\frac{C\ 40.5}{2m\ 40.5}$ (4)

Bottom middle: $\frac{C\ 40.5}{2m\ 40.5}$ (3)

Bottom right: $\frac{C\ 40.5}{2m\ 40.5}$ (13)

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC BETA/GAMMA ALPHA

1 41000 4100

2

3

4

5

6

7

8

9

10

11

12

13

DATE: 7-12-95 TIME: 1400SHIPMENT NUMBER: 952174TRACTOR #: 120 TRAILER #: 340357INCOMING: EMPTY FULL OUTGOING: EMPTY FULL XTRUCKING COMPANY: 1stmanTRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: m-19SERIAL NUMBER: 95453CAL. DUE DATE: 7-25-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: m-3SERIAL NUMBER: 11661CAL. DUE DATE: 7-24-95

CONTAMINATION SURVEY INST. - ALPHA

TYPE: m-3SERIAL NUMBER: 67108CAL. DUE DATE: 7-24-96HP TECHNICIAN: [Signature]REVIEWED BY: [Signature]

REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

41000 DPM/100 CM2 BETA/GAMMA.

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPED LOCATION.

SEG

SURVEY# 95-07-0012

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Survey floor under pallets after loading and loading docks

INST. TYPE MODEL 3 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 SER# 67108 CAL DUE 7-24-96

INST. TYPE 1 SER# 1 CAL DUE 1

SURVEY DATE 7-12-95 TIME 1100

RMP#(S) -

SURVEY BY M. Keelby / N. Sawyer

REMARKS

REVIEW BY [Signature]

DATE 7-12-95

Survey 95-07-0014
covers unconditional
release of tarps under
skids

BKG - 80 Bk > α
BKG - α

SMEAR RESULTS
dpm/100cm²

	(B, γ)	(α)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		

Floor Area Under skid #2

<1K dpm/100cm² Bk

<20 dpm/100cm² α

Floor Area Under skid #3

<1K dpm/100cm² Bk

<20 dpm/100cm² α

Floor Area Under skid #4

<1K dpm/100cm² Bk

<20 dpm/100cm² α

Floor Area Under skid #54

<1K dpm/100cm² Bk

<20 dpm/100cm² α

Loading Docks

<1K dpm/100cm² Bk

<20 dpm/100cm² α

No detectable B, γ / α
activity found during
direct frisk

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBDO/MR - BETA DOSE RATE

MBDO/MR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY METER
UNLESS OTHERWISE NOTED

Air Sample Worksheet

Sample # 95.07. ~~6068~~ 0011
 Sample Location: PC 50-608 DATE: 7-10-95

Work In Progress: Loady Sealands: fishport RWP: NA

Time ON/OFF 0800/1000 Sample Vol.: MIN 120 x LPM 60 x 1E3

Sample Vol(cc) 7.2E6

Counting Equipment Used

MODEL NO. MODEL 3	Serial No. 67108	BKG. α ϕ	eff. α .10
MODEL NO. MODEL 3	Serial No. 111661	BKG. BY 80	eff. BY .10

Air Sample Formula

$$\frac{(NCPM)(4.5E-7)(1.05)}{(Vol.) (eff.)}$$

$$BY \text{ Activity} = \frac{(150)(4.5E-7)(1.05)}{(Vol.) (eff.)}$$

$$BY \text{ wif/cc} = 9.8E-11$$

$$\alpha \text{ Activity} = \frac{(1)(4.5E-7)(1.05)}{(Vol.) (eff.)}$$

$$\alpha \text{ wif/cc} = 6.5E-13$$

Outside(BKG) Beta minus initial beta

$$(N/A) - (N/A)$$

$$\text{Actual } \beta\text{-wif/cc} = N/A$$

Outside(BKG) alpha minus initial alpha

$$(N/A) - (N/A)$$

$$\text{Actual } \alpha \text{ wif/cc} = N/A$$

24 Hour Recount

$$BY \text{ Activity} = \frac{(1)(4.5E-7)(1.05)}{(Vol.) (eff.)}$$

$$BY \text{ wif/cc} = 6.5E-13$$

$$\alpha \text{ Activity} = \frac{(N)(4.5E-7)(1.05)}{(Vol.) (eff.)}$$

$$\alpha \text{ wif/cc} = \frac{N}{A}$$

1 Week Recount

$$BY \text{ wif/cc} = \frac{N}{A}$$

$$\% \text{ DAC} = \frac{A}{A}$$

$$\alpha \text{ wif/cc} = \frac{N}{A}$$

$$\% \text{ DAC} = \frac{A}{A}$$

Remarks:

DAC Value

IDAC = 2E-11

IDAC = 2E-12

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-10-95 TIME 1500

RMP#(S) -

SURVEY BY M. Keelen / N. Sawyer

REVIEW BY Mike Keelen / N. Sawyer DATE 7-10-95

PURPOSE Survey floor under pallets loaded

INST. TYPE MOD 3 SER# 111661 CAL DUE 7-24-95

INST. TYPE MOD 3 SER# 67108 CAL DUE 7-24-96

INST. TYPE / SER# / CAL DUE /

REMARKS

Survey 95-07-0014
covers unconditional
release of tarps
under skids

Floor under skid #18

<1K dpm/100cm² Bx
<20 dpm/100cm² α

Floor under skid #27

<1K dpm/100cm² Bx
<20 dpm/100cm² α

Floor under skid #22

<1K dpm/100cm² Bx
<20 dpm/100cm² α

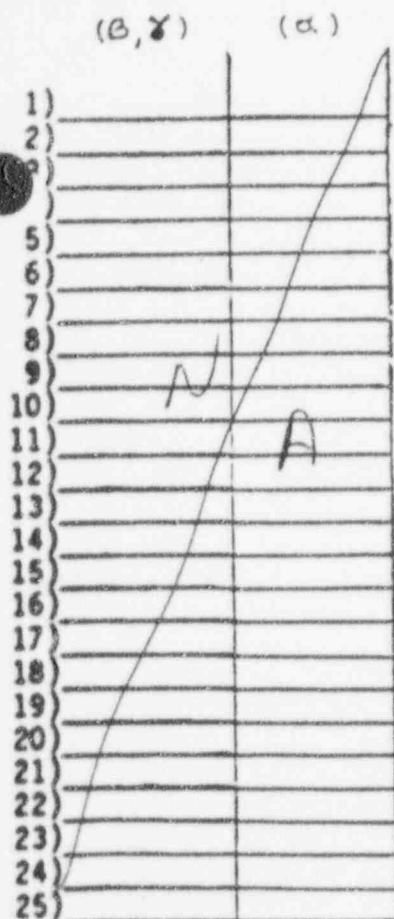
Floor under skid #28

<1K dpm/100cm² Bx
<20 dpm/100cm² α

Loading Docks

<1K dpm/100cm² Bx
<20 dpm/100cm² α
No detectable Bx/α activity
found during direct frisk.

SMEAR RESULTS
dpm/100cm²



MAP LEGEND

⊙ - SMEAR LOCATION

NG - GAMMA DOSE RATE

NG - CONTACT GAMMA

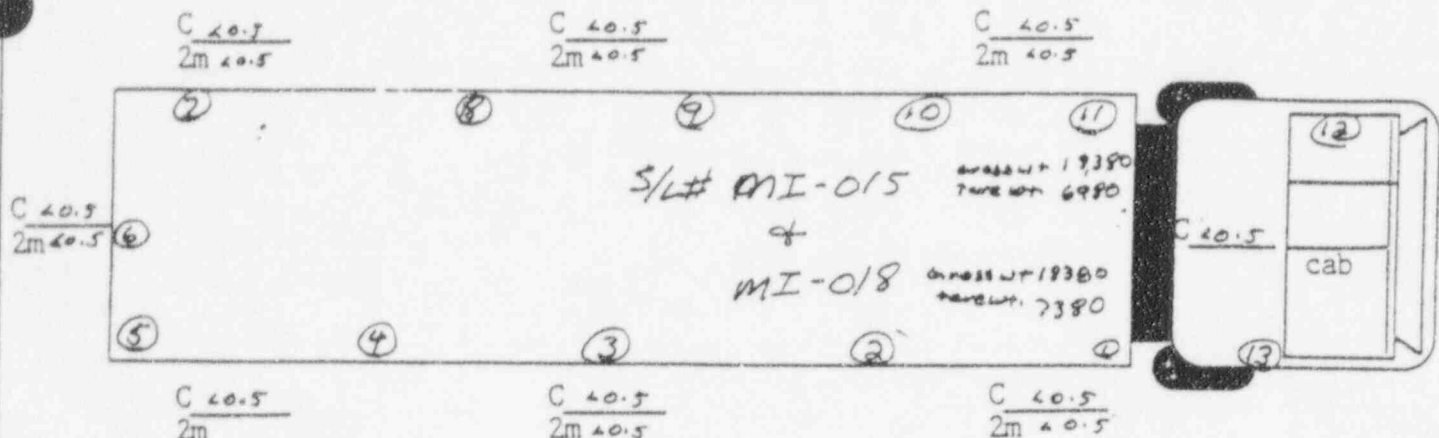
MBAD/HA - BETA DOSE RATE

MBAD/HA - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY PHOTOMETER
UNLESS OTHERWISE NOTED

SHIPMENT SURVEY FORM

SURVEY NUMBER -TRAN- 95-07-0009DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC	BETA/GAMMA	ALPHA
1	41000	4100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

DATE: 7-10-95 TIME: 1600

SHIPMENT NUMBER: 952172

TRACTOR #: 172 TRAILER #: 340638

INCOMING: EMPTY FULL

OUTGOING: EMPTY FULL ✓

TRUCKING COMPANY:

TRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: MODEL 19

SERIAL NUMBER: 95453

CAL. DUE DATE: 7-25-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: MODEL 3 44-9

SERIAL NUMBER: 111661

CAL. DUE DATE: 7-24-95

CONTAMINATION SURVEY INST. - ALPHA

TYPE: MODEL 3 43-5

SERIAL NUMBER: 67108

CAL. DUE DATE: 7-24-96

HP TECHNICIAN: M. K. L.

CIRCLED NUMBER ON THE ABOVE
DRAWING INDICATES SWIPED
LOCATION.

REVIEWED BY: [Signature]

REMARKS: PERFORMED A CONTAMINATION SURVEY
OF THE TRAILER BED VIA DIRECT FRISK. ALL
FIXED CONTAMINATION LEVELS ARE

C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m

S/L# MI-023

T.W. 6850

Gross 19750

C 40.5

cab

C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC	BETA/GAMMA	ALPHA
1	41000	4100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

DATE: 7-25-95TIME: 7-27-95 0900SHIPMENT NUMBER: 952342TRACTOR #: 120 TRAILER #: 340640INCOMING: EMPTY FULL OUTGOING: EMPTY FULL XTRUCKING COMPANY: HittmanTRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: M-19SERIAL NUMBER: 58126CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: m-3SERIAL NUMBER: 111548CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA

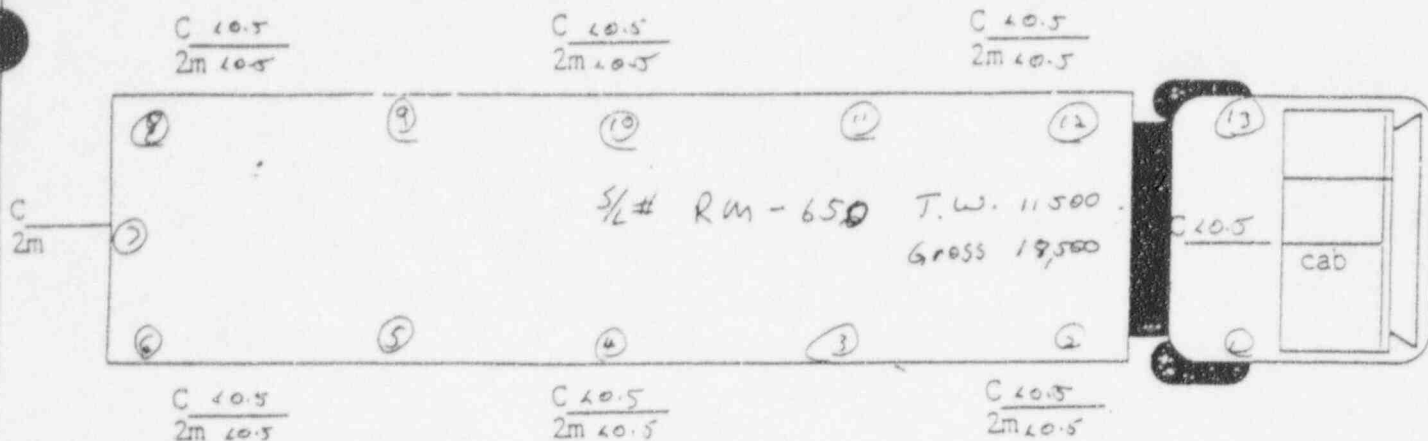
TYPE: m-3SERIAL NUMBER: 62108CAL. DUE DATE: 2-24-96HP TECHNICIAN: Deaf SapeREVIEWED BY: Michael

REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

45 41000 DPM/100 CM2 BETA/GAMMA.

Circled number on the above drawing indicates swiped location.

SHIPMENT SURVEY FORM

SURVEY NUMBER -TRAN- 95-07-0028DOSE RATE UNDER TRAILER 10.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC	BETA/GAMMA	ALPHA
1	<1000	<100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPE LOCATION.

DATE: 7-26-95 TIME: 0900SHIPMENT NUMBER: 952340TRACTOR #: 160 TRAILER #: 990133INCOMING: EMPTY FULL OUTGOING: EMPTY FULL XTRUCKING COMPANY: HittmanTRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: M-19SERIAL NUMBER: 58126CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: m-3SERIAL NUMBER: 111548CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA

TYPE: m-3SERIAL NUMBER: 67109CAL. DUE DATE: 7-24-96HP TECHNICIAN: [Signature]REVIEWED BY: [Signature]
REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE15 1000 DPM/100 CM2 BETA/GAMMA.

TECHNICIAN INITIALS

SEG

SURVEY# 95-07-0027

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-26-95 TIME 1000

RMP#(S) —

SURVEY BY M. Keeler / N. Sawyer REMARKS

REVIEW BY MDAC DATE 7-26-95PURPOSE Loading Dock / Tarps / Floor Under Skids / Forks on ForkliftINST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96INST. TYPE / SER# / CAL DUE /

Loading Dock $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$
 No detectable activity direct
 Frisk

Tarps Under Skids

$< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$
 No detectable activity direct
 Frisk.

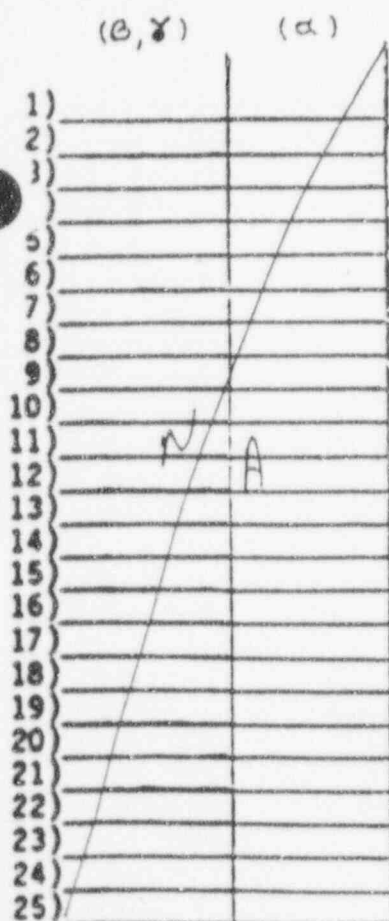
Forks on Forklift $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$
 No detectable activity
 direct Frisk.

Floor Under Skids

39 $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$

46 $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$

51 $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$

SMEAR RESULTS
dpm/100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

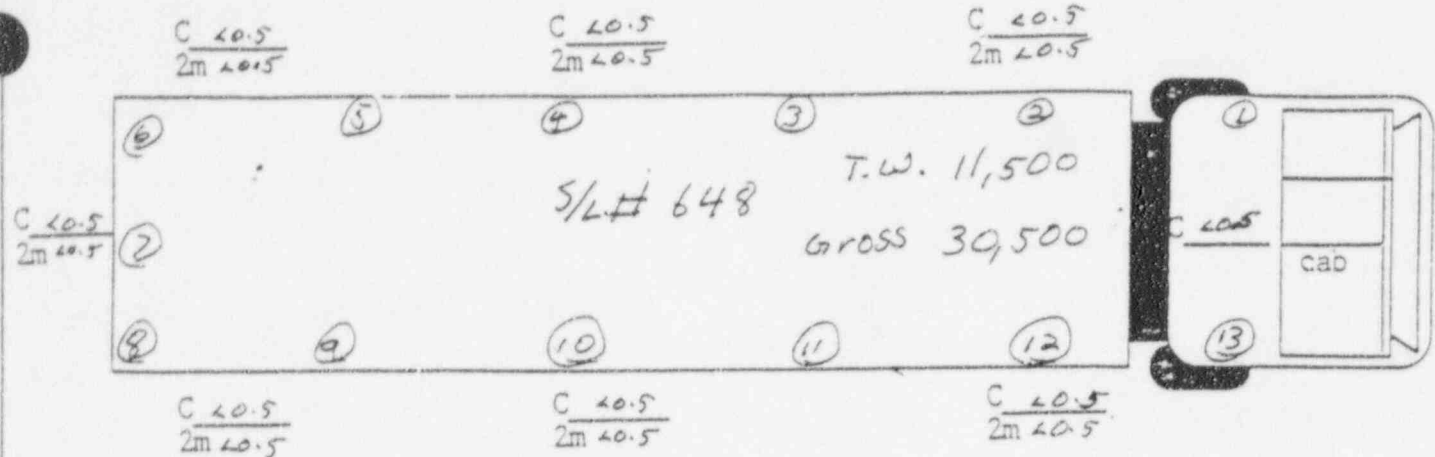
NC. - CONTACT GAMMA

MBR/MA - BETA DOSE RATE

MBR/MA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MIN/HR
UNLESS OTHERWISE NOTED

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	41000	4100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

DATE: 7-25-95 TIME: 1415
 SHIPMENT NUMBER: 952338
 TRACTOR #: 096 TRAILER #: 340642
 INCOMING: EMPTY FULL
 OUTGOING: EMPTY FULL X
 TRUCKING COMPANY: Hittman
 TRAILER TYPE: FLAT X RAGTOP
 VAN DROPDECK

DOSE RATE INSTRUMENT
 TYPE: M-19
 SERIAL NUMBER: 58126
 CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA
 TYPE: M-3
 SERIAL NUMBER: 11548
 CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA
 TYPE: M-3
 SERIAL NUMBER: 67108
 CAL. DUE DATE: 7-24-96

HP TECHNICIAN: Deals

REVIEWED BY: Miller
 REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

15 41000 DPM/100 CM2 BETA/GAMMA.

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPE LOCATION.

SEG

SURVEY# 95-07-0025

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Loading Docks/Tarps/Floor Under Skids/
Forks on Hyster

INST. TYPE MODEL 3 SER# 73015 CAL DUE 1-11-96
44.9

INST. TYPE MODEL 3 SER# 67108 CAL DUE 1-11-96
43.5

INST. TYPE - SER# - CAL DUE -

SURVEY DATE 7-25-95 TIME 1500

RWP#(S) -

SURVEY BY M. Keeler/Neal Sanyal REMARKS Post Load Surveys

REVIEW BY Don Sanyal DATE 7-25-95

BKG 60-20cpm 44.9

BKG 0 cpm 43.5

Loading Dock - $<1K / <20 \text{ dpm}/100\text{cm}^2$
No detectable activity
found direct frisk

SMEAR RESULTS
dpm/100cm²

TARPS - $<1K / <20 \text{ dpm}/100\text{cm}^2$
No detectable activity
found direct frisk

Floor Under Skids #'s 43/41/35/34/42
 $<1K / <20 \text{ dpm}/100\text{cm}^2$

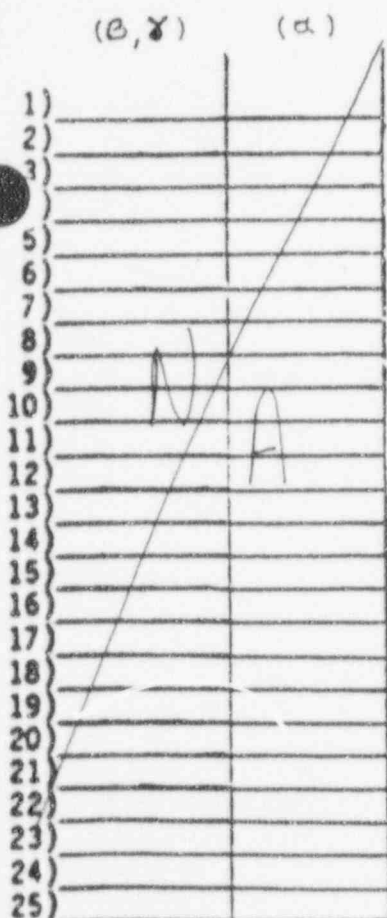
Forks on Hyster -
 $<1K / <20 \text{ dpm}/100\text{cm}^2$
No detectable activity
found direct frisk

50-PC-603 Floor Area

Gross Masselinis taken of all
walkways I/s bldg.
No detectable activity
detected/direct frisk of
masselinis

MAP LEGEND

⊙ - SMEAR LOCATION
NO - GAMMA DOSE RATE
NC - CONTACT GAMMA
MRAD/HR - BETA DOSE RATE
MRAD/HR - CONTACT BETA
⊗ - AIR SAMPLE LOCATION
ALL DOSE RATES ARE IN MRAD
UNLESS OTHERWISE NOTED



SHIPMENT SURVEY FORM

SURVEY NUMBER -TRAN- 95-07-0024

C 40.5 2m 40.5	C 40.5 2m 40.5	C 40.5 2m 40.5
⑥	⑤	④
②	③	②
C 40.5 2m 40.5	CNS-011 T.W. - 7200 GROSS - 14,200	C 40.5 2m 40.5
⑨	CNS-001 T.W. - 6780 GROSS - 11,780	⑩
C 40.5 2m 40.5	C 40.5 2m 40.5	C 40.5 2m 40.5

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	21000	6100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

CIRCLED NUMBER ON THE ABOVE
DRAWING INDICATES SWIPE
LOCATION.

DATE: 7-25-95 TIME: 1100

SHIPMENT NUMBER: 952336

TRACTOR #: 156 TRAILER #: 340639

INCOMING: EMPTY FULL

OUTGOING: EMPTY FULL X

TRUCKING COMPANY: Hittman

TRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: M-19

SERIAL NUMBER: 58126

CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: M-3

SERIAL NUMBER: 111549

CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA

TYPE: M-3

SERIAL NUMBER: 67108

CAL. DUE DATE: 7-24-96

HP TECHNICIAN: W. S. F.

REVIEWED BY: M. L. K.

REMARKS: PERFORMED A CONTAMINATION SURVEY
OF THE TRAILER BED VIA DIRECT FRISK. ALL
FIXED CONTAMINATION LEVELS ARE
15 61000 DPM/100 CM2 BETA/GAMMA.

SHIPMENT SURVEY FORM

SURVEY NUMBER -TRAN- 95-07-0023C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5C 40.5
2m 40.5DOSE RATE UNDER TRAILER 40.5

m-3
S/L # 649
T.W. 11,200
Gross 21,700

C 40.5
40.5

cab

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC	BETA/GAMMA	ALPHA
1	41000	4100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

DATE: 7-19-95 TIME: 1000SHIPMENT NUMBER: 952249TRACTOR #: 154 TRAILER #: 340305INCOMING: EMPTY FULL OUTGOING: EMPTY FULL XTRUCKING COMPANY: TRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: M-10
SERIAL NUMBER: 58126
CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: M-3
SERIAL NUMBER: 73015
CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA

TYPE: M-3
SERIAL NUMBER: 67108
CAL. DUE DATE: 7-24-90HP TECHNICIAN: Wesley

REVIEWED BY: Middle
REMARKS: PERFORMED A CONTAMINATION SURVEY
OF THE TRAILER BED VIA DIRECT FRISK. ALL
FIXED CONTAMINATION LEVELS ARE

CIRCLED NUMBER ON THE ABOVE
DRAWING INDICATES SWIPED
LOCATION.

SEG

SURVEY# 95-07-0022

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530PURPOSE 50-PC-608 Weekly SurveyINST. TYPE MODEL 3 SER# 73015 CAL DUE 1-11-96
44-9INST. TYPE MODEL 2 SER# 67108 CAL DUE 7-24-96
43-5INST. TYPE 1 SER# 1 CAL DUE 1SURVEY DATE 7-19-95 TIME 0930RWP#(S) -SURVEY BY M. Keely / N. Sawyer REMARKS Performed after final loadingREVIEW BY Paul S. Miley DATE 7-19-95SMEAR RESULTS
dpm/100cm²

See Attached Map

	(B, γ)	(α)
1)	<1K	<20
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		

Gross Massilins taken of
entire floor area / no detectable
activity noted
w/ 43-5 / 44-9

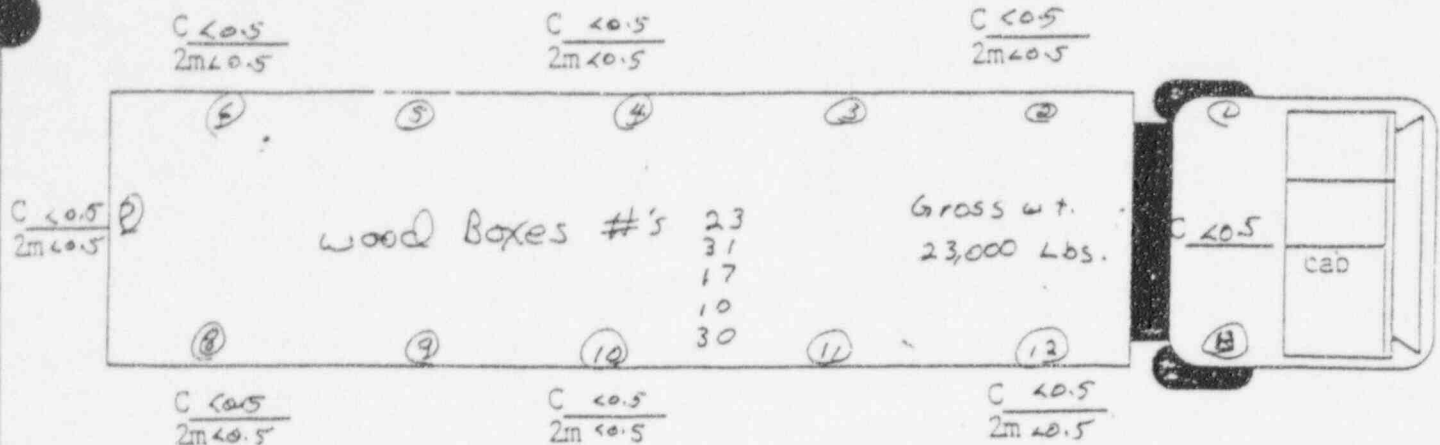
MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC. - CONTACT GAMMA
- MBAD/MA - BETA DOSE RATE
- MBAD/MB - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

50-PC-608

SHIPMENT SURVEY FORM

SURVEY NUMBER 95 -TRAN- 08-0040DOSE RATE UNDER TRAILER <0.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC BETA/GAMMA ALPHA

1 <1000 <100

2

3

4

5

6

7

8

9

10

11

12

13 ✓

DATE: 8-8-95 TIME: 1000SHIPMENT NUMBER: 952426TRACTOR #: 040 TRAILER #: 3/2092INCOMING: EMPTY FULL OUTGOING: EMPTY FULL XTRUCKING COMPANY: HittmanTRAILER TYPE: FLAT RAGTOP
VAN DROPDECK X

DOSE RATE INSTRUMENT

TYPE: M-19SERIAL NUMBER: 58126CAL. DUE DATE: 11-17-96

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: M-3 43-5SERIAL NUMBER: 67108CAL. DUE DATE: 7-24-94

CONTAMINATION SURVEY INST. - ALPHA

TYPE: M-3 44-9SERIAL NUMBER: 111548CAL. DUE DATE: 1-11-96HP TECHNICIAN: 100/Sa/-REVIEWED BY: Michelle K...
REMARKS: PERFORMED A CONTAMINATION SURVEY
OF THE TRAILER BED VIA DIRECT FRISK. ALL
FIXED CONTAMINATION LEVELS ARECIRCLED NUMBER ON THE ABOVE
DRAWING INDICATES SWIPED
LOCATION.

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Loading Dock/Tarps/Floor Area Under Boxes
Rigging/Forks and Hydrants

INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD-2929 SER# 44651 CAL DUE 1-26-96

SURVEY DATE 8-8-95 TIME 1300

RWP#(S)

SURVEY BY M. Keelley ^{MR} N. Sawyer REMARKS

REVIEW BY / Mike Keelley DATE 8-8-95

Loading Dock - $< 1K/220 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk

Tarps - $< 1K/220 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk

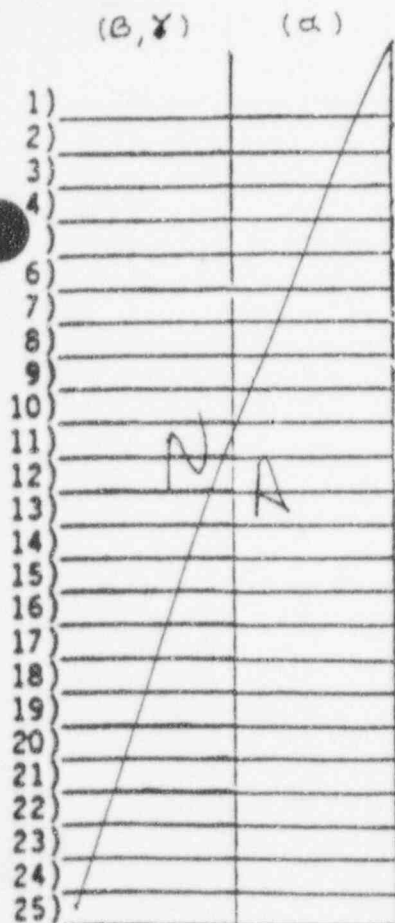
Floor Area Under Boxes
 $< 1K/220 \text{ dpm}/100\text{cm}^2$

Rigging - $< 1K/220 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk

Forks and Hydrants - $< 1K/220 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk.

SMEAR RESULTS

dpm/100cm²



MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NO. - CONTACT GAMMA
- MBR/NA - BETA DOSE RATE
- MBR/NA - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY METER
UNLESS OTHERWISE NOTED

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 8-7-95 TIME 1000

RMP#(S)

SURVEY BY M. Keelen^{mk} N. Sawyer^{ms}

REVIEW BY / Mike Keelen DATE 8-7-95

PURPOSE Loading Dock/Tarps/Floor under skids/Forks
on Hydrus Rigging Package #33

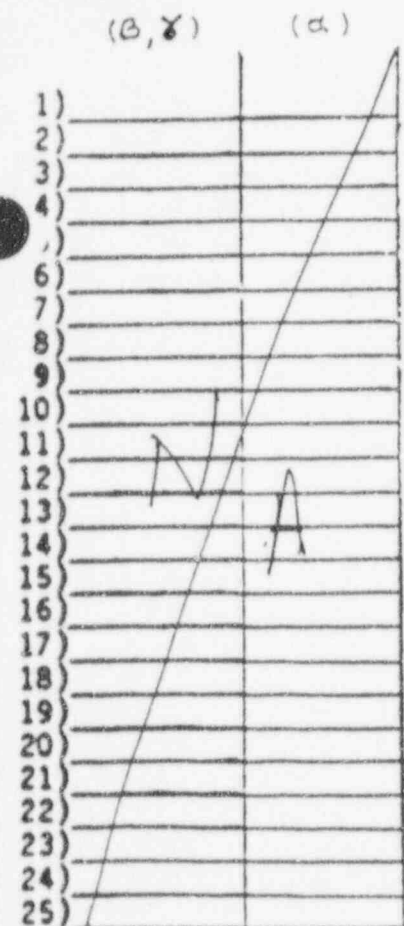
INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD/2029 SER# 44651 CAL DUE 1/8/96

REMARKS 50-PC-603

SMEAR RESULTS



Loading Dock - $<1K/220$ dpm/100cm²
no detectable direct frisk

Tarps under skids
 $<1K/220$ dpm/100cm²
no detectable direct frisk

Floor Under Skids
 $<1K/220$ dpm/100cm²

Forks on Fork truck
 $<1K/220$ dpm/100cm²
no detectable direct frisk

Rigging - $<1K/220$ dpm/100cm²
no detectable direct frisk

Reseal Package #33 on bottom of skid

Pre - $21K/220$ @ openings

Post - $<1K/220$ dpm/100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC. - CONTACT GAMMA
- MBND/MA - BETA DOSE RATE
- MBND/MA - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MINOR
UNLESS OTHERWISE NOTED

C 40.5
2m 40.5 C 40.5
2m 40.5 C 40.5
2m 40.5

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	<u><1000</u>	<u><100</u>
2		
3		
4		
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13		

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPED LOCATION.

DATE: 8-7-95 TIME: 0900

SHIPMENT NUMBER: 952428

TRACTOR #: 154 TRAILER #: 340640

INCOMING: EMPTY FULL

OUTGOING: EMPTY FULL X

TRUCKING COMPANY: Huffman

TRAILER TYPE: FLAT X RAGTOP
VAN DROPDECK

DOSE RATE INSTRUMENT
TYPE: M-19
SERIAL NUMBER: 59126
CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA
TYPE: M-3
SERIAL NUMBER: 111548
CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA
TYPE: M-3
SERIAL NUMBER: 67108
CAL. DUE DATE: 7-24-96

HP TECHNICIAN: Dea/S-f

REVIEWED BY: Miller

REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

15 41K DPM/100 CM2 BETA/GAMMA.

TECHNICIAN INITIALS

SURVEY NUMBER

-TRAN- 95-08-0036

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2

LOC	BETA/GAMMA	ALPHA
1		
2		
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99		
100		

1000 100

DATE: 8-2-95 TIME: 09.30

SHIPMENT NUMBER: 952394

TRACTOR #: 026 TRAILER #: 312092

INCOMING: EMPTY FULL

OUTGOING: EMPTY FULL ☒

TRUCKING COMPANY:

TRAILER TYPE: FLAT _____ RAGTOP _____
VAN _____ DROPDECK ☒

DOSE RATE INSTRUMENT

TYPE: m-19

SERIAL NUMBER: 58126

CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: m-3

SERIAL NUMBER: 111548

CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA

TYPE: m-3

SERIAL NUMBER: 67108

CAL. DUE DATE: 7-24-96

HP TECHNICIAN: Neal -

REVIEWED BY: Mill
REMARKS: PERFORMED A CONTAMINATION SURVEY
OF THE TRAILER BED VIA DIRECT FRISK. ALL
FIXED CONTAMINATION LEVELS ARE

15 L100 DPM/100 CM2 BETA/GAMMA

CIRCLED NUMBER ON THE ABOVE
DRAWING INDICATES SWIPED
LOCATION.

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 8-2-95 TIME 1000

RMP#(S)

SURVEY BY ^{HK}McKeeley ^MN. Sawyer

REVIEW BY ^MMcKeeley DATE 8-2-95

PURPOSE Loading Dock/Tarps/Forks in Hyster/Floor
Under Boxes

INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 44651 CAL DUE 1-26-96

REMARKS 50-PC-608

Loading Dock $<1K/220 \text{ dpm}/100 \text{ cm}^2$
no detectable activity detected.

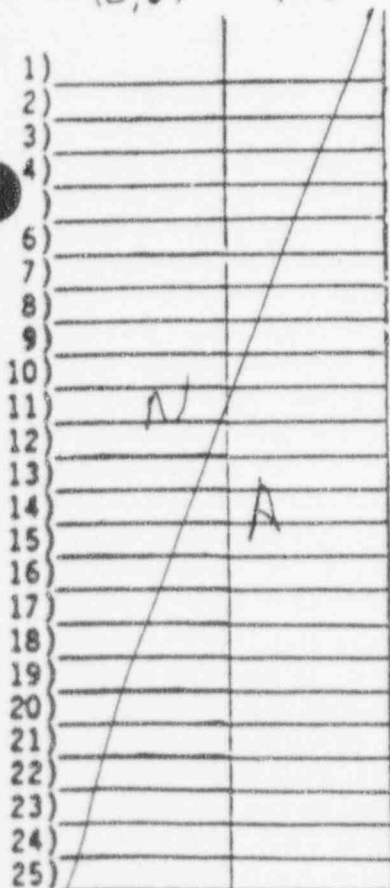
Tarps - $<1K/220 \text{ dpm}/100 \text{ cm}^2$
no detectable activity detected

Forks in Hyster - $<1K/220 \text{ dpm}/100 \text{ cm}^2$
no detectable activity detected

Floor Area Under Boxes
 $<1K/220 \text{ dpm}/100 \text{ cm}^2$

SMEAR RESULTS
dpm/100cm²

(B, X) (A)



MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBND/MA - BETA DOSE RATE

MBND/MA - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MPM/HR
UNLESS OTHERWISE NOTED

SEG

SURVEY# 95-08-0034

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 8-1-95 TIME 1000

RMP#(S) _____

SURVEY BY M. Keeley^{mk} N. Sawyer^h

REVIEW BY W. S. / M. L. Keeley DATE _____

PURPOSE Loading Dock/Tarps/Floor Area Under Skids
Forks on Hyster's

INST. TYPE MOD-3 SER# 73015 CAL DUE 1-11-96
44-9

INST. TYPE MOD-3 SER# 111400 CAL DUE 1-11-96
44-9

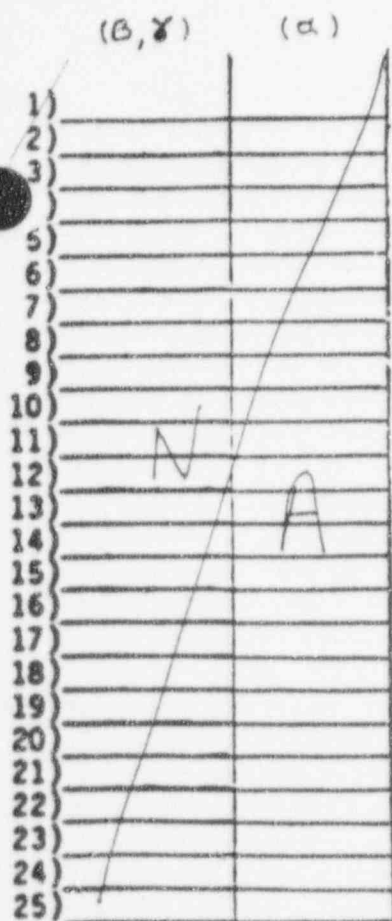
INST. TYPE MOD-3 SER# 4451 CAL DUE 1/26/96
44-9

REMARKS 50-PC-603 (Piece #50/55)

Loading Dock

<1K/<20 dpm/100cm²
no detectable activity
detected.

SMEAR RESULTS
dpm/100cm²



Tarps Under Skids

<1K/<20 dpm/100cm²
no detectable activity direct
frisk.

Floor Area Under Skids

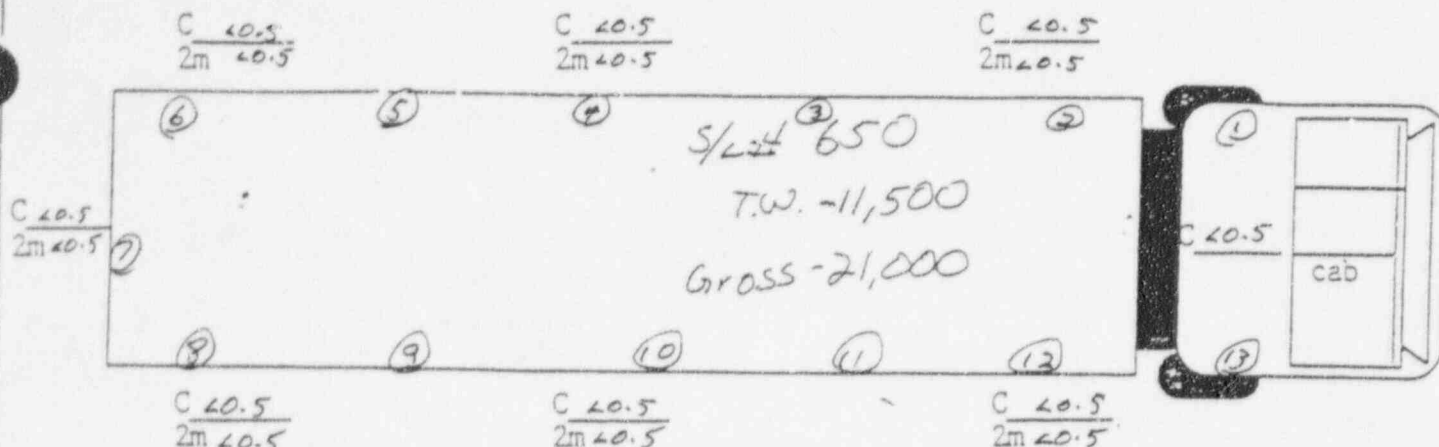
<1K/<20 dpm/100cm²

Forks on Hyster's

<1K/<20 dpm/100cm²
no detectable activity
direct frisk.

MAP LEGEND

- ⊙ - SMEAR LOCATION
 - NO - GAMMA DOSE RATE
 - NC - CONTACT GAMMA
 - MB/NA - BETA DOSE RATE
 - MB/NC - CONTACT BETA
 - ⊗ - AIR SAMPLE LOCATION
- ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	<1000	<100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13	✓	✓

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPE LOCATION.

DATE: 8-1-95 TIME: 0900
 SHIPMENT NUMBER: 952391
 TRACTOR #: 066 TRAILER #: 340377
 INCOMING: EMPTY _____ FULL _____
 OUTGOING: EMPTY _____ FULL X
 TRUCKING COMPANY: _____
 TRAILER TYPE: FLAT X RAGTOP _____
 VAN _____ DROPDECK _____

DOSE RATE INSTRUMENT

TYPE: M-19
 SERIAL NUMBER: 58126
 CAL. DUE DATE: 11-12-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: M-3
 SERIAL NUMBER: 73015
 CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA

TYPE: M-3
 SERIAL NUMBER: 67108
 CAL. DUE DATE: 2-24-96

HP TECHNICIAN: Dea/S

REVIEWED BY: Mill K
 REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE AS 4000 DPM/100 CM2 BETA/GAMMA.

TECHNICIAN INITIALS

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37824-2530

PURPOSE Loading Dock/Tarps/Floor Area Under Skids
Forks on Hyster and Rigging Eq.

INST. TYPE MOD 3 SER# 73015 CAL DUE 1-11-96
44-9

INST. TYPE MOD 3 SER# 67108 CAL DUE 7-24-96
43-5

INST. TYPE / SER# / CAL DUE /

SURVEY DATE 7-31-95 TIME 1100

RMP#(S) -

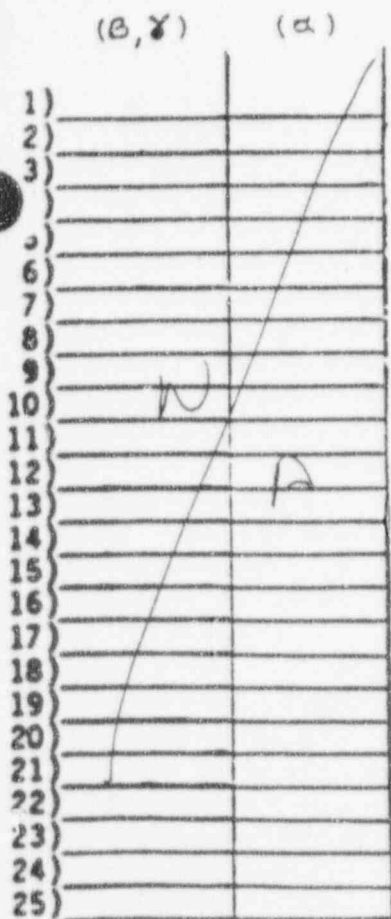
SURVEY BY M. Keeley / N. Sawyer REMARKS

REVIEW BY Bob King / M. D. King DATE 7-31-95

Loading Dock - $<1K / <20 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk

Tarps Under Skids - $<1K / <20 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk

SMEAR RESULTS
dpm/100cm²



Floor Area Under Skids
 $<1K / <20 \text{ dpm}/100\text{cm}^2$

Forks on Hyster 603/608
 $<1K / <20 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk

Rigging Eq. $<1K \text{ dpm} / <20 \text{ dpm}/100\text{cm}^2$
no detectable direct frisk

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NO. - CONTACT GAMMA
- MRAD/HR - BETA DOSE RATE
- MRAD/HR - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

$\frac{C \ 40.5}{2m \ 40.5}$ $\frac{C \ 40.5}{2m \ 40.5}$ $\frac{C \ 40.5}{2m \ 40.5}$

$\frac{C \ 40.5}{2m \ 40.5}$ $\frac{C \ 40.5}{2m \ 40.5}$ $\frac{C \ 40.5}{2m \ 40.5}$

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	21000	2100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPED LOCATION.

DATE: 7-31-95 TIME: 1115
 SHIPMENT NUMBER: 452389
 TRACTOR #: 166 TRAILER #: 340362
 INCOMING: EMPTY FULL
 OUTGOING: EMPTY FULL X
 TRUCKING COMPANY: Hittman
 TRAILER TYPE: FLAT X RAGTOP
 VAN DROPDECK

DOSE RATE INSTRUMENT

TYPE: m-19
 SERIAL NUMBER: 58126
 CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA

TYPE: m-3
 SERIAL NUMBER: 111549
 CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA

TYPE: m-3
 SERIAL NUMBER: 67108
 CAL. DUE DATE: 7-24-96

HP TECHNICIAN: Michael S.

REVIEWED BY: Mike L.
 REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

15 C1000 DPM/100 CM2 BETA/GAMMA.

SEG

SURVEY# 95-07-0030

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Weekly Survey 50-PL-603/608

INST. TYPE MOD 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD 3 43-5 SER# 67108 CAL DUE 7-24-96

INST. TYPE / SER# / CAL DUE /

SURVEY DATE 7-31-95 TIME 0830

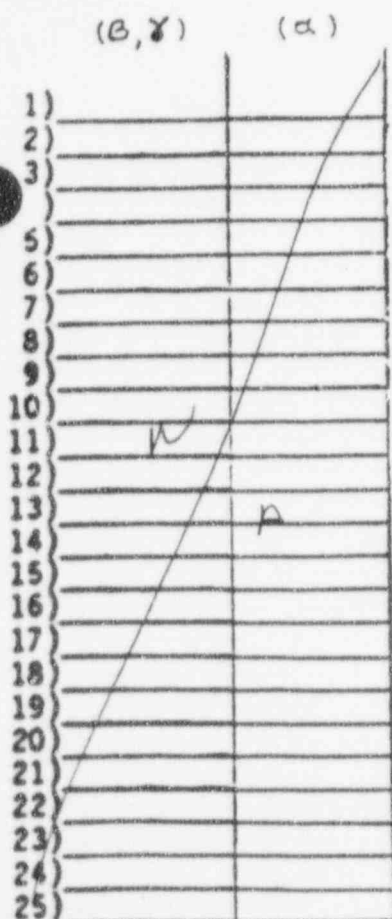
RWP#(S) -

SURVEY BY M. Keeler / N. Sawyer REMARKS Smearable Cont. Only

REVIEW BY Don/Sy/Mike/K DATE 7-31-95

See Attached Map

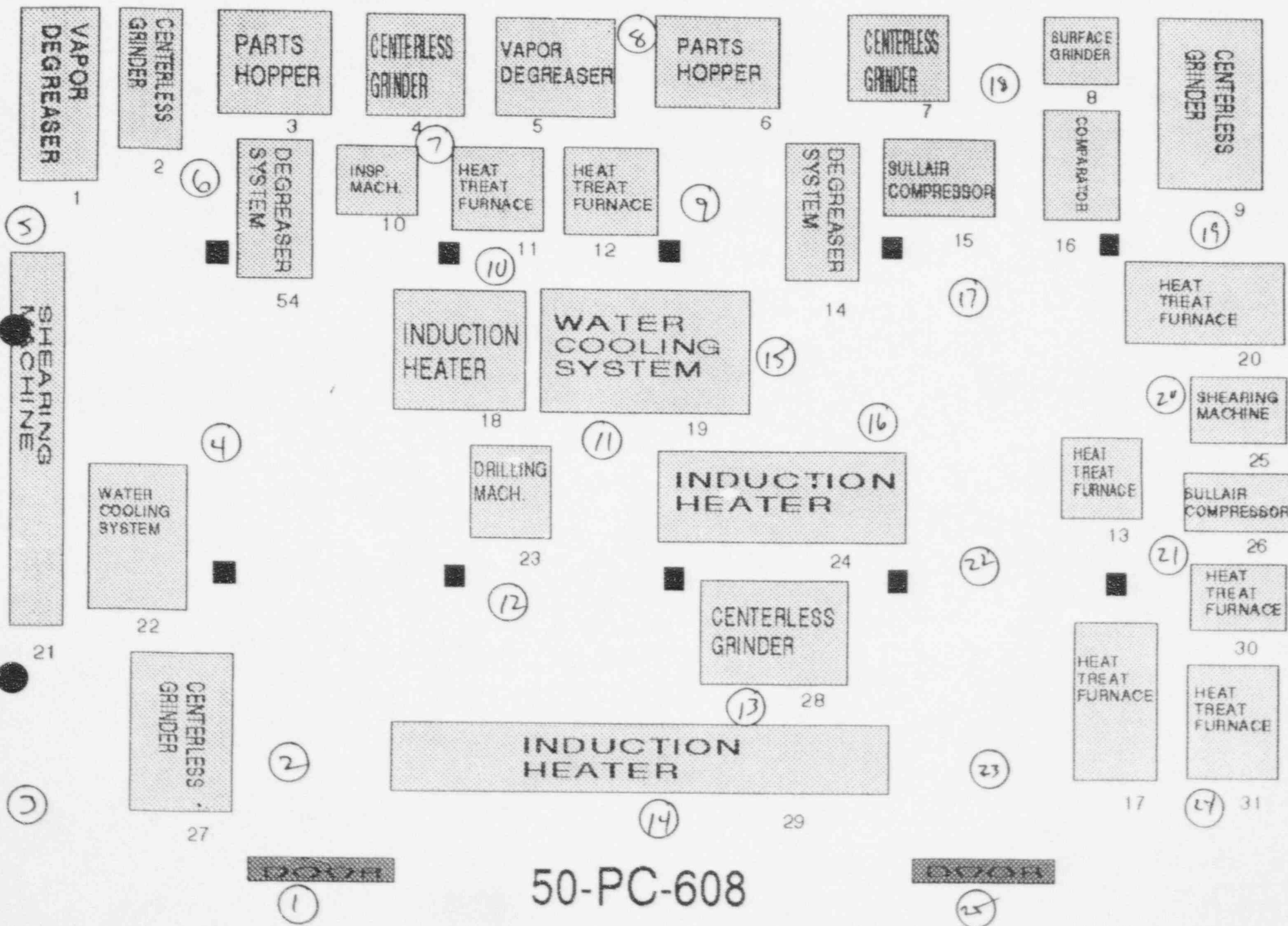
SMEAR RESULTS
dpm/100cm²



Smears ① - ⑤① all
 $< 1K \text{ dpm}/100\text{cm}^2$ BY
 $< 20 \text{ dpm}/100\text{cm}^2$ α

MAP LEGEND

- ⊙ - SMEAR LOCATION
 - NO. - GAMMA DOSE RATE
 - NO. - CONTACT GAMMA
 - MRAD/HR - BETA DOSE RATE
 - MRAD/HR - CONTACT BETA
 - ⊙ - AIR SAMPLE LOCATION
- ALL DOSE RATES ARE BY METER
UNLESS OTHERWISE NOTED



HEAT TREAT FURNACE 32 (33) HEARTH GRIDS 33 BIN STAND W/ VIBRA CHUTE 34 HEAT TREAT FURNACE 35 OIL PLUNGE COOL SYS. 36 BAR SWAG FEED SYS. 37 OIL PLUNGE COOL SYS. 38 BAR SWAGGER FEED SYS. 39 OVERHEAD MONORAIL 40

JIB CRANE 10' BOOM 41

OIL PLUNGE COOLING SYS. 42

JIB CRANE 10' BOOM 43

HEAT TREAT FURNACE 44

OVERHEAD MONORAIL SYSTEM 45

HEAT TREAT BASKET 46

DEGREASER SOLVENT 47

OVERHEAD MONORAIL BARREL WASH 48

HEAT TREAT FURNACE 49

HIGH TEMP VAPOR DEGREASER 50

HEAT TREAT FURNACE 51

BARREL WASH SYSTEM 52

ROD CARTS & SHADOW GRAPH SCALE 53

HEAT TREAT FURNACE 54

50-PC 603

50-PC 603

95 0030

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Floor Under Skid/Loading Dock/Tarps/Forks on Fork Lift/Rigging

INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 44651 CAL DUE 1-26-96

SURVEY DATE 8-14-95 TIME 1400

RWP#(S) —

SURVEY BY M. Keelley W.N. Sawyer REMARKS 50-PC-603

REVIEW BY W.N. Sawyer / Michelle Keelley DATE 8-14-95

Loading Dock - $< 1K/420 \text{ dpm/100cm}^2$
no detectable direct frisk

Tarps Under Skids
 $< 1K/420 \text{ dpm/100cm}^2$
no detectable direct frisk

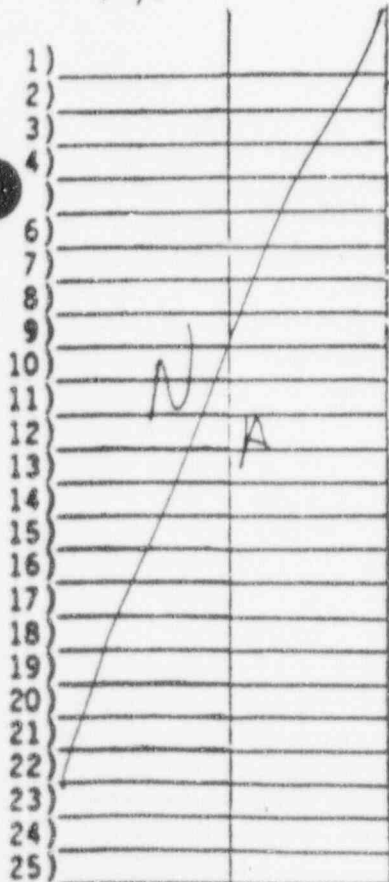
Floor Under Skids
 $< 1K/420 \text{ dpm/100cm}^2$

Rigging - $< 1K/420 \text{ dpm/100cm}^2$
no detectable direct frisk

Forks on Forklift
 $< 1K/420 \text{ dpm/100cm}^2$
no detectable direct frisk

SMEAR RESULTS
dpm/100cm²

(B, 8) (A)



MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBRD/NA - BETA DOSE RATE

MBRD/NA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY METER
UNLESS OTHERWISE NOTED

SHIPMENT SURVEY FORM

SURVEY NUMBER TRAN-95-08-0042

Diagram of a trailer layout showing measurement points (circled numbers 1-13) and dose rate readings (C 40.5 / 2m 40.5) at various locations. The trailer contains two wood boxes:

Wood Box #1's 36 - 7000 lbs.
44 - 9000 lbs.

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	L1000	L100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPE LOCATION.

DATE: 8-14-95 TIME: 1500

SHIPMENT NUMBER: 952485

TRACTOR #: 172 TRAILER #: 585079

INCOMING: EMPTY ☐ FULL ☐

OUTGOING: EMPTY ☐ FULL ☒

TRUCKING COMPANY: Hittman

TRAILER TYPE: FLAT ☐ RAGTOP ☐
VAN ☐ DROPDECK ☒

DOSE RATE INSTRUMENT
TYPE: M-14
SERIAL NUMBER: 58126
CAL. DUE DATE: 11-12-95

CONTAMINATION SURVEY INST. - BETA/GAMMA
TYPE: M-3
SERIAL NUMBER: 111548
CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA
TYPE: M-3
SERIAL NUMBER: 6709
CAL. DUE DATE: 7-24-96

HP TECHNICIAN: Neil Saxe

REVIEWED BY: Mike Kury

REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE 50-PC-608 Job Completion Survey

INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD/2929 SER# 44651 CAL DUE 1-26-96

SURVEY DATE 8-9-95 TIME 1200

RMP#(S)

SURVEY BY M. Kealey ^{mk} N. Sawyer ^{ns} REMARKS Determine Radiological Condition @ End of Job

REVIEW BY Bob / M. Kealey DATE 8-9-95

Page 1 of 2

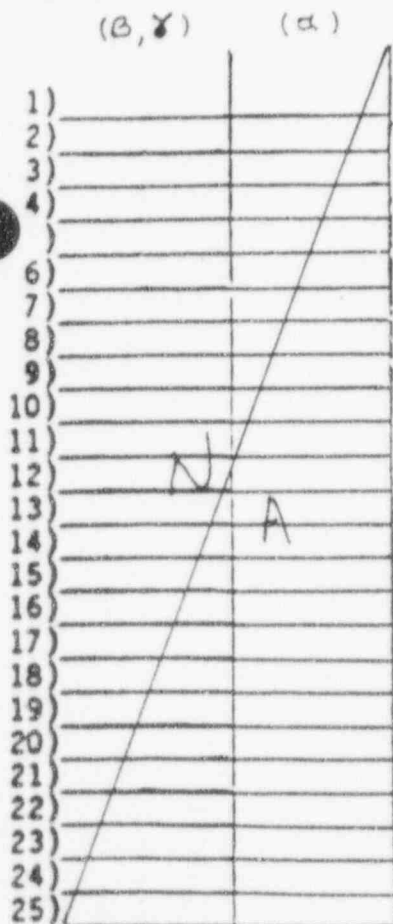
MODEL 3-44-9 - probe area - 15cm² - Background - 60-80 cpm
MODEL 3-43-5 - probe area - 100cm² - Background - 0 cpm

Three Survey points in each grid.

Grids A-Y on attached map.

SMEAR RESULTS

dpm/100cm²



Fixed and Loose Surface Contamination Surveys were performed for each grid.

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids A-Y. All activities <MDC / <MDA

Grid- Z Access Doors

Fixed and Loose Surface Contamination surveys were performed

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids Z All activity <MDC / <MDA

MODEL 2929 #44651

MDC = B- 26 / 2.7 α

MDA = B- 137 / 5.7 α

EFF. = .19 .47

(MDC - cpm)
(MDA - dpm)

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBN/MA - BETA DOSE RATE

MBN/MA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN mR/hr
UNLESS OTHERWISE NOTED

AB53

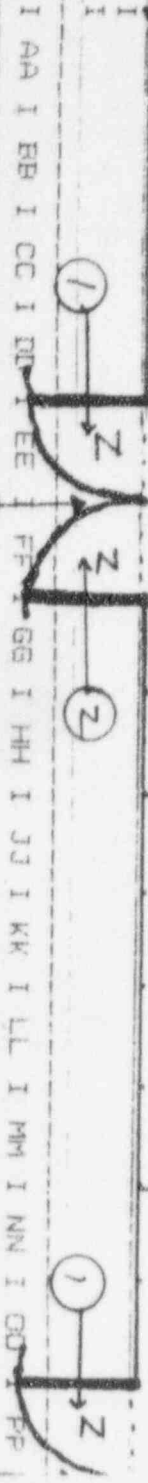
EXPLOSIVE MAG 50 X 100 FT PLANOGRAPH--SITE NR

DATE 95219

I AA I BB I CC I DD I EE I FF I GG I HH I JJ I KK I LL I MM I NN I OO I PP

50-PC-608

A			B			C			D		
1	2	3	1	2	3	1	2	3	1	2	3
F			G			H			I		
1	2	3	1	2	3	1	2	3	1	2	3
K			L			M			N		
1	2	3	1	2	3	1	2	3	1	2	3
P			Q			R			S		
1	2	3	1	2	3	1	2	3	1	2	3
U			V			W			X		
1	2	3	1	2	3	1	2	3	1	2	3



SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Rigging / Forks on Hyster / Tarps under skids / Floor Area Under Skids / Loading Dock

INST. TYPE MOD-3 SER# 73015 CAL DUE 1-11-96
44-9

INST. TYPE MOD-3 SER# 111400 CAL DUE 1-11-96
44-9

INST. TYPE MODEL 3 SER# 67108 CAL DUE
43-5

SURVEY DATE 8-15-95 TIME 1500

RWP#(S)

SURVEY BY M. Keeley ^{HK} N. Sawyer ^{HK} REMARKS

REVIEW BY / Michelle Keeley DATE 8-15-95

Loading Dock - $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$
no detectable direct frisk

Tarps - $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$
no detectable direct frisk

Floor Area Under Skids
 $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$

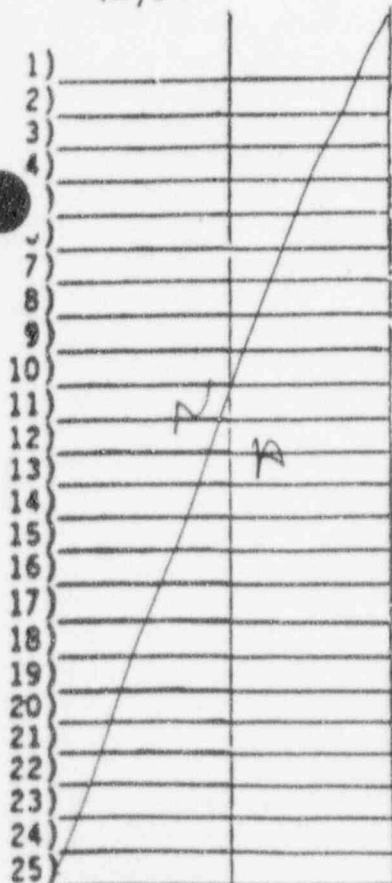
Rigging - $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$
no detectable direct frisk

Forks on Hysters
 $< 1K / < 20 \text{ dpm} / 100 \text{ cm}^2$
no detectable direct frisk

*Final Survey of Hysters and
all Rigging EQ.
no detectable activity
detected smearable
no detectable activity
direct frisk

SMEAR RESULTS
dpm/100cm²

(B, 8) (a)



MAP LEGEND

⊙	- SMEAR LOCATION
NO.	- GAMMA DOSE RATE
NO.	- CONTACT GAMMA
MRAD/HR	- BETA DOSE RATE
MRAD/HR	- CONTACT BETA
⊕	- AIR SAMPLE LOCATION
All DOSE RATES ARE IN MVR	
UNLESS OTHERWISE NOTED	

SURVEY NUMBER -TRAN- 95-01-0045

SURVEY NUMBER -TRAN- 95-08-0045

Wood Box #1's

48 - 16,000 lbs.
49 - 9,500 lbs.

cab

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	<1000	<100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13	✓	✓

DATE: 8-16-95 TIME: 0700
SHIPMENT NUMBER: 952486
TRACTOR #: 064 TRAILER #: 312103
INCOMING: EMPTY _____ FULL _____
OUTGOING: EMPTY _____ FULL X
TRUCKING COMPANY: Hittman
TRAILER TYPE: FLAT _____ RAGTOP _____
VAN _____ DROPDECK X

DOSE RATE INSTRUMENT
TYPE: M-19
SERIAL NUMBER: 58126
CAL. DUE DATE: 11.17.95

CONTAMINATION SURVEY INST. - BETA/GAMMA
TYPE: M-3
SERIAL NUMBER: 111548
CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA
TYPE: M-3
SERIAL NUMBER: 67108
CAL. DUE DATE: 7.24.96

CIRCLED NUMBER ON THE ABOVE
DRAWING INDICATES SWIPE
LOCATION.

HP TECHNICIAN: Neal S. /

REVIEWED BY: W. J. K. X

REMARKS: PERFORMED A CONTAMINATION SURVEY OF THE TRAILER BED VIA DIRECT FRISK. ALL FIXED CONTAMINATION LEVELS ARE

is 4000 DPM/100 CM2 BETA/GAMMA.

SHIPMENT SURVEY FORM

SURVEY NUMBER - TRAN - 95-08-004

$\frac{C\ 40.5}{2m\ 40.5}$
 $\frac{C\ 40.5}{2m\ 40.5}$
 $\frac{C\ 40.5}{2m\ 40.5}$

⑥ ⑤ ④ ③ ②

C 40.5 2m 40.5 ②

Wood Box #1's 47 3200 lbs.
 52 12,000 lbs.

C 40.5 2m 40.5 C 40.5 2m 40.5 C 40.5 2m 40.5

① ⑨ ⑩ ⑪ ⑫

C 40.5 2m 40.5 C 40.5 2m 40.5 C 40.5 2m 40.5

DOSE RATE UNDER TRAILER 40.5

ALL DOSE RATES IN mR/hr UNLESS OTHERWISE NOTED

SMEAR RESULTS @ DPM/100CM2		
LOC	BETA/GAMMA	ALPHA
1	L1000	L100
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

CIRCLED NUMBER ON THE ABOVE DRAWING INDICATES SWIPE

DATE: 8-15-95 TIME: 1100
 SHIPMENT NUMBER: 952514
 TRACTOR #: 168 TRAILER #: 312092
 INCOMING: EMPTY FULL
 OUTGOING: EMPTY FULL X
 TRUCKING COMPANY: Hittman
 TRAILER TYPE: FLAT RAGTOP
 VAN DROPDECK X

DOSE RATE INSTRUMENT
 TYPE: M-19
 SERIAL NUMBER: 58126
 CAL. DUE DATE: 11-17-95

CONTAMINATION SURVEY INST. - BETA/GAMMA
 TYPE: M-3
 SERIAL NUMBER: 111548
 CAL. DUE DATE: 1-11-96

CONTAMINATION SURVEY INST. - ALPHA
 TYPE: M-3
 SERIAL NUMBER: 67108
 CAL. DUE DATE: 7-24-96

HP TECHNICIAN: REVIEWED BY: REMARKS:

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 8-15-95 TIME 1200

RWP(S)

SURVEY BY M. Keeley^{mk} N. Sawyer^{NS} REMARKS Determine Radiological Condition @ End of Job

REVIEW BY [Signature] / Michael Keeley DATE 8-15-95

PURPOSE 50-PC-603 Job Completion Survey

INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD/2929 SER# 44651 CAL DUE 1-26-96

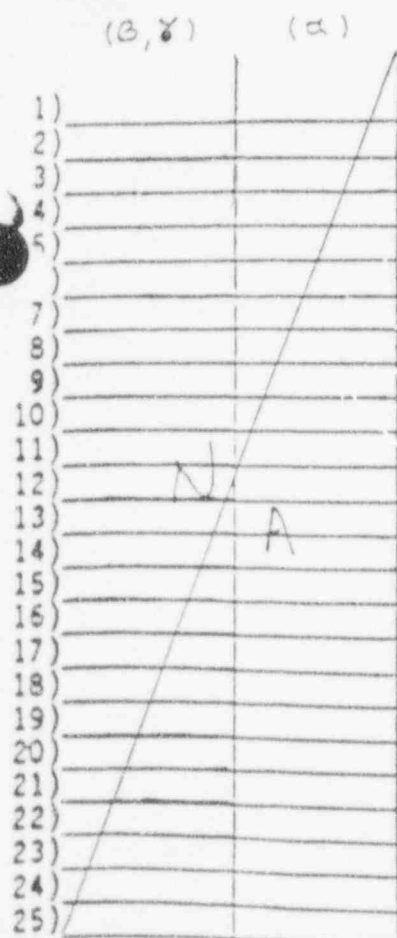
MODEL 3-44-9 - probe area - 15cm² - Background - 60-80 cpm

MODEL 3-43-5 - probe area - 100cm² - Background - 0 cpm

Three survey points in each grid.

Grids A-Y on attached map.

SMEAR RESULTS
dpm/100cm²



Fixed and Loose Surface Contamination Surveys were performed for each grid.

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids A-Y. All activities <MDC / <MDA

Grid- Z Access Doors

Fixed and Loose Surface Contamination surveys were performed

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids Z All activity <MDC / <MDA

MODEL 2929 # 44651

MDC = B- 26 / 2.7 α

MDA = B- 137 / 5.7 α

EFF. = .19 .47

(MDC - cpm)
(MDA - dpm)

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBN/NA - BETA DOSE RATE

MCN/NA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE AT 1M
UNLESS OTHERWISE NOTED

Page 1 of 2

NOTE

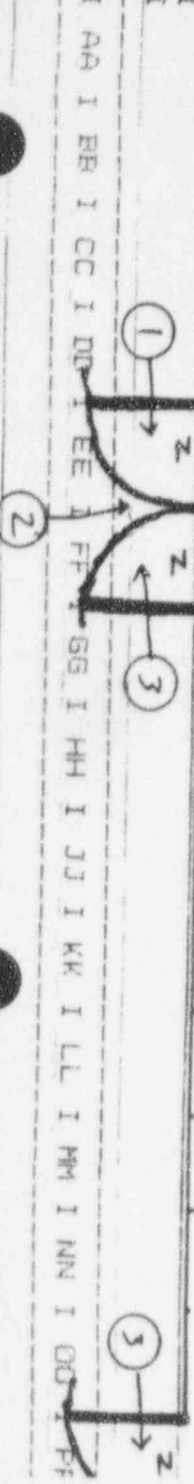
EXPLOSIVE MAG 50 X 100 FT PLANOGRAPH-SITE NR

DATE 95219

I AA I BB I CC I DD I EE I FF I GG I HH I JJ I KK I LL I MM I NN I OO I P

50-PC-603

A			B			C			D		
1	2	7	1	2	3	1	2	3	1	2	
E			G			H			I		
1	2	3	1	2	3	1	2	3	1	2	
K			L			M			N		
1	2	3	1	2	3	1	2	3	1	2	
P			Q			R			S		
1	2	3	1	2	3	1	2	3	1	2	
U			V			W			X		
1	2	3	1	2	3	1	2	3	1	2	



SURVEY NUMBER LOG

[illegible]

SURVEY NUMBER LOG

SURVEY NUMBER	DATE	LOCATION OR ITEM SURVEYED	REASON	INIT.
95-06-0001	6-26	Loading Dock Pre-Job PC-50-608	Initial Survey	MK
95-06-0002	6-26	Loading Dock Pre-Job PC-50-603	Initial Survey	MK
95-06-0003	6-26	Surface Contamination Survey I/s Butlers	Initial Survey	NS
95-06-0004	6-28	Verify Radiological Conditions ^{PC50-603} PC50-608	Weekly Survey	MK
95-07-0005	7-6	Initial Survey of DU Eq. for Shipment	Characterization Survey	MK
95-07-0006	7-7	Weekly Routine of PC-50-603/608	Routine	MK
95-07-0007	7-7	Unconditional Release of Tarps/Trash	Release Survey	MK
95-07-0008	7-7	Radiation Compass / I/s - O/s Box	Initial Survey	MK
95-07-0009	7-10	Outgoing Shipment Survey	Pre-shipment	NS
95-07-0010	7-10	18/27/28 Survey floor under pallets after load	Cont. Survey	MK
95-07-0011	7-10	A/S During Loading	Routine	MK
95-07-0012	7-12	Survey floor under pallets after loading and loading docks 2/3/4/54	Contamination Survey	MK
95-07-0013	7-12	Outgoing Shipment Survey	Pre-shipment	NS
95-07-0014	7-12	Plastic Tarps / Trash from PC50608	Unconditional Release	MK
95-07-0015	7-12	Weekly Survey of PC50 608	Contamination	MK
95-07-0016	7-17	Outgoing Shipment Survey	Pre-shipment	NS
95-07-0017	7-17	Bags of Tarps/Forks on Hyster	Unconditional Release	MK
95-07-0018	7-17	Survey floor under pallets after loading and loading docks (1/11/15/19/25)	Contamination Survey	MK
95-07-0019	7-18	Floor Under Pallets / Tarps and loading docks Forks on Hyster and Slings	Post Loading	MK
95-07-0020	7-18	Outgoing Shipment Survey	Pre-shipment	MK
95-07-0021	7-19	LOADING DOCK / TARPS / FLOOR UNDER SKIDS / LOADING RAMP / Forks on Hyster 1/1/2/9	Post Load Survey	MK
95-07-0022	7-19	50-PC-608 WEEKLY SURVEY	Weekly	MK
95-07-0023	7-19	Outgoing Shipment Survey #5	Pre-shipment	MK
95-07-0024	7-25	Outgoing Shipment Survey #6	Pre-shipment	MK
95-07-0025	7-25	Loading Docks / Tarps / Floor Under Skids Forks on Hyster 42/34/35/43/41	Contamination Survey	MK
95-07-0026	7-25	Outgoing Shipment Survey #7	Pre Shipment	MK
95-07-0027	7-26	Loading Dock / Tarps / Floor Under Skids / Forks on Fork Lift Boxes Loaded 39/46/51	Contamination Survey	MK
95-07-0028	7-26	Outgoing Shipment Survey #8	Pre Shipment	MK

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Kealey ^{Mk} TN. Sawyer ^h

REVIEW BY M. Kealey ^{Mk} TN. Sawyer ^h

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/(608)

DATE 7/17/95

Contract # DAAA0992G0004 0016

I.D. # - F-0508

Serial # - T77-99083

Map # - 1

All Results IN
DPM

SMEAR RESULTS
dpm/100cm²

Sq. Ft. 900 (cont. surface area)

Description of Item -

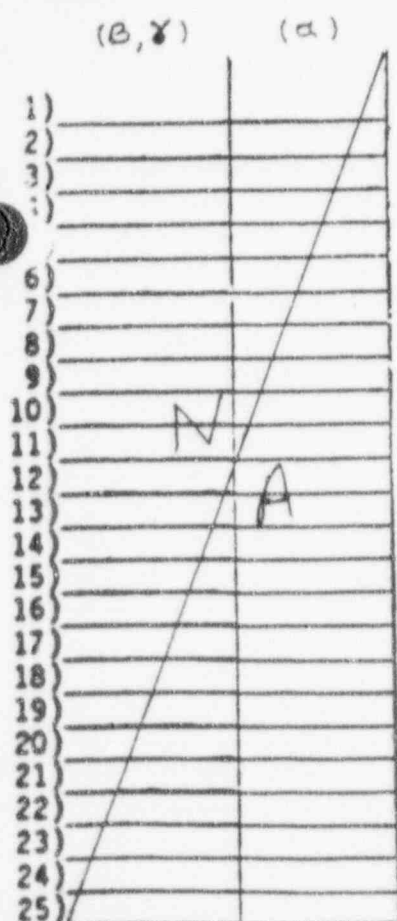
Vapor Degreaser (Part 1)

Avg. Fixed - 3K

Range Fixed - 1-6K

Avg. Smearable - 2K

Range Smearable - 1-5K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBR/HR - BETA DOSE RATE

MBR/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		SHEET NO. 1	NO OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		7. DATE MATERIAL REQUIRED		8. PRIORITY	
3. SHIP TO-MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraif	
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		11. VOUCHER NUMBER AND DATE		12. DATE SHIPPED	
		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1,901,317	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			
4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.					

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON. TAINER NO. g	UNIT PRICE h	TOTAL COST i
1	I.D. NO. F-0508, VAPOR DEGREASER, T-77-99083 Skid 1 of 2	Ea	1		Skid	1	23,820	23,820

SIGNATURE

DATE

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
			TOTAL						

DD FORM 1149
MAR 69

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION 1 MAY 60 WHICH MAY BE USED

Shipping #1 SED ~~Board~~ #

OPE

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAH09-84-E-0001 W/S HMC IDENTIFICATION # F-0508

EQUIPMENT DESCRIPTION: VAPOR DEGREASER w/AUTOMATIC HOIST SYSTEM

MODEL: DP 53030 SERIAL: _____ YR BUILT: 1979 COND: _____
SCC/ _____ DATE _____ WORK _____
PEC #: _____ REC'D: _____ ORDER: 7940-96-6400

MANUFACTURER: BARON BLAKESLEE ADDRESS SANTA FE SPRINGS CA.

RECEIVED OR PURCHASED FROM: _____ ADDRESS _____

		COST
REQUISITION #:	PURCHASE ORDER #: <u>14923 H</u>	ACQUISITION: <u>21,320</u>
SCHEDULE #:	ITEM #:	FREIGHT:
ACQUIRED FROM CONTRACT #:		INSTALLATION: <u>2,500</u>
ORIGINAL LOCATION: <u>AEROJET HEAVY METALS</u>		TOTAL: <u>23,820</u>

ACCESSORIES: 3097 ANA ST.
Compton CA 90221

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
TOR DATA: _____

Shipping #1 EEL Seal #

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AA

THIS PACKAGE NO. 2

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AA 5	1	S. DEG. HOIST 1800 LBS.	G
AA 7	1	S. DEG. STEPS	G

Shipping # 1 S&B Serial #

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

VAPOR DEGREASER #T-77-99083
SKID 1 OF 2

End Item Usage PARTS CLEANING			
Model DP53030		Type	
Serial No.		Manufacturer BARON BLAKESLEE	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
Reference para 463		External	P -
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify		70 WT. OIL	
Condition (Quality as to operational condition) FAIR			
INSTALLATION NAME:			

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeler^{mk} / N. Sawyer^h

REVIEW BY M. Keeler / N. Sawyer DATE 7-12-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/(608)

Contract # DAAA0992G0004 0016

I.D. # - F-0/NA

Serial # - 3415-13542

Map # - 2

Sq. Ft. 650 (cont. surface area)

Description of Item -
Centerless Grinder

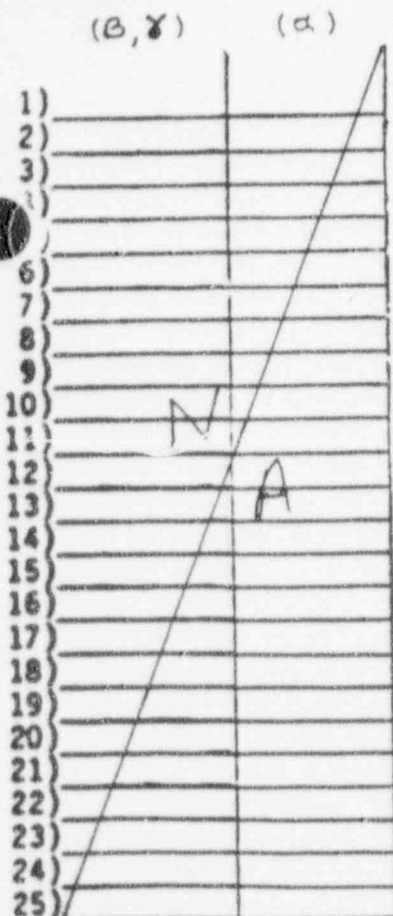
Avg. Fixed - 150 K

Range Fixed - 20 - 800 K

Avg. Smearable - 60 K

Range Smearable - 10 - 500 K

SMEAR RESULTS
dpm/100cm²



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBND/NR - BETA DOSE RATE

MBND/NR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MINUTE
UNLESS OTHERWISE NOTED

Shopper #2 '500' S&S #

#2

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

GRINDER #3415-13542

End Item Usage				METAL MACHINING - GRINDING			
Model		2		Type		CENTERLESS	
Serial No.		2M2H1W-399		Manufacturer		CINCINNATI MILACRON	
Installation No.				Location Bldg. No.			
Decontamination (Circle appropriate category)				X		XXX XXXXX	
Date							
Inspector's Initials							
Cleaning process (reference para 463)				C C-1		C Other and/or Agents Used	
Preservation - Specify				Internal		P - 2	
Reference para 463				External		P - 2	
Date				3/23/87			
Inspector's Initials				KK			
Protection - Specify				90WT. OIL			
Condition (Quality as to operational condition)				FAIR			

INSTALLATION NAME:

SHIPPING

LINER TALLY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS	6. REQUISITION DATE	4. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501H/F: Robert Gottlieb
Prop. Administrator
(918) 421-22174. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from
Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NO. g	UNIT PRICE h	TOTAL COST i
1	3415-1721-0408, I.D. NO. 3415-13542 Centerless Grinder	Ea	1		Skid	1	12,569	12,569

SIGNATURE



DATE

3/13/87

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBS	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SUBST TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							PORTED	DATE	BY	20. RECEIVER'S TOUCHER NO
	TOTAL										

DD FORM 1149
1 MAR 87

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

Shipping # 2 all good

DOD PROPERTY RECORD				<input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INITIAL		2. JULIAN DATE		3. I.D./SERIALMENT TAG NO.		Form Approved Budget Bureau No. 22-R0209			
				<input type="checkbox"/> IDLE <input checked="" type="checkbox"/> CHANGE		8415-13542							
SECTION I — INVENTORY RECORD													
4. COMMODITY CODE 3415-1721-0408		5. STOCK NUMBER 3415		6. ACQUISITION 12,369.		7. TYPE CODE		8. YR OF MFG		9. POWER CODE			
								10. STATUS CODE		11. SVC CODE			
								12. COMMAND CODE		13. ADM OFFICE CODE			
14. NAME OF MANUFACTURER Cincinnati Milacron Inc.				15. MFR'S CODE 12356		16. MANUFACTURER'S MODEL NO. 2				17. MANUFACTURER'S SERIAL NO. 2M2H1W-399			
18. LENGTH 14'		19. WIDTH 7'		20. HEIGHT 6'		21. WEIGHT 8,740		22. CERTIFICATE OF NON- AVAILABILITY NUMBER		25. CONTRACT NUMBER F33657-76-C-0494			
23. ASOD NO.													
24. ARD													
26. DESCRIPTION AND CAPACITY Grinding Machine, Cylindrical, External, Centerless Type, Horizontal Bed, Manual, 4-3/4" Dia Work 8" W/Gr. Wheel Face													
CONTINUED ON REVERSE SIDE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO													
27. ELECTRICAL CHARACTERISTICS													
QUANTITY		HORSEPOWER		VOLTS		PHASE		CYCLE		TYPE AND FRAME NUMBER			
1		20		220/440		3		60		N/A Gr Wh 364			
1		1		230						X 1150/2300 T Reg Wh CT 204			
1		.5		220/440		3		60/50		X 1725/1425 N/A Coolant 163			
1		.25		440		3		50/60		X 960/1140 N/A Hydraulic 56			
28. PRESENT LOCATION Aerojet Ordnance Company (HMD Facility) 3097 East Ana Street Compton, California 90021										29. DIPEC CONTROL NO. 29. POSSESSOR CODE 061045828493			
SECTION II — INSPECTION RECORD													
										YES		NO	
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?													
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?										DATE			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.													
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.													
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.													
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.													
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?													
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?													
38. WAS ITEM LAST USED ON A FINISHING OPERATION?													
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?													
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.										\$			
41. IS ITEM IN OPERABLE CONDITION?													
42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?										\$			
43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.													
44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.													
45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.													
46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.													
47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.													
48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?													
49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.													
50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.										\$			
51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.													
52. CONDITION CODE.													
53. OPERATING TEST CODE.													
SECTION III — REMARKS													
54. REMARKS													
REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO													
SECTION IV — DISPOSITION RECORD													
56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)						57. TYPE OF DISPOSITION			58. DATE OF DISPOSITION AND PROCEEDS IF SOLD				
						<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION							
						<input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT							
SECTION V — VALIDATION RECORD													
59. VALIDATION (TYPE NAME(S) AND SIGNATURE(S))													
Jarl Victor Aerojet Property Administrator													
DCRL-OLCH/Beverly Aye													

Shipping # 2 SEC Level #

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. Q1

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
Q1 2	1	N. GRIND CENTERLESS GRINDER	G
Q1 1	1	N. GRIND VIB. BOWL	G
Q1 2A	1	N. GRIND COOLANT TANK	G
Q1 2B	1	N. GRIND COOLANT PUMP	G
Q1 3	1	N. GRIND IN-FEED UNIT	G
Q1 4	1	N. GRIND EXIT CONVEYOR	G
Q1 7	1	N. GRIND DRIP PAN & GRATING	G

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0900-1500

RWP#(S) -

SURVEY BY M. Keeler^{MR} / N. Sawyer^{VS}

REVIEW BY M. Keeler / N. Sawyer

PURPOSE Characterization Survey of DU Co.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603 / (608)

DATE 7-12-95

Contract # DAAA0992G0004 0016

I.D. # - F-0

Serial # - T-81-95053

SMEAR RESULTS
dpm/100cm²

Map # - 3

Sq. Ft. 1400 (cont. surface area)

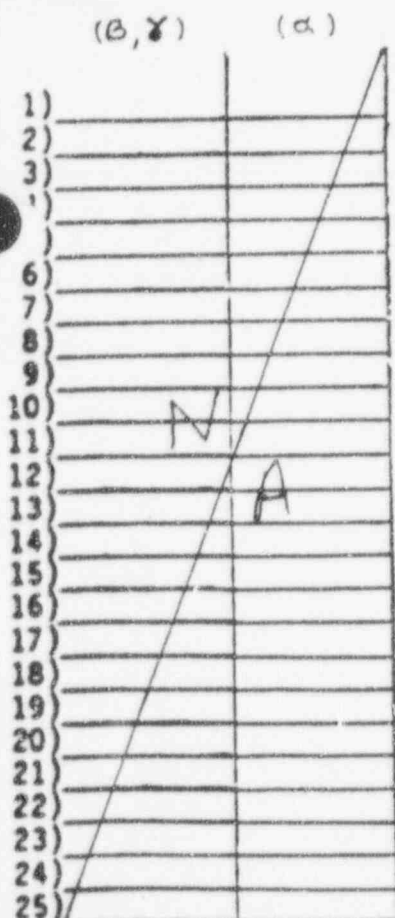
Description of Item -
Parts Hopper #2

Avg. Fixed - 10K

Range Fixed - 2-40K

Avg. Smearable - 3K

Range Smearable - 1-10K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBAD/MA - BETA DOSE RATE

MBAD/MA - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MIN/HR
UNLESS OTHERWISE NOTED

Shipping # 3 566 Serial # 2

LAYAWAY EQUIPMENT TAG

3

NOMENCLATURE

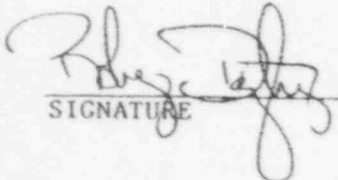

End Item Usage			
MATERIAL HANDLING - PARTS HOPPER			
Model		Type	
—		FABRICATED	
Serial No.		Manufacturer	
—			
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C	C Other and/or Agents Used
		C-1	
Preservation - Specify			
Internal		P - 2	P -
Reference para 463			
External		P - 2	P -
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify			
Condition (Quality as to operational condition)			
INSTALLATION NAME:			

Shipping #3 SEC Tard #

LOAD #2

SHIPPING CONTAINER TALLY →

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT						SHEET NO. 1	NO OF SHEETS	6. REQUISITION DATE	6. REQUISITION NO.		
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill						7. DATE MATERIAL REQUIRED		8. PRIORITY			
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA						9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		11a. VOUCHER NUMBER AND DATE			
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501 M/F: Robert Gottlieb Prop. Administrator (918) 421-2217						10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11b. VOUCHER NUMBER AND DATE			
						12. DATE SHIPPED		12. VOUCHER NUMBER AND DATE			
						13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1,906,317			
						15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER					
4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.											
ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONTAINER NO.	UNIT PRICE	TOTAL COST			
1	I.D. NO. T81-95053, PARTS HOPPER Skid 2 of 2	Ea	24		Skid	2	250	6,000			
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  SIGNATURE </div> <div style="text-align: center;">  DATE 3/23/87 </div> </div>											
16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO						17. SPECIAL HANDLING					
18. RECEIPT/VALUATION BY DISPOSBY	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CERR	19. RECEIPT	CERTAINERS RECEIVED EXCEPT AS NOTED	DATE	BT	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BT	GRAND TOTAL
	PACKED BY							POSTER	DATE	BT	20. RECEIVER'S VOUCHER NO.
	TOTAL										

DD 1 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71

72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 M WHICH MAY BE USED

Shipping # 3 SEC Serial # 2

SPECIAL TOOLING

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

TRACT # DAAA09-84-E-0001

W/S HMC

IDENTIFICATION # T81-95053

EQUIPMENT DESCRIPTION: PARTS HOPPERS (48 EACH)

MODEL: SERIAL: YR BUILT: COND:
SCC/ DATE REC'D: WORK
PEC #: ORDER:

MANUFACTURER: ADDRESS
RECEIVED OR
PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #:	COST
SCHEDULE #:	ITEM #:	ACQUISITION: 11,000
ACQUIRED FROM		FREIGHT:
CONTRACT #:		INSTALLATION:
ORIGINAL		
LOCATION: AEROJET HEAVY METALS		TOTAL: 14,000

ACCESSORIES: 3097 ANA ST.
COMPTON, CA 90221

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

Shipping #3 56 Seal # 2

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. MISC

THIS PACKAGE NO. 25

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
MISC 126	24	HOPPERS	G

SCIENTIFIC ECOLOGY GROUP, INC.

1580 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0900-1500

RWP#(S) -

SURVEY BY Mikeeley N. Sawyer

REVIEW BY Mikeeley N. Sawyer

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/(608)

DATE 7-12-95

Contract # DAAA0992G0004 0016

I.D. # - F-O - NA

Serial # - 3415-23223

Map # - 4

All results
in DPM

SMEAR RESULTS
dpm/100cm²

Sq. Ft. 650 (cont. surface area)

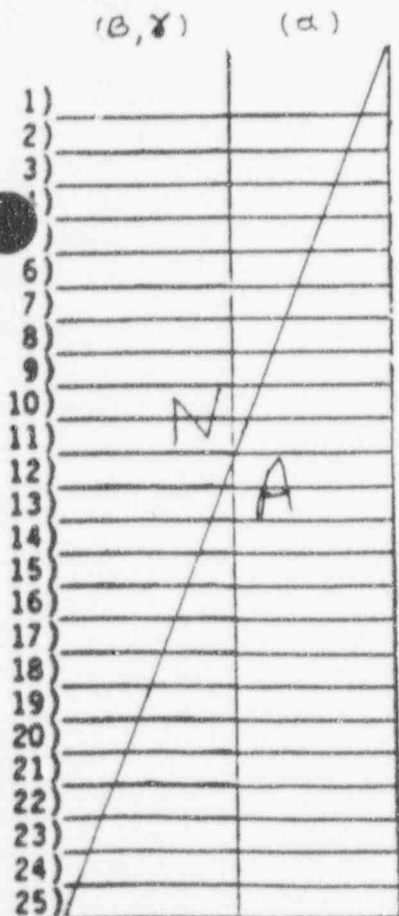
Description of Item -
Centerless Grinder

Avg. Fixed - 80K

Range Fixed - 10-350K

Avg. Smearable - 50K

Range Smearable - 10-250K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MRAD/hr - BETA DOSE RATE

MBR/hr - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MIN/hr
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

GRINDER #3415-23223

End Item Usage METAL MACHINING - GRINDING			
Model 2		Type CENTERLESS	
Serial No. 2M2H1Z-32		Manufacturer CINCINNATI MILACRON	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
Reference para 463		External	P - 2
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify			
90 WT. OIL			
Condition (Quality as to operational condition) FAIR			

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		SHEET NO. 1		NO. OF SHEETS		5. REQUISITION DATE		6. REQUISITION NO.	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		7. DATE MATERIAL REQUIRED		8. PRIORITY		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE <i>Ted Schraff</i> Ted Schraff	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		12. DATE SHIPPED		11a. VOUCHER NUMBER AND DATE		11b. VOUCHER NUMBER AND DATE	
4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. Compton, CA to McAlester, OK. for storage.		13. MODE OF SHIPMENT		14. EPL OF LADING NUMBER		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3415-1721-0408, I.D. No. 3415-23223 Centerless Grinder	Ea	1		Skid	1	11,489	11,489

SIGNATURE

DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO							17. SPECIAL HANDLING				
18. RECEIPT OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	GROSS TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
	TOTAL										

DOD PROPERTY RECORD

☐ ACTIVE ☐ INITIAL
☒ IN USE ☒ CHANGE

2. JULIAN DATE

4164

3. GOVERNMENT TAG NO

AP 538095

Form Approved

Budget Bureau No 22 R0309

SECTION I - INVENTORY RECORD

3415-23223

1. COMMODITY CODE 3415-1721-0408	5. STOCK NUMBER	6. ACQUISITION COST \$11,479	7. TYPE CODE 1	8. YR OF MFG 52	9. POWER CODE 44	10. STATUS CODE 4-1	11. SVC CODE 2	12. COMMAND CODE	13. ADM OFFICE CODE
14. NAME OF MANUFACTURER CINCH, WILACRON INC.			15. MFR'S CODE 12356	16. MANUFACTURER'S MODEL NO 2		17. MANUFACTURER'S SERIAL NO 252017-38			
18. LENGTH 10'	19. WIDTH 6'	20. HEIGHT 7'	21. WEIGHT 9,000#	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASOQ NO	24. ARD	25. CONTRACT NUMBER	

26. DESCRIPTION AND CAPACITY

GRINDING MACHINE, CYLINDRICAL, EXTERNAL, CENTER PRESS TYPE, HORIZONTAL BRD, MANUAL.
4 3/4" DIA. WORK; 8" W GR WHEEL FACE.

HISTORICAL RECORDS MUST BE RETAINED WITH THIS MACHINE.

CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

27. ELECTRICAL CHARACTERISTICS									
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER	
1	15	220/440	3	60	X		1800	SD	326-4
1	15	220/440	3	60	X		1160	R	P28
1	4	220/440	3	90/60	X		1425/1725	PH	H565
1	1/25	115	1	60	X		1725	H51-33	N/A
28. PRESENT LOCATION DIRECTOR INDUSTRIAL PLANT EQUIPMENT ATTN: DDT-0-E NAVAL COMMUNICATION STATION 500 2 ICH, CA 92003							28A. DIPEC CONTROL NO. 3415-23223		
							29. POSSESSOR CODE		

SECTION II - INSPECTION RECORD

		YES	NO			YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?		X	
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?		X		43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.		X		44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		X	
33. WAS ITEM INSPECTED UNDER POWER? IF NOT EXPLAIN UNDER REMARKS BELOW.		X		45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.		X	
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.				46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		X	
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.		X		47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		X	
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?		X		48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?		X		49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.			
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.				52. CONDITION CODE.			
41. IS ITEM IN OPERABLE CONDITION?		X		53. OPERATING TEST CODE.			

SECTION III - REMARKS

MECHANICAL: REPAIR COOLANT PUMP, REPLACE GEARS & BEARINGS, CLEAN TRUING ATTACHMENT.
REPLACE MISSING ITEMS ON ORDER.
ELECTRICAL: REPLACE BEARINGS ON MAIN MOTOR, CLEAN MOTORS & ELECTRICAL COMPONENTS.

COS: 6-13-74

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

SECTION IV - DISPOSITION RECORD

54. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	55. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	--

SECTION V - VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S)) LOHME ST. CLARK, Assistant FTR Repair Estimator General Foreman
--

DD FORM 1342
1 FEB 66PREVIOUS EDITIONS OF DD FORM 1342 ARE OBSOLETE.
REPLACES DD FORMS 1342M, 1342S, AND 1342SM WHICH ARE OBSOLETE.

Shipping #4 566-7000#

PACKING SLIP

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. Q3

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
Q3 2	1	N. GRIND CENTERLESS GRINDER	G
Q3 1	1	N. GRIND VIB. BOWL	G
Q3 2A	1	N. GRIND COOLANT TANK	G
Q3 2B	1	N. GRIND COOLANT PUMP	G
Q3 3	1	N. GRIND IN-FEED UNIT	G
Q3 4	1	N. GRIND EXIT CONVEYOR	G
Q3 8	1	N. GRIND DRIP PAN & GRATING	G

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP(S) -

SURVEY BY M. Keeley ^{MK} N. Sawyer ^{NS}

REVIEW BY 16/Super/Mid/K DATE 8-2-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PC-50-603 608

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²

I.D. # - F-0508

Serial # - T77-99083

Map # - 5

So ft 1200 (cont surface area)

Description of Item

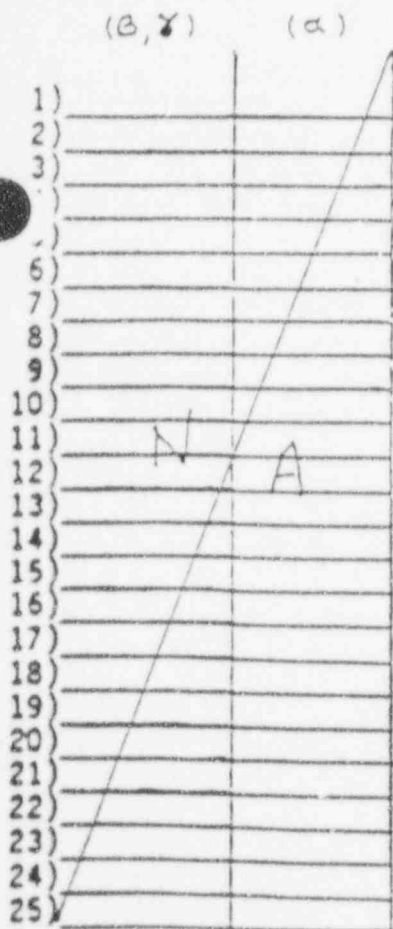
Vapor Degreaser (Part 2)

Avg. Fixed - 3K

Range Fixed - 1-20K

Avg. Smearable - 3K

Range Smearable - 1-5K



Alpha detected
variable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MB/NA - BETA DOSE RATE

MB/NC - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MIN/HR

Shipping #5 SEC Seal #12

8-2-95

LAYAWAY EQUIPMENT TAG

INCLOSURE

VAPOR DEGEASOR #T-77-99083

SKID 2 OF 2

Item Usage

PARTS CLEANING

DP 53030

Type
~~BARON B.~~

al No.

Manufacturer

BARON BLAKESLEE

Installation No.

Location Bldg. No.

Contamination (Circle appropriate category)

X

XXX

XXXXX

Inspector's Initials

Cleaning process (reference para 463)

C

C-1

C

Other and/or Agents Used

Inspection - Specify

Internal

P - 2

P -

Reference para 463

External

P - 2

P -

Date

3/23/87

Inspector's Initials

KK

Inspection - Specify

90 WT. OIL

Condition (Quality as to operational condition)

FAIR

INSTALLATION NAME:

Shipping # 3 SEC Lead #

OPE

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT: DAAA09-84-E-0001 W/S HMC IDENTIFICATION # F-0508

EQUIPMENT DESCRIPTION: VAPOR DEGREASER W/AUTOMATIC HOIST SYSTEM

MODEL: DP 53030 SERIAL: YR BUILT: 1979 COND:
SCC/ DATE WORK
PEC #: REC'D: ORDER: 7940-96-6400

MANUFACTURER: BARON BLAKESLEE ADDRESS SANTA FE SPRINGS CA
RECEIVED OR
PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #: 14923 H	COST
SCHEDULE #:	ITEM #:	ACQUISITION: 21,320
ACQUIRED FROM		FREIGHT:
CONTRACT #:		INSTALLATION: 1,500
ORIGINAL		TOTAL: 23,820
LOCATION: AEROJET HEAVY METALS		

ACCESSORIES: 3097 ANALYST.
COMPTON CA 90221

CONTROLS

MOTOR DATA: MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME

g # 5 # 26L Seal H

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AA

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AA 1	1	SMALL DEGREASER	G
AA 2	1	S. DEG. PUMP	G
AA 3	1	S DEG. BASKET FILTER	G
AA 4	1	S. DEG. PUMP	G

Shipment #5 SEC Load # 12 8-2-95

LOAD #2

SHIPPING CONTAINER TALLY ->

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS	6. REQUISITION DATE	8. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901, 317	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, 111

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

3. SHIP TO-MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONTAINER NOS.	UNIT PRICE	TOTAL COST
1	I.D. NO. F-0508, VAPOR DEGREASER, T-77-99083 Skid 2 of 2	Ea	1		Skid	2	23,820	23,820

Robert Gottlieb
SIGNATURE



3/23/87
DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

REQUISITION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	RECEIVED	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							FOR/ED	DATE	BY	20. RECEIVER'S VOUCHER NO.
	TOTAL										

DD FORM 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 WHICH MAY BE USED

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 6-28-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

RMP#(S) -

SURVEY BY M. Keeney ^{MY} N. Sawyer ^{MA}

REMARKS PC-50-603/608

REVIEW BY M. Keeney N. Sawyer

DATE 7-18-95

Contract # DAAA0992G0004 0016

I.D. # - F-0 NA

Serial # - T81-95053

Map # - 6

Results
All IN
DPM
SMEAR RESULTS
dpm/100cm²

Sq. Ft. 850 (cont. surface area)

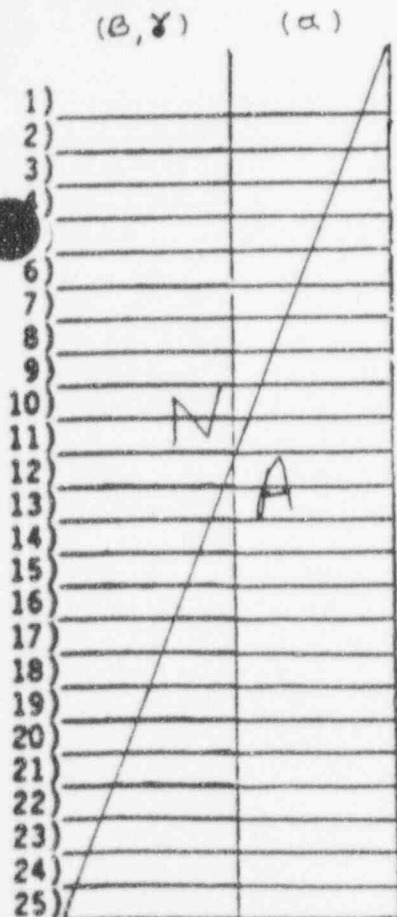
Description of Item -
Parts Hopper #1

Avg. Fixed - 10K

Range Fixed - 1-40K

Avg. Smearable - 5K

Range Smearable - 1-15K



No Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO - GAMMA DOSE RATE
- NO - CONTACT GAMMA
- MEADNA - BETA DOSE RATE
- MEADNA - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MIBK
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

ICLATURE

End Item Usage			
MATERIAL HANDLING - PARTS HOPPERS			
Model		Type	
—		FABRICATED	
Serial No.		Manufacturer	
—		—	
Installation No.		Location Bldg. No.	
—		—	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date		—	
Inspector's Initials		—	
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify		—	
Internal		p - 2	p -
External		p - 2	p -
Reference para 463		—	
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify		—	
Condition (Quality as to operational condition)			
—			
INSTALLATION NAME:			

Shipping #10

P.O. BOX 399

(615) 753-4688

THIS PACKAGE NO. 26

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
MISC 126	24	HOPPERS	G

Supply #6 JLS

SPECIAL TOOLING

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001

W/S HMC

IDENTIFICATION # T81-95053

EQUIPMENT DESCRIPTION: PARTS HOPPERS (48 EACH)

MODEL:

SERIAL:

YR BUILT:

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER:

ADDRESS

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION:

12,000

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

AEROJET HEAVY METALS

TOTAL:

12,000

ACCESSORIES:

3097 ANA ST.

COMPTON LA 90221

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

L.O.A. # 1

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

SHEET NO. 1	NO. OF SHEETS 1	6. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		11a. VOUCHER NUMBER AND DATE	
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11b. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		14. BILL OF LADING NUMBER R-1,901,317	
13. MODE OF SHIPMENT		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER	

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	I.D. NO. T81-95053, PARTS HOPPERS Skid 1 of 2	Ea	24		1	1	250	6,000

Robert Gottlieb
SIGNATURE



3/28/87
DATE

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHIPPED TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						PORTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
TOTAL									

DD FORM 1149
1 MAR 87

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

9-H. [Signature]
 730
 17-00000

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Kealey ^{NY} N. Sawyer ^M

REVIEW BY M. Kealey ^{NY} N. Sawyer ^M

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603 (608)

DATE 7-18-95

Contract # DAAA0992G0004 0016

I.D. # - F-O-NA

Serial # - 3415-23219

Map # - 7

All Results
IN DPM

SMEAR RESULTS
dpm/100cm²

Sq. Ft. 1100 (cont. surface area)

Description of Item -

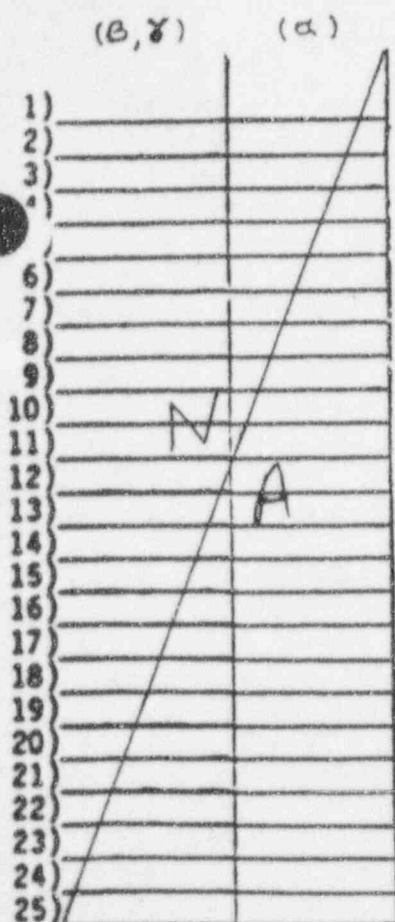
Centerless Grinder

Avg. Fixed - 70K

Range Fixed - 20-250K

Avg. Smearable - 20K

Range Smearable - 5-100K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

NRAD/HR - BETA DOSE RATE

NRAD/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY INSTRUMENT
UNLESS OTHERWISE NOTED

Shipping # 21 02W ~~211~~ 5000 -

LAYAWAY EQUIPMENT TAG

SIGNATURE

GRINDER # 3415-23219

End Item Usage			
METAL MACHINING - GRINDING			
Model		Type	
2		CENTERLESS	
Serial No.		Manufacturer	
2M2H1Z-247		CINCINNATI MILACRON	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C	Other and/or Agents Used
		C-1	
Preservation - Specify			
Internal		p - 2	p -
Reference para 463			
External		p - 2	p -
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify			
9 wt. Oil			
Condition (Quality as to operational condition)			

INSTALLATION NAME:

Shipped 11/24/68

PACKING SHEET

AERJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. N

THIS PACKAGE NO. 2

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
N 7	1	O.D. CENTERLESS GRINDER	G
N 7A	1	O.D. GRIND COOLANT TANK	G
N 7B	1	O.D. GRIND COOLANT PUMP	G
N 13	1	O.D. GRIND DRIP PAN & GRATE	G

SECTION I — INVENTORY RECORD

4. COMMODITY CODE	5. STOCK NUMBER	7. ACQUISITION COST	8. TYPE CODE	9. YR OF ACQ	10. POWER CODE	11. PART CODE	12. ENG CODE	13. COMMAND CODE	14. ITEM OFF SE
3415-1721-0308	3415	14386	1	52	44				102
16. NAME OF MANUFACTURER			15. MFR'S CODE		16. MANUFACTURER'S MODEL NO.		17. MANUFACTURER'S SERIAL NO.		
Cincinnati Milacron, Inc.			12356		2 ea.		2M2H1Z-247		
18. LENGTH	19. WIDTH	20. HEIGHT	21. WEIGHT	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASCD NO.	24. ARD	25. CONTRACT NUMBER	
11	7	7	8690					F33657-76-C-0494	
26. DESCRIPTION AND CAPACITY									

Grinding Machine, Cylindrical, External, Centerless Type, Horizontal,
Manual, 3-1/2" Dia. Work, 8" W. Gr. Wheel Face

CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

27. ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER

28. PRESENT LOCATION
Aerojet Ordnance Company (Heavy Metals-Compton)
3097 East Ana
Compton, CA. 90021

29a. DIPEC CONTROL NO.
3415-23219

29. POSSESSOR CODE
W. R. Carter
(213) 923-7511
06 0810 00203T

SECTION II — INSPECTION RECORD

		YES	NO			YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT OVERHAULED TO PERFORM ALL FUNCTIONS?			
31. HAS ITEM BEEN REPAIRED/OVERHAULED? DATE				43. DO CC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, DESCRIBE UNDER REMARKS BELOW.				44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.			
33. HAS ITEM BEEN OPERATED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.				45. ARE GAUGES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.			
34. ARE OPERATING INSTRUCTIONS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.				46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, DESCRIBE UNDER REMARKS BELOW.				47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?				48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?				49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION			
40. IS ITEM IN EXCELLENT CONDITION WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST				52. CONDITION CODE			
41. IS ITEM IN OPERABLE CONDITION?				53. OPERATING TEST CODE			

SECTION III — REMARKS

54. REMARKS

Reference Requisition # EY 9565-7060-1003

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

SECTION IV — DISPOSITION RECORD

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION	56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
	<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPE NAME(S) AND SIGNATURE(S))	58. DATE
W. R. Carter, AOMC	3-8-75
M. Mattocks, DCAS Prop. Admin.	

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

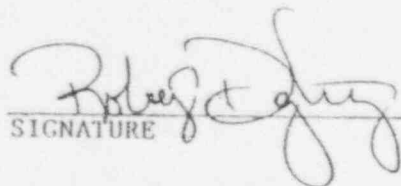
3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

SHEET NO. 1	NO OF SHEETS	6. REQUISITION DATE	5. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-S-0001			
10. SIGNATURE Ted Schraff		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON TAINER NO.	UNIT PRICE	TOTAL COST
1	3415-1721-0308, I.D. No. 3415-23219 Centerless Grinder	Ea	1		Skid	1	14,386	14,386

SIGNATURE 

 3/13/87
DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

18. ISSUED BY						17. SPECIAL HANDLING				
REQUISITION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY						PORTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	TOTAL									

DD FORM 1149 MAR 57

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keelen ^{mk} N. Sawyer ^{ns}

REVIEW BY M. Keelen ^{mk} N. Sawyer ^{ns}

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/608

DATE 7-18-95

Contract # DAAA0992G0004 0016

I.D. # - F-0079

Serial # - T77-99013

Map # - 8

All Results
In DPM

SMEAR RESULTS
dpm/100cm²

Sq. Ft. 400 (cont. surface area)

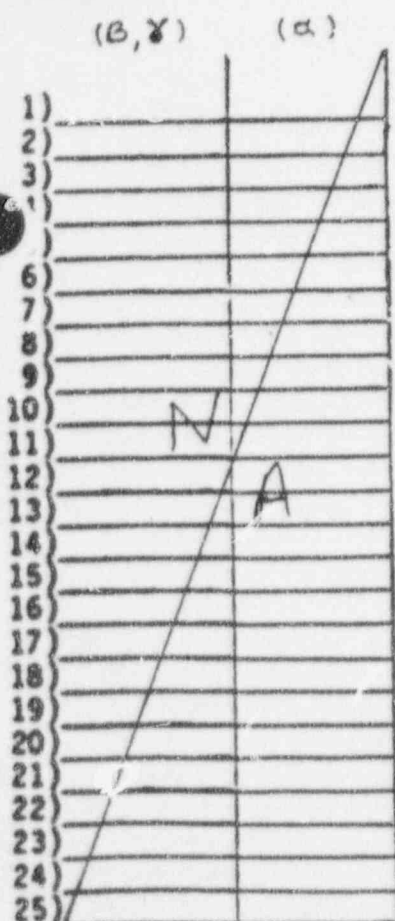
Description of Item -
Surface Grinder

Avg. Fixed - 3K

Range Fixed - 1-5K

Avg. Smearable - 3K

Range Smearable - 1-5K



NO Alpha detected smearable.

50 dpm - 800 dpm Fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBND/AL - BETA DOSE RATE

NRAD/NA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MKR/HR
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

DECLARATION

GRINDER # 3415-20263

End Item Usage			
METAL MACHINING - GRINDING			
Model		Type	
2		CENTERLESS	
Serial No.		Manufacturer	
2M2HIY-484		CINCINNATI MILACRON	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
Reference para 463		External	P - 2 P -
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify		90WT. OIL	
Condition (Quality as to operational condition)			
INSTALLATION NAME:			

Shipping # 0

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AT

THIS PACKAGE NO. 7

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AT 2	1	T.R. SURFACE GRINDER	G

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3415-4101-0601	5. STOCK NUMBER 3415	6. ACQUISITION COST 8,970.	7. TYPE CODE I	8. YR OF MFG 77	9. PO CODE 44	10. STATUS CODE 1A	11. SVC CODE 2	12. COMMAND CODE FQ7615	13. ADM OFFICE CODE 000102
14. NAME OF MANUFACTURER Bridgeport Machines, Inc.		15. MFR'S CODE 08607		16. MANUFACTURER'S MODEL NO. 618 AUTO II		17. MANUFACTURER'S SERIAL NO. 47019			
18. LENGTH 6'	19. WIDTH 4'	20. HEIGHT 5'	21. WEIGHT 1350	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	24. ARD	25. CONTRACT NUMBER F33657-77-C-0198	

26. DESCRIPTION AND CAPACITY

Grinding Machine, Surface, Reciprocating, Horizontal Spindle
Traveling Table 6" x 12" Grind. Surface

Ref. T77-99013 (F-0079)

CONTINUED ON REVERSE SIDE ☒ YES ☐ NO

27. ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER
1	1	440	3	60	X		3450	H58CZ-Model 67214-GE 711
1 (slow sinc)		120	3	60	X		72	1 AMP-6HZ-SS400-4101

28. PRESENT LOCATION

Aerojet Ordnance Company (Heavy Metals Div.)
3097 East Ana Street Jarl Victor
Compton, California 90221 (213) 923-7511, X207

28a. DIPEC CONTROL NO.

3415-23218

29. POSSESSOR CODE

06 0810 00203T

SECTION II — INSPECTION RECORD

	YES	NO		YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?		
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?			43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.		
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.			45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.		
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.		
38. WAS ITEM LAST USED ON A FINISHING OPERATION?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.		
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.		
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.			52. CONDITION CODE.		
41. IS ITEM IN OPERABLE CONDITION?			53. OPERATING TEST CODE.		

SECTION III — REMARKS

54. REMARKS

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	58. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	---

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))

Jarl Victor, Aerojet P/A

George Murphy
DCRL-GLCM(34)

REQUISITION AND INVOICE/SHIPPING DOCUMENT


1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501H/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CON. TAINER	CON. TAINER NOS.	UNIT PRICE	TOTAL COST
a	b	c	d	e	f	g	h	i
1	3415-4101-0601, I.D. 3415-23218 Centerline Grinder SURFACE	Ea	1		Skid	1	8,970	8,970



SIGNATURE

3/13/87
DATE16. TRANSPORTATION VIA WATS
OR WATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							PORTER	DATE	BY	20. RECEIVER'S VOUCHER NO.
	TOTAL										

DD FORM 1149
1 MAR 87

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 58 WHICH MAY BE USED

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeley ^{mk} / N. Sawyer ^{ns}REVIEW BY 16/Sy/Mid/Ky

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PC-50-603 (608)

DATE 7-31-95

Contract # DAAA0992G0004-0016

All Results In
DPMSMEAR RESULTS
dpm/100cm²

I.D. # -

Serial # - 3415-20263

Map # - 9

Sq ft 650 (cont. surface area)

Description of Item

Centerless Grinder

Avg. Fixed - 100K

Range Fixed - 20-500K

Avg. Smearable - 60K

Range Smearable - 10-300K

MAP LEGEND

⊙ - SMEAR LOCATION

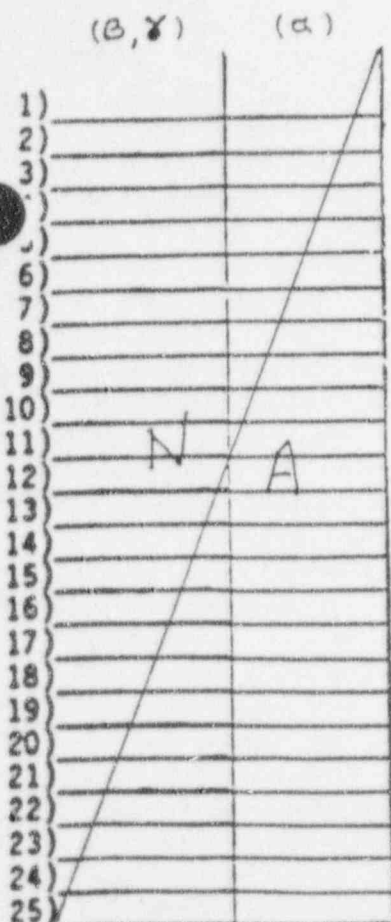
NG - GAMMA DOSE RATE

NG - CONTACT GAMMA

MEAD/NA - BETA DOSE RATE

MEAD/NA - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTEDNo Alpha detected
wearable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²MODEL 3 43-5 Probe Area 100cm²

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, III

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON. TAINER NOS.	UNIT PRICE	TOTAL COST
1	3415-1721-0408, I.D. No. 3415-20263 Centerless Grinder	Ea	1		Skid	1	9,000	9,000

Robert Gottlieb
SIGNATURE



3/13/87
DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY						PORTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
	TOTAL									

DD FORM 1149
1 MAR 59

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 58 WHICH MAY BE USED

LAYAWAY EQUIPMENT TAG

CLATURE

GRINDER

#3415-23218

End Item Usage <i>METAL MACHINING - GRINDING</i>			
Model <i>618 Auto II</i>	Type <i>SURFACE</i>		
Serial No. <i>47019</i>	Manufacturer <i>BRIDGEPORT</i>		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	<input checked="" type="checkbox"/> X	<input type="checkbox"/> XXX	<input type="checkbox"/> XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	<input type="checkbox"/> C <i>C-1</i>	<input type="checkbox"/> C	Other and/or Agents Used
Preservation - Specify	Internal	p - <i>2</i>	p -
Reference para 463	External	p - <i>2</i>	p -
Date	<i>3/23/87</i>		
Inspector's Initials	<i>KK</i>		
Protection - Specify	<i>90 WT. OIL</i>		
Condition (Quality as to operational condition)			

INSTALLATION NAME:

9 1-31-73
PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. N

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
N 5	1	O.D. CENTERLESS GRINDER	G
N 5A	1	O.D. GRIND COOLANT TANK	G
N 5B	1	O.D. GRIND COOLANT PUMP	G
N 13A	1	O.D. GRIND DRIP PAN	G

4 31-95 34-20263

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3415-1721-0408		5. STOCK NUMBER 3415		7. ACQUISITION COST 9000		8. TYPE CODE 1		9. P.O.P. CODE 51		10. POWER CODE 54		11. STATUS CODE		12. S.O. CODE		13. COMMAND CODE		14. ADM. OFFICE CODE 102	
16. NAME OF MANUFACTURER Cincinnati Milacron, Inc.						15. MFR'S CODE 12356		16. MANUFACTURER'S MODEL NO. 2				17. MANUFACTURER'S SERIAL NO. 2M2HIY-484							
18. LENGTH 9		19. WIDTH 7		20. HEIGHT 6		21. WEIGHT 9000		22. CERTIFICATE OF NO. AVAILABILITY NUMBER				23. ASD NO.		24. ARD		25. CONTRACT NUMBER F33657-76-C-0494			
26. DESCRIPTION AND CAPACITY Grinding Machine, Cylindrical, External, Centerless Type, Horizontal Bed, Manual. 4-3/4" Dia. Work, 8" W.Gr. Wheel Face.																			
CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																			

27. ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER

28. PRESENT LOCATION Aerojet Ordnance Company (Heavy Metals-Compton) 3097 East Ana Compton, CA. 90021										28a. DIPEC CONTROL NO.									
W. R. Carter (213) 923-7511										29. POSSESSOR CODE 06 0810 00203T									

SECTION II — INSPECTION RECORD

		YES	NO			YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT, OVERHAULED TO PERFORM ALL FUNCTIONS?			
31. HAS ITEM BEEN REPAIRED/REBUILT/OVERHAULED? IF SO, WHEN?				43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.				44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.			
33. WAS ITEM INSPECTED UNDER AC WEST? IF NOT, EXPLAIN UNDER REMARKS BELOW.				45. ARE SCALES, DIALS AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.			
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.				46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.				47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?				48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?				49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 25 ABOVE.			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.			
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.				52. CONDITION CODE.			
41. IS ITEM IN OPERABLE CONDITION?				53. OPERATING TEST CODE.			

SECTION III — REMARKS

54. REMARKS

Reference Requisition No. EY 9565-7060-1001

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

SECTION IV — DISPOSITION RECORD

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION:	
	<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	
56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD		

SECTION V — VALIDATION RECORD

57. VALIDATION TYPE, NAME(S) AND SIGNATURE(S) W. R. Carter, AOMC	58. M. Mattocks 3-5-78 M. Mattocks, DCAS, Prop. Admin.
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SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

6-28-95

SURVEY DATE 7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley ^{mk} / N. Sawyer ^{ns}

REVIEW BY 16/Sy/Middle DATE 8-8-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PL-50-603/608

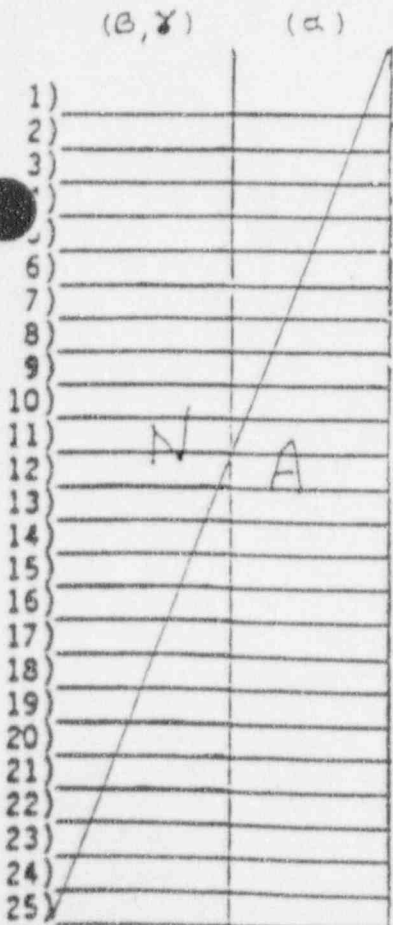
Contract # DAAA0992G0004-0016

All Results In
DPM

I.D. # - F. 0067

SMEAR RESULTS
dpm/100cm²

Serial # - 3690-05139



Map # - 10

Sq ft 700 (cont surface area)

Description of Item
Inspection Machine

Avg. Fixed - 3K

Range Fixed - 1-5K

Avg. Smearable - 3K

Range Smearable - 1-5K

Alpha detected
earable

50-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC. - CONTACT GAMMA
- MBR/HR - BETA DOSE RATE
- MBR/HR - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
ROENTGENS PER HOUR (MRH)

LAYAWAY EQUIPMENT TAG

SIGNATURE

AUTOMATIC INSPECTION MACHINE #3690-05139

End Item Usage

PART INSPECTION

Model

144-B-517

Type

Serial No.

D-12376

Manufacturer

FEDERAL

Installation No.

Location Bldg. No.

Decontamination (Circle appropriate category)

X

XXX

XXXXX

Date

Inspector's Initials

Cleaning process (reference para 463)

C

C-1

C

Other and/or Agents Used

Preservation - Specify

Internal

P - 2

P -

Reference para 463

External

P - 2

P -

Date

3/23/87

Inspector's Initials

KK

Protection - Specify

90 WT. OIL

Condition (Quality as to operational condition)

FAIR

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901, 318	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501M/F: Robert Gottlieb
Prop. Administrator
(918) 421-22174. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from
Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3690-2473-0000, I.D. NO. 3690-05139 INSPECTION MACHINE	EA	1		SKIT	1	87,511	87,511

SIGNATURE

DATE

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
				TOTAL							

DD FORM 1149
1 MAR 59

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DOD PROPERTY RECORD		1. <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INITIAL		JULIAN DATE 80352		3. I.D./GOVERNMENT TAG NO. 130129		Form Approved Budget Bureau No. 22-R0209	
		<input type="checkbox"/> IDLE <input type="checkbox"/> CHANGE							
SECTION I — INVENTORY RECORD									
4. COMMODITY CODE 3690-2473-0000		5. STOCK NUMBER 3690		6. ACQUISITION COST 87,511.		7. TYPE CODE 81		8. YR OF MFG 78	
						9. POWER CODE 89		10. STATUS CODE 1A	
								11. SVC CODE 02	
								12. COMMAND CODE F27015	
								13. ADM OFFICE CODE 000102	
14. NAME OF MANUFACTURER Federal Products Corp.				15. MFR'S CODE		16. MANUFACTURER'S MODEL NO. 144-B-517		17. MANUFACTURER'S SERIAL NO. D-12376	
18. LENGTH 3 1/2'		19. WIDTH 3 1/2'		20. HEIGHT 8'		21. WEIGHT 2000#		22. CERTIFICATE OF NON-AVAILABILITY NUMBER	
								23. ASD NO.	
								24. ARD	
								25. CONTRACT NUMBER P33657-77-C-0108	
26. DESCRIPTION AND CAPACITY <p style="text-align: right;">DAAA09-F2-E-7013</p> <p>Inspection Machine, Projectile, Straight Line, Automatically Operated, Electro-Pneumatic, Floor Mounted.</p> <p>Ref. T77-99009 (F-0067)</p> <p style="text-align: right;">CONTINUED ON REVERSE SIDE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>									
SECTION II — ELECTRICAL CHARACTERISTICS									
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER	
1	1/4	90 VDC					1725	#2M167	NEMA 56/56C
28. PRESENT LOCATION Aerojet Ordnance Company (Heavy Metals Div.) 3097 East Ana Street Jarl Victor Compton, California 90221 (213) 923-7511, X207									
								28a. DIPEC CONTROL NO. 3690-05139	
								29. POSSESSOR CODE 06 0810 00203T	
SECTION II — INSPECTION RECORD									
				YES	NO				
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?						42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS? \$			
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN? DATE						43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW						44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW			
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW						45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW			
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW						46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW						47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?						48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?						49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?						50. ESTIMATED COST FOR PACKING, CRATING, HANDLING \$			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?						51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION			
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST \$						52. CONDITION CODE			
41. IS ITEM IN OPERABLE CONDITION?						53. OPERATING TEST CODE			
SECTION III — REMARKS									
54. REMARKS <p>Used for final inspection of 30MM, GAU-8/A DU Penetrator.</p> <p style="text-align: right;">REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO</p>									
SECTION IV — DISPOSITION RECORD									
56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)					58. TYPE OF DISPOSITION			58a. DATE OF DISPOSITION AND PROCEEDS IF SOLD	
					<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT				
SECTION V — VALIDATION RECORD									
57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S)) <p>Jarl Victor, Aerojet P/A</p>					<p style="text-align: right;">George Murphy DCRI-GLCM(34)</p>				

Shipping #10 Sub Sub #

P.O. BOX 399

(615) 753-4688

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
S 1	1	AUTO. INSP. MACH.	G
S 2	1	AUTO. INSP. FEEDER	G
S 3	1	AUTO. INSP. FEEDER	G

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 6-28-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

RMP#(S) -

SURVEY BY M. Keeler^{mk} / N. Sawyer^h

REMARKS PC-50-603/608

REVIEW BY M. Keeler^{mk} / N. Sawyer^h

DATE 7/17/95

Contract # DAAA0992G0004 0016

I.D. # - F-055Z

Serial # - 3424-02030

Map # - 11

All Results In
DPM

SMEAR RESULTS
dpm/100cm²

Sq. Ft. 400 (cont. surface area)

Description of Item -

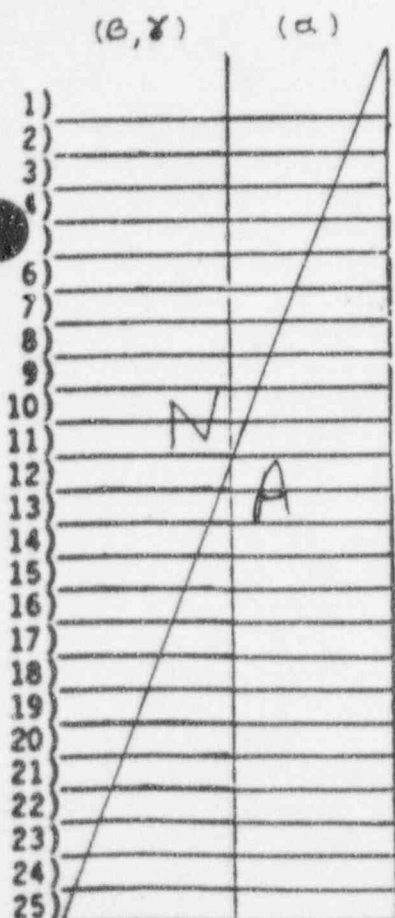
Heat Treating Furnace (Part 1)
contains Residual Lead

Avg. Fixed - 80K

Range Fixed - 5-250K

Avg. Smearable - 30K

Range Smearable - 3-60K



NO Alpha detected smearable

50 dpm - 800 dpm Fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBND - BETA DOSE RATE

MBND - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY PHONE
UNLESS OTHERWISE NOTED

NOMENCLATURE

LEAD POT FURNACE

3424-02030

SKID 1 OF 3

End Item Usage

Model	E-26-18-25-440-1		Type	MOLTEN LEAD	
Serial No.	PE-2021		Manufacturer	LIPTON INDUS., INC.	
Installation No.			Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX		
Date					
Inspector's Initials					
Cleaning process (reference para 463)	C	C	Other and/or Agents Used		
	C-1				
Preservation - Specify	Internal	P - 2	P -		
Reference para 463	External	P - 2	P -		
Inspector's Initials	Date	KK			
		3/23/87			
Protection - Specify	90 WT OIL				
Condition (Quality as to operational condition)	FAIR				
INSTALLATION NAME:					

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. L

THIS PACKAGE NO. 7

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
L 5	1	ELEC. LEAD POT	G

Shipping # 11 SEA Lead #

4

PRING CONTAINER TALLY→

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET
NO.
1NO OF
SHEETS

6. REQUISITION DATE

6. REQUISITION NO.

FROM:

CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

7. DATE MATERIAL REQUIRED

8. PRIORITY

TO:

Aerojet Ordnance Company
Heavy Metals Division
Compton, CA9. AUTHORITY OR PURPOSE P00008
DAAAC9-84-E-000110. SIGNATURE
Ted Schrafft *Ted Schrafft*

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

b. VOUCHER NUMBER AND DATE

SHIP TO—MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

13. MODE OF SHIPMENT

14. BILL OF LADING NUMBER

R-1, 901, 318

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from
Compton, CA to McAlester, OK. for storage.

FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES

UNIT
OF
ISSUEQUANTITY
REQUESTEDSUPPLY
ACTIONTYPE
CON-
TAINERCON-
TAINER
NOS.

UNIT PRICE

TOTAL COST

3424-2120-8210, I.D. NO. 3424-02030
FURNACE, HEAT TREATING
SKID 1 OF 3

EA

1

SKID

1

14,622

14,622

SIGNATURE



DATE

8/23/57

TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

ISSUED BY

TOTAL
CONTAINERSTYPE
CONTAINER

DESCRIPTION

TOTAL
WEIGHTTOTAL
CUBE

18.

CONTAINERS
RECEIVED
EXCEPT AS
NOTED

DATE

BY

GROSS TOTAL

CHECKED BY

19.

QUANTITIES
RECEIVED
EXCEPT AS
NOTED

DATE

BY

GROSS TOTAL

PACKED BY

20.

POSTER

DATE

BY

20. RECEIVER'S VOUCHER NO.

TOTAL

FORM 1149

52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

REPLACES EDITION OF 1 MAY 58 WHICH IS OBSOLETE

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0900-1500

RMP#(S) -

SURVEY BY M. Keeler^m & N. Sawyerⁿ

REVIEW BY M. Keeler^m & N. Sawyerⁿ

PURPOSE Characterization Survey of DU Co.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/608

DATE 7-18-95

Contract # DAAA0992G0004 0016

I.D. # - F-0552

Serial # - 3424-02030

Map # - 12

All Results
IN DPM
SHEAR RESULTS
dpm/100cm²

Sq. Ft. 350 (cont. surface area)

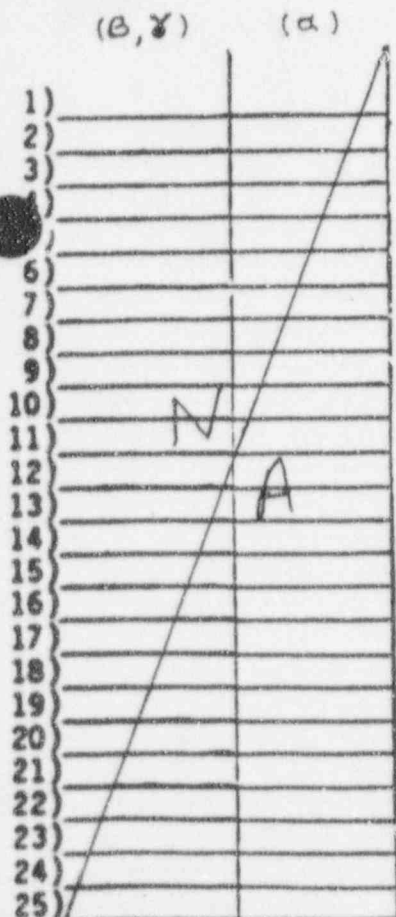
Description of Item -
Heat Treating Furnace (Part 2)

Avg. Fixed - 2K

Range Fixed - 1-4K

Avg. Smearable - 1K

Range Smearable - 1-2K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

Shipping # 12 SEG Load#

3424-02030

DOD PROPERTY RECORD	<input checked="" type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INITIAL	2. JULIAN DATE	3. I.D. / ORNMENT TAG NO.	Form Approved
	<input type="checkbox"/> IDLE <input type="checkbox"/> CHANGE	81091	AT 470200	Budget Bureau No. 22-R04

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3424-2120-8210	5. STOCK NUMBER 3424	6. ACQUISITION COST 14,622	7. TYPE CODE 1	8. YR OF MFG 78	9. POWER CODE 51	10. STATUS CODE 1A	11. SVC CODE 2 C	12. COMMAND CODE FL2800	13. ADM CODE 000102
14. NAME OF MANUFACTURER Upton Industries, Inc.		15. MFR'S CODE 624 32		16. MANUFACTURER'S MODEL NO. E-26-18-25-440-1			17. MANUFACTURER'S SERIAL NO. PE-2021		
18. LENGTH 5'	19. WIDTH 5'	20. HEIGHT 4'	21. WEIGHT 8,000.	22. CERTIFICATE OF NON-AVAILABILITY NUMBER None		23. ASD NO.	24. ARD	25. CONTRACT NUMBER F33657-77-C-0198	

26. DESCRIPTION AND CAPACITY

FURNACE, HEAT TREATING, BATH TYPE, ELECTRIC, CYLINDRICAL, INTERNALLY HEATED.
850° F MAX. OPER. TEMP. 26" DIA. x 18" DP. BATH
25 KW - 440 VOLT SINGLE PHASE

F-0552

CONTINUED ON REVERSE SIDE ☒ YES ☐ NO

ELECTRICAL CHARACTERISTICS								TYPE AND FRAME NUMBER	
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED		

28. PRESENT LOCATION

AEROJET ORDNANCE COMPANY (HM-C DIV.)
3097 EAST ANA STREET
COMPTON, CALIFORNIA 90021

JARL VICTOR
(213) 923-7511, X 207

29a. DIPEC CONTROL NO.

3424-02030

29. POSSESSOR CODE

06 0810 00203T

SECTION II — INSPECTION RECORD

	YES	NO		YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?		
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?			43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.		
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.			45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.		
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.		
38. WAS ITEM LAST USED ON A FINISHING OPERATION?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.		
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.		
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.			52. CONDITION CODE.		
41. IS ITEM IN OPERABLE CONDITION?			53. OPERATING TEST CODE.		

SECTION III — REMARKS

54. REMARKS

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	57. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	58a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	---

SECTION V — VALIDATION RECORD

59. VALIDATION (TYPE NAME) AND SIGNATURE(S) JARL VICTOR, AEROJET P/A	60. DCRL-GLCM(34) GEORGE MURPHY
---	---------------------------------

Shipping # 12 5200 Serial #

PACKING SLIP

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

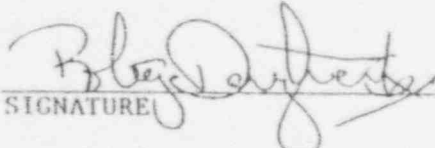

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. L

THIS PACKAGE NO. 9

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
L 5X	1	LD. POT TRANSFORMER	G
L 5Y	1	LD. POT TRANSFORMER	G
L 5Z	1	LD. POT HEATING COIL	G
L 25Y	1	LD. POT LINER	G
L 24	5	LG. AGE BASKETS	G

REQUISITION AND INVOICE/SHIPPING DOCUMENT					SHEET NO. 1		NO. OF SHEETS		6. REQUISITION DATE		6. REQUISITION NO.	
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill					7. DATE MATERIAL REQUIRED		8. PRIORITY					
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA					9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE			
3. SHIP TO-MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501 M/F: Robert Gottlieb Prop. Administrator (918) 421-2217					12. DATE SHIPPED		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901, 318			
4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.					15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER							
ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES				UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONTAINER NOS.	UNIT PRICE	TOTAL COST	
1	3424-2120-8410, I.D. NO. 3424-02030 FURNACE, HEAT TREATING SKID 3 OF 3				EA	1		SKID	3	14,622	14,622	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div>  SIGNATURE </div> <div>  DATE </div> </div>												
16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO								17. SPECIAL HANDLING				
18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL	
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL	
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.	
	TOTAL											

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

FURNACE LINER & BASKETS (PART)
FOR LEAD POT #3424-02030

3
SKID 2 OF 3

End Item Usage

HEAT TREAT PARTS

Model	E-26-18-25-440-1		Type	MOLTEN LEAD	
Serial No.	PE-2021		Manufacturer	LIPTON INDUS., INC.	
Installation No.			Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX		
Date					
Inspector's Initials					
Cleaning process (reference para 463)	C	C	Other and/or Agents Used		
	C-1				
Preservation - Specify	Internal	P - 2	P -		
Reference para 463	External	P - 2	P -		
Date	KK				
Inspector's Initials	3/23/87				
Protection - Specify	90 wt. OIL				
Condition (Quality as to operational condition)	F-2				
INSTALLATION NAME:					

LAYAWAY EQUIPMENT TAG

SIGNATURE

LOAD STANDS & PLUNGE TANK
FOR IPSEN FURNACE #3424-02026

SKID #5 OF 9

End Item Usage HEAT TREAT METAL PARTS			
Model VCW-11(10)R		Type BOX, VACUUM	
Serial No. 57616		Manufacturer IPSEN INDUSTRIES, INC.	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
External		P - 2	P -
Reference para 463			
Date		3/24/87	
Inspector's Initials		KK	
Protection - Specify			
90 WT. OIL			
Condition (Quality as to operational condition)			
FAIR			
INSTALLATION NAME:			

DOD PROPERTY RECORD		<input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INITIAL <input type="checkbox"/> CHANGE 80352 1124		110/GOVERNMENT TAG NO. Form Approved Budget Bureau No. 22-K709	
SECTION I — INVENTORY RECORD					
4. COMMODITY CODE	5. STOCK NUMBER	6. ACQUISITION COST	7. TYPE CODE	8. YR OF MFG	9. POWER CODE
8424-1310-3420	3424	164.188	1	79	54
10. STATUS CODE	11. SVC CODE	12. COMMAND CODE	13. ADM OFFICE CODE		
1A	0C	207015	000102		
14. NAME OF MANUFACTURER		15. MFR'S CODE	16. MANUFACTURER'S MODEL NO.	17. MANUFACTURER'S SERIAL NO.	
Ipsen Industries, Inc.		90714	VCW-11 (10)R	57616	
18. LENGTH	19. WIDTH	20. HEIGHT	21. WEIGHT	22. CERTIFICATE OF NON-AVAILABILITY NUMBER	23. ASD NO.
9'	17'	12'	8750#		
				24. ARD	25. CONTRACT NUMBER
					DAAA09-84-E-0001
26. DESCRIPTION AND CAPACITY					
Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forced Gas Convection 0°-1000° F, 112KVA, 1 Door (Aging)					
F-0037 (T77-99042)				CONTINUED ON REVERSE SIDE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
ELECTRICAL CHARACTERISTICS					
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC DC
1	40 & 10	260	3	60	X
1	10	208/240/480	3	60	X
1	10	208/240/480	3	60	X
2	3	180			X
				SPEED	
				3540/1760 COG6NB	
				286TC (2 Spd. Motor)	
				M3714T Spec. No. 37A01Z50 21ST	
				M3714T " " " "	
				Type CD189ATC, MOD 5CD145V0002A04	
28. PRESENT LOCATION				28a. DIPEC CONTROL NO.	
Aerojet Ordnance Company (HMD Facility)				3424-02026	
3097 East Ana Street				29. POSSESSOR CODE	
Compton, Calif. 90021				06 0810 00203T	
SECTION II — INSPECTION RECORD					
				YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?					
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?				DATE	
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW					
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW					
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW					
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW					
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?					
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?					
38. WAS ITEM LAST USED ON A FINISHING OPERATION?					
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?					
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.				\$	
41. IS ITEM IN OPERABLE CONDITION?					
42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?				\$	
43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW					
44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW					
45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW					
46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW					
47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW					
48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?					
49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE					
50. ESTIMATED COST FOR PACKING, CRATING, HANDLING				\$	
51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION					
52. CONDITION CODE					
53. OPERATING TEST CODE					
SECTION III — REMARKS					
54. REMARKS					
REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO					
SECTION IV — DISPOSITION RECORD					
56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)			56a. TYPE OF DISPOSITION		56b. DATE OF DISPOSITION AND PROCEEDS IF SOLD
			<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT		
SECTION V — VALIDATION RECORD					
57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))			58. DATE OF VALIDATION		
Jaril Victor, Aerojet P/A			1.5 Sept 86		
			George Murphy		
			DCRL-GLCM(35) 1.17		

Supply # ~~73~~ 300 Fuel #
13

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

TRACT # DAAA09-84-E-0001 W/S HMD IDENTIFICATION #

F-0139

EQUIPMENT DESCRIPTION: TANK PLUNGE COOL

MODEL: NONE

SERIAL: NONE

YR BUILT: 1978

COND: N-1

SCC/

Length

Width

HTS

DATE

PEC #: NONE

62

33

33

REC'D:

WORK

ORDER: 7940-96-6400

MANUFACTURER: KARNES INDUSTRIAL

ADDRESS 3631 BANDINI BLVD

RECEIVED OR

PURCHASED FROM: 10321 R.H. 1-25-78

ADDRESS VERNON CA

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 565.00

SCHEDULE #:

ITEM #:

FREIGHT: 0

ACQUIRED FROM

CONTRACT #:

INSTALLATION: 400.00

ORIGINAL

LOCATION:

TOTAL: 965.00

ACCESSORIES:

CONTROLS

MFG.

HP

RPM

VOLTS

PH/CY

SERIAL

TYPE

FRAME

MOTOR DATA:

Ship # 25, SEC 13

SHIP CONTAINER TALLY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-18901, 321	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	I.D. NO. F-0139, PLUNGE TANK T-77-99442-23 AND I.D. 3424-02026, FURNACE, IPSEN SKID 5 OF 9	EA EA	1 1		SKID	1		965 164,188

Robt J. Delf
SIGNATURE



3/25/87
DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
	← TOTAL →										

DD FORM 1140 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00

DD FORM 1149 MAR 69

61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

13
PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AR,AQ

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AQ 1	1	A/A LOAD STAND	G
AQ 13	1	A/A LOAD STAND	G
AR 2	1	AGE PLUNGE TANK	G
AR 4	1	AGE DRIP PAN & GRATE	G

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keelen^{mk} / N. Sawyer^h

REVIEW BY M. Keelen^{mk} / N. Sawyer^h

PURPOSE Characterization Survey of DU Co.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/608

DATE 7-18-95

Contract # DAAA0992G0004 0016

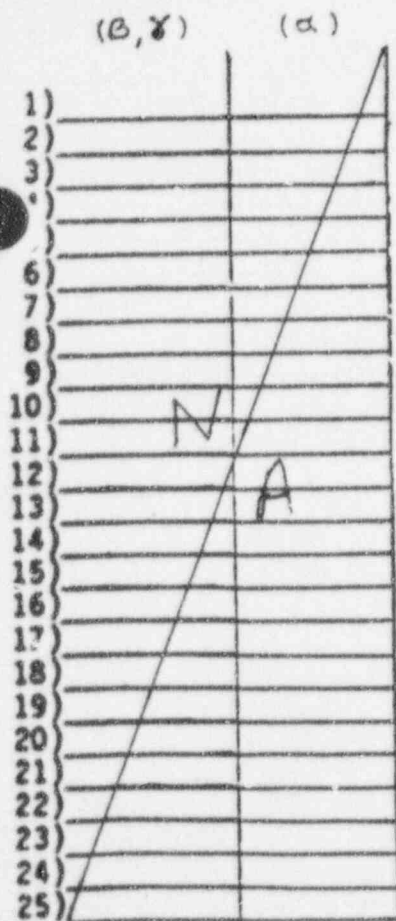
I.D. # - F-0010

Serial # - T77-99014

Map # - 14

All Results
In DPM

SMEAR RESULTS
dpm/100cm²



Sq. Ft. 650 (cont. surface area)

Description of Item -

Degreaser System (Part 1)

Avg. Fixed - 15K

Range Fixed - 5-40K

Avg. Smearable - 3K

Range Smearable - 1-10K

NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MB/MA - BETA DOSE RATE

MB/MC - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

#14 106
PACKING SHEET

Shipping #14
AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

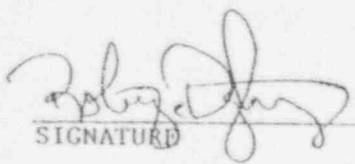

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. E

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
E 3	1	DEGREASE STILL	G

REQUISITION AND INVOICE/SHIPPING DOCUMENT					SHEET NO. 1	NO. OF SHEETS	6. REQUISITION DATE	6. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, III					7. DATE MATERIAL REQUIRED		8. PRIORITY	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA					9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OK. AHOMA 74501 M/F: Robert Gottlieb Prop. Administrator (918) 421-2217					11a. VOUCHER NUMBER AND DATE		12. DATE SHIPPED	
					13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1,901,318	
					15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			
4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.								
ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON. TAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	T-77-99014 I.D. NO. F-0010, DEGREASER SYSTEM (PARTIAL) OTHER COMPONENTS SKIDDED WITH F-0098 AND F-0129	EA	1		SKID	1	40,019	40,019
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  SIGNATURE </div> <div style="text-align: center;">  DATE </div> </div>								
16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO:					17. SPECIAL HANDLING			
18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CURR	19. CONTAINERS RECEIVED EXCEPT AS NOTED	
	CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	
	PACKED BY						POSTED	
	TOTAL						20. RECEIVER'S VOUCHER NO.	

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA-19-84-E-0001 WIS HMC IDENTIFICATION # F-0010

EQUIPMENT DESCRIPTION: DEGREASER SYSTEM

MODEL: DP 65-6024 SERIAL: 77182 YR BUILT: 1978 COND: _____
 SCC/ _____ DATE _____ WORK _____
 PEC #: 3426-8212-8000 REC'D: _____ ORDER: _____

MANUFACTURER: BARON-BLAKESLEE ADDRESS GARDEN GROVE, CA.
 RECEIVED OR _____
 PURCHASED FROM: _____ ADDRESS _____

		COST
REQUISITION #:	PURCHASE ORDER #: <u>D-424566</u>	ACQUISITION: <u>30,744</u>
SCHEDULE #:	ITEM #:	FREIGHT: <u>592</u>
ACQUIRED FROM		INSTALLATION: <u>8683</u>
CONTRACT #:		TOTAL: <u>40,019</u>
ORIGINAL		
LOCATION: <u>AEROJET HEAVY METALS</u>		

ACCESSORIES: 3097 ANA ST.

COMPTON CA 90021

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
 MOTOR DATA: _____

LAYAWAY EQUIPMENT TAG

CLATURE

STILL 7: DEGREASER

T-77-99014
(F-0010)

End Item Usage

Model	DP65-6024		
Type			
Serial No.	77182		
Manufacturer	BARON-BLAKESLEE		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
External	P - 2	P -	
Reference para 463	Date	3/23/87	
Inspector's Initials	KK		
Protection - Specify	90 WT. OIL		
Condition (Quality as to operational condition)	FAIR		
INSTALLATION NAME:			

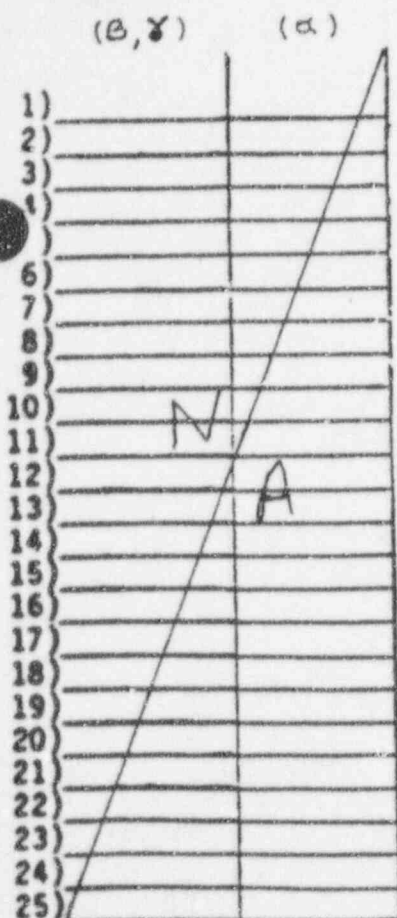
SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530PURPOSE Characterization Survey of DU Eq.SURVEY DATE 6-28-95 TIME 0800-1500INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96RMP#(S) -SURVEY BY M. Keelen^{mk} / N. Sawyer^{ns}REMARKS PC-50-603 / (608)REVIEW BY M. Keelen^{mk} / N. Sawyer^{ns}DATE 7/17/95Contract # DAAA0992G0004 0016I.D. # - F-0001Serial # - NAMap # - 15Pit Results In
DPMSMEAR RESULTS
dpm/100cm²Scr. At. 300 (cont. surface area)Description of Item -

Compressor (Part 2)

Avg. Fixed - 2KRange Fixed - 1-5KAvg. Smearable - 1KRange Smearable - 1-3K

NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBAD/HA - BETA DOSE RATE

MBAD/HA - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

SHIPPING CONTAINER TALLY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Til

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

3. SHIP TO-MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

SHEET NO. 1	NO OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P000G8 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1,901,321	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON-TAINER NOS	UNIT PRICE	TOTAL COST
1	I.D. NO. F-0001, COMPRESSOR T-77-89002 SKID 2 OF 2	EA	1		SKID	1	23,914	23,914

[Signature]
SIGNATURE



3/25/87
DATE

16. TRANSPORTATION VIA MATS OR MSTs CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	TOTAL										

Shipping # 15-SEL Sullair

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 WIS HMD IDENTIFICATION # F-0001

EQUIPMENT DESCRIPTION: Compressor, Screw Type, Air Cooled, 100 HP

MODEL: 25-100H SERIAL: 35707 IGE YR BUILT: 1977 COND: N-1
SCC/ Length Width Height Weight DATE WORK
PEC #: 9 7 4 12,000 REC'D: SEPT 1977 ORDER: 7940-96-6400

MANUFACTURER: SULLAIR OF SO. CALIF. ADDRESS 3050 E. 29TH STREET

RECEIVED OR
PURCHASED FROM: SAME SEPT 1977 ADDRESS Long Beach, CA

REQUISITION #: HMD PURCHASE ORDER #: D-424573-CPH
D-426443-CPH
D-427024-2H ACQUISITION: \$ 19,624

SCHEDULE #: ITEM #: FREIGHT: \$
ACQUIRED FROM CONTRACT #: INSTALLATION: \$ 4290
ORIGINAL LOCATION: TOTAL: \$ 23,914

ACCESSORIES: AFTER COOLER

PURE-AIR REFRIGERATED AIR DRYER MODEL PS-500

FILTER - 400 CFM model PF 250 (Sullair) 247.00

FILTER - PHC8E PURELESCER model (Sullair) 240.01

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

NC 100 1720 230/400 3/6 1702-665 3420-8 YL

G

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

AIR CHILLER & PIPING
FOR AIR COMPRESSOR #T-77-99002
(F-0001)

SKID #2 OF 2

End Item Usage			
SUPPLY COMPRESSED AIR			
Model	25-100H	Type	SCREW
Serial No.	35707 IGG	Manufacturer	SULLAIR
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	3/24/87		
Inspector's Initials	KK		
Protection - Specify	90 WT. OIL		
Condition (Quality as to operational condition)			FAIR

INSTALLATION NAME:

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Kealey ^{mr} / N. Sawyer ^{mr}

REVIEW BY M. Kealey / N. Sawyer

PURPOSE Characterization Survey of DU Co.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/608

DATE 7-18-95

Contract # DAAA0992G0004 0016

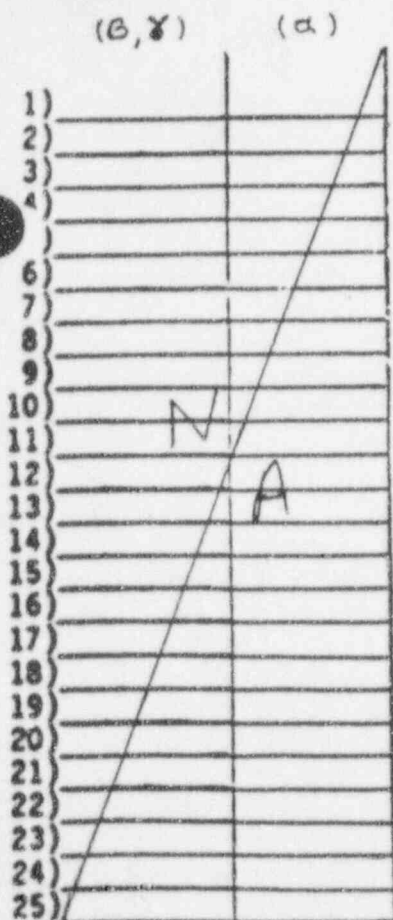
I.D. # - F-0 NA

Serial # - 6635-06391

Map # - 16

All Results
in DAM

SMEAR RESULTS
dpm/100cm²



Sq. Ft. 200 (cont. surface area)

Description of Item -
Comparator

Avg. Fixed - 4K

Range Fixed - 1-10K

Avg. Smearable - 3K

Range Smearable - 1-5K

NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MRAD/HR
UNLESS OTHERWISE NOTED

NOMENCLATURE

COMPARATOR # 6635-06391

End Item Usage			
INSPECTION			
Model		Type	
PC 14			
Serial No.		Manufacturer	
E20680		JONES & LAMSON	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C	C Other and/or Agents Used
		C-1	
Preservation - Specify			
Internal		P - 2	P - 90WT OIL
External		P - 2	P - 90WT OIL
Date		3/23/87	
Inspector's Initials		KH	
Protection - Specify			
Condition (Quality as to operational condition)			

INSTALLATION NAME:

Shipping # 16 50 Serial #

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT = DAAA69-84-E-0001 WIS HMC IDENTIFICATION # 6635-06391

EQUIPMENT DESCRIPTION: COMPARATOR 14"

MODEL: PC14 SERIAL: E206P0 YR BUILT: 1954 COND:
SCC/ DATE WORK
PEC #: 6635-7221-1404 REC'D: 10-19-76 ORDER:

MANUFACTURER: JONES & LAMSON ADDRESS
RECEIVED OR
PURCHASED FROM: DEFENSE DEPOT ADDRESS MECHANICSBURG PA.

REQUISITION #:	PURCHASE ORDER #:	ACQUISITION:
	D/R 2P795	3,434
SCHEDULE #:	ITEM #:	FREIGHT:
ACQUIRED FROM		
CONTRACT #:		INSTALLATION:
ORIGINAL		
LOCATION: AEROJET HEAVY METALS		TOTAL: 3,434

ACCESSORIES: 3097 ANA ST.
COMPTON, CA 90021

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CON. TAINER f	CON. TAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	6635-7221-1404, I.D. No. 6635-06391 Comparator 14"	Ea	1		Skid	1	3,434	3,434

SIGNATURE



3/13/87
DATE

15. TRANSPORTATION VIA MATS OR MSTS CHARGEABLE TO

17. SPECIAL HANDLING

18 RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBS	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SEE TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
								POSTED	DATE	BY	20. RECEIVED'S VOUCHER NO
	PACKED BY										
				← TOTAL →							

DD FORM 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1964 WHICH MAY BE USED

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AM

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AM 1	1	N. GRIND J & L COMPARATOR	G

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 SER# 58126 CAL DUE 7-24-96

SURVEY DATE 7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley ^{mk} N. Sawyer ^{ns}

REMARKS DC-50-603 (608)

REVIEW BY 16/5/1 Mid/K DATE 8-8-95

Contract # DAAA0992G0004-0016

All Results In
DPM

I.D. # - F-0037

SMEAR RESULTS
dpm/100cm²

Serial # - N/A

(B, Y) (a)

Map # - 17

Sq ft 900 (cont surface area)

Description of Item

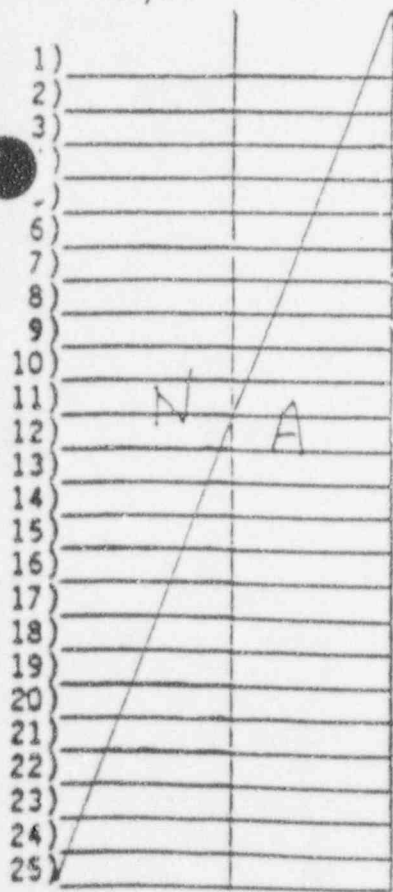
Ipsen Furnace (Part 4)

Avg. Fixed - 10K

Range Fixed - 2-30K

Avg. Smearable - 8K

Range Smearable - 2-20K



Alpha detected
earable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NG. - CONTACT GAMMA
- MBR/HR - BETA DOSE RATE
- MBR/HR - CONTACT BETA
- ⊙ - AIR SAMPLE LOCATION

DOSE RATES ARE IN MKR

#5

Shipping #17 SEC Lead #

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

TOP SECTION, LOAD/UNLOAD CAR
FOR IPSEN FURNACE #3424-02026

SKID #2 OF 9

End Item Usage

HEAT TREAT METAL PARTS

Model

VCW-11 (10)R

Type

Box, VACUUM

Serial No.

57616

Manufacturer

IPSEN INDUSTRIES, INC.

Installation No.

Location Bldg. No.

Decontamination (Circle appropriate category)

X

XXX

XXXXX

Date

Inspector's Initials

Cleaning process (reference para 463)

C

C-1

C

Other and/or Agents Used

Preservation - Specify

Internal

P - 2

P -

Reference para 463

External

P - 2

P -

Date

3/24/87

Inspector's Initials

KK

Protection - Specify

90 WT. OIL

Condition (Quality as to operational condition)

FAIR

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF SHEETS 1	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED	8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 D/AAC9-84-E-0001		
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED	11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT	14. BILL OF LADING NUMBER R-1, 901, 321	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER		

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA3. SHIP TO-MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501M/F:
Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON. TAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3424-1310-3420, I.D. NO. 3424-02026 FURNACE, IPSEN SKID 2 OF 9	EA	1		SKID	1	164,188	164,188

SIGNATURE

DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
				TOTAL							

DOD PROPERTY RECORD				<input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INITIAL <input type="checkbox"/> IDLE <input type="checkbox"/> CHANGE		JULIAN DATE 80352		1 D GOVERNMENT TAG NO. A 70124		Form Approved Budget Bureau No. 22-20209	
SECTION I — INVENTORY RECORD											
4. COMMODITY CODE 4424-1310-3420		5. STOCK NUMBER 3424		8. ACQUISITION COST 164,188		7. TYPE CODE 1		8 YR OF MFG 79		9. POWER CODE 54	
10. STATUS CODE 1A		11. SVC CODE 0C		12. COMMAND CODE 027615		13. ADM OFFICE CODE 000102					
14. NAME OF MANUFACTURER Ipsen Industries, Inc.						15. MFR'S CODE 90714		16. MANUFACTURER'S MODEL NO. VCW-11 (10) R		17. MANUFACTURER'S SERIAL NO. 57616	
18. LENGTH 9'		19. WIDTH 17'		20. HEIGHT 12'		21. WEIGHT 8750#		22. CERTIFICATE OF NON-AVAILABILITY NUMBER		25. CONTRACT NUMBER DAAA09-84-E-0001	
24. DESCRIPTION AND CAPACITY Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forced Gas Convection 0°-1000°F, 112KVA, 1 Door (Aging)											
F-0037 (T77-99042)						CONTINUED ON REVERSE SIDE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
ELECTRICAL CHARACTERISTICS											
QUANTITY		HORSEPOWER		VOLTS		PHASE		CYCLE		TYPE AND FRAME NUMBER	
1		40 & 10		460		3		60 X		3540/1760 COG6NB 286TC (2 Spd. Motor)	
1		10		208/240/480		3		60 X		M3714T Spec. No. 37A01Z50 21ST	
1		10		208/240/480		3		60 X		M3714T " " "	
2		3		180				X		1750 Type CD189ATC, MOD 5CD145V0002604	
28. PRESENT LOCATION Aerojet Ordnance Company (HMD Facility) 3097 East Ana Street Compton, Calif. 90021										29. DIPEC CONTROL NO. 3424-02026	
Jarl Victor (213) 923-7511, X207										29. POSSESSOR CODE 06 0810 00203T	
SECTION II — INSPECTION RECORD											
										YES NO	
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?											
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN? DATE											
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.											
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.											
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.											
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.											
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?											
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?											
38. WAS ITEM LAST USED ON A FINISHING OPERATION?											
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?											
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.										1	
41. IS ITEM IN OPERABLE CONDITION?											
42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?										1	
43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.											
44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.											
45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.											
46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.											
47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.											
48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?											
49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 28 ABOVE.											
50. ESTIMATED COST FOR PACKING, CRATING, HANDLING										1	
51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.											
52. CONDITION CODE.											
53. OPERATING TEST CODE.											
SECTION III — REMARKS											
54. REMARKS											
REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO											
SECTION IV — DISPOSITION RECORD											
56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)						56. TYPE OF DISPOSITION			56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD		
						<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT					
SECTION V — VALIDATION RECORD											
57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))											
Jarl Victor, Aerojet P/A											
George Murphy DCRL-GLCM(34)											

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AQ

THIS PACKAGE NO. 3

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AQ 2X	1	IPSEN FURNACE TRACK FORK LOADER TOP	G

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU EQ.

SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500

INST. TYPE MODEL 3 SER# 111661 CAL DUE 7-24-95
44-9

INST. TYPE MODEL 3 SER# 111637 CAL DUE 7-24-95
44-9

INST. TYPE MODEL 3 SER# 67108 CAL DUE 7-24-96
43-5

RMP#(S) -

SURVEY BY M. Keeler ^{MR} N. Sawyer ^{DR}

REMARKS PC-50-603/(608)

REVIEW BY M. Keeler N. Sawyer

DATE -

Contract # DAAA0992G0004 0016

I.D. # - F-0046

Serial # - 3424-00689

Map # - 18

All Results
in DPM

SMEAR RESULTS
dpm/100cm²

Surf. At. 500 (cont. surface area)

Description of Item -

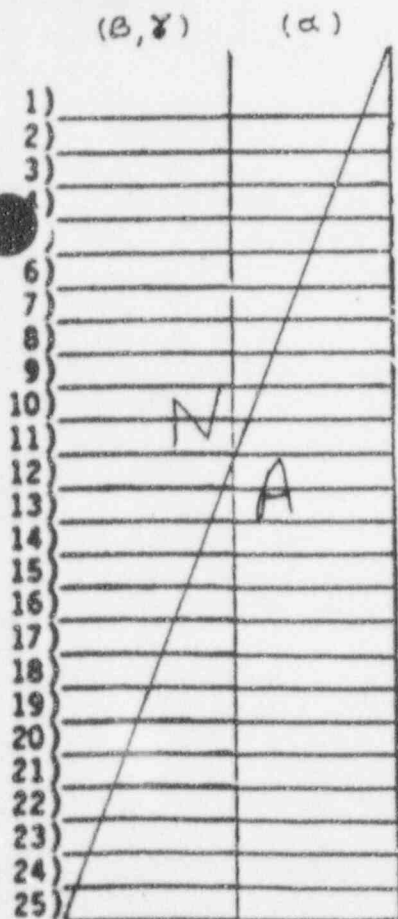
Tacco Induction Heater (Part 3)

Avg. Fixed - 2K

Range Fixed - 1-3K

Avg. Smearable - 1K

Range Smearable - 1-2K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MREM/HR
UNLESS OTHERWISE NOTED

Shipping # 88 SEC-Board # 1 2-95

SHIPPING CONTAINER TALLY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46

REQUISITION AND INVOICE/SHIPPING DOCUMENT		SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		7. DATE MATERIAL REQUIRED		8. PRIORITY	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
3. SHIP TO-MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501 M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		11a. VOUCHER NUMBER AND DATE		11b. VOUCHER NUMBER AND DATE	
4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.		12. DATE SHIPPED		13. MODE OF SHIPMENT	
		14. BILL OF LADING NUMBER K-1,901,326		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER	

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3424-8113-0100, I.D. NO. 3424-00689 HEATER, TACCO INDUCTION SKID 3 OF 3 <i>[Signature]</i> SIGNATURE <i>[Stamp]</i> DATE 3/25/87	EA	1		SKID	1	71,604	71,604

16. TRANSPORTATION VIA WATS OR WTS CHARGEABLE TO						17. SPECIAL HANDLING				
18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHIRT TOTAL
	CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	SHIRT TOTAL
	PACKED BY						POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	TOTAL									

DD FORM 1149 MAR 88

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

File # 1,000-2.2.3

Shipping # 18 266 Serial # 1 7-12-75 DOD PROPERTY RECORD

ACTIVE ☐ INITIAL ☐ CHANGE ☒

7322

3424-00689

Form Approved
Budget Bureau No. 22 P-1007

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3424-8113-0100	5. STOCK NUMBER 3424	6. ACQUISITION COST 71,604	7. TYPE CODE 2	8. YEAR OF MFG 66	9. POWER CODE 44	10. STATUS CODE 2	11. SVC CODE 2	12. COMMAND CODE	13. SM CODE
14. NAME OF MANUFACTURER Ohio Crankshaft Co.		15. MFR'S CODE 44522	16. MANUFACTURER'S MODEL NO. 2125-S		17. MANUFACTURER'S SERIAL NO. J4550041ABC				
18. LENGTH 34	19. WIDTH 9	20. HEIGHT 9	21. WEIGHT 9,000	22. CERTIFICATE OF NON-AVAILABILITY NUMBER ---		23. ASD NO 0454	24. ARD --	25. CONTRACT NUMBER DAAA09-84-E-0001	

26. DESCRIPTION AND CAPACITY

HEARTER, HEAT TREAT, IND, MTR-GEN TYP, 3 STA, 100KW OUTPUT, 10 KC, 1.0 PF, WATER COOLED., 152 KVA INPUT (BUILT TO BRAZE ADAPTER TO 81 MM SHELL BODY)

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

27.

ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER
1	10	220/440	3	60	X		3500	P 215
1	1	220/440	3	60	X		1750	N/AV 182

28. PRESENT LOCATION

Aerojet Ordnance and Manufacturing Company
9236 East Hall Road
Downey, California 90241

28a. DIPEC CONTROL NO.

3424-00689

29. POSSESSOR CODE

06081000203T

SECTION II — INSPECTION RECORD

YES		NO		YES		NO	
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?			
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?				43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.				44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.			
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.				45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.			
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.				46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.				47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?				48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?				49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.			
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.				52. CONDITION CODE.			
41. IS ITEM IN OPERABLE CONDITION?				53. OPERATING TEST CODE.			

SECTION III — REMARKS

54. REMARKS

NOTE: Item physically located at HMD Facility
3097 East Ana
Compton, California 90021

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	---

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S)) L. T. Rose, Property Administrator	58. VALIDATION (TYPED NAME(S) AND SIGNATURE(S)) Richard E. Held DCAS Property Administrator
---	---

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
BC 12	1	W.H. DWY. TOCCO TANK & ACCES.	G

SIGN-OFF SHEET

SEC #18

7-10-95
Load 1CELL No.(s) BCEQUIP/MACHINE DESCRIPTION TALCO TANK & ACCESSORIESTOTAL PKGS (THIS CELL) _____ THIS PACKAGE # 7 OF _____ENG. H&S CONTSECTION I

Disconnection points marked.

NA _____

Dissassembly points match marked.

NA _____

Unsupported components removed.

NA _____

All liquids removed.

JMB gm CB

Properly cleaned.

JMB gm CB

Machined surfaces oiled.

NA _____

Adequate blocking/securing of parts.

JMB CB

Tension on drives eliminated.

NA _____

Adequate skidding & secure to skid.

JMB CB

Adequate packing/protection.

JMB CB

Ready to close/secure packages.

JMB gm CBSECTION II

Truck trailer released for loading.

Packages properly sealed/clean.

Equipment list for each package.

Packages secured in trailer.

SECTION III

Shipping papers prepared.

H&S check on trailer & release for shipment.

READY FOR SHIPMENT

DATE

18

W.H. Day

Nº 100867

DESCRIPTION

TOOTHBRUSH & ACCESS.

ID NUMBER

3424-00689-3E4

OWNER

G.

DATE

QUANTITY

INITIALS

CELL LETTER

BC

CELL ITEM NO.

12

Shipping # 10 OCU # 1 7-12-95

LAYAWAY EQUIPMENT TAG

NOMENCLATURE **COOLING WATER TANK & HEAT EXCHANGER**
FOR TACCO INDUCTION HEATING SYSTEM
#341.4-00689
SKID #3 OF 3

End Item Usage HEAT TREAT METAL PARTS			
Model 2125-S		Type MOTOR GENERATOR	
Serial No. J4550041ABC		Manufacturer OHIO CRANKSHAFT CO.	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	3/25/87		
Inspector's Initials	KK		
Protection - Specify	90 WT. OIL		
Condition (Quality as to operational condition)			POOR
INSTALLATION NAME:			

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Co.

SURVEY DATE 6-28-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

RMP#(S) -

SURVEY BY M. Keeler ^{My} N. Sawyer

REMARKS PC-50-603/608

REVIEW BY M. Keeler N. Sawyer

DATE 7/17/95

Contract # DAAA0992G0004 0016

I.D. # - F-0138

Serial # - NA

Map # - 19

All Results in
DPM

SMEAR RESULTS
dpm/100cm²

So. At. 550 (cont. surface area)

Description of Item -

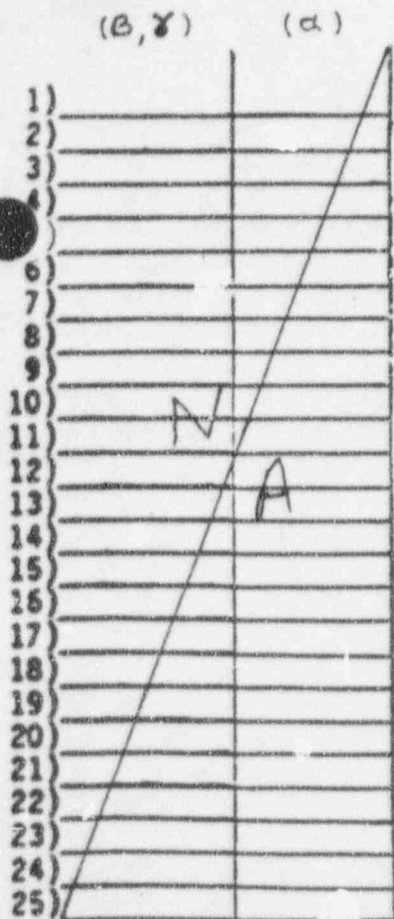
Water Cooling System (Part 2)

Avg. Fixed - 2K

Range Fixed - 1-5K

Avg. Smearable - 1K

Range Smearable - 1-3K



No Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

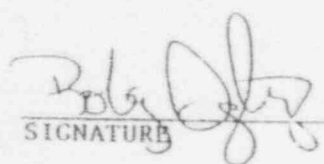

MBAD/HA - BETA DOSE RATE

MBAD/HA - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MINUTE
UNLESS OTHERWISE NOTED

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM:		SHEET NO. 1		NO OF SHEETS		B. REQUISITION DATE		A. REQUISITION NO.				
2. TO:		7. DATE MATERIAL REQUIRED		B. PRIORITY		9. AUTHORITY OR PURPOSE		P00008 DAAAC9-84-E-0001				
3. SHIP TO—MARK FOR		10. SIGNATURE		11a. VOUCHER NUMBER AND DATE		12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE				
Commander		Ted Schraff <i>Ted Schraff</i>				13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER				
McAlester Army Ammunition Plant								R-1,901,326				
McAlester, OKLAHOMA 74501						15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER						
M/F: Robert Gottlieb												
Prop. Administrator												
(918) 421-2217												
4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.												
ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES					UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON. TAINER NOS.	UNIT PRICE	TOTAL COST
1	I.D. NO. F-0138/T-77-99015 WATER COOLING SYSTEM SKID 2 OF 3					EA	1		SKID	1	72,205	72,205
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  SIGNATURE </div> <div style="text-align: center;">  DATE </div> <div style="text-align: center;"> 3/25/87 DATE </div> </div>												
16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO								17. SPECIAL HANDLING				
RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL	
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL	
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.	
	TOTAL											

Shipping # 19 SEL Serial #

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 W/S HMD IDENTIFICATION # F-013

EQUIPMENT DESCRIPTION: WATER COOLING SYSTEM

MODEL: SERIAL: YR BUILT: COND:

SCC/ DATE REC'D: WORK ORDER:
PEC #: NONE

MANUFACTURER: VARICUS ADDRESS

RECEIVED OR PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #:	424574, 425925 426207, 426208 426302	COST
SCHEDULE #: <td>ITEM #:<td></td><td>ACQUISITION: 12,543.00</td></td>	ITEM #: <td></td> <td>ACQUISITION: 12,543.00</td>		ACQUISITION: 12,543.00
ACQUIRED FROM			FREIGHT: 176.00
CONTRACT #:			INSTALLATION: 59,486.00
ORIGINAL			TOTAL: 72,205.
LOCATION:			

ACCESSORIES: 1-Cooling Tower F-0138
2-Cooling Water Pumps -1+-2
2-Cooling Water Tower Pumps -3+-4

CONTROLS

MOTOR DATA: MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME

2 7½ 1750 230/460 3/60

2 15 1750 230/460 3/60

Shipping # 19 SEC Leach #

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. BD

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
----------	----------	-------------	-------

BD 1	1	W.C. SUBMERSEABLE PUMP	G
BD 2	1	W.C. SUBMERSEABLE PUMP	G
BD 6	1	W.C. PIPING	G

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

PUMPS & PIPING FOR
COOLING WATER SYSTEM
(F-0138) #T-77-99015
SKID # 2 OF 3

End Item Usage			
SUPPLY COOLING WATER			
Model	Type		
Serial No.	Manufacturer		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	KK		
Inspector's Initials	3/25/87		
Protection - Specify	90 WT. OIL		
Condition (Quality as to operational condition)	POOR		
INSTALLATION NAME:			

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 7-6-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

RMP#(S) —

INST. TYPE MODEL 3 44-9 SER# 58126 CAL DUE 7-24-96

SURVEY BY M. Keeley M. N. Sawyer

REMARKS DC-50-603/608

REVIEW BY 16/Sy/M. N. Sawyer DATE 8-2-95

Contract # DAAA0992G0004-0016

All Results In
DPM

I.D. # - F-0037

SMEAR RESULTS
dpm/100cm²

Serial # - NA

(B, X) (A)

Map # - 20

Sq ft 1400 (cont surface area)

Description of Item

Ipsen Furnace (Part 3)

Avg. Fixed - 5K

Range Fixed - 1-10K

Avg. Smearable - 7K

Range Smearable - 1-10K

Alpha detected
smearable

5 - 800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MB/HA - BETA DOSE RATE

MB/HA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MIBK
UNLESS OTHERWISE NOTED

Shipping #20 SEC Lead #12

8-2-95

#5

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

BASE SECTION, LOAD/UNLOAD CAR
FOR IPSEN FURNACE #3424-02026

SKID #3 OF 9

End Item Usage			
HEAT TREAT-METAL PARTS			
Model	VCW-11(10)R	Type	Box, VACUUM
Serial No.	57616	Manufacturer	IPSEN INDUSTRIES, INC.
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
External	P - 2	P -	
Reference para 463			
Date	3/24/87		
Inspector's Initials	KK		
Protection - Specify			
90 WT. OIL			
Condition (Quality as to operational condition)			
			FAIR
INSTALLATION NAME:			

Slip # 24 SEC Lead # 12

8-2-95

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AQ

THIS PACKAGE NO. 5

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AQ 2	1	IPSEN FURNACE TRACK FORK LOADER BASE	G
AQ 3W	1	IPSEN FURNACE ELEC. CONDUCTORS	G
AQ 3Z	1	IPSEN FURNACE VENT. FAN & FILTER	G

DOD PROPERTY RECORD		<input type="checkbox"/> ACTIVE <input type="checkbox"/> INITIAL		2 JULIAN DATE 80352		3 GOVERNMENT TAG NO. AF 470124		Form Approved Budget Bureau No. 22-R0209	
SECTION I — INVENTORY RECORD									
4. COMMODITY CODE	5. STOCK NUMBER	6. ACQUISITION COST	7. TYPE CODE	8. YR OF MFG	9. POWER CODE	10. STATUS CODE	11. SVC CODE	12. COMMAND CODE	13. ADM OFFICE CODE
8424-1310-3420	3424	164,188	1	79	54	1A	0C	507615	000102
14. NAME OF MANUFACTURER			15. MFR'S CODE		16. MANUFACTURER'S MODEL NO.		17. MANUFACTURER'S SERIAL NO.		
Ipsen Industries, Inc.			90714		VCW-11 (10)R		57616		
18. LENGTH	19. WIDTH	20. HEIGHT	21. WEIGHT	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASCD NO.	24. ARD	25. CONTRACT NUMBER	
9'	17'	12'	8750#					DAAA09-84-E-0001	
26. DESCRIPTION AND CAPACITY									
Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forced Gas Convection 0°-1000°F, 112KVA, 1 Door (Aging)									
F-0037 (T77-99042)					CONTINUED ON REVERSE SIDE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				
27. ELECTRICAL CHARACTERISTICS									
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER	
1	40 & 10	460	3	60	X		3540/1760	COG6NB 286TC (2 Spd. Motor)	
1	10	208/240/480	3	60	X		1725	M3714T Spec. No. 37A01250 215T	
1	10	208/240/480	3	60	X		1725	M3714T " " " "	
2	3	180			X		1750	Type CD189ATC, MOD 5CD145V0002604	
28. PRESENT LOCATION							28a. DIPEC CONTROL NO.		
Aerojet Ordnance Company (HMD Facility)							3424-02026		
3097 East Ana Street Jarl Victor							29. POSSESSOR CODE		
Compton, Calif. 90021 (213) 923-7511, X207							06 0810 00203T		
SECTION II — INSPECTION RECORD									
					YES		NO		YES
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?									
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?					DATE				
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW									
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW									
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW									
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW									
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?									
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?									
38. WAS ITEM LAST USED ON A FINISHING OPERATION?									
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?									
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.									
41. IS ITEM IN OPERABLE CONDITION?									
42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?									
43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW									
44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW									
45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW									
46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW									
47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW									
48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?									
49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE									
50. ESTIMATED COST FOR PACKING, CRATING, HANDLING									
51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.									
52. CONDITION CODE.									
53. OPERATING TEST CODE.									
SECTION III — REMARKS									
54. REMARKS									
REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO									
SECTION IV — DISPOSITION RECORD									
55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)					56. TYPE OF DISPOSITION			56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD	
					<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION				
					<input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT				
SECTION V — VALIDATION RECORD									
57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))					58. DATE OF DISPOSITION AND PROCEEDS IF SOLD				
Jarl Victor, Aerojet P/A					George Murphy DCRL-GLCM(34)				

REQUISITION AND INVOICE/SHIPPING DOCUMENT		SHEET NO. 1	NO. OF SHEETS	6. REQUISITION DATE	4. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		7. DATE MATERIAL REQUIRED		8. PRIORITY	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501 M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		11. DATE SHIPPED		11a. VOUCHER NUMBER AND DATE	
		12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER K-1, 901, 321	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3424-1310-3420, I.D. NO. 3424-02026 FURNACE, IPSEN SKID 3 OF 9	EA	1		SKID	1	164,188	164,188

[Signature]
SIGNATURE



3/25/87
DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
				TOTAL							

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeley/N. Sawyer

REVIEW BY L. S. / M. D. K.

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PC-50-623/608

DATE 7-19-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²

I.D. # - F0062

Serial # - T77-92751

Map # - 21

Sq ft 1100 (cont. surface area)

Description of Item

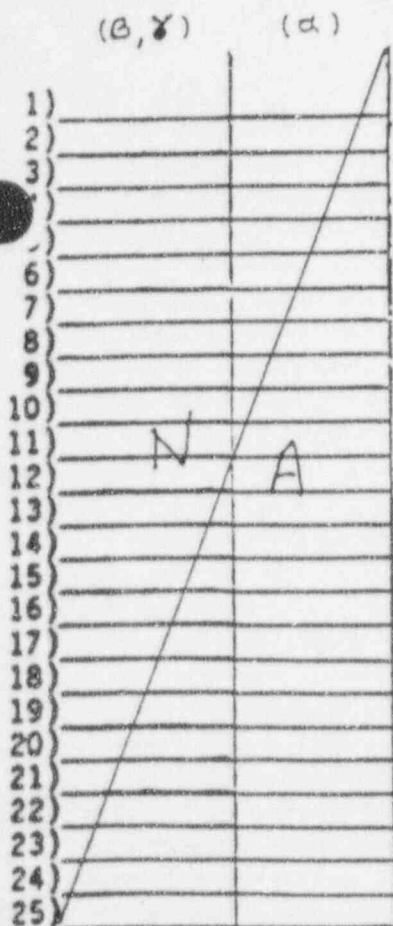
Shearing Machine (Part 1)

Avg. Fixed - 20K

Range Fixed - 5-200K

Avg. Smearable - 10K

Range Smearable - 2-30K



no Alpha detected
wearable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MBAD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MREM
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

SIGNATURE

CONTROL PANEL # (2) BAR FEED UNITS
FOR PEDDINGHAUS SHEAR

#3445-02278

SKID 1 OF 2

End Item Usage

Model	CADDY 50		
Type	HYDRO-PNEUMATIC		
Serial No.	4053043076023		
Manufacturer	AMERICAN PEDDINGHAUS CORP.		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Inspection - Specify			
Internal	P - 2	P -	
External	P - 2	P -	
Reference para 463			
Date	3/23/87		
Inspector's Initials	KK		
Protection - Specify	90 WT. OIL		
Condition (Quality as to operational condition)	GOOD		

INSTALLATION NAME:

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. X

THIS PACKAGE NO. 2

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
X 1	1	SLUG. BAR FEED RACK	G
X 5	1	SLUG. VENT. HOOD	G
X 6	1	SLUG, FEEDER	G
X 8	1	SLUG, VENT. HOOD	G
X 10	1	SLUG. VENT. HOOD	G

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		SHEET NO. 1	NO. OF SHEETS	6. REQUISITION DATE	6. REQUISITION NO.
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		7. DATE MATERIAL REQUIRED		8. PRIORITY	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
H/F: Robert Gottlieb Prop. Administrator (918) 421-2217		11. VOUCHER NUMBER AND DATE		12. DATE SHIPPED	
		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901, 318	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3445-2252-0000, I.D. NO. 3445-02278 SHEARING MACHINE SKID 1 OF 2	EA	1		SKID	1	86,379	86,379

SIGNATURE

DATE



8/23/87

16. TRANSPORTATION VIA MATS
OR MSTs CHARGEABLE TO

17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHRINK TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
								POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
		PACKED BY									
				← TOTAL →							

DD FORM 149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 77 WHICH MAY BE USED

Form Approved
Budget Bureau No. 22-R0209

4. COMMODITY CODE 3445-2252-0000	5. STOCK NUMBER 3445	6. ACQUISITION COST \$86,379	7. TYPE CODE I	8. YR OF MFG 1977	9. POWER CODE 54	10. STATUS CODE 1A	11. SVC CODE 2	12. COMMAND CODE FQ7615	13. ADM OFFICE CODE 000102
14. NAME OF MANUFACTURER American Peddinghaus Corp.				15. MFR'S CODE Caddy 50		17. MANUFACTURER'S SERIAL NO. 4053043076023			
18. LENGTH 30	19. WIDTH 12	20. HEIGHT 5	21. WEIGHT 20,000	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	24. ARD	25. CONTRACT NUMBER F33657-77-C-0198	

Shearing Machine, Bar with Hydro-Pneumatic Bar Clamp & Cut (40 cut per min.)

FACILITIES CONTRACT
DAAA09-82-E-7015
(F33557-75-C-0104)

Ref: T77-92751 (F-0062)

CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

27

[illegible]

T.N.S. Inc.

Old Highway 11 East

Jonesboro, Tennessee 37659

Jarl Victor

(213) 923-7511, x207

29. POSSESSOR CODE

POSSESSOR CODE
061045828493

		YES	NO			YES	NO
30.	CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42.	MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?	\$	
31.	HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?		DATE	43.	DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.		
32.	HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.			44.	ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		
33.	WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.			45.	ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.		
34.	ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.			46.	ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
35.	ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.			47.	ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
36.	ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48.	HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
37.	ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49.	EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.		
38.	WAS ITEM LAST USED ON A FINISHING OPERATION?			50.	ESTIMATED COST FOR PACKING, CRATING, HANDLING.	\$	
39.	WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			51.	INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.		
40.	IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.	\$		52.	CONDITION CODE.		
41.	IS ITEM IN OPERABLE CONDITION?			53.	OPERATING TEST CODE.		

Used to shear 3/4" Dia. Depleted Uranium Extruded Bar to cut Lengths for 30MM/GAU-8/A Penetrators/API Rounds.

REMARKS CONTINUED ON REVERSE SIDE ☒ YES ☐ NO

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	---

Jarl Victor, Aerojet P/A

George Murphy
DCRI - CI CM (34)

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeler ^{MR} N. Sawyer ^{MR}

REVIEW BY M. Keeler ^{MR} N. Sawyer ^{MR}

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/(608)

DATE -

Contract # DAAA0992G0004 0016

I.D. # - F-0138

Serial # - T7799015

Map # - 22

All Results
in DPM

SMEAR RESULTS
dpm/100cm²

Sq. Ft. 450 (cont. surface area)

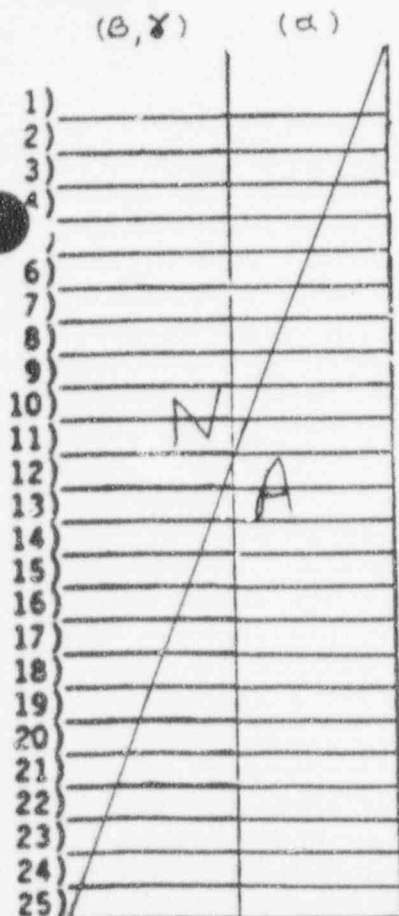
Description of Item -
Water Cooling System (Part 1)

Avg. Fixed - 2K

Range Fixed - 1-5K

Avg. Smearable - 2K

Range Smearable - 1-3K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBR/NA - BETA DOSE RATE

MBR/NC. - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MPM
UNLESS OTHERWISE NOTED

Shipping # 22

008

10-75

LAYDAY EQUIPMENT TAG

22

NOMENCLATURE

PUMPS, FILTERS & PIPING
FOR COOLING WATER SYSTEM
(F-0138) #T-77-99015
SKID #1 OF 3

End Item Usage			
SUPPLY COOLING WATER			
Model	Type		
Serial No.	Manufacturer		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	3/25/87		
Inspector's Initials	KK		
Protection - Specify	90 WT OIL		
Condition (Quality as to operational condition)	POOR		
INSTALLATION NAME:			
file # 6000.2.2.3			

Shipping to JCS... 10-95

#7

SHIPPING CONTAINER TALLY→

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT		SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		7. DATE MATERIAL REQUIRED		8. PRIORITY	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		11a. VOUCHER NUMBER AND DATE		12. DATE SHIPPED	
M/F: Robert Cottlieb Prop. Administrator (918) 421-2217		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901,326	
4. ACCOUNTING AND FUNDING DATA		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON. TAINER NOS.	UNIT PRICE	TOTAL COST
1	I.D. NO. F-0138 / T-77-99015 WATER COOLING SYSTEM SKID 1 OF 3	EA	1		SKID	1	72,205	72,205

[Signature]
SIGNATURE

3/25/87
DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO						17. SPECIAL HANDLING					
18. REQUISITION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
	TOTAL										

Slapping 22 SEC Serial # 1-7-10-95

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 WIS 14MD IDENTIFICATION # F-013

EQUIPMENT DESCRIPTION: WATER COOLING SYSTEM

MODEL: SERIAL: YR BUILT: COND:
SCC/ DATE WORK
PEC #: NONE REC'D: ORDER:

MANUFACTURER: VARIOUS ADDRESS
RECEIVED OR
PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #:	424574, 425795 426207, 426203 426202	COST
SCHEDULE #:	ITEM #:		ACQUISITION: 12,543.00
ACQUIRED FROM			FREIGHT: 176.00
CONTRACT #:			INSTALLATION: 59,486.00
ORIGINAL			TOTAL: 72,205.
LOCATION:			

ACCESSORIES: 1. COOLING TOWER F-0138

2. COOLING WATER PUMPS -1+-2

2 - COOLING WATER TOWER PUMPS -3+-4

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							
2	7 1/2	1750	230/460	3/60			
2	15	1750	230/460	3/60			

7-10-95

(615) 753-4688

CELL NO. ED

THIS PACKAGE NO. 2

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
ED 3	1	W.C. PUMP	G
ED 4	1	W.C. PUMP	G

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeley N. Sawyer

REVIEW BY 16/Sy/Mid/Ky DATE 8-8-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 2 43-5 SER# 58126 CAL DUE 7-24-95

REMARKS DC-50-603 (608)

Contract # DAAA0992G0004-0016

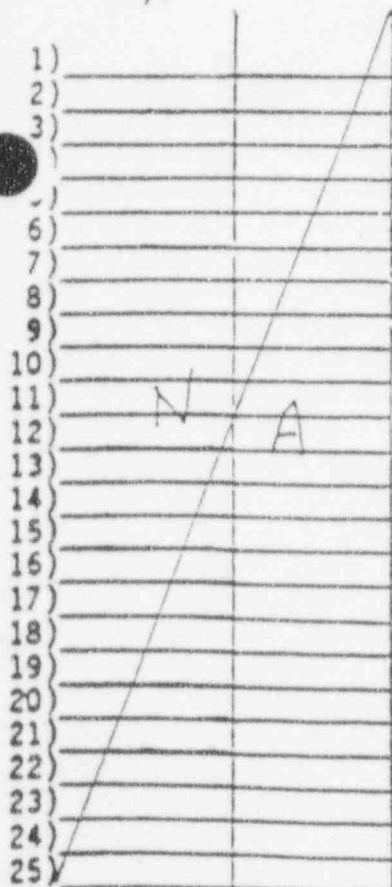
All Results In
DPM

I.D. # - N/A

SMEAR RESULTS
dpm/100cm²

Serial # - 3413-17962

(B, X) (A)



Map # - 23

So ft 400 (cont surface area)

Description of Item

Drilling Machine

Avg. Fixed - 15K

Range Fixed - 1-150K

Avg. Smearable - 5K

Range Smearable - 1-50K

Alpha detected
variable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBR/HR - BETA DOSE RATE

MBR/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MK/HR

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

DRILLING MACHINE #3413-17962

End Item Usage			
METAL DRILLING			
Model		Type	
2 LMS		UPRIGHT, SINGLE SPINDLE	
Serial No.		Manufacturer	
9294		LELAND GIFFORD	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C	Other and/or Agents Used
		C-1	
Preservation - Specify			
Internal		P - 2	P -
External		P - 2	P -
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify			
90 WT. OIL			
Condition (Quality as to operational condition)			
FAIR			
INSTALLATION NAME:			

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AY

THIS PACKAGE NO. 7

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AY 25	1	MAIN. LELAND DRILL PRESS	G

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001

W/S Hmc

IDENTIFICATION # 3413-17962

EQUIPMENT DESCRIPTION: DRILLING MACHINE, UPRIGHT, BOX COLUMN SINGLE SPINDLE

MODEL: 2LMS

SERIAL: 9294

YR BUILT: 1952

COND:

SCC/

DATE

WORK

PEC #: 3415-1221-1226

REC'D: 1971

ORDER:

MANUFACTURER: LELAND GIFFORD CO.

ADDRESS WORCESTER MASS.

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 1870

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #: DAAG05-71-C-0454

INSTALLATION:

ORIGINAL

LOCATION:

AEROJET HEAVY METALS

TOTAL: 1870

3097 ANA ST.

COMPTON, CA 90221

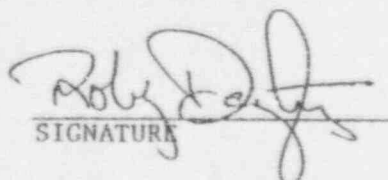

ACCESSORIES:

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

REQUISITION AND INVOICE/SHIPPING DOCUMENT		SHEET NO.	NO. OF SHEETS	B. REQUISITION DATE	A. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		7. DATE MATERIAL REQUIRED		8. PRIORITY	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		11. DATE SHIPPED		12. VOUCHER NUMBER AND DATE	
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1,901,518	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON. TAINER NOS.	UNIT PRICE	TOTAL COST
1	3415-1221-1226, I.D. NO. 3413-17962 DRILLING MACHINE	EA	1		SKID	1	1870	1870
<div>   <div>12/23/87</div> <div>SIGNATURE DATE</div> </div>								

16. TRANSPORTATION VIA MATS OR MSTs CHARGEABLE TO						17. SPECIAL HANDLING					
18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	UNLEADED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							PORTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
	TOTAL										

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

6-28-95

SURVEY DATE 7-6-95 TIME 0800-1500

RWP(S) -

SURVEY BY M. Keeley ^W/N. Sawyer ^M

REVIEW BY 16/Sgt/1 Mid/K

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-91

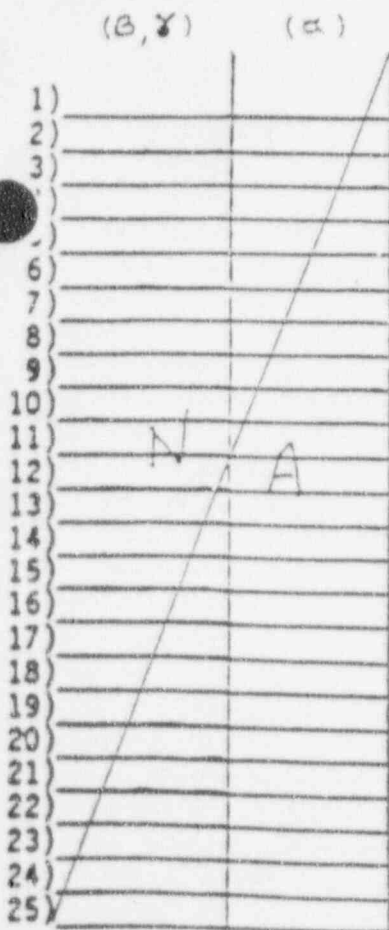
REMARKS PL-50-603 (608)

DATE 8-2-95

Contract # DAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D. # - F.0046

Serial # - 3424-00689

Map # - 24

Sq ft 1200 (cont surface area)

Description of Item
Tacco Induction Heater (Part I)

Avg. Fixed - 3K

Range Fixed - 1-5K

Avg. Smearable - 2K

Range Smearable - 1-5K

Alpha detected
earable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBR/HR - BETA DOSE RATE

MBR/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY INSTR.

Shipping # 24 SSG Serial #

LAYAWAY EQUIPMENT TAG

NOMENCLATURE *WORK STATIONS & CONTROL PANELS
FOR TACCO INDUCTION HEATING SYSTEM
#3424-00689*

SKID # 2 OF 3

End Item Usage *HEAT TREAT METAL PARTS*

Model *2125-S*

Type *MOTOR GENERATOR*

Serial No. *J4550041 ABC*

Manufacturer *OHIO CRANKSHAFT CO.*

Installation No.

Location Bldg. No.

Decontamination (Circle appropriate category)

X

XXX

XXXXX

Date

Inspector's Initials

Cleaning process (reference para 463)

C

C-1

C

Other and/or Agents Used

Preservation - Specify

Internal

P - *2*

P -

Reference para 463

External

P - *2*

P -

Date

3/25/87

Inspector's Initials

KK

Protection - Specify

90 WT. OIL

Condition (Quality as to operational condition)

POOR

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901, 324	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3424-8113-0100, I.D. NO. 3424-00689 HEATER, TACCO INDUCTION SKID 2 OF 3	EA	1		SKID	1	71,604	71,604

Robert Gottlieb
SIGNATURE



3/25/87
DATE

16. TRANSPORTATION VIA WATS OR WATS CHARGEABLE TO

17. SPECIAL HANDLING

18 RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
								PORTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	PACKED BY										
				← TOTAL →							

DD FORM 1149
1 MAR 81

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

Slip # 29 826 Jecel TF

DOD PROPERTY RECORD ☐ NEW ☒ CHANGE 7322 3424-00689 Form Approved Budget Bureau No. 22 90209

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3424-8113-0100	5. STOCK NUMBER 3424	6. ACQUISITION COST 71,604	7. TYPE CODE 2	8. YR OF MFG 66	9. POWER CODE 44	10. STATUS CODE 3D	11. SVC CODE 2	12. COMMAND CODE	13. OM OFFICE CODE
14. NAME OF MANUFACTURER Ohio Crankshaft Co.		15. MFR'S CODE 44522	16. MANUFACTURER'S MODEL NO. 2125-S			17. MANUFACTURER'S SERIAL NO. J4550041ABC			
18. LENGTH 34	19. WIDTH 9	20. HEIGHT 9	21. WEIGHT 9,000	22. CERTIFICATE OF NON-AVAILABILITY NUMBER ---		23. ASD NO. 0454	24. ARD --	25. CONTRACT NUMBER DAAA09-84-E-0001	
26. DESCRIPTION AND CAPACITY HEARTER, HEAT TREAT, IND, MTK-GEN TYP, 3 STA, 100KW OUTPUT, 10 KC, 1.0 PF, WATER COOLED., 152 KVA INPUT (BUILT TO BRAZE ADAPTER TO 81 MM SHELL BODY)									

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

27. ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER	
1	10	220/440	3	60	X		3500	P	215
1	1	220/440	3	60	X		1750	N/AV	182

28. PRESENT LOCATION
Aerojet Ordnance and Manufacturing Company
9236 East Hall Road
Downey, California 90241

28a. DIPEC CONTROL NO.
3424-00689

29. POSSESSOR CODE
06081000203T

SECTION II — INSPECTION RECORD

		YES	NO			YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT, OVERHAULED TO PERFORM ALL FUNCTIONS?			
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?	DATE			43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW				44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW			
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW				45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW			
34. ARE MAINTENANCE LOGS NORMAL? IF NOT, EXPLAIN UNDER REMARKS				46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW				47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?				48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?				49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION			
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST	\$			52. CONDITION CODE			
41. IS ITEM IN OPERABLE CONDITION?				53. OPERATING TEST CODE			

SECTION III — REMARKS

54. REMARKS
NOTE: Item physically located at HMD Facility
3097 East Ana
Compton, California 90021

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	---

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S)) L. T. Rose, Property Administrator	57a. SIGNATURE AND TITLE Richard E. Held DCAS Property Administrator
---	--

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. BC

THIS PACKAGE NO. 6

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
----------	----------	-------------	-------

BC 12

3

W.H. DWY. TOCCO WORK STATIONS W/ CONTROL
PANELS

G

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeler ^{mk} / N. Sawyer ^{ns}

REVIEW BY M. Keeler ^{mk} / N. Sawyer ^{ns}

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/(608)

DATE 7/17/95

Contract # DAAA0992G0004 0016

I.D. # - F-0062

Serial # - T 77-92751

Map # - 25

All Results in
dpm

SMEAR RESULTS
dpm/100cm²

Se. Ft. 550 (cont. surface area)

Description of Item -

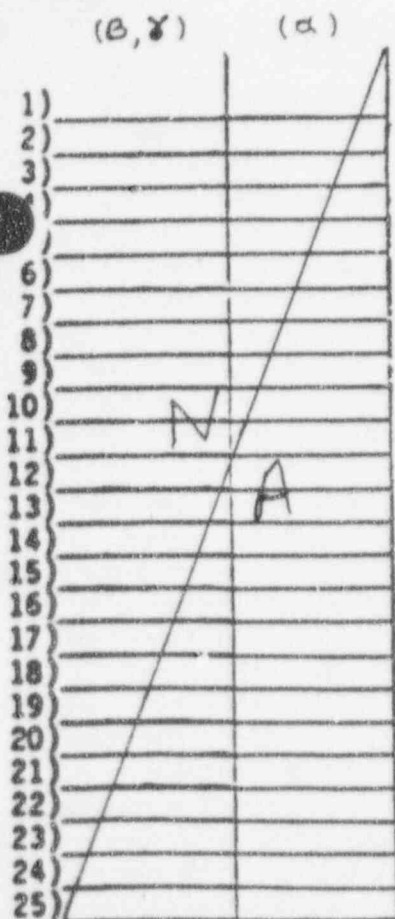
Shearing Machine (Part 2)

Avg. Fixed - 60K

Range Fixed - 10-200K

Avg. Smearable - 60K

Range Smearable - 5-200K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MB/100 - BETA DOSE RATE

MB/100 - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		SHEET NO. 1	NO OF SHEETS	6. REQUISITION DATE	5. REQUISITION NO.
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		7. DATE MATERIAL REQUIRED		8. PRIORITY	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		9. AUTHORITY OR PURPOSE PGCJ08 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
H/F: Robert Gottlieb Prop. Administrator (918) 421-2217		11. VOUCHER NUMBER AND DATE		12. DATE SHIPPED	
		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901, 326	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3445-2252-000 I.D. NO. 3445-02278 SHEAR MACHINE SKTD 2 OF 2	EA	1		SKTD		76,379	76,379

Robert Gottlieb
SIGNATURE



3/25/87
DATE

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO

17. SPECIAL
HANDLING

18. RECAPITULATION OF RECEIPT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S TOUCHER NO
	TOTAL										

DD FORM 1149
1 MAR 80

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Supply # 15 226-1001#

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

SHEARING MACHINE
#3445-02278

SKID # 2 OF 2

End Item Usage			
CUT METAL BAR STOCK			
Model		Type	
Serial No.		Manufacturer	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
Reference para 463		External	P - 2 P -
Date		3/25/87	
Inspector's Initials		KK	
Protection - Specify			
90 WT. OIL			
Condition (Quality as to operational condition)			
Good			

INSTALLATION NAME:

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. X

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
X 7	1	PEDDINGHOUSE SHEAR	G

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. KEELEY ^{mk} / N. Sawyer ^{ns}

REVIEW BY 16/Sy/Mid/K DATE 7-31-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

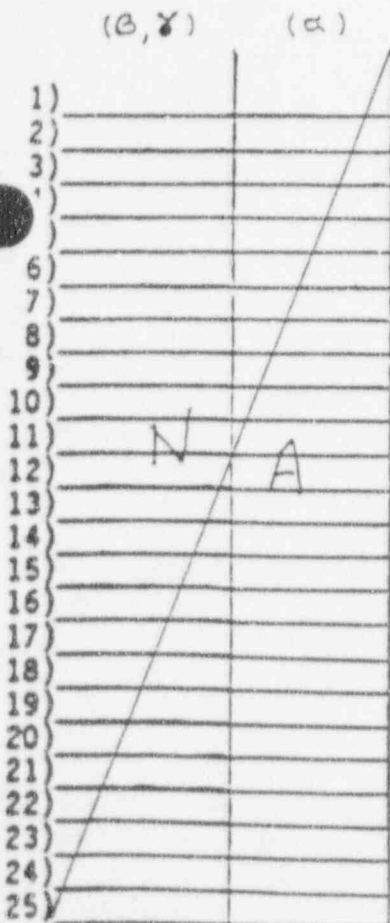
INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS DC-50-603 (608)

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D.# - F-0001

Serial # - T77-99002

Map # - 26

Sq ft 1150 (cont. surface area)

Description of Item

Compressor (Part 1)

Avg. Fixed - 3K

Range Fixed - 1-4K

Avg. Smearable - 10K

Range Smearable - 2-30K

Alpha detected
earable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NC - CONTACT GAMMA
- MBAD/NA - BETA DOSE RATE
- MBAD/NA - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

All DOSE RATES ARE IN MPM
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

CLATURE

AIR COMPRESSOR #T-77-99002
(F-0001)

SKID # ¹ OF 2

End Item Usage

SUPPLY COMPRESSED AIR

Model

25-100 H

Type

SCREW

Serial No.

35707 IGG

Manufacturer

SULLAIR

Installation No.

Location Bldg. No.

Decontamination (Circle appropriate category)

X

XXX

XXXXX

Date

Inspector's Initials

Cleaning process (reference para 463)

C

C-1

C

Other and/or Agents Used

Preservation - Specify

Internal

P - 2

P -

Reference para 463

External

P - 2

P -

Date

3/24/87

Inspector's Initials

KK

Protection - Specify

90 WT. OIL

Condition (Quality as to operational condition)

FAIR

INSTALLATION NAME:

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. BE

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
BE 4	1	C.R. COMPRESSOR	G

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 W/S HMD IDENTIFICATION # F-0001

EQUIPMENT DESCRIPTION: Compressor Screw Type Air Cooled 100 HP

MODEL: 25-100H SERIAL: 35707 IGE YR BUILT: 1977 COND: N-1
 SCC/ Length Width Height Weight DATE WORK
 PEC #: 9 7 4 12,000 REC'D: SEPT 1977 ORDER: 7940-96-6400

MANUFACTURER: SULLAIR OF SO. CALIF. ADDRESS 3050 E. 29TH STREET

RECEIVED OR
 PURCHASED FROM: SAME SEPT 1977 ADDRESS Long Beach CA

REQUISITION #: <u>HMD</u>	PURCHASE ORDER #:	COST
	<u>D-424573-CPH</u> <u>B-426443-1PH</u> <u>A-427624-2H</u>	ACQUISITION: <u>\$19,624</u>
SCHEDULE #:	ITEM #:	FREIGHT: <u>0</u>
ACQUIRED FROM		INSTALLATION: <u>\$4290</u>
CONTRACT #:		TOTAL: <u>\$23,914</u>
ORIGINAL		
LOCATION:		

ACCESSORIES: AFTER COOLER 1435.00
PURE-AIR REFRIGERATED AIR DRYER MODEL PS-500 4372.00
FILTER - 400 CFM model PF 250 (Sullair) 247.00
FILTER - PHC8E PURELESCER model (Sullair) 240.00

CONTROLS

MOTOR DATA:	11FG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
<u>LINCOLN</u>		<u>100</u>	<u>1720</u>	<u>230/440</u>	<u>3/40</u>	<u>1702-668</u>	<u>3420-B</u>	<u>404A1</u>

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(ANCCOM)Rock Is, Ill		SHEET NO. 1	NO OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		7. DATE MATERIAL REQUIRED		8. PRIORITY	
3. SHIP TO-MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
		12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1,901,321	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	I.D. NO. F-0001, COMPRESSOR T-77-99002 SKID 1 OF 2	EA	1		SKID	1	23,914	23,914

SIGNATURE

DATE

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO

17. SPECIAL
HANDLING

18. REQUISITION NO. OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CURR	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
								POSTED	DATE	BY	20. RECEIVER'S TOUCHER NO.
	PACKED BY										
				← TOTAL →							

DD FORM 1149

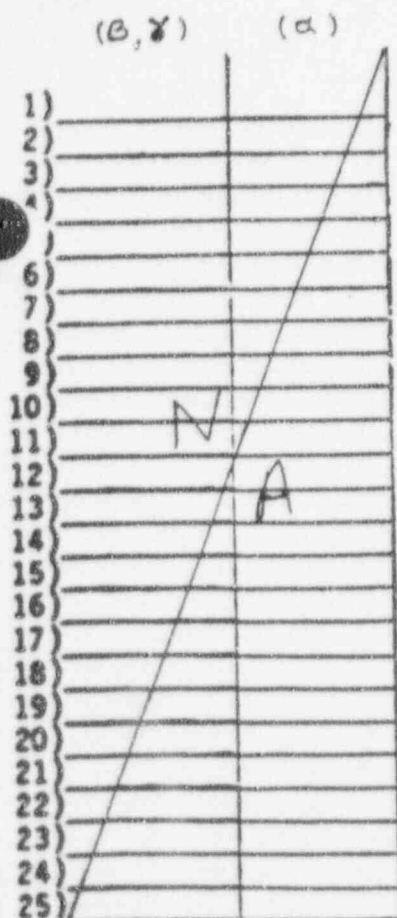
61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1964 WHICH MAY BE USED

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530SURVEY DATE 6-28-95 TIME 0800-1500RMP#(S) -SURVEY BY M. Keeler^{MK} / N. Sawyer^NREVIEW BY M. Keeler^{MK} / N. Sawyer^NPURPOSE Characterization Survey of DU Eq.INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96REMARKS PC-50-603/(608)DATE -Contract # DAAA0992G0004 0016I.D. # - F-O-NASerial # - 3415-20262Map # - 27All Results
in DPMSMEAR RESULTS
dpm/100cm²Surf. At. 650 (cont. surface area)Description of Item -
Centerless GrinderAvg. Fixed - 100KRange Fixed - 5-800KAvg. Smearable - 20KRange Smearable - 1-200K

NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

All DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

27

GRINDER #3415-20262

End Item Usage METAL MACHINING - GRINDER			
Model 2		Type CENTERLESS	
Serial No. 2M2HIY-483		Manufacturer CINCINNATI MILACRON	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
Reference para 463 External		P - 2	P -
Date		3/23/87	
Inspector's Initials		KK	
Protection - Specify			
90 WT. OIL			
Condition (Quality as to operational condition) FAIR			

INSTALLATION NAME:

File # 6000.2.2.3

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		11a. VOUCHER NUMBER AND DATE	
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11b. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		13. MODE OF SHIPMENT	
14. BILL OF LADING NUMBER R-1,901,518		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER	

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA3. SHIP TO—MAKE FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501M/P: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CON. TAINER f	CON. TAINER NO. g	UNIT PRICE h	TOTAL COST i
1	3415-1721-0408, I.D. NO. 3415-20262 CENTERLESS GRINDER	EA	1		SKID	1	12,000	12,000

SIGNATURE



DATE

16. TRANSPORTATION VIA MATS
OR WTS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
								POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	PACKED BY										
				← TOTAL →							

DOD PROPERTY RECORD

☐ ACTIVE☐ INITIAL

2. JULIAN DATE

DOD/GOVERNMENT TAG NO

Form Approved

Budget Bureau No. 22-R0209

☒ HOLE☒ CHANGE

4178

3415-20262

SECTION I - INVENTORY RECORD

4. COMMODITY CODE 3415-1721-0409	5. STOCK NUMBER 3415	6. ACQUISITION COST \$12,000	7. TYPE CODE 1	8. YR OF MFG 51	9. POWER CODE 44	10. STATUS CODE 4-A	11. SVC CODE 2	12. COMMAND CODE A5245R	13. ADM OFFICE CODE 000102
14. NAME OF MANUFACTURER CJPH. MILLERSON CO.			15. MFR'S CODE 12356	16. MANUFACTURER'S MODEL NO. 2			17. MANUFACTURER'S SERIAL NO. 2M2H1Y-483		
18. LENGTH 10'	19. WIDTH 7'	20. HEIGHT 7'	21. WEIGHT 9,000#	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASOD NO.	24. ARD	25. CONTRACT NUMBER	
26. DESCRIPTION AND CAPACITY GRINDING MACHINE, CYLINDRICAL EXTERNAL, CENTERLESS TYPE, HORIZ. BED, MANUAL 4 3/4" DIAM. WORK 8" W. GR. WHEEL FACE EQUIPPED W/ BELLOW'S VALVAIR ATTACHMENT, MOD #B67582 SER#3-67-2									

CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

27. ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER
1	15	220/440	3	60	X		1740	AP FR 326
1	15	220/440	3	60	X		1120	AP FR 224
1	1	220/440	3	60	X		1735	FR A66Y
1	1/25	115	1	60	X		1725	W81-33

28. PRESENT LOCATION DIRECTOR INDUSTRIAL PLANT EQUIPMENT ATTN: DSTE NAVAL COMMUNICATION STATION STOCKTON, CA 95210	29. DIPEC CONTROL NO. 3415-20262	30. POSSESSOR CODE
---	-------------------------------------	--------------------

SECTION II - INSPECTION RECORD

	YES	NO		YES	NO
36. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?		
37. HAS ITEM BEEN REBUILT/OVERHAULED? DATE			43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW		
38. IF SO, WHEN?			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW		
39. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW			45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW		
40. WAS ITEM INSPECTED UNDER POWER? IF NOT EXPLAIN UNDER REMARKS BELOW			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
41. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
42. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
43. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 28 ABOVE		
44. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING		
45. WAS ITEM LAST USED ON A FINISHING OPERATION?			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION		
46. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			52. CONDITION CODE		
47. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST			53. OPERATING TEST CODE		
48. IS ITEM IN OPERABLE CONDITION?					

SECTION III - REMARKS

54. REMARKS ITEM 35: CHAIN GUARD MISSING SCHULTZ: 7/1/76
--

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☒ NO

SECTION IV - DISPOSITION RECORD

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	---

SECTION V - VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S)) LONNIE ST. CLAIR, Assistant FIE Repair Estimator General Foreman

DD FORM 1342
1 FEB 68PREVIOUS EDITIONS OF DD FORM 1342 ARE OBSOLETE
REPLACES DD FORMS 1342M, 1342S, AND 1342SM WHICH ARE OBSOLETE

Package 427

Serial # 1 7-10 95-

PACKING SHEET

AERJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. Q4

THIS PACKAGE NO. 1

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
Q4 1	1	N. GRIND CENTERLESS GRINDER	G
Q4 1	1	N. GRIND COOLANT TANK	G
Q4 1	1	N. GRIND COOLANT PUMP	G
Q4 2	1	N. GRIND DRIP PAN & GRATING	G

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeler^{MK} / N. Sawyer^{NS}

REVIEW BY M. Keeler^{MK} / N. Sawyer^{NS}

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/(608)

DATE -

Contract # DAAA0992G0004 0016

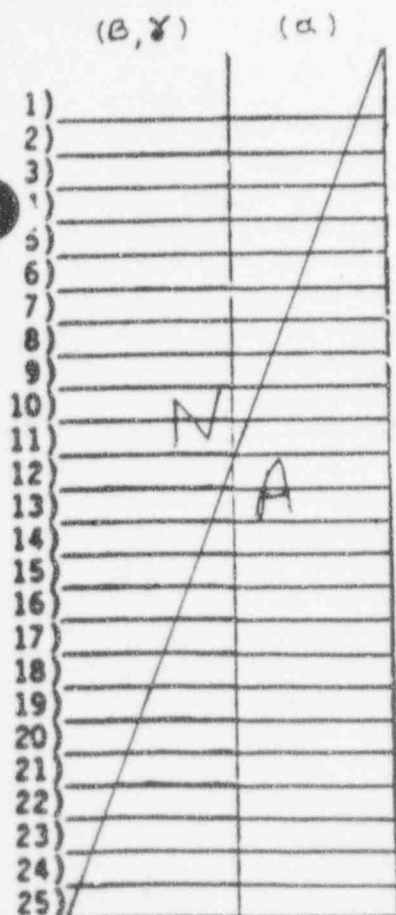
I.D. # - F-O - NA

Serial # - 3415-13646

Map # - 28

All Results
in DPM

SMEAR RESULTS
dpm/100cm²



Sq. Ft. 850 (cont. surface area)

Description of Item -
Centerless Grinder

Avg. Fixed - 60K

Range Fixed - 10-400K

Avg. Smearable - 30K

Range Smearable - 4-60K

No Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBAD/HA - BETA DOSE RATE

MBAD/HA - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MINOR
UNLESS OTHERWISE NOTED

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS 1	1. REQUISITION DATE	4. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		11a. VOUCHER NUMBER AND DATE	
10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11b. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		14. BILL OF LADING NUMBER R-1,901,518	
13. MODE OF SHIPMENT		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER	

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

2. TO: Aerojet Ordnance Company
Heavy Metals Division
Compton, CA3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON-TAINER NOS.	UNIT PRICE	TOTAL COST
1	3415-1721-0408, I.D. NO. 3415-13646 CENTERLESS GRINDER	EA	1		SKID	1	12,847	12,847

SIGNATURE

DATE

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

RECAPITULATION OF REQUEST	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	TOTAL										

Shipping # 28 26-32471 7-10-79

DOD PROPERTY RECORD		TOLE <input checked="" type="checkbox"/> EXCHANGE		9192		3415-13646		Form Approved OMB No. 32-RU-20	
SECTION I - INVENTORY RECORD									
1. COMMODITY CODE 3415 1721 0409		3. STOCK NUMBER 3415		5. ACQUISITION COST 12.847		7. TYPE CODE 1		9. MFG CODE 51	
						11. STOCK CODE 54		13. STOCK CODE 4A	
14. NAME OF MANUFACTURER CINCINNATI MILACRON		15. MFR'S CODE 12356		16. MANUFACTURER'S MODEL NO. 2		17. MANUFACTURER'S STOCK NO. AS245R 000102		18. ADW ST-107 CODE 3	
19. LENGTH 11'		20. WIDTH 5'		21. HEIGHT 6'		22. WEIGHT 8,215		23. CERTIFICATE OF NON-AVAILABILITY NUMBER	
								24. CONTRACT NUMBER 2M2HIW-409	
								25. CONTRACT NUMBER DAAA09-84-E-0001	
26. DESCRIPTION AND CAPACITY GRINDING MACHINE, CYLINDRICAL, EXTERNAL, CENTERLESS TYPE, HORIZONTAL BED, MANUAL 4-3/4" DIA WORK, 8" WGR WHEEL FACE									
CONTINUED ON REVERSE SIDE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO									
SECTION II - ELECTRICAL CHARACTERISTICS									
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER	
1	20	220/440	3	60	X		1745	N/A	GR WH 364
1	1	230				X	1150/2300	T	REG. WH. CT 204
1	.5	220/440	3	60/50	X		1725/1425	N/A	COOLANT 163
1	.25	440	3	60/50	X		960/1140	N/A	HYD 56
28. PRESENT LOCATION AEROSJET HEAVY METALS 3097 AWA ST. Compton, CA 90221									
29. DIPEC CONTROL NO. 3415-13646									
30. POSSESSOR CODE									
SECTION III - INSPECTION RECORD									
		YES	NO			YES	NO		
31. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT OVERHAULED TO PERFORM ALL FUNCTIONS?	\$		X		
32. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?	DATE 7/79		X	43. DO GC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.					
33. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.			X	44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		X			
34. HAS ITEM BEEN TESTED UNDER POWER? IF NOT EXPLAIN UNDER REMARKS BELOW.		X		45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.		X			
35. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.		N/A		46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		X			
36. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NO, EXPLAIN UNDER REMARKS BELOW.		X		47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		X			
37. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?		X		48. HOW MANY HOURS HAS ITEM USED BY CURRENT POSSESSOR?					
38. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?		X		49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.					
39. WAS ITEM LAST USED ON A FINISHING OPERATION?		N/A		50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.	\$				
40. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?		N/A		51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REGISTRATION.					
41. IS ITEM BEYERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.		N/A		52. CONDITION CODE.			0-2		
42. IS ITEM IN OPERABLE CONDITION?		X		53. OPERATING TEST CODE.			4		
SECTION IV - REMARKS									
54. REMARKS BLOCK #31 TESTED & REPAIRED WIRED FOR: 440V, AC, 3PH, 60 HZ									
REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO									
SECTION V - DISPOSITION RECORD									
55. CONTIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)		56. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT		57. DATE OF DISPOSITION AND PROCEEDS IF SOLD					
SECTION VI - VALIDATION RECORD									
58. VALIDATION (TYPE, NAME, AND SIGNATURE(S)) P. L. KINTER 7/11/79									

28

NOMENCLATURE

GRINDER

3415-13646

End Item Usage				METAL MACHINING - GRINDING			
Model		2		Type		CENTERLESS	
Serial No.		2M2HIW-409		Manufacturer		CINCINNATI MILACRON	
Installation No.				Location Bldg. No.			
Decontamination (Circle appropriate category)		X		XXX		XXXXX	
Date							
Inspector's Initials							
Cleaning process (reference para 463)		C C-1		C		Other and/or Agents Used	
Preservation - Specify		Internal		P - 2		P -	
Reference para 463		External		P - 2		P -	
Inspector's Initials		Date		3/24/87			
Protection - Specify		90 wt. OIL		KK			
Condition (Quality as to operational condition)						FAIR	
INSTALLATION NAME:							

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley ^{MR} / N. Sawyer ^{IN}

REVIEW BY 16/Sy / Mid/K

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS DC-50-603 (608)

DATE 7-19-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²

I.D. # - F0046

Serial # - NA

Map # - 29

Sq ft 1000 (cont. surface area)

Description of Item

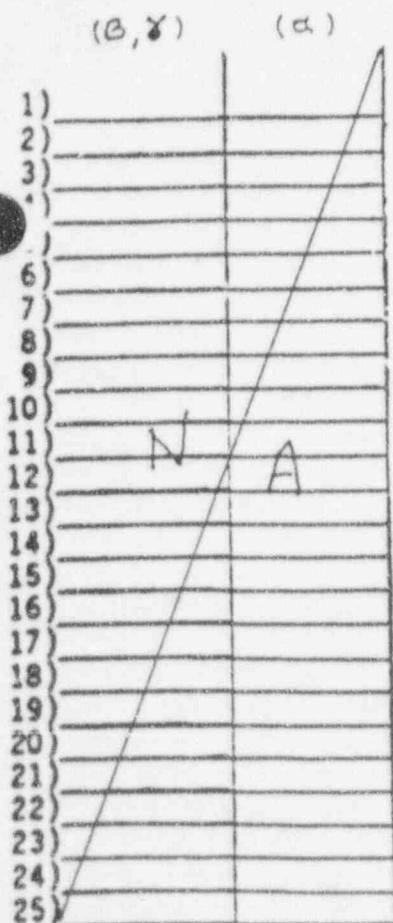
Tacco Induction Heater (Part 2)

Avg. Fixed - 3K

Range Fixed - 1-5K

Avg. Smearable - 2K

Range Smearable - 1-5K



VO Alpha detected
nearable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBAD/NA - BETA DOSE RATE

MBAD/NC - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MINOR
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

CLATURE

CONVEYOR UNIT FOR
TACCO INDUCTION HEATING SYSTEM
#3424-00689

SKID #1 OF 3

End Item Usage

HEAT TREAT METAL PARTS

Model

2125-S

Type

MOTOR GENERATOR

Serial No.

J4550041ABC

Manufacturer

OHIO CRANKSHAFT CO.

Installation No.

Location Bldg. No.

Decontamination (Circle appropriate category)

X

XXX

XXXXX

Date

Inspector's Initials

Cleaning process (reference para 463)

C

C-1

C

Other and/or Agents Used

Inspection - Specify

Internal

P - 2

P -

Reference para 463

External

P - 2

P -

Date

3/25/87

Inspector's Initials

KK

Protection - Specify

90 WT. OIL

Condition (Quality as to operational condition)

POOR

INSTALLATION NAME:

page # 29 SEC Javel #


SHIPPING CONTAINER TALLY


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT		SHEET NO. 1	NO OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		7. DATE MATERIAL REQUIRED		8. PRIORITY	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
3. SHIP TO-MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1,901,326	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3424-8113-0100, I.D. NO. 3424-00689 HEATER, TACCO INDUCTION SKID 1 OF 3	EA	1		SKID	1	71,604	71,604


SIGNATURE


DATE 3/25/82

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO						17. SPECIAL HANDLING					
18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	TOTAL										

DD FORM 1149 1 MAR 81

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

Shipping # 29
SEA Lead #
DOD PROPERTY RECORDACTIVE ☐ INITIAL ☐ 7322 3424-00689
☐ D.E. ☐ CHANGEForm Approved
Budget Bureau No. 22-00009

SECTION I — INVENTORY RECORD

4. COMMODITY CODE	5. STOCK NUMBER	6. ACQUISITION COST	7. TYPE CODE	8. MFG CODE	9. POWER CODE	10. STATUS CODE	11. UIC CODE	12. COMMAND CODE	13. SW OFFICE CODE
3424-8113-0100	3424	71,604	2	66	44	3D	2		
14. NAME OF MANUFACTURER		15. MFRS CODE		16. MANUFACTURER'S MODEL NO		17. MANUFACTURER'S SERIAL NO.			
Ohio Crankshaft Co.		44522		2123-S		J4550041ABC			
18. LENGTH	19. WIDTH	20. HEIGHT	21. WEIGHT	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ADD NO.	24. ADD	25. CONTRACT NUMBER	
34	9	9	9,000	---		0454	--	DAAA09-84-E-0001	

26. DESCRIPTION AND CAPACITY

HEARTER, HEAT TREAT, IND, MTR-GEN TYP, 3 STA, 100KW OUTPUT, 10 KC, 1.0 PF, WATER COOLED., 152 KVA INPUT (BUILT TO BRAZE ADAPTER TO 81 MM SHELL BODY)

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

27. ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER
1	10	220/440	3	60	X		3500	P 215
1	1	220/440	3	60	X		1750	N/AV 182

28. PRESENT LOCATION

Aerojet Ordnance and Manufacturing Company
9236 East Hall Road
Downey, California 90241

29a. DIED CONTROL NO.

3424-00689

29. POSSESSOR CODE

06081000203T

SECTION II — INSPECTION RECORD

YES		NO		YES		NO	
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED, REBUILT, OR MAINTAINED TO PERFORM ALL FUNCTIONS?			
31. HAS ITEM BEEN ASSEMBLED, OVERHAULED, OR REPAIRED?				43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF NO, EXPLAIN UNDER REMARKS BELOW.				44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.			
33. HAS ITEM BEEN INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.				45. ARE GAUGES, DIALS AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.			
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.				46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.				47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?				48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?				49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.			
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THE REPLACEMENT COST.				52. CONDITION CODE.			
41. IS ITEM IN OPERABLE CONDITION?				53. OPERATING TEST CODE.			

SECTION III — REMARKS

54. REMARKS

NOTE: Item physically located at HMD Facility
3097 East Ana
Compton, California 90021REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION	57a. DATE OF DISPOSITION AND PROCEEDS IF SOLD
	<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPE NAME(S) AND SIGNATURE(S))	58. DATE OF DISPOSITION AND PROCEEDS IF SOLD
L. T. Rose, Property Administrator	Richard E. Held DCAS Property Administrator

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP(S) -

SURVEY BY M. Keeley^{MK} / N. Sawyer^{MS}

REVIEW BY 16/Sy / M. D. K. L. DATE 8-8-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-91

REMARKS DC-50-603/608

Contract # DAAA0992G0004-0016

All Results IN
DPM

SMEAR RESULTS
dpm/100cm²

I.D. # - F-0037

Serial # - N/A

Map # - 30

Sq ft 900 (cont surface area)

Description of Item

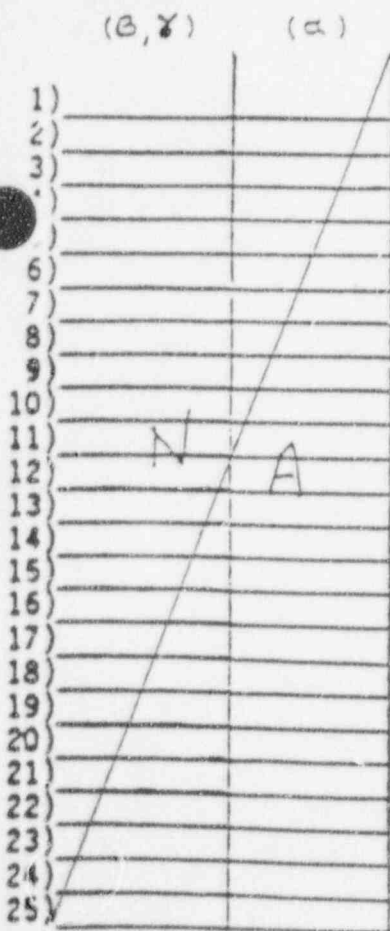
Ipsen Furnace (Part 4)

Avg. Fixed - 10K

Range Fixed - 1-18K

Avg. Smearable - 6K

Range Smearable - 1-15K



Alpha detected
earable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MBAD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY INSTRUMENT
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

CLATURE

VACUUM PUMP, VALVE, & PIPING
FOR IPSEN FURNACE, #3424-02026

SKID #4 OF 9

End Item Usage			
HEAT TREAT METAL PARTS			
Model	VCW-11(10)R		
Type	BOX, VACUUM		
Serial No.	57616		
Manufacturer	IPSEN INDUSTRIES, INC.		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
External	P - 2	P -	
Reference para 463			
Date	3/24/87		
Inspector's Initials	KK		
Protection - Specify	90 WT OIL		
Condition (Quality as to operational condition)	FAIR.		

INSTALLATION NAME:

(615) 753-4688

CELL NO. AQ

THIS PACKAGE NO. 4

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AQ 4	1	A/A IPSEN ROOTS BLOWER	G
AQ 6	1	A/A STOKES VAC. PUMP	G

Slip # 30 SEC 100000

54 CONTAINER TALLY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT		SHEET NO. 1	NO. OF SHEETS	5. ACQUISITION DATE	6. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		7. DATE MATERIAL REQUIRED		8. PRIORITY	
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>	
3. SHIP TO-MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		11. VOUCHER NUMBER AND DATE		12. DATE SHIPPED	
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER K-1, 901-321	
4. ACCOUNTING AND FUNDING DATA		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON TAINER NOS	UNIT PRICE	TOTAL COST
1	3424-1310-3420, I.D. NO. 3424-02026 FURNACE, IPSEN SKID 4 OF 9	EA	1		SKID	-1	164,188	164,188

Robert Gottlieb
SIGNATURE



3/25/87
DATE

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO						17. SPECIAL HANDLING					
18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO
	TOTAL										

DD FORM 1149
1 MAR 89

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

DOD PROPERTY RECORD				1. <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INITIAL		2. JULIAN DATE: 80352		3. D.O. GOVERNMENT TAG NO. AE 470124		Form Approved Budget Bureau No. 22-R0209	
				<input type="checkbox"/> IDLE <input type="checkbox"/> CHANGE							
SECTION I — INVENTORY RECORD											
4. COMMODITY CODE		5. STOCK NUMBER		6. ACQUISITION COST		7. TYPE CODE		8. YR OF MFG		9. POWER CODE	
8424-1310-3420		3424		164 188		1		79		54	
10. STATUS CODE				11. SVC CODE				12. COMMAND CODE			
1A				0C				000102			
14. NAME OF MANUFACTURER						15. MFR'S CODE		16. MANUFACTURER'S MODEL NO.		17. MANUFACTURER'S SERIAL NO.	
Ipsen Industries, Inc.						90714		VCW-11 (10)R		57616	
18. LENGTH		19. WIDTH		20. HEIGHT		21. WEIGHT		22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	
9'		17'		12'		8750#				24. ARD	
										25. CONTRACT NUMBER	
										DAAA09-84-E-0001	
26. DESCRIPTION AND CAPACITY											
Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forced Gas Convection 0°-1000°F, 112KVA, 1 Door (Aging)											
F-0037 (T77-99042)											
CONTINUED ON REVERSE SIDE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO											
SECTION II — ELECTRICAL CHARACTERISTICS											
QUANTITY		HORSEPOWER		VOLTS		PHASE		CYCLE		TYPE AND FRAME NUMBER	
1		40 & 10		460		3		60		X 3540/1760 COG6NB 286TC (2 Spd. Motor)	
1		10		208/240/480		3		60		X 1725 M3714T Spec. No. 37A01250 215T	
1		10		208/240/480		3		60		X 1725 M3714T " " " "	
2		3		180						X 1750 Type CD189ATC, MOD 5CD145V00002604	
28. PRESENT LOCATION										29a. DIPEC CONTROL NO.	
Aerojet Ordnance Company (HMD Facility)										3424-02026	
3097 East Ana Street Jarl Victor										29. POSSESSOR CODE	
Compton, Calif. 90021 (213) 923-7511, X207										06 0810 00203T	
SECTION II — INSPECTION RECORD											
										YES NO	
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?											
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN? DATE											
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW											
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW											
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW											
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW											
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?											
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?											
38. WAS ITEM LAST USED ON A FINISHING OPERATION?											
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?											
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.										1	
41. IS ITEM IN OPERABLE CONDITION?											
42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?										1	
43. DO OC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW											
44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW											
45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW											
46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW											
47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW											
48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?											
49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE											
50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.										1	
51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.											
52. CONDITION CODE.											
53. OPERATING TEST CODE.											
SECTION III — REMARKS											
54. REMARKS											
REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO											
SECTION IV — DISPOSITION RECORD											
56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)						58. TYPE OF DISPOSITION			59. DATE OF DISPOSITION AND PROCEEDS IF SOLD		
						<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION					
						<input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT					
SECTION V — VALIDATION RECORD											
67. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))											
Jarl Victor, Aerojet P/A											
George Murphy DCRL-GLCM(34) 1.1.7											

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley N. Sawyer

REVIEW BY 16/5/95 Middle DATE 8-8-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-91

REMARKS DC-50-603/668

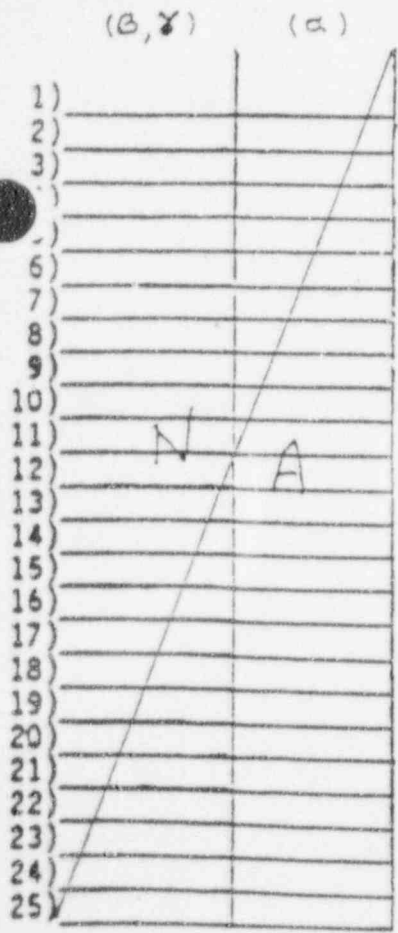
Contract # DAAAO992G0004-0016

All Results In
DPM

I.D. # - F-0037

SMEAR RESULTS
dpm/100cm²

Serial # - T77-99042



Map # - 31

So ft 2500 (cont surface area)

Description of Item

Ipsen Furnace (Part 1)

Avg. Fixed - 5K

Range Fixed - 1-8K

Avg. Smearable - 5K

Range Smearable - 1-8K

Alpha detected
variable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- N₀ - GAMMA DOSE RATE
- N_C - CONTACT GAMMA
- M₀/M_C - BETA DOSE RATE
- M₀/M_C - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY INSTR.

LAYAWAY EQUIPMENT TAG

DECLARATION

ELECTRIC PANEL & TRANSFORMER
FOR IPSEN FURNACE #3424-02026

SKID #1 OF 9

End Item Usage HEAT TREAT METAL PARTS

Model	VCW-11 (10)R		Type	Box, Vacuum	
Serial No.	57616		Manufacturer	IPSEN INDUSTRIES, INC	
Installation No.			Location Bldg. No.		
Decontamination (Circle appropriate category)	X		XXX		XXXXX
Date					
Inspector's Initials					
Cleaning process (reference para 463)	C		C		Other and/or Agents Used
	C-1				
Preservation - Specify	Internal	P - 2	P -		
Reference para 463	External	P - 2	P -		
Date	3/24/87				
Inspector's Initials	KK				
Protection - Specify	90 WT. OIL				
Condition (Quality as to operational condition)	FAIR				

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill		SHEET NO. 1	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
2. TO: Aerojet Ordnance Company Heavy Metals Division Compton, CA		7. DATE MATERIAL REQUIRED		8. PRIORITY	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OKLAHOMA 74501		9. AUTHORITY OR PURPOSE P00008 DAAAC9-84-E-0001			
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		10. SIGNATURE Ted Schraff <i>Ted Schraff</i>		11a. VOUCHER NUMBER AND DATE	
		12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE	
		13. MODE OF SHIPMENT		14. BILL OF LADING NUMBER R-1, 901, 321	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Compton, CA to McAlester, OK. for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	3424-1310-3420, I.D. NO. 3424-02026 FURNACE, IPSEN SKID 1 OF 9	EA	1		SKID	1	164,188	164,188

SIGNATURE

DATE

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO

17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							PORTER	DATE	BY	RECEIVER'S VOUCHER NO.
	TOTAL										

DD FORM 1149
1 MAR. 59

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 58 WHICH MAY BE USED

Shipping # 31 SEC Lead #

PACKING SHEET

AEROJET ORDNANCE TENNESSEE

P.O. BOX 399

JONESBOROUGH, TN 37659

(615) 753-4688

CELL NO. AQ

THIS PACKAGE NO. 2

ITEM NO.	QUANTITY	DESCRIPTION	OWNER
AQ 3A	1	IPSEN FURNACE TRANSFORMER	G
AQ 5	1	A/A CONTROL PANEL	G
AQ 5D	1	A/A TEMP. CONTROL	G

SECTION I — INVENTORY RECORD

A5242R

4. COMMODITY CODE 8424-1310-3420	5. STOCK NUMBER 3424	6. ACQUISITION COST 164,188	7. TYPE CODE 1	8. YR OF MFG 79	9. POWER CODE 54	10. STATUS CODE LA	11. SVC CODE 02	12. COMMAND CODE 007015	13. ADM OFFICE CODE 000102
14. NAME OF MANUFACTURER Ipsen Industries, Inc.			15. MFR'S CODE 90714	16. MANUFACTURER'S MODEL NO. VCW-11 (10)R		17. MANUFACTURER'S SERIAL NO. 57616			
18. LENGTH 9'	19. WIDTH 17'	20. HEIGHT 12'	21. WEIGHT 8750#	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	24. ARD	25. CONTRACT NUMBER DAAA09-84-E-0001	

26. DESCRIPTION AND CAPACITY

Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forc 1 Gas Convection 0°-1000°F, 112KVA, 1 Door (Aging)

F-0037 (T77-99042)

CONTINUED ON REVERSE SIDE ☒ YES ☐ NO

27. ELECTRICAL CHARACTERISTICS									
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER	
1	40 & 10	460	3	60	X		3540/1760	COG6NB	286TC (2 Spd. Motor)
1	10	208/240/480	3	60	X		1725	M3714T	Spec. No. 37A01250 215T
1	10	208/240/480	3	60	X		1725	M3714T	" " " "
2	3	180				X	1750	Type CD189ATC, MOD 5CD145V0002604	

28. PRESENT LOCATION

Aerojet Ordnance Company (HMD Facility)

3097 East Ana Street
Compton, Calif. 90021

Jarl Victor

(213) 923-7511, X207

29a. DIPEC CONTROL NO.

3424-02026

29. POSSESSOR CODE

06 0810 00203T

SECTION II — INSPECTION RECORD

	YES	NO		YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?		
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?			43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.		
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.			45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.		
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.		
38. WAS ITEM LAST USED ON A FINISHING OPERATION?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.		
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.		
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.			52. CONDITION CODE.		
41. IS ITEM IN OPERABLE CONDITION?			53. OPERATING TEST CODE.		

SECTION III — REMARKS

54. REMARKS

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	58. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	59. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	--

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))

Jarl Victor, Aerojet P/A

George Murphy
DCRL-GLCM(34)

DD FORM 1342 1 FEB 68

PREVIOUS EDITIONS OF DD FORM 1342 ARE OBSOLETE
REPLACES DD FORMS 1342m, 1342n, AND 1342o WHICH ARE OBSOLETE.

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500

RWP(S) -

SURVEY BY M. Keeley / N. Sawyer

REVIEW BY L. Sawyer / M. Keeley

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

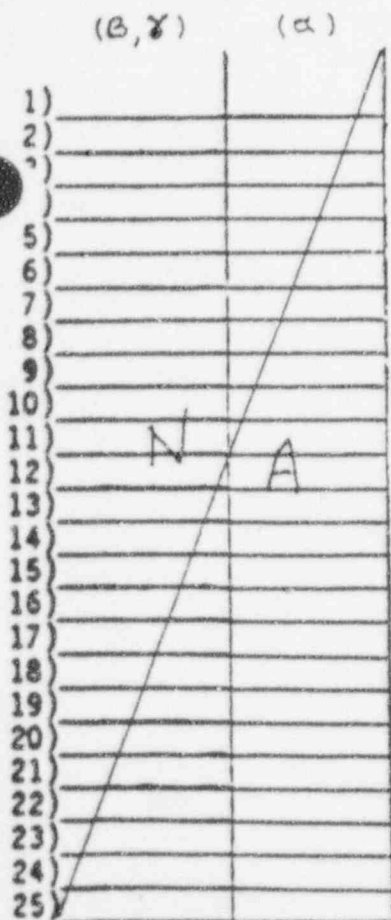
REMARKS PC-50-603/608

DATE 7-25-95

Contract # DAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D. # - F-0523

Serial # - 3424-02042

Map # - 32

Sq ft 500 (cont surface area)

Description of Item
Heat Treating furnace (Part 1)

Avg. Fixed - 30K

Range Fixed - 1-200K

Avg. Smearable - 15K

Range Smearable - 5-60K

Alpha detected
nearable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBND/NR - BETA DOSE RATE

MBND/NR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO

Shipping # 32 JCL toad# 7

LAYAWAY EQUIPMENT TAG 7-5-1

ENCLOSURE

VACUUM PUMP
IPSEN AGE FURNACE

3424-C2042

END USER NAME HEAT TREAT DEPLETED URANIUM PARTS

Model VCW-11R Type VACUUM

Serial No. 57835 Manufacturer IPSEN

Installation No. Location Bldg. No.

Decontamination (Circle appropriate category) X XXX XXXXX

Date

Inspector's Initials

Cleaning process (reference para 463) C-1 Other and/or Agents Used

Corrosion - Specify

Internal P - 2 P -

Reference External P - 2 P -

para 463

Date 4/21/87

Inspector's Initials

KK

Protection - Specify

EXXON RUST BAN 373

Condition (Quality as to operational condition)

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is., I

SHEET NO. 1
NO OF SHEETS 1

5. REQUISITION DATE

6. REQUISITION NO.

2. TO: Aerojet Ordnance Tennessee
Old II-E Hwy P.O. Box 399
Jonesborough, TN 37659

7. DATE MATERIAL REQUIRED

8. PRIORITY

3. SHIP TO—MARK FOR

Commander
McAlester Army Ammun. Plant
McAlester, OK 74501

H/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

9. AUTHORITY OR PURPOSE

P00008

DAAA09-84-E-0001

10. SIGNATURE

R. Schaefer

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

87APR22

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

C- 1,924,603

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON TAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	3424-1310-3420, ID No. 3424-02042 Furnace, Heat treating, Ipsen Skid 2 of 6	ea	1		skid	1	159,214	159,214
	1. ID No. 3424-1310-3420, 3424-02042 Furnace, Heat treating, Ipsen Skid 2 of 6	ea	1		skid	1	3,374	3,374
	2. ID No. 3424-1310-3420, 3424-02042 Furnace, Heat treating, Ipsen Skid 2 of 6	ea	1		skid	1	3,374	3,374

Larry J. Duman

SIGNATURE

4-22-87

DATE

16. TRANSPORTATION VIA RATS
OR RATS CHARGEABLE TO

17. SPECIAL HANDLING

ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						PORTED	DATE	BY	RECEIVER VOUCHER NO
			TOTAL						

DD FORM 1149
1 MAR 80

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1977 WHICH MAY BE USED

Lead #1

DOD PROPERTY RECORD

☐ ACTIVE ☐ INITIAL
☒ IDLE ☒ CHANGE2. JULIAN DATE
803473. I.D./GOVERNMENT TAG NO.
4-02042Form Approved
Budget Bureau No. 22-RC009

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3424-1310-3420	5. STOCK NUMBER 3424	6. ACQUISITION COST 159,214.	7. TYPE CODE 1	8. TR OF MFG 79	9. POWER CODE 54	10. STATUS CODE 1A	11. SVC CODE	12. COMMAND CODE	13. AGM OFFICE CODE 000102
14. NAME OF MANUFACTURER Ipsen Industries, Inc.		15. MFR'S CODE 90714		16. MANUFACTURER'S MODEL NO. VCW 11R		17. MANUFACTURER'S SERIAL NO. 57835			
18. LENGTH 9'	19. WIDTH 17'	20. HEIGHT 12'	21. WEIGHT 8750#	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	24. ARD	25. CONTRACT NUMBER DAA09-84-E-0001	

26. DESCRIPTION AND CAPACITY

Furnace; Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forced Gas Convection 0°-1000°F, 112 KVA, 1 Door (Aging)

FACILITIES CONTROL
DAAA09-84-E-0001

F-0523 (T77-99043)

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

27. ELECTRICAL CHARACTERISTICS									
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER	
1	40 & 10	460	3	60	X		3540/1760	COGNB	286TC (2 Ssd. Motor)
1	10	208/240/480	3	60	X		1725	M3714T Spec. No.	37A01250 215T
1	10	208/240/480	3	60	X		1725	M3714T "	" " "
1	3	180					1750	Type CD189ATC, MOD 3CD145V))	2504
28. PRESENT LOCATION Aerojet Ordnance Company Old 11 East Highway Jonesboro, Tenn. 37659									
28a. DIPEC CONTROL NO. 3424-02042									
29. POSSESSOR CODE 06 0810 C0203T									

SECTION II — INSPECTION RECORD

YES		NO		YES		NO	
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?			
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?				43. DO DC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW				44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW			
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW				45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW			
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW				46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW				47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?				48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?				49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING			
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES? IF NOT, GIVE THEIR REPLACEMENT COST				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION			
40. IS ITEM IN OPERABLE CONDITION?				52. CONDITION CODE			
				53. OPERATING TEST CODE			

SECTION III — REMARKS

54. REMARKS

RE
L
L

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	58. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	59. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	--

SECTION V — VALIDATION RECORD

60. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))

DD FORM 1342 1 FEB 68

PREVIOUS EDITIONS OF DD FORM 1342 ARE OBSOLETE
REPLACES DD FORMS 1342m, 1342n, AND 1342o WHICH ARE OBSOLETE.

#32

Load 7

DATE POSTED

Mar 1 1985

VS 10 NO

F0523

GOVERNMENT ID NO

Age Furnace

 $7-25-7$

LOCATION

5. St. Louis

SERIAL NO.

BLD 500

[illegible]

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

6-28-95

SURVEY DATE 7-6-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeley ^W N. Sawyer ^VREVIEW BY 16/Sgt/Mid/K DATE 8-7-95PURPOSE Characterization Survey of DU Eq.INST. TYPE MODEL 3 SER# 73015 CAL DUE 1-11-96INST. TYPE MODEL 3 SER# 111400 CAL DUE 1-11-96INST. TYPE MODEL 3 SER# 58126 CAL DUE 7-24-96REMARKS DC-50 - (603) 608

Contract # DAAA0992G0004-0016

All Results In
DPMSMEAR RESULTS
dpm/100cm²

I.D. # - N/A

Serial # - T77-99204

Map # - 33

So ft 650 (cont. surface area)

Description of Item

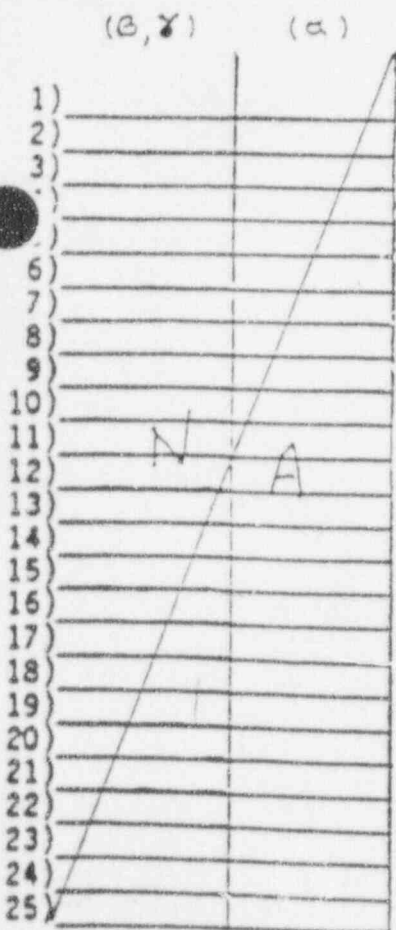
Hearth Grids (12 each)

Avg. Fixed - 40K

Range Fixed - 1-40K

Avg. Smearable - 20K

Range Smearable - 1-80K

Alpha detected
variable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NG. - CONTACT GAMMA

MRAD/HA - BETA DOSE RATE

MBAD/HA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MREM

LAYAWAY EQUIPMENT TAG

CLATURE

HEARTH GRIDS (QTY. 12)
T-7799204

End Item Usage *HOLD PARTS BASKETS IN HEAT TREAT FURNACE*

Model	Type		
Serial No.	Manufacturer <i>IPSEH INDUSTRIES, INC.</i>		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C <i>C-1</i>	C	Other and/or Agents Used
Preservation - Specify	Internal	P - <i>2</i>	P -
Reference para 463	External	P - <i>2</i>	P -
Date	<i>4/23/87</i>		
Inspector's Initials	<i>KK</i>		
Protection - Specify	<i>NONE USED</i>		
Condition (Quality as to operational condition)	<i>GOOD</i>		

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF NO. 1 SHEETS		5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		10. SIGNATURE R. Schaefer	
11. DATE SHIPPED		12. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER GBL# C-1,924,606	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chem. Co.(AMCCOM) Rock Is, ILL

2. TO: Aerojet Ordnance Tennessee
Old II-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO-MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s being transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CON TAINER	CON TAINER NOS.	UNIT PRICE	TOTAL COST
1	3424 1318 3420, I.D. No. 342-0204 Box Furnace, hot toasting, per Skid 2 of 1	ea	1		1	skid	480,718	480,718
2	I.D. No. T-7799204 6/18/59 Monorail 8-in. dial/wash Skid 1 of 1	ea	1		1	skid	10,164	10,164
3	I.D. No. T-7799204 Hearth Grids Skid 1 of 1	ea	12		1	skid	1,599	19,184

Signature

Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO

18. ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUB	17. SPECIAL HANDLING	DATE	BY	SHEET TOTAL
CHECKED BY						CONTAINERS RECEIVED EXCEPT AS NOTED			
PACKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED			GRAND TOTAL
						POSTED			RECEIVED BY VOUCHER NO.
			TOTAL						

57

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799204

EQUIPMENT DESCRIPTION: HEARTH GRIDS (QUANTITY 12)

MODEL

SERIAL:

YR BUILT: 1979

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER: IPSEN INDUSTRIES

ADDRESS ROCKFORD, ILL

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: EIA 1,598.66 | TOTAL 19,184.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MOTOR DATA:	MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME

STORIED EQUIPMENT
INSPECTION

Facilities Contract DAAA09-84-E-0001

DATE POSTED JAN 1 1985

LOCATION

87
D E-7799204
Hearth Grids

Doc. B-500 Yr 1979 Storage

[illegible]

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500

RWP#(S) ---

SURVEY BY M. KEELEY ^{MA} N. Sawyer ^M

REVIEW BY LB/Sy/Mid/Ky

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3
44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3
44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 2
43-5 SER# 58126 CAL DUE 7-24-91

REMARKS PC-50-(603)/608

DATE 7-25-95

Contract # DAAA0992G0004-0016

All Results In
DPM

I.D.# - N/A

SMEAR RESULTS
dpm/100cm²

Serial # - T77-99087

(B, Y) (a)

Map # - 34

Sq ft 250 (cont surface area)

Description of Item

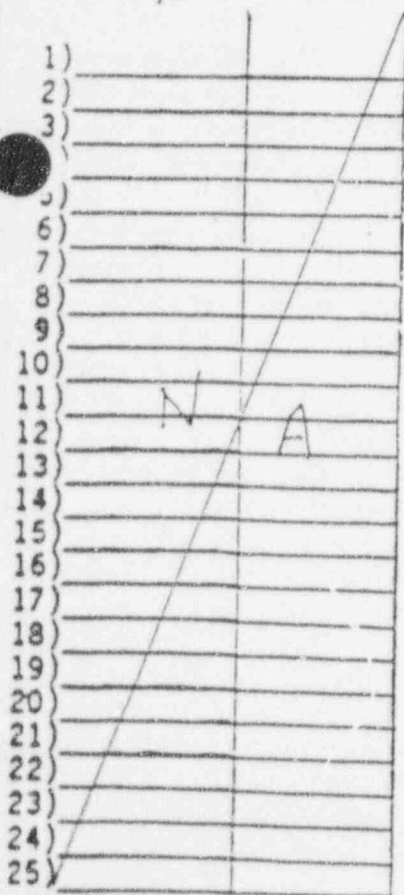
BIN

Avg. Fixed - 2K

Range Fixed - 1-2K

Avg. Smearable - 2K

Range Smearable - 1-2K



Alpha detected
arable
50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²
MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBAD/HA - BETA DOSE RATE

MBAD/HA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

Slapping # 34 SEC # 6

7-25-75

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

BIN STAND (2)

#T-7799087 & T-7799082

End Item Usage MATERIAL HANDLING FOR DEPLETED URANIUM PARTS

Model	Type		
Serial No.	Manufacturer BAY CITY FABRICATION		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Protection - Specify	Internal	P -	P -
Reference para 463	External	P -	P -
Date	4/22/87		
Inspector's Initials	KK		
Protection - Specify	NONE USED		
Condition (Quality as to operational condition)	GOOD		

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, ILL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO-MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

SHEET NO. 1 OF 1 SHEETS

5. REQUISITION DATE

6. REQUISITION NO.

7. DATE MATERIAL REQUIRED

8. PRIORITY

9. AUTHORITY OR PURPOSE PG0008

DAAA08-84-E-0001

10. SIGNATURE

R. Schaefer

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

87APR24

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

C- 1,924,605

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CON TAINER	CON TAINER NOS.	UNIT PRICE	TOTAL COST
1.	I.D. No. T-7799087 Bin Stand W/Vibra Chute	ea	1		skid	1	1,280	1,280
2.	I.D. No. T-7799082 Bin Stand W/Vibra Chute SKID 1 of 1	ea	1		skid	1	1,280	1,280
3.	I.D. No. T-7799089/F0519 Monorail O H System SKID 1 of 1	ea	1		skid	1	23,491	23,491
4.	3424-1310-3420, I.D. No. 3424-02042 Furnace, Heat Treating, 1 pcr SKID 5 of 8	ea	1		skid	1	159,214	159,214

Harry J. Durman 4-23-87
Signature Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO:17. SPECIAL
HANDLING

ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
TOTAL									

DD FORM 1 MAR

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71

REPLACES EDITION OF 1 MAY

WHICH MAY BE USED

LOAD #3

72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Slip # 34 SEC 2nd

TRAILER - -

6 7-25-95
AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

ST

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799087

EQUIPMENT DESCRIPTION: HOPPER BIN STAND WITH VIBRA CHUTE

MODEL: SERIAL: YR BUILT: COND:
SCC/ DATE WORK
PEC #: REC'D: ORDER:

MANUFACTURER: BAY CITY FABRICATION ADDRESS LONG BEACH CA
RECEIVED OR
PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #:	COST	
		ACQUISITION:	
SCHEDULE #:	ITEM #:	FREIGHT:	
ACQUIRED FROM		INSTALLATION:	
CONTRACT #:		TOTAL:	
ORIGINAL			
LOCATION:			

ACCESSORIES:

CONTROLS

MOTOR DATA: MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME

F0534

6 7-25-11
AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # D1AA09-84-E-0001 W/S

IDENTIFICATION # T-7799082

EQUIPMENT DESCRIPTION: BARREL WASH SYSTEM, WITH
OVER HEAD MONORAIL CRANE AND BIN STAND

MODEL:

SERIAL:

YR BUILT:

1979

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER: L.W. LEFORT CO.

ADDRESS PLACENTIA, CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 22,262.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAM
MOTOR DATA:							

SSG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

6-28-95

SURVEY DATE 7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley ^{NY} / N. Sawyer ^{NY}

REVIEW BY 1/2/96 / 1/2/96 / 1/2/96

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PL-50 (603)/608

DATE 7-25-95

Contract # DAAA0992G0004-0016

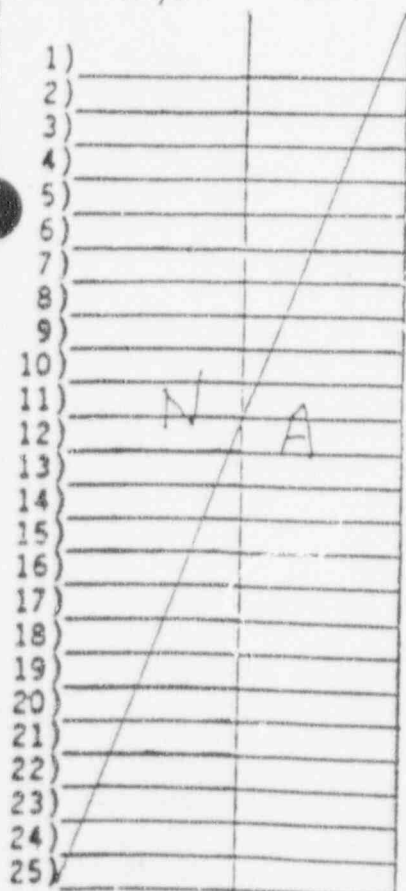
All Results In
DPM

SMEAR RESULTS
dpm/100cm²

I.D. # - F-0523

Serial # - 3424-02042

(B, 8) (a)



Map # - 35

Sq ft 500 (cont surface area)

Description of Item

Heat Treating Furnace (Part 3)

Avg. Fixed - 8K

Range Fixed - 1-15K

Avg. Smearable - 4K

Range Smearable - 1-6K

NO Alpha detected
smearable

1 - 800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MBR/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

All DOSE RATES ARE IN MIN/HR
UNLESS OTHERWISE NOTED

Shipping

3

SCG Load #1

LAYAWAY EQUIPMENT TAG

7-21-85

CLATURE

MISC. PARTS FOR IPSEN AGE
FURNACE LOADER
#3424-02042

SKID #6 OF 6

End Item Usage HEAT TREAT DEPLETED URANIUM PARTS

Model	VCW 11R	Type	VACUUM, BATCH
Serial No.	57835	Manufacturer	IPSEN INDUSTRIES, INC.
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
External	P - 2	P -	
Date	4/22/87		
Inspector's Initials	KK		
Protection - Specify	EXXON RUST BAN 373		
Condition (Quality as to operational condition)			FAIR

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chem. Co.(AMCCOM) Rock Is, ILL

2. TO: Aerojet Ordnance Tennessee
Old II-E Hwy P.O. Box 399
Jonesborough, TN 376593. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501M/F:
Robert Gottlieb
Prop. Administrator
(918) 421-2217SHEET NO. OF
NO. SHEETS
1

5. REQUISITION DATE

6. REQUISITION NO.

7. DATE MATERIAL REQUIRED

8. PRIORITY

9. AUTHORITY OR PURPOSE P00008
DAAA09-84-E-0001

10. SIGNATURE

R. Schaefer *R. Schaefer*

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

GBL# C-1,924,607

15. AIR MOVEMENT DESIGNATOR & PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s being transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONT. TAILIER NOS.	UNIT PRICE	TOTAL COST
1.	3424-1310-3420, I.D. No. 3424-02042 Furnace, Heat Treating, Ipsen Skid 6 of 6	ea	1		skid	1	159,214	159,214
2.	I.D. No. T-7799068-A/F0525 O.H. Monorail Skid 1 of 1	ea	1		skid	1	10,163	10,163
3.	I.D. No. T-7799203 Heat Treat Baskets Skid 1 of 1	ea	10		skid	1	2,406.50	24,065



Harry D. Durman 4-27-87
Signature Date

16. TRANSPORTATION VIA MA1S
OR MA1S CHARGEABLE TO

18. ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL COMP	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	INNET TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						POSTED	DATE	BY	Z. RECEIVER'S VOUCHER NO.
			TOTAL						

DD FORM 1 MAR. 149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

REPLACES EDITION OF 1 MAR 67 WHICH MAY BE USED

LOAD #5

Shipping (#35) SEC Load #6-7-25-9

DOD PROPERTY RECORD

☐ ACTIVE ☐ INITIAL
☒ IDLE ☒ CHANGEJULIAN DATE
803471. JULIAN DATE 1. D/GOVERNMENT TAG NO.
3424-02042Form Approved
Budget Bureau No. 22-RC209

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3424-1310-3420	5. STOCK NUMBER 3424	6. ACQUISITION COST 159,214.	7. TYPE CODE 1	8. TR OF MFG 79	9. POWER CODE 54	10. STATUS CODE 1A	11. SVC CODE	12. COMMAND CODE	13. ADM OFFIC CODE 000102
14. NAME OF MANUFACTURER Ipsen Industries, Inc.		15. MFR'S CODE 90714		16. MANUFACTURER'S MODEL NO. VCW IIR		17. MANUFACTURER'S SERIAL NO. 57835			
18. LENGTH 9'	19. WIDTH 17'	20. HEIGHT 12'	21. WEIGHT 8750#	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.		24. ASD	25. CONTRACT NUMBER DAA09-84-E-0001

Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forced Gas Convection 00-10000°F, 112 KVA, 1 Door (Aging)

FACILITIES CONTROL
DAA09-84-E-0001

F-0523 (T77-99043)

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER
1	40 & 10	460	3	60	X		3540/1760	COGNB 286TC (2 Ssd. Motor
1	10	208/240/480	3	60	X		1725	M3714T Spec. No. 37A01750 215T
1	10	208/240/480	3	60	X		1725	M3714T " " " "
1	3	180					1750	Type CD189ATC, MOD 5CD145V))12604

23. PRESENT LOCATION
Aerojet Ordnance Company
Old 11 East Highway
Jonesboro, Tenn. 37659

23a. DIPEC CONTROL NO.

3424-02042

27. POSSESSOR CODE

06 0810 00203T

SECTION II — INSPECTION RECORD

39. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?	YES	NO	42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?	YES	NO
40. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?		DATE	43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW		
41. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW		
45. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW			45. ARE SCALES, DIALS AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW		
46. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
47. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
48. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
49. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE		
50. WAS ITEM LAST USED ON A FINISHING OPERATION?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING		
51. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES? IF NOT, GIVE THEIR REPLACEMENT COST.			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION		
52. IS ITEM IN OPERABLE CONDITION?			52. CONDITION CODE		
			53. OPERATING TEST CODE		

SECTION III — REMARKS

24. REMARKS

THIS ITEM IS CONTAMINATE WITH
DEPLETED URANIUM

[RE]

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

54. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	55. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	--

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPE NAME AND SIGNATURE(S))

K. Schaubert 4-10-87

DD FORM 1 FEB 68 1342

PREVIOUS EDITIONS OF DD FORM 1342 ARE OBSOLETE
REPLACES DD FORMS 1342, 1342A, AND 1342B WHICH ARE OBSOLETE.

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley N. Sawyer

REVIEW BY L. S. / M. D. K.

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PC-50-603/608

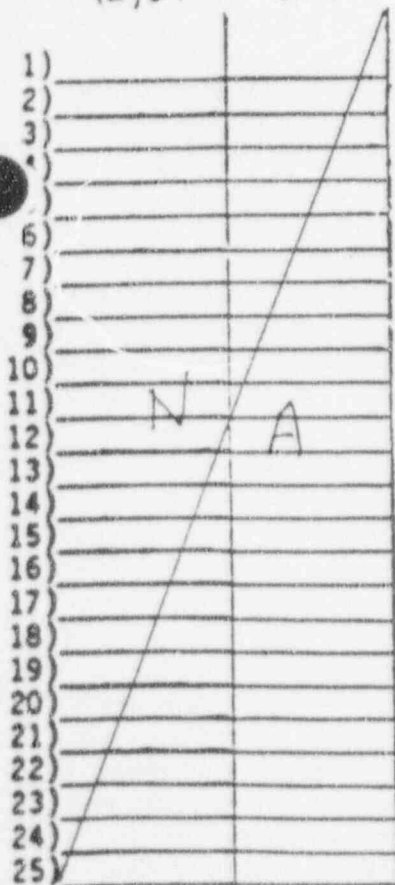
DATE 8-14-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²

(B, Y) (a)



I.D. # - F05Z4

Serial # - T 77-99071

Map # - 36

So ft 2000 (cont surface area)

Description of Item

Oil Plunge Cooling System

Avg. Fixed - 400K

Range Fixed - 10K - 1M

Avg. Smearable - 80K

Range Smearable - 5-200K

VO Alpha detected
nearable

50-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MEAD/NR - BETA DOSE RATE

MEAD/NR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MTR
UNLESS OTHERWISE NOTED

Shipping # 36 SEB Lead #

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

OIL PLUNGE COOL SYSTEM
T-7799071

SKID 1 OF 3

92

End Item Usage COOL HOT DEPLETED URANIUM PARTS

Model	—		
Serial No.	—		
Installation No.	Manufacturer LADD - FAB. INC.		
	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	4/21/87		
Inspector's initials	KK		
Protection - Specify			
EXXON RUST BAN 373			
Condition (Quality as to operational condition)	FAIR		

INSTALLATION NAME:

Shipping # 36 SEC Serial #

3 3K103

F0524

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799071

EQUIPMENT DESCRIPTION: OIL PLUNGE COOL SYSTEM

MODEL:

SERIAL:

YR BUILT: 1979

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER: LADD-FAB INC

ADDRESS EL MONTE CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 20,800.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS


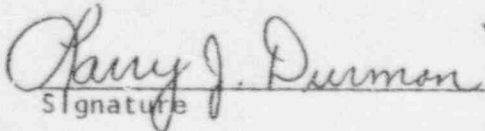
MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, III		SHEET NO. 1	NO. OF SHEETS 1	5. REQUISITION DATE	6. REQUISITION NO.
2. TO: Aerojet Ordnance Tennessee Old 11-E Hwy P.O. Box 399 Jonesborough, TN 37659		7. DATE MATERIAL REQUIRED		8. PRIORITY	
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OK 74501		9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		10. SIGNATURE R. Schaefer	
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		11. VOUCHER NUMBER AND DATE		12. DATE SHIPPED 87APR22	
		13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER C- 1,924,604	
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
		ea	1		skid	1	3,900	3,900
2.	I.D. No. T-7799071/F0524 Oil Plunge Cool System Skid 1 of 3	ea	1		skid	1	20,800	20,800
		ea	1		skid	2	25,966	25,966



Signature
Date 4-22-87

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO						17. SPECIAL HANDLING				
18. REQUISITION BY SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY						POSTED	DATE	BY	PLACER VOUCHER NO.
	TOTAL									

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 7-6-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

PWP#(S) -

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

SURVEY BY M. Keeley N. Sawyer

REMARKS PC-50-(603)/608

REVIEW BY 16/Sgt/Mid/K DATE 7-31-95

Contract # DAAA0992G0004-0016

All Results In
DPM

I.D. # - F-0500

SMEAR RESULTS
dpm/100cm²

Serial # - T77-99016

(B, X) (a)

Map # - 37

Sq ft 200 (cont surface area)

Description of Item

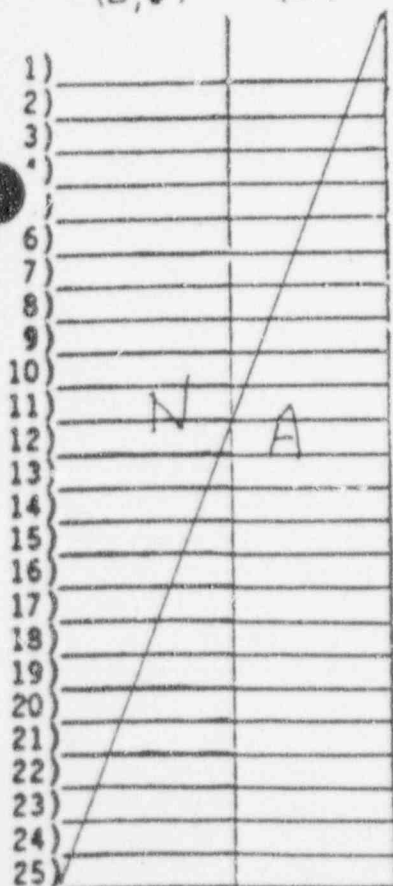
Bar Swagger Feed System

Avg. Fixed - 40K

Range Fixed - 10-400K

Avg. Smearable - 20K

Range Smearable - 5-80K



NO Alpha detected
earable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MREM
UNLESS OTHERWISE NOTED

12 10 7-31-95
LAYAWAY EQUIPMENT TAG

CLATURE

BAR SWAGER FEED TABLE SYSTEM
T-7799016

SKID 1 OF 2

End Item Usage FEED ROLLED ROD TO SWAGER

Model

Type

Serial No.

Manufacturer

STEWART INDUSTRIES

Installation No.

Location Bldg. No.

Decontamination (Circle appropriate category)

X

XXX

XXXXX

Date

Inspector's Initials

Cleaning process (reference para 463)

C

C-1

C

Other and/or Agents Used

Preservation - Specify

Internal

P - 2

P -

Reference para 463

External

P - 2

P -

Date

4/21/87

Inspector's Initials

KK

Protection - Specify

EXXON RUST BAN 373

Condition (Quality as to operational condition)

FAIR

INSTALLATION NAME:

Shipping 31 30 0000

10

7-31-95

OPE

F0500

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAAO9-84-E-0001 W/S

IDENTIFICATION # T-7799016

EQUIPMENT DESCRIPTION: BAR SWAGGER FEED TABLE SYSTEM

MODEL: SPECIAL SERIAL: NONE YR BUILT: 1979 COND:

SCC/ DATE WORK
PEC #: NONE REC'D: ORDER:

MANUFACTURER: STEWART INDUSTRIES ADDRESS TORRANCE, CA 90505

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 25,966.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES: FEED TABLE, BAR FEED GUIDE, INLET AND
OUTLET BAR FEEDERS

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, III

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217SHEET NO. OF
NO. SHEETS
1 1

5. REQUISITION DATE

6. REQUISITION NO.

7. DATE MATERIAL REQUIRED

8. PRIORITY

9. AUTHORITY OR PURPOSE P00008

DAAA09-84-E-0001

10. SIGNATURE

R. Schaefer *R. Schaefer*

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

87APR22

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

C- 1,924,604

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON-TAINER NOS. g	UNIT PRICE h	TOTAL COST i
	[REDACTED]	ea	1		skid	1	3,900	3,900
	[REDACTED]	ea	1		skid	1	20,800	20,800
3.	I.D. No. T-7799016/F0500 Bar Swagger Feed System Skid 1 of 2	ea	1		skid	2	25,966	25,966


Harry J. Durmon
Signature
4-22-87
Date16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	NET TOTAL
CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY							POSTED	DATE	BY	X. CARRIER VOUCHER NO.
				TOTAL						

DD FORM 1149
1 MAY

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1964 WHICH MAY BE USED

LOAD #2

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530PURPOSE Characterization Survey of DU Eq.SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500INST. TYPE MODEL 3
44-9 SER# 73015 CAL DUE 1-11-96INST. TYPE MODEL 3
44-9 SER# 111400 CAL DUE 1-11-96RMP#(S) -INST. TYPE MODEL 3
43-5 SER# 58126 CAL DUE 7-24-96SURVEY BY M. Keeley N. SawyerREMARKS PC-50-603/608REVIEW BY 1/1/96 M. Keeley DATE 7-31-95Contract # DAAA0992G0004-0016All Results In
DPMSMEAR RESULTS
dpm/100cm²I.D. # - NASerial # - T77-99075Map # - 38Sq ft 300 (cont. surface area)Description of Item

Basket Dumper

Avg. Fixed - 100KRange Fixed - 10-600KAvg. Smearable - 20KRange Smearable - 5-200K

MAP LEGEND

⊙ - SMEAR LOCATION

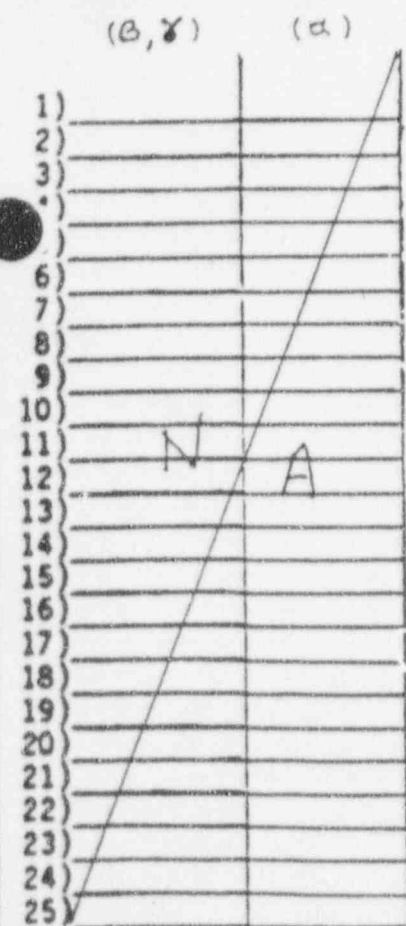
NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBD/NA - BETA DOSE RATE

MBD/NA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

All DOSE RATES ARE BY METER
UNLESS OTHERWISE NOTEDNo Alpha detected
smearable

50-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²MODEL 3 43-5 Probe Area 100cm²

26 /

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

ST

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799075

EQUIPMENT DESCRIPTION: BASKET DUMPER

MODEL:

SERIAL:

YR BUILT: 1979

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER: BAY CITY FABRICATION ADDRESS LONG BEACH CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 3,900.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, Ill

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO-MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217SHEET NO. OF
NO. SHEETS

5. REQUISITION DATE

6. REQUISITION NO.

7. DATE MATERIAL REQUIRED

8. PRIORITY

9. AUTHORITY OR PURPOSE P00008

DAAAQ9-84-E-0001

10. SIGNATURE

R. Schaefer *R. Schaefer*

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

87APR22

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

C- 1,924,604

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	I.D. No. T-7799075 Basket Dumper	ea	1		skid	1	3,900	3,900
	[REDACTED]	ea	1		skid	1	20,800	20,800
	[REDACTED]	ea	1		skid	2	25,966	25,966


Gary J. Durmon
Signature
4-22-87
Date16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF INQUIRY	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	HANDLING				
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SUBST TOTAL	
									QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
									POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
	PACKED BY											
				← TOTAL →								

DD FORM 1149
MAY

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1974 WHICH MAY BE USED

LOAD #2

10 7-31-95
LATAWAY EQUIPMENT TAG

ENCLOSURE

BASKET DUMPER
#T.7799075

End Item Usage <i>EMPTY PARTS BASKETS</i>			
Model	Type		
Serial No.	Manufacturer <i>BAY CITY FABRICATION</i>		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's initials			
Cleaning process (reference para 463)	C <i>C-1</i>	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - <i>2</i>	P -	
External	P - <i>2</i>	P -	
Date	<i>4/21/87</i>		
Inspector's initials	<i>KK</i>		
Protection - Specify			
<i>EXXON RUST BAN 373</i>			
Condition (Quality as to operational condition)			
<i>FAIR</i>			
INSTALLATION NAME:			

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-6-95 TIME 0800-1500

RMP#(S)

SURVEY BY M. Keeley / N. Sawyer

REVIEW BY 16/Sy / M. K. L.

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

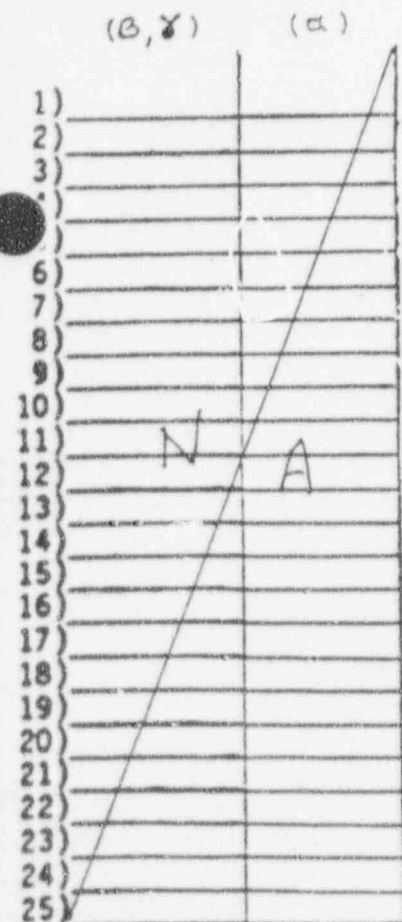
REMARKS PC-50-(603)/608

DATE 7-26-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D. # - F-0500

Serial # - T77-99016

Map # - 39

Sq ft 800 (cont surface area)

Description of Item

Bar Swagger Feeder System

Avg. Fixed - 10K

Range Fixed - 5-40K

Avg. Smearable - 5K

Range Smearable - 1-25K

NO Alpha detected
smearable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBR/MB - BETA DOSE RATE

MBR/NC - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

8 7-26-95

LAYAWAY EQUIPMENT TAG

NOMENCLATURE *BAR SWAGER FEED TABLE SYSTEM*
#T-7799016

SKID 2 OF 2

End Item Usage *FEED ROLLED ROD TO SWAGER*

Model		Type	
Serial No.		Manufacturer	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
Reference para 463		External	P - 2 P -
Date		4/21/87	
Inspector's Initials		KK	
Protection - Specify			
<i>EXXON RUST BAN 373</i>			
Condition (Quality as to operational condition)		<i>FAIR</i>	
INSTALLATION NAME:			

FO500

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001

W/S

IDENTIFICATION # T-7799016

EQUIPMENT DESCRIPTION:

BAR SWAGGER FEED TABLE SYSTEM

MODEL: SPECIAL

SERIAL: NONE

YR BUILT: 1979 COND:

SCC/

DATE

WORK

PEC #:

NONE

REC'D:

ORDER:

MANUFACTURER:

STEWART INDUSTRIES ADDRESS TORRANCE, CA 90501

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 25,966.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

FEED TABLE, BAR FEED GUIDE, INLET AND
OUTLET BAR FEEDERS

CONTROLS

MFG.

HP

RPM

VOLTS

PH/CY

SERIAL

TYPE

FRAME

MOTOR DATA:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF
NO. SHEETS
1 1

5. REQUISITION DATE

6. REQUISITION NO.

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, Ill

7. DATE MATERIAL REQUIRED

8. PRIORITY

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

9. AUTHORITY OR PURPOSE P00008

DAAA09-84-E-0001

10. SIGNATURE

R. Schaefer *R. Schaefer*

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

87APR22

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

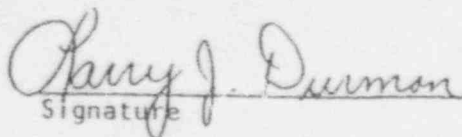
14. BILL OF LADING NUMBER

C- 1,924,604

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
	[REDACTED]	ea	1		skid	1	3,900	3,900
	[REDACTED]	ea	1		skid	1	20,800	20,800
3.	I.D. No. T-7799016/F0500 Bar Swagger Feed System [REDACTED] Skid 2 of 2	ea	1		skid	2	25,966	25,966


4-22-87
Date16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
								POSTED	DATE	BY	Z. RECEIVER'S VOUCHER NO.
	PACKED BY										
	TOTAL										

DD FORM 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1974 WHICH MAY BE USED

LOAD #2

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-6-95 TIME 0800-1500

R&P#(S)

SURVEY BY Mikeeley/M. Sawyer

REVIEW BY

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 42-5 SER# 58126 CAL DUE 7-24-96

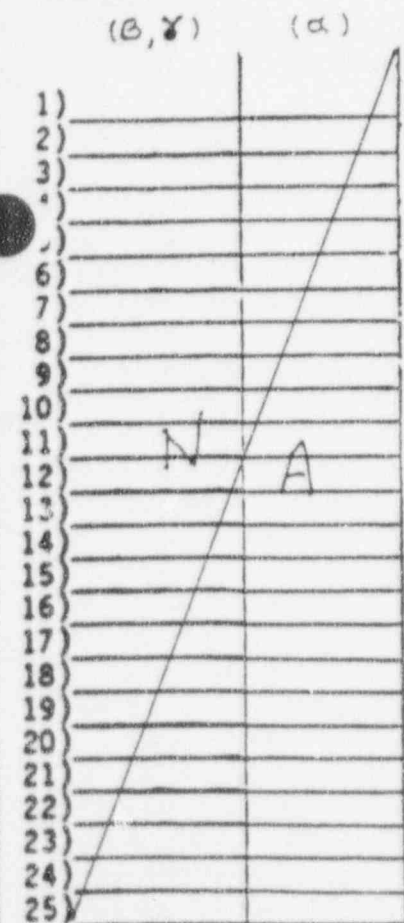
REMARKS PC-50 (603)/608

DATE 7-31-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D. # - F-0525

Serial # - T77-99068

Map # - 40

Soft 1400 (cont surface area)

Description of Item
Overhead Mono Rail System

Avg. Fixed - 10K

Range Fixed - 2-50K

Avg. Smearable - 5K

Range Smearable - 1-30K

NO Alpha detected
nearable

50-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 42-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO - GAMMA DOSE RATE
- NC - CONTACT GAMMA
- MBD/HA - BETA DOSE RATE
- MBD/HR - CONTACT BETA
- ⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MREM
UNLESS OTHERWISE NOTED

LOWWAY EQUIPMENT TAG

NOMENCLATURE

OVERHEAD MONORAIL SYSTEM
#T-7799068-A

End Item Usage MATERIAL HANDLING FOR DEPLETED URANIUM
PARTS

Model	Type		
Serial No.	Manufacturer FACILITIES ENGINEERING		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify	Internal	P - 2	P -
ence	External	P - 2	P -
para 463	Date	4/22/87	
Inspector's Initials	KK		
Protection - Specify	EXXON RUST BAN 373		
Condition (Quality as to operational condition)	FAIR		

INSTALLATION NAME:

Shipping # 70 00 0 10
F0525

7-31-95

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT #

W/S

IDENTIFICATION # T-7799068-H

EQUIPMENT DESCRIPTION: OVER HEAD MONORAIL SYSTEM

MODEL:

SERIAL:

YR BUILT:

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER:

FACILITIES ENGINEERING

ADDRESS ANAHEIM CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 10,163.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME

MOTOR DATA:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF
NO. SHEETS
1

5. REQUISITION DATE

6. REQUISITION NO.

1. FROM:

CDR Army Armament Munitions & Chem. Co. (AMCCOM) Rock Is, ILL

7. DATE MATERIAL REQUIRED

8. PRIORITY

2. TO:

Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

9. AUTHORITY OR PURPOSE P00008

DAAA09-84-E-0001

10. SIGNATURE

R. Schaefer *R. Schaefer*

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

b. VOUCHER NUMBER AND DATE

3. SHIP TO—MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

GBL# C-1,924,607

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s being transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CON TAINER f	CON TAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	3424-1310-3420 , I.D. No. 3424-02042 Furnace, Heat Treating, Ipsen Skid 6 of 6	ea	1		skid	1	159,214	159,214
2.	I.D. No. T-7799068-A/F0525 O.H. Monorail Skid 1 of 1	ea	1		skid	1	10,163	10,163
3.	I.D. No. T-7799203 Heat Treat Baskets Skid 1 of 1	ea	10		skid	1	2,406.50	24,065



Harry D. Durman 4-27-87
Signature Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	KNARD TOTAL
PACKED BY						POSTED	DATE	BY	RECEIVER VOUCHER NO.
			TOTAL						

DD FORM 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

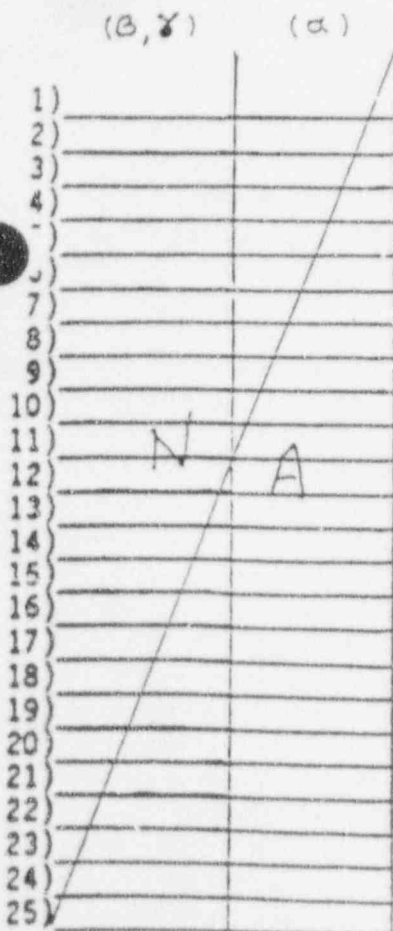
REPLACES EDITION OF 1 MAR 1971 WHICH MAY BE USED

LOAD #5

526

SURVEY# 95-01-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530PURPOSE Characterization Survey of DU Eq.SURVEY DATE 7-6-95 TIME 0800-1500INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96RWP(S) -INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96SURVEY BY M. Keeley^{mk} / N. Sawyer^{ns}REMARKS PC-50-(603)/608REVIEW BY L. S. / M. D. K. L. DATE 7-25-95Contract # DAAA0992G0004-0016All Results In
DPMI.D. # - F.0541SMEAR RESULTS
dpm/100cm²Serial # - T77-99076-6Map # - 41Soft 600 (cont surface area)Description of Item
Jib CraneAvg. Fixed - 5KRange Fixed - 1-10KAvg. Smearable - 5KRange Smearable - 1-10KNO Alpha detected
nearable

- 800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MBAD/HR - BETA DOSE RATE

MBAD/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MIN/HR
UNLESS OTHERWISE NOTED

LAIRWAY EQUIPMENT TAG

ENCLOSURE

JIB CRANE, 10' BOOM
4,000 LB. CAP.

I.D. T-7799076-6

End Item Usage MATERIAL HANDLING, PARTS CONTAMINATED WITH DEPLETED URANIUM.

Model		Type	
Serial No.		Manufacturer STANSPEC CORP.	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P - 2	P -
External		P - 2	P -
Date		4/21/87	
Inspector's Initials		KK	
Protection - Specify			
EXXON RUSTBAN 373			
Condition (Quality as to operational condition)		GOOD	
INSTALLATION NAME:			

Shipping # 41 DEL JUNE 10 1-25 75

F0541

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S IDENTIFICATION # T-7799076-6

EQUIPMENT DESCRIPTION: JIB CRANE 10' BOOM, SELF STANDING,
330 DEGREE ROTATION, FLOOR MOUNTED, 4000 LB CAPACITY

MODEL: SERIAL: YR BUILT: COND:
SCC/ DATE WORK
PEC # REC'D: ORDER:

MANUFACTURER: STANSPEC COAT ADDRESS CLEVELAND OH

RECEIVED OR
PURCHASED FROM: ADDRESS

		COST
REQUISITION #:	PURCHASE ORDER #:	ACQUISITION: <u>3,374.00</u>
SCHEDULE #:	ITEM #:	FREIGHT:
ACQUIRED FROM		INSTALLATION:
CONTRACT #:		TOTAL:
ORIGINAL		
LOCATION:		

ACCESSORIES: PICKUP ADAPTER

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is., IL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR

Commander
McAlester Army Ammun. Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

SHEET NO. 1	NO OF SHEETS 1	5. REQUISITION DATE	6. REQUISITION NO.
2. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		10. SIGNATURE R. Schaefer	
11. VOUCHER NUMBER AND DATE		12. DATE SHIPPED 87APR22	
13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER C- 1,924,603	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONTAINER NOS.	UNIT PRICE	TOTAL COST
1.	3424-1310-3420-10 No. 3424-02012 Furnace, Heat Treating, Ipsen SNV-2-006-195	ea	1		skid	1	159,214	159,214
2.	ID. No. F-0541/T-7799076-6 Jib Crane	ea	1		skid	1	3,374	3,374
3.	ID. No. F-0541/T-7799076-5 Jib Crane	ea	1		skid	1	3,374	3,374

Garry J. Duman
SIGNATURE

4-22-87
DATE

16. TRANSPORTATION VIA RATE OR MSIS CHARGEABLE TO

ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE
CHECKED BY					
PACKED BY					
			TOTAL		

17. SPECIAL HANDLING

CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	ENTER TOTAL
QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	ENTER TOTAL
POSTED	DATE	BY	ENTER VOUCHER NO.

DD FORM 1149 1 MAR

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1961 WHICH MAY BE USED

Land #1

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95
7-6-95 TIME 0800-1500

RWP(S) -

SURVEY BY M. Keeley ^{mk} / N. Sawyer ^{ns}

REVIEW BY Is/Sy/Mid/Ky

PURPOSE Characterization Survey - F DU EQ.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-91

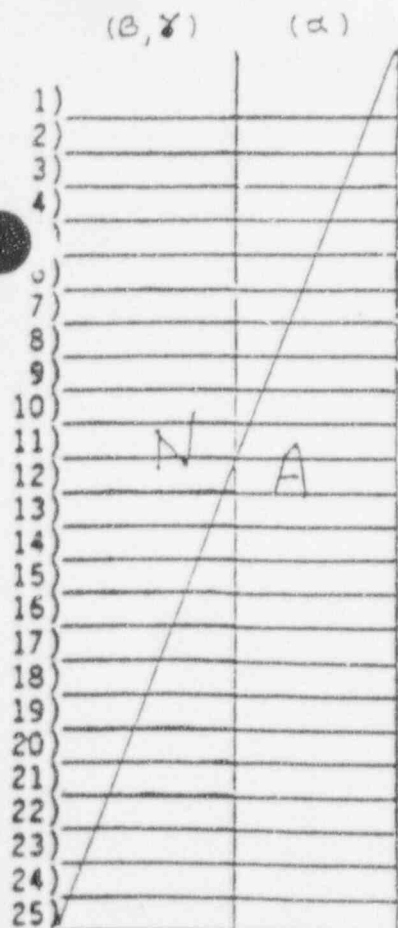
REMARKS PL-50-(603)608

DATE 7-25-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D. # - F-0524

Serial # - T77-99071

Map # - 42

Sq ft 500 (cont surface area)

Description of Item
Oil Plunge Cooling System

Avg. Fixed - 100K

Range Fixed - 40-200K

Avg. Smearable - 20K

Range Smearable - 10-50K

NO Alpha detected
smearable

- 800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²
MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO - GAMMA DOSE RATE
- ND - CONTACT GAMMA
- MBR/HR - BETA DOSE RATE
- MBR/HR - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE AT MINIMUM
UNLESS OTHERWISE NOTED

7-25-95

LA HWAY EQUIPMENT TAG

ENCLOSURE

OIL PLUNGE COOL SYSTEM
#T-7799071

SKID 3 OF 3

End Item Usage COOL HOT DEPLETED URANIUM PARTS

Model	Type		
Serial No.	Manufacturer LADD-FAB. INC.		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify	Internal	P - 2	P -
External	P - 2	P -	
Date	4/21/87		
Inspector's Initials	KK		
Protection - Specify	EXXON RUSTBAN 373		
Condition (Quality as to operational condition)	FAIR		

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM:
CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, ILL2. TO:
Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217SHEET NO. OF
THO. SHEETS
1 1

5. REQUISITION DATE

6. REQUISITION NO.

7. DATE MATERIAL REQUIRED

8. PRIORITY

9. AUTHORITY OR PURPOSE

P00008
DAAA09-84-E-0001

10. SIGNATURE

R. Schaefer

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

4/29/87

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

C- 1,924,610

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from
Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	I.D. No. T-7799071/F0524 Oil Plunge Cool System [REDACTED] SKID 3 of 3	ea	1		Skid	2	20,800	20,800
	[REDACTED]	ea	1		Skid	2	480,718	480,718
	[REDACTED]	ea	1		Skid	1	159,214	159,214



Harry J. Dorman 4-29-87
Signature Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	17. SPECIAL HANDLING				
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SUBTOTAL	
									QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
									POSTED	DATE	BY	EX VOUCHER NO.
	PACKED BY											
				← TOTAL →								

DO FORM 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DD FORM 1 MAR 67 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1964 WHICH MAY BE USED

LOAD #8

F0524

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

6-7-25-95
OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799071

EQUIPMENT DESCRIPTION: OIL PLUNGE COOL SYSTEM

MODEL: SERIAL: YR BUILT: 1979 COND:
SCC/ DATE WORK
PEC #: REC'D: ORDER:

MANUFACTURER: LADD-FAB INC ADDRESS FL MONTICELLO GA
RECEIVED OR
PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #:	COST
		ACQUISITION: 20,800.00
SCHEDULE #:	ITEM #:	FREIGHT:
ACQUIRED FROM		INSTALLATION:
CONTRACT #:		TOTAL:
ORIGINAL		
LOCATION:		

ACCESSORIES:

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

SEG

SURVEY# 95-01-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2500

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 7-6-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

RWP#(S) -

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

SURVEY BY M. Keeley MK/N. Sawyer

INST. TYPE MODEL 3 44-9 SER# 58126 CAL DUE 7-24-96

REVIEW BY IS/Sy/Mid/Kh

REMARKS PL-50 (603) 608

DATE 7-25-95

Contract # DAAA0992G0004-0016

All Results In
DPM

I.D. # - F 0540

SMEAR RESULTS
dpm/100cm²

Serial # - T77-99076-5

Map # - 43

Sq ft 600 (cont surface area)

Description of Item

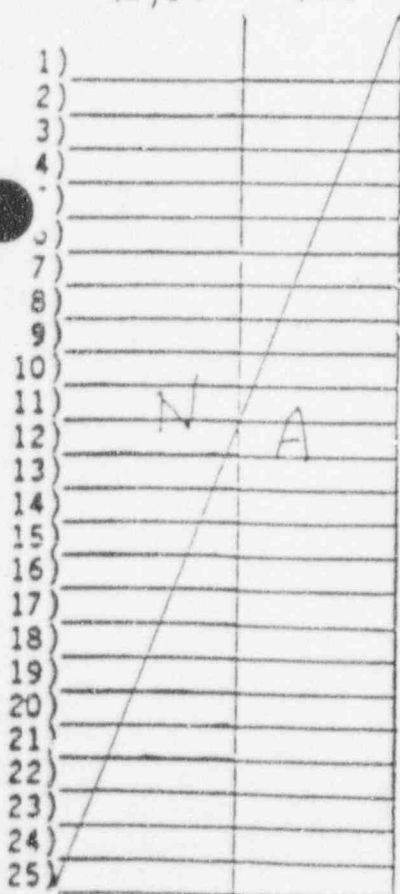
Jib Crane

Avg. Fixed - 3K

Range Fixed - 1-4K

Avg. Smearable - 2K

Range Smearable - 1-4K



NO Alpha detected
smearable

- 800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NG - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBD/HR - BETA DOSE RATE

MBD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MINOR
UNLESS OTHERWISE NOTED

Supply # 710
SEV

LAYAWAY EQUIPMENT TAG

SIGNATURE

JIB CRANE, 10' Boom
4,000 lb. CAP.

T-7799076-5

End Item Usage MATERIAL HANDLING, PARTS CONTAMINATED WITH DEPLETED URANIUM

Model	Type		
Serial No.	Manufacturer STANJPEC CORP.		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify	Internal	P - 2	P -
Reference para 463	External	P - 2	P -
Date	4/21/87		
Inspector's Initials	KK		
Protection - Specify	EXXON RUST BAN 373		
Condition (Quality as to operational condition)	Good		

INSTALLATION NAME:

F0540

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799076-5

EQUIPMENT DESCRIPTION: JIB CRANE 10' BOOM, SELF STANDING
330 DEGREE ROTATION, FLOOR MOUNTED, 4000 LB CAPACITYMODEL: SERIAL: YR BUILT: 1979 COND:
SCC/ DATE
PEC #: REC'D: WORK
ORDER:

MANUFACTURER: STANSPEC CORP ADDRESS CLEVELAND OH

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 3,374.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

PICKUP ADAPTER

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

#43 SEG Level #6 7-25-95

DATE POSTED 12A 1 1985

PE	Cont.
P.Ca. ID F0540	Cont.
113 Crane 10' Boom	Cont.
Loc. B-500 Yr 1979	Storage

[illegible]

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS 1	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001			
10. SIGNATURE R. Schaefer		11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED 87APR22		11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER C- 1,924,603	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is., IL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR
Commander
McAlester Army Ammun. Plant
McAlester, OK 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONTAINER NOS.	UNIT PRICE	TOTAL COST
1	24-11-10-9420, 10 No. 24-11-10-9420	ea	1		skid	1	159,214	159,214
2	24-11-10-9420, 10 No. 24-11-10-9420	ea	1		skid	1	3,374	3,374
3	ID. No. F-0540/T-7799076-5 Jib Crane	ea	1		skid	1	3,374	3,374

Larry J. Durman 4-22-87
SIGNATURE DATE

16. TRANSPORTATION VIA RATS OR MSIS CHARGEABLE TO

ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	17. SPECIAL HANDLING			
						19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SUBTOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
			TOTAL						

FORM 1149
1 MAR. 89

REPLACES EDITION OF 1 MAY WHICH MAY BE USED

Lead #1

Shipping # 43 SEC-9 7-25-9

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeley^{mk}/N. Sawyer^{ns}

REVIEW BY L. S. / M. D. K. / DATE 8-14-95

PURPOSE Characterization Survey of DU Eq.

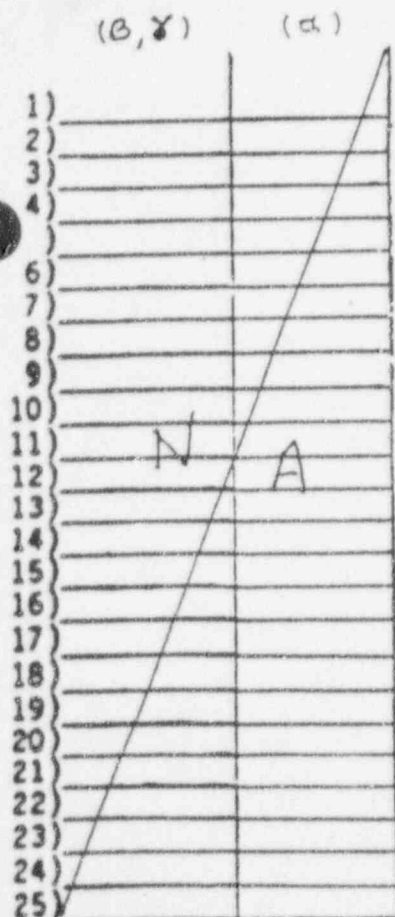
INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS DC-50 - 603/608

Contract # DAAA0992G0004-0016

All Results In
DPM# ..SMEAR RESULTS
dpm/100cm²I.D. # - F-0523Serial # - 3424 - 02042Map # - 44

Sq ft 700 (cont surface area)

Description of Item
Heat Treating Furnace (Part 2)Avg. Fixed - 15KRange Fixed - 1-50KAvg. Smearable - 5KRange Smearable - 1-10KVO Alpha detected
nearable

50-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MEAD/NR - BETA DOSE RATE

NR/NR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MK/MR
UNLESS OTHERWISE NOTED

Shipping # 44 SEC Sub #

44

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

LOADER FOR IPSEN AGE FURNACE
3424-02042

SKID # 5 OF 6

End Item Usage <i>HEAT TREAT DEPLETED URANIUM PARTS</i>			
Model <i>YCW 11R</i>	Type <i>VACUUM, BATCH</i>		
Serial No. <i>57835</i>	Manufacturer <i>IPSEN INDUSTRIES, INC.</i>		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C <i>C-1</i>	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - <i>2</i>	P -	
Reference para 463			
External	P - <i>2</i>	P -	
Date	<i>4/22/87</i>		
Inspector's Initials	<i>KK</i>		
Protection - Specify			
<i>EXXON RUST BAN 373</i>			
Condition (Quality as to operational condition)			
<i>FAIR</i>			
INSTALLATION NAME:			

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF NO. SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY
9. AUTHORITY OR PURPOSE P00008 DAAA08-84-E-0001		
10. SIGNATURE R. Schaefer		11a. VOUCHER NUMBER AND DATE
12. DATE SHIPPED 87APR24		11b. VOUCHER NUMBER AND DATE
13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER C- 1,924,605
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER		

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, ILL.

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from
Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1	I.D. No. T-7799087 Bin Stand w/Vibra Table	ea	1		skid	1	1,280	1,280
2	I.D. No. T-7799087 Bin Stand w/Vibra Table SKID 1 of 1	ea	1		skid	1	1,280	1,280
3	I.D. No. T-7799063/20519 Monocell G.P. System SKID 1 of 1	ea	1		skid	1	23,491	23,491
4.	3424-1310-3420, I.D. No. 3424-02042 Furnace, Heat Treating, Ipsen SKID 5 of 6	ea	1		skid	1	159,214	159,214



Signature: *Kerry J. Durman* Date: 4-23-87

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

REQUISITION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SWERT TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	SWERT TOTAL
								POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
	PACKED BY										
				TOTAL							

PD, 149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70

74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Shipping # 44 SEC *Smith*

AGE

DOD PROPERTY RECORD		1. <input type="checkbox"/> ACTIVE <input type="checkbox"/> INITIAL <input checked="" type="checkbox"/> IDLE <input checked="" type="checkbox"/> CHANGE		2. JULIAN DATE 80347	3. GOVERNMENT TAG NO. 3424-02042	Form Approved Budget Bureau No. 22-RC209	
SECTION I — INVENTORY RECORD							
4. COMMODITY CODE 3424-1310-3420	5. STOCK NUMBER 3424	6. ACQUISITION COST 159,214.	7. TYPE CODE 1	8. YR OF MFG 79	9. POWER CODE 54	10. STATUS CODE 1A	11. SVC CODE
14. NAME OF MANUFACTURER Ipsen Industries, Inc.		15. MFR'S CODE 90714	16. MANUFACTURER'S MODEL NO. VCW 11R		17. MANUFACTURER'S SERIAL NO. 57835		
18. LENGTH 9'	19. WIDTH 17'	20. HEIGHT 12'	21. WEIGHT 8750#	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	25. CONTRACT NUMBER DAA09-84-E-0001
24. DESCRIPTION AND CAPACITY Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, 24" x 36" x 48" DP, Forced Gas Convection 0°-1000°F, 112 KVA, 1 Door (Aging)							
F-0523 (T77-99043)				CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO			
SECTION II — ELECTRICAL CHARACTERISTICS							
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED
1	40 & 10	460	3	60	X		3540/1760
1	10	208/240/480	3	60	X		1725
1	10	208/240/480	3	60	X		1725
1	3	180					1750
						TYPE AND FRAME NUMBER	
						COGNB 286TC (2 Spd. Motor	
						M3714T Spec. No. 37A01250 215T	
						M3714T " " " "	
						Type CD189ATC, MOD 5CD145V)))2604	
28. PRESENT LOCATION Aerojet Ordnance Company Old 11 East Highway Jonesboro, Tenn. 37659						29a. DIPEC CONTROL NO. 3424-02042	
						29. POSSESSOR CODE 06 0810 00203T	
SECTION II — INSPECTION RECORD							
				YES NO			
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?						42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS? \$	
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN? DATE						43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW	
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW						44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW	
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW						45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW	
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW						46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW	
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW						47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW	
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?						48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?	
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?						49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE	
38. WAS ITEM LAST USED ON A FINISHING OPERATION?						50. ESTIMATED COST FOR PACKING, CRATING, HANDLING \$	
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES? IF NOT, GIVE THEIR REPLACEMENT COST \$						51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION	
40. IS ITEM IN OPERABLE CONDITION?						52. CONDITION CODE	
						53. OPERATING TEST CODE	
SECTION III — REMARKS							
54. REMARKS <div style="text-align: right; font-size: 2em; opacity: 0.5;">IPE</div>							
REMARKS CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO							
SECTION IV — DISPOSITION RECORD							
55. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)				56. TYPE OF DISPOSITION		56a. DATE OF DISPOSITION AND PROCEEDS IF SOLD	
				<input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION			
				<input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT			
SECTION V — VALIDATION RECORD							
57. VALIDATION (TYPE NAME(S) AND SIGNATURE(S))							

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

6-28-95

SURVEY DATE 7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley MK/N. Sawyer

REVIEW BY 16/Sy/Mid/Ky

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-91

REMARKS DC-50-(603)/608

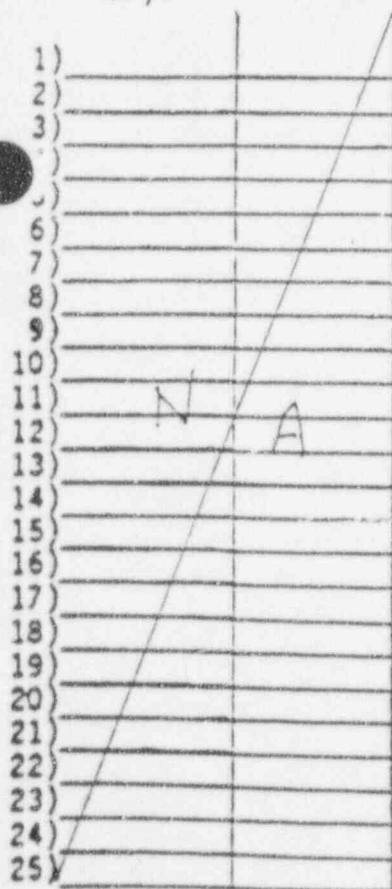
DATE 7-25-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²

(B, Y) (a)



I.D.# - F-0519

Serial # - T77-99069

Map # - 45

So ft 1300 (cont surface area)

Description of Item
Overhead Monorail System

Avg. Fixed - 3K

Range Fixed - 1-20K

Avg. Smearable - 2K

Range Smearable - 1-5K

Alpha detected
earable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MBAD/HR - BETA DOSE RATE

MBAD/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY PM/HR
11/11/95 11:11 AM

LAYAWAY EQUIPMENT TAG

SIGNATURE

MONORAIL O. H. SYSTEM
#T-7799069

End Item Usage MATERIAL HANDLING FOR DEPLETED URANIUM PARTS

Model	Type 2 TON SYSTEM		
Serial No.	Manufacturer FACILITIES ENGINEERING		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
External	P - 2	P -	
Date	4/22/87		
Inspector's Initials	KK		
Protection - Specify			
EXXON RUST BAN 373			
Condition (Quality as to operational condition)	FAIR		

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF
NO. SHEETS
1

5. REQUISITION DATE

6. REQUISITION NO.

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, ILL.

7. DATE MATERIAL REQUIRED

8. PRIORITY

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

9. AUTHORITY OR PURPOSE P00008

DAAA08-84-E-0001

3. SHIP TO-MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

10. SIGNATURE

R. Schaefer

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

87APR24

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

C- 1,924,605

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from
Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE OF CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	I.D. No. T-7799087 Bin Stand W/Vibra Chute	ea	1		skid	1	1,280	1,280
2.	I.D. No. T-7799082 Bin Stand W/Vibra Chute SKID 1 of 1	ea	1		skid	1	1,280	1,280
3.	I.D. No. T-7799069/F0519 Monorail O.H. System SKID 1 of 1	ea	1		skid	1	23,491	23,491
4.	3424-1310-3420, I.D. No. 3424-07047 Furnace, Heat Treating, Ipsen SKID 5 of 6	ea	1		skid	1	159,214	159,214



Harry J. Durman
Signature

4-23-87

Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
			TOTAL						

Shipping # 48 SER 30000 7

7-25-

F0519

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799069

EQUIPMENT DESCRIPTION: MONORAIL 45' LONG DUAL RAIL
SYSTEM, 2 TON CAPACITY, HOIST, CARRIER, CONTROLS

MODEL: SERIAL: YR BUILT: 1979 COND:

SCC/ DATE WORK
PEC #: REC'D: ORDER:

MANUFACTURER: FACILITIES ENGINEERING ADDRESS ANAHEIM CA

RECEIVED OR

PURCHASED FROM: ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 23,491.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

SURVEY DATE 7-6-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeley^{mk} / N. Sawyer^{ns}

REMARKS PL-50-(603)/608

REVIEW BY W. S. / M. D. K. L. DATE 7-26-95

Contract # DAAA0992G0004-0016

All Results In
DPM

I.D. # -

SMEAR RESULTS
dpm/100cm²

Serial # - T 77-99203

(B, Y) (a)

Map # - 46

Sq ft 700 (cont surface area)

Description of Item

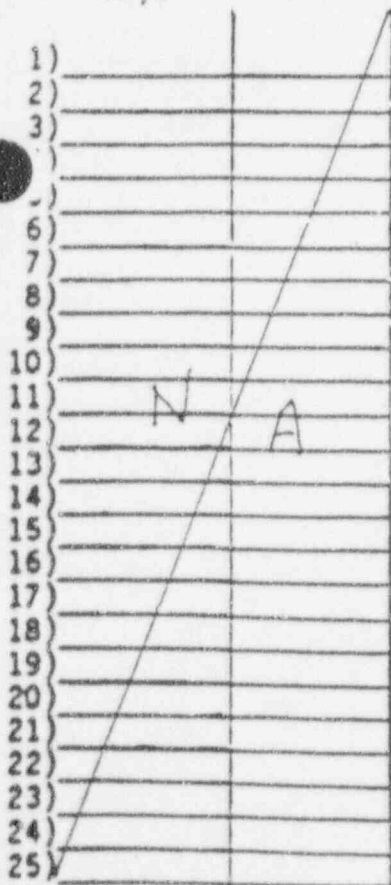
Heat Treatment Baskets

Avg. Fixed - 200K

Range Fixed - 50-500K

Avg. Smearable - 60K

Range Smearable - 5-180K



Alpha detected
variable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MEAD/NA - BETA DOSE RATE

MEAD/NC - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MTRK
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

DECLATURE

HEAT TREAT BASKETS (QTY. 10)
#T-7799203

End Item Usage <u>HOLD DEPLETED URANIUM PARTS IN HEAT TREAT FURNACE</u>			
Model <u> </u>	Type <u> </u>		
Serial No. <u> </u>	Manufacturer <u>STANWOOD CO.</u>		
Installation No. <u> </u>	Location Bldg. No. <u> </u>		
Contamination (Circle appropriate category)	<input checked="" type="checkbox"/> X	<input type="checkbox"/> XXX	<input type="checkbox"/> XXXXX
Date <u> </u>			
Inspector's Initials <u> </u>			
Cleaning process (reference para 463)	<input checked="" type="checkbox"/> C <u>C-1</u>	<input type="checkbox"/> C	Other and/or Agents Used <u> </u>
Preservation - Specify			
Internal <u> </u>	<input type="checkbox"/> P -	<input type="checkbox"/> P -	
External <u> </u>	<input type="checkbox"/> P -	<input type="checkbox"/> P -	
Reference para 463			
Date <u> </u>	<u>4/22/87</u>		
Inspector's Initials <u> </u>	<u>KK</u>		
Protection - Specify <u>NONE USED</u>			
Condition (Quality as to operational condition) <u>FAIR.</u>			

INSTALLATION NAME:

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chem. Co.(AMCCOM) Rock Is, ILL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659


3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

SHEET NO OF NO. SHEETS 1	REQUISITION DATE	4. REQUISITION NO.
7. DATE MATERIAL REQUIRED	8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		
10. SIGNATURE R. Schaeffers <i>R. Schaeffers</i>	11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED	b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT Truck	14. BILL OF LADING NUMBER GBL# C-1,924,607	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER		

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s being transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	3424-1310-3420, I.D. No. 3424-02042 Furnace, Heat Treating, Ipsen Skid 6 of 6	ea	1		skid	1	159,214	159,214
2.	I.D. No. T-7799068-A/F0525 O.H. Monorail Skid 1 of 1	ea	1		skid	1	10,163	10,163
3.	I.D. No. T-7799203 Heat Treat Baskets Skid 1 of 1	ea	10		skid	1	2,406.50	24,065



Harry J. Durman 4-27-87
Signature Date

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYP CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	RECEIPT	HANDLING				
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SUBTOTAL	
									QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
									POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
	PACKED BY											
	← TOTAL →											

DD FORM 1149 MAR. 67

REPLACES EDITION OF 1 MAY 64 WHICH MAY BE USED

LOAD #5

Shipping # 46 SEC ~~8444~~ 8

26-95

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

5T

CONTRACT # DAAA04-84-E-0001 W/S

IDENTIFICATION # T-7799203

EQUIPMENT DESCRIPTION: HEAT TREAT BASKETS (QUANTITY 10)

MODEL: SERIAL: YR BUILT: 1979 COND:

SCC/ DATE WORK
PEC # REC'D: ORDER:

MANUFACTURER: STANWOOD CO ADDRESS OAK CREEK WISC

RECEIVED OR PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #:	COST	
		EA	TOTAL
		ACQUISITION: <u>2,406.50</u>	<u>24,065.00</u>
SCHEDULE #:	ITEM #:	FREIGHT:	
ACQUIRED FROM		INSTALLATION:	
CONTRACT #:		TOTAL:	
ORIGINAL			
LOCATION:			

ACCESSORIES:

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

Shirley 46 SEC Serial 8 7-26-95

DATE POSTED

JAN 1 1985

LOCATION

[illegible]

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

SURVEY DATE 7-6-95 TIME 0800-1500

RMP#(S) -

SURVEY BY M. Keeley^{mk}/N. Sawyer^{ns}

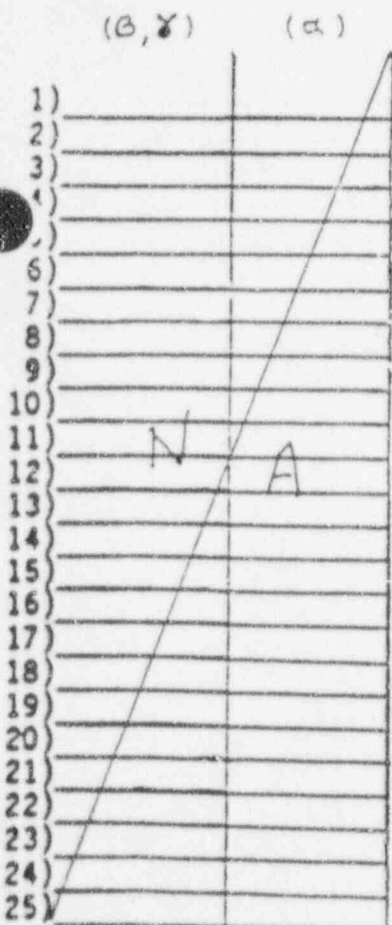
REMARKS PC-50-(603)/608

REVIEW BY 16/Sy/Mid/K DATE 8-1-95

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D. # - F-0534

Serial # - T77-99082

Map # - 50

Sq ft 1300 (cont surface area)

Description of Item
Barrel Wash System

Avg. Fixed - 100K

Range Fixed - 10-400K

Avg. Smearable - 50K

Range Smearable - 5-150K

Alpha detected
Smearable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NC. - CONTACT GAMMA

MBND/HR - BETA DOSE RATE

MBAND - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MK/HR
UNLESS OTHERWISE NOTED

LAWAY EQUIPMENT TAG

CLATURE

BARRELL WASH SYSTEM WITH MONORAIL
T-7799082

End Item Usage *WASH DEPLETED URANIUM PARTS*

Model <i>—</i>	Type <i>—</i>		
Serial No. <i>—</i>	Manufacturer <i>L.W. LEFORT Co.</i>		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C <i>C-1</i>	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
External	P - 2	P -	
Date	<i>4/27/87</i>		
Inspector's Initials	<i>KK</i>		
Protection - Specify			
<i>EXXON RUST BAN 373</i>			
Condition (Quality as to operational condition)	<i>FAIR</i>		

INSTALLATION NAME:

F0534

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799082

EQUIPMENT DESCRIPTION: BARREL WASH SYSTEM, WITH
OVERHEAD MONORAIL CRANE

MODEL:

SERIAL:

YR BUILT: 1979

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER: L.W. LEFORT CO.

ADDRESS PLACENTIA, CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION: 22,262.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							

51. AG CONTAINER TALLY →

SHEET NO. OF SHEETS 1		5. REQUISITION DATE		6. REQUISITION NO.	
7. DATE MATERIAL REQUIRED		8. PRIORITY			
9. AUTHORITY OR PURPOSE		P00008 DAAA09-84-E-0001			
10. SIGNATURE R. Schaefer <i>R. Schaefer</i>		11. VOUCHER NUMBER AND DATE			
12. DATE SHIPPED		14. VOUCHER NUMBER AND DATE			
13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER C- 1,924,608			
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER					


2. 10: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

1. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA	Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.
--------------------------------	--

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
	[REDACTED]	ea	4		skid	1	724.00	2,896.00
	[REDACTED]	ea	1		skid	1	747.00	747.00
	[REDACTED]	ea	1		skid	1	480,718.00	480,718.00
4.	I.D. No. T-7799082/F0534 Barrel Wash System W/monorail SKID 1 of 1	ea	1		skid	1	22,262.00	22,262.00



Kerry J. Duman

Signature

4-28-87

Date

16. TRANSPORTATION VIA MATS
OR MSTS CHARGEABLE TO:

17. SPECIAL HANDLING

18.	ISSUED BY	TOTAL CONTAINERS	TYP CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CURR	19.	HANDLING			
								CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY						RECEIPT	QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	TO RECEIVER'S VOUCHER NO.
				← TOTAL →							

DD FORM 1149
1 MAR 67

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 68 WHICH MAY BE USED

LOAD #6

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 6-28-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

RWP(S) -

SURVEY BY M. Keeley^{mk} / N. Sawyer^{ns}

REMARKS PC-50-(603)/608

REVIEW BY 16/Sy / M. K. L.

DATE 8-15-95

Contract # DAAA0992G0004-0016

All Results In
DPM + ..

I.D. # - F 0520

SMEAR RESULTS
dpm/100cm²

Serial # - T77-99058-2

(B, Y) (A)

Map # - 47

Soft 500 (cont. surface area)

Description of Item
Degreaser Solvent Still

Avg. Fixed - 4K

Range Fixed - 1-15K

Avg. Smearable - 3K

Range Smearable - 1-8K

VO Alpha detected
nearable

0-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MREM
UNLESS OTHERWISE NOTED

Shipping # 47 866-6666

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

STILL, SOLVENT DEGREASER
T-7799058-2

End Item Usage <u>CLEAN DEPLETED URANIUM PARTS</u>			
Model <u>HRS-120</u>	Type <u> </u>		
Serial No. <u> </u>	Manufacturer <u>BARON BLAKESLEE</u>		
Installation No. <u> </u>	Location Bldg. No. <u> </u>		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date <u> </u>			
Inspector's Initials <u> </u>			
Cleaning process (reference para 463)	C <u>C-1</u>	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - <u>2</u>	P -	
Reference para 463			
External	P - <u>2</u>	P -	
Date	<u>4/27/87</u>		
Inspector's Initials	<u>KK</u>		
Protection - Specify			
<u>EXXON RUST BAN 373</u>			
Condition (Quality as to operational condition)	<u>FAIR</u>		
INSTALLATION NAME:			

Shipping # 47 SEC ~~Handl~~

F0520

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799058

EQUIPMENT DESCRIPTION: DEGREASER SOLVENT STILL

MODEL: HRS-120

SERIAL:

YR BUILT: 1979 COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER: BARN BLAKESLEE

ADDRESS GARDENA CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

REQUISITION #:

PURCHASE
ORDER #:

COST

ACQUISITION: 7,250.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
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MOTOR DATA:

Shipp # 47 SEC 5000

SHIPPING CONTAINER TALLY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM:
CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock II, ILL

2. TO:
Aerojet Ordnance Tennessee
Old II-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

4. ACCOUNTING AND FUNDING DATA

SHEET NO. 1 NO. OF SHEETS 1

5. REQUISITION DATE

6. REQUISITION NO.

7. DATE MATERIAL REQUIRED

8. PRIORITY

9. AUTHORITY OR PURPOSE
P00008
DAAAQ9-84-E-0001

10. SIGNATURE
R. Schaefer

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

13. MODE OF SHIPMENT
Truck

14. BILL OF LADING NUMBER
C- 1,924,609

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON. TAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	3424-1310-3420, I.D. No. 3424-02042 Furnace, Heat Treating, Ipsen SKID 4 of 6	ea	1		skid	1	159,214	159,214
2.	I.D. No. T-7799071/F0520 Degreaser Solvent Still SKID 1 of 1	ea	1		skid	1	7,250	7,250
3.	3424-1310-3420, I.D. No. 3424-02041 Box Furnace, Heat Treating, Ipsen SKID 6 of 6	ea	1		skid	1	480,718	480,718
4.	I.D. No. T-7799058/F0518 Heavy Duty Vapor Degreaser SKID 1 of 2	ea	1		skid	1	13,557	13,557

Signature: Gary J. Durman
Date: 4-28-87

16. TRANSPORTATION VIA MATS OR MSTs CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBF	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
								POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
	PACKED BY										
				← TOTAL →							

DD FORM 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 1964 WHICH MAY BE USED

LOAD #7

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 7-6-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

RWP#(S) -

SURVEY BY M. Keeley ^{MR} N. Sawyer ^{MR}

REMARKS DC-50-(603)/608

REVIEW BY 16/Sy/Mid/K DATE 8-15-95

Contract # DA A0992G0004-0016

All Results In
DPM

I.D. # - F0522

Serial # - 3424-02041

SMEAR RESULTS
dpm/100cm²

Map # - 48

Soft 1400 (cont surface area)

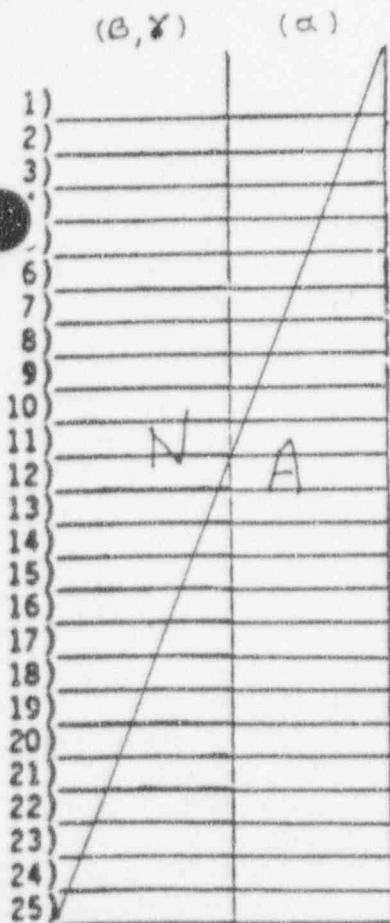
Description of Item
Heat Treating Furnace (Part 1)

Avg. Fixed - 10K

Range Fixed - 10-60K

Avg. Smearable - 8K

Range Smearable - 1-30K



NO Alpha detected
wearable

50-800dpm fixed alpha.

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MRAD/HR - BETA DOSE RATE

MRAD/HR - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MIN/hr
UNLESS OTHERWISE NOTED

Shipping # 48 SEG Lead

LAYAWAY EQUIPMENT TAG

NOMENCLATURE MICROVAC PUMP, PIPING, ~~TRANSFORMER~~ TRANSFORMER
FOR HEAT TREAT FURNACE
3424-02041

SKID 2 OF 6

End Item Usage HEAT TREAT DEPLETED URANIUM PARTS			
Model VFCQ-36x48x24	Type VACUUM		
Serial No. 57707	Manufacturer IPSEN INDUSTRIES, INC.		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	4/23/87		
Inspector's initials	KK		
Protection - Specify			
EXXON RUST BAN 373			
Condition (Quality as to operational condition)	FAIR		
INSTALLATION NAME:			

DOD PROPERTY RECORD

☐ ACTIVE ☐ INITIAL ☒ IDLE ☒ CHANGE

2 JULIAN DATE

3 GOVERNMENT TAG NO.

Form Approved

Budget Bureau No. 22-R0209

SECTION I — INVENTORY RECORD

4. COMMODITY CODE 3424-1318-3420	5. STOCK NUMBER 3424	6. ACQUISITION COST 480,718.	7. TYPE CODE I	8. YR OF MFG 79	9. POWER CODE 54	10. STATUS CODE 1A	11. SVC CODE	12. COMMAND CODE	13. ADM OFFICE CODE 000102
14. NAME OF MANUFACTURER Ipsen Industries, Inc.		15. MFR'S CODE 90714	16. MANUFACTURER'S MODEL NO. VFCQ-36x48x24		17. MANUFACTURER'S SERIAL NO. 57707				
18. LENGTH 22'	19. WIDTH 11'	20. HEIGHT 14'	21. WEIGHT 19,000	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	24. ARD	25. CONTRACT NUMBER DAAA09-84-E-0001	

26. DESCRIPTION AND CAPACITY

Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, Forced Circulation, 0°-1800° F, Graphite Radiant Heater, 220 KVA, 24" H x 36" W x 48" Deep, 8 Doors, (Solution Oil Quench)

FACILITIES CONTRACT

DAAA09-84-E-0001

F-0522 (T77-99044)

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

27.

ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER
4	3/4/3	230	3	60	X		850/1750	K.G.F. 184TC
2	5	230/440	3	60	X		1750	P 184TCZ
1	10	208/230/460	3	60	X		1725	Class B 215T
1	1	230/460	3	60	X		1740	L56FCHZ

28. PRESENT LOCATION

AEROSOL ORDNANCE TENNESSE
 Old HIGHWAY 11 EAST
 Jonesboro, Tenn. 37659

28a. DIPEC CONTROL NO.

3424-02041

29. POSSESSOR CODE

06 0810 00203T

SECTION II — INSPECTION RECORD

	YES	NO		YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?		
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN?			43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW		
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW		
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW			45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW		
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW		
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE		
38. WAS ITEM LAST USED ON A FINISHING OPERATION?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING		
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION		
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST			52. CONDITION CODE		
41. IS ITEM IN OPERABLE CONDITION?			53. OPERATING TEST CODE		

SECTION III — REMARKS

34. REMARKS

THIS ITEM CONTAMINATED WITH
 DEPLETED URANIUM

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV — DISPOSITION RECORD

54. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	58. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	--

SECTION V — VALIDATION RECORD

57. VALIDATION (TYPED NAME(S) AND SIGNATURE(S))

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF NO. 1	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED	8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		
10. SIGNATURE R. Schaefers	11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED	11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT Truck	14. BILL OF LADING NUMBER GBL# C-1,924,606	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER		

1. FROM: CDR Army Armament Munitions & Chem. Co.(AMCCOM) Rock Is, ILL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 376593. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s being transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON-TAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	3424-1318-3420, I.D. No. 3424-02041 Box furnace, heat treating, Ipsen Skid 2 of 6	ea	1		1	skid	480,718	480,718
2.	1.D. No. 1 7755008 B/F 0337 Monorail Ball, Beryllium Skid 1 of 1	ea	1		1	skid	10,164	10,164
3.	1.D. No. 1 7755008 B/F 0337 Monorail Ball, Beryllium Skid 1 of 1	ea	12		1	skid	1,599	19,184

Signature

Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SWIFT TOTAL
CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED				GRAND TOTAL
PACKED BY							POSTED				RECEIVED VOUCHER NO.
				TOTAL							

DD FORM 1149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71

72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE Characterization Survey of DU Eq.

SURVEY DATE 7-6-95 TIME 0800-1500

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

RMP#(S) -

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

SURVEY BY McKeeley M. N. Sawyer

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REVIEW BY [Signature] DATE 8-15-95

REMARKS PC-50-603/608

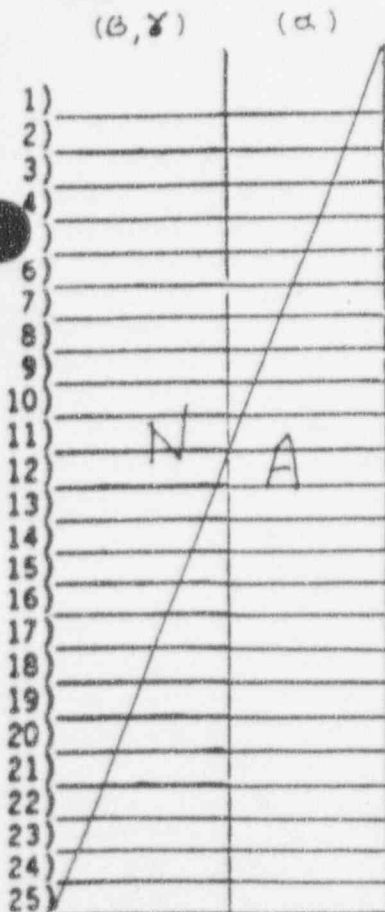
Contract # DAAA0992G0004-0016

All Results In
DPM#

I.D.# - F-0518

SMEAR RESULTS
dpm/100cm²

Serial # - T77-99058



Map # - 49

Sq ft 2800 (cont. surface area)

Description of Item

Hi Temp. Vapor Degreaser

Avg. Fixed - 15K

Range Fixed - 1-40K

Avg. Smearable - 10K

Range Smearable - 1-40K

VO Alpha detected
nearable

5-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²
MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NO. - CONTACT GAMMA
- MRAD/HR - BETA DOSE RATE
- MRAD/HR - CONTACT BETA
- ⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MIREX
UNLESS OTHERWISE NOTED

Shipping # 42 SSC Fund #

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

H. D. VAPOR DEGREASER
#T-7799058-1

SKID #1 OF 2

End Item Usage				CLEAN DEPLETED URANIUM PARTS			
Model		DP6-5-6024		Type		—	
Serial No.		—		Manufacturer		BARON BLAKESLEE	
Installation No.				Location Bldg. No.			
Decontamination (Circle appropriate category)				X	XXX	XXXXX	
Date							
Inspector's Initials							
Cleaning process (reference para 463)				C	C	Other and/or Agents Used	
				C-1			
Preservation - Specify							
Internal				P - 2	P -		
Reference para 463				External	P - 2	P -	
Date				4/27/87			
Inspector's Initials				KK			
Protection - Specify							
EXXON RUST BAN 373							
Condition (Quality as to operational condition)						FAIR	
INSTALLATION NAME:							

Shipping # 49 SEC Fall #

3 SKIDS

F0518

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S IDENTIFICATION # T-7799058

EQUIPMENT DESCRIPTION: HEAVY DUTY VAPOR DEGREASER
VAPOR, WITH HORIZONTAL CRANE

MODEL: DPL-5-6024 SERIAL: NONE YR BUILT: 1979 COND:
SCC/ DATE WORK
PEC #: REC'D: ORDER:

MANUFACTURER: BARON BLAKESLEE ADDRESS GARDENA CA
RECEIVED OR
PURCHASED FROM: ADDRESS

REQUISITION #:	PURCHASE ORDER #:	COST
SCHEDULE #: <td>ITEM #:<td>ACQUISITION: 13,557.00</td></td>	ITEM #: <td>ACQUISITION: 13,557.00</td>	ACQUISITION: 13,557.00
ACQUIRED FROM CONTRACT #: <td></td> <td>FREIGHT:</td>		FREIGHT:
ORIGINAL LOCATION: <td></td> <td>INSTALLATION:</td>		INSTALLATION:
		TOTAL:

ACCESSORIES:

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							

Shipping 49 DEC 2004

SHIP CONTAINER TALLY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF NO. 1 SHEETS 1	5. REQUISITION DATE	6. REQUISITION NLA.
7. DATE MATERIAL REQUIRED	8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		
10. SIGNATURE R. Schaefer	11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED	b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT Truck	14. BILL OF LADING NUMBER C- 1,924,609	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER		

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock II, ILL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	3424-1310-3420, I.D. No. 3424-02042 Furnace, Heat Treating, Ipsen SKID 1 of 1	ea	1		skid	1	159,214	159,214
2.	I.D. No. T-7799071/F0520 Degreaser Solvent Still SKID 1 of 1	ea	1		skid	1	7,250	7,250
3.	3424-1318-3420, I.D. No. 3424-02041 Box Furnace, Heat Treating, Ipsen SKID 6 of 6	ea	1		skid	1	480,718	480,718
4.	I.D. No. T-7799058/F0518 Heavy Duty Vapor Degreaser SKID 1 of 2	ea	1		skid	1	13,557	13,557

Signature Perry J. Durman Date 4-28-87

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SUBST TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	NO. OF CONTAINER'S VOUCHER NO.
					TOTAL						

DD FORM 1149 MAR 59

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 58 WHICH MAY BE USED

LOAD #7

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

6-28-95

SURVEY DATE 7-6-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley^{mk} / N. Sawyer^{ms}

REVIEW BY L. S. / M. D. K. DATE 7-26-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PL-50-(603)/608

Contract # DAAA0992G0004-0016

All Results In
DPM

I.D. # - F-0511

SMEAR RESULTS
dpm/100cm²

Serial # - T77-99201

(B, X) (a)

Map # - 51

Sq-ft 600 (cont surface area)

Description of Item

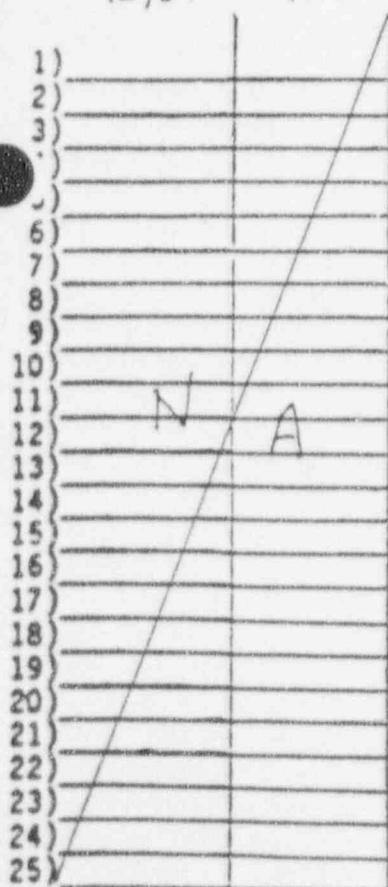
Rod Carts

Avg. Fixed - 15K

Range Fixed - 1-50K

Avg. Smearable - 10K

Range Smearable - 1-25K



Alpha detected
earable

50-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NG. - CONTACT GAMMA

MEAD/NB - BETA DOSE RATE

MEAD/NB - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
UNLESS OTHERWISE NOTED

Shipy # 51 526 ~~over~~ 8

7-26-85

LAYAWAY EQUIPMENT TAG

SIGNATURE

SCALE, SHADOW GRAPH

End Item Usage WEIGH DEPLETED URANIUM PARTS			
Model 4102		Type 500 GRAM	
Serial No. - -		Manufacturer SPERLE SCALES	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)		C C-1	C Other and/or Agents Used
Preservation - Specify			
Internal		P -	P -
External		P -	P -
Reference para 463			
Date		4/24/87	
Inspector's Initials		KK	
Protection - Specify			
NONE USED			
Condition (Quality as to operational condition) GOOD			

INSTALLATION NAME:

8 - 7-20-65
LAYAWAY EQUIPMENT TAG

DECLARATION

ROD CARTS (Qty. 4)
#T- 7799201

End Item Usage *MOVE DEPLETED URANIUM ROLLED RODS*

Model	Type		
Serial No.	Manufacturer <i>VARIOUS</i>		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C <i>C-1</i>	C	Other and/or Agents Used
Preservation - Specify			
Internal	P -	P -	
External	P -	P -	
Reference para 463			
Date	<i>4/21/87</i>		
Inspector's Initials	<i>KK</i>		
Protection - Specify	<i>NONE USED</i>		
Condition (Quality as to operational condition)			

INSTALLATION NAME:

Shipping # 51

8 - 7-26-95

ST

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 WIS IDENTIFICATION # T-7799201

EQUIPMENT DESCRIPTION: ROD CARTS (QUANTITY 4)
350 LBS CAPACITY

MODEL: SERIAL: YR BUILT: 1979 COND:
SCC/ DATE WORK
PEC #: REC'D: ORDER:

MANUFACTURER: ADDRESS

RECEIVED OR
PURCHASED FROM: ADDRESS

		COST
REQUISITION #:	PURCHASE ORDER #:	ACQUISITION: <u>724.00</u> EA / <u>TOTAL 2896.00</u>
SCHEDULE #:	ITEM #:	FREIGHT:
ACQUIRED FROM		INSTALLATION:
CONTRACT #:		
ORIGINAL		TOTAL:
LOCATION:		

ACCESSORIES:

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. 1	NO. OF SHEETS 1	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		10. SIGNATURE R. Schaefer	
11a. VOUCHER NUMBER AND DATE		11b. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED		13. MODE OF SHIPMENT Truck	
14. BILL OF LADING NUMBER C- 1,924,608		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER	

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is., ILL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO—MARK FOR

Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:

Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	I.D. No. T-7799203 Rod Carts	ea	4		skid	1	724.00	2,896.00
	[REDACTED]	ea	1		skid	1	747.00	747.00
	[REDACTED]							
	[REDACTED]	ea	1		skid	1	480,718.00	480,718.00
	[REDACTED]	ea	1		skid	1	22,262.00	22,262.00

Signature Harry J. Duman Date 4-28-87

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CUB	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY							POSTED	DATE	BY	RECEIVER VOUCHER NO.
				TOTAL						

copy # 51 SEC Grant #

8 - 7-26-95

Facilities Contract DAAA09-84-E-0001

Rod Cart

Loc. B-500	Yr 1979	Storage
------------	---------	---------

LOCATION

[illegible]

F0511

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7893269-3

EQUIPMENT DESCRIPTION: SHADOW GRAPH SCALE 500 GRAM

MODEL: TYPE 4102

SERIAL: NONE

YR BUILT: 1979

COND:

SCC/

DATE

WORK

PEC #:

NONE

REC'D:

ORDER:

MANUFACTURER: SPEARLE SCALES

ADDRESS SANTA FE SPRINGS CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE
ORDER #:

ACQUISITION:

747.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							

Shipping # ST 222-2000 8 - 7-26-75

SHIPPING CONTAINER TALLY ->

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF NO. SHEETS 1 1		5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED		8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		11. VOUCHER NUMBER AND DATE	
10. SIGNATURE R. Schaefer		12. DATE SHIPPED	
13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER C- 1,924,608	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER			

1. FROM:
CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is., ILL

2. TO:
Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 37659

3. SHIP TO-MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501

M/F:
Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA
Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONT. TAINER NOS.	UNIT PRICE	TOTAL COST
2.	I.D. No. 1-7893269-3/F0511 Shadow Graph Scale SKID 1 of 1	ea	4		skid	1	724.00	2,896.00
		ea	1		skid	1	747.00	747.00
		ea	1		skid	1	480,718.00	480,718.00
		ea	1		skid	1	22,262.00	22,262.00

Signature Harry J. Duman Date 4-28-87

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. RECEIPT	HANDLING			
	CHECKED BY							CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
								QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
		PACKED BY							POSTED	DATE	BY
					TOTAL						

SEG

SURVEY# 95-07-0005

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP#(S) -

SURVEY BY M. Keeley ^{mk} / N. Sawyer ^{ns}

REVIEW BY LA/Sgt/Middle ^{LA} / KL ^{KL} DATE 8-15-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

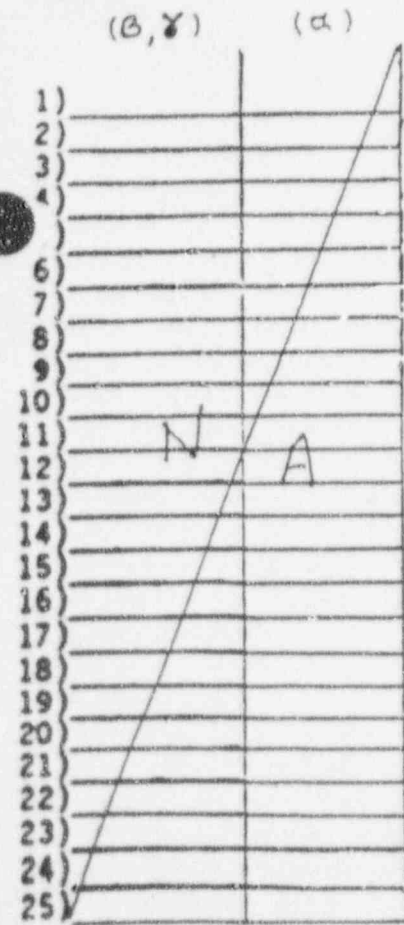
INST. TYPE MODEL 2 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PC-50-(603)/608

Contract # DAAA0992G0004-0016

All Results In
DPM+ ..

SMEAR RESULTS
dpm/100cm²



I.D. # - F-0522

Serial # - 3424-02041

Map # - 52

Sq ft 1000 (cont surface area)

Description of Item
Heat Treating Furnace (Part 2)

Avg. Fixed - 6K

Range Fixed - 1-10K

Avg. Smearable - 8K

Range Smearable - 2-15K

NO Alpha detected
smearable
50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²
MODEL 3 43-5 Probe Area 100cm²

(Paperwork lost) ^{mk}

MAP LEGEND

- ⊕ - SMEAR LOCATION
- NO - GAMMA DOSE RATE
- NC - CONTACT GAMMA
- MB/NA - BETA DOSE RATE
- MB/NC - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MK/NA
UNLESS OTHERWISE NOTED

Shipping # 52 SEE Serial

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

BACK CHAMBER OF HEAT TREAT
FURNACE # 3424-02041

SKID #3 OF 6

End Item Usage HEAT TREAT DEPLETED URANIUM PARTS

Model	VFCQ - 36x48x24	Type	VACUUM, BATCH
Serial No.	57707	Manufacturer	IPSEN INDUSTRIES, INC.
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	4/27/87		
Inspector's Initials	KK		
Protection - Specify			
EXXON RUST BAN 373			
Condition (Quality as to operational condition)			FAIR
INSTALLATION NAME:			

Supply # 52 SEC sealed

SHIPPING CONTAINER TALLY→

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT		SHEET NO. OF NO. SHEETS	5. REQUISITION DATE	6. REQUISITION NO.
1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is., ILL		1	7. DATE MATERIAL REQUIRED	8. PRIORITY
2. TO: Aerojet Ordnance Tennessee Old 11-E Hwy P.O. Box 399 Jonesborough, TN 37659		9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		
3. SHIP TO—MARK FOR Commander McAlester Army Ammunition Plant McAlester, OK 74501		10. SIGNATURE R. Schaefer <i>R. Schaefer</i>		11a. VOUCHER NUMBER AND DATE
M/F: Robert Gottlieb Prop. Administrator (918) 421-2217		12. DATE SHIPPED		b. VOUCHER NUMBER AND DATE
		13. MODE OF SHIPMENT Truck		14. BILL OF LADING NUMBER C- 1,924,608
		15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER		

4. ACCOUNTING AND FUNDING DATA Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CON. TAINER NOS. g	UNIT PRICE h	TOTAL COST i
	[REDACTED]	ea	4		skid	1	724.00	2,896.00
	[REDACTED]	ea	1		skid	1	747.00	747.00
3.	3424-1318-3420, I.D. No. 3424-02041 Box Furnace, Heat Treating, Ipsen SKID 3 of 6	ea	1		skid	1	480,718.00	480,718.00
	[REDACTED]	ea	1		skid	1	22,262.00	22,262.00

Harry J. Duman 4-28-87
Signature Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO

17. SPECIAL
HANDLING

18. ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SUBTOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
TOTAL									

DD FORM 149

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 M. WHICH MAY BE USED

LOAD #6

SECTION I - INVENTORY RECORD

SECTION I - INVENTORY RECORD													
4. COMMODITY CODE		5. STOCK NUMBER		6. ACQUISITION COST		7. TYPE CODE	8. YR OF MFG	9. POWER CODE	10. STATUS CODE	11. SVC CODE	12. COMMAND CODE	13. ADM OFFICE CODE	
3424-1318-3420		3424		480,718.		I	79	54	1A			000102	
14. NAME OF MANUFACTURER						15. MFR'S CODE		16. MANUFACTURER'S MODEL NO.		17. MANUFACTURER'S SERIAL NO.			
Ipsen Industries, Inc.						90714		VFCQ-36x48x24		57707			
18. LENGTH	19. WIDTH	20. HEIGHT	21. WEIGHT	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.		24. ARD	25. CONTRACT NUMBER				
22'	11'	14'	19,000						DAAA09-84-E-0001				
26. DESCRIPTION AND CAPACITY													

ELECTRICAL CHARACTERISTICS										CONTINUED ON REVERSE SIDE <input type="checkbox"/> YES <input type="checkbox"/> NO	
QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER			
4	3/4/3	230	3	60	X		850/1750	K.G.F.	184TC		
2	5	230/440	3	60	X		1750	P	184TCZ		
1	10	208/230/460	3	60	X		1725	Class B	215T		
1	1	230/460	3	60	X		1740	L56FCHZ			

SECTION II - INSPECTION RECORD

YES		NO		YES		NO	
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?				42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?	\$		
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN? DATE				43. DO QC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW			
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.				44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.			
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW				45. ARE SCALES, DIALS AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW			
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW				46. ARE HYDRAULIC PUMPS, VALVES AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW			
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW				47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.			
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?				48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?			
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?				49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE			
38. WAS ITEM LAST USED ON A FINISHING OPERATION?				50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.	\$		
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?				51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION			
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST \$				52. CONDITION CODE.			
41. IS ITEM IN OPERABLE CONDITION?				53. OPERATING TEST CODE.			

SECTION III — REMARKS

THIS ITEM CONTAMINATED WITH
DEPLETED URANIUM.

SECTION IV — DISPOSITION RECORD

SECTION IV — DISPOSITION RECORD		
56. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	56. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56. DATE OF DISPOSITION AND PROCEEDS IF SOLD

SECTION V — VALIDATION RECORD

W. VALIDATION-TYPED NAME(S) AND SIGNATURE(S)

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 7-6-95 TIME 0800-1500

RWP(S) -

SURVEY BY M. Keeley MK N. Sawyer

REVIEW BY 16/Sy/Mid/K DATE 8-7-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS DC-50-(603)/608

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²

I.D. # - F-0537

Serial # - T77-99068B

Map # - 53

Sq ft 1200 (cont surface area)

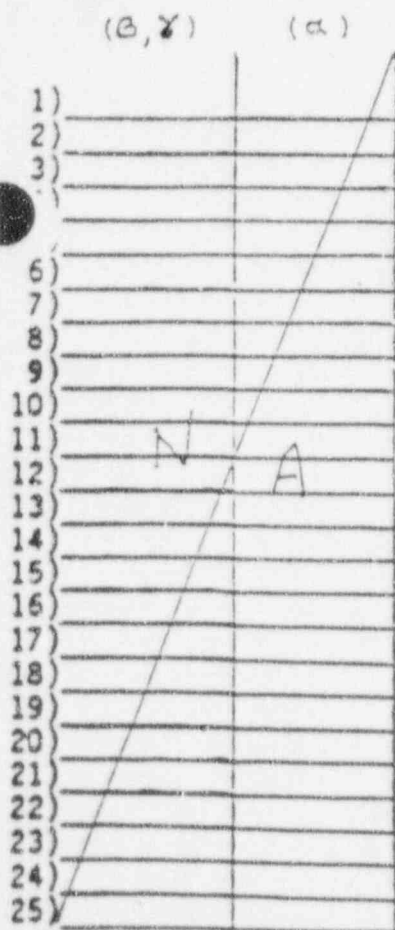
Description of Item
Monorail System

Avg. Fixed - 3K

Range Fixed - 1-10K

Avg. Smearable - 2K

Range Smearable - 1-10K



alpha detected
arable

50-800dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NG. - CONTACT GAMMA
- MEAD/NG. - BETA DOSE RATE
- MAZ/NG. - CONTACT BETA
- ⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN MICRO
CURIES PER HOUR (MCPH)

LAWAY EQUIPMENT TAG

CLATURE

OVERHEAD MONORAIL SYSTEM

#T-7799068-B

End Item Usage MATERIAL HANDLING FOR DEPLETED URANIUM PARTS

Model	1 TON CAP.		Type	—	
Serial No.	—		Manufacturer	FACILITIES ENGINEERING	
Installation No.			Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX		
Date					
Inspector's Initials					
Cleaning process (reference para 463)	C	C	Other and/or Agents Used		
Observation - Specify	Internal	P - 2	P -		
Reference para 463	External	P - 2	P -		
Date	4/22/87				
Inspector's Initials	KK				
Protection - Specify	EXXON RUST BAN 373				
Condition (Quality as to operational condition)	FAIR				
INSTALLATION NAME.					

F0537

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

OPE

CONTRACT # DAAA09-84-E-0001 W/S

IDENTIFICATION # T-7799068-E

EQUIPMENT DESCRIPTION: OVER HEAD MONORAIL SYSTEM
1 TON CAPACITY

MODEL:

SERIAL:

YR BUILT: 1979

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER:

MANUFACTURER:

FACILITIES ENGINEERING ADDRESS ANAHEIM CA

RECEIVED OR

PURCHASED FROM:

ADDRESS

COST

REQUISITION #:

PURCHASE

ORDER #:

ACQUISITION:

10,164.00

SCHEDULE #:

ITEM #:

FREIGHT:

ACQUIRED FROM

CONTRACT #:

INSTALLATION:

ORIGINAL

LOCATION:

TOTAL:

ACCESSORIES:

CONTROLS

MFG.	HP	RPM	VOLTS	PH/CY	SERIAL	TYPE	FRAME
MOTOR DATA:							

REQUISITION AND INVOICE/SHIPPING DOCUMENT

1. FROM: CDR Army Armament Munitions & Chem. Co.(AMCCOM) Rock Is, ILL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 376593. SHIP TO-MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217SHEET
NO. 1NO. OF
SHEETS 1

5. REQUISITION DATE

6. REQUISITION NO.

7. DATE MATERIAL REQUIRED

8. PRIORITY

9. AUTHORITY OR PURPOSE

P00008

DAAA09-84-E-0001

10. SIGNATURE

R. Schaeffers

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

Truck

14. BILL OF LADING NUMBER

GBL# C-1,924,606

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s being transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
1.	9124 1310 3420, I.D. No. 9124 02011 Don't forget, last treatment, Ipsen Skid 2 of 2	ea	1		1	skid	480,718	480,718
2.	I.D. No. T-7799068-B/F0537 Monorail O.H. Bar/Wash Skid 1 of 1	ea	1		1	skid	10,164	10,164
3.	I.D. No. T-7799068-B/F0537 Skid 1 of 1	ea	12		1	skid	1,599	19,184

Signature

Date

16. TRANSPORTATION VIA MATS
OR MATS CHARGEABLE TO17. SPECIAL
HANDLING

18. ISSUED BY	TOTAL CONTAINERS	TOTAL CONTAINERS	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBIC	19. CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
CHECKED BY						QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
PACKED BY						POSTED	DATE	BY	EXPIRED BY VOUCHER NO.
			TOTAL						

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

R&P#(S) -

SURVEY BY M. Keelley^{mk} / N. Sawyer^{sh}

REVIEW BY M. Keelley^{mk} / N. Sawyer^{sh}

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 111661 CAL DUE 7-24-95

INST. TYPE MODEL 3 44-9 SER# 111637 CAL DUE 7-24-95

INST. TYPE MODEL 3 43-5 SER# 67108 CAL DUE 7-24-96

REMARKS PC-50-603/608

DATE 7-12-95

Contract # DAAA0992G0004 0016

I.D. # - F-0010

Serial # - T 77-99014

SMEAR RESULTS
dpm/100cm²

Map # - 54

Sq. Ft. 400 (cont. surface area)

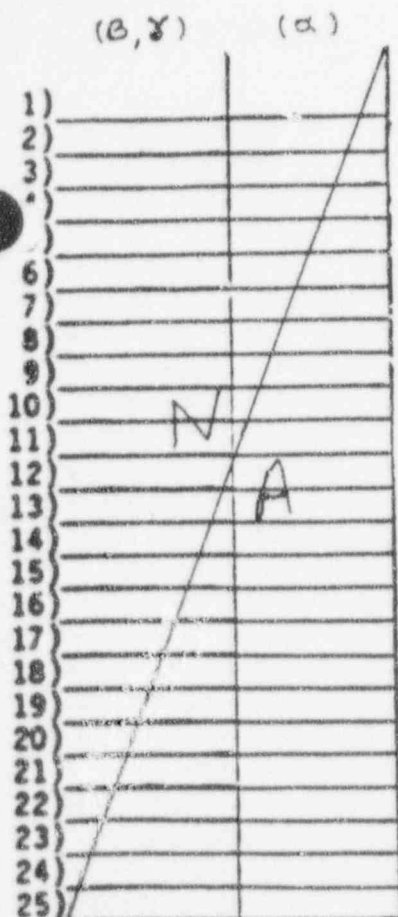
Description of Item -
Degreaser System (Part 2)

Avg. Fixed - 60K

Range Fixed - 5-300K

Avg. Smearable - 30K

Range Smearable - 5-100K



NO Alpha detected smearable

50 dpm - 800 dpm fixed alpha

MODEL-3 44-9 probe area 15 cm²

MODEL-3 43-5 probe area 100 cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MBAD/MA - BETA DOSE RATE

MBAD/MB - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY METER
UNLESS OTHERWISE NOTED

Shipping # 54 SEC and #

LAYAWAY EQUIPMENT TAG

NOMENCLATURE *MISC. EQUIP.*
*CONVEYOR SYS. & VIB. BOWL *T-77-99020*
*DEGREASER - MISC. PARTS *T-77-99014*
*PALLET TRUCK *T-77-99008*

End Item Usage			
<i>PARTS OF ABOVE MACHINES.</i>			
Model	Type		
Serial No.	Manufacturer		
Installation No.	Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C <i>C-1</i>	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - <i>2</i>	P -	
Reference para 463	External	P - <i>2</i>	P -
Date	<i>3/23/87</i>		
Inspector's Initials	<i>KK</i>		
Protection - Specify			
<i>90 WT. OIL</i>			
Condition (Quality as to operational condition)			
<i>FAIR</i>			
INSTALLATION NAME:			

LAYAWAY EQUIPMENT TAG

NOMENCLATURE

GRINDER # 3415 - 13646

End Item Usage METAL MACHINING - GRINDING			
Model 2		Type CENTERLESS	
Serial No. 2M2H1W-409		Manufacturer CINCINNATI MILACRON	
Installation No.		Location Bldg. No.	
Decontamination (Circle appropriate category)		X	XXX XXXXX
Date			
Inspector's Initials			
Cleaning process (reference para 463)	C C-1	C	Other and/or Agents Used
Preservation - Specify			
Internal	P - 2	P -	
Reference para 463	External	P - 2	P -
Date	3/23/87		
Inspector's Initials	KK		
Protection - Specify	90 WT. OIL		
Condition (Quality as to operational condition) FAIR			

INSTALLATION NAME:

SHIPPING

AINNER TALLY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

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REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET
NO.
1NO OF
SHEETS

5. REQUISITION DATE

6. REQUISITION NO.

1. FROM:

CDR Army Armament Munitions & Chemical Co.(AMCCOM)Rock Is, Ill

7. DATE MATERIAL REQUIRED

8. PRIORITY

2. TO:

Aerojet Ordnance Company
Heavy Metals Division
Compton, CA

9. AUTHORITY OR PURPOSE P00008

DAAAC9-84-E-0001

10. SIGNATURE

Ted Schraff *Ted Schraff*

11a. VOUCHER NUMBER AND DATE

3. SHIP TO-MARK FOR

Commander

M/F:

McAlester Army Ammunition Plant
McAlester, OKLAHOMA 74501Robert Gottlieb
Prop. Administrator
(918) 421-2217

12. DATE SHIPPED

b. VOUCHER NUMBER AND DATE

13. MODE OF SHIPMENT

14. BILL OF LADING NUMBER

R-1,901,318

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from
Compton, CA to McAlester, OK. for storage.

ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CONTAINER NOS.	UNIT PRICE	TOTAL COST
1	I.D. NO. F-0010 DEGREASER SYS. (PARTIAL) T-77-99014	EA	1				40,019	40,019
2	I.D. NO. F-0098 CONVEYOR & VIBRATORY BOWL T-77-99020 FEEDER (PARTIAL)	EA	1				16,066	16,066
3	I.D. NO. F-0129 PALLET TRUCK T-77-99008	EA	1				396	396
(THE ABOVE ARE ALL ON ONE SKID)								
SIGNATURE <i>Robert Gottlieb</i>		DATE 3/23/87						

16. TRANSPORTATION VIA MATE
OR MSTS CHARGEABLE TO17. SPECIAL
HANDLING

RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBS	RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	20. RECEIVER'S VOUCHER NO.
	TOTAL										

DD FORM 1149
1 MAR 87

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 80 WHICH MAY BE USED

Slippy #54 526 Serial #

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 WIS HMC IDENTIFICATION # F-0010

EQUIPMENT DESCRIPTION: DEGREASER SYSTEM

MODEL: DP 65-6027 SERIAL: 77182 YR BUILT: 1978 COND:
SCC/ DATE REC'D: WORK ORDER:
PEC #: 3426-8212-8000

MANUFACTURER: BARON-BLAKESLEE ADDRESS GARDEN GROVE, CA.
RECEIVED OR PURCHASED FROM: ADDRESS

		COST
REQUISITION #:	PURCHASE ORDER #: D-424566	ACQUISITION: 30,744
SCHEDULE #:	ITEM #:	FREIGHT: 592
ACQUIRED FROM CONTRACT #:		INSTALLATION: 8683
ORIGINAL LOCATION: AEROJET HEAVY METALS		TOTAL: 40,019

ACCESSORIES: 3097 ANA ST.
COMPTON CA 90021

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAM
MOTOR DATA:

Shipping # 4 SEL Serial #

OPE

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001

W/S HMC

IDENTIFICATION # **F-0098**

EQUIPMENT DESCRIPTION: **CONVEYOR SYSTEM & VIBRATORY BOWL FEEDER**

MODEL: **AD -18-CCW**

SERIAL:

YR BUILT: **1977**

COND:

SCC/

DATE

WORK

PEC #:

REC'D:

ORDER: **7940-96-6400**

MANUFACTURER: **K. SMITH CO.**

ADDRESS **BELLFLOWER CA 91706**

RECEIVED OR

PURCHASED FROM:

ADDRESS

		COST
REQUISITION #:	PURCHASE ORDER #: D-4266812	ACQUISITION: 15,075
SCHEDULE #:	ITEM #:	FREIGHT: 1
ACQUIRED FROM		INSTALLATION: 991
CONTRACT #:		TOTAL: 16,066
ORIGINAL		
LOCATION: AEROJET HEAVY METALS		

ACCESSORIES:

3097 ANA ST.

COMPTON, CA 90221

CONTROLS

MFG. F.P. RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

Shipping #51 56-3444

OPE

AEROJET ORDNANCE COMPANY
GOVERNMENT PROPERTY RECORD

CONTRACT # DAAA09-84-E-0001 W/S HMC IDENTIFICATION # F-0129

EQUIPMENT DESCRIPTION: PALLET TRUCK, ROL-LIFT, 3000 LB CAP.

MODEL: SERIAL: YR. BUILT: 1977 COND:
SCC/ DATE WORK
PEC #: REC'D: ORDER: 6916-39-6000

MANUFACTURER: CLARKLIFT ADDRESS 8314 E. SLAUSON AVE
RECEIVED OR ADDRESS PICO RIVERA, CA 90660
PURCHASED FROM:

		COST
REQUISITION #:	PURCHASE ORDER #: D425970 RH	ACQUISITION: 396.00
SCHEDULE #:	ITEM #:	FREIGHT:
ACQUIRED FROM		INSTALLATION:
CONTRACT #:		
ORIGINAL LOCATION: AEROJET HEAVY METALS		TOTAL: 396

ACCESSORIES: 3097 ANA ST.
COMPTON, CA 90221

CONTROLS

MFG. HP RPM VOLTS PH/CY SERIAL TYPE FRAME
MOTOR DATA:

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

SURVEY DATE 6-28-95 TIME 0800-1500

RWP(S) -

SURVEY BY M. Keeley ^{mk} N. Sawyer ^{ns}

REVIEW BY 16/Sy/Mil/Ky DATE 8-1-95

PURPOSE Characterization Survey of DU Eq.

INST. TYPE MODEL 3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MODEL 3 44-9 SER# 111400 CAL DUE 1-11-96

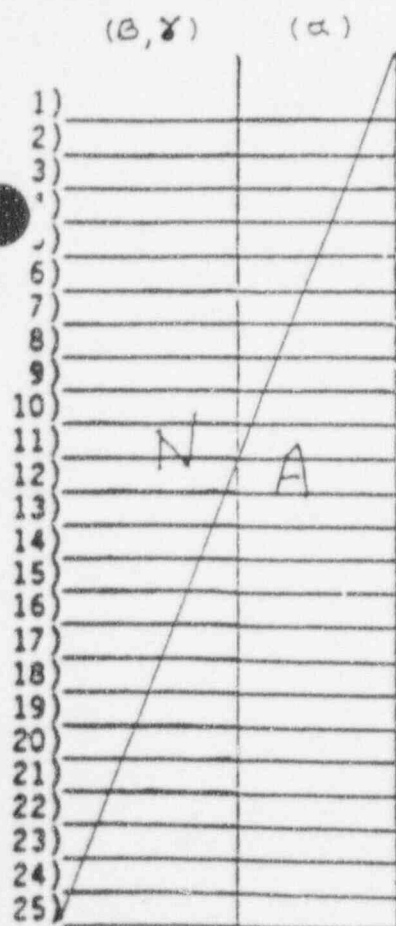
INST. TYPE MODEL 3 43-5 SER# 58126 CAL DUE 7-24-96

REMARKS PC-50-(603)608

Contract # DAAA0992G0004-0016

All Results In
DPM

SMEAR RESULTS
dpm/100cm²



I.D. # - F-0522

Serial # -

Map # - 55

Sq ft 800 (cont surface area)

Description of Item
Heat Treating Furnace (Part 1)

Avg. Fixed - 5K

Range Fixed - 1-30K

Avg. Smearable - 3K

Range Smearable - 1-15K

Alpha detected
earable

50-800 dpm fixed alpha

MODEL 3 44-9 Probe Area 15cm²

MODEL 3 43-5 Probe Area 100cm²

MAP LEGEND

⊙ - SMEAR LOCATION

NO. - GAMMA DOSE RATE

NO. - CONTACT GAMMA

MEAD/NA - BETA DOSE RATE

MEAD/NA - CONTACT BETA

⊗ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE BY MNR
UNLESS OTHERWISE NOTED

LAYAWAY EQUIPMENT TAG

SIGNATURE

MISC. PARTS FOR HEAT TREAT
FURNACE #3424-02041

SKID # 4 OF 6

End Item Usage HEAT TREAT DEPLETED URANIUM PARTS

Model	VFCQ-36x48x24		Type	VACUUM & BATCH	
Serial No.	57707		Manufacturer	IPSEN INDUSTRIES INC.	
Installation No.			Location Bldg. No.		
Decontamination (Circle appropriate category)	X	XXX	XXXXX		
Date					
Inspector's Initials					
Cleaning process (reference para 463)	C	C	Other and/or Agents Used		
	C-1				
Observation - Specify	Internal	P - 2	P -		
Reference para 463	External	P - 2	P -		
	Date	4/28/87			
Inspector's Initials		KK			
Protection - Specify	EXXON RUST BAN 373				
Condition (Quality as to operational condition)	FAIR				

INSTALLATION NAME:

DOD PROPERTY RECORD

1. ☐ ACTIVE ☐ INITIAL ☒ IDLE ☒ CHANGE 2 JULIAN DATE 3. ID/GOVERNMENT TAG NO. 24-02041 Form Approved Budget Bureau No. 22-R0209

SECTION I - INVENTORY RECORD

4. COMMODITY CODE 3414-1318-3420	5. STOCK NUMBER 3424	6. ACQUISITION COST 480,718.	7. TYPE CODE 1	8. YR OF MFG 79	9. POWER CODE 54	10. STATUS CODE 1A	11. SYC CODE	12. COMMAND CODE	13. ADM OFFICE CODE 000102
14. NAME OF MANUFACTURER Ipsen Industries, Inc.		15. MFR'S CODE 90714		16. MANUFACTURER'S MODEL NO. VFCQ-36x48x24		17. MANUFACTURER'S SERIAL NO. 57707			
18. LENGTH 22'	19. WIDTH 11'	20. HEIGHT 14'	21. WEIGHT 19,000	22. CERTIFICATE OF NON-AVAILABILITY NUMBER		23. ASD NO.	24. ARD	25. CONTRACT NUMBER DAAA09-84-E-0001	

26. DESCRIPTION AND CAPACITY

Furnace, Heat Treating, Box Type, Electric Vacuum Controlled, Forced Circulation, 0°-1800° F, Graphite Radiant Heater, 220 KVA, 24" H x 36" W x 48" Deep, 8 Doors, (Solution Oil Quench)

FACILITIES CONTRACT

DAAA09-84-E-0001

F-0522 (T77-99044)

CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

27.

ELECTRICAL CHARACTERISTICS

QUANTITY	HORSEPOWER	VOLTS	PHASE	CYCLE	AC	DC	SPEED	TYPE AND FRAME NUMBER
4	3/4/3	230	3	60	X		850/1750	K.G.F. 184TC
2	5	230/440	3	60	X		1750	P 184TCZ
1	10	208/230/460	3	60	X		1725	Class B 215T
1	1	230/460	3	60	X		1740	L56FCHZ

28. PRESENT LOCATION

ABRGET ORDNANCE TENNESSE
Old HIGHWAY 11 EAST
Jonesboro, Tenn. 37659

29a. DIPEC CONTROL NO.

3424-02041

29. POSSESSOR CODE

06 0810 00203T

SECTION II - INSPECTION RECORD

	YES	NO		YES	NO
30. CAN ITEM BE STORED AND MAINTAINED ON SITE FOR AT LEAST 12 MONTHS?			42. MUST ITEM BE REPAIRED/REBUILT/OVERHAULED TO PERFORM ALL FUNCTIONS?		
31. HAS ITEM BEEN REBUILT/OVERHAULED? IF SO, WHEN? DATE			43. DO GC RECORDS INDICATE SATISFACTORY PERFORMANCE? IF NO, EXPLAIN UNDER REMARKS BELOW.		
32. HAS ITEM BEEN MODIFIED FROM ORIGINAL CONFIGURATION? IF SO, EXPLAIN UNDER REMARKS BELOW.			44. ARE MANUALLY OPERATED MECHANISMS IN WORKING ORDER? IF NO, DESCRIBE UNDER REMARKS BELOW.		
33. WAS ITEM INSPECTED UNDER POWER? IF NOT, EXPLAIN UNDER REMARKS BELOW.			45. ARE SCALES, DIALS, AND GAUGES WORKING AND READABLE? IF NO, DESCRIBE UNDER REMARKS BELOW.		
34. ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW.			46. ARE HYDRAULIC PUMPS, VALVES, AND FITTINGS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
35. ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW.			47. ARE ELECTRONIC SYSTEMS AND CONTROLS OPERATING PROPERLY? IF NO, DESCRIBE UNDER REMARKS BELOW.		
36. ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?			48. HOW MANY HOURS WAS ITEM USED BY CURRENT POSSESSOR?		
37. ARE OPERATING INSTRUCTIONS AVAILABLE FOR TRANSFER?			49. EXPLAIN UNDER REMARKS LAST USE OF EQUIPMENT DESCRIBED IN ITEM 26 ABOVE.		
38. WAS ITEM LAST USED ON A FINISHING OPERATION?			50. ESTIMATED COST FOR PACKING, CRATING, HANDLING.		
39. WILL ADJUSTMENTS OR CALIBRATION CORRECT DEFICIENCIES?			51. INDICATE DATE ITEM WILL BE AVAILABLE FOR REDISTRIBUTION.		
40. IS ITEM SEVERABLE WITHOUT DAMAGE TO COMPONENTS? IF NOT, GIVE THEIR REPLACEMENT COST.			52. CONDITION CODE.		
41. IS ITEM IN OPERABLE CONDITION?			53. OPERATING TEST CODE.		

SECTION III - REMARKS

H. REMARKS

THIS ITEM CONTAMINATED WITH
DEPLETED URANIUM.

REMARKS CONTINUED ON REVERSE SIDE ☐ YES ☐ NO

SECTION IV - DISPOSITION RECORD

54. CONSIGNEE (NAME AND ADDRESS, INCLUDING ZIP CODE)	55. TYPE OF DISPOSITION <input type="checkbox"/> DONATION <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> SALE <input type="checkbox"/> ABANDONMENT	56. DATE OF DISPOSITION AND PROCEEDS IF SOLD
--	---	--

SECTION V - VALIDATION RECORD

W. VALIDATION-TYPED NAME(S) AND SIGNATURE(S)

R. Schuler 4-10-87

DD FORM 1342 1 FEB 86

PREVIOUS EDITIONS OF DD FORM 1342 ARE OBSOLETE
REPLACES DD FORMS 1342m, 1342n, AND 1342o WHICH ARE OBSOLETE.

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO. OF NO. 1 SHEETS 1	5. REQUISITION DATE	6. REQUISITION NO.
7. DATE MATERIAL REQUIRED	8. PRIORITY	
9. AUTHORITY OR PURPOSE P00008 DAAA09-84-E-0001		
10. SIGNATURE R. Schaefer	11a. VOUCHER NUMBER AND DATE	
12. DATE SHIPPED 4/29/87	11b. VOUCHER NUMBER AND DATE	
13. MODE OF SHIPMENT Truck	14. BILL OF LADING NUMBER C- 1,924,610	
15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NUMBER		

1. FROM: CDR Army Armament Munitions & Chemical Co. (AMCCOM) Rock Is, ILL

2. TO: Aerojet Ordnance Tennessee
Old 11-E Hwy P.O. Box 399
Jonesborough, TN 376593. SHIP TO—MARK FOR
Commander
McAlester Army Ammunition Plant
McAlester, OK 74501M/F: Robert Gottlieb
Prop. Administrator
(918) 421-2217

4. ACCOUNTING AND FUNDING DATA

Change of location for Gov't owned property. The listed item/s transferred from Jonesborough, TN to McAlester, OK for storage.

ITEM NO. a	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES b	UNIT OF ISSUE c	QUANTITY REQUESTED d	SUPPLY ACTION e	TYPE CONTAINER f	CONTAINER NOS. g	UNIT PRICE h	TOTAL COST i
	[REDACTED]	ea	1		Skid	2	20,800	20,800
2.	3424-1318-3420, I.D. No. 3424-02041 Box Furnace, Heat Treating, Ipsen SKID 4 of 6	ea	1		Skid	2	480,718	480,718
	[REDACTED]	ea	1		Skid	1	159,214	159,214

Signature: Gary J. Duman
Date: 4-29-87

16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO

18. RECAPITULATION OF INVENTORY	ISSUED BY	TOTAL CONTAINERS	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUB	19. RECEIPT	CONTAINERS RECEIVED EXCEPT AS NOTED	DATE	BY	SHEET TOTAL
	CHECKED BY							QUANTITIES RECEIVED EXCEPT AS NOTED	DATE	BY	GRAND TOTAL
	PACKED BY							POSTED	DATE	BY	RECEIVER'S VOUCHER NO.
	TOTAL										



CHEMRAD

Fax IN/OUT		(671)	Date 11/14/95	# of pages 4
To	Jim Hensch		From	Rob Highfill
Co/Dept.	SEC		Co	
Phone #			Phone #	(423) 481-2511
Fax #	(509) 735-4704		Fax #	(423) 483-9528

November 14, 1995

Mr. Jim Hensch
SEC, Inc.
1234 Columbia Dr., S.E.
Richland, WA 99352

FAX: (509)735-4704

Dear Mr. Hensch:

Attached are the calibration sheets for the uranium sources we used to calibrate the survey instruments used for the interior surveys at McAlester. We initially calibrated the instruments using a calibrated thorium source, and then subsequently cross checked the instruments' response to the uranium source once it became available.

If you have any questions or need additional information, please give me a call.

Sincerely,

Robert R. Highfill
Vice President

**CHEMRAD**

Post-It* Fax Note

1571

To	Jim Hensch	Date	11/9/95	# of pages	1
Co./Dept.	SEG	From	Bob Highfill		
Phone #		Co.	Chemrad		
Fax #	(509) 235-4704	Phone #	(423) 481-2511		
		Fax #	(423) 483-9528		

November 9, 1995

Jim Hensch
SEG, Inc.
1234 Columbia Dr. S.E.
Richland, WA 99352

FAX: (509)735-4704

Dear Mr. Hensch:

The enclosed information was obtained from the uranium sources we borrowed from the SEG office here in Oak Ridge. Please let me know if it is sufficient for your needs.

With this letter I wish also to certify that Charles R. Flynn, Lyndon Clevenger and Steven R. Terrell have been extensively trained in the operation of the USRADS System for radiological surveys. They have seven, three and two years, respectively, of full time experience in USRADS field surveys, and each is qualified as a field team leader.

If you need further assistance, please do not hesitate to give me a call.

Sincerely,

Robert R. Highfill
Vice President

CERTIFICATE OF CALIBRATION

MODEL CAL2701 DEPLETED URANIUM STANDARD

Radionuclide	Activity	Half Life ⁽²⁾
<u>U-238</u>	<u>11750 dpm</u>	<u>(4.468 ± 0.005) x 10⁹ years</u>
<u>U-235</u>	<u>134.8 dpm</u>	<u>(7.037 ± 0.011) x 10⁸ years</u>
<u>U-234</u>	<u>1522 dpm</u>	<u>(2.454 ± 0.006) x 10⁵ years</u>

Serial Number A262 Reference Date August 1, 1992

PRINCIPLE ALPHA EMISSIONS⁽²⁾

	Energy (keV)	Intensity
U-238	4147	23
	4196	77
U-235	4395.2	55
	4364.1	~11
	4370	~6
	4215.7	5.7
	4397.0	5.0
	4323.7	4.6
	4555.8	4.2
	4344	~2
U-234	4502.5	1.7
	4723.8	27.5
	4776.1	72.5

SOURCE DESCRIPTION

The activity is electrodeposited in a 38 mm active diameter on a 45 mm diameter by 1 mm thick aluminum disc which is mounted in a 47 mm diameter by 2 mm thick aluminum support ring.

METHOD OF CALIBRATION

A depleted Uranium solution was prepared from Certified Reference Material 115 supplied by New Brunswick Laboratory (see enclosed copy of New Brunswick Laboratory Certificate of Analysis). Depleted Uranium was electrodeposited from this solution and the amount of Uranium deposited was determined by weight. The activity of each reported nuclide was determined using the percent abundance (by weight, as reported by NBL) and the specific activity (as found in Table of Radioactive Isotopes) for each Uranium nuclide.

Page 1 of 2

CERTIFICATE OF CALIBRATION BETA DOSIMETRY PLAQUE SOURCE

Radionuclide: U-238-Depleted
Half Life: $(4.468 \pm 0.005) \times 10^9$ years
Catalog No.: BDS-238
Source No.: 468-71

Customer: SCIENTIFIC ECOLOGY
P.O.No.: TN-88078-M-TC
Reference Date: November 1 1994 12:00 PST.
Approx. Radioactivity: (U-238) 187.2 μ Ci.
Approx. Radioactivity: (U-238) 6920 kBq.

Description of source

The source is composed of a depleted uranium metal slab, having a weight of 556 g and a dimension of 10 cm X 10 cm. The dose rate given below is for a 30 mm diameter circular area at the center of the source.

Dose Rate Calibration

This source is calibrated to have a Water Absorbed-Dose rate of 226 mrad/h at 5 mm for an area of 708 mm² (diameter = 30 mm) at the center of the source. This measurement has a total uncertainty of $\pm 10\%$ at the 99% confidence level.

Method of Calibration

The source dose rate is calibrated from measurements of electrical current with an extrapolation ionization chamber against a NIST calibrated source of the same nuclide and of similar physical configuration.

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology for dose rates.

Leak test(s)

See the reverse side for Leak test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).



ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

QUALITY CONTROL

19 OCTOBER 1994

Date Signed

ORIGINAL

IPL Ref. No.: 468-71

DU source @distance	NaI 114946 cpm	FM 108945 cpm	FM 108992 cpm
Background	1550-1600	650-700	650-700
11K dpm @ surface	1700-1750	6500	6500
11K dpm @ .75"		4400	4100
11K dpm @ 6"		1900	1700
187.2 μ Ci slab case closed @ .5"	385,000		
slab case open @ 6"	50,000		
slab case open @ 1'		330,000	270,000

NaI 114946 was detector number three.

FM 108945 was detector number six.

FM 108992 was detector number five.



CHEMRAD

RESUMES OF CHEMRAD PERSONNEL

Charles R. Flynn, President

M.S., Nuclear Engineering/Health Physics, 1974, Texas A&M University
AEC Traineeship in Health Physics, Oak Ridge National Laboratory, 1972-74
B.S., Physics, 1971, Lamar University

Founder of Chemrad. Over 20 years of work in Health Physics.

Lyndon Clevenger, USRADS Specialist III

U.S. Navy Machinist Mate "A" School
Navy Nuclear Power School
Navy Radiological Instructor Training

Three years of experience in USRADS field surveys. Two years as Senior Health Physics Technician at Oak Ridge National Laboratory.

Steven R. Terrell, USRADS Specialist III

B.S., Communications, 1974, University of Tennessee
Environmental Technology and Safety Management, 1993, Pellissippi State

Two years of experience in USRADS field surveys.

C. Flynn

Name

453-86-0344

Badge

has successfully completed all required training and is qualified as a Radiological Worker at K-25 until the date listed below.

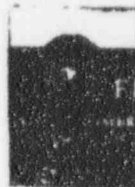
Charles R. Flynn

HP Representative

4/96

EXPIRES

RADIOLOGICAL WORKER II



The UBC Health & Safety Fund
Hazardous Waste Worker Training

Charles R Flynn

453-86-0344

Charles R. Flynn
Expires 7-10-96
PROGRAM: 8-hour Hazardous Waste
Worker Refresher Training Program



PEER ENVIRONMENTAL & OCCUPATIONAL
MEDICINE SERVICES, INC.

C. FLYNN has been given a(n) HAZ WASTE
Occupational Physical in accordance with 29 CFR 1910.120
and is medically qualified. Restrictions listed on
reverse, Next exam due 7/11/96.

Charles R. Flynn
140 E. Division Rd., Suite C-2
Oak Ridge, Tenn, 37830

Date 7/11/95

(615) 481-3013

OCAW/DOE Remediation Training Unit

This card certifies that

STEVEN R TERRELL

has completed an 8-hour refresher training in

HAZARDOUS WASTE OPERATIONS

January 12, 1995

Refresher course required by January 12, 1996

DOE.HWO-8.113

PEER Occupational Medicine Services, Inc.

R. TERRELL has been given a(n) HAZ WASTE

Occupational Physical in accordance with 29CFR1910.120

and is medically qualified. Restrictions listed on

reverse. Next exam due 9/30/95

Date 9/30/94

Health/Kaw Plaza • Suite C-2 • 140 E. Division Road
Oak Ridge, Tennessee 37830 • (615) 481-3013

S. Terrell

Name

415-86-8601

Badge

has successfully completed all required
training and is qualified as a Radiological
Worker at K-25 until the date listed below.

M. L. Cook

HP Representative

4/96

EXPIRES

RADIOLOGICAL WORKER II

3/17/61



The UBC Health & Safety Fund
Hazardous Waste Worker Training

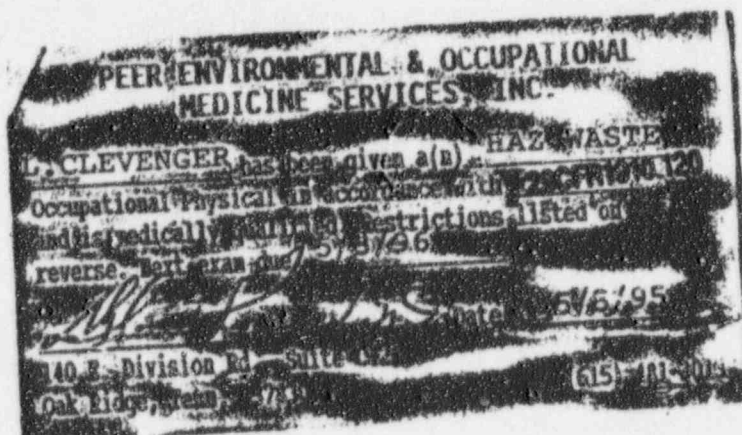
Lyndon W. Clevenger
Lyndon W. Clevenger

414-08-9849

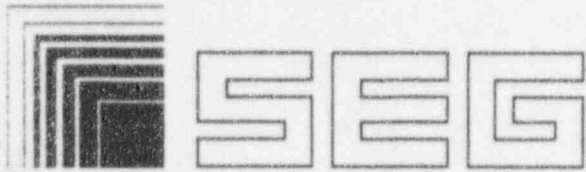
Exp. Date 05-04-96



PROGRAM: 8-hour Hazardous Waste
Worker Refresher Training Program



MK-FERGUSON OF OAK RIDGE TRAINING DEPARTMENT QUALIFICATION & IDENTIFICATION		
NAME	<u>Lyndon W. Clevenger</u>	
S.S. #	<u>414-08-9849</u>	BADGE # <u>1150</u>
It is certified that the employee listed above has been trained in the following:		
SUBJECT	TRN DATE	EXPIRATION DATE
R-19 RAD WORKER II (Rev 1)	<u>3-15-95</u>	<u>3-15-97</u>
R-20 INGRESS/EGRESS	<u>3-15-95</u>	<u>3-15-97</u>
Verified by: <u>[Signature]</u>		
For verification contact the MK-F Training Dept. at 576-3595		



SCIENTIFIC ECOLOGY GROUP, INC.

December 1, 1995

Mr. Kelly Crooks
U.S. Army Industrial Operations Command
Attn: AMSIO-DMW
Bldg. 350; 5th Floor
Pole C-25
Rock Island, IL 61299-6000

Dear Mr. Crooks:

As part of our normal conduct of operations during field projects we have reviewed copies of all past radiological survey records and radioisotope data for our work areas, specifically Bunkers 603 and 608. From our review of that data, it is our understanding that the radioisotope of concern in the work areas is depleted uranium (DU). We were also shown a sealed metal container containing a radium dial compass that was stored in one of the bunkers.

As you are aware, we performed an initial random smear survey of both the loading docks and bunkers and a direct scan of the most likely areas on the loading docks where fixed contamination may have been present. None was found. A direct scan of the bunkers prior to the removal of the equipment was not possible due to the elevated background readings caused by the storage of wrapped DU contaminated equipment stored in the bunkers. The equipment was stored on a layer of plastic and did not come in contact with the concrete floor during storage.

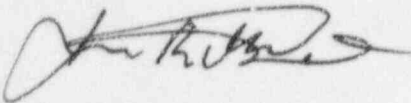
After all radioactive material was removed from the bunkers an end of the job survey was performed to verify that no radioactive contamination above release limits was present. We also contracted with Chemrad to do a "scan" survey of the bunker areas. As can be seen by the enclosed survey data, no radioactive contamination above release limits was detected in either bunker.

James R. Hensch
Page 2

Should you have any questions or require further assistance, please do not hesitate to contact me at (509) 736-0626, x259.

Sincerely,

Scientific Ecology Group, Inc.

A handwritten signature in black ink, appearing to read "James R. Hensch", written in a cursive style.

Mr. James R. Hensch

JRH/tam

Enclosure



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

APR 05 1995

Department of the Army
Commander, U.S. Army Armament,
Munitions and Chemical Command
ATTN: Gary Buckrop, AMSMC-RW
Rock Island, IL 61299-6000

Dear Mr. Buckrop:

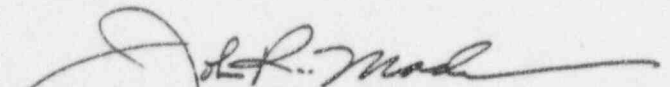
This refers to your letter, dated March 13, 1995, which informed the NRC your intent to transfer radiologically contaminated equipment to Scientific Ecology Group, Inc. and to survey and release the equipment storage area for unrestricted use. The NRC has no objections with the Army proceeding with the transfer of contaminated equipment, as long as the transfer is performed in accordance with 10 CFR Part 40.51, Transfer of Source or Byproduct Material.

The final survey of the storage buildings use to house contaminated equipment, should be performed in accordance with NUREG/CR-5249, Manual for Conducting Radiological Surveys in Support of License Termination. If radiological contamination is identified on building surfaces, the Army should determine if a Decommissioning Plan, in accordance with 10 CFR Part 40.42(c)(2)(i), is required. If required, the Decommissioning Plan should be submitted for NRC review and approval prior to the start of remediation activities.

The final survey report should be submitted as part of a license amendment requesting removal of the storage area from the license. The NRC will review the final survey data and determine if a confirmatory survey should be performed prior to releasing the buildings for unrestricted use.

If you have any questions please call me at 708/829-9834.

Sincerely,


John B. Madera, Chief
Nuclear Materials Licensing Section

License No.: SUC-1380
Docket No.: 040-08767

526

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE SO-PC-603 Job Completion Survey

INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD/2929 SER# 44651 CAL DUE 1-26-96

SURVEY DATE 8-15-95 TIME 1200

RPT#(S)

SURVEY BY M. Keelley^{mk}, N. Sawyer^{ns} REMARKS Determine Radiological Condition @ End of Job

REVIEW BY B. S. / Mill Keelley DATE 8-15-95

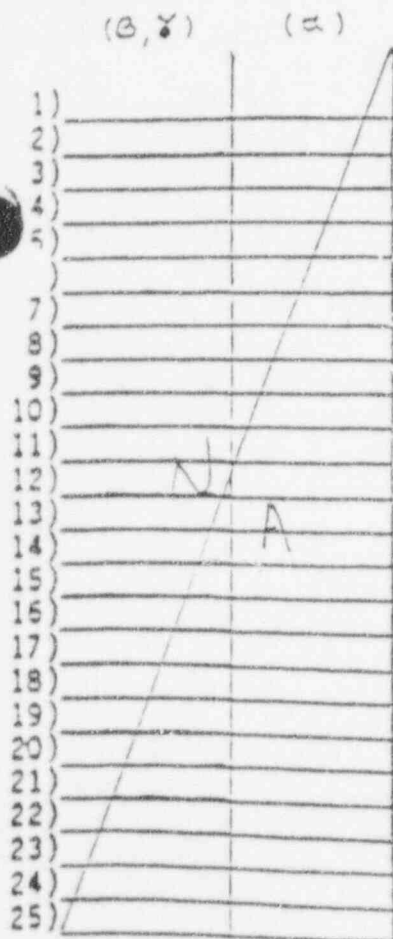
MODEL 3-44-9 - probe area - 15cm² - Background - 60-80 cpm
MODEL 3-43-5 - probe area - 100cm² - Background - 0 cpm

Page 1 of 2

Three survey points in each grid.

Grids A-Y on attached map.

SMEAR RESULTS
dpm/100cm²



Fixed and Loose Surface Contamination Surveys were performed for each grid.

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids A-Y. All activities <MDC/<MDA

Grid- Z Access Doors

Fixed and Loose Surface Contamination surveys were performed

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids Z All activity <MDC/<MDA

MODEL 2929 #44651

MDC = B- 26 / 2.7 α

MDA = B- 137 / 5.7 α

EFF. = .19 .47

(MDC - cpm)
(MDA - dpm)

MAP LEGEND

⊙ - SMEAR LOCATION

NO - GAMMA DOSE RATE

NC - CONTACT GAMMA

MB/AL - BETA DOSE RATE

MB/AL - CONTACT BETA

⊙ - AIR SAMPLE LOCATION

ALL DOSE RATES ARE IN AIR
UNLESS OTHERWISE NOTED

EXPLOSIVE MAG 50 X 100 FT - FLANDERGRAPH--SITE NR

DATE 9/20/19

I AA I BB I CC I DD I EE I FF I GG I HH I II I KK I LL I MM I NN I OO I

50-PC-603

A	1	2	3	1	2	3	1	2	3	1	2	3
B	1	2	3	1	2	3	1	2	3	1	2	3
C	1	2	3	1	2	3	1	2	3	1	2	3
D	1	2	3	1	2	3	1	2	3	1	2	3
E	1	2	3	1	2	3	1	2	3	1	2	3
F	1	2	3	1	2	3	1	2	3	1	2	3
G	1	2	3	1	2	3	1	2	3	1	2	3
H	1	2	3	1	2	3	1	2	3	1	2	3
I	1	2	3	1	2	3	1	2	3	1	2	3
J	1	2	3	1	2	3	1	2	3	1	2	3
K	1	2	3	1	2	3	1	2	3	1	2	3
L	1	2	3	1	2	3	1	2	3	1	2	3
M	1	2	3	1	2	3	1	2	3	1	2	3
N	1	2	3	1	2	3	1	2	3	1	2	3
O	1	2	3	1	2	3	1	2	3	1	2	3
P	1	2	3	1	2	3	1	2	3	1	2	3
Q	1	2	3	1	2	3	1	2	3	1	2	3
R	1	2	3	1	2	3	1	2	3	1	2	3
S	1	2	3	1	2	3	1	2	3	1	2	3
T	1	2	3	1	2	3	1	2	3	1	2	3
U	1	2	3	1	2	3	1	2	3	1	2	3
V	1	2	3	1	2	3	1	2	3	1	2	3
W	1	2	3	1	2	3	1	2	3	1	2	3
X	1	2	3	1	2	3	1	2	3	1	2	3
Y	1	2	3	1	2	3	1	2	3	1	2	3
Z	1	2	3	1	2	3	1	2	3	1	2	3

I AA I BB I CC I DD I EE I FF I GG I HH I II I KK I LL I MM I NN I OO I

50-PC-603

SCIENTIFIC ECOLOGY GROUP, INC.

1560 Bear Creek Road
Oak Ridge, TN 37831-2530

PURPOSE 50-PC-608 Job Completion Survey

INST. TYPE MOD-3 44-9 SER# 73015 CAL DUE 1-11-96

INST. TYPE MOD-3 44-9 SER# 111400 CAL DUE 1-11-96

INST. TYPE MOD/2929 SER# 44651 CAL DUE 1-26-96

SURVEY DATE 8-9-95 TIME 1200

RWP#(S) ---

SURVEY BY M. Keeley ^{mk} N. Sawyer ^{ns} REMARKS Determine Radiological Conditions @ End of Job

REVIEW BY Mike Sawyer / Mike Keeley DATE 8-9-95

MODEL 3-44-9 - probe area - 15cm² - Background - 60-80 cpm

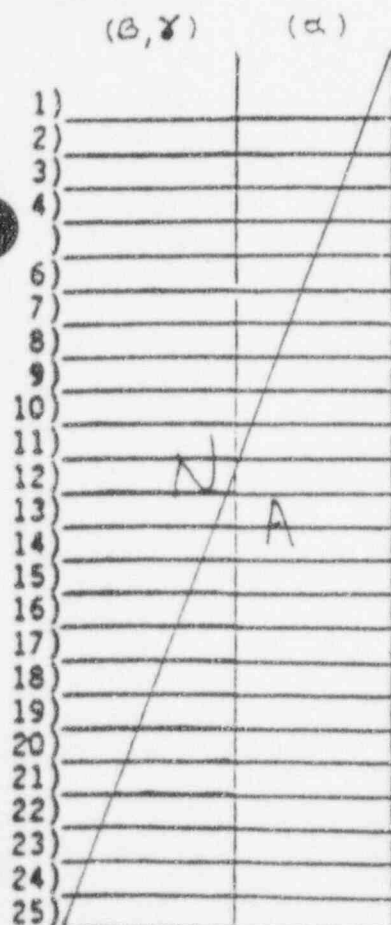
MODEL 3-43-5 - probe area - 100cm² - Background - 0 cpm

Three Survey points in each grid.

Grids A-Y on attached map.

SMEAR RESULTS

dpm/100cm²



Fixed and Loose Surface Contamination Surveys were performed for each grid.

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids A-Y. All activities <MDC / <MDA

Grid- Z Access Doors

Fixed and Loose Surface Contamination surveys were performed

No detectable activity detected above background direct frisk with MODEL-3's (44-9) (43-5) probes

All smears of grids Z All activity <MDC / <MDA

MODEL 2929 #44651

MDC = B- 26 / 2.7 α

MDA = B- 137 / 5.7 α

EFF. = .19 .47

(MDC - cpm)
(MDA - dpm)

MAP LEGEND

- ⊙ - SMEAR LOCATION
- NO. - GAMMA DOSE RATE
- NO. - CONTACT GAMMA
- MEASUREMENT - BETA DOSE RATE
- MEASUREMENT - CONTACT BETA
- ⊙ - AIR SAMPLE LOCATION

Read DOSE RATES ARE BY MINOR UNLESS OTHERWISE NOTED

EXPLOSION: 17-1 24 - 100 FT PLUMBING--SIVE 102

DATE 8-11-60

1 AA 1 BB 1 CC 1 DD 1 EE 1 FF 1 GG 1 HH 1 II 1 JJ 1 KK 1 LL 1 MM 1 NN 1 OO

50-PC-60

A	B	C	D
1 2 3	1 2 3	1 2 3	1 2
F	G	H	I
1 2 3	1 2 3	1 2 3	1 2
K	L	M	N
1 2 3	1 2 3	1 2 3	1 2
P	Q	R	S
1 2 3	1 2 3	1 2 3	1 2
U	V	W	X
1 2 3	1 2 3	1 2 3	1 2

Y	Z
1 2	1 2
AA	BB
CC	DD
EE	FF
GG	HH
II	JJ
KK	LL
MM	NN
OO	

3

SCIENTIFIC ECOLOGY INCORPORATED
SHIPPING MANIFESTS



Our Vision

To be the safest, highest performing, innovative waste management company in the world, accomplished by combining teamwork, exceptional customer service, the application of advanced technologies, and a commitment to excellence.

P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Page 1 of 1

GENERATOR
MANIFEST NO.

952172

Emergency
Contact & Phone Fred Scholz
(615) 481-0222

SEG
Shipment No. 952172

Date Shipped 7-10-95

Total For Each Class		"RQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)				
			Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
			Radioactive material, excepted package-empty packaging	7	UN2910
			Radioactive material, excepted package-instruments or articles	7	UN2910
			Radioactive material, excepted package-limited quantity of material	7	UN2910
			Radioactive material, fissile, n.o.s.	7	UN2918
2	36760		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
			Radioactive material, n.o.s.	7	UN2982
			Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	DISPOSAL CONTAINER						Fissile Class	Labels Markings Used	
										Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Container Surface (DPM/100cm2)			
													Container Surface mR/HR	(T.I.) 1 Meter mR/HR	Alpha			Beta / Gamma
AT-05	U-235	0.25	1.838	Solid	metal/oxides NO chelates	scrap metal in sealands	A	15	11	1880	1280	Strongly radioactive	10.5	N/A	100	1000	N/A	Radioactive - LSA
	U-238	1.813						10.98	7.99									Radioactive -
																		Radioactive -
AT-08	U-235	0.28	1.451	Solid	metal/oxides NO chelates	scrap metal in sealands	A	17	12									Radioactive -
	U-238	1.423						8.54	6.27	18380	1280	Strongly radioactive	10.5	N/A	100	1000	N/A	Radioactive - LSA
																		Radioactive -
																		Radioactive -
2			3.289	PAGE TOTALS					17.74	14.49	36760	2560					N/A	

SHIPMENT TOTALS						
Volume Cu.Ft.	Total # of Packages	Source Material (lbs.)	Special Nuclear Material (grams)			TOTAL
			U-233	U-235	Plutonium	
2560	2	14.99	Ø	19.74	Ø	19.74

ACTIVITY					
Activity Totals:	Tritium	C-14	Tc-99	I-129	All isotopes
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> Millicuries	0	0	0	0	3.289

Shipper: PI-74 4.44 36/60 200 N/A
Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Shipper Signature

THIS VEHICLE IS CONSIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

☒ YES ☐ NO



SCIENTIFIC ECOLOGY GROUP, INC.

RADIOACTIVE MATERIAL SHIPMENT MANIFEST

Our Vision

To be the safest, highest performing, innovative waste management company in the world, accomplished by combining teamwork, exceptional customer service, the application of advanced technologies, and a commitment to excellence.

P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMCOM (MCAPD)
 Generator No. 11111111111111111111
 Address McAlister Army Ammo Plant Safety Office
3 MCAC-SF 8489-3
 City Albion State OK Zip 74301
 Contact Larry Skidmore Phone # (413) 421-3575
 TN Shipper Lic # SEG Brokered
 User Permit # N/A
DAAR 099260004 0016
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 1GENERATOR
MANIFEST NO.952174Emergency Fred Schulz
Contact & Phone (413) 481-0222SEG
Shipment No. 952174Date
Shipped 7-12-95

Total For Each Class	# of Packages	Weight (pounds)	"RO" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz Class	Id Number
				Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
				Radioactive material, excepted package-empty packaging	7	UN2910
				Radioactive material, excepted package-instruments or articles	7	UN2910
				Radioactive material, excepted package-limited quantity of material	7	UN2910
				Radioactive material, fissile, n.o.s.	7	UN2918
	<u>2</u>	<u>40570</u>		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
				Radioactive material, n.o.s.	7	UN2982
				Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	DISPOSAL CONTAINER							Fissile Class	Labels Markings Used	
										Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Container Surface (CPM/100cm2)				
													Container Surface 30 mR/Hr J R/Hr	(T.I.) 1 Meter mR/Hr	Alpha	Beta			Gamma
009	Scrap metal	3.39	3.39	Solid	Metal oxides NO chelates	Scrap metal in Sealands	A	0	14.93	19840	1280	Strong Right	10.5	10.5	4100	41000	N/A	Radioactive - LSA	
																		Radioactive -	
																		Radioactive -	
010	Scrap metal	1.84	1.84	Solid	Metal oxides NO chelates	Scrap metal in Sealands	A	0	9.11	20730	1280	Strong Right	10.5	10.5	4100	4000	N/A	Radioactive - LSA	
																		Radioactive -	
																		Radioactive -	
																		Radioactive -	
2			5.23	PAGE TOTALS						0	23.04	40570	2560		10.5				

PAGE TOTALS

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
<u>2560</u>	<u>2</u>	<u>23.04</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY					
Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<u>0.3 Curies</u> <u>36 Millicuries</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5.23</u>

shipper/Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

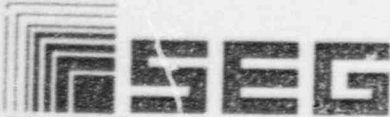
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Shipper Signature

THIS VEHICLE IS CONIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

(X) YES () NO

INV 90466
12/17/95
Contact
Email 7.5



SCIENTIFIC ECOLOGY GROUP, INC.

RADIOACTIVE MATERIAL SHIPMENT MANIFEST

Our Vision

To be the safest, highest performing, innovative waste management company in the world, accomplished by combining teamwork, exceptional customer service, the application of advanced technologies, and a commitment to excellence.

P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name ARMCOM (MC2A2)
 Generator No. 11111111111111111111
 Address McAlister Army Ammunition Safety Office
SMC MC SF Bldg 5
 City Alaska State OK Zip 74501
 Contact Skidmore Phone # (918) 421-3535
 TTI Shipper Lic # SEG Brokered
 User Permit # N/A
LAAX0992600040016
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 1GENERATOR
MANIFEST NO.

952245

Emergency Fred Schulz
Contact & Phone (615) 481-0222SEG
Shipment No. 952245Date
Shipped 7-17-95

Total For Each Class		"RQ" if Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz Class	Id Number
# of Packages	Weight (pounds)				
			Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
			Radioactive material, excepted package-empty packaging	7	UN2910
			Radioactive material, excepted package-instruments or articles	7	UN2910
			Radioactive material, excepted package-limited quantity of material	7	UN2910
			Radioactive material, fissile, n.o.s.	7	UN2918
<u>2</u>	<u>35290</u>		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
			Radioactive material, n.o.s.	7	UN2982
			Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	DISPOSAL CONTAINER							Fissile Class	Labels Markings Used	
										Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Level		Contamination Container Surface (DPM/100cm ²)				
													Container Surface 20 mR/HR J R/HR	(T.I.) 1 Meter mR/HR	Alpha	Beta			Gamma
111-029	Scrap metal	.97	.97	Solid	metal oxides no chelates	Scrap metal in Sealants	A	0	4.265	13910	1290	5 From 5 + 1000	10.5	N/A	100	2000	N/A	Radioactive - LSA	
																		Radioactive -	
																		Radioactive -	
111-002	Scrap metal	.968	.968	Solid	metal oxides no chelates	Scrap metal in Sealants	A	0	4.265	21380	1290	5 From 5 + 1000	10.5	N/A	100	2000	N/A	Radioactive - LSA	
																		Radioactive -	
																		Radioactive -	
2			1.938					0	8.53	35290	2560							Radioactive -	
PAGE TOTALS										0	8.53	35290	2560						

PAGE TOTALS

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
<u>2560</u>	<u>2</u>	<u>8.53</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>0</u>

ACTIVITY					
Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> Millicuries	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1.938</u>

Shipper/Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Abel/Sy

Shipper Signature

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

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☒ YES ☐ NO

no 9046
12/19/95
signed
Brent
12/3/95
15283



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AmComm (MCAAP)
 Generator No.
 Address McAlister Army Ammunition Plant Safety Office
SMC MC-5F Bldg-5
 City McAlister State OK Zip 74501
 Contact Larry Skidmore Phone (887) 421-3335
 TN Shipper Lic # SEG Brokered
 User Permit # N/A
DAAA099200008 0016
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 1

GENERATOR
MANIFEST NO.

9522467

Emergency Fred Schultz
 Contact & Phone (615) 481-0222

SEG
Shipment No. 9522467

Date
Shipped 7-18-95

Total For Each Class	"RQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id. Number
# of Packages	Weight (pounds)			
		Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
		Radioactive material, excepted package-empty packaging	7	UN2910
		Radioactive material, excepted package-instruments or articles	7	UN2910
		Radioactive material, excepted package-limited quantity of material	7	UN2910
		Radioactive material, fissile, n.o.s.	7	UN2918
<u>2</u>	<u>32.430</u>	Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
		Radioactive material, n.o.s.	7	UN2982
		Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Surface (DPM/100cm ²)		Fissile Class	Labels Markings Used
													Container Surface dR/hr	(T.I.) 1 Meter mR/hr	Alpha	Beta / Gamma		
<u>ME-017</u>	<u>U-235</u>	<u>2.44</u>	<u>2.44</u>	<u>Solid</u>	<u>metal oxides</u>	<u>Metal in Sealands</u>	<u>A</u>	<u>0</u>	<u>10.76</u>	<u>14490</u>	<u>1280</u>	<u>SP-0003</u>	<u>20.5</u>	<u>N/A</u>	<u>100</u>	<u>1000</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
					<u>N/A</u>													<u>Radioactive -</u>
					<u>N/A</u>													<u>Radioactive -</u>
<u>ME-018</u>	<u>U-235</u>	<u>11.857</u>	<u>11.857</u>	<u>Solid</u>	<u>metal oxides</u>	<u>Metal in Sealands</u>	<u>A</u>	<u>0</u>	<u>52.23</u>	<u>17940</u>	<u>1280</u>	<u>SP-0003</u>	<u>20.5</u>	<u>N/A</u>	<u>100</u>	<u>1000</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
					<u>N/A</u>													<u>Radioactive -</u>
					<u>N/A</u>													<u>Radioactive -</u>
					<u>N/A</u>													<u>Radioactive -</u>
<u>2</u>			<u>14.297</u>					<u>0</u>	<u>62.99</u>	<u>32430</u>	<u>2560</u>			<u>N/A</u>				

PAGE TOTALS

SHIPMENT TOTALS

Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
<u>2560</u>	<u>2</u>	<u>62.99</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY

Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<u>13 Curies</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>14.297</u>

Shipper/Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

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Shipper Signature

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☒ YES ☐ NO

*Received 7/14/95
12/17/95
Bowl 3.7113
-248
10.1113*



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMCCORP (MLRAP)
Generator No. 11111111111111111111
Address McAlister Army Ammunition Safety Office
SMCMLC-5F Bldg. 5
McAlister State OK Zip 74501
Contact Larry Skidmore Phone (918) 421-3333
TN Shipper Lic # SEG Buckner
User Permit # N/A
04440992600040016
Bill Disposal Charges To N/A
Name N/A
Address N/A
City N/A State N/A Purchase Order # N/A

Page 1 of 1
**GENERATOR
MANIFEST NO.**
952336
Emergency Fred Schulz
Contact & Phone (615) 481-0222
SEG
Shipment No. 952336
Date
Shipped 7-25-95

Total For Each Class		"HQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)				
			Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
			Radioactive material, excepted package-empty packaging	7	UN2910
			Radioactive material, excepted package-instruments or articles	7	UN2910
			Radioactive material, excepted package-limited quantity of material	7	UN2910
			Radioactive material, fissile, n.o.s.	7	UN2918
<u>2</u>	<u>25980</u>		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
			Radioactive material, n.o.s.	7	UN2982
			Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	DISPOSAL CONTAINER			Fissile Class	Labels Markings Used
													Container Surface (mR/hr)	(T.I.) 1 Meter mR/hr	Contamination Container Surface (DPM/100cm ²) Alpha Beta Gamma		
<u>433</u> <u>001</u>	<u>U-235</u>	<u>1.29</u>	<u>1.34</u>	<u>Solid</u>	<u>metal oxide</u> <u>NO chelates</u>	<u>metal in sealant</u>	<u>A</u>	<u>0</u>	<u>.59</u>	<u>14200</u>	<u>1280</u>	<u>Sealed</u>	<u>40.5</u>	<u>N/A</u>	<u>4100</u> <u>41000</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
<u>433</u> <u>001</u>	<u>U-235</u>	<u>1.52</u>	<u>1.52</u>	<u>Solid</u>	<u>metal oxide</u> <u>NO chelates</u>	<u>metal in sealant</u>	<u>A</u>	<u>0</u>	<u>6.69</u>	<u>16780</u>	<u>1280</u>	<u>Sealed</u>	<u>40.5</u>	<u>N/A</u>	<u>4100</u> <u>41000</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
<u>2</u>			<u>1.654</u>														

PAGE TOTALS

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
<u>2560</u>	<u>2</u>	<u>2.29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY					
Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<u>0.000000</u> <u>0.000000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1.654</u>

Shipper / Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Neal S.
Shipper Signature

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

THIS VEHICLE IS CONSIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

☒ YES ☐ NO

Amc
090460
7/27/95
Conquest
Revul
2003
Trans
2.29



SCIENTIFIC ECOLOGY GROUP INC.

RADIOACTIVE MATERIAL SHIPMENT MANIFEST

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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMCORN (MCAAP)
 Generator No. 15
 Address McAlester Army Ammunition Safety Office
SMCAG - 5F Bldg. 5
 City McAlester State OK Zip 74501
 Contact Larry Skidmore Phone # (918) 44-3535
 TN Shipper Lic # SEG Brokered
 User Permit # N/A
0AAA0992400040016
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 1GENERATOR
MANIFEST NO.952338Emergency Fred Schutz
Contact & Phone (615) 991-0222SEG
Shipment No. 952338Date
Shipped 7-25-75

Total For Each Class	"RO" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id. Number
# of Packages	Weight (pounds)			
		Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
		Radioactive material, excepted package-empty packaging	7	UN2910
		Radioactive material, excepted package-instruments or articles	7	UN2910
		Radioactive material, excepted package-limited quantity of material	7	UN2910
		Radioactive material, fissile, n.o.s.	7	UN2918
<u>1</u>	<u>39,500</u>	Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
		Radioactive material, n.o.s.	7	UN2982
		Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Container Surface (DPM/100cm ²)	Fissile Class	Labels Markings Used
													Container Surface mR/hr	(T1) 1 Meter mR/hr			
<u>699</u>	<u>U-235</u>	<u>3.16</u>	<u>3.16</u>	<u>solid</u>	<u>metal in sealant</u>	<u>metal in sealant</u>	<u>A</u>	<u>0</u>	<u>2.32</u>	<u>39,500</u>	<u>2560</u>	<u>Strongly High</u>	<u>10.5</u>	<u>N/A</u>	<u>400</u> <u>1000</u>	<u>N/A</u>	Radioactive - LSA
																	Radioactive -
																	Radioactive -
																	Radioactive -
																	Radioactive -
																	Radioactive -
																	Radioactive -

1 3.16 PAGE TOTALS 0 2.32 39,500 2560 N/A

Shipper/ Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
<u>2560</u>	<u>1</u>		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY						
Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes	
<u>Curies</u> <u>1</u> <u>Millicuries</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3.16</u>	

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Shipper Signature

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(X) YES () NO



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMC.COM (McAAP)
 Generator No. 11111111111111111111
 Address Rockstar Army Ammo Plant
Safety office 816g-9
 City McAlester State OK Zip 74501
 Contact Larry Skidmore Phone # (405) 421-3525
 TN Shipper Lic # SEB Brokered
 User Permit # N/A
DAAA0872 60004 0004
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 1
**GENERATOR
 MANIFEST NO.**
952340

Emergency Karl Schult
 Contact & Phone (615) 481-0222

SEG
 Shipment No. 952340

Date
 Shipped 7-26-95

Total For Each Class	"RQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)			
		Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
		Radioactive material, excepted package-empty packaging	7	UN2910
		Radioactive material, excepted package-instruments or articles	7	UN2910
		Radioactive material, excepted package-limited quantity of material	7	UN2910
		Radioactive material, fissile, n.o.s.	7	UN2918
<u>1</u>	<u>18500</u>	Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
		Radioactive material, n.o.s.	7	UN2982
		Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu Ft)	Container Type	DISPOSAL CONTAINER			Fissile Class	Labels Markings Used
													Container Surface 30 mR/hr	Radiation Levels (T.I.) 1 Meter mR/hr	Contamination Container Surface (DPM/100cm ²) Alpha Beta Gamma		
<u>650</u>	<u>U-235</u>	<u>4.38</u>	<u>4.38</u>	<u>solid</u>	<u>metal oxides</u>	<u>metal in sealants</u>	<u>A</u>	<u>0</u>	<u>19.3</u>	<u>18500</u>	<u>2560</u>	<u>Strongly fissile</u>	<u>40.5</u>	<u>N/A</u>	<u>4100</u> <u>41000</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
<u>1</u>			<u>4.38</u>					<u>0</u>	<u>19.3</u>	<u>18500</u>	<u>2560</u>						

SHIPMENT TOTALS

Volume Cu Ft	Total # of Packages	Source Material (lbs)	U-235	Special Nuclear Material (grams)	U-235	Plutonium	TOTAL
<u>2560</u>	<u>1</u>	<u>19.3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY

Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> Millicuries	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4.38</u>

Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

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Shipper Signature

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☒ YES ☐ NO

*Manus 9/24/95
 12/19/95
 13 and 13.6 lbs*



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMCOM (MCAAP)
Generator No. 11111111111111111111
Address McAlester Army Ammunition Safety Office
5th Ave - SE Bldg 5
City McAlester State OK Zip 74501
Contact Levy Salmore Phone (918) 21-3535
Shipper Lic. # SEG Brokered
User Permit # N/A
0AAA 0002 6000 0016
Bill Disposal Charges To N/A
Name N/A
Address N/A
City N/A State N/A Purchase Order # N/A

Page 1 of 1

GENERATOR
MANIFEST NO.

952342

Emergency Fred Scholz
Central: (615) 481-0222

SEG
Shipment No. 952342

Date 31
Shipped 7-27-95

Total For Each Class	# of Packages	Weight (pounds)	"RQ" if Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
				Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
				Radioactive material, excepted package-empty packaging	7	UN2910
				Radioactive material, excepted package-instruments or articles	7	UN2910
				Radioactive material, excepted package-limited quantity of material	7	UN2910
				Radioactive material, fissile, n.o.s.	7	UN2918
	<u>1</u>	<u>19750</u>		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
				Radioactive material, n.o.s.	7	UN2982
				Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	DISPOSAL CONTAINER			Fissile Class	Labels Markings Used
													Container Surface 25 mR/hr 1 ft R/hr	(T.I.) 1 Meter mR/hr	Contamination Container Surface (DPM/100cm ²) Alpha Beta Gamma		
<u>1</u>	<u>Am-241</u>	<u>3.17</u>	<u>3.17</u>	<u>Solid</u>	<u>metal in sealed canisters</u>	<u>metal in sealed</u>	<u>A</u>	<u>13.94</u>	<u>19750</u>	<u>1280</u>	<u>Strong tie</u>	<u>20.5</u>	<u>N/A</u>	<u>1.00</u>	<u>21000</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>
																	<u>Radioactive -</u>

3.17

PAGE TOTALS

Shipper/

Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
<u>1280</u>	<u>1</u>	<u>13.94</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY						
Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes	
<u>0</u> Curies <u>0</u> Millicuries	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3.17</u>

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Shipper Signature

THIS VEHICLE IS CONSIGNOR EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

(X) YES () NO



RADIOACTIVE MATERIAL SHIPMENT MANIFEST

Our Vision

To be the safest, highest performing, innovative waste management company in the world, accomplished by combining teamwork, exceptional customer service, the application of advanced technologies, and a commitment to excellence.

P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMC.COM (MCAAP)
 Generator No.
 Address McAlister Army Airfield Phone Safety Office
SANMAG - SA 81295
McAlister State OK Zip 74501
 Contact Larry Schumaker Phone # (915) 481-3535
 TN Shipper Lic # SEG BROK 0000
 User Permit # N/A
PARA 0992 600000016
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 1
GENERATOR MANIFEST NO.
952389
 Emergency Fred Schutz
 Contact & Phone (615) 481-0222
SEG
 Shipment No. 952389
 Date 7-31-91
 Shipped 7-31-91

Total For Each Class		"RQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)				
			Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
			Radioactive material, excepted package-empty packaging	7	UN2910
			Radioactive material, excepted package-instruments or articles	7	UN2910
			Radioactive material, excepted package-limited quantity of material	7	UN2910
			Radioactive material, fissile, n.o.s.	7	UN2918
<u>1</u>	<u>17,500</u>		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
			Radioactive material, n.o.s.	7	UN2982
			Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	DISPOSAL CONTAINER					Fissile Class	Labels/ Markings Used
													Radiation Levels		Contamination Container Surface (DPM/100cm2)				
													Container Surface (uR/hr)	(T.I.) 1 Meter mR/hr	Alpha	Beta	Gamma		
1/4 642	U-235	1.45	1.45	Solid	metal shavings	Scrap metal in Scotland	A	6.39	17500	2560	17500	Strong light	20.5	N/A	2100	21000	N/A	Radioactive - LSA	
					NO CHLORIDES													Radioactive -	
																		Radioactive -	
																		Radioactive -	
																		Radioactive -	
																		Radioactive -	
																		Radioactive -	
1		1.45	PAGE TOTALS						6.39	17500	2560		N/A						

SHIPMENT TOTALS

Volume (Cu. Ft.)	Total # of Packages	Source Material (lbs.)	U-235	U-238	Plutonium	TOTAL
<u>2560</u>	<u>1</u>	<u>6.39</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY

Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<u>Curies</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1.45</u>
<u>Millicuries</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1.45</u>

Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Shipper Signature

THIS VEHICLE IS CONIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

YES () NO ()

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.



SCIENTIFIC ECOLOGY GROUP INC.

RADIOACTIVE MATERIAL SHIPMENT MANIFEST

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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMC.COM (MCAAP)
 Generator No.
 Address Bullman Bryanna Place Safety Office
SMC MC-SC Bldg 5
 City McAlister State OK Zip 74504
 Contact Leery Skidmore Phone (918) 424-3535
 TN Shipper Lic # SEG Brokered
 User Permit # N/A
DMA40992 60009006
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order N/A

Page 1 of 1GENERATOR
MANIFEST NO.952391Emergency Fred Schulz
Contact & Phone (615) 481-0222SEG
Shipment No. 952391Date
Shipped 8-1-95

Total For Each Class	"RC" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)			
		Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
		Radioactive material, excepted package-empty packaging	7	UN2910
		Radioactive material, excepted package-instruments or articles	7	UN2910
		Radioactive material, excepted package-limited quantity of material	7	UN2910
		Radioactive material, fissile, n.o.s.	7	UN2918
<u>1</u>	<u>21000</u>	Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
		Radioactive material, n.o.s.	7	UN2982
		Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	DISPOSAL CONTAINER			Fissile Class	Labels Markings Used
													Container Surface 25 mR/hr J/RHR	Radiation Levels (T1) 1 Meter mR/hr	Contamination Container Surface (DPM/100cm ²) Alpha Beta Gamma		
<u>42 of 42</u>	<u>U-235</u>	<u>3-73</u>	<u>3-23</u>	<u>solid</u>	<u>no chelates</u>	<u>Scrap metal in Scotland</u>	<u>A</u>	<u>16.47</u>	<u>21000</u>	<u>2560</u>	<u>strong fissile</u>	<u>40.5</u>	<u>N/A</u>	<u>1100</u>	<u>41000</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
																	Radioactive -
																	Radioactive -
																	Radioactive -
																	Radioactive -
																	Radioactive -
																	Radioactive -
<u>1</u>		<u>3-73</u>						<u>16.47</u>	<u>21000</u>	<u>2560</u>							

PAGE TOTALS

SHIPMENT TOTALS						
Volume Cu.Ft.	Total # of Packages	Source Material (lbs.)	U-235	U-238	Plutonium	TOTAL
<u>2560</u>	<u>1</u>		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
ACTIVITY						
Activity Totals:		Tritium	C-14	Tc-99	I-129	All Isotopes
<input type="checkbox"/> Curies	<input checked="" type="checkbox"/> Millicuries	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3-23</u>

Shipper/ Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

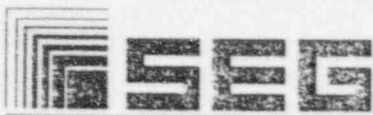
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Shipper Signature

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(X) YES () NO

8-2-95



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMC COM (MCAAP)
 Generator No. 11111111111111111111
 Address McAlister Army Ammunition Plant Safety Office
SACMC - SF Bldg-5
 City McAlister State OK Zip 74504
 Contact Larry Skidmore Phone # (918) 421-3535
 TN Shipper Lic # SEG Brokered
 User Permit # N/A
 DADA 0992 60004 0016
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 1

GENERATOR MANIFEST NO.

952394

Emergency: Fred Schulz
 Contract: (615) 481-0222

SEG
 Shipment No. 952394

Date
 Shipped 8-2-95

Total For Each Class	# of Packages	Weight (pounds)	"RQ" if Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
				Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
				Radioactive material, excepted package-empty packaging	7	UN2910
				Radioactive material, excepted package-instruments or articles	7	UN2910
				Radioactive material, excepted package-limited quantity of material	7	UN2910
				Radioactive material, fissile, n.o.s.	7	UN2918
3	15,700			Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
				Radioactive material, n.o.s.	7	UN2982
				Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	DISPOSAL CONTAINER				Fissile Class	Labels Markings Used
													Container Surface	Radiation Levels	1 Meter	Contamination Container Surface (DPM/100cm ²)		
5	radioactive	.10	.10	solid	metal oxides, no chelates	Scrap metal in wood Box	A	0	.44	4500	581	ST-003 N-235	40.5	N/A	4100	41000	N/A	Radioactive - LSA
20	radioactive	.195	.195	solid	metal oxides, no chelates	Scrap metal in wood Box	A	0	.86	5000	625	ST-003 N-235	40.5	N/A	4100	41000	N/A	Radioactive - LSA
24	radioactive	.10	.10	solid	metal oxides, no chelates	Scrap metal in wood Box	A	0	.44	6200	496	ST-003 N-235	40.5	N/A	4100	41000	N/A	Radioactive - LSA
3			.395					0	1.74	15,700	1702			N/A				Radioactive -

PAGE TOTALS

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-235	U-238	Plutonium	TOTAL
1702	3	1.74	0	0	0	0

ACTIVITY					
Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> MilliCuries	0	0	0	0	.395

Shipper/Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

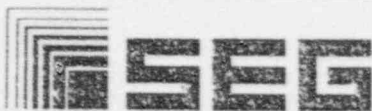
Shipper Signature

THIS VEHICLE IS CONSIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

☒ YES ☐ NO

SNW
 9/24/96
 12/19/95
 7/20/96
 Build 7.5.95

shipment 0:
8-7-95



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMCCOM (MCAAP)
Generator No. 11111111111111111111
Address McAlessers Army Ammunition Safety Office
SMCMC-SF Bldg. 5
City McAlister State OK Zip 74504
Contact Larry Schumaker Phone # (918) 921-3535
TN Shipper Lic. # SEG 806000
User Permit # N/A
OHAA 0992 60004 0016
Bill Disposal Charges To N/A
Name N/A
Address N/A
City N/A State N/A Purchase Order # N/A

Page 1 of 1

GENERATOR
MANIFEST NO.

952428

Emergency Contact
Fred Schulz

SEG
Shipment No. 952428

Date
Shipped 8-7-95

Total For Each Class		"RO" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)				
			Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
			Radioactive material, excepted package-empty packaging	7	UN2910
			Radioactive material, excepted package-instruments or articles	7	UN2910
			Radioactive material, excepted package-limited quantity of material	7	UN2910
			Radioactive material, fissile, n.o.s.	7	UN2918
<u>1</u>	<u>14890</u>		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
			Radioactive material, n.o.s.	7	UN2982
			Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Or Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Container Surface (DPM/100cm ²)			Fissile Class	Labels Markings Used
													Container Surface >0 mR/hr <1 R/hr	(T.I.) 1 Meter mR/hr	Alpha	Beta	Gamma		
<u>396</u>	<u>uranium</u>	<u>926</u>	<u>926</u>	<u>solid</u>	<u>metal oxides</u>	<u>scrap metal in sealant</u>	<u>A</u>	<u>0</u>	<u>3.64</u>	<u>14890</u>	<u>2560</u>	<u>5mm x 1/2 in</u>	<u>0.5</u>	<u>N/A</u>	<u>4100</u>	<u>4100</u>	<u>N/A</u>	<u>N/A</u>	Radioactive - LSA
					<u>NO chelation</u>														Radioactive -
																			Radioactive -
																			Radioactive -
																			Radioactive -
																			Radioactive -
																			Radioactive -

1 926 PAGE TOTALS

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	Special Nuclear Material (grams) U-235	Plutonium	TOTAL
<u>2560</u>	<u>1</u>	<u>3.64</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY					
Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> Millicuries	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>926</u>

Shipper/Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Neal S.
Shipper Signature

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

THIS VEHICLE IS CONIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

(X) YES () NO

Shipment #14
8-8-95



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMCCOM (MCAAP)
 Generator No. 11111111111111111111
 Address McAlister Army Arms Plant Safety Office
SMCMC Bldg. 5
 City McAlister State OK Zip 74501
 Contact Larry Skidmore Phone # (918) 421-3535
 TN Shipper Lic # SEG Brokered
 User Permit # N/A
DATA 099242004 C06
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page 1 of 2

GENERATOR
MANIFEST NO.

952426

SEG
Shipment No. 952426

Date
Shipped 8-8-95

Total For Each Class	# of Packages	Weight (pounds)	"RQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
				Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
				Radioactive material, excepted package-empty packaging	7	UN2910
				Radioactive material, excepted package-instruments or articles	7	UN2910
				Radioactive material, excepted package-limited quantity of material	7	UN2910
				Radioactive material, fissile, n.o.s.	7	UN2918
5		23000		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
				Radioactive material, n.o.s.	7	UN2982
				Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance G: mCi OR Each Nuclide	Total Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	DISPOSAL CONTAINER							Fissile Class	Labels Markings Used	
										Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Container Surface (DPM/106cm2)				
													Container Surface (d mR/hr) J RMR	(T.I.) 1 Meter mR/hr	Alpha	Beta			Gamma
23	U-235	.167	.167	Solid	metal oxides and chlorides	metal in wood box	A	0	.74	2500	233	strongly fissile	<0.5	N/A	400	1100	N/A	Radioactive - LSA	
31	U-235	.349	.349	Solid	metal oxides and chlorides	metal in wood box	A	0	1.54	5000	417	strongly fissile	<0.5	N/A	400	1100	N/A	Radioactive - LSA	
17	U-235	.094	.094	Solid	metal oxides and chlorides	metal in wood box	A	0	.37	2000	913	strongly fissile	<0.5	N/A	400	1100	N/A	Radioactive - LSA	
																		Radioactive -	
																		Radioactive -	
3			.60	PAGE TOTALS					0	2.65	14500	1563		N/A					

PAGE TOTALS

Shipper

Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Shipper Signature

THIS VEHICLE IS CONIGNED EXCLUSIVE USE LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

YES 1 NO

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

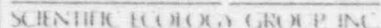
SHIPMENT TOTALS

Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-235	U-238	Plutonium	TOTAL
2236	5	4.02	0	0	0	0

ACTIVITY

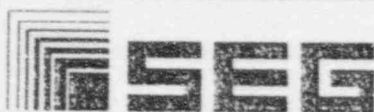
Activity Totals:	Thorium	C-14	Tr-90	I-129	All Isotopes
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> Millicuries	0	0	0	0	.91

9/2/96
12/19/96
Transport
To customer
Completed



P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

[illegible]



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P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMCOM (MCAAP)
Generator No. 11111111111111111111
Address McMurry Army Ammunition Plant Safety Office
SACMC-5F Bldg. 5
City Ala. Aleson State OK Zip 74501
Contact Henry Skidmore Phone # (405) 421-3535
TN Shipper Lic # SEG Brokered
User Permit # N/A
DA4A099260004006
Bill Disposal Charges To N/A
Name N/A
Address N/A
City Ala. State Purchase Order # N/A

Page 1 of 1

GENERATOR
MANIFEST NO.

952485

Emergency Contact:
Fred Schultz (615) 481-0222

SEG
Shipment No. 952485

Date
Shipped 8-14-95

Total For Each Class	# of Packages	Weight (pounds)	"RQ" if Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
				Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
				Radioactive material, excepted package-empty packaging	7	UN2910
				Radioactive material, excepted package-instruments or articles	7	UN2910
				Radioactive material, excepted package-limited quantity of material	7	UN2910
				Radioactive material, fissile, n.o.s.	7	UN2918
2	16000			Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
				Radioactive material, n.o.s.	7	UN2982
				Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	DISPOSAL CONTAINER						Fissile Class	Labels Markings Used	
										Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Container Surface (DPM/100cm2)			
													Container Surface (mR/hr) 1 R/hr	(T.I.) 1 Meter mR/hr	Alpha			Beta / Gamma
36	depleted	22.32	22.32	solid	metal oxides and chlorides	metal in wood Boxes	A	0	99.32	2000	907	drum type	<0.5	N/A	<100	<1000	N/A	Radioactive - LSA
																		Radioactive -
																		Radioactive -
44	depleted	2.29	2.29	solid	metal oxides and chlorides	metal in wood Boxes	A	0	1.29	9000	964	drum type	<0.5	N/A	<100	<1000	N/A	Radioactive - LSA
																		Radioactive -
																		Radioactive -
																		Radioactive -
2			22.61	PAGE TOTALS						0	99.61	16000	1878		N/A			

PAGE TOTALS

SHIPMENT TOTALS						
Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
	2	99.61	0	0	0	0

ACTIVITY						
Activity Totals:	Tritium	C-14	Tc-95	I-129	All Isotopes	
<input type="checkbox"/> Curies <input checked="" type="checkbox"/> Millicuries	0	0	0	0	22.61	

Shipper/

Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

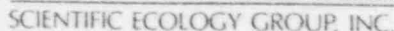
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Shipper Signature

THIS VEHICLE IS CONSIGNED EXCLUSIVE USE, LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

☒ YES ☐ NO

3 in 2
90406
12/18/95
1100000
True number



Our Vision

To be the safest, highest performing, innovative waste management company in the world, accomplished by combining teamwork, exceptional customer service, the application of advanced technologies, and a commitment to excellence.

P.O. Box 2530
1560 Bear Creek Road
Oak Ridge, TN 37830
(615) 481-0222

Generator Name AMC COM (MCAAP)
 Generator No. 11111111111111111111
 Address McAlester Army Ammo Plant Safety
Office SMC MCB Dg5
 City McAlester State OK Zip 74501
Larry Skidmore Phone # (918) 421-3575
 TN Shipper Lic # SEG Brokered
 User Permit # N/A
DAAA0992600040016
 Bill Disposal Charges To N/A
 Name N/A
 Address N/A
 City N/A State N/A Purchase Order # N/A

Page of

GENERATOR
MANIFEST NO.

952486

Emergency contact: Fred
Schulz
SEC (615) 481-0222

SEG (615) 481-01
Shipment No. 952486

Date Shipped 8-16-95

Total For Each Class		"RQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)				
			Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
			Radioactive material, excepted package-empty packaging	7	UN2910
			Radioactive material, excepted package-instruments or articles	7	UN2910
			Radioactive material, excepted package-limited quantity of material	7	UN2910
			Radioactive material, fissile, n.o.s.	7	UN2918
2	25,500		Radioactive material, low specific activity LSA, n.o.s.	7	UN2912
			Radioactive material, n.o.s.	7	UN2982
			Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Radio-Nuclide Each Container	% Abundance Or mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chemical Form & Name of Chelating Agent	Waste Description	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	DISPOSAL CONTAINER							Fissile Class	Labels Markings Used
										Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Radiation Levels		Contamination Container Surface (DPM/100cm ²)			
													Container Surface \geq 30 mR/hr \square RMR	(T.I) 1 Meter mR/hr	Alpha	Beta / Gamma		
48	48	-39	-39	solid	metal oxides AND sludges	metal in wood boxes	A	\emptyset	1.72	16000	873	strong tight	40.5	N/A	4100	41000	N/A	Radioactive - LSA
																	Radioactive -	
																	Radioactive -	
49	49	1.17	1.17	solid	metal oxides AND sludges	metal in wood boxes	A	\emptyset	5.16	9500	1352	strong tight	40.5	N/A	4100	41000	N/A	Radioactive - LSA
																	Radioactive -	
																	Radioactive -	
																	Radioactive -	
2			1.56	PAGE TOTALS						\emptyset	6.88	25,500	2225		N/A			

SHIPMENT TOTALS						
Volume Cu.Ft.	Total # of Packages	Source Material (lbs.)	Special Nuclear Material (grams)			TOTAL
			U-233	U-235	Plutonium	
2225	2	6.88	0	0	0	0

		ACTIVITY				
Activity Totals:		Tritium	C-14	Tc-99	I-129	All Isotopes
<input type="checkbox"/> Curies	<input checked="" type="checkbox"/> Millicuries	0	0	0	0	1.56

Customer represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Shipper Signature _____

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

THIS VEHICLE IS CONIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

☒ YES ☐ NO

Tuv
90466
12/19/95
Tuyat
Mammoth
Tuyat, Ave

CHEMNUCLEAR INCORPORATED
SHIPPING MANIFESTS

(1) GENERATOR NAME U.S. Army, Amccom
FACILITY McAlester Army Ammunition Plant
ADDRESS McAlester, Oklahoma
Central-Interstate Compact
Rock Island STATE Illinois ZIP CODE 61299-6000

BARNWELL WASTE MANAGEMENT FACILITY

Operated by CHEM-NUCLEAR SYSTEM, INC.
PO Box 726, Barnwell, South Carolina 29812
(803) 259-1781

RADIOACTIVE SHIPMENT MANIFEST FORM

(3A) RADIOACTIVE WASTE TRANSPORTATION PERMIT NO.

0137-00-94-E

(4) USE THIS NUMBER ON ALL CONTINUATION PAGES

SHIPMENT I.D. NUMBER

PAGE

1

0694-3331

OF

2

(3B) NUMBER OF GENERATORS

one (1)

(5) CARRIER J.B. Hunt ADDRESS Lowell, Arkansas

TELEPHONE (800) 643-3717 SHIPPING DATE 6-23-94

SHIPMENT TYPE Van SHIPMENT SURFACE EXPOSURE 0.1 mR/hr

CASK IDENTIFICATION NO. NIA USA / NIA /

SHIPMENT NO. 88-90 LINER TYPE NIA

LINER SERIAL NO. NIA /

DRIVER SIGNATURE M. Vincent DATE 6-23-94

CONTACT Mr. Kelly Crooks PHONE (309) 782-0338
EMERGENCY RESPONSE CONTACT Chem-Nuclear Security PHONE (803) 259-6069
(2) BILL TO Pat Fowler, CNSE-DCF
CONTRACT/P.O. NO. project 48051, D.O. A0106

(6) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	I.D. NUMBER	Reportable Quantity or Fissile Exempt
NO. OF PACKAGES	WEIGHT (POUNDS)			
		Radioactive Material, excepted package - empty packaging; 7	UN2510	
		Radioactive Material, fissile, n.o.s.; 7	UN2518	
		Radioactive Material, low specific activity, n.o.s.; 7	UN2912	
		Radioactive Material, n.o.s.; 7	UN2982	
		Radioactive Material, excepted package - limited quantity of material; 7	UN2910	
		Radioactive Material, special form, n.o.s.; 7	UN2974	
		Radioactive Material, excepted package - instruments or articles; 7	UN2910	
		Other (Specify)		

(7) SHIPMENT TOTALS							(8) TOTAL SNM		
Disposal Volume (ft ³)	Total No. of Packages	ACTIVITY (10CFR20.311) Millicuries					Source (Pounds)	Isotope	Grams
		All Isotopes	Tritium	C-14	Tc-99	I-129			No Packages
1455.7	8	0.5995	NP	NP	NP	NP	3.668	U-233	NP
								U-235	NP
								Total	

(9) MINIMUM WASTE PACKAGE % FILL 75% (10) SOLIDIFICATION AGENT NONE (11) NUMBER AND TYPE OF CONTAINERS 8 wooden boxes

(12) WASTE DESCRIPTION manufacturing machinery contaminated with DLE (13) PHYSICAL FORM Solid

(14) CHEMICAL FORM oxides (15) NAME AND % OF CHELATING AGENT(S) NONE PRESENT (16 A) WASTE FORM CLASS AS ☒ AU ☐ AS ☐ B ☐ C

(16 B) () Yes (X) No This waste(s) must be disposed in South Carolina Department of Health and Environmental Control Approved Structural Overpack(s) to meet stability requirements.

(17) (X) Yes () No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

(18) IMPORTANT: This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature Todd Eastman

Company Agent for U.S. Army, Amccom/Baker-CNSE Date 6-23-94

(19) "Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low-level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No. 097 as amended, and the Nuclear Regulatory Commission's License No. 12-13536-01 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non-compliance with all applicable laws, rules and regulations."

Date 23 June 94 Signature William Huber
Title and Organization Radioactive Waste Management Project Officer, U.S. Army 140th Amccom (ASAC-94)
Telephone No. (309) 782-2966

DISPOSAL SITE COPY

Form No. CNS-201 (7-93)

SEE INSTRUCTIONS ON REVERSE SIDE FOR FILLING OUT THIS FORM

CNSI USE ONLY

☐ This material meets all license requirements.

☐ This material was disposed of in accordance with license.

☐ Discrepancy.

Crane ☐ Forklift ☐

Shielded ☐ Personnel Barrier ☐

Overpack S/N

Overpack Lid S/N

Other

Arrival Date Arrival Survey No.

Date/Time Buried H.P. Initial

Trench No. Location Code

Waste Class Code

Trench No. Location Code

Waste Class Code

Personnel Exposure

Date

Authorized Signature Title

(CHECK BOX)
☒ HQ, U.S. ARMY, AMCCOM
 (73a) AMS:AC-SFR/Morris
 Rock Island, IL 61299-6000
 (309) 782-2964
☐ HQ, U.S. AIR FORCE, SA-ALC
 (Attn: SA-ALC/EME: Vaughn)
 Kelly AFB, TX 78214-5000
 (512) 925-8835

☐ Officer in Charge
 Naval Sea Systems Command Detachment
 Radiological Affairs Support Office
 (Attn: L. Martin/R. Lowman)
 Yorktown, VA 23691
 (804) 887-4692

(2) Ship To: Defense Consolidation Facility
 P.O. Box 828
 Highway 64 (1 mile west of Snelling)
 Snelling, S.C. 29812
 803-259-1119
 EMERGENCY TELEPHONE: (803) 259-1786

(4) CARRIER Chem-Nuclear Systems Inc.
 ADDRESS OSBORNE Rd., Snelling S.C.
 TELEPHONE (803) 259-1781
 SHIPPING DATE 3-13-91

ORIGINATING COMMAND: McAlister Army Ammunition Plant
 LOCATION: McAlister, OK

(3) USE THIS NUMBER ON ALL CONTINUATION PAGES
 SHIPMENT CONTROL NUMBER USAG88-908-503
 PAGE 1 OF 1

MCI (5) TOTAL ACTIVITIES (10CFR20.311)				
ALL ISOTOPES	TRITIUM	C-14	TC-99	I-129
1621.9795	1600	NP	NP	NP

(6) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME AND HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER	RQ (PER 49 CFR 172.203(c))
NO OF PACKAGES	WEIGHT (POUNDS)			
2	265	RADIOACTIVE MATERIAL, LIMITED QUALITY, N.O.S. RADIOACTIVE MATERIAL	UN 2910	
5	1710	RADIOACTIVE MATERIAL, INSTRUMENTS AND ARTICLES RADIOACTIVE MATERIAL	UN 2911	
		RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, N.O.S. RADIOACTIVE MATERIAL	UN 2912	
		RADIOACTIVE MATERIAL, N.O.S. RADIOACTIVE MATERIAL	UN 2982	
		OTHER (SPECIFY)		

(7) (X) YES () NO THIS VEHICLE IS CONSIGNED EXCLUSIVE USE (49 CFR 173.403(i)) LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR, CONSIGNEE OR HIS DESIGNATED AGENT. VEHICLE OR PACKAGE CONFIGURATION CANNOT BE ALTERED FROM ORIGINAL LOADING WITHOUT THE PRIOR APPROVAL OF THE CONSIGNEE. ANY LOADING OR UNLOADING MUST BE PERFORMED BY PERSONNEL HAVING RADIOLOGICAL TRAINING AND RESOURCES APPROPRIATE FOR THE SAFE HANDLING OF THE CONSIGNMENT.

DRIVER'S SIGNATURE [Signature] DATE 3-13-91

(8) IMPORTANT: "This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Signature L. Dorothy G. Malone

(9) "Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low-level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License 267-04 as amended, and the effective consolidation facility acceptance criteria, within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non-compliance with all applicable laws, rules and regulations."

Date 3-13-91 By David W. Nelson

Title and Organization HEALTH PHYSICIST HQ AMCCOM

Commercial Telephone No. (309) 782-2966

ATTACH SHIPPING DOCUMENTS TO OUTSIDE OF PACKAGE

CONTAINER																		
(10) ITEM NO.	(11) RADIOISOTOPE EACH CONTAINER	(12) ACTIVITY EACH RADIOISOTOPE (mCi)	(13) PHYSICAL FORM	(14) CHEMICAL FORM AND NAME & % OF CHELATING AGENT	(15) WASTE DESCRIPTION	(16) WASTE CLASS (A, B, C)	(17) SPECIAL NUCLEAR MATERIAL (Grams)	(18) SOURCE MATERIAL (Pounds)	(19) CONTAINER WEIGHT (Pounds)	(20) CONTAINER VOLUME (Cu Ft)	(21) CONTAINER TYPE	(22) RADIATION LEVELS		(23) CONTAMINATION CONTAINER SURFACE (DPM/100 cm ²) Alpha Beta Gamma			(24) LABEL/MARKINGS USED	
												Container Surface (DPM/100 cm ²)	(11) 1 Meter mR/hr					
A1	OV	1	Solid	OXIDE	OV contaminated equipment	A	NP	.44	5000	6.40	Wood							
A10		1						.44	2000	450	Plastic	.1	.08	2220	22200			Radioactive LSA
A11		1						.44	1000	300		.1	.08					Radioactive
A12		1						.44	300	48		1.5	.1					Radioactive
A13		1			contaminated Plastic			.44	150	7.5	metal drum	.1	.08					Radioactive
E7	Am241	.009			Smoke detectors			NP	85	7.5		.1	.08					Radioactive LSA
E1	Am241	.0675			Smoke detectors							.1	.08					Radioactive LSA
	Am241	.003			monitor				180	7.5		.1	.08					Radioactive LSA
	Kr85	.9	gas	Kr85	Sources - (4)													Radioactive
	Pm147	.15	Solid	OXIDE	Sights													Radioactive
	OV	1	Solid	OXIDE	Sources			.44										Radioactive
	H3	1600	gas	H3	Static illuminators													Radioactive
																		Radioactive
																		Radioactive
																		Radioactive
																		Radioactive
7		1621.9795			Page Totals			NP	2.64	875	1465							Radioactive

ORIGINAL - DCF; GREEN - CARRIER; GOLDENROD - U.S. MAIL



CHEMRAD

October 16, 1995

From: C. R. Flynn, Chemrad Tennessee Corporation
Subject: INRADS® Radiological Survey
McAlester Army Ammunition Plant, Bldg.s MAC603F and MAC6081

Enclosed is one copy of the Final Report of the Interior Radiological Survey at the
McAlester Army Ammunition Plant Weapon Storage Sites

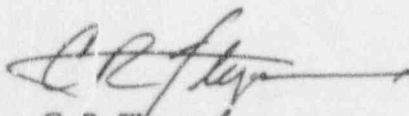
This report is divided into four sections:

- 1) Introduction
- 2) Appendix A containing the Site Summaries for each building surveyed.
Site Summaries include the following for each site:

Findings Sections with Statistics
Color Track Maps
Color Contour Maps
- 3) Appendix B containing the Calibration Sheets for the instruments used
during the survey.
- 4) Appendix C containing the background statistical information from the
survey.

Copies of the certifications of the Chemrad personnel are included under separate cover.
If you have further questions regarding this survey please feel free to contact myself, Lyn
Clevenger or Randy Terrell at (615)-481-2511.

Sincerely,



C. R. Flynn



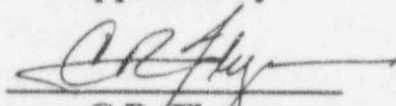
CHEMRAD

**Final Report
for the
Indoor Radiological Survey
at the
McAlester Army Ammunition Plant
Weapons Storage Sites
Conducted August 29, 1995
Through August 30, 1995
Conducted under Subcontract #TN-92535-11-TW**

**Prepared for
Science Ecology Group
P.O. Box 4789
Oak Ridge, TN 37831**

**Report Submitted
October 16, 1995**

Approved by


**C.R. Flynn
President**

**Chemrad Tennessee Corporation
739 Emory Valley Road
Oak Ridge, TN 37830**

CHEMRAD TENNESSEE CORPORATION
SURVEY REPORT

JUN 13 1997

Stephen R. Mapley, Chief
Radioactive Waste Disposal Division
U.S. Army Industrial Operations Command
Department of the Army
ATTN: AMSIO-DMW
Rock Island, IL 61299-6000

Dear Mr. Mapley:

Enclosed is Amendment No. 30 to your NRC Material License No. SUC-1380 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

The enclosed amendment authorizes you to release for unrestricted use, Building Nos. 603, 608 and part of Building No. 1503, at McAlester Army Ammunition Plant, McAlester, Oklahoma, where contaminated manufacturing equipment had previously been stored. The amendment modifies License Items 6., 7., 8. and 9. and License Condition 10.B., accordingly.

The authorization to release the specified facilities for unrestricted use is based on your disposal of the contaminated equipment followed by the Army's close-out survey, INDUSTRIAL RADIATION SURVEY NO. 27-MH-5113-96, FACILITY CLOSE-OUT AND TERMINATION SURVEY, MCALESTER ARMY AMMUNITION PLANT, MCALESTER, OKLAHOMA. Please note that Chemrad's "USRAD and INSRAD System" survey was not considered necessary and therefore was not used as a basis for the release for unrestricted use of the specified facilities. The survey data demonstrate that the residual contamination is within NRC guidelines for unrestricted release.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Notify NRC, in writing, within 30 days:
 - a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or
 - b. When the mailing address listed on the license changes. (No fee is required if the location of byproduct material remains the same.)
3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when a decision is made to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;
 - b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
 - d. Change ownership of your organization.
5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a

S. Mapley

-3-

notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Statement of Policy and Procedure for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By
Loren J. Hueter
Nuclear Materials Licensing Branch

License No.: SUC-1380
Docket No.: 040-08767

Enclosures: 1. Amendment No. 30
2. NRC Form 313

DOCUMENT NAME: M:\04008767.CL7

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII	<input checked="" type="checkbox"/>							
NAME	LHUETER:jaw	<i>LJH</i>							
DATE	06/12/97								

OFFICIAL RECORD COPY



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

June 9, 1997

97-19

MEMORANDUM TO: ✓ C. F. Frazier, Acting Chief, Materials Licensing Branch

FROM: B. L. Jorgensen, Chief, Decommissioning Branch *P*

SUBJECT: TECHNICAL ASSISTANCE REQUEST: DECOMMISSIONING
BRANCH RESPONSE AND CONCLUSIONS REGARDING ITS
REVIEW OF A DEPARTMENT OF THE ARMY'S CLOSE-OUT
SURVEY (CONTROL NO. 302444)

As requested in MLB's May 22, 1997, memorandum my staff has reviewed the licensee's *INDUSTRIAL RADIATION SURVEY NO. 27-MH-5113-96, FACILITY CLOSE-OUT AND TERMINATION SURVEY, MCALESTER ARMY AMMUNITION PLANT, MCALESTER, OK*, and the Chemrad August 29-30, 1995, "USRADS and INRAD Systems" *Indoor Radiological Survey of Building MAC03F and Building MAC608F located at McAlester Army Ammunition Plant*. These reports were attached to the licensee's letter dated March 17, 1997. Based on the review of the submittal, and past license and inspection information, we have concluded that the licensee has adequately assessed this former materials storage area, and that the licensee's amendment request should be issued.

The bases for this recommendation are as follows:

1. The potential source terms for generation of residual contamination within the facilities to be released were low. That is, the residual contamination was associated with DU penetrator machining equipment which were seal wrapped, on platforms (shipping pallets). Further, no processing or handling of unsealed materials had been performed in the facilities.
2. Routine environmental radiological contamination surveys were performed by the licensee while the equipment was in storage and no fixed or removal contamination was found exceeding release guidelines on building surfaces.
3. The confirmatory survey (Indust Radn Survey No. 27-MH-5113-96, *Facility Close-out and Termination Survey, 18 July 96-30 Aug 96*) satisfactorily demonstrated that the buildings met NRC guidelines for unrestricted release.

Note: The letter transmitting the amendment should clearly indicate that this release was based on the Army's close-out survey, and not the Chemrad survey. Although Chemrad's "USRAD and INSRAD Systems" were well documented and did not reveal contamination in excess of NRC guideline limits, several technical questions were identified during this review.

On June 3, 1997, Mr. David Fauver, NRC Division of Waste Management was contacted to discuss this computer based radiological survey system. Mr. Fauver indicated that we had not reviewed or approved this system to date, and that he felt we should review this system closely (i.e., TAR to HQ) prior to basing a release on the survey.

On June 3, 1997, Mr. Gary Buckrop was contacted for this request) and advised that the buildings could be authorized for release based on the Army survey, but if the Army desired the release to be based on both surveys that the NRC amendment would be delayed due to the necessity of forwarding the request to HQ. Mr. Buckrop was also advised that even if the amendment was issued without incorporating the other survey, we would forward the Chemrad survey to HQ for review, and would forward our comments to him under separate cover. Mr. Buckrop advised Mr. McCann (same day) that the Army wished to proceed with the request, rather than waiting for the TAR.

Should you or your staff have any questions, or need clarification of the above, please do not hesitate to contact me or Mr. McCann.

cc: D. Fauver, DWM
E. Hueter, RIII

License No. SUC-1380
Bracket No. 040-08767

CONVERSATION RECORD

TIME

DATE

6-6-97

☐ VISIT☐ CONFERENCE☒ TELEPHONE☐ INCOMING☒ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT

ORGANIZATION (OFFICE, DEPT. ETC.)

TELEPHONE NO.

Kelly Crooks, RSO

Dept. of Army

309-

782-2969

SUBJECT

CN 302444 SVC-1380

SUMMARY

1. Confirmed that amendment & cover letter should be addressed to Stephen Mapley
2. Confirmed that 9.C. should be deleted.
3. Mr Crooks also clarified that the small amount of ammunition currently stored in another portion of Building 1503 is not ammunition that contains any DV.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Loren Hunter

6-6-97

ACTION TAKEN

SIGNATURE

TITLE

DATE



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

MAY 22 1997

97-19

MEMORANDUM FOR: Bruce L. Jorgensen, Chief
Decommissioning Branch

FROM: *Cassandra F. Frazier*
Cassandra F. Frazier, Acting Chief
Nuclear Materials Licensing Branch

SUBJECT: TECHNICAL ASSISTANCE REQUEST FOR EXPEDITED REVIEW
OF CLOSE-OUT SURVEYS SUBMITTED BY DEPARTMENT OF
THE ARMY FOR STORAGE AREA AT MCALESTER ARMY
AMMUNITION PLANT AND OUR REQUEST FOR
PERFORMANCE OF A CLOSE-OUT INSPECTION AND, A
CONFIRMATORY SURVEY, IF DEEMED APPROPRIATE, TO
SUPPORT THE AMENDMENT

We received a letter dated March 17, 1997, with enclosures requesting an amendment to Department of Army License No. SUC-1380 (Docket No. 040-08767). The licensee requests deletion from the license of equipment contaminated with depleted uranium, currently authorized for possession and storage incident to decommissioning of facilities, at McAlester army ammunition plant, McAlester, Oklahoma. The licensee has enclosed information to confirm disposition of the equipment and have also enclosed "release surveys" which purport to show no contamination of remaining facilities. They seek authorization to release the storage structures for unrestricted use but may use them for storage of depleted uranium ammunition in the future, which is already authorized in Item A. of the license.

We request your assistance in the following:

- (1) Review and evaluation of the licensee's close-out surveys and associated records;
- (2) Performance of a close-out inspection and, a confirmatory survey, if appropriate; and
- (3) Recommendation on acceptability for release of the specified facilities for unrestricted use.

If you have any question feel free to contact Loren Hueter of my staff extension 9829.

License No. SUC-1380
Docket No. 040-08767

Attachment: Ltr dtd 03/17/97 (w/encl)

cc: J. Lieberman, OE; R. Caniano, RIII; B. Clayton, RIII

30 2444

MAY 22 1997

97-19

MEMORANDUM FOR: Bruce L. Jorgensen, Chief
Decommissioning Branch

FROM: Cassandra F. Frazier, Acting Chief
Nuclear Materials Licensing Branch

SUBJECT: TECHNICAL ASSISTANCE REQUEST FOR EXPEDITED REVIEW
OF CLOSE-OUT SURVEYS SUBMITTED BY DEPARTMENT OF
THE ARMY FOR STORAGE AREA AT MCALESTER ARMY
AMMUNITION PLANT AND OUR REQUEST FOR
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- (1) Review and evaluation of the licensee's close-out surveys and associated records;
- (2) Performance of a close-out inspection and, a confirmatory survey, if appropriate; and
- (3) Recommendation on acceptability for release of the specified facilities for unrestricted use.

If you have any question feel free to contact Loren Hueter of my staff extension 9829.

License No. SUC-1380
Docket No. 040-08767

Attachment: Ltr dtd 03/17/97 (w/encl)

cc: J. Lieberman, OE; R. Caniano, RIII; B. Clayton, RIII

DOCUMENT NAME: M:\04008767.OT7

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OFFICE	DNMS/RIII	C	DNMS/RIII	C					
NAME	LJHueter:brt		CFFrazier						
DATE	05/22/97		05/22/97						

OFFICIAL RECORD COPY



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

March 27, 1997

Kelly W. Crooks
Radiation Safety Officer
Army, Department of the
Commander
Industrial Operations Command
ATTN: AMSIO-DMW
Rock Island, IL 61299-6000

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE
(Letter Dated 03/17/97)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

☐ New License ☒ Amendment ☐ Renewal
☐ Termination ☐ Auth User (Amendment not required)
☐ Other _____

No administrative deficiencies were identified during this initial review. However, it should be noted that a technical review may identify omissions in the submitted information.

It appears that your request is routine (see 1-3 below, as applicable).

1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.
2. Renewal actions are normally processed within 180 days, however, under timely filing (before expiration), you may continue to operate under your existing license.
3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (630) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch

Mail Control No. 302444
License No. SUC-1380