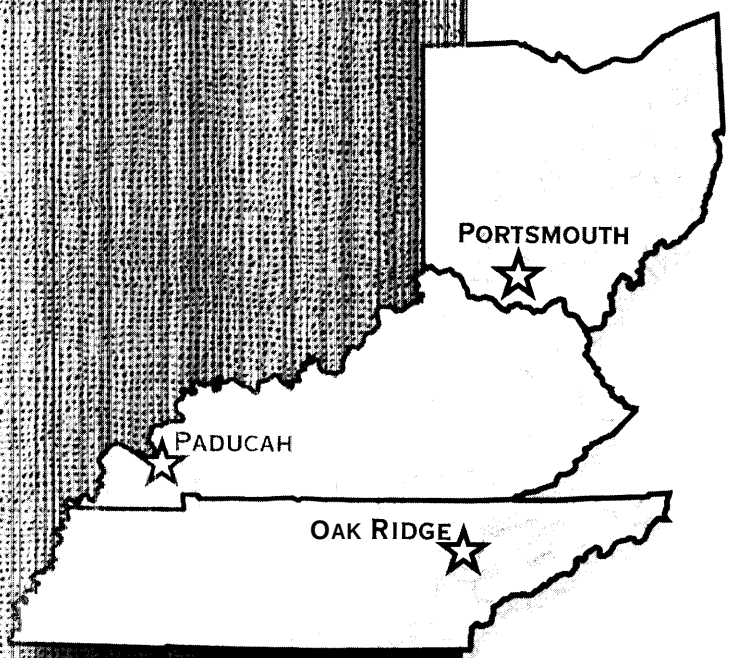
1/3/02 CB

BJC/PAD-290/V2

ENVIRONMENTAL MANAGEMENT
& ENRICHMENT FACILITIES
MANAGEMENT AND INTEGRATION CONTRACT

Final Inventory/Characterization Report for the C-331-13 Department of Energy Material Storage Area at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

D-17613-0001



MANAGED BY
BECHTEL JACOBS COMPANY LLC
FOR THE UNITED STATES
DEPARTMENT OF ENERGY

This document has received the appropriate reviews for release to the public.

BJC/PAD-290/V2

Final Inventory/Characterization Report for the C-331-13 Department of Energy Material Storage Area (DMSA) at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Date Completed August 30,2001

Date Issued – October 2001

Prepared by
WESKEM, LLC
Under subcontract 23900-BA-RMOO5F
Prepared for the
US Department of Energy
Office of Environmental Management

BECTEL JACOBS COMPANY LLC
managing the
Environmental Management Activities at the
East Tennessee Technology Park
Oak Ridge Y-12 Plant Oak Ridge National Laboratory
Paducah Gaseous Diffusion Plant Portsmouth Gaseous Diffusion Plant
Under contract DE-AC05-98OR22700
for the
U.S. DEPARTMENT OF ENERGY

CONTENTS

ACRONYMS……..v

EXECUTIVE SUMMARY…… .vii

Section 1. ZONE MAP

Section 2. CHARACTERIZATION PHOTOGRAPHS

Section’3. INVENTORY AND CHARACTERIZATION REPORT

Section 4. DMSA C-331-13 INVENTORY

Section 5. REUSABLE MATERIAL INVENTORY

Section 6. RFD FORMS

Section 7. REUSABLE MATERIAL – E FORMS

Section **8.** SME INSPECTION

Section **9.** HP SURVEY

Section 10. HP SMEAR AND AIR SAMPLE ACTIVITY REPORT

Section 11. IH SAMPLING **DATA**

ACRONYMS

DMSA	Department of Energy Materials Storage Area
DOE	Department of Energy
EPA	Environmental Protection Agency
HP	Health Physics
IH	Industrial Hygiene
Lc	Level Sub C
LLW	Low Level Waste
NCS	Nuclear Criticality Safety
QA	Quality Assurance
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFD	Request for Disposal
SAA	Satellite Accumulation Area
SME	Subject Matter Expert
TSCA	Toxic Substance Control Act

EXECUTIVE SUMMARY

The Department of Energy Material Storage Area (DMSA) C-331-13 field activities began on August 2,2001 and were completed on August 30,2001 at the Paducah Gaseous Diffusion Plant (PGDP). During the field activities no Resource Conservation and Recovery Act (RCRA) or Toxic Substance Control Act (TSCA)/Poly-Chlorinated Biphenyl (PCB) items were identified, but there were low level waste (LLW) items and reusable materials identified at this site. Section one (1) of this report is a diagram depicting the zones in the DMSA work area. Section two (2) contains characterization photographs of the initial entry and post entry. Sections three (3) through five *(5)* are various inventories containing material classifications, zones, volumes, and weights. Sections six (6) and seven (7) are Request for Disposal (RFD) and Reusable Material forms generated for each item identified in the DMSA. Sections eight (8) through eleven (11) contain sampling strategies, sampling results and direct readings. Based on previous sampling results no additional characterization sampling was conducted in this DMSA.

Low Level Waste (LLW)

The LLW items inventoried included C-310 converters, tank saddles, and wire chokers. All items had barcode labels and DMSA tags placed on them and remain in the DMSA. The total volume of the LLW items inventoried is approximately 549 cubic feet with an estimated weight of 14,215 pounds. LLW volumes and weights can be obtained in section four (4).

Reusable Materials

The reusable materials consisted of C-310 converters, "00" compressors (shells only – B inlet section), "00" compressor (shell only – A section casing), "00" compressor lifting fixture, compressor nozzle sling, "00" compressor circular plate lifting fixture, electrical transformers, and transformer cooling fans. All of the items were marked with a unique identification number and remain in the DMSA. The total volume is approximately 2,209 cubic feet with an estimated weight of 55,320 pounds. The reusable material's volumes and weights are in section five *(5)*.

Safety

There were no accidents, injuries, or illnesses associated with the characterization of this DMSA.

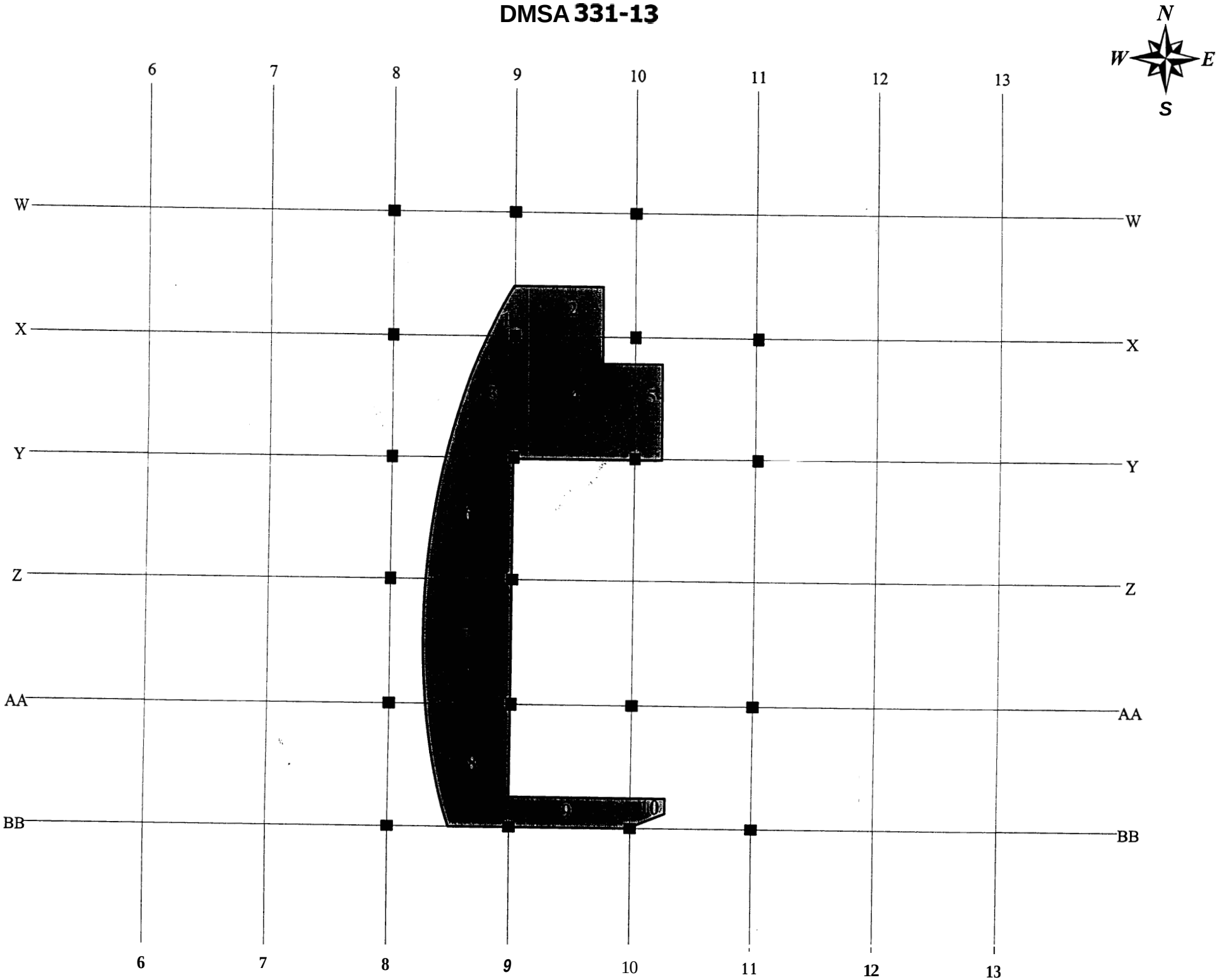
The Health Physics (HP) surveys conducted included smear samples, air samples, and direct readings. Survey number 01-DM-14-S contained the highest and lowest Alpha and BetdGamma readings. The highest Alpha reading was 3,409dpm/100cm^2 on a C-310 converter. The highest BetdGamma reading was 365,280dpm/100cm^2 on a C-310 converter. The lowest detectible Alpha reading was 85dpm/100cm^2 on a tank saddle. The lowest detectible BetdGamma reading was 6058dpm/100cm^2 on a transformer-cooling fan. The HP results are located in sections nine (9) and ten (10).

The Industrial Hygiene (IH) stated sample 3113Z8OVPS01 exceeded normal holding time but the local instrument reading agreed with the analytical results, therefore there was no observed impact on the data. IH concludes that the airborne concentrations in the parameters measured were not above permissible exposure limits (PEL). The analytical field data is located in section eleven (11).

Section 1.

ZONE MAP

DMSA 331-13



Section 2.

CHARACTERIZATION PHOTOGRAPHS

C-331-13 DMSA Converters

C-331-13 DMSA Converter

C-331-13 DMSA Converters

C-331-13 DMSA Transformer

Section 3.

INVENTORY AND CHARACTERIZATION REPORT

Inventory By DMSA No.

Curr. Zone	RFD #	Barcode #	Description	Vol. ft3	llw	tsca	rcra	mix	asb	fis	lnd	Gen. Date	Char. Date	Transferred To
C-331-13														
ZONE 2	110501	DMSA0110520	C-310 CONVERTER	177	☐	☐	☐	☐	☐	☐	☐	8/10101	8/10101	
ZONE 4	110502	DMSA0110519	C-310 CONVERTER	177	☑	☐	☐	☐	☐	☐	☐	8/10101	8/10101	
ZONE 4	110503	DMSA0110518	C-310 CONVERTER	177	☑	☐	☐	☐	☐	☐	☐	8/10101	8/10101	
ZONE 4	110504	DMSAOI10500	TANK SADDLE	8	☑	☐	☐	☐	☐	☐	☐	8/10101	8110101	
ZONE 4	110506	DMSAOI10498	WIRE CHOKER	0.5	☑	☐	☐	☐	☐	☐	☐	8110101	8110101	
ZONE 4	110507	DMSA0110521	WIRE CHOKER	0.5	☑	☐	☐	☐	☐	☐	☐	8/10101	8/10101	
ZONE 4	110508	DMSA0110522	WIRE CHOKER	0.5	☑	☐	☐	☐	☐	☐	☐	8/10/01	8110101	
ZONE 6	110505	DMSAOI10499	TANK SADDLE	8	☑	☐	☐	☐	☐	☐	☐	8110101	8/10101	
Summary for C-331-13			*(8 RFDs)*	*548.5 Ft3*										
Grand Total	*(8 RFDs)*			*548.5 Total Ft3*										

Section 4.

DMSA C-331-13 INVENTORY

C-331-13 DMSA INVENTORY

Description	Original RFD #	Material Classification	Column #	Barcode	# Items	Volume Cubic Feet	Estimated Weight (lbs)	Material Transferred to USEC
C-310 Converter	110501	LLW	Zone 2	DMSAOI10520	1	177	4570	No
C-310 Converter	110502	LLW	Zone 4	DMSAOI10519	1	177	4570	No
C-310 Converter	110503	LLW	Zone 4	DMSAOI10518	1	177	4570	No
Tank Saddle	110504	LLW	Zone 4	DMSAOI10500	1	8	200	No
Tank Saddle	110505	LLW	Zone 6	DMSAOI10499	1	8	200	No
Wire Choker	110506	LLW	Zone 4	DMSAOI10498	1	0.5	35	No
Wire Choker	110507	LLW	Zone 4	DMSAOI10521	1	0.5	35	No
Wire Choker	110508	LLW	Zone 4	DMSAOI10522	1	0.5	35	No

Total Volume ft^3	*Total Estimated Weight (lbs)*
548.5	***74,275***

Section 5.

REUSABLE MATERIAL INVENTORY

Description	Original E#	Material Classification	Column #	Barcode	# Items	Volume Cubic Feet	Estimated Weight (Ibs)	Material Transferred to USEC
C-310 Converter	E00031	Reusable	Zone 4	DMSAOI10517	1	177	4570	No
C-310 Converter	E00032	Reusable	Zone 6	DMSAOI10516	1	177	4570	No
C-310 Converter	E00033	Reusable	Zone 6	DMSAOI10515	1	177	4570	No
C-310 Converter	E00034	Reusable	Zone 7	DMSAOI10514	1	177	4570	No
C-310 Converter	E00035	Reusable	Zone7	DMSA0110513	[illegible]	177	4570	No
C-310 Converter	E00036	Reusable	Zone 8	DMSAOI10512	1	177	4570	No
"00" Compressor, Shell only - B Inlet Section	E00037	Reusable	Zone 9	DMSAOI1051[illegible]	1	98	2500	No
"00" Compressor, Shell only - B Inlet Section	E00038	Reusable	Zone 10	DMSAOI10510	[illegible]	98	2500	No
"00" Compressor, A Section Casing, Shell only	E00039	Reusable	Zone 9	DMSAOI10509	[illegible]	100	4000	No
"00" Compressor Lifting Fixture	E00040	Reusable	Zone 10	DMSAOI10508	1	2	200	No
"00" Compressor Lifting Fixture	E00041	Reusable	Zone 9	DMSAOI10507	1	2	200	No
Compressor Nozzle Sling	E00042	Reusable	Zone 9	DMSAOI10506	[illegible]	1	100	No
"00" Compressor Circular Plate, Lifting Fixture	E00043	Reusable	Zone 9	DMSAOI10505	1	2	500	No
Electrical Transformer (Process)	E00044	Reusable	Zone 4	DMSAOI10504	1	300	6300	No

Description	Original E#	Material Classification	Column #	Barcode	# Items	Volume Cubic Feet	Estimated Weight (lbs)	Material Transferred to USEC
Electrical Transformer (Process)	E00045	Reusable	Zone **4**	DMSAOI10503	1	540	11500	No
Transformer Cooling Fan	E00046	Reusable	Zone **4**	DMSAOI10502	1	2	50	No
Transformer Cooling Fan	E00047	Reusable	Zone **4**	DMSAOI10501	1	2	50	No

Total Volume ft^3	***Total Estimated Weight (lbs)***
2,209	***55,320***

Section 6.

RFD FORMS

NOTE: All low level waste remains in the DMSA until DOE approval for low level waste remediation.

DOE

LLW

RFD

Request For Disposal

Document ID Number
120501

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / WO
Bill Hagan	704284	441-5131	C-743 T-1	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Weskem	DOE	PGDP	C-331	C-331-09	☑ Yes ☐ No

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	LEG	A93	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachment
MT004	PGDP	C-331	C-331-13	☑ A ☐ B ☐ C

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA C-331-09-002 C-310 Converter

B.C.-DMSA0110520 Zone 2

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marked with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hagan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

P6. Additional Handling Instructions
Verify labeling, barcode & Zone 2

Reference FWR
Origin Date
PCB Start Date
RCRA Start Date

P7. Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hagan	704284	8-10-01	M S Mason	31022	8-28-01

P9. Field Supervisor	Badge	Date	P10. Data Processing Completed By	Badge	Date
Gary Hines	38255	8/28/01	[illegible]		8-30-01

P11. Waste Item Information

Waste Item No. 110501
Container No. (Barcode) DMSA0110520
Weight ~ 4,570 lbs
Location and Grid C-331-[redacted] 13-2 2-2
Container Size ~ 177 gal 3

P12. Operator Comments

UCF-515a (03/01)

DMSA

received
Cin 8-16-01

LOW-LEVEL RADIOACTIVE WASTE

ATTACHMENT A

DOCUMENT ID NUMBER 110501

PROHI 'ED ITEMS

A1 PYROPHORIC MATERIALS -OTHER THAN RADIOACTIVE FORMS OF ISOTOPES	A2. ACTIVE CHELATING AGENTS	A3. TRU RADIOISOTOPES>100 nCi/g	A4. EXPLOSIVE MATERIALS
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO
A5 ETILOGICAL AGENTS	**A6. IGNITION SOURCES**	**A7. FREE LIQUIDS (Unless Wastewater)**	**A8. RCRA WASTE** / **A9. TSCA WASTE**
O Y E S ☑ NO	☐ YES ☑ NO	O Y E S ☑ NO	☐ YES ☑ NO / ☐ YES ☑ NO

A10. WASTE VARIANCE REQUEST NUMBER(S)

ADDITIONAL WASTE CHARACTERISTICS

A11. CHELATING AGENTS	A12. ION EXCHANGE RESINS	A13. DETECTABLE PCB (Concen. And Source <50 ppm)	A14. WASTEWATER
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO CONC. ppm	☐ YES ☑ NO

RADIOISOTOPE DETERMINATION METHOD

DOCUMENT TYPE	DOCUMENT NUMBER
R1. ANALYSIS SAMPLE ID NO.	
R2. PROCESS KNOWLEDGE FORM NO.	

R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT	R5. CHEMICAL FORM
		☑ YES ☐ NO	

DOCUMENT TYPE	DOCUMENT NUMBER
01. ANALYSIS SAMPLE ID NO.	
02. PROCESS KNOWLEDGE FORM NO.	

R8. TRANSFERABLE (Alpha)	R9. FIXED (Alpha)
dpm/100cm2	dpm/100cm2
R10 TRANSFERABLE (Beta/Gamma)	**R11. FIXED (Beta/Gamma)**
dpm/100cm2	dpm/100cm2
	R13 DOSE
MREM/HR	MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER	DOCUMENT ID NUMBER
1 OF 1	110501

11. WASTE ITEM ID NO	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE	14. PCB DATE TO STORAGE
110501-01	8-10-01	N/A	N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR INITIAL	17. DEPOSITOR DATE	18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
C-310 Converter	1	BH	8-23-01	DMSA 331-09-002 Holding Area 331-13 Zone 2

19. CONTAINER ID NO (Barcode)	110. ABSORBENT MATERIALS? QUANTITY TYPE	111. NMC&A FORM	112. EST. NET VOLUME	113. UNITS
DMSA 0110520	[ ] YES [X] NO		~177 ft³	

114. GROSS WEIGHT	115. UNITS	116. INNER CONTAINER TYPE	117. OUTER CONTAINER TYPE	118. TANK SEAL NUMBER
~4,570 lbs				

119. CONTAINER GENERATOR SIGNATURE: [signature] DATE: 8-23-01

JCN-20700 PAGE 2

DOE

RFD

LLW

Request For Disposal

Document ID Number 110502

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / WC
Bill Hogan	704284	441-5131	C-743 T-1 BH 8-10-01	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Weskem	DOE	PGDP	C-331	C-331-09	☑ Yes ☐ No

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	LEG	A93	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachment
MT 004	PGDP	C-331	C-331-13	☑ A ☐ B ☐ C

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA C-331-09-003 C-310 Converter

B.C.-DMSA 0110519 Zone 4

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marked with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hogan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

___ RCRA	___ PCB	___ DET PCB (<50ppm & source <50ppm)	___ RAD	___ DOE
___ FISSILE	___ NCS EXEMPT	___ RD CONFIDENTIAL.	___ ACID	___ USEC
___ FLAMMABLE	___ COMBUSTJBLE	___ OXIDIZER	___ BASE	___ WESKEM
___ ASBESTOS	___ REACTIVE	___ TRANSURANIC	___ NON-HAZ	

P6. Additional Handling Instructions

Verify labeling, barcode + zone

Reference FWR

Origin Date

PCB Start Date

RCRA Start Date

P7. Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hogan	704284	8-10-01	Dale Beach	32222	8/28-01

P9. Field Supervisor	Badge	Date	P10. Data Processing Completed By	Badge	Date
Gary Hines	39255	8/28/01	Clay Walker		8-30-01

P11. Waste Item Information

Waste Item No. 110502

Container No. (Barcode) DMSA 0110519

Weight 4,570 LBS

Location and Grid 331-13 Z-4

Container Size ~~1M~~ FT3

P12. Operator Comments

BJCF-515a (030)

DMSA

received CW 8-16-01

LOW-LEVEL RADIOACTIVE WASTE

ATTACHMENT A

DOCUMENT **ID** NUMBER: 110502

A1. PYROPHORIC MATERIALS -OTHER THAN RADIOACTIVE FORMS OF ISOTOPES	A2. ACTIVE CHELATING AGENT:	A3. TRU RADIOISOTOPES >100 nCi/g	A4. EXPLOSIVE MATERIALS
☐ YES ☑ NO	D Y E S ☑ NO	D Y E S ☑ NO	☐ YES ☑ NO

A5. ETILOGICAL AGENTS	A6. IGNITION SOURCES	A7. FREE LIQUIDS (Unless Wastewater)	A8. RCRA WASTE	A9. TSCA WASTE
☐ YES ☑ NO	D Y E S ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO

A10. WASTE VARIANCE REQUEST NUMBER(S)

ADDITIONAL WASTE CHARACTERISTICS

A11. CHELATING AGENTS	A12. ION EXCHANGE RESINS	A13. DETECTABLE PCB	CONC.	A14. WASTEWATER
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	ppm	☐ YES ☑ NO

DOCUMENT TYPE	DOCUMENT NUMBER
R1. ANALYSIS SAMPLE ID NO.	
R2. PROCESS KNOWLEDGE FORM NO.	

R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT	R5. CHEMICAL FORM
		☑ YES ☐ NO	

DOCUMENT TYPE	DOCUMENT NUMBER
01. ANALYSIS SAMPLE ID NO.	
02. PROCESS KNOWLEDGE FORM NO.	

RADIATION DATA FROM HEALTH PHYSICS SURVEY SURFACE CONTAMINATION (Data Supplied by HP)

R7. HP SURVEY REQUIRED

D Y E S ☐ No

R8. TRANSFERABLE (Alpha)	R9. FIXED (Alpha)
dpm/100cm2	dpm/100cm2
dpm/100cm2	dpm/100cm2
R12. EXTERNAL DOSE/PACKAGE CONTACT	R13. DOSE RATE
MREM/HR	MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER	DOCUMENT ID NUMBER
1 OF 1	110502

11. WASTE ITEM ID NO.	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE	14. RCB DATE TO STORAGE
110502-01	8-10-01	N/A	N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR INITIAL	17. DEPOSITOR DATE	18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
C-310 Converter	1	BH6	8-27-01	DMSA 331-09-003 Holding Area C-331-13 Zone 4

109 CONTAINER ID NO (Barcode)	110 ABSORBENT MATERIALS? QUANTITY TYPE	111 NMC&A FORM	112 EST NET VOLUME	113 UNITS
DMSA 0110519	[ ] YES [X] NO		~ 177 ft³	

114 GROSS WEIGHT	115 UNITS	116 INNER CONTAINER TYPE	117 OUTER CONTAINER TYPE	118 TANK SEAL NUMBER
4,570 lbs.				

119 CONTAINER GENERATOR SIGNATURE	DATE
Bill Hoy	8-27-01

DOE
Request For Disposal

LLW

RFD

Document ID Number
110503

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / W
Bill Hagan	704284	441-5131	C-743 T-1	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Western	DOE	PGDP	C-331	C-331-13	☑ Yes ☐ No

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	LEG	A93	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachmen
MT004	PGDP	C-331	C-331-13	☑ A ☐ B ☐ C

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA 331-13-001 C-310 Converter

B.C.0110518 Zone 4

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marked with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hagan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

Verify labeling, barcode, + zone

P7. Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hagan	704284	8-10-01	Mike Holloway	19703	8/28/01

P9. Field Supervisor	Badge	Date	P10. Data Processing Completed By	Badge	Date
Gary Hines	39255	8/28/01	Chris Walker		8-30-01

P11. Waste Item Information

51

3 -

JCF-515a (03/01)

DMSA

received
8-16-01

LOW-LEVEL RADIOACTIVE WASTE

AJTACHMENT A

DOCUMENT ID NUMBER
110503

PROHI

A1. PYROPHORIC MATERIALS -OTHER THAN RADIOACTIVE FORMS OF ISOTOPES	A2. ACTIVE CHELATING AGENT:			
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	
A5. ETILOGICAL AGENTS	A6. IGNITION SOURCES	A7. FREE LIQUIDS (Unless Wastewater)	A8. RCRA WASTE	A9. TSCA WASTE
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO

A10. WASTE VARIANCE REQUEST NUMBER(S)

ADDITIONAL WASTE CHARACTERISTICS

A11. CHELATING AGENTS	A12. ION EXCHANGE RESINS	A13. DETECTABLE PCB (Concen. And Source <50 ppm)	CONC.	A14. WASTEWATER
☐ YES ☑	☐ YES ☑ NO	☐ YES ☑ NO	ppm	☐ YES ☑ NO

RADIOISOTOPE DETERMINATION METHOD

DOCUMENT TYPE	DOCUMENT NUMBER
R1. ANALYSIS SAMPLE ID NO.	
R2. PROCESS KNOWLEDGE FORM NO.	

R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT	R5. CHEMICAL FORM
		☑ YES ☐ NO	

DOCUMENT TYPE	DOCUMENT NUMBER
01. ANALYSIS SAMPLE ID NO.	
02. PROCESS KNOWLEDGE FORM NO.	

RADIATION DATA FROM HEALTH PHYSICS SURVEY SURFACE CONTAMINATION (Data Supplied by HP)

R7. HP SURVEY REQUIRED

R8. TRANSFERABLE (Alpha)	R9. FIXED (Alpha)
dpm/100cm2	dpm/100cm2
dpm/100cm2	dpm/100cm2
R12. EXTERNAL DOSU PACKAGE CONTACT	R13. DOSE RATE
MREM/HR	MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER	DOCUMENT ID NUMBER
1 OF 1	110503

11. WASTE ITEM ID NO.	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE	14. PCB DATE TO STORAGE
110503-01	8-10-01	N/A	N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR INITIAL	17. DEPOSITOR DATE	18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
C-310 Converter	1	BH	8-27-01	DMSA 331-13-001 Zone 4

9. CONTAINER ID NO (Barcode)	110 ABSORBENT MATERIALS? QUANTITY TYPE	111 NMC&A FORM	112 EST NET VOLUME	113 UNITS
USA 0110 518	[ ] YES [✓] NO		~ 177 ft³	

114 GROSS WEIGHT	115 UNITS	116 INNER CONTAINER TYPE	117 OUTER CONTAINER TYPE	118 TANK SEAL NUMBER
~ 4,570 lbs.				

CONTAINER GENERATOR SIGNATURE: Bill Hogan

DATE: 8-27-01

DOE

LLW

RFD

Document ID Number 110504

Request For Disposal

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / WO
Bill Hagan	704284	441-5131	C-743 T-1	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Weskem	DOE	PGDP	C-331	C-331-13	☑ Yes ☐ No

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	LEG	A93	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachment
MT007	PGDP	C-331	C-331-13	☑ A ☐ B ☐ C

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA 331-13-019 Tank Saddle

DMSA
RC110500 Zone 4

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marked with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hagan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

___ RCRA	___ PCB	___ DET PCB (<50ppm & source <50ppm)	___ RAD	___ DOE
___ FISSILE	___ NCS EXEMPT	___ RD CONFIDENTIAL	___ ACID	___ USEC
___ FLAMMABLE	___ COMBUSTIBLE	___ TRANSURANIC	___ BASE	___ WESKEM
___ ASBESTOS	___ REACTIVE	___ OXIDIZER	___ NON-HAZ	

P6. Additional Handling Instructions

Verify labeling, barcode + zone

Reference FWR	
Origin Date	
PCB Start Date	
RCRA Start Date	

P7. Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hagan	704284	8-10-01	Mike Holloway	19703	8/28/01

P9. Field Supervisor	Badge	Date	P10. Data Processing Completed By	Badge	Date
Doug Hines	34255	8/28/01	Chi Walker		8-30-0

P11. Waste Item Information

Waste Item No. 110504-01

Container No. (Barcode) DMSA110500

Weight 200 LBS

Location and Grid C-331-13

Container Size 8 ft 3

P12. Operator Comments

DOF-515a (03/01)

DMSA

received
8-16-0

LOW-LEVEL RADIOACTIVE WASTE

ATTACHMENT A

DOCUMENTIDNUMBER 110504

-OTHER THAN RADIOACTIVE FORMS OF ISOTOPES ☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO
A5. ETILOGICAL AGENTS ☐ YES ☑ NO	A6. IGNITION SOURCES ☐ YES ☑ NO	A7. FREE LIQUIDS (Unless Wastewater) ☐ YES ☑ NO	A8. RCRA WASTE ☐ YES ☑ NO / A9. TSCA WASTE ☐ YES ☑ NO

A10. WASTE VARIANCE REQUEST NUMBER(S)

☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	ppm ☐ YES ☑ NO

DOCUMENT TYPE	DOCUMENTNUMBER		
R1. ANALYSIS SAMPLE ID NO.			
R2. PROCESS KNOWLEDGE FORM NO. 0216			
R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT ☑ YES ☐ NO	R5. CHEMICAL FORM

DOCUMENT TYPE	DOCUMENT NUMBER
01. ANALYSIS SAMPLE ID NO.	
02. PROCESS KNOWLEDGE FORM NO.	

RADIATION DATA FROM HEALTH PHYSICS SURVEY
SURFACE CONTAMINATION (Data Supplied by HP)

R7. HP SURVEY REQUIRED

☐ YES ☐ No

R8. TRANSFERABLE (Alpha) dpm/100cm2	R9. FIXED (Alpha) dpm/100cm2
R10. TRANSFERABLE (Beta/Gamma) dpm/100cm2	R11. FIXED (Beta/Gamma) dpm/100cm2
R12. EXTERNAL DOSE/PACKAGE CONTACT MREM/HR	R13. DOSE RATE MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER	DOCUMENT ID NUMBER
1 OF 1	110504

11. WASTE ITEM ID NO.	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE	14. RCB DATE TO STORAGE
110504-01	8-10-01	N/A	N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR INITIAL	17. DEPOSITOR DATE	18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
Tank Saddle	1	BH6	8-27-01	DMSA 331-13-019 Zone 4

19. CONTAINER ID NO (Barcode)	110. ABSORBENT MATERIALS? QUANTITY TYPE	111. NMC&A FORM	112. EST. NET VOLUME	113. UNITS
DMSA 0110500	[ ] YES [X] NO		~ 8 ft^3	

114. GROSS WEIGHT	115. UNITS	116. INNER CONTAINER TYPE	117. OUTER CONTAINER TYPE	118. TANK SEAL NUMBER
~ 200 lbs.				

119. CONTAINER GENERATOR SIGNATURE	DATE
BH6	8-27-01

DOE

LLW

RFD

Request For Disposal

Document ID Number 110505

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / WO
Bill Hogan	104284	441-5131	C-743 T-1	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Weskem	DOE	PGDP	C-331	C-331-13	☑ Yes ☐ No

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	IFR	193	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachment
MT007	PGDP	C-331	C-331-13	☑ A ☐ B ☐ C

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA 331-13-020 Tank Saddle

DMSA R.C. 0110499 Zone 6

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marked with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hogan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

___ RCRA	___ PCB	___ DET PCB (<50ppm & source <50ppm)	___ RAD	___ DOE
___ FISSILE	___ NCS EXEMPT	___ RD CONFIDENTIAL	___ ACID	___ USEC
___ FLAMMABLE	___ COMBUSTIBLE	___ OXIDIZER	___ BASE	___ WESKEM
___ ASBESTOS	___ REACTIVE	___ TRANSURANIC	___ NON-HAZ	

Additional Handling Instructions: Verify labeling, barcode + zone

Reference FWR

Origin Date

PCB Start Date

RCRA Start Date

Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hogan	104284	8-10-01	MS Mason	31022	8-28-01

P9. Field Supervisor	Badge	Date	P10. Data Processing Completed By	Badge	Date
Gary Hin	34255	8/28/01	Chy Weller		8-30-01

P12. Operator Comments

P11. Waste Item Information

Waste Item No. 110505

Container No. (Barcode) DMSA0110499

Weight 200 lbs

Location and Grid 331-13-020 2-6

Container Size 8 Ft 3

P-515a (03/01)

DMSA

received 8-16-01

LOW-LEVEL RADIOACTIVE WASTE

ATTACHMENT A

DOCUMENTIDNUMBER 110505

A1 PYROPHORIC MATERIALS -OTHER THAN RADIOACTIVE FORMS OF ISOTOPES	A2 ACTIVE CHELATING AGENTS	A3 TRU RADIOISOTOPES>100 nCi/g	A4 EXPLOSIVE MATERIALS
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO

A5. ETILOGICAL AGENTS	A6 IGNITION SOURCES	A7. FREE LIQUIDS (Unless Wastewater)	A8. RCRA WASTE	A9. TSCA WASTE
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO

ADDITIONAL WASTE CHARACTERISTICS

A11. CHELATING AGENTS	A12. ION EXCHANGE RESINS	A13. DETECTABLE PCB	CONC.	A14. WASTEWATER
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	ppm	☐ YES ☑ NO

RADIOISOTOPE DETERMINATION METHOD

DOCUMENT TYPE	DOCUMENT NUMBER
R1. ANALYSIS SAMPLE ID NO.	
R2. PROCESS KNOWLEDGE FORM NO. 0210	

R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT	R5. CHEMICAL FORM
		☑ YES ☐ NO	

DOCUMENT TYPE	DOCUMENT NUMBER
01. ANALYSIS SAMPLE ID NO.	
02. PROCESS KNOWLEDGE FORM NO.	

R8. TRANSFERABLE (Alpha) dpm/100cm2	R9. FIXED (Alpha) dpm/100cm2
R10. TRANSFERABLE (Beta/Gamma) dpm/100cm2	R11. FIXED (Beta/Gamma) dpm/100cm2
R12. EXTERNAL DOSE/PACKAGE CONTACT MREM/HR	R13. DOSE RATE MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER				DOCUMENT ID NUMBER
1 OF 1				110505
11. WASTE ITEM ID NO	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE		14. RCB DATE TO STORAGE
110505-01	8-10-01	N/A		N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR		18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
		INITIAL	DATE	
Tank Sludge	1	BH	8-27-01	DMSA 331-13-020 Zone 6

19 CONTAINER ID NO (Barcode)	110 ABSORBENT MATERIALS? [ ] YES [✓] NO	QUANTITY	TYPE	111 NMC&A FORM	112 EST NET VOLUME	113 UNITS
DMSA 0110499					~ 8 ft³	
114 GROSS WEIGHT	115 UNITS	116 INNER CONTAINER TYPE		117 OUTER CONTAINER TYPE	118 TANK SEAL NUMBER	
~ 200 lbs						
119 CONTAINER GENERATOR SIGNATURE	Bill Hog				DATE 8-27-01	

UCN-20700 PAGE 2

DOE

Request For Disposal

LLW

RFD

Document ID Number 110506

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / WO
Bill Hagan	704284	441-5131	C-743 T-1	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Weskem	DOE	PGDP	C-331	C-331-13	☑ Yes ☐ No

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	LEB	A93	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachment
MT007	PGDP	C-331	C-331-13	☑ A ☐ B ☐ C

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA 331-13-021 Wire Choker

B.C. DMSA 0110498 Zone 4

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marked with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hagan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

___ RCRA	___ PCB	___ DET PCB (<50ppm & source <50ppm)	___ RAD	___ DOE
___ FISSILE	___ NCS EXEMPT	___ RD CONFIDENTIAL	___ ACID	___ USEC
___ FLAMMABLE	___ COMBUSTIBLE	___ OXIDIZER	___ BASE	___ WESKEM
___ ASBESTOS	___ REACTIVE	___ TRANSURANIC	___ NON-HAZ	

P6. Additional Handling Instructions

Verify labeling, barcode + zone

Reference FWR	
Origin Date	
PCB Start Date	
RCRA Start Date	

P7. Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hagan	704284	8-10-01			

P9. Field Supervisor	Badge	Date	P10. Data Processing Completed By	Badge	Date
Gary Hines	34255	8/28/01	Chr Walker		8-30-01

P11. Waste Item Information

Waste Item No. 110506-01

Container No. (Barcode) DMSA0110498

Weight 35LBS

Location and Grid C-331-13 ZONE4

Container Size ~~1x 1FT3~~ .5ft3

10-11-01

P12. Operator Comments

BJCF-515a(03/01)

DMSA

received 8-16-01

LOW-LEVEL RADIOACTIVE WASTE

DOCUMENT ID NUMBER: 110506

A1. PYROPHORIC MATERIALS -OTHER THAN RADIOACTIVE FORMS OF ISOTOPES	A2 ACTIVE CHELATING AGENTS	A3. TRU RADIOISOTOPES >100 nCi/g	A4. EXPLOSIVE MATERIALS	
☐ YES ☑ NO	☐ YES	☐ YES	☐ YES ☑ NO	
A5. ETILOGICAL AGENTS	A6. IGNITION SOURCES	A7. FREE LIQUIDS (Unless Wastewater)	A8. RCRA WASTE	A9. TSCA WASTE
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO

A10. WASTE VARIANCE REQUEST NUMBER(S)

ADDITIONAL WASTE CHARACTERISTICS

A11. CHELATING AGENTS	A12. ION EXCHANGE RESINS	A13. DETECTABLE PCB (Concen. And Source <50 ppm)		A14. WASTEWATER
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	CONC. ppm	☐ YES ☑ NO

DOCUMENT TYPE	DOCUMENT NUMBER
R1. ANALYSIS SAMPLE ID NO.	
R2. PROCESS KNOWLEDGE FORM NO. 0210	

R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT	R5. CHEMICAL FORM
		☑ YES ☐ NO	

DOCUMENT TYPE	DOCUMENT NUMBER
01. ANALYSJS SAMPLE ID NO.	
02. PROCESS KNOWLEDGE FORM NO.	

RADIATION DATA FROM HEALTH PHYSICS SURVEY
SURFACE CONTAMINATION (Data Supplied by HP)

R7. HP SURVEY REQUIRED

☐ YES ☐ No

R8. TRANSFERABLE (Alpha) dpm/100cm2	R9. FIXED (Alpha) dpm/100cm2
R10. TRANSFERABLE (Beta/Gamma) dpm/100cm2	R11. FIXED (Beta/Gamma) dpm/100cm2
R12. EXTERNAL DOSE/PACKAGE CONTACT MREM/HR	R13. DOSE RATE MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER	DOCUMENT ID NUMBER
1 OF 1	110506

11. WASTE ITEM ID NO.	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE	14. RCB DATE TO STORAGE
110506-01	8-10-01	N/A	N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR INITIAL	17. DEPOSITOR DATE	18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
Wire Choker	1	BH	8-27-01	DMSA 331-13-021 Zone 4

19. CONTAINER ID NO (Barcode)	110 ABSORBENT MATERIALS? QUANTITY TYPE	111 NMC&A FORM	112 EST NET VOLUME	113 UNITS
DMSA 0110498	[ ] YES [X] NO		~ 1 ft^3	

114 GROSS WEIGHT	115 UNITS	116 INNER CONTAINER TYPE	117 OUTER CONTAINER TYPE	118 TANK SEAL NUMBER
~ 35 lbs.				

119 CONTAINER GENERATOR SIGNATURE	DATE
Bill Hay	8-27-01

DOE

Request For Disposal

LLW

RFD

Document ID Number
110507

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / W
Bill Hagan	704284	441-5131	C-743 T-1	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Weskem	DOE	PGDP	C-331	C-331-13	☑ Yes ☐ N

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	LEG	A-93	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachme
MT 007	PGDP	C-331	C-331-13	☑ A ☐ B ☐

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA 331-13-022 Wire Choker

B.C. DMSA 0110521 Zone 4

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marke with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hagan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

___ RCRA	___ PCB	___ DET PCB (<50ppm & source <50ppm)	___ RAD	___ DOE
___ FISSILE	___ NCS EXEMPT	___ RD CONFIDENTIAL	___ ACID	___ USEC
___ FLAMMABLE	___ COMBUSTIBLE	___ OXIDIZER	___ BASE	___ WESKEM
___ ASBESTOS	___ REACTIVE	___ TRANSURANIC	___ NON-HAZ	

P6. Additional Handling Instructions

Verify labeling, barcode + zone

Reference FWR

Origin Date

PCB Start Date

RCRA Start Date

P7. Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hagan	704284	8-10-01	Dale Beach	32222	8-28-01
P9. Field Supervisor		**Date**	**P10. Data Processing Completed By**	**Badge**	**Date**
Doug Hines		8/28/01	[illegible]		8-30-

P11. Waste Item Information

Waste Item No. 110507-01

Container No. (Barcode) DMSA-0110521

Weight 35 LBS

Location and Grid -13 2-4

Container Size -1 FF3 JR 10-11-01 .5 ft3

P12. Operator Comments

BJCF-515a (03/01)

DMSA

received
[illegible] 8-16-01

LOW-LEVEL RADIOACTIVE WASTE

DOCUMENT ID NUMBER 110507

A1. PYROPHORIC MATERIALS	A2 ACTIVE CHELATING AGENTS	A3. TRU RADIOISOTOPES >100 nCi/g	A4. EXPLOSIVE MATERIALS
FORMS OF ISOTOPES ☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO

A5. ETILOGICAL AGENTS	A6. IGNITION SOURCES	A7. FREE LIQUIDS	A8. RCRA WASTE	A9. TSCA WASTE
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO

A10. WASTE VARIANCE REQUEST NUMBER(S)

ADDITIONAL WASTE CHARACTERISTICS

A11. CHELATING AGENTS	A12. ION EXCHANGE RESINS	A13. DETECTABLE PCB (Concen. And Source <50 ppm)	A14. WASTEWATER
☐ YES ☑ NO	☐ YES ☑ NO	☐ YES ☑ NO CONC. ppm	☐ YES ☑ NO

RADIOISOTOPE DETERMINATION METHOD

DOCUMENT TYPE	DOCUMENT NUMBER
R1. ANALYSIS SAMPLE ID NO.	
R2. PROCESS KNOWLEDGE FORM NO. 0210	

R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT	R5. CHEMICAL FORM
		☑ YES ☐ NO	

DOCUMENT TYPE	DOCUMENT NUMBER
O1. ANALYSIS SAMPLE ID NO.	
O2. PROCESS KNOWLEDGE FORM NO.	

RADIATION DATA FROM HEALTH PHYSICS SURVEY
SURFACE CONTAMINATION (Data Supplied by HP)

R7. HP SURVEY REQUIRED

☐ YES ☐ NO

R8. TRANSFERABLE (Alpha)	R9. FIXED (Alpha)
dpm/100cm2	dpm/100cm2
R10. TRANSFERABLE (Beta/Gamma)	R11. FIXED (Beta/Gamma)
dpm/100cm2	dpm/100cm2
MREM/HR	MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER				DOCUMENT ID NUMBER
1 OF 1				110507
11. WASTE ITEM ID NO.	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE		14. RCB DATE TO STORAGE
110507-01	8-10-01	N/A		N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR		18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
		INITIAL	DATE	
Wire Choker	1	BH	8-27-01	DMSA 331-13-022

19. CONTAINER ID NO (Barcode)	110 ABSORBENT MATERIALS? QUANTITY TYPE	111 NMC&A FORM	112 EST NET VOLUME	113 UNITS
DMSA 0110521	[ ] YES [X] NO		~1 ft³	
114 GROSS WEIGHT	115 UNITS	116 INNER CONTAINER TYPE	117 OUTER CONTAINER TYPE	118 TANK SEAL NUMBER
~35 lbs				

19 CONTAINER GENERATOR SIGNATURE: Bill Hage

DATE: 8-27-01

LOW-LEVEL RADIOACTIVE WASTE

ATTACHMENT A

DOCUMENT ID NUMBER: 110508

A1. PYROPHORIC MATERIALS -OTHER THAN RADIOACTIVE FORMS OF ISOTOPES ☐ YES ☑ NO	A2 ACTIVE CHELATING AGENTS ☐ YES ☑ NO	A3. TRU RADIOISOTOPES >100 nCi/g ☐ YES ☑ NO	A4. EXPLOSIVE MATERIALS ☐ YES ☑ NO	
A5. ETILOGICAL AGENTS ☐ YES ☑ NO	A6. IGNITION SOURCES ☐ YES ☑ NO	A7. FREE LIQUIDS (Unless Wastewater) ☐ YES ☑ NO	A8. RCRA WASTE ☐ YES ☑ NO	A9. TSCA WASTE ☐ YES ☑ NO

A10. WASTE VARIANCE REQUEST NUMBER(S)

ADDITIONAL WASTE CHARACTERISTICS

A11. CHELATING AGENTS ☐ YES ☑ NO	A12. ION EXCHANGE RESINS ☐ YES ☑ NO	A13. DETECTABLE PCB (Concen. And Source <50 ppm) ☐ YES ☑ NO CONC. ppm	A14. WASTEWATER ☐ YES ☑ NO

DOCUMENT TYPE	DOCUMENT NUMBER
R1. ANALYSIS SAMPLE ID NO.	
R2. PROCESS KNOWLEDGE FORM NO. 0216	

R3. FISSILE CONTENT (Wt% U-235)	R4. GRAMS U-235	R5. NCS EXEMPT ☑ YES ☐ NO	R5. CHEMICAL FORM

OTHER SAMPLE ANALYSIS

DOCUMENT TYPE	DOCUMENT NUMBER
01. ANALYSIS SAMPLE ID NO.	
02. PROCESS KNOWLEDGE FORM NO.	

RADIATION DATA FROM HEALTH PHYSICS SURVEY SURFACE CONTAMINATION (Data Supplied by HP)

R7. HP SURVEY REQUIRED ☐ YES ☐ NO

R8. TRANSFERABLE (Alpha) dpm/100cm2	R9. FIXED (Alpha) dpm/100cm2
R10. TRANSFERABLE (Beta/Gamma) dpm/100cm2	R11. FIXED (Beta/Gamma) dpm/100cm2
R12. EXTERNAL DOSE/PACKAGE CONTACT MREM/HR	R13. DOSE RATE MREM/HR @ METERS (B/G)
R14. HP SIGNATURE	R15. SURVEY NUMBER

WASTE ITEM CONTAINER LOG

10. ITEM/CONTAINER			DOCUMENT ID NUMBER
1 OF 1			110508
11. WASTE ITEM ID NO.	12. ORIGIN DATE	13. RCRA ACCUMULATION START DATE	14. RCB DATE TO STORAGE
110508-01	8-10-01	N/A	N/A

15. WASTE MATERIAL PLACED IN (Or Removed From) CONTAINER	16. QUANTITY	17. DEPOSITOR		18. COMMENTS (If Waste is removed from container, then final disposition must be noted.)
		INITIAL	DATE	
Wire Choker	1	BH	8-27-01	DMSA 331-13-023 Zone 4

19. CONTAINER ID NO (Barcode)	110 ABSORBENT MATERIALS? QUANTITY TYPE	111 NMC&A FORM	112 EST NET VOLUME	113. UNITS
DMSA 0110522	[ ] YES [X] NO		~1 ft³	

114 GROSS WEIGHT	115 UNITS	116 INNER CONTAINER TYPE	117 OUTER CONTAINER TYPE	118 TANK SEAL NUMBER
~35 lbs.				

19 CONTAINER GENERATOR SIGNATURE Bill Hog DATE 8-27-01

ICN-20700 PAGE 2

DOE

Request For Disposal

LLW

RFD

Document ID Number
110508

Generation Process Information (Completed by Generator)

W1. Generator's Name (Print)	W2. Badge No.	W3. Generator's Phone No.	W3. Mail Stop	W5. Charge No. / WO
Bill Hagan	704284	441-5131	C-743 T-1	

W6. Generator's Company	W7. Corp Owner	W8. Origin Site	W9. Origin Facility	W10. Origin Area	W11. Rad Area?
Weskem	DOE	PGDP	C-331	C-331-13	☑ Yes ☐ No

W12. Number of Items	W13. Process Category (GCC)	W14. Process Activity Code	W15. AWA Number	W16. Physical Form
1	LEG	A93	N/A	SOLID

W17. Material Type(s)	W18. Holding Site	W19. Holding Facility	W20. Holding Area	W21 RFD Attachment
MT007	PGDP	C-331	C-331-13	☑ A ☐ B ☐ C

Waste Subcategories (Check all that apply)

	Yes	No		Yes	No		Yes	No		Yes	No
W22. Biological		✓	W25. Const. Debris		✓	W28. Non-Friable Asbestos		✓	W31. DMSA	✓	
W23. Accountable		✓	W26. Classified		✓	W29. TRU Waste		✓			
W24. Carcinogen		✓	W27. Friable Asbestos		✓	W30. CERCLA		✓			

Waste Description / Comments

W32. DMSA 331-13-023 Wire Choker

DMSA
B.C. 0110522 Zone 4

This is to certify that the above named material is properly described and in the stated container, which is in good condition, marked with the RFD number, content, appropriate generation date, source location, and at the stated location.

W33. Generation Plan No.	W34. Generator's Signature	Date
	Bill Hagan	8-10-01

Handling / Pickup Information (Completed by Waste Management)

P1. Pick-up Site	P2. Pick-up Facility	P3. Pick-up Room/Area

P4. PPE Requirements

P5. Container-Labeling Requirements

___ RCRA	___ PCB	___ DET PCB (<50ppm & source <50ppm)	___ RAD	___ DOE
___ FISSILE	___ NCS EXEMPT	___ RD CONFIDENTIAL	___ ACID	___ USEC
___ FLAMMABLE	___ COMBUSTIBLE	___ OXIDIZER	___ BASE	___ WESKEM
___ ASBESTOS	___ REACTIVE	___ TRANSURANIC	___ NON-HAZ	

P6. Additional Handling Instructions

Verify labeling, barcode + zone

Reference FWR

Origin Date

PCB Start Date

RCRA Start Date

P7. Waste Coordinator (Issued By)	Badge	Date	P8. Disposal/Storage Completed By	Badge	Date
Bill Hagan	704284	8-10-01	Mike Holloway	19703	8/28/01

P9. Field Supervisor	Badge	Date	P10. Data Processing Completed By	Badge	Date
Gary Hin	34255	8/28/01	Chi Walker		8-30-01

P11. Waste Item Information

Waste Item No. 110508-01

Container No. (Barcode) DMSA 0110522

Weight 35 LBS

Location and Grid C-33 -13 ZONE 4

Container Size ~~1 ft3~~ JR 10-11-01 .5 ft3

P12. Operator **Comments**

BJCF-515a (03/01)

DMSA

received

Section 7.

REUSABLE MATERIAL – E FORMS

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 31

DMSA #: 331-13

Zone #: 4

Description: C-310 Converter

CATEGORY

Reusable Equipment: ☑

New or Unused Items: ☐

Misc. Items: ☐

Number of Items: 1

Estimated Volume: ~177 cu.ft

Estimated Weight: ~4,570 ~~lbs~~ lbs.

Barcode #: DMSA ~~010518~~ 01105

Original #: C-331-13-002

Verifier #1: Jeff Seeds

Badge #1: 704274

Date #1: 8-29-01

Verifier #2: Gary Hines

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS

NCS Characterization Form: ☑

HP Survey: ☑

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	ANALYTICAL CHARACTERIZATION: ^{235}U Mass Analysis	ANALYTICAL CHARACTERIZATION: Subcritical Mass Limits	ANALYTICAL CHARACTERIZATION: NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: E00031 Description: C-310 CONVERTER C-48295 Independent Confirmations: Individual #1: [illegible] Date: 8/16/01 Individual #2: [illegible] Date: 8/16/01 • • • • • • • • • • • Other Information; Bldg./Col.: C-331-X9 DMSA #: 331-13 Origin: NA	Historical Documentation: Process Knowledge: Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: Date:	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date: Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date:	Initial: Reclassification: ____ NCS - Exempt ____ ____ Spacing-Controlled ____ ____ Singularly-Contingent ____ DMSA/DRA Inspector: [illegible] Date: 8/20/01 NCS Engineer: (If Spacing-Controlled or Singularly-Contingent item is involved) Date: NDA Expert: (if NDA is performed) Date: Independent Verifications: (BEFORE movement) Person #1: Date: Person #2: Date: Independent Verifications: (AFTER movement) Person #1: Date: Person #2: Date:

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-002)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____
DMSA/DRA Inspector: _____ Date: _____
NCS Engineer: _____ Date: _____

I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

DMSA - Charac. ation Form

MAY 0 9 2000

Item Number: DMSA-331-13-002 Building: 331 DMSA #: 331-13

Item Description: C-310 Size Converter (2x) C-48295

Origin: GDP Owner Status: ~~N/A~~ DOE Capital Equipment ID: NA

5-10-00 X Analytical Data

Initial Characterization

Operating History

- No NCS Concerns (Not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

NA

Assay

- ☐ Assay Assumed: 0
- ☒ Sample Request and Receipt Form Issued
- ☒ Assay Smear Samples Complete
- ☒ Independent Verification of Assay form completed and attached.

Assay wt%U-235: ~~0.4969~~ 0

0.6639 cd 5-18-

Mass

- ☒ NDA Requested
- ☒ NDA Complete

cd 5-1-00

Sample A:

Assay Used: 0

Pounds U: ~~97~~ 0

U-235 (g): ~~217~~ 0

Sample B:

Assay Used: 0

Pounds U: 0

U-235(g): 0

NCS Classification

- ☒ NCS-Exempt
- ☐ LS
- ☐ UH
- ☐ PEH

Characterization Completed By:

Name: CWalton

Badge #: 662505

Date: 5-3-00

RCRA or TSCA Issues Identified

Comments:

NA

☐ Item relocated NA

New Location: Building:

DMSA #:

NMEA #
X0 1058

ENTERED 5-16-00

Date Printed: Monday, February 21,2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 32

DMSA #: C-331-13

Zone #: 6

Description:

C-310 Converter

CATEGORY:

Reusable Equipment: ☑

New or Unused Items: ☐

Used Equipment: ☐

Number of Items: 1

Estimated Volume: ~177 ft³

Estimated Weight: ~4,570 lbs

Barcode #: DMSA 0110516

Old Uses #: C-331-13-003

Verifier #1: Jeff Sexton

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☑

HP Survey: ☐

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION				NCS CLASSIFICATION
		^{235}U Assay Analysis	^{235}U Mass Analysis	Subcritical Mass Limits	NDA Quantification Surveys	
Unique ID #: C00032 Description: C-310 CONVERTER C-48299 Independent Confirmations: Individual #1: [signature] Date: 8/10/01 Individual #2: [signature] Date: 8/10/01 • • • • • • • • • • • Other Information: Bldg./Col.: C-331-Y9 DMSA #: 331-13 Origin: NA	Historical Documentation: ____ Process Knowledge: ____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: ____ Date: ____	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U Moderated Limits ____ Dry Limits X	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____ Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____	Initial: Reclassification: ____ NCS-Exempt ____ ✓ Spacing-Controlled ____ ____ Singularly-Contingent ____ DMSA/DRA Inspector: [signature] Date: 8/10/01 NCS Engineer: ____ (if Spacing-Controlled or Singularly-Contingent item is involved) Date: ____ NDA Expert: ____ (if NDA is performed) Date: ____ Independent Verifications: (BEFORE movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____ Independent Verifications: (AFTER movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____

Comments: SPACING CONTROL BY PREVIOUS CHARACTERIZATION (DMSA# ~~331-13-008~~) [initials] 8-1-01
REFER TO ATTACHED SHEETS FOR DETAILED INFORMATION
ALSO SEE NCSE-RM-PGDP-0002R0 FOR ADDITIONAL INFORMATION. (DMSA' 331-13-003)

Approved to Relocate: To ____ Further NCS characterization is required. Item does not contain Singularly-Contingent mass. NDA Expert #1: ____ Date: ____ NDA Expert #2: ____ Date: ____ DMSA/DRA Inspector: ____ Date: ____ NCS Engineer: ____ Date: ____	I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match, Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____	I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Characterization Form

MAY 09 2000

Item Number: DMSA-331-13-003 Building: 331 DMSA #: 331-13

Item Description: C-310 Sizer Converter (2x) C-48299

Origin: GDP Owner Status: DOE ~~N/A~~ Capital Equipment ID: N/A

Initial Characterization

Operating History

- No NCS Concerns (Not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

N/A

Analytical Data

Assay

- [ ] Assay Assumed: 0
- [x] Sample Request and Receipt Form Issued
- [x] Assay Smear Samples Complete
- [x] Independent Verification of Assay form completed and attached.

Assay wt%U-235: 1.029 0

Mass

- [x] NDA Requested
- [x] NDA Complete

Sample A:

Assay Used:	1.029	0
Pounds U:	98	0
U-235 (g):	453	0

Sample B:

Assay Used:	1.029	0
Pounds U:	68	0
U-235(g):	313	0

NCS Classification

- NCS-Exempt
- LS
- [x] UH
- PEH

Characterization Completed By:

Name: HC Anderson

Badge #: C500514

Date: 5-3-00

- RCRA or TSCA Issues Identified

Comments: N.A.

NMC-A#

✓ 1.0 C9

- [ ] Item relocated

New Location: Building: N.A.

DMSA #:

5-16-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 33

DMSA #: C-331-13

Zone #: 6

Description: C-310 Converter

Category:

Reusable Equipment: ☑

New or Unused Items: ☐

Used Item: ☐

Number of Items: 1

Estimated Volume: ~177 ft³

Estimated Weight: ~4,570 lbs.

Barcode #: DMSA 0110515

Old Used #: C-331-13-004

Verifier #1: Jeff Scott

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Doug Higgins

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☑

HP Survey: ☐

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	ANALYTICAL CHARACTERIZATION: ^{235}U Mass Analysis	ANALYTICAL CHARACTERIZATION: Subcritical Mass Limits	ANALYTICAL CHARACTERIZATION: NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: 200033 Description: C-310 CONVERTER C-48209 Independent Confirmations: Individual #1: [illegible] Date: 8/10/01 Individual #2: [illegible] Date: 8/10/01 Other Information: Bldg./Col.: C-331-Z9 DMSA #: 331-13 Origin: NA	Historical Documentation: ____ Process Knowledge: ____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: ____ Date: ____	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____ Samule B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____	Initial: Reclassification: ____ NCS-Exempt ____ __✓__ Spacing-Controlled ____ ____ Singularly-Contingent ____ DMSA/DRA Inspector: [illegible] Date: 8/07/01 NCS Engineer: ____ (if Spacing-Controlled or Singularly-Contingent item is involved) Date: ____ NDA Expert: ____ (if NDA is performed) Date: ____ Independent Verifications: (BEFORE movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____ Independent Verifications: (AFTER movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____

Comments: SPACING CONTROL BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-004) REFER TO ATTACHED SHEETS FOR DETAILED INFORMATION. ALSO SEE NCSE-RM-PGDP-0002R0

Approved to Relocate: To ____ Further NCS characterization is required. Item does not contain Singularly-Contingent mass. NDA Expert #1: ____ Date: ____ NDA Expert #2: ____ Date: ____ DMSA/DRA Inspector: ____ Date: ____ NCS Engineer: ____ Date: ____	I have independently confirmed the **identification and description** for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____	I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item **against** the written instructions and **find** this information *to* match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Characterization Form

MAY 0 9 2000

Item Number: DMSA-331-13-004 Building: 331 DMSA #: 331-13

Item Description: C-310 Zeeze Converter (2X) 48209

Origin: C-310 Owner Status: DOE NLA 5-16-00 Capital Equipment ID: NLA

Analytical Data

Initial Characterization

Operating History

- No NCS Concerns (Not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visible uranium contamination

NA

Assay

- Assay Assumed: 0
- Sample Request and Receipt Form
- Assay Smear Samples Complete
- Independent Verification of Assay form completed and attached,

Assay wt%U-235: 1.07 0

Mass

- NDA Requested
- NDA Complete

Sample A:

Assay Used: 1.07 0

Pounds U: 1.1 0

U-235 (g): 291 0

Sample B:

Assay Used: 1.0 0

Pounds U: 6.9 0

U-235(g): 333 0

NCS Classification

- NCS-Exempt
- TS
- UH
- PEH

Characterization Completed By:

Name: J C Anderson

Badge #: C500510

Date: 5-3-00

B9

RCRA or TSCA Issues Identified

Comments: N.A.

Item relocated N.A.

New Location: Building:

DMSA #:

NMLA #

ENTERED 5-16-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 34

DMSA #: 331-13

Zone #: 7

Description:

C-310 Converter

CATEGORY:

Reusable Equipment: ☑

New or Unused Items: ☐

Other: ☐

Number of Items: 1

Estimated Volume: ~177 ft³

Estimated Weight: ~4,570 lbs

Barcode #: DMSA0110514

QA Use #: C-331-13-005

Verifier #1: Gabe Seat

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Stacy Hin

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☒

HP Survey: ☐

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	^{235}U Mass Analysis	Subcritical Mass Limits	NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: C00034 Description: C-310 CONVERTER C-48467 Independent Confirmations: Individual #1: D.W. Sauls Date: 8/10/01 Individual #2: [illegible] Date: 8/10/01 Other Information: Bldg./Col.: C-331-Z9 DMSA #: 331-13 Origin: N/A	Historical Documentation: ____ Process Knowledge: ____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: ____ Date: ____	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits	___/___/___ ____ am/pm Date & Time Results Rec'd: ___/___/___ ____ am/pm ___/___/___ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____ Sample B: Date & Time Performed: ___/___/___ ____ am/pm Date & Time Results Rec'd: ___/___/___ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____	Initial: Reclassification: ____ NCS-Exempt ____ ✓ Spacing-Controlled ____ ____ Singularly-Contingent ____ DMSA/DRA Inspector: [illegible] Date: 8/10/01 NCS Engineer: ____ (if Spacing-Controlled or Singularly-Contingent item is involved) Date: ____ NDA Expert: ____ (if NDA is performed) Date: ____ Independent Verifications: (BEFORE movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____ Independent Verifications: (AFTER movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____

Comments: SPACING CONTROL BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-005) REFER TO ATTACHED SHEETS FOR DETAILED INFORMATION. ALSO SEE NCSE-RM-PGDP-00028 FOR ADDITIONAL INFORMATION.

Approved to Relocate: To ____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: ____ Date: ____
NDA Expert #2: ____ Date: ____
DMSA/DRA Inspector: ____ Date: ____
NCS Engineer: ____ Date: ____

I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.
Independent Person #1: ____
Date: ____
Independent Person #2: ____
Date: ____

I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.
Independent Person #1: ____
Date: ____
Independent Person #2: ____
Date: ____

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Characterization Form

MAY 0 9 2000

Item Number: DMSA-331-13-005 Building: 331 DMSA #: 331-13

Item Description: C-310 Surge Converter (2X) C-48467

Origin: GDP Owner Status: DOE ~~NA~~ Comp 5-16-00 Capital Equipment ID: NA

Initial Characterization

Operating History

- No NCS Concerns (Not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

NA

& Analytical Data

Assay

- Assay Assumed: 0
- [X] Sample Request and Receipt Form
- [X] Assay Smear Samples Complete
- [X] Independent Verification of Assay form completed and attached.

Assay wt%U-235: 1.068 0

Mass

- [X] NDA Requested
- [X] NDA Complete

Sample A:

Assay Used: 1.068 0

Pounds U: 25 0

U-235(g): 358 0

Sample B:

Assay Used: 1.068 0

Pounds U: 57 0

U-235(g): 274 0

NCS Classification

- [ ] NCS-Exempt
- [ ] LS
- [X] UH
- [ ] PEH

Characterization Completed By:

Name: HC Anderson

Badge #: C500516

Date: 5-3-00

- [ ] RCRA or TSCA Issues Identified

Comments: N.A.

- [ ] Item relocated

New Location: Building: NA

DMSA #:

NMCA X01061

ENTERED 5-16-00

Date Printed: Monday, February 21, 2000

8/2/01

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 35

DMSA #: 331-13

Zone #: 7

Description:

C-310 Converter

CATEGORY

Reusable Equipment: ☐

New or Unused Items: ☐

USED ITEM: ☐

Number of Items: 1

Estimated Volume: ~177 ft³

Estimated Weight: ~4,570 lbs

Barcode #: DMSA 0110513

Old Number: C-331-13-006

Verifier #1: Jeff Sente

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Gary Hiro

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS

NCS Characterization Form: ☒

HP Survey: ☒

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	ANALYTICAL CHARACTERIZATION: ^{235}U Mass Analysis	ANALYTICAL CHARACTERIZATION: Subcritical Mass Limits	ANALYTICAL CHARACTERIZATION: NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: E00035 C-48294 Independent Confirmations: Individual #2: Date: Other Information; Bldg./Col.: C-331-AA9 DMSAU: 331-13 Origin: NA	Historical Documentation: Process Knowledge: Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: Date:	Sample A: ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date: Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date:	Initial: Reclassification: ____ NCS-Exempt ____ ____ Spacing-Controlled ____ ____ Singularly-Contingent ____ DMSA/DRA Inspector: Date: 8/07/01 NCS Engineer: (If Spacing-Controlled or Singularly-Contingent item is involved) Date: NDA Expert: (if NDA is performed) Date: Independent Verifications: (BEFORE movement) Person #1: Date: Person #2: Date: Independent Verifications: (AFTER movement) Person #1: Date: Person #2: Date:

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-006)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To ____ Further NCS characterization is required. Item does not contain Singularly-Contingent mass. NDA Expert #1: ____ Date: ____ NDA Expert #2: ____ Date: ____ DMSA/DRA Inspector: ____ Date: ____ NCS Engineer: ____ Date: ____	I have independently confirmed the Identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____	I have independently confirmed the destinntion for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____

DMSA - Charac ation Form

MAY 0 9 2000

Item Number: DMSA-331-13-006 Building: 331 DMSA #: 331-13

Item Description:

Origin: G-D

Capital Equipment ID: 244

Initial Characterization

Operating History

No NCS Concerns (Not Process Equipment)

Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

Analytical Data

Assay

Assay Assumed: 0

Sample Request and Receipt Form Issued

Assay Smear Samples Complete

Independent Verification of Assay form completed and attached.

Assay wt%U-235: 0

Mass

NDA Requested

NDA Complet

Sample A:

Assay Used: 0

Pounds U: 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U: 0

U-235(g): 0

NCS Classification

NCS-Exempt

LS

UH

Characterization Completed By:

Name: [illegible]

Badge #: 662505

Date: 5-3-00

RCRA or TSCA Issues Identified

Comments:

Item relocated

New Location: Building:

DMSA #:

A 49

NMCA

ENTERE 5-16-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 36

DMSA #: 331-13

Zone #: 8

Description:

C-310 Converter

CATEGORY:

Reusable Equipment: ☑

New or Unused Item: ☐

USED: ☐

Number of Items: 1

Estimated Volume: ~ 177 ft³

Estimated Weight: ~ 4,570 lbs

Barcode #: DMSA 0110512

O/D Used #: C-331-13-007

Verifier #1: [illegible]

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Gary Hiss

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☒

HP Survey: ☐

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

Unique ID #:

Description: C-310 CONVERTER C-4826 3

Independent Confirmations:
Individual #1: [signature]
Date: 8/10/01
Individual #2: [signature]
Date: 8/10/01

Other Information:

Bldg./Col.: C-331 - AR-9

DMSA #: 331-13

Origin: NA

INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION				NCS CLASSIFICATION
	^{235}U Assay Analysis	^{235}U Mass Analysis	Subcritical Mass Limits	NDA Quantification Surveys	
Historical Documentation:	Sample A:	Sample A:	kg ^{235}U	Sample A: Date & Time Performed: __/__/__ __am/pm	Initial: Reclassification:
	% ^{235}U	g ^{235}U	Moderated Limits	Date & Time Results Rec'd: __/__/__ __am/pm	~~NCS~~-Exempt; Spacing-Controlled; Singularly-Contingent
	1 sigma (% ^{235}U)		Dry Limits	Assumed Assay: % ^{235}U	DMSA/DRA Inspector: [signature]
Process Knowledge:	2 sigma (% ^{235}U)			Mass: g ^{235}U	Date: 8/07/01
	Total (^{235}U + 2 sigma)	Sample B:		Submitted By:	NCS Engineer: (if Spacing-Controlled or Singularly-Contingent item is involved) Date
	Sample B:	g ^{235}U		Date:	NDA Expert: (if NDA is performed) Date:
Visual Inspections Completed: External Surfaces Inspection; Internal Surfaces Inspection	% ^{235}U			Sample B: Date & Time Performed: __/__/__ __am/pm	Independent Verifications: (BEFORE movement) Person #1: Date: Person #2: Date:
Completed By:	1 sigma (% ^{235}U)			Date & Time Results Rec'd: __/__/__ __am/pm	Independent Verifications: (AFTER movement) Person #1: Date: Person #2: Date:
Date:	2 sigma (% ^{235}U)			Assumed Assay: % ^{235}U	
	Total (^{235}U + 2 sigma)			Mass: g ^{235}U	
				Submitted By: Date:	

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-007) SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: Date:
NDA Expert #2: Date:
DMSA/DRA Inspector: Date:
NCS Engineer: Date:

I have independently confirmed the **identification and description** for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1:
Date:

Independent Person #2:
Date:

I have independently confirmed the **destination** for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1:
Date:

Independent Person #2:
Date:

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Charac. ation Form

MAY 0 9 2000

Item Number: DMSA-331-13-007 Building: 331 DMSA #: 331-13

Item Description: C-310 Surge Converter C-48263

Origin: GDP Owner Status: DOE/NA-one Capital Equipment ID: NA

Initial Characterization

Operating History

- No NCS Concerns (not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached

NA

Analytical Data

Assay

- [ ] Assay Assumed
- [x] Sample Request and Receipt Form Issued
- [x] Assay Smear samples Complete
- [x] Independent Verification of Assay form completed and attached.

Assay wt%U-235: 0.735 0

Mass

- [ ] NDA Requested
- [ ] NDA Complete

Sample A:

Assay Used: 0

Pounds U: 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U: 0

Pounds U: 0

U-235(g):

NA

NCS Classification

- [x] NCS-Exempt
- [ ] LS
- [ ] UH
- [ ] PEH

Characterization Completed By:

Name: CW Walter

Badge #: 662505

Date: 5-3-00

- [ ] RCRA or TSCA Issues Identified

Comments: NA NA

- [ ] Item relocated

New Location: Building: NA

DMSA #:

A1

X01063

ENTERED 5-16-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 37

DMSA #: 331-13

Zone #: 9

Description:

"00" Compressor, Shell Only - B inlet Section

CATEGORY:

Reusable Equipment: ✓

New or Unused Items: ☐

Used Use: ☐

Number of Items: 1

Estimated Volume: ~ 98 ft3

Estimated Weight: ~~~900 lbs~~ ~ 2,500

Barcode #: DMSA 0110511

Old Used #: C-331-13-008

Verifier #1: Jeff Seat

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 39255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: X

HP Survey: ☐

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

Unique ID #: E000037

Description: C-310 COMPRESSOR B INLET SECTION (SHELL ONLY)

Independent Confirmations:
Individual #1: [illegible]
Date: 8/10/01
Individual #2: [illegible]
Date: 8-10-01

Other Information:
Bldg./Col.: C-331-BB-10
DMSA #: 331-13
Origin: N/A

INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	^{235}U Mass Analysis	Subcritical Mass Limits	NDA Quantification Surveys	NCS CLASSIFICATION
Historical Documentation: _____	Sample A: _____	Sample A; _____	_____ kg ^{235}U	Sample A: Date & Time Performed: __/__/__ ____am/pm	Initial: Reclassification:
Process Knowledge: _____	____ % ^{235}U	____ g ^{235}U	____ Moderated Limits	Date & Time Results Rec'd: __/__/__ ____am/pm	X NCS-Exempt ____
	____ 1 sigma (% ^{235}U)		____ Dry Limits	Assumed Assay: ____ % ^{235}U	____ Spacing-Controlled ____
	____ 2 sigma (% ^{235}U)			Mass: ____ g ^{235}U	____ Singularly-Contingent ____
	____ Total (^{235}U + 2 sigma)	Sample B: _____	X	Submitted By: _____	DMSA/DRA Inspector: [illegible] Date: 8/07/01
	Sample B: _____	____ g ^{235}U		Date: _____	NCS Engineer: _____ (If Spacing-Controlled or Singularly-Contingent item is involved) Date: _____
Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection	____ % ^{235}U			Sample B: Date & Time Performed: __/__/__ ____am/pm	NDA Expert: _____ (if NDA is performed) Date: _____
Completed By: _____	____ 1 sigma (% ^{235}U)			Date & Time Results Rec'd: __/__/__ ____am/pm	Independent Verifications: (BEFORE movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____
Date: _____	____ 2 sigma (% ^{235}U)			Assumed Assay: ____ % ^{235}U	Independent Verifications: (AFTER movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____
	____ Total (^{235}U + 2 sigma)			Mass: ____ g ^{235}U	
				Submitted By: _____ Date: _____	

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-008)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____
DMSA/DRA Inspector: _____ Date: _____
NCS Engineer: _____ Date: _____

I have independently confirmed the **identification and description** for this **NCS-Exempt** or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

(PA-3003A - Rev. 4 - 0712001)

DMSA - Characterization Form

MAY 24 2000

Item Number: DMSA-331-13-008 Building: 331 DMSA #: 331-13

Item Description: "00" Compressor & Inlet section, Shell only

Origin: GDD Owner Status: ~~NA~~ DOE Capital Equipment ID: NA

Analytical Data

CMC 5-25-00

Initial Characterization

Operating History

- No NCS Concerns (Not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

N/A

Assay

- Assay Assumed: 0
- [X] Sample Request and Receipt Form Issued
- [X] Assay Smear Samples Complete
- [X] Independent Verification of Assay form completed and attached.

Assay wt%U-235: 0.3600

Mass

- [ ] NDA Requested
- [X] NDA Complete 5-16-00 JK

Sample A:

Assay Used: 0

Pounds U: 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U: 0

U-235(g): 0

N/A

NCS Classification

- [X] NCS-Exempt
- [ ] LS
- [ ] UH
- [ ] PEH

Characterization Completed By:

Name: HCAnderson

Badge #: C520516

Date: 5-16-00

BBI

- RCRA or TSCA Issues Identified N/A

Comments:

X01050

NDA Complete

Need Group #

- [ ] Item relocated N/A

New Location: Building:

DMSA #:

ENTERED 5-25-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix	DMSA Item ID #
E000	38

DMSA #: 331-13

Zone #: 10

Description: "00" Compressor B inlet & section, Shell only

CATEGORY:

Reusable Equipment: ☑

New or Unused Items: ☐

USEC List: ☐

Number of Items: 1

Estimated Volume: ~98 ft³

Estimated Weight: ~~900 lbs~~ ~2,500 lbs

Barcode #: DMSA0110510

Old Used: C-331-13-009

Verifier #1: Jeff Seaton

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 3405 5

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☒

HP Survey: ☒

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION		Subcritical Mass Limits	NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: 600033 Description: 600 COMPRESSOR B INLET SECTION (SHELL ONLY)	Historical Documentation:	Sample A: % ^{235}U 1 sigma (% ^{235}U) 2 sigma (% ^{235}U) Total (^{235}U + 2 sigma)	Sample A: g ^{235}U	Moderated Limits Dry Limits	Sample A: Date & Time Performed: __/__/__ ___am/pm Date & Time Results Rec'd: __/__/__ ___am/pm Assumed Assay: ___ % ^{235}U Submitted By: Date:	Initial: Reclassification: NCS-Exempt Spacing-Controlled Singularly-Contingent DMSA/DRA Inspector: B.W. Smith Date: 8/10/01 NCS Engineer: (If Spacing-Controlled or Singularly-Contingent item is involved) Date:
Date: 8/10/01 Individual #2: Date: 8/10/01		Sample B: g ^{235}U	Sample B: g ^{235}U		Sample B: Date & Time Performed: __/__/__ ___am/pm Date & Ti ___am/pm Assumed Assay: ___ % ^{235}U Mass: ___ g ^{235}U Submitted By: Date:	Date: Independent Verifications: (BEFORE movement) Person #1: Date: Person #2: Independent Verifications: (AFTER movement) Person #1: Date: Person #2: Date:
Bldg./Col.: C-331-D13-70 DMSA #: 331-13 Origin: WA	Completed: External Surfaces Inspection Internal Surfaces Inspection Completed By: Date:	1 sigma (% ^{235}U) 2 sigma (% ^{235}U) 2 sigma)				

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-009)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Relocated to Relocate: To ___
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: ___ Date:
NDA Expert #2: ___ Date:

I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1:
Date:

Independent Person #2:
Date:

I have independently confirmed the drstinntion for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1:
Date:

Independent Person #2:
Date:

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Chara[illegible]zation Form

Item Number: DMSA-331-13-009 Building: 331 DMSA #: 331-13

Item Description: "00" Compressor B Inlet Section, Shell Only

Origin: GDD Owner Status: DOE N/A Cmc 5-25-00 Capital Equipment ID: N/A

MAY 2 4 2000

Initial Characterization

Operating History

- No NCS Concerns (Not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

N/A

X Analytical Data

Assay

- Assay Assumed: 0
- X Sample Request and Receipt Form
- Assay Smear Samples Complete
- X Independent Verification of Assay form completed and attached.

Assay wt%U-235: 0.450 0

Mass

- NDA Requested
- X NDA Complete

Sample Used:

Pounds Used: 0

U-235 (g): 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U: 0

0

N/A.

NCS Classification

- X NCS-Exempt
- LS
- UH
- PEH

Characterization Completed By:

Name: HC Addison

Badge #: C5U05-16

Date: 5-19-00

- RCRA or TSCA Issues Identified N/A

Comments:

X01050

Nuclear Criticality H

- Item relocated N/A

New Location: Building:

DMSA #:

BBID

ENTERED 5-25-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 39

DMSA #: 331-13

Zone #: 9

Description:

"OO" Compressor. A section casing. Shell only

CATEGORY

Reusable Equipment #: ☑

New or Unused Items #: ☐

USEC Use #: ☐

Number of Items #: 1

Estimated Volume: ~~~99 ft³~~ ~100 ft³

Estimated Weight: ~4000 lbs

Barcode #: DMSA 0110509

Old Usec #: C-331-13-010

Verifier #1: Jeff Seaton

Badge #1: 704274

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 38255

Date #2: 8/28/01

ATTACHMENTS

NCS Characterization Form: X

HP Survey: ☐

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ANALYTICAL CHARACTERIZATION

ITEM	INITIAL CHARACTERIZATION	^{235}U Assay Analysis	^{235}U Mass Analysis	Subcritical Mass Limits	NDA Quantification Summary	NCS CLASSIFICATION
Unique ID #: E00039 T SACTION V CASING (SHELL ONLY) Independent Confirmations: Individual #1: [illegible] Date: 8/10/01 ********** Other Information: Bldg./Col.: C-331-BB-10 DMSA #: 331-13	Historical Documentation; Process Knowledge: Process Knowledge: Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Date:	____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma ____ Total (^{235}U + 2 sigma) ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total ____ Total (^{235}U + 2 sigma)	____ g ^{235}U Sample B: ____	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date: Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date: Submitted By: Date:	Initial: Reclassification: ✓ NCS-Exempt ____ Spacing-Controlled ____ Singularly-Contingent DMSA/DRA Inspector: [illegible] Date: 8/07/01 NCS Engineer: (If Spacing-Controlled or Singularly-Contingent item is involved) Date: (if NDA is performed) Date: Independent Verifications: (BEFORE movement) Person #1: Date: Person #2: Date: Independent Verifications: (AFTER movement) Person #1: Date: Person #2: Date:

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-010)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____

DMSA/DRA Inspector: _____ Date: _____
NCS Engineer: _____ Date: _____

I have independently confirmed the identification and description this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1:
Date:

Independent Person #2:
Date:

DMSA - Charac ation Form

MAY 24 2000

Item Number: DMSA-331-13-010 Building: 331 DMSA #: 331-13

Item Description: "OO" Compressor A Station Casing Shell only

Origin: GDP N/A Owner Status: DOE ~~N/A~~ Capital Equipment ID: N/A

3-2-00

X Analytical Data

Initial Characterization

Operating History

- No NCS Concerns (Not Process Equipment)
- Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- Independent Verification Form (verifying visual inspection detected no visibl uranium contamination) is completed and attached.

N/A

Assay

- ☐ Assay Assumed: 0
- X Sample Request and Receipt Form Issued
- X Assay Smear Samples Complete
- Independent Verification of Assay form completed and attached, CHH 5-16-00

Assay wt%U-235: ~~0.449~~ 0.386 0

Mass

- ☒ NDA Complete JK. 5-19-00

Sample A:

Assay Used:	0
Pounds U:	0
U-235 (g):	0

Sample B:

Assay Used:	0
Pounds U:	0
U-235(g):	0

N/A

NCS Classification

- X NCS Exempt
- ☐ LS
- ☐ UH
- ☐ PEH

Characterizer Name: HCAnderson

Badge #: C500516

Date: 5-19-00

RCRA or TSCA Issues Identified N/A

Comments: No 10 CFR Amount

☐ Item relocated N/A

New Location: Building:

DMSA #:

BB12

ENTERED 5-25-00

Date Printed: Monday, February 21, 2000

AWZ 8/2/01

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 40

DMSA #: 331-13

Zone #: 10

Description: "OO" Compressor lifting fixture

Category:

Reusable Equipment: ☑

Prev. of Unused Items: ☐

Use / Use: ☐

Number of Items: 1

Estimated Volume: ~2 ft³

Estimated Weight: ~200 lbs

Barcode #: DMSA 0110508

Original # C-331-13-011

Verifier #1: D.S. Jones

Badge #1: 28124

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form ☑

HP Survey ☐

Analytical Data ☐

Comments

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: U Assay Analysis	^{235}U Mass	Subcritical Mass Limits	NDA Quantification SURVEY	NCS CLASSIFICATION
Unique ID #:	Historical Documentation:	% ^{235}U	Sample A:	Limits	Date & Time Performed: ___/___/___ ___am/pm	Initial: Reclassification:
		1 sigma			Date & Time Results Rec'd: ___/___/___ ___am/pm	✓ NCS-Exempt
	Process Knowledge:	2 sigma (% ^{235}U)		Dry Limits	Assumed Assay: ___ % ^{235}U	Spacing-Controlled
>ate:		Total (^{235}U + 2 sigma)	Sample B:		Mass: ___ g ^{235}U	Singularly-Contingent
Date: 8-16-01					Submitted By:	DMSA/DRA Inspector:
					Date:	Date: 8/16/01
					Sample B: Date & Time Performed: ___/___/___ ___am/pm	NCS Engineer: (If Spacing-Controlled or Singularly-Contingent item is involved)
	External Surfaces Inspection	1 sigma (% ^{235}U)			Date & Time Results Rec'd: ___/___/___ ___am/pm	Date:
DMSA #: 331-13	Internal Surfaces Inspection				Assumed Assay: ___ % ^{235}U	NDA Expert: (if NDA is performed)
Origin: NA	Completed By:	2 sigma (% ^{235}U)			Mass: ___ g ^{235}U	Date:
	Date:	Total (^{235}U + 2 sigma)			Submitted By:	Independent Verifications: (BEFORE movement) Person #1:
					Date:	Date:
						Person #2:
						Date:
						Independent Verifications: (AFTER movement)
						Date:
						Person #2:
						Date:

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA # 331-13-011)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____
DMSA/DRA Inspector: _____ Date: _____

...cription for ... item against the written instructions and find this information to match.
Independent Person #1:
Date:
Independent Person #2:
Date:

I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this
Independent Person #1:
Date:
Independent Person #2:
Date:

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Charac... ...ation Form

MAR 0 8

Item Number: DMSA-331-13-011 Building: 331 DMSA #: 331-13

Item Description: '00 - Compressive lifting fixture

Origin: PG-SP Owner Status: ~~Dec 31 2000~~ 3 Capital Equipment ID: NA

Analytical Data

Initial Characterization

Operating History

X No NCS Concerns (Not

Independent verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and

Visual Inspection

-- Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

Assay

- Assay Assumed: 0
- Sample Request and Receipt Form Issued
- Assay Smear Samples Complete
- Independent Verification of Assay form completed and attached.

Assay wt%U-235: 0

NA

Mass

- NDA Requested
- NDA Complete

Sample A:

Assay Used: 0

Pounds U: 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U: 0

U-235(g): 0

NA

NCS Classification

X NCS-Exempt

LS

UH

PEH

Characterization Completed By:

Name: C W Wallis

Badge #: 662505

Date: 3-2-00

-- RCRA or TSCA Issues Identified

Comments:

NA

Item relocated NA

New Location: Building:

New Location: Building:

DMSA #:

BB

NMC&A Exempt
No visible Uranium
CGJ 3-3-00

ENTERED 3-8-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 41

DMSA #: 331-13

Zone #: 9

Description:

"00" Compressor lifting fixture

CATEGORY

Reusable Equipment: ☑

Recyclable Items: ☐

Useable Item: ☐

Number of Items: 1

Estimated Volume: ~2 ft³

Estimated Weight: ~200 lbs

Barcode #: DMSA-00110507

On Use #: C-331-13-012

Verifier #1: D. S. Jones

Badge #1: 28124

Date #1: 8-28-01

Verifier #2: Gary Hiss

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS

NCS Characterization Form: ☑

HP Survey: ☐

Analytical Data: ☐

Comments

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION				NCS CLASSIFICATION
		^{235}U Assay Analysis	^{235}U Mass Analysis	Subcritical Mass Limits	NDA Quantification Surveys	
Unique ID #: E00041 Description: 00 COMPRESSOR LIFTING FIXTURE Independent Confirmations: Individual #1: [illegible] Individual #2: [illegible] Date: 1/8/01 Other Information: Bldg./Col.: C-331-13B-10 DMSA #: 331-13 Origin: NA	Historical Documentation: Process Knowledge: Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: Date:	____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date: Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date:	Initial: Reclassification: ✓ NCS-Exempt Spacing-Controlled Singularly-Contingent DMSA/DRA Inspector: [illegible] Date: 1/8/01 NCS Engineer: (If Spacing-Controlled or Singularly-Contingent item is involved) Date: NDA Expert: (if NDA is performed) Date: Independent Verifications: (BEFORE movement) Person #1: Date: Person #2: Date: Independent Verifications: (AFTER movement) Person #1: Date: Person #2: Date:

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-012)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____
DMSA/DRA Inspector: _____ Date: _____
NCS Engineer: _____ Date: _____

I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and rind this information to match,

Independent Person #1: _____
Date:

Independent Person #2: _____
Date:

I have independently confirmed the drstinntion for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person'#1: _____
Date: _____

Independent Person #2: _____
Date: _____

(PA-3003A • Rev. 4 • 07/2001)

MAR 0 8 ENTD.

DMSA - Charac ization Form

Item Number: DMSA-331-13-012 Building: 331 DMSA #: 331-13

Item Description: "OO" Compression lifting fixture

Origin: PGDP Owner Status: ~~Acme~~ Capital Equipment ID: NA

Analytical Data

Initial Characterization

Operating Historv

- [x] No NCS Concerns (Not Process Equipment)
- [ ] Independent verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- [ ] Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

Assay

- [ ] Assay Assumed:
- [ ] Sample Request and Receipt Form Issued
- [ ] Assay Smear Samples Complete
- [ ] Independent Verification of Assay form completed and attached.

Assay wt% U-235: 0

Mass

- [ ] NDA Complete

Sample A:
Assay Used 0
Pounds U: 0
0

Sample B:
Assay Used: 0
Pounds U: 0
U-235(g): 0

NCS Classification

- [x] NCS-Exempt
- [ ] LS
- [ ] UH
- [ ] PEH

Characterization Completed By:

Name: [illegible]
Badge #: 66505
Date: 3-2-00

- [ ] RCRA or TSCA Issues Identified

Comments:

NA

- [ ] Item relocated NA
New Location: Building:
DMSA #:

NMC&A Exempt
No visible Uranium

ENTERED 3-8-00

Date Printed: Monday, February 21,2000

8/2/01

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 42

DMSA #: 331-13

Zone #: 9

Description

Compressor nozzle sling

CATEGORY

Recycle Equipment: ✓

New or Unused Items: ☐

Used: ☐

Number of Items: 1

Estimated Volume: ~1 ft³

Estimated Weight: ~100 lbs

Barcode #: DMSA0110506

Old Used #: C-331-13-013

Verifier #1: D.S. Jones

Badge #1: 28124

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: X

HP Survey: ☐

Analytical Data: ☐

Comments

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	ANALYTICAL CHARACTERIZATION: ^{235}U Mass Analysis	ANALYTICAL CHARACTERIZATION: Subcritical Mass Limits	ANALYTICAL CHARACTERIZATION: NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: E00042 Description: COMPRESSOR NOZZLE SLING (WIRE ROPE) **Independent Confirmations:** Individual #1: [signature] Date: 8/10/01 Individual #2: [signature] Date: 8/10/01 ******** Other Information; Bldg./Col.: C-331-BB-10 DMSA #: C-331-13 Origin: NA	Historical Documentation: **Process Knowledge:** **Visual Inspections Completed:** ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: Date:	**Sample A:** ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) **Sample B:** ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	**Sample A:** ____ g ^{235}U **Sample B:** ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits X	**Sample A:** Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date: **Sample B:** Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: Date:	**Initial:** ✓ NCS-Exempt; ____ Spacing-Controlled; ____ Singularly-Contingent **Reclassification:** ____ ____ ____ DMSA/DRA Inspector: [signature] Date: 8/10/01 NCS Engineer: (If Spacing-Controlled or Singularly-Contingent item is involved) Date: NDA Expert: (if NDA is performed) Date: **Independent Verifications:** **(BEFORE movement)** Person #1: Date: Person #2: Date: **Independent Verifications:** **(AFTER movement)** Person #1: Date: Person #2: Date:

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-013)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____

DMSA/DRA Inspector: _____ Date: _____
NCS Engineer: _____ Date: _____

I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this infomation to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

I hove independently confirmed the destinntion for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

(PA-3003A - Rev. 4 - 07/2001)

MAR . EN.

DMSA - Chara. zation Form

Item Number: DMSA-331-13-013 | Building: 331 | DMSA #: 331-13

Item Description: Compressor Nozzle Sleeve (Wire Rope)

Origin: PWO | Owner Status: DOE/Army | Capital Equipment ID: N/A

Analytical Data

Operation	Assay	Mass
	Sample Request and Receipt Form Issued	☐ NDA Complete
	Assay Smear Samples Complete	Sample A:
	Independent Verification of Assay form completed and attached.	Assay Used: 0
		Is U: 0
		U-235(g): 0
	Assay wt%U-235: 0	Sample B:
		Assay Used: 0
		Pounds U: 0
		U-235(g): 0

NCS Classification

☒ NCS-Exempt

☐ TS UH

☐ PEH

Characterization Completed BY:

Name: E W Walter

Badge #: 662505

Date: 3-2-00

Operating History

☒ No NCS Concerns (Not Process Equipment)

Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

☐ RCRA or TSCA Issues Identified

☐ Item relocated

Comments:

ENTER 3-8-00

Date Printed: Monday, February 21,2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 43

DMSA #: 331-13

Zone #: 9

Description: "00" Compressor Circular plate, lifting fixture

CATEGORY

Reusable Equipment: ☑

New Unused Items: ☐

USED Use: ☐

Number of Items: 1

Estimated Volume: ~2 ft3

Estimated Weight: ~500 lbs

Barcode #: DMSA 0110505

Old Used #: C-331-13-014

Verifier #1: D.S. Jones

Badge #1: 28124

Date #1: 8-28-01

Verifier #2: Gary Hiz

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS

NCS Characterization Form: ☒

HP Survey: ☐

Analytical Data: ☐

Comments

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	ANALYTICAL CHARACTERIZATION: ^{235}U Mass Analysis	ANALYTICAL CHARACTERIZATION: Subcritical Mass Limits	ANALYTICAL CHARACTERIZATION: NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: E000A3 Description: 00 Compressor Circular Plate Lifting Fixture Independent Confirmations: Individual #1: [signature] Date: 8/10/01 Individual #2: [signature] Date: 8-10-01 Other Information; Bldg./Col.: C-331-BB-10 DMSA #: 331-13 Origin: WA	Historical Documentation: ____ Process Knowledge: ____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: ____ Date: ____	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____ Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____	Initial: Reclassification: ✓ NCS-Exempt ____ ____ Spacing-Controlled ____ ____ Singulady-Contingent ____ DMSA/DRA Inspector: [signature] Date: 8/07/01 NCS Engineer: ____ (If Spacing-Controlled or Singularly-Contingent item is involved) Date: ____ NDA Expert: ____ (if NDA is performed) Date: ____ Independent Verifications: (BEFORE movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____ Independent Verifications: (AFTER movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-014)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION

Approved to Relocate: To ____ Further NCS characterization is required. Item does not contain Singularly-Contingent mass. NDA Expert #1: ____ Date: ____ NDA Expert #2: ____ Date: ____ DMSA/DRA Inspector: ____ Date: ____ NCS Engineer: ____ Date: ____	I have independently confirmed the **identification and description** for **this** NCS-Exempt **or** Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____	I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Characterization Form

3-13-00

Item Number: DMSA-331-13-014 Building: 331 DMSA #: 331-13

Item Description: '00' Compression Cracking Plate Lifting Fixture

Origin: PGDP Owner Status: Capital Equipment ID: NA

Initial Characterization

Operating History

X No NCS Concerns (Not Process Equipment)

Independent Verification Form (verifying no NCS concerns due to equipment has never been esposed to process gas) is completed and attached.

Visual Inspection

Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached,

Analytical Data

Assay

- Assay Assumed: 0
- Sample Request and Receipt Form
- Assay Smear Samples Complete
- Independent Verification of Assay form completed and attached.

Assay wt% U-235: 0

NA

Mass

- NDA Requested
- NDA Complete

Sample A:
Assay Used: 0
Pounds U: 0
U-235 (g): 0

Sample B:
Assay Used: 0
Pounds U: 0
U-235 (g): 0

NA

NCS Classification

X NCS-Exempt
- LS
- UH
- PEH

Characterization Completed By:

Name: [illegible]

Badge #: 662505

Date: 3-2-00

RCRA or TSCA Issues Identified

Comments: NVS

Item relocated NA

New Location: Building:
DMSA #:

BE

ENTERED 3-14-00

NMC&A Exempt
No visible Uranium

3-3-00

Date Printed: Monday, February 21,2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 44

DMSA #: 331-13

Zone #: 4

Description

Electrical transformer (process)

CATEGORY

Reusable Equipment: ☐

New or Unused Items: ☐

Waste: ☐

Number of Items: 1

Estimated Volume: ~300 ft³

Estimated Weight: ~6,300 lbs.

Barcode #: DMSA0110504

End Use #: C-331-13-015

Verifier #1: D.S. Jones

Badge #1: 28124

Date #1: 8-28-01

Verifier #2: Mary Hin

Badge #2: 31255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☑

HP Survey: ☐

Analytical Data: ☐

Comments

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	ANALYTICAL CHARACTERIZATION: ^{235}U Mass Analysis	ANALYTICAL CHARACTERIZATION: Subcritical Mass Limits	ANALYTICAL CHARACTERIZATION: NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: _____ Description: ELECTRICAL TRANS FORMER (PROCESS) Independent Confirmations: Individual #1: B.W. Sauk Date: 8/10/01 Individual #2: [illegible] Date: 8-10-01 Other Information; Bldg./Col.: C-331 [illegible] DMSA #: 331-13 Origin: WA	Historical Documentation: _____ Process Knowledge: _____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: _____ Date: _____	Sample A: ____ % ^{235}U ____ % ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits X	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: _____ Date: _____ Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: _____ Date: _____	Initial: Reclassification: ✓ NCS-Exempt ____ ____ Spacing-Controlled ____ ____ Singularly-Contingent ____ DMSA/DRA Inspector: B.W. Sauk Date: 8/07/01 NCS Engineer: _____ (If Spacing-Controlled or Singularly-Contingent item is involved) Date: _____ NDA Expert: _____ (if NDA is performed) Date: _____ Independent Verifications: (BEFORE movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____ Independent Verifications: (AFTER movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-015)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To _____ Further NCS characterization is required. Item does not contain Singularly-Contingent mass. NDA Expert #1: _____ Date: _____ NDA Expert #2: _____ Date: _____ DMSA/DRA Inspector: _____ Date: _____ NCS Engineer: _____ Date: _____	I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: _____ Date: _____ Independent Person #2: _____ Date: _____	I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: _____ Date: _____ Independent Person #2: _____ Date: _____

MAR 6 0 ENT'D

DMSA - Chara[illegible]ation Form

Item Number: DMSA-331-13-015 Building: 331 DMSA #: 331-13

Item Description: Electrical Transformer (Process)

Origin: PGDP Owner Status: NACM 3-8-00 Capital Equipment ID: NA

Initial Characterization

Operating History

Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

Analytical Data

Assay

Assay Assumed: 0

Sample Request and Receipt Form Issued

Assay Smear Samples Complete

Independent Verification of Assay form completed and attached.

Mass

☐ NDA Requested

☐ NDA Complete

Sample A:

Assay Used: 0

Pounds U: 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U:

U-235(g):

NCS Classification

☒ NCS-Exempt

☐ LS

☐ UH

☐ PEH

Characterization Completed By:

Name: [illegible]

Date: 3-2-00

RCRA or TSCA Issues Identified

Comments:

☐ Item relocated NA

New Location: Building:

DMSA #:

NMC&A Exempt

No visible Uranium Cgl 3-3-00

DRY

ENTERED 3-8-00

8/21/01 [illegible]

Date Printed: Monday, Fe[illegible]

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 45

DMSA #: 331-13

Zone #: 4

Description: Electrical transformer (process)

CATEGORY

Reusable Equipment: ☐

New or Unused Items: ☐

USED LIST: ☐

Number of Items: 1

Estimated Volume: ~ 540 ft³

Estimated Weight: ~ 11,500 lbs.

Barcode #: DMSA010503

Old Used #: C-331-13-016

Verifier #1: D.S Jones

Badge #1: 28124

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 38255

Date #2: 8/28/01

ATTACHMENTS

NCS Characterization Form: ☒

HP Survey: ☒

Analytical Data: ☐

Comments

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	ANALYTICAL CHARACTERIZATION: ^{235}U Mass Analysis	ANALYTICAL CHARACTERIZATION: Subcritical Mass Limits	ANALYTICAL CHARACTERIZATION: NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: E00045 Description: ELECTRICAL TRANSFORMER (PROCESS) Independent Confirmations: Individual #1: [signature] Date: 8/10/01 Individual #2: [signature] Date: 8/10/01 ********** Other Information: Bldg./Col.: C-331-Y-10 DMSA #: 331-13 Origin: DA	Historical Documentation: ____ Process Knowledge: ____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: ____ Date: ____	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits X	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____ Samole B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: ____ Date: ____	Initial: Reclassification: ✓ NCS-Exempt ____ ____ Spacing-Controlled ____ ____ Singulady-Contingent DMSA/DRA Inspector: [signature] Date: 8/07/01 NCS Engineer: ____ (If Spacing-Controlled or Singularly-Contingent item is involved) Date ____ NDA Expert: ____ (if NDA is performed) Date: ____ Independent Verifications: (BEFORE movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____ Independent Verifications: (AFTER movement) Person #1: ____ Date: ____ Person #2: ____ Date: ____

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-016)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To ____ Further NCS characterization is required. Item does not contain Singularly-Contingent mass. NDA Expert #1: ____ Date: ____ NDA Expert #2: ____ Date: ____ DMSA/DRA Inspector: ____ Date: ____ NCS Engineer: ____ Date: ____	I have independently confinned the identification end description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match, Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____	I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match. Independent Person #1: ____ Date: ____ Independent Person #2: ____ Date: ____

(PA-3003A • Rev. 4 • 07/2001)

DMSA - Chara... zation Form

MAR 0 8 ENT'D

Item Number: DMSA-331-13-016 Building: 331 DMSA #: 331-13

Item Description: Electrical Transformer (Process)

Status: Doc Acc 3-3-00 Capital Equipment ID: NA

Analytical Data

Initial Characterization

Operating History

- [X] No NCS Concerns (Not Process Equipment)
- [ ] Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- [ ] Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

Assay

- [ ] Sample Request and Receipt Form Issued
- [ ] Assay Smear Samples Complete
- [ ] Independent Verification of Assay form completed and attached.

Assay wt%U-235:

Mass

- [ ] NDA Requested
- [ ] NDA Complete

Sample A:

Assay Used: 0

Pounds U: 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U: 0

U-235(g): 0

NCS Classification

- [X] NCS-Exempt
- [ ] LS
- [ ] UH
- [ ] PEH

Characterization Completed By:

Name: [illegible]

Date: 3-2-00

RCRA or TSCA Issues Identified

Comments:

NA

New Location: Building:

DMSA #:

NMC&A Exempt
No visible Uranium

cc 3-3-00

ENTERED 3-8-00

Date Printed: Monday, February 21, 2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 46

DMSA #: 331-13

Zone #: 4

Description:

Transformer Cooling fan

CATEGORY:

Reusable Equipment: ☑

New or Unused Items: ☐

USED Items: ☐

Number of Items: 1

Estimated Volume: ~ 2 ft³

Estimated Weight: ~ 50 lbs

Barcode #: DMSA0110502

Old Used #: C-331-13-017

Verifier #1: D.S. Jones

Badge #: 28124

Date #1: 8-28-01

Verifier #2: Doug Hines

Badge #2: 31255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☑

HP Survey: ☑

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION				NCS CLASSIFICATION
		^{235}U Assay Analysis	^{235}U Mass Analysis	Subcritical Mass Limits	NDA Quantification Surveys	
Unique ID #: E0004C Description: TRANSFORMER COOLING FAN Independent Confirmations: Individual #1 : _____ Date: _____ individual #2: _____ Date: _____ Other Information; Bldg./Col.: C-331-X/Y-10 DMSA #: 331-13 Origin: NA	historical Documentation: _____ Process Knowledge: _____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: _____ Date: _____	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg^{235}U ____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: _____ Date: _____ Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: _____ Date: _____	Initial: Reclassification: ✓ NCS-Exempt ____ ____ Spacing-Controlled ____ ____ Singulady-Contingent ____ DMSA/DRA Inspector: [signature] Date: 8/07/01 NCS Engineer: _____ (If Spacing-Controlled or Singularly-Contingent item is involved) Date: _____ NDA Expert: _____ (if NDA is performed) Date: _____ Independent Verifications: (BEFORE movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____ Independent Verifications: (AFTER movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____

Comments: NCS EXEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-017)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____

DMSA/DRA Inspector: _____ Date: _____
NCS Engineer: _____ Date: _____

I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and **find this** information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item **against** the written instructions and find this information to match.

Independent Person #1: _____
Date: _____

Independent Person #2: _____
Date: _____

(PA-3003A - Rev. 4 - 07/2001)

DMSA - Charac ation Form

Item Number: DMSA-331-13-017 Building: 331 DMSA #: 331-13

Item Description: Transformer Cooling Tow

Origin: PGDP Owner Status: N/A 3-8-00 DOE Capital Equipment ID: N/A

Analytical

Operating History

X No NCS Concerns (Not Process Equipment)

Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

– Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

Assay Assum

Sample Request and Receipt Form Issued

Assay Smear Samples Complete

Independent Verification of Assay form completed and attached.

Mass

NDA Complete

Sample A:

Assay Used: 0

U-235 (g):

Sample B:

Assay Used: 0

Pounds U: 0

U-235(g): 0

N/A

N/A

NCS Classification

X NCS Exempt

LS

UH

PEH

Characterization Completed By:

Name: [illegible]

Badge #: 662505

Date: 3-2-00

– RCRA or TSCA Issues Identified

Comments:

N/A

a Item relocated

New Location: Building:

DMSA #:

NMC&A Exempt [illegible] 3-3-00

ENTERED 3-8-00

8/2/01

Date Printed: Monday, February 21,2000

WESKEM DMSA ITEM IDENTIFICATION SHEET

Prefix: E000

DMSA Item ID #: 47

DMSA #: 331-13

Zone #: 4

Description: Transformer Cooling fan

Reusable Equipment: ☑

New or Unused Items: ☐

Used Items: ☐

Number of Items: 1

Estimated Volume: ~2 ft³

Estimated Weight: ~50 lbs

Barcode #: DMSA 0110501

Site User #: C-331-13-018

Verifier #1: D.S. Jones

Badge #1: 28124

Date #1: 8-28-01

Verifier #2: Gary Hines

Badge #2: 34255

Date #2: 8/28/01

ATTACHMENTS:

NCS Characterization Form: ☒

HP Survey: ☒

Analytical Data: ☐

Comments:

DMSA/D&D NCS-Restricted Area Item - NCS Characterization Form

ITEM	INITIAL CHARACTERIZATION	ANALYTICAL CHARACTERIZATION: ^{235}U Assay Analysis	^{235}U Mass Analysts	Subcritical Mass Limits	NDA Quantification Surveys	NCS CLASSIFICATION
Unique ID #: 000047 Description: TRANSFORMER COOLING FAN Independent Confirmations: Individual #1: _____ Date: _____ Individual #2: _____ Date: _____ . . . . . . Qther Information; Bldg./Col.: C-331-X/4-10 DMSA #: 331-13 Origin: NA	historical Documentation: _____ Process Knowledge: _____ Visual Inspections Completed: ____ External Surfaces Inspection ____ Internal Surfaces Inspection Completed By: _____ Date: _____	Sample A: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma) Sample B: ____ % ^{235}U ____ 1 sigma (% ^{235}U) ____ 2 sigma (% ^{235}U) ____ Total (^{235}U + 2 sigma)	Sample A: ____ g ^{235}U Sample B: ____ g ^{235}U	____ kg ^{235}U ____ Moderated Limits ____ Dry Limits	Sample A: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: _____ Date: _____ Sample B: Date & Time Performed: __/__/__ ____ am/pm Date & Time Results Rec'd: __/__/__ ____ am/pm Assumed Assay: ____ % ^{235}U Mass: ____ g ^{235}U Submitted By: _____ Date: _____	Initial: Reclassification: ✓ NCS-Exempt ____ ____ Spacing-Controlled ____ ____ Singularly-Confingent ____ DMSA/DRA Inspector: [signature] Date: 8/27/01 NCS Engineer: _____ (If Spacing-Controlled or Singularly-Contingent item is involved) Date: _____ NDA Expert: _____ (if NDA is performed) Date: _____ Independent Verifications: (BEFORE movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____ Independent Verifications: (AFTER movement) Person #1: _____ Date: _____ Person #2: _____ Date: _____

Comments: NCS EXCEMPT BY PREVIOUS CHARACTERIZATION (DMSA# 331-13-018)
SEE ATTACHED SHEETS FOR DETAILED INFORMATION.

Approved to Relocate: To _____
Further NCS characterization is required. Item does not contain Singularly-Contingent mass.
NDA Expert #1: _____ Date: _____
NDA Expert #2: _____ Date: _____
DMSA/DRA Inspector: _____ Date: _____
NCS Engineer: _____ Date: _____

I have independently confirmed the identification and description for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.
Independent Person #1: _____
Date: _____
Independent Person #2: _____
Date: _____

I have independently confirmed the destination for this NCS-Exempt or Spacing-Controlled Item against the written instructions and find this information to match.
Independent Person #1: _____
Date: _____
Independent Person #2: _____
Date: _____

(PA-3003A - Rev. 4 - 07/2001)

MAR 0 8 ENT'D

DMSA - Charac... zation Form

Item Number: DMSA-331-13-018 Building: 331 DMSA #: 331-13

Item Description: Transformer Cooling Fan

Origin: PGDP Owner Status: ~~Excess~~ Capital Equipment ID: NA

Analytical Data

Initial Characterization

Operating Historv

- [x] No NCS Concerns (Not Process Equipment)
- [ ] Independent Verification Form (verifying no NCS concerns due to equipment has never been exposed to process gas) is completed and attached.

Visual Inspection

- [ ] Independent Verification Form (verifying visual inspection detected no visible uranium contamination) is completed and attached.

Assay

- [ ] Assay Assumed: 0
- [ ] Sample Request and Receipt Form Issued
- [ ] Assay Smear Samples Complete
- [ ] Independent Verification of Assay form completed and attached.

Assay wt%U-235: 0

NA

Mass

- [ ] NDA Requested
- [ ] NDA Complete

Sample A:

Assay Used: 0

Pounds U: 0

U-235 (g): 0

Sample B:

Assay Used: 0

Pounds U: 0

U-235(g): 0

NA

NCS Classification

- [x] NCS-Exempt
- [ ] LS
- [ ] UH
- [ ] PEH

Characterization Completed By:

Name: [illegible]

Badge #: 462505

Date: 3-2-00

- [ ] RCRA or TSCA Issues Identified

Comments:

NA

- [ ] Item relocated NA

New Location: Building:

DMSA #:

NMC&A Exempt
No visible Uranium

3-3-00

ENTERED 3-8-00

5/2/01

Date Printed: Monday, February 21,2000

Section 8.

SME INSPECTION

SAMPLING STRATEGY (C-331-13) 9-06-01

RFD NUMBER	DMSA	CONTENTS	FROM ZONE	TO ZONE	RCRA CHAR	RCRA METAL	RCRA VOA	RCRA SVOA	PCB	ASB	WIPE	LIQUID	SOLID	SLUDGE	NO SAMPLING REQUIRED	NCS CONTROLLED	Comments
110501	331-09-002	C-310 CONVERTER	2	2											X		
110502	331-09-003	C-310 CONVERTER	4	4											X		
110503	331-13-001	C-310 CONVERTER	4	4											X		
110504	331-13-019	TANK SADDLE	4	4											X		
110505	331-13-020	TANK SADDLE	6	6											X		
110506	331-13-021	WIRE CHOKER	4	4											X		
110507	331-13-022	WIRE CHOKER	4	4											X		
110508	331-13-023	WIRE CHOKER	4	4											X		
															X		

E NUMBER	DMSA	CONTENTS	FROM ZONE	TO ZONE	RCRA CHAR	RCRA METAL	RCRA VOA	RCRA SVOA	PCB	ASB	WIPE	LIQUID	SOLID	SLUDGE	NO SAMPLING REQUIRED	NCS CONTROLLED	Comments
E00031	331-13-002	C-310 CONVERTER	4	4											X		
E00032	331-13-003	C-310 CONVERTER	6	6											X		
E00033	331-13-004	C-310 CONVERTER	6	6											X		
E00034	331-13-005	C-310 CONVERTER	7	7											X		
E00035	331-13-006	C-310 CONVERTER	7	7											X		
E00036	331-13-007	C-310 CONVERTER	8	8											X		
															X		
E00038	331-13-009	(INLET SECTION)	10	10											X		
E00039	331-13-010	"00" COMPRESSOR, SHELL ONLY (A-SECTION CASING)	9	9											X		
E00040	331-13-011	"00" COMPRESSOR LIFTING FIXTURE	10	10											X		
E00041	331-13-012	"00" COMPRESSOR LIFTING FIXTURE	9	9											X		
E00042	331-13-013	COMPRESSOR NOZZLE SLING	9	9											X		
E00043	331-13-014	"00" COMPRESSOR CIRCULAR PLATE, LIFTING FIXTURE	9	9											X		
E00044	331-13-015	ELECTRICAL TRANSFORMER (PROCESS)	4	4											X		
E00045	331-13-016	ELECTRICAL TRANSFORMER (PROCESS)	4	4											X		
E00046	331-13-017	TRANSFORMER COOLING FAN	4	4											X		
E00047	331-13-018	TRANSFORMER COOLING FAN	4	4											X		

Section 9.

HP SURVEY

Radiological Survey Form

Survey No.: 01-ER-1089-S

Date: 08/02/01 Time: 1430

Page 1 of 3

RWP NO: 01-DOE-47-S

Location of Survey – General (Site/Bldg.)/Specific (Room/Area): C-331-DMSA-13

Purpose of Survey: Investigative and boundary verification

COPY

Technician: John Gow / John Gow Badge: 635941 Material Description: N/A

Model #: / Serial #: / Cal. due date: / Probe Model #: / CF Pt.: / CF Plane:

Model #: / Serial #: / Cal. due date: / Probe Model #: / CF Pt.: / CF Plane:

Model #: N/A Serial #: N/A Cal. due date: N/A Probe Model #: N/A CF Pt.: N/A CF Plane: N/A

Model #: / Serial #: / Cal. due date: / Probe Model #: / CF Pt.: / CF Plane:

Model #: Ludlum 2929 Serial #: 126141 Cal. due date: 12/22/01 Probe Model #: / CF Pt.: / CF Plane:

Technician: N/A Badge: N/A

α CF: N/A β/γ CF: N/A

α CF: 2.81 β/γ CF: 2.89

Tennelec: Yes ____ No ✓ (If yes, see attached results)

Smear or Item No.	Sample Location	BKGD α / Lc	Removable α dpm/100cm²	BKGD α / Lc	Total α dpm/100cm²	BKGD β/γ / Lc	Removable β,γ dpm/100cm²	BKGD β/γ / Lc	Total β,γ dpm/100cm²	Remarks
1	See Map Zone 1	0 / 2.93	11			21 / 56.82	254			
2	See Map		6				98			
3	See Map Zone 2		26				232			
4			17				570			
5	See Map Zone 3		<Lc				197			
6			6				321			N/A
7	See Map Zone 4		14		N/A		740			
8			9				893			
9	See Map Zone 5		17				93			
10			9				538			

COMMENTS: N/A

Released to: N/A

PAD/RCO-081 (Page 1 of 3) Rev. 1 (2/01)

HP Supervisor Review: [signature] 8-9-2001

Signature/ Date

Aug-27-01 10:31A Safety&Ecology Corp 502 441 5182 P 0

Radiological Survey Continuation Form

Survey No.: 01-ER-1089-S

Smear or Item No.	Sample Location	BKGD α / Lc	Removable α dpm/100cm²	BKGD α / Lc	Total α dpm/100cm²	BKGD βγ / Lc	Removable β,γ dpm/100cm²	BKGD βγ / Lc	Total βγ dpm/100cm²	Remarks
11	See map zone 6	0 / 2.93	<Lc			71 / 56.82	<Lc			
12	↓	↓	↓			↓	130			
13	See map zone 7		9				517			
14	↓		<Lc				58			
15	See map zone 8		6				220			
16	↓		<Lc				133			N/A
17	See map zone 9		17		N/A		275			
18	↓		14				104			
19	See map zone 10		<Lc				67			
20	↓		↓				665			
21	S.O.P.						<Lc			
22-30	Boundary verification	↓	↓			↓	↓			
							N/A			

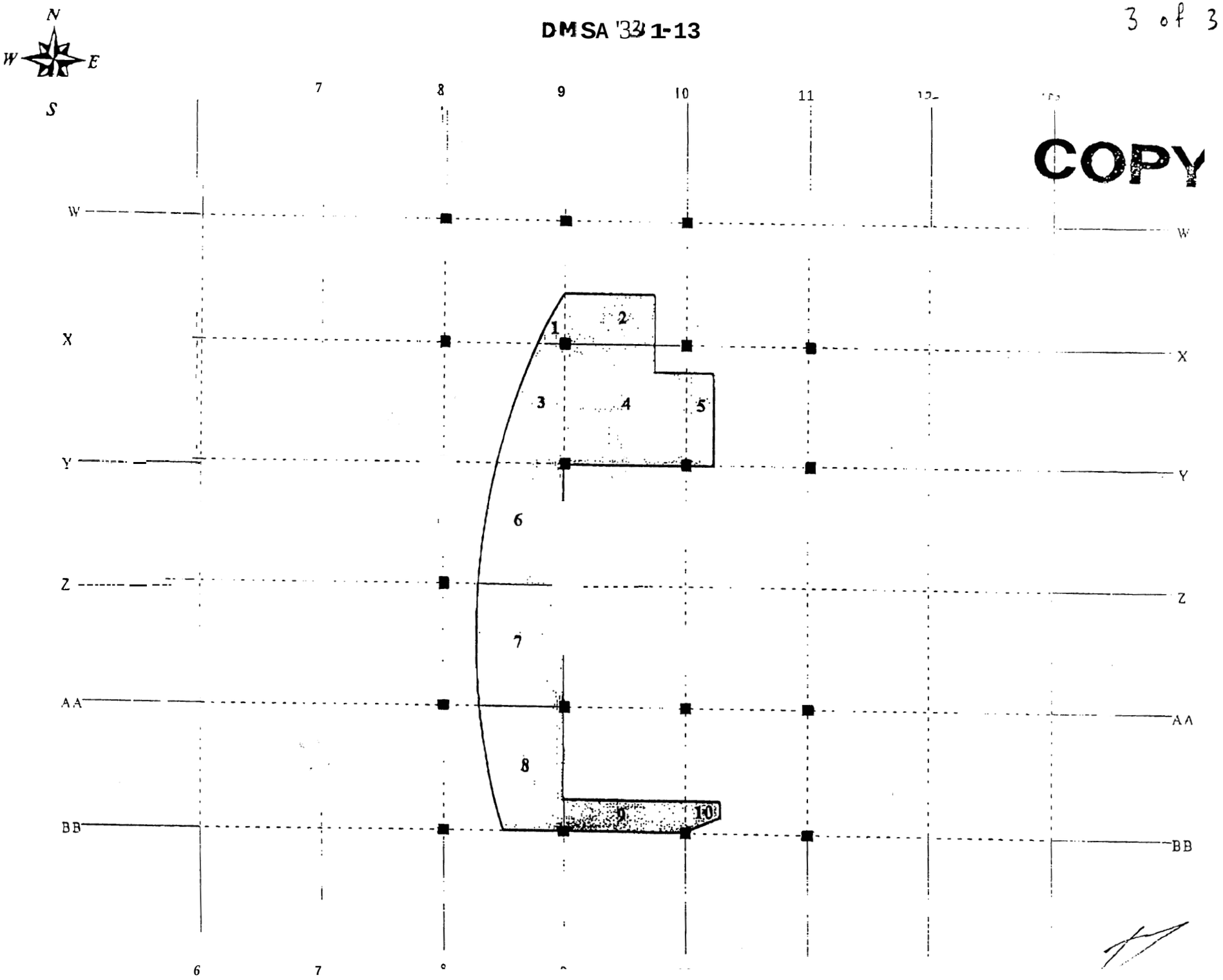
COPY

COMMENTS/NOTES:

N/A

Aug-27-01 10:52A Safety&Ecology Corp 502 441 5182 P.08

DMSA '33 1-13



COPY

Safety&Ecology Corp 502 441 5182 P.04

Radiological Survey Form

Survey No.: 01-ER-1135-5 Date: 8-10-01 Time: 1700 RWP NO: 01-DOE-47-5 Page 1 of 1

Location of Survey – General (Site/Bldg.)/Specific (Room/Area): C-331 / DMSA-13

Purpose of Survey: Job coverage / Tagging equipment Material Description: SEE SAMPLE LOCATION BELOW

COPY

Technician: Albert L. Pope, Albert L. Pope Badge: 636052 Technician: N/A / N/A Badge: N/A

Model #: Ludlum 2221 Serial #: 99131 Cal. due date: 7-10-02 Probe Model #: 43-5 CF Pl: 7.99 CF Plane: 15.97

Model #: Ludlum 12 Serial #: 102871 Cal. due date: 6-12-02 Probe Model #: 44-9 CF Pt.: 5.21 CF Plane: 33.61

Model #: Serial #: Cal. due date: Probe Model #: CF Pt.: CF Plane:

Model #: N/A Serial #: N/A Cal. due date: N/A Probe Model #: N/A CF Pt.: N/A CF Plane: N/A

Model #: Serial #: Cal. due date: α CF: N/A β/γ CF: N/A

Tennelec: Yes ✓ No ✓ (If yes, see attached results) α CF: N/A β/γ CF: N/A

Smear or Item No.	Sample Location	BKGD α / L_c	Removable α dpm/100cm²	BKGD α / L_c	Total α dpm/100cm²	BKGD β/γ / L_c	Removable β,γ dpm/100cm²	BKGD β/γ / L_c	Total β,γ dpm/100cm²	Remarks
1-2	BAR CODE SCANNER	2 / 26.32	< LC	2 / 52.64	NA	30 / 66.50	< LC	30 / 428.94	N/A	
3-4	AIR PUMP	↓	↓	↓	↓	↓	↓	↓	↓	
5-6	CAMERA	↓	↓	↓	↓	↓	↓	↓	↓	
					N	N/A				N/A

COMMENTS: N/A

Released to: WESKEM

PAD/RCO-081 (Page 1 of 3) Rev. 1 (2/01)

HP Supervisor Review: [signature] 8-14-2001
Signature/ Date

Aug 27 01 10:32A Safety&Ecology Corp 502 441 5182 P.05

Radiological Survey Form

Survey No.: 01-ER-1132-S

Date: 8-10-01 Time: 1030

Page 1 of 1

RWP NO: 01-DOE-47-S

COPY

Location of Survey – General (Site/Bldg.)/Specific (Room/Area): C-331 / DMSA-~~14~~ 13 MB 8-10-01

Purpose of Survey: JOB COVERAGE / TAGGING EQUIPMENT

Technician: MARK TUCK / [signature] Badge: 704985 Material Description: SEE SAMPLE LOCATION BELOW

Technician: JOHN MCGEE / [signature] Badge: 636168

Model #: LUDLUM 2221	Serial #: 75476	Cal. due date: 4-3-02	Probe Model #: 43-5	CF Pt.: 1.26	CF Plane: 14.52
Model #: LUDLUM 3	Serial #: 130668	Cal. due date: 3-22-02	Probe Model #: 44-9	CF Pt.: 5.04	CF Plane: 32.48
Model #:	Serial #:	Cal. due date:	Probe Model #:	CF Pt.:	CF Plane:
Model #: N/A	Serial #: N/A	Cal. due date: N/A	Probe Model #: N/A	CF Pt.: N/A	CF Plane: N/A
Model #:	Serial #:	Cal. due date:	α CF: N/A	βγ CF:	
Model #: RO-20	Serial #: 0294	Cal. due date: 8-25-01	α CF: N/A	βγ CF: 3.22 MB 8-10-01	ULD = 0.2 mrem/hr

Tennelec: Yes ____ No X (If yes, see attached results)

Smear or Item No.	Sample Location	BKGD α / L_c	Removable α dpm/100cm²	BKGD α / L_c	Total α dpm/100cm²	BKGD βγ / L_c	Removable β,γ dpm/100cm²	BKGD βγ / L_c	Total β,γ dpm/100cm²	Remarks
1-9	DMSA-14 FLOOR @ CA BOUNDARY	0.6 / 13.11	< Lc	0.6 / 26.21	N/A	40 / 74.20	< Lc	40 / 478.59	N/A	G.A. DOSE RATE: < LLD
10	DMSA-14 SOP	↓	↓	↓	↓	↓	↓	↓	↓	↓

COMMENTS: N/A

Released to: N/A

PAD/RCO-081 (Page 1 of 3) Rev. 1 (2/01)

HP Supervisor Review: [signature] / YYY-dd-y
Signature Date

Radiological Survey Form

COPY

Survey No.: 01-ER-1221-S Date: 8-22-01 Time: 1305 RWP NO: 01-DOE-47-S Page 1 of 1

Location of Survey – General (Site/Bldg.)/Specific (Room/Area): DMSA-C-331-13

Purpose of Survey: JOB COVERAGE/TAPE FLANGES ON CONVERTERS Material Description: SEE SAMPLE LOCATION BELOW

Technician: MARK TUCK Badge: 704985 Technician: ____ Badge: ____

Model #	Serial #	Cal. due date	Probe Model #	CF Pt.	CF Plane
L-2221	75476	4-3-02	43-5	7.26	14.52
L-12	83347	6-12-02	44-9	5.20	33.54
N/A	N/A	N/A	N/A	N/A	N/A
RO-20	0294	8-25-01			

α CF: N/A β/γ CF: 3.22 LLD ~ 0.2 mrem/hr 8-22-01

Tennelec: Yes ____ No Y (If yes, see attached results)

Smear or Item No.	Sample Location	BKGD α / Lc	Removable α dpm/100cm²	BKGD α / Lc	Total α dpm/100cm²	BKGD β/γ / Lc	Removable β,γ dpm/100cm²	BKGD β/γ / Lc	Total β,γ dpm/100cm²	Remarks
1-3	3-ROLLS OF DUCT TAPE	2 / 23.93	< Lc	2 / 47.86	< Lc	30 / 66.36	< Lc	30 / 428.05	< Lc	RELEASED FROM CA
4-7	2-TOOL BELTS	↓	↓	↓	↓	↓	↓	↓	↓	↓
8-9	TAPE MEASURE & FLASHLIGHT	↓	↓	↓	↓	↓	↓	↓	↓	↓
10	VSS-12 AIR SAMPLER	↓	↓	↓	↓	↓	↓	↓	↓	↓
11-19	DMSA-13 CA BOUNDARY	↓	↓	↓	↓	↓	↓	↓	↓	↓
20	DMSA-13 SOP	↓	↓	↓	↓	↓	↓	↓	↓	DOSE RATE: < LLD
										↓

COMMENTS: N/A

Released to: WESKEM

PAD/RCO-081 (Page 1 of 3) Rev. 1 (2/01)

HP Supervisor Review: [signature] 8-22-2001

Aug-27-01 10:53A Safety&Ecology Corp 502 441 5182 P.07

Radiological Survey Form

Page 1 of 2 (1/2 AP 8-28-0)

Survey No.: 01-ER-1280-S Date: 8-28-01 Time: 1730 RWP NO: 01-DOE-47-S

Location of **Survey – General (Site/Bldg.)/Specific (Room/Area):** C 331-13 DMSA

Purpose of Survey: Job coverage **Material Description:** N/A

Technician: [illegible] Badge: 63605 Technician: NA 189 NA Badge: NA

Model #: [illegible] Serial #: [illegible] Cal. due date: 5-5-02 Probe Model #: 43-89 CF Pt.: 19.25 CF Plane: 19.25

Model #: / Serial #: / Cal. due date: / Probe Model #: 46-9 CF Pt.: 4.97 CF Plane: 32.07

Model #: / Serial #: / Cal. due date: / Probe Model #: N/A CF Pt.: N/A CF Plane:

Model #: N/A Serial #: N/A Cal. due date: N/A Probe Model #: / CF Pt.: / CF Plane: /

Model #: / Serial #: / Cal. due date: / α CF: N/A β/γ CF: N/A α CF: / β/γ CF: /

Tennelec: Yes ____ No X (If yes, see attached results)

Smear or Item No.	Sample Location	BKGD α / Lc	Removable a dpm/100cm²	BKGD α / Lc	Total a dpm/100cm²	BKGD β/γ / Lc	Removable β,γ dpm/100cm²	BKGD β/γ / Lc	Total β,γ dpm/100cm²	Remarks
1-8	CA/Boundary	2 / 19.5	<LC	N/A	N/A	38 / 73.28	<LC	N/A	N/A	
9	S.C.O.	2 / [illegible]	<LC	N/A / N/A	N/A	38 / 73.28	<LC	N/A	N/A	

N/A

COPY

COMMENTS: N/A

Released to: N/A

HP Supervisor Review: [signature] 8-30-2001

Signature/ Date

PAD/RCO-081 (Page 1 of 3) Rev. 1 (2/01)

Radiological Survey Form

Survey No.: 01·DM·14-S Date: 09·07·01 Time: 1150 RWPNO: 01·DOE·47-S

Location of Survey – General (Site/Bldg.)/Specific (Room/Area): C-331 DMSA #13 (C.A. - column X-10)

Purpose of Survey: HP Survey of RFD items Material Description: RFD # / Id # Below in 'Sample Location'

Technician: Renee Balkey / Danny Hayes Badge: 703556 / 705198 Technician: Tom Herman Badge: 635381

Model #: α Lud 2221 Serial #: 68763 Cal. due date: 03·23·02 Probe Model #: 43-5 CF Pt.: 7.11 CF Plane: 14.21

Model #: β Lud 12 Serial #: 168795 Cal. due date: 03·20·02 Probe Model #: 44-9 CF Pt.: 4.72 CF Plane: 30.44

Model #: N Serial #: N Cal. due date: N Probe Model #: CF Pt.: N CF Plane

Model #: Serial #: Cal. due date: Probe Model #: N CF Pt.: CF Plane: N/A

Model #: Serial #: Cal. due date: α CF: NA β/γ CF: NA

Model #: RO-2 Serial #: 6300 Cal. due date: 12-19-01 α CF: NA β/γ CF: 3.6 LLD = 0.4 mR/hr

Tennelec: Yes ✓ No ____ (If yes, see attached results) Dose Rate: Eberline RO-2 # 6300 Cal Due 12-19-01 β Correct. Factor = 3.6 LLD = 0.4 mR/hr

Smear or Item No.	Sample Location	BKGD α / L_c	Removable α dpm/100cm²	BKGD α / L_c	Total α dpm/100cm²	BKGD β/γ / L_c	Removable β,γ dpm/100cm²	BKGD β/γ / L_c	Total β,γ dpm/100cm²	Comments
1	RFD # 110501-01	* / *	*	3 / 57.37	199	* / *	*	50 / 501.50	30,714.	N/A
2	↓				256				314,171.	
3					284				365,280.	Contact: β dose = 7.2 mR/hr, γ = 1 mR/hr
4	RFD # 110503-01				270				121,760.	
5	↓				N/A				124,469.	
6									186,110.	N
7	E000-31				3409.				143,068.	
8	↓				N/A				128,944.	A
9		↓	↓	↓		↓	↓	↓	270,338.	
10	E000-32	* / *	*	3 / 57.37	611	* / *	*	50 / 501.50	131,531.	

COPY

COMMENTS: * See Attached Tennelec Sheets for "Removable Results" & other information.

Released to: N/A

HP Supervisor Review: [signature] / 9-8-2001
Signature/ Date

Radiological Survey Continuation Form

Survey No.: 01-DM-14-S

Smear or Item No.	Sample Location	BKGD α / L_c	Removable α dpm/100cm²	BKGD α / L_c	Total α dpm/100cm²	BKGD β/γ / L_c	Removable β,γ dpm/100cm²	BKGD β/γ / L_c	Total β,γ dpm/100cm²	Remarks
11	E 000-32	* / *	*	3 / 57.37	N/A	* / *	*	50 / 501.50	133,266.	
12	↓								186,384.	
13	E 000-33				554				179,261.	
14	↓				N/A				70,438.	
15	↓								79,448.	N
16	E-000-34				412.				186,640.	
17	↓				N/A				186,110.	
18	↓								189,824.	COPY
19	E-000-35				N/A				70,012.	
20	↓				867.				209,245.	
21	↓				782.				318,950	
22	E-000-36				199				139,963.	
23	↓				270				140,998.	
24	↓	↓ / *	↓ *	↓ 3 / 57.37	327	↓ *	↓ *	↓ 50 / 501.50	200,508.	

COMMENTS/NOTES:

N/A

Radiological Survey Continuation Form

Survey No.: 01·DM·14·S

Smear or Item No.	Sample Location	BKGD α / L_c	Removable α dpm/100cm²	BKGD α / L_c	Total α dpm/100cm²	BKGD β/γ / L_c	Removable β,γ dpm/100cm²	BKGD β/γ / L_c	Total β,γ dpm/100cm²	Remarks
25	E000·37	* / *	*	3 / 57.37	682.	* / *	*	50 / 501.50	62,098.	
26	↓			N				N		
27	↓			A				A		
28	E000·39			3 / 57.37	227			50 / 501.50	39,268.	
29	↓			N				N		
30	↓			A				A		
31	E000·41				3240			50 / 501.50	321,294.	
32	↓			N / A				N / A		
33	E000-42			3 / 57.37	128			50 / 501.50	7,275.	
34	↓			N / A				N / A		
35	E000·40			3 / 57.37	782			50 / 501.50	78,474.	
36	↓			N / A				N / A		
37	E000·38			3 / 57.37	142			50 / 501.50	9,102.	
38	↓	* / *	*	N / A		* / *	*	N / A		

COMMENTS/NOTES:

N/A

Radiological Survey Continuation Form

Survey No.: 01-bm.14-S

Smear or Item No.	Sample Location	BKGD α / L_c	Removable α dpm/100cm²	BKGD α / L_c	Total α dpm/100cm²	BKGD β/γ / L_c	Removable β,γ dpm/100cm²	BKGD β/γ / L_c	Total β,γ dpm/100cm²	Remarks
39	E000-44	* / *	*	3 / 57.37	128	* / *	*	50 / 501.50	11,232.	
40	↓			N/A				N/A		
41	RFD# 110507			3 / 57.37	171			50 / 501.50	7,275.	
42	RFD # 110504				256.				7,854.	
43	RFD # 110506				142				10,654.	
44	RFD# 110508				171				13,028.	
45	E000-45				<Lc				30,501.	
46	↓				71				41,094.	
47	RFD# 110502-01				313				78,748.	
48	↓				455				131,531.	
49	RFD# 110505			3 / 57.37	85			50 / 501.50	19,329.	
50	↓			N/A				N/A		
51	E000-46			3 / 57.37	441				6,058.	
52	↓	*	*	N/A		*	*	N/A		

COMMENTS/NOTES:

N/A

COPY

Radiological Survey Continuation Form

Survey No.: 01·DM·14-S

Smear or Item No.	Sample Location	BKGD a / Lc	Removable a dpm/100cm²	BKGD a / Lc	Total a dpm/100cm²	BKGD β/γ / Lc	Removable β,γ dpm/100cm²	BKGD β/γ / II	Total β,γ dpm/100cm²	Remarks
53	E000-46	* / *	*	N/A		* / *	*	N/A		
54	E000-47			3 / 57.37	426			50 / 501.50	6,118.	
SS	↓	↓	↓	↓	327	↓	↓	↓	8,006.	N
56	Boundary	3 / 28.68	<Lc			50 / 77.75	212			
57		1		N			146	N		
58							198			
59	↓						165			A
60	SOP						94			
61	Boundary						184			
62		↓	↓			↓	<Lc		A	
63		3 / 28.68	<Lc		A	50 / 77.75				
					N					
						A				

COPY

COMMENTS/NOTES:

N/A

SEC RadCon Alliance - Paducah

4:31:33P

Survey Number 01-DM-145

Smear and Air Sample Activity Report

9/7/01

Batch ID:	1 Minute Smear - 200109071516			**Acquisition Date:**	9/7/01
Group ID:	A	**Device Serial Number:**	68676	**Acquisition Time: (minutes)**	1.0
Device Name:	Tennelec Series 2				
Selected Geometry:	Swipe/Smear			**Operating Voltage: (volts)**	1,485.0

Cal due 12-21-01

Efficiency Factors			Daily 30 Minute Background CPM		Batch Critical Level DPM	
Alpha Efficiency -	0.23	± 0.00	**Alpha Background (CPM) -**	0.07	**Alpha Lc -**	1.91
Beta Efficiency -	**0.29**	± 0.01	**Beta Background (CPM) -**	0.97	**Beta Lc -**	5.76

Sample ID	Quantity	Alpha DPM (DPM)	2σ	Alpha MDA (DPM)	Beta DPM (DPM)	2σ	Beta MDA (DPM)
20010907151640-A1	0.00	**17.39**	17.69	15.78	**564.19**	91.48	21.00
20010907151820-A2	0.00	**74.86**	36.49	15.78	**3,023.71**	232.98	21.00
20010907151940-A3	0.00	**4.13**	8.85	15.78	**192.81**	52.91	21.00
20010907152100-A4	0.00	**12.97**	15.32	15.78	**189.31**	52.43	21.00
20010907152220-A5	0.00	**43.92**	27.98	15.78	**238.36**	58.85	21.00
20010907152340-A6	0.00	**8.55**	12.51	15.78	**143.76**	45.72	21.00
20010907152501-A7	0.00	**35.07**	25.02	15.78	**634.27**	97.26	21.00
20010907152621-A8	0.00	**17.39**	17.69	15.78	**210.33**	55.26	21.00
20010907152751-A9	0.00	**21.81**	19.78	15.78	**844.48**	113.18	21.00
20010907152911-A10	0.00	**21.81**	19.78	15.78	**224.35**	57.08	21.00
20010907153031-A11	0.00	**4.13**	8.85	15.78	**115.74**	41.09	21.00
20010907153151-A12	0.00	**12.97**	15.32	15.78	**91.21**	36.58	21.00
20010907153311-A13	0.00	**8.55**	12.51	15.78	**238.36**	58.85	21.00
20010907153431-A14	0.00	**-0.29**	0.42	15.78	**70.19**	32.23	21.00
20010907153551-A15	0.00	**74.86**	36.49	15.78	**578.21**	92.66	21.00
20010907153711-A16	0.00	35.07	25.02	15.78	**308.43**	67.04	21.00
20010907153841-A17	0.00	**57.18**	31.90	15.78	**840.98**	112.92	21.00
20010907154001-A18	0.00	**4.13**	8.85	15.78	**28.15**	21.08	21.00
20010907154121-A19	0.00	**12.97**	15.32	15.78	**189.31**	52.43	21.00
20010907154241-A20	0.00	**4.13**	8.85	15.78	**73.69**	33.00	21.00
20010907154402-A21	0.00	**21.81**	19.78	15.78	**480.11**	84.12	21.00
20010907154522-A22	0.00	**12.97**	15.32	15.78	**893.53**	116.65	21.00
20010907154642-A23	0.00	**17.39**	17.69	15.78	**809.44**	110.65	21.00
20010907154802-A24	0.00	21.81	19.78	15.78	**360.99**	72.64	21.00

COPY

SEC RadCon Alliance - Paducah

4:31:33P

Survey Number 0-DM-145

Smear and Air Sample Activity Report

9/7/01

Efficiency Factors			Daily 30 Minute Background CPM		Batch Critical Level DPM	
Alpha Efficiency -	0.23	± 0.00	Alpha Background (CPM) -	0.07	Alpha Lc -	1.91
Beta Efficiency -	0.29	± 0.01	Beta Background (CPM) -	0.97	Beta Lc -	5.76

Sample ID	Quantity	Alpha DPM (DPM)	2σ	Alpha MDA (DPM)	Beta DPM (DPM)	2σ	Beta MDA (DPM)
20010907154922-A25	0.00	**26.23**	21.67	15.78	**1,166.81**	134.78	21.00
20010907155052-A26	0.00	**35.07**	25.02	15.78	**623.75**	96.41	21.00
20010907155212-A27	0.00	**26.23**	21.67	15.78	**788.42**	109.11	21.00
20010907155332-A28	0.00	**39.50**	26.54	15.78	**862.00**	114.42	21.00
20010907155452-A29	0.00	**39.50**	26.54	15.78	**283.91**	64.28	21.00
20010907155612-A30	0.00	**12.97**	15.32	15.78	**178.80**	50.95	21.00
20010907155732-A31	0.00	**21.81**	19.78	15.78	**143.76**	45.72	21.00
20010907155852-A32	0.00	**123.50**	46.85	15.78	**949.59**	120.52	21.00
20010907160012-A33	0.00	**4.13**	8.85	15.78	**17.63**	17.22	21.00
20010907160142-A34	0.00	**-0.29**	0.42	15.78	**63.18**	30.65	21.00
20010907160302-A35	0.00	**30.65**	23.41	15.78	**480.11**	84.12	21.00
20010907160423-A36	0.00	**8.55**	12.51	15.78	**143.76**	45.72	21.00
20010907160543-A37	0.00	**8.55**	12.51	15.78	**98.22**	37.92	21.00
20010907160703-A38	0.00	**21.81**	19.78	15.78	**108.73**	39.85	21.00
20010907160823-A39	0.00	**26.23**	21.67	15.78	**336.46**	70.08	21.00
20010907160943-A40	0.00	**-0.29**	0.42	15.78	**119.24**	41.70	21.00
20010907161103-A41	0.00	**8.55**	12.51	15.78	**199.82**	53.86	21.00
20010907161233-A42	0.00	**83.71**	38.58	15.78	**795.43**	109.62	21.00
20010907161353-A43	0.00	**4.13**	8.85	15.78	**73.69**	33.00	21.00
20010907161513-A44	0.00	**8.55**	12.51	15.78	**126.25**	42.88	21.00
20010907161633-A45	0.00	**8.55**	12.51	15.78	**143.76**	45.72	21.00
20010907161753-A46	0.00	**-0.29**	0.42	15.78	**252.37**	60.57	21.00
20010907161913-A47	0.00	**66.02**	34.27	15.78	**1,261.41**	140.68	21.00
20010907162033-A48	0.00	**12.97**	15.32	15.78	**234.86**	58.41	21.00
20010907162153-A49	0.00	**229.61**	63.91	15.78	**5,122.36**	325.36	21.00
20010907162324-A50	0.00	**48.34**	29.34	15.78	**1,257.90**	140.46	21.00
20010907162444-A51	0.00	**66.02**	34.27	15.78	**1,790.45**	171.17	21.00
20010907162604-A52	0.00	**17.39**	17.69	15.78	**129.75**	43.47	21.00
20010907162724-A53	0.00	**12.97**	15.32	15.78	**38.66**	24.35	21.00

COPY

SEC RadCon Alliance - Paducah

4:31:33P

Smear and Air Sample Activity Report

9/7/01

Survey Number 01-DA-145

Efficiency Factors				Daily 30 Minute Background CPM		Batch Critical Level DPM	
Alpha Efficiency -	0.23	±	0.00	Alpha Background (CPM) -	0.07	Alpha Lc -	1.91
Beta Efficiency -	0.29	±	0.01	Beta Background (CPM) -	0.97	Beta Lc -	5.76

Sample ID	Quantity	Alpha DPM (DPM)	2σ	Alpha MDA (DPM)	Beta DPM (DPM)	2σ	Beta MDA (DPM)
20010907162844-A54	0.00	-0.29	0.42	15.78	38.66	24.35	21.00
20010907163004-A55	0.00	-0.29	0.42	15.78	66.68	31.45	21.00

COPY

Count Room Review: PIKE

Sampling Tech Review:

Section 10.

HP SMEAR AND AIR SAMPLE ACTIVITY REPORT

RECORD COPY KLK 8/27/01

AIR SAMPLE CALCULATION WORKSHEET

PAGE 1 OF 2

SURVEY INFORMATION SAMPLING RCT NAME M. Foster SIGNATURE Mike Foster BADGE 618772

Purpose of Survey: Job Coverage/ General Area - Low Vol. High Vol. Lapel Environmental Other:

Project-Building/Location: C-331-DMSA-13 Work Description: Initial Entry

Survey #: 01- ER - 1141 -A RWP #: 01-DOE- 47 - S

COPY

SAMPLING INSTRUMENTATION

Model: ☐HD-29A ☐AVS-28A ☐MRV-1023CV ☐ BuckHF ☐ BuckIH ☐SKC BZA ☐TFIA ☐ HVP-3800AFC ☐ Basic-12 ☑VSS-12

Serial No.: V12035 Cal. Due Date: 8/25/01

MEDIA DESCRIPTION

Filter Media: ☐ What-41 – 4 inch ☐ MF ☐ What-41 – 8x10 inch ☑AA

NOTE: 1 CFM = 28.32 LPM

Start Date	Start Time	Start Flow CFM (LPM)	Stop Date	Stop Time	Stop Flow CFM (LPM)	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
8/2/01	1344	8.00	8/2/01	1417	7.97	33	7.985	263.505

Area Posted as ARA?	Were Respirators Worn?	Respirator Type and Protection Factor? ☑N/A	Lapel Worn By: M. Foster
☐ Yes ☑ No	☐ Yes ☑ No	☐APR (50) ☐PAPR or Supplied Air Hood (1000) ☐SCBA (10000) ☐Airline or Supplied Air Full Face (2000)	Badge Number: 618772

LABORATORY INFORMATION LAB RCT NAME Tiffany VanCleve SIGNATURE Tiffany VanCleve BADGE 704645

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☐Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	137627	3-8-02	.3658	.3281
☐Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	N/A			

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8/8/01	1220	Alpha	480	0.14	0.30	300	0.21	0.18	0.03	0.08	0.18
		Beta	480	2.52	5.07	300	48.15	46.63	1.52	4.63	3.09
N/A		Alpha									
		Beta									

ANALYSIS RESULTS CALCULATED BY: NAME Julie Woods SIGNATURE Julie Woods BADGE 703511

Alpha DAC (µCi/ml)	Posting Level (µCi/ml)	Concentration (µCi/ml)	Concentration (% DAC) †††
2E-12	5E-13	2.06E-13	~~10.3%~~ <MDC
Beta DAC (µCi/ml)	**Posting Level (µCi/ml)**	**Concentration (µCi/ml)**	**Concentration (% DAC) †††**
6 E-08	1.5 E-08	8.33E-12	~~1.39E-2~~ <MDC

† ☒ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = 2.06E-13 Beta MDC (µCi/ml) = 9.12E-12

†† Send samples > 100 DPM Alpha to the laboratory for isotopic analysis.

Reviewed By: W.C. Hodges Date: 8-10-01 Data Entry KR 8/16

LOW VOLS/LAPEL BZA AIR SAMPLE CALCULATIONS

Survey Number	01-ER-1141-A
Start Date/Time	8/2/01 13:44
End Date/Time	8/2/01 14:17
	1/0/00 0:33

Days Elapsed	0	0
Hours Elapsed	0	0
Minutes Elapsed	33	33
Total Minutes		33

Activity in dpm-Alpha	0.08
Activity in dpm-Beta	4.63
Volume in L	263.51
Volume in mL	

Alpha Activity by 4.74E-7	3.792E-08
arV (.7)(1)(Volume in mL)	184453.5
Beta Activity by 4.74E-7	2.19462E-06
arV (1)(1)(Volume in mL)	263505

Start Flow LPM	8
Stop Flow LPM	7.97
Average Flow	7.99
Total Volume Air (L)	263.51

COPY

Alpha Concentration in microCi/mL	2.06E-13
% 2e-12 (Based on Np-237)	1.03E+01
% 2e-11	1.03E+00
% 8e-11	2.57E-01
For a Different Percent DAC Enter DAC Value Below	
1.00E-11	2.06E+00

Beta Concentration in microCi/mL	8.33E-1
% 6E-8 (Based on Th-234)	1.39E-0
For a Different Percent DAC Enter DAC Value Below	
6.00E-08	1.39E-02

Use This for Calculating Minimum Detectible Concentration in MicroCi/mL

Enter Alpha MDA	0.3
arV(.7)(1)(Vol. in mL)	1.422E-07
Alpha MDC in microCi/mL	7.71E-13

Enter Beta MDA	5.071
Beta MDA(4.74E-7) arV (1)(1)(Vol. in mL)	2.40318E-06 263505
Beta MDC in microCi/mL	9.12E-

Use This For Calculating +/- 2 Sigma on Air Samples Counted on 2929's

	ALPHA	BETA
Gr Sample Count Rate,cpm	0.21	48.15
Gr Sample Count Time,min	300	300
Bkgr. Count Rate, cpm	0.18	46.69
Bkgr. Count Time, min		300
Counter Efficiency %	0.36	0.3281
+/- 2 Sigma, dpm	0.10	3.09

NOTES:

DATA TO BE ENTERED GOES IN

Printed Name: Julie Woods

Signature & Date: Julie Woods 8/9/01

~~RECORD COPY~~ KLR 8/27/01

Job

114

COPY

SAMPLING INSTRUMENTATION

Model: ☐HD-29A ☐AVS-28A ☐MRV-1023CV ☐ BuckHF ☐ BuckIH ☐ SKC BZA ☐TFIA ☐HVP-3800AFC ☐ Basic-12 ☐VSS-12

Serial No.: 21604P Cal. Due Date: 07/20/02

MEDIA DESCRIPTION

Filter Media: ☐ What-41 – 4 inch ☐ MF ☐ What47 – 8x10 inch ☐ AA

NOTE: 1 CFM = 28.32 LPM

Start Date	Start Time	Start Flow CFM / LPM	Stop Date	Stop Time	Stop Flow CFM / LPM	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
08/02/01	1348	481.44	08/02/01	1418	509.76	30	495.6	14868

Area Posted as ARA?	Were Respirators Worn?	Respirator Type and Protection Factor?	Lapel Worn By:
☐ Yes ☑ No	☐ Yes ☑ No	☐ APR (50) ☐ PAPR or Supplied Air Hood (1000) ☐ SCBA (10000) ☐ Airline or Supplied Air Full Face (2000)	Badge Number: N/A

LABORATORY INFORMATION LAB RCT NAME Tiffany VanCleve SIGNATURE Tiffany VanCleve BADGE 704645

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☑ Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	68676	12-21-01	0.23	0.29
☐ Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	N/A			

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8601	4:40	Alpha	30	0.38	1.36	20	0.30	0.03	0.27	1.18	1.12
		Beta	30	1.61	3.69	20	2.01	0.93	1.08	3.74	2.54
DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
N/A		Alpha									
		Beta									

ANALYSIS RESULTS CALCULATED BY: NAME Julie Woods SIGNATURE Julie Woods BADGE 703511

Alpha DAC (µCi/ml)	Posting Level (µCi/ml)	Concentration (µCi/ml)	Concentration (% DAC) †††
$2E^{-12}$	$5E^{-13}$	$1.85E^{-13}$	<MDC
Beta DAC (µCi/ml)	**Posting Level (µCi/ml)**	**Concentration (µCi/ml)**	**Concentration (% DAC) †††**
6 E-08	1.5 E-08	$4.11E^{-13}$	$6.85E^{-4}$

† ☐ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = $2.14E^{-13}$ Beta MDC (µCi/ml) = $4.06E^{-13}$

†† Send samples 100 DPM Alpha *to the* laboratory for isotopic analysis.

††† Notify Operations Support Manager or designee when 10% of DAC is exceeded.

* ☐ See Air Sample Calculation Worksheet Continuation Form.

Reviewed By: [illegible] Date: 8-10-01 Data Entry KR 8-16

Page 2 of 3

5:00:44P

SEC RadCon Alliance - Paducah

Survey Number 01-ER-1144-A

Smear and Air Sample Activity Report

8/6/01

Batch ID:	20 Minute Air Samples - 200108061459	Acquisition Date:	8/6/01
Group ID:	F Device Serial Number: 68676	Acquisition Time: (minutes)	20.0
Device Name:	Tennelec *Series 2*	Operating Voltage: (volts)	485.0
Selected Geometry:	Swipe/Smear 12-21-01		

COPY

Efficiency Factors			Daily 30 Minute Background CPM		Batch Critical Level DPM	
Alpha Efficiency -	0.23	± 0.00	Alpha Background (CPM) -	0.03	Alpha Lc -	0.38
Beta Efficiency -	0.29	± 0.01	Beta Background *(CYM)*-	0.93	Beta Lc -	1.61

ample ID	Quantity	Alpha DPM (DPM)	2σ	Alpha MDA (DPM)	Beta DPM (DPM)	2σ	Beta MDA (DPM)
)010806145925-F6	0.00	1.18	1.12	1.36	3.74	2.54	3.69

nt Room Review: Kris Wentz

Sampling Tech Review: NA

HI VOLS AIR SAMPLE CALCULATIONS

Survey Number	01-ER-1144-A
Start Date/Time	8/2/01 13:48
End Date/Time	8/2/01 14:18
	1/0/00 0:30
Days Elapsed	0
Hours Elapsed	0
Minutes Elapsed	30
Total Minutes	3
Activity in dpm-Alpha	1.18
Activity in dpm-Beta	3.74
Volume in L	14,868.00
Volume in mL	
Alpha Activity by 4.74E-7	5.5932E-07
	3018204.00
Beta Activity by 4.74E-7	1.77276E-06
arV (1)(.29)(Volume in mL)	4311720.00

Start Flow CFM	17
Stop Flow CFM	18
Average Flow	495.60
Total Volume Air (L)	14,868.00

COPY

Alpha Concentration in microCi/mL	1.85E-13
% 2e-12 (Based on Np-237)	9.27E+00
% 2e-11	9.27E-01
% 8e-11	2.32E-01
For a Different Percent DAC Enter DAC Value Below	
1.00E-11	1.85E+00
Beta Concentration in microCi/mL	4.11E-13
% 6E-8 (Based on TH-234)	6.85E-04
For a Different Percent DAC Enter DAC Value Below	
6.00E-08	6.85E-04

Use This for Calculating Minimum Detectible Concentration In MicroCi/mL

Enter Alpha MDA	1.
Alpha MDA*4.74E-7	6.4464E-
arV (.7)(.29)(Vol. In mL)	30182
Alpha MDC in microCi/mL	2.14E-

Enter Beta MDA	3.
Beta MDA*4.74E-7	1.74906E-
arV (1)(.29)(Vol. In mL)	43117
Beta MDC in microCi/mL	4.06E-

NOTES:

Printed Name: Julie Woods

Signature/Date: Julie Woods 8/9/

Purpose of Survey: (Job Coverage) General Area - Low Vol. High Vol. (Lapel) Environmental Other:

Project-Building/Location: DMSA-C-331-1413 Work Description: TAGGING EQUIPMENT

Survey #: 01- ER - 1220 -A RWP #: 01-DOE- 47 - S

SAMPLING INSTRUMENTATION | **MEDIA DESCRIPTION**

☐ Basic-12 ☒ VSS-12

Serial No.: V12022 Cat. Due Date: 8-25-01

NOTE: 1 CFM = 28.32 LPM

COPY

Start Date	Start Time	Start Flow CFM / LPM	Stop Date	Stop Time	Stop Flow CFM / LPM	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
8-10-01	0939	7.98	8-10-01	1025	8.00	46	7.99	367.54

Area Posted as ARA?	Were Respirators Worn?	Respirator Type and Protection Factor? ☒ N/A	
☐ Yes ☒ No	☐ Yes ☒ No	☐ APR (50) ☐ PAPR or Supplied Air Hood (1000) ☐ SCBA (10000) ☐ Airline or Supplied Air Full Face (2000)	Lapel Worn By: PAUL ALMA Badge Number: 704290

LABORATORY INFORMATION LAB RCT NAME Kim Weinhauf SIGNATURE Kim Weinhauf BADGE 704696

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☒ Ludlum 2929 ☐ Tennelec Series 2 / Series 5 ☐ Berthold LB770	142653	1-30-02	0.3658 ~~0.3545~~	0.3725
☐ Ludlum 2929 ☐ Tennelec Series 2 / Series 5 ☐ Berthold LB770	N/A			

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8-14-01	1150	Alpha	480	0.21	0.44	300	0.29	0.40	-0.11	-0.30	0.23
		Beta	480	2.27	4.57	300	46.07	48.84	-2.77	-2.44	2.71
DATE	TIME	Type	Bkg Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
N/A		Alpha									
		Beta									

ANALYSIS RESULTS CALCULATED BY: NAME Angel Roberts SIGNATURE Angel Roberts BADGE 722290

Alpha DAC (µCi/ml)	Posting Level (µCi/ml)	Concentration (µCi/ml)	Concentration (% DAC) †††
2E-12	5E-13	-5.53E-13	~~2.76E+01~~ < MDC
Beta DAC (µCi/ml)	**Posting Level (µCi/ml)**	**Concentration (µCi/ml)**	**Concentration (% DAC) †††**
5 E-08	1.5 E-08	9.60E-12	~~1.60E-02~~ < MDC

† ☒ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = 8.11E-13 **Beta MDC** (µCi/ml) = 5.89E-12

†† **Send samples > 100 DPM Alpha to the laboratory for isotopic analysis.**

††† **Notify Operations Support Manager or designee when 10% of DAC is exceeded.**

* ☐ See Air Sample Calculation Worksheet Continuation Form.

COUNTS ≈ 88

BY 13872.

Reviewed By: WC Hodge **Date:** 8-17-01 **Data Entry** KW 8-27

PAD/RCO-037 Rev. 10 (07/01)

LOW VOLS/LAPEL BZA AIR SAMPLE CALCULATIONS

Survey Number	01-ER-1220-A
Start Date/Time	8/10/01 9:39
End Date/Time	8/10/01 10:25
	1/0/00 0:46

Days Elapsed	0	0
Hours Elapsed	0	0
Minutes Elapsed	46	46
Total Minutes		46

Start Flow LPM	7.98
Stop Flow LPM	8
Average Flow	7.99
Total Volume Air (L)	387.54

COPY

Activity in dpm-Alpha	
Activity in dpm-Beta	
Volume in L	
Volume in mL	387540.00
Alpha Activity by 4.74E-7	1.422E-07
arV (7)(1)(Volume in mL)	257278
Beta Activity by 4 74E-7	3.52656E-06
arV (1)(1)(Volume in mL)	361540

Alpha Concentration in microCi/mL	5.53E-13
% 2e-12 (Based on Np-237)	2.76E+01
% 2e-11	2.76E+00
% 8e-11	6.91E-01
For a Different Percent DAC Enter DAC Value Below	
1.00E-11	5.53E+00
Beta Concentration in microCi/mL	9.60E-12
% 6E-8 (Based on Th-234)	1.60E-02
For a Different Percent DAC Enter DAC Value Below	
6 00E-08	1.60E-02

Use This for Calculating Minimum Detectible Concentration in MicroCi/mL

Enter Alpha MDA	0.44	Enter Beta MDA	4.571
Alpha MDA*4 74E-7		Beta MDA*4.74E-7	2.16618E-06
arV (7)(1)(Vol. In mL)	257278	arV (1)(1)(Vol. In mL)	387540
Alpha MDC in microCi/mL	8.11E-13	Beta MDC in microCi/mL	5.59E-12

Use This For Calculating +/- 2 Sigma on Air Samples Counted on 2929's

	ALPHA		BETA
Gr Sample Count Rate,cpm	0.29	Gr Sample Count Rate,cpm	46.07
Gr Sample Count Time min	300	Gr Sample Count Time,min	300
Bkgr Count Rate cpm	0 4	Bkgr. Count Rate, cpm	48.84
Bkgr Count Time, min	480	Bkgr Count Time, min.	480
Counter Efficiency %	0 3658	Counter Efficiency %	0.3725
+/ 2 Sigma dpm	0.23	+/- 2 Sigma, dpm	2.71

NOTES:

Data to be entered goes in	
Results are displayed in	

Printed Name:	Angel Roberts
Signature & Date:	Angel Roberts 8/15/01

AIR SAMPLE CALCULATION WORKSHEET

PAGE 1 OF 3

SURVEY INFORMATION SAMPLING RCT NAME JOHN MCGEE SIGNATURE [signature] BADGE 636100

Purpose of Survey: Job Coverage / General Area - Low Vol. / High Vol. / Lapel / Environmental / Other: N/A

Project-Building/Location: DMSA - C-331-~~14~~ 13 Work Description: TAGGING EQUIPMENT

Survey #: 01- ER - 1221 -A RWP #: 01-DOE- 47 - S

SAMPLING INSTRUMENTATION

Model: ☐ HD-29A ☐ AVS-28A ☐ MRV-1023CV ☐ BuckHF ☐ BuckIH ☐ SKC BZA ☒ TFIA ☐ HVP-3800AFC ☐ Basic-12 ☐ VSS-12

Serial No.: 19906N Cal. Due Date: 8-7-02

MEDIA DESCRIPTION

Filter Media: ☒ What-41 – 4 inch ☐ MF ☐ What-41 – 8x10 inch ☐ AA

NOTE: 1 CFM = 28.32 LPM

COPY

Start Date	Start Time	Start Flow CFM / LPM	Stop Date	Stop Time	Stop Flow CFM / LPM	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
8-10-01	0950	20	8-10-01	1015	20	25	566.4	14160

Area Posted as ARA?	Were Respirators Worn?	Respirator Type and Protection Factor? ☒ N/A	Lapel Worn By:
☐ Yes ☒ No	☐ Yes ☒ No	☐ APR (50) ☐ PAPR or Supplied Air Hood (1000) ☐ SCBA (10000) ☐ Airline or Supplied Air Full Face (2000)	N/A

LABORATORY INFORMATION LAB RCT NAME Kris Westrauf SIGNATURE [signature] BADGE 704646

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☒ Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	36643	12-6-01	0.27	0.40
☐ Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	N/A			

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8/14/01	1238	Alpha	30	0.45	1.41	20	0.05	0.07	-0.02	-0.06	0.51
		Beta	30	1.55	3.44	20	4.06	1.70	2.36	5.89	256
N/A		Alpha									
		Beta									

ANALYSIS RESULTS CALCULATED BY: NAME Angel Roberts SIGNATURE [signature] BADGE 72229

Alpha DAC (µCi/ml)	Posting Level (µCi/ml)	Concentration (µCi/ml)	Concentration (% DAC) †††
2E-12	5E-13	-9.89E-15	~~-4.95E-01~~ <MDC
Beta DAC (µCi/ml)	**Posting Level (µCi/ml)**	**Concentration (µCi/ml)**	**Concentration (% DAC) †††**
5 E-08	1.5 E-08	6.80E-13	1.13 E-03

† ☐ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = 2.33E-13 Beta MDC (µCi/ml) = 3.97E-13

†† Send samples > 100 DPM Alpha to the laboratory for isotopic analysis.

††† Notify Operations Support Manager or designee when 10% of DAC is exceeded.

* ☐ See Air Sample Calculation Worksheet Continuation Form.

Reviewed By: [signature] Date: 8-17-01 Data Entry KL 8-27

SEC RadCon Alliance - Paducah 1:00:18P

Survey Number 01-EX-1221-A

Smear and Air Sample Activity Report

8/14/01

Batch ID:	20 Minute Air Samples - 200108141238	Acquisition Date:	8/14/01
Group ID:	A Device Serial Number: 36643	Acquisition Time: (minutes)	20.0
Device Name:	Tennelec Series 5		
Selected Geometry:	Swipe/Smear	Operating Voltage: (volts)	1,387.0

Efficiency Factors			Daily 30 Minute Background CPM		Batch Critical Level DPM	
Alpha Efficiency -	0.27	± 0.00	Alpha Background (CPM) -	0.07	Alpha Lc -	0.45
Beta Efficiency -	0.40	± 0.01	Beta Background (CPM) -	1.70	Beta Lc -	1.55

Sample ID	Quantity	Alpha DPM (DPM)	2σ	Alpha MDA (DPM)	Beta DPM (DPM)	2σ	Bets MDA (DPM)
200108 14123833-A1	0.00	-0.06	0.51	1.41	5.89	2 56	3.44

Count Room Review: _____ Sampling Tech Review: _____

HI VOLS AIR SAMPLE CALCULATIONS

Survey Number	01-ER-1221-A	
Start Date/Time	8/10/01 9:50	
End Date/Time	8/10/01 10:15	
	1/0/00 0:25	
Days Elapsed	0	0
Hours Elapsed	0	0
Minutes Elapsed	25	25
Total Minutes		25

Start Flow CFM	20
Stop Flow CFM	20
Average Flow	566.40
Total Volume Air (L)	14,160.00

COPY

Activity in dpm-Alpha	-0.06
Activity in dpm-Beta	5.89
Volume in L	14,160.00

Alpha Concentration in microCi/mL	-9.89E-15
% 2e-12 (Based on Np-237)	-4.95E-01
% 1e-10 (Drum Mountain)	-9.89E-03
% 1.1E-11 (Tc-99 Tank)	-8.99E-02
For a Different Percent DAC Enter DAC Value Below	
2.00E-11	-4.95E-02

Alpha Activity by 4.74E-7	-2.844E-08
arV (.7)(.29)(Volume in mL)	2874480.00

Beta Activity by 4.74E-7	2.79186E-06
arV (1)(.29)(Volume in mL)	4106400.00

Beta Concentration in microCi/mL	6.80E-13
% 6E-8 (Based on TH-234)	1.13E-03
For a Different Percent DAC Enter DAC Value Below	
6.00E-08	1.13E-03

Use This for Calculating Minimum Detectible Concentration in MicroCi/mL

Enter Alpha MDA	1.41
Alpha MDA*4.74E-7	6.6834E-07
arV (.7)(.29)(Vol. In mL)	2874480
Alpha MDC in microCi/mL	2.33E-13

Enter Beta MDA	3.44
Beta MDA*4.74E-7	1.63056E-06
arV (1)(.29)(Vol. In mL)	4106400
Beta MDC in microCi/mL	3.97E-13

NOTES:

Data to be entered goes in

Results are displayed in

Printed Name:	Angel Roberts
Signature/Date:	Angel Roberts 8/15/01

AIR SAMPLE CALCULATION WORKSHEET

9/5/01 PAGE 1 OF 2

SURVEY INFORMATION SAMPLING RCT NAME M. Foster SIGNATURE [signature] BADGE 618972

Purpose of Survey: (Job Coverage) General Area - Low Vol. High Vol. (Lapel) Environmental Other:

Project-Building/Location: C-331-DMSA-13 Work Description: Inventory

Survey #: 01- ER - 1728 -A RWP #: 01-DOE- 47 - S

COPY

SAMPLING INSTRUMENTATION

Model: ☐HD-29A ☐AVS-28A ☐MRV-1023CV ☐BuckHF ☐BuckIH ☐SKC BZA ☐TFIA ☐HVP-3800AFC ☐Basic-12 ☐VSS-12

Serial No.: B12043 Cal. Due Date: 8/24/01

MEDIA DESCRIPTION

Filter Media: ☐ What-41 – 4 inch ☐ MF ☐ What41 – 8x10 inch ☑ AA

NOTE: 1 CFM = 28.32 LPM

Start Date	Start Time	Start Flow CFM / (LPM)	Stop Date	Stop Time	Stop Flow CFM / (LPM)	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
8/10/01	1725	7.93	8/10/01	1825	7.96	60	7.945	476.70

Area Posted as ARA?	Were Respirators Worn?	Respirator Type and Protection Factor? ☑ N/A	
☐ Yes ☑ No	☐ Yes ☑ No	☐ APR (50) ☐ PAPR or Supplied Air Hood (1000) ☐ SCBA (10000) ☐ Airline or Supplied Air Full Face (2000)	Lapel Worn By: S. Collins / Liz W. Badge Number: 704987 / 16198

LABORATORY INFORMATION LAB RCT NAME Keis Watkins SIGNATURE [signature] BADGE 704646

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☐Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	126115	5-15-02	0.3545	0.3319
☐Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	N/A			

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8/6/01	0445	Alpha	480	0.29	0.61	300	0.61	0.73	-0.12	-0.34	0.34
		Beta	480	2.42	4.86	300	45.32	43.92	1.40	4.22	2.97
DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
N/A		Alpha									
		Beta									

ANALYSIS RESULTS CALCULATED BY: NAME Julie Woods SIGNATURE Julie Woods BADGE 703511

Alpha DAC (µCi/ml)	Posting Level (µCi/ml)	Concentration (µCi/ml)	Concentration (% DAC) †††
2E-12	5E-13	-4.83E-13	LMDC
Beta DAC (µCi/ml)	**Posting Level (µCi/ml)**	**Concentration (µCi/ml)**	**Concentration (% DAC) †††**
6 E-08	1.5 E-08	4.20E-12	LMDC

† ☒ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = 8.66E-13 Beta MDC (µCi/ml) = 4.83E-12

†† Send samples > 100 DPM Alpha to the laboratory for isotopic analysis.

††† Notify Operations Support Manager or designee when 10% of DAC is exceeded. COUNTS & 184 BY 13597

• ☐ See Air Sample Calculation Worksheet Continuation form,

◇ Liz walks retrieved stove coils. The buck pump ran continually.

Reviewed By: [signature] Date: 8-20-01 Data Entry [signature] 8-23

Survey Number	01-ER-1228-A
Start Date/Time	8/10/01 17:25
End Date/Time	8/10/01 18:25
	1/0/00 1:00

7.93
7.96
7.95
476.70

OP

Days Elapsed	0	0
flours Elapsed	1	60
Minutes Elapsed		
Total Minutes		60

Activity in dpm-Alpha	-4.83E-13
Activity in dpm-Beta	
Volume in L	476.70
Volume in mL	476700.00

% 2e-12 (Based an Np-237)	-2.41E+01
% 2e-11	-241E+00
% 8e-11	-6.04E-01

Alpha Activity by 4 74E-7
arV (.7)(1)(Volume in mL)

Beta Activity by 4.74E-7 2.00028E-06
arV (1)(1)(Volume in mL) 476700

Beta Concentration in microCi/mL	4.20E-12
PA.6E-8 (Based on Th-234)	6.99E-03
For a Different Percent DAC Enter DAC Value Below	
(6.00E-08	6.99E-03

Use This for **Calculating Minimum Detectible Concentration** in **MicroCi/mL**

Enter Alpha MDA	0.61	Enter Beta MDA	4.86
Alpha MDA*4.74E-7	2.8974E-07	Beta MDA*4.74E-7	2.30364E-06
arV (.7)(1)(Vol. in mL)	333690	arV (1)(1)(Vol. in mL)	476700
Alpha MDC in microCi/mL	8.66E-13	Beta MOC in microCi/mL	4.83E-12

Use This For **Calculating +/- 2 Sigma** on **Air Samples** Counted on **2929's**

	ALPHA		BETA
Gr Sample Count Rate,cpm	0.61	Gr Sample Count Rate,cpm	45.32
Gr Sample Count Time,min	300	Gr Sample Count Time,min	300
Bkgr Count Rate, cpm	0.73	Bkgr. Count Rate, cpm	43.921
Bkgr Count Time, min.	480	Bkgr Count Time, min.	480
Counter Efficiency %	0.3545	Counter Efficiency %	0.3319
+/- 2 Sigma, dpm	0.34	+/- 2 Sigma. dpm	2.97

NOTES:

DATA TO BE ENTERED GOES IN

RESULTS ARE DISPLAYED IN

Printed Name: Julie Woods

Signature & Date: Julie Woods 8/17/01

AIR SAMPLE CALCULATION WORKSHEET

PAGE 1 OF 2

SURVEY INFORMATION SAMPLING RCT NAME MARK TUCK SIGNATURE [signature] BADGE 704985

Purpose of Survey: (Job Coverage) / General Area - Low Vol. High Vol. (Lapel) Environmental Other:

Project-Building/Location: DMSA-C-331-13 Work Description: TAPE FLANGES ON CONVERTERS

Survey #: 01- ER - 1356 -A RWP #: 01-DOE- 47 - 5

SAMPLING INSTRUMENTATION

Model: ☐HD-29A ☐AVS-28A ☐ MRV-1023CV ☐ BuckHF ☐ BuckIH ☐ SKC BZA ☐ TFIA ☐ HVP-3800AFC ☐ Basic-12 ☒ VSS-12

Serial No.: V12021 Cal. Due Date: 8-25-01

MEDIA DESCRIPTION

Filter Media: ☐ What-41 – 4 inch ☐ MF ☐ What-41 – 8x10 inch

COPY

NOTE: 1 CFM = 28.32 LPM

Start Date	Start Time	Start Flow CFM (LPM)	Stop Date	Stop Time	Stop Flow CFM (LPM)	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
8-22-01	0933	7.96	8-22-01	1000	7.92	27	7.94	214.38

Area Posted as ARA?	Were Respirators Worn?	Respirator Type and Protection Factor? ☒ N/A	Lapel Worn By: STEVE COLLINS
☐ Yes ☒ No	☐ Yes ☒ No	☐ APR (50) ☐ PAPR or Supplied Air Hood (1000) ☐ SCBA (10000) ☐ Airline or Supplied Air Full Face (2000)	Badge Number: 704287

LABORATORY INFORMATION LAB RCT NAME KRIS WETTMAN SIGNATURE [signature] BADGE 704646

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☒ Ludlum 2929 ☐ Tennelec Series 2 / Series 5 ☐ Berthold LB770	109 540	6-22-02	.3245	.3045
☐ Ludlum 2929 ☐ Tennelec Series 2 / Series 5 ☐ Berthold LB770	N/A			

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8/27/01	0830	Alpha	480	0.37	0.77	300	1.22	1.00	0.22	0.68	0.48
		Beta	480	2.74	5.51	300	48.62	47.48	1.14	3.74	3.36
DATE	TIME	Type	Bkg.Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
N/A		Alpha									
		Beta									

ANALYSIS RESULTS CALCULATED BY: NAME Julie Woods SIGNATURE Julie Woods BADGE 703511

Alpha DAC (µCi/ml)	Posting Level (µCi/ml)	Concentration (µCi/ml)	Concentration (% DAC) †††
2E-12	5E-13	2.15E-12	LMDC
Beta DAC (µCi/ml)	**Posting Level (µCi/ml)**	**Concentration (µCi/ml)**	**Concentration (% DAC) †††**
6 E-08	1.5 E-08	8.27E-12	LMDC

† ☒ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = 2.4 E-12 Beta MDC (µCi/ml) = 1.22E-11

†† Send samples > 100 DPM Alpha to the laboratory for isotopic analysis.

††† Notify Operations Support Manager or designee when 10% of DAC is exceeded.

* ☐ See Air Sample Calculation Worksheet Continuation Form.

Counts α 366
β 14585

Reviewed By: WC Hodge Date: 8-29-01 Data Entry KR 9-5

LOW VOLS/LAPEL BZA AIR SAMPLE CALCULATIONS

Survey Number	01-ER-1356-A		
Start Date/Time	8/22/01 9:33	Stan Flow LPM	
End Date/Time	8/22/01 10:00	Stop Flow LPM	
	1/0/00 0:27	Average Flow	
		Total Volume Air (L)	
Days Elapsed	0	0	
Hours Elapsed	0	0	
Minutes Elapsed	27	27	
Total Minutes		27	

COPY

Activity in dpm-Alpha		**Alpha Concentration in microCi/mL**	2.15E-12
Activity in dpm-Beta		% 2e-12 (Based on Np-237)	1.07E+02
Volume in L	214.38	% 2e-11	1.07E+01
Volume in mL	214380.00	% 8e-11	2.68E+00
		For a Different Percent DAC Enter DAC Value Below	
Alpha Activity by 4.74E-7	3.2232E-07	1.00E-11	2.15E+01
arV (7)(1)(Volume in mL)	150066		
Beta Activity by 4 74E-7	1.77276E-06	**Beta Concentration in microCi/mL**	8.27E-12
arV (1)(1)(Volume in mL)	214380	% 6E-8 (Based on Th-234)	1.38E-02
		For a Different Percent DAC Enter DAC Value Below	
		6.00E-08	1.38E-02

Use This for **Calculating Minimum Detectible Concentration in MicroCi/mL**

Alpha MDA*4.74E-7			
Enter Alpha MDA (.7)(1)(Vol. In mL)	0.77 / 3.64[illegible]	Enter Beta MDA arV(1)(1)(Vol. In mL)	5.51 / 2.61[illegible]
Alpha MDC in microCi/mL	2.43E-12	Beta MDC in microCi/mL	1.22E-11

Use This Por **Calculating +/- 2 Sigma** on **Air Samples Counted on 2929's**

	ALPHA		BETA
Gr Sample Count Rate,cpm	1.22	Gr Sample Count Rate,cpm	48.62
Gr Sample Count Time,min	300	Gr Sample Count Time,min	300
Bkgr. Count Rate, cpm	1	Bkgr. Count Rate, cpm	47.48
Bkgr Count Time, min.	480	Bkgr Count time. min.	480
Counter Efficiency %	45	Counter Efficiency %	0.3045
+/- 2 Sigma, dpm	0.48	+/- 2 Sigma, dpm	3.36

NOTES:

DATA TO BE ENTERED GOES IN

Printed Name: Julie Woods

Signature & Date: Julie Woods 8/28/01

AIR SAMPLE CALCULATION WORKSHEET

PAGE 1 OF 3

SURVEY INFORMATION SAMPLING RCT NAME John Gaw SIGNATURE John Gaw BADGE 635941

Purpose of Survey: (Job Coverage) / General Area - Low Vol. (High Vol.) Lapel Environmental Other: N/A

Project-Building/Location: DMSA 331-13 Work Description: Tape flanges on converters

Survey #: 01- ER - 1357 -A RWP #: 01-DOE- 47 -S

SAMPLING INSTRUMENTATION

Model: ☐HD-29A ☐AVS-28A ☐MRV-1023CV ☐BuckHF BuckIH ☐SKC BZA ☒TFIA ☐HVP-3800AFC a Basic-12 ☐VSS-12

Serial No.: 19904N Cal. Due Date: 8/7/02

MEDIA DESCRIPTION

Filter Media: ☒What-41 – 4 inch ☐MF ☐What-41 – 8x10 inch ☐AA

NOTE: 1 CFM = 28.32 LPM

COPY

Start Date	Start Time	Start Flow CFM / (LPM)	Stop Date	Stop Time	Stop Flow CFM / (LPM)	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
8/22/01	0941	679.68	8/22/01	1006	708	25	693.84	17346

Area Posted as ARA?	Were Respirators Worn?	Respirator Type and Protection Factor? ☒N/A	Lapel Worn By:
☐ Yes ☒ No	☐ Yes ☒ No	☐ APR (50) ☐ PAPR or Supplied Air Hood (1000) ☐ SCBA (10000) ☐ Airline or Supplied Air Full Face (2000)	Badge Number: N/A

LABORATORY INFORMATION LAB RCT NAME Kris Westlauf SIGNATURE Kris Westlauf BADGE 704646

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☒Tennelec Series 2 / (Series 5) ☐ Ludlum 2929 ☐ Berthold LB770	36643	12-6-01	0.27	0.40
☐Tennelec Series 2 / Series 5 ☐ Ludlum 2929 ☐ Berthold LB770	N/A	N/A	N/A	N/A

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8/27/01	0901	Alpha	30	0.64	1.79	20	0.20	0.13	0.07	0.25	0.89
		Beta	30	1.58	3.50	20	3.96	1.77	2.19	5.47	2.54
DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
		Alpha				N					
		Beta				A					

ANALYSIS RESULTS CALCULATED BY: NAME Julie Woods SIGNATURE Julie Woods BADGE 703511

Alpha DAC (µCi/ml)	Posting Level (µCi/ml)	Concentration (µCi/ml)	Concentration (% DAC) †††
2E-12	5E-13	3.37E-14	LMDC
Beta DAC (µCi/ml)	**Posting Level (µCi/ml)**	**Concentration (µCi/ml)**	**Concentration (% DAC) †††**
6 E-08	1.5 E-08	5.15E-13	8.59E-4

† ☐ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = 2.41E-13 Beta MDC (µCi/ml) = 3.30E-13

†† Send samples > 100 DPM Alpha to the laboratory for isotopic analysis.

††† Notify Operations Support Manager or designee when 10% of DAC is exceeded.

☐ See Air Sample Calculation Worksheet Continuation Form.

KR 9-5

PAD/RCO-037 Rev. 10 (07/01)

A

SEC RadCon Alliance - Paducah

9:23:20A

Survey Number 01-ER-1357-A

Smear and Air Sample Activity Report

8/27/01

Batch ID:	20 Minute Air Samples - 200108270901	Acquisition Date:	8/27/01
Group ID:	A	Device Serial Number: 36643	Acquisition Time: (minutes) 20.0
Device Name:	Tennelec Series 5		
Selected Geometry:	Swipe/Smear	Operating Voltage: (volts)	1,387.0

COPY

Efficiency Factors			Daily 30 Minute Background CPM		Batch Critical level DPM	
Alpha Efficiency -	0.27	± 0.00	Alpha Background (CPM) -	0.13	Alpha Lc -	0.64
Beta Efficiency -	0.40	± 0.01	Beta Background (CPM) -	1.77	Beta Lc -	1.58

Sample ID	Quantity	Alpha DPM (DPM)	2σ	Alpha MDA (DPM)	Beta DPM (DPM)	2σ	Beta MDA (DPM)
200108270901 29-A I	0.00	0.25	0.89	1.79	3.47	2.54	3.50

Count Room Review: Kris Wall

Sampling Tech Review: n/a

HI VOLS AIR SAMPLE CALCULATIONS

COPY

Survey Number	01-ER-1357-A	
Start Date/Time	8/22/01 9:41	
End Date/Time	8/22/01 10:06	
	1/0/00 0:25	
Days Elapsed	0	
Hours Elapsed	0	0
Minutes Elapsed	25	25
Total Minutes		25

Start Flow CFM	24
Stop Flaw GFM	25
Average Flow	693.84
Total Volume Air (L)	17,346.00

Activity in dpm-Alpha	0.25
Activity in dpm-Beta	5.47
Volume in L	17,346.00
Volume in mL	17,346,000.00
Alpha Activity by 4.74E-7	1.185E-07
arV (.7)(.29)(Volume in mL)	3521238.00
Beta Activity by 4.74E-7	2.59278E-06
arV (1)(.29)(Volume iri mL)	5030340.00

Alpha Concentration in microCi/mL	3.37E-14
% 2e-12 (Based on Np-237)	1.68E+00
% 2e-11	1.68E-01
% 8e-17	4.21E-02
Beta Concentration in microCi/mL	5.15E-13
% 6E-8 (Based on TH-234)	8.59E-04
For a Different Percent DAC Enter DAC Value Below	
6.00E-08	8.59E-04

Use This for Calculating Minimum Detectible Concentration in MicroCi/mL

Enter Alpha MOA	1.791	Enter Beta MDA	3.5
Alpha MDA*4.74E-7	8.4846E-07	Beta MDA*4.74E-7	0.000001659
arV (.7)(.29)(Vol. In mL)	3521238	arV (1)(.29)(Vol. In mL)	5030340
Alpha MDC in microCi/mL	2.41E-13	Beta MDC in microCi/mL	3.30E-13

NOTES:

DATA TO BE ENTERED GOES IN

RESULTS ARE DISPLAYED IN

Printed Name: Julie Woods

Signature/Date: Julie Woods 8/28/01

AIR SAMPLE CALCULATION WORKSHEET

SURVEY INFORMATION SAMPLING RCT NAME Mark Tice SIGNATURE [signature] BADGE 704955

Purpose of Survey: Job Coverage General Area - Low Vol. High Vol. Lapel Environmental Other: N/A

Project-Building/Location: DMSA-C-331-13 Work Description: POST NCS AREA

Survey #: 01- ER - 1374 -A RWP #: 01-DOE- 47 - S

SAMPLING INSTRUMENTATION

Model: ☐ HD-29A ☐ AVS-28A ☐ MRV-1023CV ☐ BuckHF ☐ BuckIH ☐ SKC BZA ☐ TFIA ☐ HVP-3800AFC ☐ Basic-12 ☒ VSS-12

Serial No.: V12026 Cal. Due Date: 8-24-01

MEDIA DESCRIPTION

Filter Media: ☐ What-41 – 4 inch ☐ MF ☐ What-41 – 8x10 inch ☒ AA

NOTE: 1 CFM = 28.32 LPM

COPY

Start Date	Start Time	Start Flow CFM / LPM	Stop Date	Stop Time	Stop Flow CFM / LPM	Flow Duration (Minutes) †	Average Flow Rate (LPM)	Total Air Volume (L)
8-22-01	1620	7.96	8-22-01	1700	7.94	40	7.95	318

Area Posted as ARA? ☐ Yes ☒ No

Were Respirators Worn? ☐ Yes ☒ No

Respirator Type and Protection Factor? ☒ N/A ☐ APR (50) ☐ SCBA (10000) ☐ PAPR or Supplied Air Hood (1000) ☐ Airline or Supplied Air Full Face (2000)

Lapel Worn By: Elizabeth Wilks

Badge Number: 16148

LABORATORY INFORMATION LAB RCT NAME Kris Wettlauf SIGNATURE [signature] BADGE 704646

INSTRUMENTATION USED	Serial #:	Cal Due Date:	Alpha Efficiency	Beta Efficiency
☒ Ludlum 2929 ☐ Tennelec Series 2 / Series 5 ☐ Berthold LB770	126115	5-15-02	.3545	.3319
☐ Ludlum 2929 ☐ Tennelec Series 2 / Series 5 ☐ Berthold LB770	N/A	N/A	N/A	N/A

ANALYSIS INFORMATION

DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
8-28-01	0930	Alpha	480	.28	.58	300	0.80	.65	0.15	0.42	0.36
		Beta	480	2.43	4.90	300	46.68	44.56	2.12	6.39	3.00
DATE	TIME	Type	Bkg. Time (Minutes)	Counter Lc (DPM)	Counter MDA (DPM)	Sample Count Time (Minutes)	Gross Sample (CPM)	Bkg. (CPM)	Net Sample (CPM)	Net Sample (DPM) ††	Error 2σ (DPM)
		Alpha				N					
		Beta				A					

ANALYSIS RESULTS CALCULATED BY: NAME Julie Wood SIGNATURE [signature] BADGE 703511

Alpha DAC (µCi/ml) $2E^{-12}$	Posting Level (µCi/ml) $5E^{-13}$	Concentration (µCi/ml) $8.94E^{-13}$	Concentration (% DAC) ††† <MDC
Beta DAC (µCi/ml) 6 E-08	Posting Level (µCi/ml) 1.5 E-08	Concentration (µCi/ml) $9.52E^{-12}$	Concentration (% DAC) ††† $1.59E^{-2}$

† ☐ (Lapels Only) Sample did not run for minimum time of 120 minutes. Detector MDA @ this run time may exceed 10% of DAC.

Alpha MDC (µCi/ml) = $1.24E^{-12}$ Beta MDC (µCi/ml) = $7.30E^{-12}$

†† Send samples > 100 DPM Alpha to the laboratory for isotopic analysis.

††† Notify Operations Support Manager or designee when 10% of DAC is exceeded.

* ☐ See Air Sample Calculation Worksheet Continuation Form. Counts α-239 BY-14005

Reviewed By: Linda Stegner/[signature] Date: 8-31-01 Data Entry KD 9-5

LOW VOLS/LARFL BZA AIR SAMPLE CALCULATIONS

Survey Number	01-ER-1374-A
Start Date/Time	8/22/01 16:20
End Date/Time	8/22/01 17:00
	1/0/00 0:40

Days Elapsed	0	0
Hours Elapsed	0	0
Minutes Elapsed	40	40
Total Minutes		40

Activity in dpm-Alpha	0.42
Activity in dpm-Beta	6.39
Volume in L	318.00
Volume in mL	318000.00
Alpha Activity by 4.74E-7	1.9908E-07
arV (.7)(1)(Volume in mL)	222600
Beta Activity by 4.74E-7	3.02886E-06
arV (1)(1)(Volume in mL)	318000

Start Flow LPM	7.96
Stop Flow LPM	7.94
Average Flow	7.95
Total Volume Air (L)	318.00

COPY

Alpha Concentration in microCi/mL	8.94E-13 4.47E+01
% 2e-12 (Based on Np-237)	
% 2e-11	4.47E+00

Beta Concentration in microCi/mL	9.52E-12
% 6E-8 (Based on Th-234) For a Different Percent DAC Enter DAC Value Bel	1.59E-02
6.00E-08	1.59E-02

Use This for Calculating Minimum Detectible Concentration in MicroCi/mL

Enter Alpha MDA	0.58	Enter Beta MDA	4.9
Alpha MDA*4.74E-7	2.7492E-07	Beta MDA*4.74E-7	2.3225E-06
arV (.7)(1)(Vol. In mL)	222600	arV (1)(1)(Vol. In mL)	318000
Alpha MDC in microCi/mL	1.24E-12	Beta MDC in microCi/mL	[illegible]

Use This For Calculating +/- 2 Sigma on Air Samples Counted on 2929's

	ALPHA		BETA
Gr Sample Count Rate,cpm	0.8	Gr Sample Count Rate,cpm	46.68)
Gr Sample Count Time,min	300	Gr Sample Count Time,min	300
Bkgr Count Rate, cpm	0.65	Bkgr Count Rate, cpm	44.86
Bkgr Count Time, min.		Bkgr Count Time, min.	488
Counter Efficiency%	0.3545	Counter Efficiency%	0.3319
+/- 2 Sigma, dpm	0.36	+/- 2 Sigma, dpm	3.00

NOTES:

DATA TO BE ENTERED GOES IN

RESULTS ARE DISPLAYED IN

Printed Name: Julie Woods

Signature & Date: Julie Woods 8/23/0

Section 11.

IH SAMPLING DATA

Johns Manville

Johns Manville Corporation
10100 W. Ute Avenue (80127)
P.O. Box 625005
Littleton, CO 80162-5005
303 978 2000

COVER PAGE

September 5,2001

WESKEM, LLC.
Jan Buckmaster
5600 Hobbs Road
M/S 7431
Paducah, KY 42001

Laboratory Report ID: 01083004
Laboratory Name: Johns Manville Technical Center industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference **Name:** DMSA 331-13
Site: Paducah

Dear Ms. Buckmaster:

The Johns Manville Technical Center (JMTC) has performed the following analytical services as requested. The results are calculated based upon the information supplied on the submission form. All laboratory data has been filed and are available upon *request.*
The JMTC IH Analytical Laboratory is accredited by *the* American Industrial Hygiene Association (AIHA) in the industrial hygiene program (Certificate No.056) and in the environmental lead program for paint chips, dust wipes and soil.
If you have any questions, please call (303) 978-2584.

Scope of Work:

Requested Analysis	Number of Samples	sampling Matrix	Method	Date of Analysis
Asbestos Fiber Count	1	MCE filter	NIOSH 7400 ("A" rules) Issue 2, 4th Edition, 8/15/94	9/4/2001

I certify that this sample data package is in compliance with SOW requirements (if applicable), both technically and for completeness, other than the conditions detailed in the case narrative. Release of *the* data contained in this hard-copy sample package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Scott A. Steiner
Industrial Hygiene Project Manager

9/5/01
Date

September 5,2001

Laboratory Report ID: 01083004
Laboratory Name: Johns Manville Technical Center
Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Requestor: Paducah

Sample Results

Date Received; 8/30/2001
Date Analyzed: 9/4/2001

Sample Matrix: MCE filter
Analytical Method: NIOSH 7400 ("A" rules)

Laboratory Sample Number	Customer Sample Number	Requested Analysis	Number of Fibers	Number of Fields	Fiber Density	Air Volume	Air Concentration
01083004-001	3113Z4ASBA01	Fibers by PCM ("A" rules)	13.5 fibers	100 fields	17.189 fibers/mm^2	-	

September 5,2001

Laboratory Report ID: 01083004
Laboratory Name: Johns Manville Technical Center
Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-I3
Requestor: Paducah

Quality Assurance Results Summary

Date Analyzed: 9/4/2001

Sample Matrix: MCE filter
Analytical Method: NIOSH 7400 ("A" rules)

Laboratory QC Type	Laboratory QC Number	Requested Analysis	Expected Recovery	Actual Recovery	Percent Recovery	Pass / Fail
Method Blank	QC01083102	Fibers by PCM ("A" rules)	< 7 fibers/mm2	< 7 fibers/mm2	N/A	*pass*
Laboratory Control Sample	QC01083101	Fibers by PCM ("A" rules)	55.5 fibers/mm2	59.21 fibers/mm2	106.7 %	*pass*

Limits: ***80%*** - *120%*

Johns Manville

Johns Manville Corporation
10100 W. Ute Avenue (80127)
P.O. Box 625005
Littleton, CO 80162-5005
303 978 2000

COVER PAGE

September 10,2001

WESKEM, LLC.
Jan Buckmaster
5600 Hobbs Road
M/S 7431
Paducah, KY 42001

Laboratory Report ID: 01083006
Laboratory Name: Johns Manville Technical Center Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Site: Paducah

Dear Ms. Buckmaster:

The Johns Manville Technical Center (JMTC) has performed the following analytical services as requested. The results are calculated based upon the information supplied on the submission form. All laboratory data has been filed and are available upon request.
The JMTC IH Analytical Laboratory is accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program (Certificate No. 056) and in the environmental lead program for paint chips, dust wipes and soil.
If you have any questions, please call (303) 978-2584.

Scope of Work:

Requested Analysis	Number of Samples	Sampling Matrix	Method	Date of Analysis
Volatile Organic Compounds (VOCs)	1	6-liter Canister	EPA method TO-14A	9/6/201

I certify that this sample data package is in compliance with SOW requirements (if applicable), both technically and fir completeness, other than the conditions detailed in the case narrative. Release of the data contained in this hard-copy sample package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Scott A. Steiner
Industrial Hygiene Project Manager

9/10/2001
Date

September 10, 2001

Laboratory Report ID: 01083006
Laboratory Name: Johns Manville Technical Center
Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Requestor: Paducah

Sample Results

Date Received: 8/30/2001
Date Analyzed: 9/6/2001

Sample Matrix: 6-liter Canisters
Analytical Method: EPA method TO-14A

Laboratory Sample Number: **01083006-001**
Customer Sample Number: **3113Z8OVPS01**

Requested Analysis	MDL (ppb-v)	PQL (ppb-v)	Laboratory Blank (ppb-v)	DF	TOTAL(1) (ppb-v)	TOTAL(2) (ppb-v)	Flags*
Dichlorodifluoromethane (Freon 12)	0.28	2.00	0.00	1.00	1.57	1.57	J
Chloromethane	0.63	2.00	0.00	1.00	17.88	17.88	
1,2-Dichlorotetrafluoroethane (Freon 114)	0.50	2.00	0.00	1.00	12.70	12.70	
Vinyl chloride	0.81	2.00	0.00	1.00	ND	< MDL	U
Bromomethane	0.62	2.00	0.00	1.00	3.56	3.56	
Chloroethane	0.83	2.00	0.00	1.00	ND	< MDL	U
Trichlorofluoromethane (Freon 11)	1.58	4.00	0.00	1.00	< MDL	< MDL	U
1,1-Dichloroethene	2.60	4.00	0.00	1.00	ND	< MDL	U
Dichloromethane (Methylene chloride)	1.85	4.00	0.00	1.00	ND	< MDL	U
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.35	4.00	0.00	1.00	ND	< MDL	U
1,1-Dichloroethane	0.88	2.00	0.00	1.00	ND	< MDL	U
cis-1,2-Dichloroethene	0.17	2.00	0.00	1.00	ND	< MDL	U
Chloroform	0.20	2.00	0.00	1.00	ND	< MDL	U
1,2-Dichloroethane	0.24	2.00	0.00	1.00	ND	< MDL	U
1,1,1-Trichloroethane	0.18	2.00	0.00	1.00	ND	< MDL	U
Benzene	0.15	2.00	0.00	1.00	0.68	0.68	J
Carbon tetrachloride	0.20	2.00	0.00	1.00	0.30	0.30	J
1,2-Dichloropropane	0.10	2.00	0.00	1.00	ND	< MDL	U
Trichloroethene	0.12	2.00	0.00	1.00	ND	< MDL	U
cis-1,3-Dichloropropene	0.20	2.00	0.00	1.00	ND	< MDL	U
trans-1,3-Dichloropropene	0.29	2.00	0.00	1.00	ND	< MDL	U
1,1,2-Trichloroethane	0.08	2.00	0.00	1.00	ND	< MDL	U
Toluene	0.12	2.00	0.00	1.00	0.69	0.69	J
1,2-Dibromoethane	0.17	2.00	0.00	1.00	ND	< MDL	U
Tetrachloroethene	0.18	2.00	0.00	1.00	ND	< MDL	U
Chlorobenzene	0.10	2.00	0.00	1.00	0.39	0.39	J
Ethyl benzene	0.13	2.00	0.00	1.00	1.21	1.21	J
m, p-Xyenes	0.20	2.00	0.00	1.00	2.43	2.43	
Styrene	0.19	2.00	0.00	1.00	ND	< MDL	U
1,1,2,2-Tetrachloroethane	0.23	2.00	0.00	1.00	ND	< MDL	U
o-Xylene	0.12	2.00	0.00	1.00	0.68	0.68	J
1,3,5-Trimethylbenzene	0.21	2.00	0.00	1.00	ND	< MDL	U
1,2,4-Trimethylbenzene	0.18	2.00	0.00	1.00	0.75	0.75	J
1,3-Dichlorobenzene	0.28	2.00	0.00	1.00	ND	< MDL	U
1,4-Dichlorobenzene	0.31	2.00	0.00	1.00	ND	< MDL	U
1,2-Dichlorobenzene	0.30	2.00	0.00	1.00	ND	< MDL	U
1,2,4-Trichlorobenzene	0.77	4.00	0.00	1.00	ND	< MDL	U
Hexachloro-1,3-butadiene	0.66	4.00	0.00	1.00	ND	< MDL	U

September 10,2001

Laboratory Report ID: 01083006
Laboratory Name: Johns Manville Technical Center Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Requestor: Paducah

Sample Results

Date Received: 8/30/2001
Date Analyzed: 9/6/2001
Sample Matrix: 6-liter Canisters
Analytical Method: EPA method TO-14A

Laboratory Sample Number: **01083006-001**
Customer Sample Number: **3113Z8OVPS01**

Tentatively Identified Compound (TIC)	CAS Nos.	Laboratory Blank (ppb-v)	DF	TOTAL(3) (ppb-v)	TOTAL(2) (ppb-v)	Flags*
Acetaldehyde	75-07-0	0.0	1.0	10.6	10.6	
2-Methyl-1-propene	115-11-7	0.0	1.0	4.8	4.8	
Acetone	67-64-1	1.0	1.0	15.8	14.8	
Nitromethane	75-52-5	0.0	1.0	7.8	7.8	
2-Methyl-2-propenal	78-85-3	0.0	1.0	3.2	3.2	
(Z)-5,5-Dimethyl-2-hexene	39761-61-0	0.0	1.0	3.6	3.6	
Benzaldehyde	100-52-7	0.0	1.0	7.7	7.7	
Unknown	-	0.0	1.0	31.9	31.9	
Unknown	-	0.0	1.0	2.7	2.7	
Isooctanol	26952-21-6	0.0	1.0	10.0	10.0	
Unknown	-	0.0	1.0	3.0	3.0	
Decane	124-18-5	0.0	1.0	3.1	3.1	
2-Ethyl-1-hexanol	104-76-7	0.0	1.0	127.9	127.9	
Unknown hydrocarbon	-	0.0	1.0	18.1	18.1	
Limonene	138-86-3	0.0	1.0	14.2	14.2	
Nonanal	124-19-6	0.0	1.0	3.6	3.6	
2-Nitrophenol	88-75-5	0.0	1.0	3.7	3.7	
Dodecane	112-40-3	0.0	1.0	3.8	3.8	
Tridecane	629-50-5	0.0	1.0	3.9	3.9	

Notes:
ppb-v = *parts per billion (volume/volume)*
MDL = *Method Detection Limit*
PQL = *Practical Quantitation Limit*
RL = *Reporting Limit*
DF = *Sample dilution factor*
ND = *not detected*
TOTAL(1) = *Total sample concentration after sample dilution factor adjustment*
TOTAL(2) = *Total sample concentration after sample dilution factor adjustment and laboratory blank adjustment*
TOTAL(3) = *Total sample concentration after sample dilution factor adjustment. Concentration of TIC calculated using nearest internal standard and response ratio of 1:1*

Sample Result Qualifiers

B	Analyte found in the Laboratory blank and sample.
E	Sample concentration exceeds the calibration range of the instrument.
J	Semiquantitative sample result value (value between MDL and PQL).
U	Undetected, analyzed for, but not detected (value below MDL).
M	Result value exceeded calibration range.

September 10,2001

Laboratory Report ID: 01083006
Laboratory Name: Johns Manville Technical Center
Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Requestor: Paducah

Quality Assurance Results Summary

Sample Matrix: 6-liter Canisters
Date Analyzed: 9/5/2001
Analytical Method: EPA method TO-14A

Laboratory QC Type: **Method Blank**
Laboratory QC Number: **Canister Blank**

Requested Analysis	MDL *(ppb-v)*	PQL *(ppb-v)*	Actual Amount Spiked *(ppb-v)*	Actual Amount Recovered *(ppb-v)*	Percent Recovery	Pass / Fail
Dichlorodifluoromethane (Freon 12)	0.28	2.00	< MDL	< MDL	N/A	pass
Chloromethane	0.63	2.00	< MDL	< MDL	N/A	pass
1,2-Dichlorotetrafluoroethane (Freon 114)	0.50	2.00	< MDL	< MDL	N/A	pass
Vinyl chloride	0.81	2.00	< MDL	< MDL	N/A	pass
Bromomethane	0.62	2.00	< MDL	< MDL	N/A	pass
Chloroethane	0.83	2.00	< MDL	< MDL	N/A	pass
Trichlorofluoromethane (Freon 11)	1.58	4.00	< MDL	< MDL	N/A	pass
1,1-Dichloroethene	2.60	4.00	< MDL	< MDL	N/A	pass
Dichloromethane (Methylene chloride)	1.85	4.00	< MDL	< MDL	N/A	pass
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.35	4.00	< MDL	< MDL	N/A	pass
1,1-Dichloroethane	0.88	2.00	< MDL	< MDL	N/A	pass
cis-1,2-Dichloroethene	0.17	2.00	< MDL	< MDL	N/A	pass
Chloroform	0.20	2.00	< MDL	< MDL	N/A	pass
1,2-Dichloroethane	0.24	2.00	< MDL	< MDL	N/A	pass
1,1,1-Trichloroethane	0.18	2.00	< MDL	< MDL	N/A	pass
Benzene	0.15	2.00	< MDL	< MDL	N/A	pass
Carbon tetrachloride	0.20	2.00	< MDL	< MDL	N/A	pass
1,2-Dichloropropane	0.10	2.00	< MDL	< MDL	N/A	pass
Trichloroethene	0.12	2.00	< MDL	< MDL	N/A	pass
cis-1,3-Dichloropropene	0.20	2.00	< MDL	< MDL	N/A	pass
trans-1,3-Dichloropropene	0.29	2.00	< MDL	< MDL	N/A	pass
1,1,2-Trichloroethane	0.08	2.00	< MDL	< MDL	N/A	pass
Toluene	0.12	2.00	< MDL	< MDL	N/A	pass
1,2-Dibromoethane	0.17	2.00	< MDL	< MDL	N/A	pass
Tetrachloroethene	0.18	2.00	< MDL	< MDL	N/A	pass
Chlorobenzene	0.10	2.00	< MDL	< MDL	N/A	pass
Ethyl benzene	0.13	2.00	< MDL	< MDL	N/A	pass
m, p-Xyenes	0.20	2.00	< MDL	< MDL	N/A	pass
Styrene	0.19	2.00	< MDL	< MDL	N/A	pass
1,1,2,2-Tetrachloroethane	0.23	2.00	< MDL	< MDL	N/A	pass
o-Xylene	0.12	2.00	< MDL	< MDL	N/A	pass
1,3,5-Trimethylbenzene	0.21	2.00	< MDL	< MDL	N/A	pass
1,2,4-Trimethylbenzene	0.18	2.00	< MDL	< MDL	N/A	pass
1,3-Dichlorobenzene	0.28	2.00	< MDL	< MDL	N/A	pass
1,4-Dichlorobenzene	0.31	2.00	< MDL	< MDL	N/A	pass
1,2-Dichlorobenzene	0.30	2.00	< MDL	< MDL	N/A	pass
1,2,4-Trichlorobenzene	0.77	2.00	< MDL	< MDL	N/A	pass
Hexachloro-1,3-butadiene	0.66	2.00	< MDL	< MDL	N/A	pass

September 10, 2001

Laboratory Report ID: 01083006
Laboratory Name: Johns Manville Technical Center Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Requestor: Paducah

Quality Assurance Results Summary

Sample Matrix: 6-liter Canisters
Date Analyzed: 9/5/2001
Analytical Method: EPA method TO-14A

Laboratory QC Type: **Independent Source** Check Standard
Laboratory QC Number: 2nd **Standard**

Requested Analysis	MDL (ppb-v)	PQL (ppb-v)	Actual Amount Spiked (ppb-v)	Actual Amount Recovered (ppb-v)	Percent Recovery	Pass / Fail
Dichlorodifluoromethane (Freon 12)	0.28	2.00	20.313	26.70	131.4%	pass
Chloromethane	0.63	2.00	20.508	25.61	124.9%	pass
1,2-Dichlorotetrafluoroethane (Freon 114)	0.50	2.00	20.508	28.39	138.4%	pass
Vinyl chloride	0.81	2.00	20.508	28.03	136.7%	pass
Bromomethane	0.62	2.00	20.508	27.95	136.3%	pass
Chloroethane	0.83	2.00	20.508	25.99	126.7%	pass
Trichlorofluoromethane (Freon 11)	1.58	4.00	20.313	27.48	135.3%	pass
1,1-Dichloroethene	2.60	4.00	20.117	26.67	132.6%	pass
Dichloromethane (Methylene chloride)	1.85	4.00	20.508	27.50	134.1%	pass
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.35	4.00	20.313	23.82	117.3%	pass
1,1-Dichloroethane	0.88	2.00	20.703	26.07	125.9%	pass
cis-1,2-Dichloroethene	0.17	2.00	20.508	26.81	130.7%	pass
Chloroform	0.20	2.00	20.703	28.42	137.3%	pass
1,2-Dichloroethane	0.24	2.00	20.703	26.24	126.7%	pass
1,1,1-Trichloroethane	0.18	2.00	20.703	32.25	155.8%	fail
Benzene	0.15	2.00	20.898	24.61	117.8%	pass
Carbon tetrachloride	0.20	2.00	20.313	32.83	161.6%	fail
1,2-Dichloropropane	0.10	2.00	20.703	25.94	125.3%	pass
Trichloroethene	0.12	2.00	20.508	24.14	117.7%	pass
cis-1,3-Dichloropropene	0.20	2.00	20.508	27.38	133.5%	pass
trans-1,3-Dichloropropene	0.29	2.00	20.703	27.43	132.5%	pass
1,1,2-Trichloroethane	0.08	2.00	20.703	25.61	123.7%	pass
Toluene	0.12	2.00	20.703	24.60	118.8%	pass
1,2-Dibromoethane	0.17	2.00	20.703	27.43	132.5%	pass
Tetrachloroethene	0.18	2.00	20.508	25.50	124.3%	pass
Chlorobenzene	0.10	2.00	20.313	24.46	120.4%	pass
Ethyl benzene	0.13	2.00	20.508	26.27	128.1%	pass
m, p-Xyenes	0.20	2.00	41.016	57.16	139.4%	pass
Styrene	0.19	2.00	19.922	21.87	109.8%	pass
1,1,2,2-Tetrachloroethane	0.23	2.00	20.313	23.44	115.4%	pass
o-Xylene	0.12	2.00	20.313	23.30	114.7%	pass
1,3,5-Trimethylbenzene	0.21	2.00	20.703	23.27	112.4%	pass
1,2,4-Trimethylbenzene	0.18	2.00	20.703	23.34	112.7%	pass
1,3-Dichlorobenzene	0.28	2.00	19.922	22.22	111.5%	pass
1,4-Dichlorobenzene	0.31	2.00	19.922	23.56	118.3%	pass
1,2-Dichlorobenzene	0.30	2.00	19.922	23.10	116.0%	pass
1,2,4-Trichlorobenzene	0.77	2.00	20.508	21.03	102.5%	pass
Hexachloro-1,3-butadiene	0.66	2.00	20.508	21.95	107.0%	pass

Johns Manville

Johns Manville Corporation
10100 W. Ute Avenue (80127)
P.O. Box 625005
Littleton, CO 80162-5005
303 978 2000

COVER PAGE

September 5, 2001

WESKEM, LLC.
Jan Buckmaster
5600 Hobbs Road
M/S 7431
Paducah, KY 42001

Laboratory Report ID: 01083005
Laboratory Name: Johns Manville Technical Center Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Site: Paducah

Dear Ms. Buckmaster:

The Johns Manville Technical Center (JMTC) has performed the following analytical services as requested. The results are calculated based upon the information supplied on the submission form. All laboratory data has been filed and are available upon request.
The JMTC IH Analytical Laboratory is accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program (Certificate No. 056) and in the environmental lead program for paint chips, dust wipes and soil.
If you have any questions, please call (303) 978-2584.

Scope of Work:

Requested Analysis	Number of Samples	Sampling Matrix	Method	Date of Analysis
Organic Compounds (GC/FID)	1	Charcoal tube	OSHA 07	9/5/2001

Scott A. Steiner
Industrial Hygiene Project Manager

9/13/01
Date

September 5, 2001

Laboratory Report ID: 01083005
Laboratory Name: Johns Manville Technical Center
Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference **Name:** DMSA 331-13
Requestor: Paducah

Sample Results

bate Received: 8/30/2001
Date Analyzed: 9/5/2001

Sample Matrix: Charcoal tube
Analytical Method: OSHA 07

Laboratory Sample Number: **01083005-001**
Customer Sample Number: **3113Z110OVPB01**

Requested Analysis	CAS #	Reporting Limit	Backup Section	Main Section	Total	Air Volume	Air Concentration
1,1-Dichloroethane	75-34-3	10 µg	< 10 µg	< 10 µg		-	-
1,2-Dichlorobenzene	95-50-1	11 µg	< 11 µg	< 11 µg			-
cis-1,2-Dichloroethene	540-59-0	12 µg	< 12 µg	< 12 µg			-
trans-1,2-Dichloroethene	540-59-0	12 µg	< 12 µg	< 12 µg			-
1,4-Dichlorobenzene	106-46-7	11 µg	< 11 µg	< 11 µg			-
Cyclohexane	110-82-7	10 µg	< 10 µg	< 10 µg			-
n-Hexane	110-54-3	11 µg	< 11 µg	< 11 µg			-
Isobutyl alcohol	78-83-1	10 µg	< 10 µg	< 10 µg			-

September 5,2001

Laboratory Report ID: 01083005
Laboratory Name: Johns Manville Technical Center
Industrial Hygiene Laboratory
Reference Number: KCWO05069A
Reference Name: DMSA 331-13
Requestor: Paducah

Quality Assurance Results Summary

Date Analyzed: 9/5/2001

Sample Matrix: Charcoal tube
Analytical Method: OSHA 07

Laboratory QC Type	Laboratory QC Number	Requested Analysis	Expected Recovery	Actual Recovery	Percent Recovery	Pass / Fail
Preparation Blank	Prep. Blank	1,1-Dichloroethane	< 10 µg/ml	< 10 µg/ml	N/A	*pass*
		1,2-Dichlorobenzene	< 11 µg/ml	< 11 µg/ml	N/A	*pass*
		cis-1,2-Dichloroethene	< 12 µg/ml	< 12 µg/ml	N/A	*pass*
		trans-1,2-Dichloroethene	< 12 µg/ml	< 12 µg/ml	N/A	*pass*
		1,4-Dichlorobenzene	< 11 µg/ml	< 11 µg/ml	N/A	*pass*
		Cyclohexane	< 10 µg/ml	< 10 µg/ml	N/A	*pass*
		n-Hexane	< 11 µg/ml	< 11 µg/ml	N/A	*pass*
		Isobutyl alcohol	< 10 µg/ml	< 10 µg/ml	N/A	*pass*
Preparation Blank Spike	Prep. Spike	1,1-Dichloroethane	1411.2 µg/ml	1310.4 µg/ml	92.9%	*pass*
		1,2-Dichlorobenzene	1567.2 µg/ml	1555.1 µg/ml	99.2%	*pass*
		cis-1,2-Dichloroethene	1538.4 µg/ml	1445.2 µg/ml	93.9%	*pass*
		trans-1,2-Dichloroethene	1502.4 µg/ml	1395.9 µg/ml	92.9%	*pass*
		1,4-Dichlorobenzene	2480.0 µg/ml	2272.8 µg/ml	91.6%	*pass*
		Cyclohexane	934.8 µg/ml	894.6 µg/ml	95.7%	*pass*
		n-Hexane	792.0 µg/ml	746.9 µg/ml	94.3%	*pass*
		Isobutyl alcohol	963.6 µg/ml	918.1 µg/ml	95.3%	*pass*

USEC
A Global Energy Company

September 5, 2001

Ms. Jan Buckmaster
5600 Hobbs Road
Paducah, KY 42001

Ms. Marie Meszaros
Sample Management Office
NFT Incorporated
East Tennessee Technical Park
Building K1035, Room 114
Hwy. 58 and Blair Road
Oak Ridge, TN 37830

Dear Ms. Buckmaster and Ms. Meszaros:

Analytical Results – SDG No. 5069B – 090501 (P.O. 0000793)

The enclosed data reports contain analytical results of samples that were submitted to the Portsmouth Laboratory for SOW KCWO05069B on August 17, 2001.

If you have any questions concerning the analyses or the data, please contact Nancy Smith at (740)897-3824.

Sincerely,

WRWaugh for
Debby Perez
ES&H Analytical Group Manager

DKP:ver

Enclosure

File: POEF-330-01-243

United States Enrichment Corporation
Portsmouth Gaseous Diffusion Plant
P.O. Box 628, Piketon, OH 45661

08/30/01 14:46
311324METW01

Portsmouth Analytical' Laboratory
Official Report

Customer Smpt Id: 311324METW01
Project:X-02-1H KCW005069B
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status; APPROVEP
Location:

Sampled: 08/02/01 13:50:00
Received: 08/17/01 15:00:07
Needed: 08/30/01 23:59:00
Approved: 08/30/01 14:36:57

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:NIOSH-7300-1 QC Batch:QC01242011 Test:7300FILTER Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/28/01 00:00:00 T E SHOOK Approver: E K GILBERT 08/30/01 14:36

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	RT	CLP
Arsenic	0.332		ug/wipe	U		0.332	1		
Barium	2.85		ug/wipe			0.00676	1		
Beryllium	0.0048		ug/wipe	B		0.00334	1		
Cadmium	0.13		ug/wipe	B		0.0256	1		
Chromium	3.21		ug/wipe			*0.147*	1		
Cobalt	0.121		ug/wipe	B		*0,0934*	1		
Lead	3.21		ug/wipe			0.322	1		
Nickel	5.89		ug/wipe			0.121	1		
Selenium	0.422		ug/wipe	B		0.32	1		
Silver	0.208		ug/wipe	B		0.039	1		
Thallium	0.807		ug/wipe	BJ		0.35	1		

Comments: Ba not an approved element tar NIOSH 7300, however, analysis was pertormed per customer's request.

Tl qualified as estimate due to calibration verification and one of two LCS's not meeting acceptance limits.

EPA Qualifiers:

B - Analyte result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Instrument Detection Limit (IDL).
J Qualify data tor the sample as estimated.
U - Analyte analyzed tor bur undetected. Anatyte result was below the Instrument Detection Limit (IDL).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director: Deborah K. Perez
***** END OF REPORT *****

09/05/01 06:53
311324PCBW01

X012320032

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 311324PCBW01
Project:X-02-IH KCW005069B
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 13:50:00
Received: 08/17/01 15:00:57
Needed: 08/36/01 23:59:00
Approved: 08/31/01 14:17:34

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:PORTS-XP4-TS-QA7033 QC Batch:QC01243026 Test:PCBWIPE Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/30/01 00:00:00 F R HACHESKY Approver: P J SPROUSE 08/31/01 14:17

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	HT	CLF
PCB, Total	10		ug/wipe	U		10	1		

CPA Qualifiers:
U - Analyte analyzed for but undetected. Analyte result was below the Limit of Quantitation (LOQ).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon Oh 45661 740-897-5702
Lab Director: Deborah K. Perez
***** END OF REPORT *****

09/05/01 06:53
311324PCBW02

X012320031

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 311324PCBW02
Project:X-02-1H KCW005069B
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status: APPROVED
Location:

Sampled: 68/02/01 13:50:00
Received: 08/17/01 15:00:57
Needed: 08/30/01 23:59:00
Approved; 08/31/01 14:17:39

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:PORTS-XP4-TS-OA7033 QC Batch:QC01243026 Test:PCBWIPE Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/30/01 00:00:00 F R MACHESKY Approver: P J SPROUSE 08/31/01 14:17

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	HT	CLF
PCB, Total	10		ug/wipe	U		10	1		

EPA Qualifiers:
U - Analyte analyzed for but undetected. Analyte result was below the Limit of Quantitation (LOQ).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director; Deborah K. Perez
***** END OF REPORT *****

08/30/01 14:46
311326METW01

XU12320039

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 311326METW01
Project:X-02-IH KCW005069B
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 13:54:00
Received: 08/17/61 15:00:07
Needed: 08/30/01 23:59:00
Approved: 08/30/01 14:36:26

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:NIOSH-7300-1 QC Batch:QC01242011 Test:7300FILTER Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/28/01 00:00:00 T E SHOOK Approver: E K GILBERT 08/30/01 14:35

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	HT	CLF
Arsenic	1.80		ug/wipe	B		0.332	1		
Barium	6.53		ug/wipe			0.00676	1		
Beryllium	0.0082		ug/wipe	B		0.00334	1		
[illegible]nium	0.21		ug/wipe	B		0.0256	1		
[illegible]mium	24.9		ug/wipe			0.147	1		
[illegible]ait	0.759		ug/wipe	B		0.0934	1		
Lead	13.5		ug/wipe			0.322	1		
Nickel	55.1		ug/wipe			0.121	1		
Selenium	0.832		ug/wipe	B		0.32	1		
Silver	0.135		ug/wipe	B		0.039	1		
Thallium	1.24		ug/wipe	BJ		0.35	1		

Comments: Ba not an approved element for NIOSH 7300, however, analysis was performed per customer's request.

Tl qualified as estimate due to calibration verification and one of two LCS's not meeting acceptance limits.

CPA Qualifiers:
B - Analyte result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Instrument Detection limit (IDL).
J Quality data for the sample as estimated.

09/05/01 06:53
311326PCBW01

X012320030

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 311326PCBW01
Project:X-02-IH KCW0050698
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 13:54:00
Received: 06/17/03 15:00:57
Needed: 08/30/01 23:59:00
Approved: 68/31/01 14:17:37

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:PORTS-XP4-TS-QA7033 QC Batch:QC01243026 Test:PCBWIPE Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/30/01 00:00:00 F R NACHESKY Approver: P J SPROUSE 08/31/01 14:16

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	HT	CLF
PCB, Total	10		ug/wipe	U		10	1		

EPA Qualifiers:
U - Analyte analyzed for but undetected. Analyte result was below the limit of Quantitation (LOQ).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director: Deborah K. Perez
***** END OF REPORT *****

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 3113Z7METW01
Project:X-02-1H KCW005069B
Subprej Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 13:56:00
Received: 08/17/01 15:00:07
Needed: 08/30/01 23:59:00
Approved; 08/30/01 14:35:42

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:NIOSH-7300-1 QC Batch:QC01242011 Test:7300FILTER Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/28/01 00:00:00 T F SHOOK Approver: E K GILBERT 08/30/01 14:35

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	MT	CLT
Arsenic	0.332		ug/wipe	U		0.332	1		
Barium	5.43		ug/wipe			0.00676	1		
Beryllium	0.006		ug/wipe	B		*0.00334*	1		
Cadmium	0.388		ug/wipe			0.0256	1		
Chromium	6.54		ug/wipe			0.147	1		
Cobalt	0.463		ug/wipe	B		0.0934	1		
Lead	8.08		ug/wipe			0.322	1		
Nickel	32.1		ug/wipe			0.121	1		
Titanium	0.458		ug/wipe	B		0.32	1		
Silver	0.039		ug/wipe	U		0.039	1		
Thallium	1.12		ug/wipe	BJ		6.34	1		

Comments: Be not an approved element for NIOSH 7300, however, analysis was performed per customer's request.

Tl qualified as estimate due to calibration verification and one of two LCS's nor meeting acceptance limits.

EPA Qualifiers:

B Analyte result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Instrument Detection Limit (IDL).
J Qualify data for the sample as estimated.
U Analyte analyzed for but undetected. Analyte result was below the Instrument Detection Limit (IDL).

09/05/01 06:53
311327PCBW01

X012320029

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 311327PCBW01
Project:X-02-IH KCW0050698
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 13:56:00
Received: 08/17/01 15:00:57
Needed: 08/30/01 23:59:00
Approved: 08/31/01 14:17:04

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:PORTS-XP4-TS-OA7033 QC Batch:QC01243026 Test:PCBWIPE Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/30/01 00:00:00 F R MACHESKY Approver: P J SPROUSE 08/31/01 14:16

Analyte Name	Result	+/-	unit	Qual	Fn	LCR	Dilu	HT	CLF
PCB, Total	10		ug/wipe	U		10	1		

EPA Qualifiers:
U . Analyte analyzed for but undetected. Analyte result was below the Limit of Quantitation (LOQ).

USEC PORTS Analytical Lob
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director: Deborah K. Perez
***** END OF REPORT *****

08/30/01 14:46
3113Z9METW01

XU12320037

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 3113Z9METW01
Project:X-02-1H KCW0050698
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 13:58:00
Received: 08/17/01 15:00:07
Needed: 08/36/61 23:59:00
Approved: 08/30/01 14:35:07

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Metn:NIOSH-7300-1 QC Batch:QC01242011 Test:7300FILTER Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/28/01 00:00:00 T E SHOOK Approver: E K GILBERT 08/30/01 14:34

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Pilu	HT	CLF
Arsenic	0.382		ug/wipe	B		0.332	1		
Barium	6.19		ug/wipe			0.00676	1		
Beryllium	0.0074		ug/wipe	B		0.00334	1		
Cadmium	0.248		ug/wipe			0.0256	1		
Chromium	1.66		ug/wipe			*0.147*	1		
Cobalt	0.164		ug/wipe	B		*0.0934*	1		
Lead	4.95		ug/wipe			0.322	1		
Nickel	3.36		ug/wipe			0.121	1		
Selenium	0.871		ug/wipe	B		0.32	1		
Silver	0.124		ug/wipe	B		0.039	1		
Thallium	0.777		ug/wipe	BJ		0.35	1		

Comments: Ba not an approved element for NIOSH 7300, however, analysis was performed per customer's request.

Tl qualified as estimate due to calibration verification and one of two LCS's not meeting acceptance limits.

EPA Qualifiers:
B - Analyte result less than the Practical Quantitation Limit (PQL) and greater than or equal to tha Instrument Detection Limit (IDL).
J - Quality data for the sample as estimated.

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 *740-897-5702*
Lab Director: Deborah K. Perez
***** END OF REPORT *****

09/05/01 06:53
3113Z9PCBW01

X012320028

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 3113Z9PCBW01
Project:X-02-1H KCW005069B
Subproj Analyses:WIPE
Customer:N J SMITH

Matrix: WIPE
Protocol NONE
Status: APPROVED
Location:

Sampled: 06/02/01 13:58:00
Received: 08/17/01 15:00:57
Needed: 08/30/01 23:59:00
Approved: 08/31/01 14:17:03

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:PORTS-XP4-TS-OA/055 QC Batch:QC01243026 Test:PCBWIPE Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:08/30/01 00:00:00 F R MACHESKY Approver: P J SPRWSE 08/31/01 14:16

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	bilu	HT	CLF
PCB, Total	10		ug/wipe	U		10	1		

EPA Qualifiers:
U - Analyte analyzed for but undetected- Analyte result was below the Limit of Quantitation (LOQ).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director: Deborah k. Perez
***** END OF REPORT *****

USEC
A Global Energy Company

September 24,2001

Ms. Jan Buckmaster
5600 Hobbs Road
Paducah, KY 42001

Ms. Marie Meszaros
Sample Management Office
NFT Incorporated
East Tennessee Technical Park
Building K1035, Room 114
Hwy. 58 and Blair Road
Oak Ridge, TN 37830

Dear Ms. Buckmaster and Ms. Meszaros:

Analytical Results – SDG NO. 5069B – 092401 (P.O. 0000793)

The enclosed data reports contain analytical results of samples that were submitted to the Portsmouth Laboratory for SOW KCWO05069B on August 28, 2001 – September 10,2001. PCB sample reports to: follow.

If you have any questions concerning the analyses or the data, please contact Nancy Smith at 740-897-3824.

sincerely,

Debby Perez
ES&H Analytical Group Manager

DKP:cs

Enclosure

File: POEF-330-01-254

United States Enrichment Corporation
Portsmouth Gaseous Diffusion Plant, P.O. Box 628, Piketon, OH 45661
Telephone 740-897-2331 Fax 740-897-2909 http://www.usec.com

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 3113Z110PCBB01
Project :X-02-IH KCW005069B
Subproj Analyses:AIR
Customer:N J SMITH

Matrix: AIR
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 17:30:00
Received: 08/29/01 15:30:20
Needed: 09/11/01 23:59:00
Approved: 09/06/01 19:07:55

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:NIOSH-5503 QC Batch:QC01249019 Test:PCBAIR Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:09/06/01 00:00:00 A J SCHWAB Approver: P J SPROUSE 09/06/01 19:07

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	HT	CLF
PCB, Total	0.01		ug/tube	U		0.01	1		

EPA Qualifiers:
U - Analyte analyzed for but undetected. Analyte result was below the Limit of Quantitation (LOQ).

Portsmouth Analytical Laboratory
Official Report

Customer Smpl Id: 3113Z4PCBA01
Project:X-02-IH KCW005069B
Subproj Analyses:AIR
Customer:N J SMITH

Matrix: AIR
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 17:25:00
Received: 08/29/01 15:30:20
Needed: 09/11/01 23:59:00
Approved: 09/06/01 19:07:54

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:NIOSH-5503 QC Batch:QC01249019 Test:PCBAIR Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:09/06/01 00:00:00 R J SCHWAB Approver: P J SPROUSE 09/06/01 19:07

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	HT	CLF
PCB, Total	0.01		ug/tube	U		0.01	1		

EPA Qualifiers:
U - Analyte analyzed for but undetected. Analyte result was below the Limit of Quantitation (LOQ).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director: Deborah K. Perez
***** END OF REPORT *****

Portsmouth Analytical Laboratory
Official, Report

Customer Smpl Id: 3113Z4META01
Project:X-02-IH KCWO05069B
Subproj Analyses:AIR
Customer:N J SMITH

Matrix: AIR
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 17:25:00
Received: 08/29/01 15:30:13
Needed: 09/11/01 23:59:00
Approved: 09/11/01 09:58:53

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:NIOSH-7300-2 QC Batch:QC01253002 Test:7300FILTER Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:09/06/01 00:00:00 T E SHOOK Approver: E K GILBERT 09/11/01 09:58

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	WT	CLP
Arsenic	0.332		ug/filter	U		0.332	1		
Beryllium	*0.0036*		ug/filter	B		0.00334	1		
Cadmium	*0.0660*		ug/filter	B		0.0256	1		
Chromium	1.09		ug/filter	B		0.147	1		
cobalt	0.0934		ug/filter	U		0.0934	1		
Lead	0.811		ug/filter	B		0.322	1		
Nickel	0.132		ug/filter	B		0.121	1		
Selenium	0.32		ug/filter	U		0.32	1		
Silver	0.035		ug/filter	U		0.035	1		
Thallium	0.606		ug/filter	B		0.35	1		

Qualifiers:
Analyte result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Instrument Detection Limit (In).
U - Analyte analyzed for but undetected. Analyte result was below the Instrument Detection Limit (IDL).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director: Deborah K. Perez

***** END OF REPORT *****

Portsmouth Analytical Laboratory
official Report

Customer Smpl Id: 3113Z8META01
Project:X-02-IH KCW005069B
Subproj Analyses:AIR
Customer:N J SMITH

Matrix: AIR
Protocol:NONE
Status: APPROVED
Location:

Sampled: 08/02/01 17:25:00
Received: 08/29/01 15:30:13
Needed: 09/11/01 23:59:00
Approved: 09/11/01 09:46:27

COC#: PADUCAH
Sample Desc:
Customer Comments:
Lab Smpl Comments:

Analy Meth:NIOSH-7300-2 QC Batch:QC01253002 Test:7300FILTER Rpt Basis:Not Corrected Date Approved
Prep Meth: Analyzed:09/06/01 00:00:00 T E SHOOK Approver: E K GILBERT 09/11/01 09:45

Analyte Name	Result	+/-	Unit	Qual	Fn	LCR	Dilu	HT	CLF
Arsenic	0.332		ug/filter	U		0.332	1		
Beryllium	0.0048		ug/filter	B		0.00334	1		
cadmium	0.0256		ug/filter	U		0.0256	1		
Chromium	1.08		ug/filter	B		0.147	1		
Cobalt	0.0934		ug/filter	U		0.0934	1		
Lead	6.831		ug/filter	B		0.322	1		
Nickel	0.32		ug/filter	B		0.121	1		
Selenium	0.32		ug/filter	U		0.32	1		
Silver	0.039		ug/filter	U		0.039	1		
Thallium	0.555		ug/filter	B		0.35	1		

Qualifiers:
Analyte result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Instrument Detection Limit (IDL).
U - Analyte analyzed for but undetected. Analyte result was below the Instrument Detection Limit (IDL).

USEC PORTS Analytical Lab
P.O. Box 628 Piketon OH 45661 740-897-5702
Lab Director; Deborah K. Perez

***** END OF REPORT *****