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NMED
Hazardous Waste Bureau

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Los Alamos
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Environmental Protection Division
Environmental Compliance Programs (ENV-CP)
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

National Nuclear Security Administration
Los Alamos Field Office, A316
3747 West Jemez Road
Los Alamos, New Mexico, 87545
(505) 667-5794/Fax (505) 667-5948

Date: **AUG 18 2014**
Symbol: ENV-DO-14-0223
LAUR: 14-26320
Locates Action No.: Not Applicable

Mr. John E. Kieling
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Dear Mr. Kieling:

Subject: Transmittal of Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 4

The purpose of this letter is to transmit remediation and repackaging documentation as requested via electronic mail (email) by the New Mexico Environment Department (NMED) on June 10, 2014. Written submissions and twice weekly technical phone calls are conducted between the NMED; Los Alamos National Security, LLC (LANS); and the U.S. Department of Energy (DOE) as stipulated by the modified Administrative Order No. 5-19001 issued by the NMED. The documentation contained within Enclosure 1 partially addresses Item # 13 of the *Summary Chart - Requested Information/Pending Issues* included as part of the written daily submissions to the NMED from the DOE and LANS, the Permittees.

The June 10, 2014, email received from Tim Hall, NMED, included a request for additional information for 267 original nitrate salt-bearing waste containers generated by the Permittees and all resulting repackaged/remediated containers. Partial fulfillment of the request was submitted to the NMED on July 9, 2014 and was corrected on July 17, 2014. This submittal includes remediation and repackaging documentation for daughter containers resulting from the repackaging and remeditation of the 267 original nitrate salt-bearing waste containers and is the fourth submittal in response to comment 5 in the June 10, 2014 email request. Because documentation to fulfill the request is still being compiled, the response to comment 5 of the email request will be transmitted in packages as they become available.

36578

Enclosure 1 includes the pertinent documentation for twelve (12) of the original 267 parent waste containers and all associated daughter and granddaughter waste containers. The enclosed documentation for each parent waste container is separated by a tab and documentation for the daughter containers are highlighted within each tab by colored pages. These parent containers and their daughter and granddaughter containers were listed in the *Nitrate Salt Drums with Associated Waste Stream and Location Data for 267 Original Parent and 707 Current/Remediated Daughter Containers* table (as revised and submitted to the NMED on July 17, 2014).

If you have comments or questions regarding this submittal, please contact Mark P. Haagenstad at (505) 665-2014 or Gene E. Turner at (505) 667-5794.

Sincerely,

Alison M. Dorries
Division Leader
Environmental Protection Division
Los Alamos National Security LLC

Sincerely,

Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Field Office
U.S. Department of Energy

AMD:GET:MPH:LVH/ms

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 4

Cy: Ryan Flynn, NMED, Santa Fe, NM, (E-File)
Tom Blaine, NMED, Santa Fe, NM, (E-File)
Steve Pullen, NMED/HWB, Santa Fe, NM, (E-File)
Timothy Hall, NMED/HWB, Santa Fe, NM, (E-File)
Trais Kliphuis, NMED, Santa Fe, NM, (E-File)
Peter Maggiore, NA-LA, (E-File)
Lisa Cummings, NA-LA, (E-File)
Gene E. Turner, NA-LA, (E-File)
Eric L. Trujillo, NA-LA, (E-File)
Kirsten M. Laskey, NA-LA, (E-File)
Carl A. Beard, PADOPS, (E-File to aosburn@lanl.gov)
Michael T. Brandt, ADESH, (E-File)
Raeanna R. Sharp-Geiger, ADESH, (E-File)
Alison M. Dorries, ENV-DO, (E-File)
Jeffery D. Mousseau, ADEP, (E-File)
Daniel R. Cox, ADEP, (E-File)
Victoria A. George, REG-DO, (E-File)

Cy (continued):
Selena Z. Sauer, LC-ESH, (E-File)
Debra S. Nevergold, LTP, (E-File)
Mark P. Haagenstad, ENV-CP, (E-File)
Luciana Vigil-Holterman, ENV-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
env-correspondence@lanl.gov, (E-File)

Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 4
ENV-DO-14-0223
LA-UR-14-26320

August 2014

Los Alamos
NATIONAL LABORATORY
EST. 1943

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 4

ENV-DO-14-0223

LA-UR-14-26320

Date: AUG 18 2014

ParentID	Intermediate Daughters	PKG_ID	Overpacked Into
S816900		93906	
S816900		93907	
S816915		93900	
S818255		68470	
S818255		68493	
S818354		93883	
S818354		93884	
S818354		93885	
S818354		93886	
S818370		94087	
S818370		94088	
S818382		68561	
S818382		68568	
S818412	68997	69618	
S818412	68997	69642	
S818449		68630	
S818449		68633	
S821203		68416	
S821203		68449	SB50072
S822541		94203	SB02092
S822541		94205	
S822541		94206	
S822542		94200	
S822542		94201	SB50086
S822679		69638	
S822679		69645	

S816900

S816900

Container Profile 747651

File Options Reports Help

S816900

747651	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S816900

- S816900
  - 93908 – EMPTY
  - 93907
  - 93906

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
49.99947775	%			

Working Copy
Date 4/27/13 aw

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S816900

6.2[4] Date Processed: 6-27-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D007

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brandon Chavez / [signature] 2047172 / 6-27-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S816900

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 429.4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): Ø lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 429.4 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S816900

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93906	93907		
10.1[4]	Daughter Drum Filter No.	KM-565	KM-574	N	
10.1[4]	Daughter Drum Bag Filter No.	L-6841	L-6501	A	
10.1[4]	Daughter Drum Purchase Order No.	501103	501103		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture	N			
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		A	N	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)			A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead			
10.3[9][A]	PCB-contaminated Waste Description	N A	N A		
10.3[9][B]	PCB Item ID No.				A
10.3[10]	Remaining Waste Description	see comments	see comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	80%	N	
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic	Plastic		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S846900

Comments: Solids, plastic, kitty litter, sludge

11.1[1] Performed By: Brandon Chavez / [signature] 1201742 10-27-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Juarez / [signature] 1221452 7/18/13 0520
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 6-21-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
Manufacture Date: 20U

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Tolerance:	+/- 4% CW +/- 6% CCW	+/- 3% CW +/- 6% CCW

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: SL1869
Manufacture Date: 10/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: JOE QUINTANA, Joe Q 239981, 6/21/13
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: JOE QUINTANA, Joe Q 239981, 6/21/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Jerez, [signature] 122452, 7-18-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 93908

7.[24] Overpack drum closure ring torque wrench information:
M&TE No.: 038373
Cal. Expiration Date: 8-11-13
Range in ft-lb: 10-80
Tolerance: ±3% or ±6% CW

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez / Brandon Chavez 1204742 / 6-27-13
Waste Handling Technician (print) Signature Z # Date

7.[27] Overpack drum closure ring torque value: 60 ft-lb

7.[30] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[35][D] 85-gal overpack drum gross weight (lb): 198.4 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / Brandon Chavez 1204742 / 6-27-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Tovar / [signature] 1221452 7/18/13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 93906

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501163
Lot #: 0234765
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: LCPVC 1-5 25PVC
Serial #: L-6841
Date of Manufacture: 1/13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 01905
Serial #: RM-565
Date of Manufacture: 11/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% CW ±6% CCW	Tolerance:	±3% CW ±6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: MICHAEL MONTOYA Signature: [signature] Z#: 191352

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 76.0
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: MICHAEL MONTOYA Operator Sign: [signature] Z#: 191352 Date: 6/25/13
Verifier Print: Brandon Chavez Verifier Sign: [signature] Z#: 204742 Date: 6-27-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 93906

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038373

Cal expiration date: 9-11-13

Range/ Value (ft-lbs): 10-80

Tolerance ± 3%CW ± 6%CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 250.6

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: Brandon Chuez Date 6-27-13

Verifier Print/Sign: _____ Date: _____

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 93907

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501103
Lot #: 0234765
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPK1-52SPVC
Serial #: 1-6501
Date of Manufacture: 1/13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: KM-574
Date of Manufacture: 11/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: MICHAEL MONTOYA Signature [signature] Z#: 191352

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 760
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: MICHAEL MONTOYA Operator Sign: [signature] Z#: 191352 Date: 6/25/13
Verifier Print: Brandon Chavez Verifier Sign: [signature] Z#: 204742 Date: 6-27-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 93907

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038373

Cal expiration date: ~~6-27-10~~ BC 9-11-13

Range/ Value (ft-lbs): 10-80

Tolerance ± 3% cw ± 6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 379.4

Scale ID#: 019665

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: Brandon Chavez Date 6-27-13

Verifier Print/Sign: JOE QUINTANA Joe Q Date: 6/27/13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816900 Container Type: 55-GAL Gross Weight (lbs): 434

Inner Seal #: 010346 Filter Prefix: None Filter Serial #: None

AK Waste Stream: LA-CIN01.001 Certified RTR BDR: LA-HERTR-12-0093

TWSR Comments: LEACHED SOLIDS

Total PE-Ci Activity: 8.11E-01 Equivalent Combustible PE-Ci: 3.04E-01 AM-241 PE-Ci: 7.35E-02

Total Fissile Gram Equivalents: 8.7 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D009 NE 12/11/12

NCR RTR/NDA Comment: LANL: remediate-1. 4 GAL. of prohibited liquid at 26" to 32"2. Can not verify Liner Lid Vent

RTR Pre-Screen Date: 4/19/2007 Comment: Impenetrable Obj.

Certified RTR Comment: Prohibited Liquid->4 Liters sealed container

Prohibited Items: ✓ Sealed > 4 Liters ✓ Liquid ☐ Pressurized Container ✓ Impenetrable Item ☐ Other

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☑ PID Split Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 >10,000

TRUCON Code: None Production Control Comments: Nitrate Salts apply mixture & EPA codes

Performed By: Julie Gallegos / Julie Gallegos / 176905 / 10/18/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes ✓ No Unknown

Processing Determination: ✓ Accept Reject

WDP Engineering Comments: Nitrate Salts
Net Wt: 374# Generator info shows 4 items of nitrate salts; weights range from 15-18#. RTR BDR shows plastic bags + homogeneous solids. It also shows prohibited liquids, >4 L sealed container(s) + lead lined drum. Nitrate salts require repack w/ admixture. No chemicals identified; nitrate salts carry waste codes for chromium, lead, + mercury.

Performed By: Valerie Rhodes / Valerie Rhodes / 162609 / 12/12/12
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.

Processing Determination: ✓ Accept Reject

TRU Remediation Operations Comments: USE Proper PPE. Follow Procedure for ratio of kitty litter to waste for Nitrate Salts.

Performed By: G Mh / G M / 149235 / 6.2.13
TRU Remediation Operations (Print) Signature Z Number Date

Jose Perez / Jose Perez / 221452 / 6-9-13

IHS REVIEW: RS 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 010346

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS 440 FB	17.7	NITRATE SALTS		0.69	52	5/11	
2	DXFS 442 F1	82	NITRATE SALTS		4.24	52	5/11	
3	DXFS 443 F1	6.8	NITRATE SALTS		0.56	54	5/11	
4	DXFS 444 F1	22.7	NITRATE SALTS		3.74	52	5/11	
		129.2 kg						

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0093
Examination Date:	8/28/2012
Waste Container ID:	S816900
Video/Audio Recorded Media Number:	LA-HERTR-12-0093 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-1572-12 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 192.5 kg Tare Wt.: 60.1 kg Net Wt.: 132.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [X] No [ ] Yes [ ] N/A Lead Lined: Fiberboard Liner: [X] No [ ] Yes [ ] No [X] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: S816900

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag 90 MIL. Liner and Liner Lid	9.4
Others: Lead Lined (LP)	23.0
Total Packaging Weight	60.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	126.4
Soils (S):	
Total WMP Weight:	132.4

CCP Radiography Data Sheet

Waste Container ID: S816900

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	[X] Yes [ ] No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [X] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[X] Yes [ ] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [X] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [X] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [X] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [X] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [X] No
Is there an indication of PCBs liquids?	[ ] Yes [X] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [X] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [X] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [X] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [X] No
Are there sealed containers GREATER than 4 liters?	[X] Yes [ ] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [X] No

Comments:CCP-SO-LANL-55 Inconsistencies associated with these packaging configurations (90 MIL Liner and Liner Lid) will not disqualify the container from meeting the waste stream description. NCR-LANL-1572-12

RTR Operator:

Eric Lyles	Lyles	8/28/2012
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: Feb 13 2013

Container No. (5.[1])	S816900					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	Ø ppm	ppm	2-13-13 ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	277.94 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero (CCP (Print)) 236973 (Z#)

Reviewed By: Rick Jagielski (CCP (Print)) 266088 (Z#)

Comments: n/a

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 176905 (Z#) 2-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130213I\
Data File : S816900.D
Acq On : 13 Feb 2013 3:24 pm (#1); 13 Feb 2013 3:22 pm (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NUCFIL-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 13 15:28:09 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 13 14:42:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.933	GC1	78499	277.94	ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

H2-CH4.M Wed Feb 13 15:28:16 2013 UNIT12

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6-27-13

0600 Assuming WCRRF Operations center Cvelarde
0601 Assuming OCO under instruction G. Espinoza
0603 Starting outside rounds
0620 Starting inside Rounds
0621 Item #3 ONSAT FR in place OK to proceed.
0641 Item #63 COS POD in place ok to proceed.
0645 Inside/outside Rounds Complete
0656 Inside/outside Rounds reviewed by SOS.
0712 Mode Change performed, TA-50 69 and WCRR Yard in Operation
0800 RCT notified OPS Center that filter plug on daughter drum popped off SOS has been notified.
0805 Permission granted to lower vehicle access barrier.
0810 Operator notified OPS Center that liquids were found in the box from drum left bagged on over night IH and SOS notified
0827 Operators Continuing to process drum
0915 vehicle access gates have been restored shipment out of WCRRF site Complete
0937 Bagging off/Bagging on S 816900
1005 Bag on/off Complete
1105 Lowering vehicle access barrier.
1120 Bagging off 1 daughter, bagging on daughter #2.
1137 Bag off Complete.
1140 Turning over OCO duties to C Velarde. GE 231720
1141 Assuming full WCRRF Operations Center Cvelarde
1142 Starting to unload vehicle transport trailer.
1225 movement to transportation from transport vehicle is Complete
1335 Starting movement out of 51 69
1349 Completed movement out of 51 69
1500 ~~1512~~ 6-27-13 Bagging off 9S816900 Bagging on 9S816440
1524 Bag on Bag off Complete
1527 Starting inside rounds
1549 Inside rounds complete
1553 RCT advised OPS Center that wind sock is not [illegible]

17-13 Continued from previous page - Cleland
1738 - Bangura ob last drum of the day
Bag out is complete
mode change complete 50-69 and DCCCF yard in warm standby
1730 end of day DCCCF Operations center secure - Cleland

operations
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Filter bags.

6-2713

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0600 Assumed the WCRR SOM position. [signature]
0615 Attended the pre po briefing conducted by the SOS. SOS discussed safe policy and reporting injuries through the operation center (notifications).
0700 Shift brief with T454 SOM.
0706 Turning over SOM duties to John Guadagnolo. [signature]
0706 Assumed the SOM duties. [signature]
0712 Made change complete WCRR yard SO-69 from WRRC/WRRC to Operations / Operations.
0810 Inside operators notify the Ops Leader that the parent drum had dripped liquid onto the glovebox floor. The parent drum was [illegible] left open with the lid closed from the prior night. EH&S were notified. [illegible] was notified.
0815 Upon consulting by ES/IH, and discussion with the inside lead operator, a stick bag off bag with absorbant will be placed under the lid, and lid removed. The drippage on the glovebox floor 3-4 inch (looks like pancake batter) will be placed into the bag (secondary containment.
0827 Operators continue to process the parent drum.
0845 Completed walkdown (MEV) of WCRR yard with ES/IH, observed personnel performing transfer to transport vehicle. All PPE were worn by operators safety and compliant. Proper ladder use to enter the transport vehicle was observed. The roll step ladder was tagged out of service due to bent support rail. The mens toilet was noted out of use - maintenance was notified. There was a smell of propane in the yard, and further investigation determined that Waste Facility personnel noticed the fork truck with propane in the parking lot.
0853 The operator work hours completed to perform food testing at the lift table. The extended privilege is good through Sept 27th, 2013.
1000 Daily call in conducted, state is PM on watch.
1037 Completed walkthru of WCRR Boundary with PM. Emergency lights being set up to support night shift staging, moving and removed portable plug sockets and extension cords were available (2 sets noted complete and used). Adjustments of one light to point to the morgue is recommended. Additional follow up will be conducted with planner on extinguishers for CWC's.
1041 Supported in the transfer of the small refrigerator from ES/IH office to storage.
1510 Completed walkdown of positioning lights with crane, maintenance crew, all adjustments were made to the positioning and light angles. Follow up will be on Monday Evening secondary containment is noted under the mats (catch pan with oil dry). Measurements are taken at back gate opening, and are 18' 6" wide to allow emergency vehicles to access the maintenance, additional fire extinguishers are not required.
1527 Received two weekly RCRA logs and signed off with second inspector, Duane.
[illegible] Three permits generated by Doughty.
1712 Made change complete WCRR yard SO-69 from Operations / Operations to WCRR / WCRR.
1800 Secured the SOM position. [signature]

7-10-13

No further Entries this Page
[signature]

6/27/13 WCRR 505 Log Book

0600 Assuming 505 position for the day. Jim Jay

0605 Starting Pre-Job. Safety Topic discussing CRRR-Shoe Policy
Processing Parent that was left bagged on overnight.
2 55 gallon drum Parents and 2 85 gallon drum Parents inside for processing. 1 shipment out and 1 shipment in today.

0640 Concluded Pre-Job brief

0655 Reviewed and signed rounds

0712 Mode change WCRR yard and 50-69 are in Operations.

0938 Bagging off Parent that was left bagged on overnight
Bagging on first Parent for the day.

1005 Bag on Bag off complete

1120 Bagging off one daughter, bagging on second daughter and continuing to process Parent

1157 Bag off complete

1500 Bagging off first Parent, Bagging on second Parent

1524 Bag on Bag off complete.

1530 Late Entry 1300 Operators breaking for lunch. 1329 Operators returning from lunch.

1711 Bagging off last drum for the day

1745 Late entry 1652 reviewed and signed rounds.

1812 Mode change WCRR yard and 50-69 are in WARM

1845 Securing 505 position for the day. Jim Jay

Go to other entries on this page

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0081
Examination Date:	7/3/2013
Waste Container ID:	93906
Video/Audio Recorded Media Number:	LA-HERTR-13-0081 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 113.5 kg Tare Wt.: 33.4 kg Net Wt.: 80.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: 93906

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Cordless drill w/ batteries

AM:

OM:

OI:

C:

R:

XPM: Plastic bags, 90 mil liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	2.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	75.6
Soils (S):	
Total WMP Weight:	80.1

CCP Radiography Data Sheet

Waste Container ID: 93906

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Michael Simmons		7/3/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93906	Count Sequence Number:	16137
Operator:	DCLTD231\Operator		
Assay Start:	7/8/2013 12:03:35 PM		
Description 1:	2LANDA1191		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 80.1 kg	Net:	80.1 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.590 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16137	Batch Number:	2LANDA1191
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93906	Analysis Date:	7/8/2013

Net Weight	80100.0 g		
Pu mass	4.86E+000	+- 7.62E-001	g
TRU Alpha Activity	4.60E+000	+- 7.15E-001	Ci
TRU Activity Concentration	5.75E+004	+- 8.92E+003	nCi/g
Pu-239 Equivalent Activity	4.62E+000	+- 7.15E-001	Ci
Pu-239 FGE	4.59E+000	+- 7.59E-001	g
Decay heat	1.53E-001	+- 2.39E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.61E-007
U233	<LLD	<LLD	0.00E+000	5.10E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.71E-006
NP237	8.40E-002	6.00E-005	1.00E-005	2.70E-006
PU238	5.34E-004	9.24E-003	2.02E-003	6.22E-004
U238	<LLD	<LLD	0.00E+000	1.11E-005
PU239	4.54E+000	2.86E-001	4.77E-002	1.92E-002
PU240	3.08E-001	7.07E-002	1.54E-002	4.76E-003
AM241	1.22E+000	4.24E+000	7.13E-001	4.57E-002
PU241	6.80E-003	7.07E-001	1.55E-001	4.75E-002
PU242	1.56E-003	6.18E-006	1.35E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: [signature] Date: 7-15-13

ITR: [signature] Date: 7/17/13

Automated Independent Technical Review

Count Sequence Number: 16137 Batch Number: 2LANDA1191
Counter ID: HENC #2
Container ID: 93906
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/8/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 7-15-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **93906**

BDR Number: **LA13FG12061**

Sampling Date: **7/12/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	8.15	U
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130712c\
Data File : 93906.D
Acq On : 12 Jul 2013 2:19 pm (#1); 12 Jul 2013 2:18 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 12 14:23:26 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0081
Examination Date:	7/3/2013
Waste Container ID:	93907
Video/Audio Recorded Media Number:	LA-HERTR-13-0081 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 172.5 kg Tare Wt.: 33.4 kg Net Wt.: 139.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 93907

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	41.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	92.0
Soils (S):	
Total WMP Weight:	139.1

CCP Radiography Data Sheet

Waste Container ID: 93907

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?.	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Michael Simmons		7/3/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93907	Count Sequence Number:	16134
Operator:	DCLTD231\Operator		
Assay Start:	7/8/2013 9:58:30 AM		
Description 1:	2LANDA1191		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 139.0 kg	Net:	139.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.890 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16134	Batch Number:	2LANDA1191
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93907	Analysis Date:	7/8/2013

Net Weight	139000.0 g		
Pu mass	4.67E+000	+-	2.33E+000 g
TRU Alpha Activity	5.96E+000	+-	3.11E+000 Ci
TRU Activity Concentration	4.29E+004	+-	2.23E+004 nCi/g
Pu-239 Equivalent Activity	5.97E+000	+-	3.11E+000 Ci
Pu-239 FGE	4.41E+000	+-	2.17E+000 g
Decay heat	1.98E-001	+-	1.04E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	8.48E-002	6.05E-005	1.29E-005	3.06E-006
PU238	5.13E-004	8.88E-003	4.42E-003	4.05E-005
PU239	4.36E+000	2.74E-001	1.37E-001	1.25E-003
PU240	2.95E-001	6.79E-002	3.38E-002	3.10E-004
AM241	1.62E+000	5.61E+000	3.10E+000	4.62E-002
PU241	6.53E-003	6.79E-001	3.38E-001	3.10E-003
PU242	1.50E-003	5.93E-006	2.96E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.11E-007
U233	<LLD	<LLD	0.00E+000	5.61E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.04E-006
U238	<LLD	<LLD	0.00E+000	1.34E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 7-15-13

ITR: Jim Barton Date: 7/17/13

Automated Independent Technical Review

Count Sequence Number: 16134 Batch Number: 2LANDA1191
Counter ID: HENC #2
Container ID: 93907
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/8/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 7-9-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **93907**

BDR Number: **LA13FG12060**

Sampling Date: **7/11/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	8.15	U
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130711C\
Data File : 93907.D
Acq On : 11 Jul 2013 12:40 pm (#1); 11 Jul 2013 12:39 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 11 12:51:02 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S816915

S816915

Container Profile 762965

File Options Reports Help

S816915

762965	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S816915

- S816915
  - 93901 – EMPTY
  - 93900

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
99.9989555	%			

Working Copy
Date: 6-26-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S816915

6.2[4] Date Processed: 6-26-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brandon Chacon / [signature] 2047012 / 6-26-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S8169/5

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 399.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): Ø lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 399.8 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S816915

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93900			
10.1[4]	Daughter Drum Filter No.	KM-569		N	
10.1[4]	Daughter Drum Bag Filter No.	L-6803			
10.1[4]	Daughter Drum Purchase Order No.	501103		A	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured.		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead			
10.3[9][A]	PCB-contaminated Waste Description	N A			
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S816915

Comments: cans, plastic, Lead, kitty litter, Salts, Sludge

11.1[1] Performed By: Brandon Chaver / [signature] 1307742 / 6-26-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Clayton Mullins [signature] 1240092 / 7/30/13 2117
SOS or designee (print) Signature Z # Date/Time

6-25-13 JC

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: S01329
Lot No.: 0235015
Manufacture Date: B

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100150	035561
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	+-4% cw & +-6% ccw	+-3% cw & +-6% ccw

Overpack filtered vent information:

Manufacturer: MECFIL
Model No.: OFL
Serial No.: EL 279
Manufacture Date: 5/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5.[11] Performed By: IAN MARQUEZ / [signature] 1276701 6-25-13
Waste Handling Technician (print) Signature Z# Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: IAN MARQUEZ / [signature] 1276701 6-25-13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 240092 7/30/13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 6-26-13

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 93901

7.[24] Overpack drum closure ring torque wrench information:
M&TE No.: 038373
Cal. Expiration Date: 9-11-13
Range in ft-lb: 10-80
Tolerance: ± 3% cw ± 6% ccw

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez / [signature] 1241792 / 6-26-13
Waste Handling Technician (print) Signature Z # Date

7.[27] Overpack drum closure ring torque value: 60 ft-lb

7.[30] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[35][D] 85-gal overpack drum gross weight (lb): 188.6 lb

Comments: N/C.

8.1[1] Performed By: Brandon Chavez / [signature] 1241792 / 6-26-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [signature] 1240091 / 7/30/13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 93900

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501103
Lot #: 0234766
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: LCPVC 1.5 2SPVC
Serial #: L-6803
Date of Manufacture: 1/13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: KM-569
Date of Manufacture: 11/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	~~40~~ 10-80
Tolerance:	±40/cw ±6%cw	Tolerance:	~~±40/~~ ±6%cw ±3%cw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: MICHAEL MONTOYA Signature: [signature] Z#: 191352

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.0
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: MICHAEL MONTOYA Operator Sign: [signature] Z#: 191352 Date: 6/25/13

Verifier Print: Brandon Chavez Verifier Sign: [signature] Z#: 204742 Date: 6-26-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 93900

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038373

Cal expiration date: 9-11-13

Range/ Value (ft-lbs): 10-80

Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

✓ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 421.2

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: Brandon Chavez Date 6-26-13

Verifier Print/Sign: JOE QUINTANA Date: 6/26/13

Best Available Copy

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816915 Container Type: 55-GAL Gross Weight (lbs): 403
Inner Seal #: 011380 Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS
Total PE-Ci Activity: 4.23E-01 Equivalent Combustible PE-Ci: 1.59E-01 AM-241 PE-Ci: 3.43E-02
Total Fissile Gram Equivalents: 4.7 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008* D007 D009 VE 12/11/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 5/4/2012 Comment: > 1% liquid at bottom
Certified RTR Comment: None
Prohibited Items: Sealed > 4 Liters ✓ Liquid Pressurized Container Impenetrable Item Other
Security Determination: ✓ Green Yellow
Remediation Determination: VE ☑ PID Split Repack
Estimated 30-cm Dose Rate (mrem/hr): ✓ <100 VE 11/29/12 ☐ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: None Production Control Comments: Nitrate Salts apply mixture EPA codes.

Performed By: Julie Gallegos (Production Control (Print)) / Julie Gallegos (Signature) / 176905 (Z Number) / 10/18/12 (Date)

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes ☒ No Unknown
Processing Determination: ✓ Accept Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 34.3# Generator info shows 1 item of nitrate salts weighing 258#. No RTR BDR available for review. Nitrate salts are typically packaged in plastic bags + can contain undocumented liquids. RTR PS shows presence of liquids. Nitrate salts require repack w/ admixture. No chemicals identified; nitrate salts carry waste codes for chromium, lead, + mercury.

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 12/12/12 (Date)

TRU Remediation Operations

✓ Waste Container Information Evaluated ☐ Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use hexamaxx gloves during processing.
Processing Determination: ☑ Accept Reject
TRU Remediation Operations Comments: USE Proper PPE. Use proper ratio of kitty litter to waste in accordance with the procedure.
Performed By: Gilbert Mte (TRU Remediation Operations (Print)) / [signature] (Signature) / 149235 (Z Number) / 6/19/13 (Date)
Jose Perez / [signature] / 221452 / 6/21/13

HS REVIEW: RB 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 011380

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS-445-F1	117.27	NITRATE SALTS		4.96	52	5/11	
		117.27 kg						

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: March 18 2013

Container No. (5.[1])	S816915					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A 3/18/13

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments:
n/a

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 176905 (Z #) 3/18/13 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130318c\
Data File : S816915.D
Acq On : 18 Mar 2013 1:10 pm (#1); 18 Mar 2013 1:09 pm (#2)
Operator : SA
Sample :
LastName : Unit 8
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED FILTER-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 18 13:17:46 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.253	96	2381321	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2101294	179.50 ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Mon Mar 18 13:18:02 2013

6-24-13
0400 Assuming WCRRF operations area-clearance
0002 Starting outside rounds
0015 Pre-job briefing being conducted by SDS
0024 Item #3 is unsat, FSR in place ok to proceed.
0036 Outside rounds complete.
0700 Attending mandatory safety meeting at physics auditori
0900 mandatory safety meeting concluded leaving back on site
0901 Starting inside rounds.
0932 Inside rounds complete
0950 pick change performed TASD-69 and WCRRF yard now in operations.
1000 Starting movement into transport vehicle, Permission granted to lower vehicle across gates.
1019 Starting bag on of S816915
1035 Completed bag on
1036 Vehicle across gates have been restored, movement out of SD-69 WCRRF yard complete.
1210 bagging off S816915, bagging on S816374
1241 Bag on, Bag off complete
1320 maintenance entering TASD-69 to fix restroom in changeroom
1351 maintenance requesting custodians to come and clean up water on the floor from restroom and asking that a Out of Order sign be put on restroom. He will be submitting a request from facilities supervisor so restroom can be fixed.
1411 Custodians entering SD-69 to clean up water.
1500 Starting movement into SD-69
1526 Completed movement into SD-69
1610 Starting inside rounds
1636 Item #3 is OOS, POD in place okay to proceed
1638 Starting outside rounds.
1656 Item #3 is unsat, FSR in place okay to proceed
1730 Bagging off daughter, FOD approval to leave claim of WCCT.
1812 Inside cleaner. Performed TASD-69 and WCRRF yard in operation

0600 Reviewed previous shift turnover and assumed the WCRR SOM position. [signature]
0615 Attended the pre-job briefing conducted by the SOS. RP-1 discussed small WCG spot bags are throwing high dose, they need to be changed out during the next glove changes. Off-going SOS voice concern on stations 1,3,7,8. Operators keep an eye on these stations. Look out for creases near thumbs of gloves and in between fingers. One shipment scheduled from WCRR to Area G.
0700 Shift Brief with TA54 SOM.
0715 SOM off site to attend monthly safety meeting.
0900 SOM back on site. Performing on-line trainings on WDAS.
0950 Mode change complete. WCRR YARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.
1035 Bagging on first drum of the day.
1045 Turning over SOM duties W/I to John Guadagnoli. [signature]
1043 Assumed the SOM duties under instruction [signature]
1100 Reviewed, approved and released work package 50-54-[illegible]-01 Setup light fixture to support WCRF [signature] W/I
1200 Call in with update to OM and PM [signature] W/I
1250 Operators break for lunch [signature] W/I
1350 Operators return from lunch to initiate processing [signature] W/I
1400 Operators report that the change room is flooded due to a leak in the restroom, RCT requested operators not to change in the water and not to track the water into Rm 102. [signature] W/I
1445 Custodial cleaned up the water and maintenance is securing parts to repair the toilet. The toilet is noted out of service current conditions [signature]
1645 Operators report they are ½ complete with parent drum SE163174 they also report all liquid has been processed. SOS is evaluating length of time to complete [signature] W/I
1719 Turned the SOM duties W/I - back to Genevieve Fernandez [signature]
1719 Assuming the WCRR SOM duties back from J. Guadagnoli. [signature]
1735 SOM notified OM that FOD approval will not required for the second parent drum of the day, to leave it bagged on and all waste in a safe configuration.
1740 OM notified that FOD granted approval to leave parent drum bagged on.
1805 All waste is inside parent drum with lid on WCG is in a safe configuration.
1810 Mode change complete WCRR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM.
1830 Secure the SOM position. [signature]

No further entries this page

SIGNATURE [signature]

WCRR SOS Log Book

Updts

0600 Assuming SOS position for the day. [illegible]

0615 Starting Pre-Job. 1 shipment, 2 Parents inside for processing. Mandatory Safety meeting at 0730. All personnel attending.

0630 Concluded Pre-Job brief.

0700 All operators leaving for all hands meeting.

0900 Returning from all hands meeting.

0934 Reviewed and signed Inside and outside rounds.

0950 Mode change complete WCRR yard and 50-69 are in Operations.

1020 Bagging on first Parent for the day. Operators retaping bottom of the glove box.

1209 Bagging off first Parent, Bagging on second parent.

1250 Operators breaking for lunch.

1350 Operators headed back to continue processing

1400 Operators reporting that the change room is flooded due to a leak in the restroom. RCT's asking operators not to change in the water to try not to track the water into 50-69.

1445 Change room cleaned up and operators able to change to go in for processing. Maintenance aquiring parts for repairing. Toilet is placed as out of order.

1638 Bagging off one daughter and will be bagging on second daughter to continue processing.

1650 Bag off Complete

1724 Reviewed and signed rounds.

1725 Talked with operators processing, about 1/4 of the Parent remaining to process, all liquids have been solidified. PH not going to neutral after adding neutralizer. Recommended to SOM to request FOD aproval for leaving Parent bagged on overnight. Requeste operators to start placing operations in a safe configuration.

1745 Received FOD aproval to leave Parent bagged on overnight

1750 Bag off Complete of daughter. All material in a safe configuration.

1810 Mode Change. WCRR Yard and 50-69 are in WARM.

1825 Securing SOS position for the day. [illegible]

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0081
Examination Date:	7/3/2013
Waste Container ID:	93900
Video/Audio Recorded Media Number:	LA-HERTR-13-0081 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 191.0 kg Tare Wt.: 33.4 kg Net Wt.: 157.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 93900

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hand tools, metal hardware

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.9
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	18.4
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	130.3
Soils (S):	
Total WMP Weight:	157.6

CCP Radiography Data Sheet

Waste Container ID: 93900

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Michael Simmons		7/3/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93900	Count Sequence Number:	23165
Operator:	D3PW2DK1\operator		
Assay Start:	7/8/2013 1:22:37 PM		
Description 1:	1LANDA1804		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 158.0 kg	Net:	158.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.840 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23165
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 93900

Batch Number: 1LANDA1804
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/8/2013

Net Weight	158000.0 g		
Pu mass	6.02E+000	+-	1.72E+000 g
TRU Alpha Activity	2.99E+000	+-	1.40E+000 Ci
TRU Activity Concentration	1.89E+004	+-	8.89E+003 nCi/g
Pu-239 Equivalent Activity	3.00E+000	+-	1.40E+000 Ci
Pu-239 FGE	5.69E+000	+-	1.61E+000 g
Decay heat	9.88E-002	+-	4.69E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.79E-002	3.42E-005	7.09E-006	2.24E-006
PU238	5.52E-004	9.55E-003	2.72E-003	3.44E-005
PU239	5.65E+000	3.56E-001	1.01E-001	1.28E-003
PU240	3.61E-001	8.31E-002	2.37E-002	2.99E-004
AM241	7.31E-001	2.54E+000	1.40E+000	4.99E-002
PU241	7.02E-003	7.30E-001	2.08E-001	2.63E-003
PU242	1.21E-003	4.79E-006	1.36E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.16E-007
U233	<LLD	<LLD	0.00E+000	4.40E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.30E-006
U238	<LLD	<LLD	0.00E+000	9.57E-006

Errors quoted at 1.000 sigma

Operator: D E R.a Date: 7-11-13

ITR: Brett Triplett Date: 7-12-13

Automated Independent Technical Review

Count Sequence Number: 23165 Batch Number: 1LANDA1804
Counter ID: MCS HENC #1
Container ID: 93900
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/8/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	Ok
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	

Comments	Disposition
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 7-9-13

Waste Container ID: **93900**

BDR Number: **LA13FG12061**

Sampling Date: **7/12/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	76.90	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130712c\
Data File : 93900.D
Acq On : 12 Jul 2013 2:13 pm (#1); 12 Jul 2013 2:11 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 12 14:17:22 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	21935m	76.90	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

45

S818255

S818255

Container Profile 760780

File Options Reports Help

S818255

760780	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S818255

S818255
- LA00000068470
- LA00000068535 – EMPTY
- LA00000068493

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
49.99	%			

UET Working Copy
Date: 10-23-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5818255

6.2[4] Date Processed: 10-23-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established: ☑ N/A
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) _____ (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Baron Gallegos / [signature] / 267129 10-23-13
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5818255

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 460.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 82.8 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 543.0 lb

6.2[7] **(S)** Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. ____ / N/A / ____
Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

____ / N/A ____ / ____ / ____
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5818255

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68470	68493		
10.1[4]	Daughter Drum Filter No.	LH-279	LH-373		A
10.1[4]	Daughter Drum Bag Filter No.	L-10311	L-10305	N	
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description			N	A
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	N		A	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	3 GALLONS	1 LITER		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N A	N A		A
10.3[9][B]	PCB Item ID No.			N	
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	30%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER	KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S818255

Comments: ROOM TRASH, PLASTICS, KITTY LITTER, NITRATE SALTS, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 10-23-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / [signature] / 240092 / 10/23/13 1655
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 10-4-13 JL

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	1002116	038369
Cal. Expiration Date:	12/18/13	12/18/13
Tolerance:	+/- 4% cw and +/- 6% ccw	+/- 3% cw and +/- 6% ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1044
Manufacture Date: 10/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: Justin Lopez / [signature] Z# 1266938 Date 10-4-13
Waste Handling Technician (print) Signature

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Justin Lopez / [signature] Z# 1266938 Date 10-4-13
Waste Handling Technician (print) Signature

8.1[6] Reviewed By: Clayton Mullins / [signature] Z# 240097 Date 10/23/13
Supervisor or designee (print) Signature

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68535

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-06-14
Range in ft-lb: 10-80
Tolerance: ±3% CW ±6% CCW

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / Bri Hallag / 2671279 10-23-13
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019063
Platform scale calibration expiration date:

7.[34][D] 85-gal overpack drum gross weight (lb): 174.4 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Bri Hallag / 2671279 10-23-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / CM / 240092 10/23/13
Supervisor or designee (print) Signature Z # Date

9/11/13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68470

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2PVC
Serial No.: L-10311
Manufacture Date: 5/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	028369
Cal. Expiration Date:	12/18/13	12/18/13
Range in ft-lb:	40-200	10-80
Tolerance:	+/- 4% CW +/- 6% CCW	+/- 3% CW +/- 6% CCW

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chavez / [signature] 1204242 / 9-24-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NuCFil
Model No.: 019DS
Serial No.: LM279
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68470

Comments: N/C

5.[35] Performed By: Brandon Chavez / [signature] 204772 / 9-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 124002 / 10/23/13
Supervisor or designee (print) Signature Z # Date

Date: 10-22-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68470

6.[9] Drum closure ring torque wrench information:

M&TE No.: 037418
Cal. Expiration Date: 3-06-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Beau Gallegos / [signature] / 267129
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Range in ft-lb:	N/A	N/A
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: _____ / _____ / _____ / _____
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68470

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 462 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: n/c

6.[32] Performed By: [illegible] | [illegible] | 122532 | 10/23/13
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Clayton Mullins | [illegible] | 240092 | 10/23/13
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 10-1-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68493

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: LCPVC 1.5-25PVC
Serial No.: L-10305
Manufacture Date: 5/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%CW ±6%CCW	±3%CW ±6%CCW

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: MICHAEL MONTOYA / [signature] 191357 10/01/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-373
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68493

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA / [signature] 191352 / 10/01/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 1240094 10/23/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 10-23-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68493

6.[9] Drum closure ring torque wrench information:

M&TE No.: 037418
Cal. Expiration Date: 3-06-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: BRIAN GALLEGOS / Bri Gallegos / 1261129 / 10-23-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:	N/A	N/A
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / /
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68493

6.[26] * Scale File ID number: 019065 *

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 168.5 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: [illegible] [signature] 1223864 10-23-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [signature] 1240092 10/23/13
Supervisor or designee (print) Signature Z # Date

Inspected SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S818255 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 388.7415
Total PE-Ci Activity: 2.22E+00 Equivalent Combustible PE-Ci: 8.31E-01
Total Fissile Gram Equivalents: 2.45E+01 Total Surface Dose Rate (mrem/hr): 18
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

RTR pre-screen indicates ~16 gallons of liquid, sealed container >4L, & unvented liner.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 326 lbs. and generator data shows 3 items of nitrate salts with weights ranging from 62 – 179 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Jose J. Ruiz (Signature) | 100681 (Z#) | 7/30/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, mercury, chromium & gas from liquids

Performed By: Johnny Smallwood (IHS Representative (Print)) | Johnny Smallwood (Signature) | 241659 (Z#) | 7-31-13 (Date)

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No

Engineering Comments: NA

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Valerie Rhodes (Signature) | 112609 (Z#) | 8/5/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And Kitty Litter Ratio

Performed By: G Martinez (TRU Operations (Print)) | G M. (Signature) | 149235 (Z#) | 8/12/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use heavy duty gloves during processing. Use tools when possible to handle waste.

Approved By: Jose Jerez (OM or designee (Print)) | Jose Jerez (Signature) | 221452 (Z#) | 8-12-13 (Date)

Discardable Waste Log Sheet

DrumID: 011388

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS-449-F1	28.18	NITRATE SALTS		7.25	52	5 11	
2	IXFS-450-F1	81.35	NITRATE SALTS		5.69	52	5 11	
3	IXFS-451-F1	38.63	NITRATE SALTS		12.63	52	5 11	
		148.16 kg						

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 5/28/13

Container No. (5.[1])	S8187555					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	072					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	3.79 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	917.57 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero, 236973
CCP (Print) Z#

Reviewed By: Rick Jagielski, 266088
CCP (Print) Z#

Comments:

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Susan Ramsey, Susan S. Ramsey, 100681, 5/28/13
Waste Handling Operator (print) / Signature Z# Date

InstName : Unit 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S818255.D
Acq On : 28 May 2013 1:58 pm (#1); 28-May-13, 13:57:46 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NucFil-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 28 14:09:11 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.552	96	3917500	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.887	117	3331392	177.00	ppmv	-0.01
Target Compounds						Qvalue
1) Hydrogen	1.604	GC1	1546	217.52	ppmv	100
12) Benzene	3.232	78	46120	3.29	ppmv	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Tue May 28 14:10:00 2013

Best Available Copy

10-23-13

0600 Assuming WCRR operations center. - JColeman

0615 Pre-job being conducted by SOS.

0616 Late entry at 0610, outside rounds were started. JC

0624 Beginning inside rounds.

0635 Pre job concluded.

0649 Item #63 is OOS, okay to proceed per CSE documentation.

0708 Late entry at 0705, inside rounds complete. JC

0725 Both rounds reviewed by SOS.

0726 Late entry at 0705, outside rounds complete. JC

0733 Mode change completed. We are now in operations in WCRRF yard and 50-69.

JC 10-23-13 ~~0734~~ 0741 Bagging on drum #8018255

0744 Initiating a drum movement from transportainer to 50-69.

0753 Bag on complete.

0755 Drum movement into 50-69 complete.

0756 Being relieved by CCO, Clarissa Velarde. - JColeman

0757 Assuming WCRRF operations center. - CVelarde

0830 Starting movement out of 50-69.

0851 movement out of 50-69 is complete.

0910 Bagging off 2 daughters, Bagging on 9955677

0940 Bag on, Bag off complete

1107 Bagging off 1 daughter, Bagging on another

1117 Bag on, Bag off complete

1145 Bagging off, Bagging on 9855290

1210 Bag on, ~~Bag~~ 1215 Bag off complete

1333 Bagging off 1 daughter, Bagging on another

1340 Starting movement out of 50-69.

1400 Bag on, Bag off is complete. movement out of 50-69 is complete

1435 Bagging off, Bagging on 9854616

1458 Bag on, Bag off complete Starting movement into 50-69

1536 movement into 50-69 complete

1655 Starting outside rounds

1702 Starting inside rounds

- Continued on next pg -

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10-23-13 - Continued from previous page Orlando
1722 Completed outside rounds.
1730 Item #43 is OOS, POD in place okay to proceed per documentation.
1740 Late entry at 1633 bagging off 1 daughter, Bagging on 1 daughter. Orlando
1743 Bagging off last drum of the day.
1802 Bag off complete
1810 Forms signed off by SDS.
1820 Mode change performed TA50-69 and WCRRF now in warm stand by
23-01 8:30 End of day (CRRF Operations) entry is specific Orlando

Refer to next entry this page.

.9

c 49

0-23 13

0600 Assumed the WCRR SOM Position, [illegible]

0632 Completed the pre-job brief conducted by the SOS (Clayton)
The safety topic was bullying and safety of LADDERS
There are no transfers scheduled in or out. Roles and responsibilities were assigned. Attitude topic was discussed by the SOM.

0705 Completed the call in to MCEA & to update POD - scheduled activities.

0725 The SOS signed off the rounds after reviewing. SOM reviewed and signed off.

0733 Made Change i WCRR Yard and WCRR Facility transition from warm/warm to operations/operations.
Approval to perform procedural work is authorized by the SOM.

0741 Inside Operators report initiating bag-on of Parent train 5EE255

0743 Bag-on was noted completed.

0758 Notification was received from the CM that 30 gallon lid restraints will require FED approval prior to use. New restraints are being procured and will be issued after certification.

0803 Operators report bagging off 2 daughters and bagging on Parent 5855427

0940 Bag on and bag off was reported completed. Ops continue to process

1003 Craft supervisor requested review of slings, schackles and lift devices to evaluate to ensure none expire in October. Notification was made to the SOS.

1145 Operators initiate bag off and bag on of Parent 5855240

1210 Bagoff was noted completed. Rotation of personnel through lunch conducted

1215 Completed the noon call in, with SOM, OM, providing facility update.

1333 Bagging off 1 daughter, bagging on another - continue operations

1340 Outside movement from 5E/6E to transportation initiated

1400 Bag on - Bag off complete and movement out of yard complete

1435 Bagging off, Bagging on 5E5466

1458 Bag off and Bag on completed, observing outside operators move cars with RCT report to obtain RAD survey for coastal transfer

1650 Completed observing RAD surveys and placing containers back into the area.

1810 All bagoffs were completed and the WCC is in a safe configuration

1820 Made Change i WCRR Yard and WCRR transition from Operations/Operations to warm/warm

1825 Secured the SOM position [illegible]

No further entries this page [illegible]

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10/23/13 WCRR SOS Log Book

0600 Assuming SOS position. CA

0615 Starting Pre-Job discussed ladder safety and anti-bullying, being respectful of others. Also ~~Trep~~ cm 10-23-13 keeping a positive attitude while at work and out of work.

0635 Pre-Job complete.

0725 Signed off on the rounds.

0733 Mode change complete, WCRRF yard and 50-69 are now in Operations.

0741 Bagging on 5818255.

0744 Starting drum movement into 50-69.

0753 Bag on complete.

0755 ~~0756~~ Movement in complete.

0830 ~~0756~~ cm 10-23-13 Starting movement out of 50-69. cm 10-23-13

0902 Bagging off 2 daughters, bagging on 5855677

0940 Bag off/on complete.

1055 Bagging off 1st daughter, bagging on a 2nd.

1117 Bag off/on complete.

1145 Bagging off 2nd daughter, bagging on 5855290

1210 Bag off/on complete.

1333 Bagging off 1st daughter, bagging on a 2nd.

1340 Starting movement out of 50-69.

1400 Bag off/on complete. Also move out complete.

1435 Bagging off 2nd daughter, bagging on 5845616.

1458 Bag off/on complete. Also starting movement into 50-69.

1536 Move in complete.

1633 Bagging off first daughter, bagging on a 2nd.

1644 Bag off/on complete.

1743 Bagging off 2nd daughter to complete processing.

1802 Bag off complete

1810 Signed off on the rounds.

1820 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby.

1825 Securing SOS position for the day. CA

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68470
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 210.0 kg Tare Wt.: 33.4 kg Net Wt.: 176.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68470

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, plastic lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	160.6
Soils (S):	
Total WMP Weight:	176.6

CCP Radiography Data Sheet

Waste Container ID: 68470

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Benito Maestas		10/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68470	Count Sequence Number:	23754
Operator:	D3PW2DK1\operator		
Assay Start:	10/30/2013 11:51:04 AM		
Description 1:	1LANDA1856		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 177.0 kg	Net:	177.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.950 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23754
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68470

Batch Number: 1LANDA1856
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/30/2013

Net Weight	177000.0 g		
Pu mass	1.61E+001	+-	8.10E+000 g
TRU Alpha Activity	7.69E+000	+-	4.58E+000 Ci
TRU Activity Concentration	4.34E+004	+-	2.59E+004 nCi/g
Pu-239 Equivalent Activity	7.72E+000	+-	4.58E+000 Ci
Pu-239 FGE	1.52E+001	+-	8.08E+000 g
Decay heat	2.53E-001	+-	1.52E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.77E-007
U233	<LLD	<LLD	0.00E+000	7.24E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.19E-006
NP237	1.13E-001	7.99E-005	1.78E-005	3.62E-006
PU238	1.47E-003	2.51E-002	1.38E-002	1.02E-003
U238	<LLD	<LLD	0.00E+000	1.70E-005
PU239	1.51E+001	9.36E-001	5.01E-001	3.79E-002
PU240	9.65E-001	2.19E-001	1.21E-001	8.88E-003
AM241	1.90E+000	6.51E+000	4.55E+000	1.21E-001
PU241	1.85E-002	1.90E+000	1.05E+000	7.71E-002
PU242	3.22E-003	1.27E-005	7.04E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/31/13

ITR: _____ Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23754 Batch Number: 1LANDA1856
Counter ID: MCS HENC #1
Container ID: 68470
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 10-31-13

Waste Container ID: **68470**

BDR Number: **LA13FG2114**

Sampling Date: **11/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68470.D
Acq On : 8 Nov 2013 12:47 pm (#1); 08-Nov-13, 12:46:44 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 12:55:30 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.571	96	5108919	205.75 ppmv	0.05
15) Chlorobenzene-d5	5.878	117	3888588	177.50 ppmv	0.02

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0119
Examination Date:	10/28/2013
Waste Container ID:	68493
Video/Audio Recorded Media Number:	LA-RTR2-13-0119 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 76.0 kg Tare Wt.: 33.4 kg Net Wt.: 42.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	40 %

CCP Radiography Data Sheet

Waste Container ID: 68493

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic sheeting

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	36.6
Soils (S):	
Total WMP Weight:	42.6

CCP Radiography Data Sheet

Waste Container ID: 68493

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	BM 10-29-13 [X] Yes ~~[X]~~ No BM 10-29-13
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [X] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[ ] Yes [X] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [X] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [X] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [X] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [X] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [X] No
Is there an indication of PCBs liquids?	[ ] Yes [X] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [X] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [X] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [X] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [X] No
Are there sealed containers GREATER than 4 liters?	[ ] Yes [X] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [X] No

Comments: ~~N/A~~ BM 10-29-13

I AGREE THERE IS APPROXIMATELY 15ML OF LIQUID IN THE FOLDS OF A PLASTIC BAG AT 25'. BM 10-29-13

RTR Operator:		
		10.29.13
Benito Maestas		10/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68493	Count Sequence Number:	23746
Operator:	D3PW2DK1\operator		
Assay Start:	10/29/2013 3:08:31 PM		
Description 1:	1LANDA1855		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 42.6 kg	Net:	42.6 kg
Container:	Volume: 208.0 l	Full:	40.0 %
Density:	0.510 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

@6/17/14 032

NDA 2000 Assay Report

Item Information

Item ID:	68493	Count Sequence Number:	23746
Operator:	D3PW2DK1\operator		
Assay Start:	10/29/2013 3:08:31 PM		
Description 1:	1LANDA1855		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 42.6 kg	Net:	42.6 kg
Container:	Volume: 208.0 l	Full:	40.0 %
Density:	0.510 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

SUPERSEDED

6/19/14

6/19/14 032A

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23746
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68493

Batch Number: 1LANDA1855
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/29/2013

Net Weight	42600.0 g		
Pu mass	5.75E+000	+-	1.02E+000 g
TRU Alpha Activity	1.60E+000	+-	2.18E-001 Ci
TRU Activity Concentration	3.75E+004	+-	5.12E+003 nCi/g
Pu-239 Equivalent Activity	1.61E+000	+-	2.18E-001 Ci
Pu-239 FGE	5.43E+000	+-	9.60E-001 g
Decay heat	5.23E-002	+-	7.21E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.17E-002	1.53E-005	2.38E-006	1.12E-006
PU238	5.26E-004	8.99E-003	1.60E-003	3.46E-005
PU239	5.40E+000	3.35E-001	5.95E-002	1.29E-003
PU240	3.45E-001	7.84E-002	1.39E-002	3.02E-004
AM241	3.43E-001	1.18E+000	2.09E-001	4.54E-003
PU241	6.61E-003	6.81E-001	1.21E-001	2.62E-003
PU242	1.15E-003	4.55E-006	8.09E-007	0.00E+000
SR90	4.30E-009	5.93E-007	2.90E-007	0.00E+000
CS137	6.83E-009	5.93E-007	2.90E-007	3.15E-007
U233	<LLD	<LLD	0.00E+000	2.12E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.02E-007
U238	<LLD	<LLD	0.00E+000	6.46E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6-6-14

ITR: [signature] Date: 6-10-14

CD 6/17/11

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23746
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68493

Batch Number: 1LANDA185B
Location: LANL TA-55
Software Version: NDA 3000 V 4.0
Analysis Date: 10/29/2013

Net Weight	42600.0 g		
Pu mass	5.75E+000	+-	1.02E+000 g
TRU Alpha Activity	4.78E-001	+-	6.20E-002 Ci
TRU Activity Concentration	1.12E+004	+-	1.45E+003 nCi/g
Pu-239 Equivalent Activity	4.90E-001	+-	6.20E-002 Ci
Pu-239 FGE	5.42E+000	+-	9.60E-001 g
Decay heat	1.50E-002	+-	1.93E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.17E-002	1.53E-005	2.38E-006	1.12E-006
PU238	5.26E-004	8.99E-003	1.60E-003	3.46E-005
PU239	5.40E+000	3.35E-001	5.95E-002	1.29E-003
PU240	3.45E-001	7.84E-002	1.39E-002	3.02E-004
AM241	1.62E-002	5.55E-002	9.86E-003	2.14E-004
PU241	6.61E-003	6.81E-001	1.21E-001	2.62E-003
PU242	1.15E-003	4.55E-006	8.09E-007	0.00E+000
SR90	4.30E-009	5.93E-007	2.90E-007	0.00E+000
CS137	6.83E-009	5.93E-007	2.90E-007	3.15E-007
U233	<LLD	<LLD	0.00E+000	2.12E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.02E-007
U238	<LLD	<LLD	0.00E+000	6.46E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 10/31/13

ITR: [signature] Date: 10-31-13

SUPERSEDED QS 6/17/14

QS 6/17/14 033A

Automated Independent Technical Review

Count Sequence Number: 23746 Batch Number: 1LANDA1855
Counter ID: MCS HENC #1
Container ID: 68493
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/29/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma analysis.

Expert Review by: Bart B. Marah Date: 6/3/14

034
CJ 6/17/14 ~~034~~
CJ 6/17/14

SUPERSEDED

Automated Independent Technical Review

Count Sequence Number: 23746
Batch Number: 1LANDA1855
Counter ID: MCS HENC #1
Container ID: 68493
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 10/29/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 10-30-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68493**

BDR Number: **LA13FG2114**

Sampling Date: **11/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68493.D
Acq On : 8 Nov 2013 1:44 pm (#1); 08-Nov-13, 13:43:40 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 13:52:10 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.539	96	4413001	205.75 ppmv	0.02
15) Chlorobenzene-d5	5.852	117	3419904	177.50 ppmv	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S818354

S818354

Container Profile 759438

File Options Reports Help

S818354

759438	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S818354

S818354
- 93887 - EMPTY
- 93886
- 93885
- 93884
- 93883

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
24.999738875	%			

UET Working Copy
Date: 6-24-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 3818354

6.2[4] Date Processed: 6-24-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☐ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brian Gallegos / B. Gallegos 267129 6-24-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5818354

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 392.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 512.8 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5818354

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93883	N		
10.1[4]	Daughter Drum Filter No.	KM-554		A	
10.1[4]	Daughter Drum Bag Filter No.	L-6851			
10.1[4]	Daughter Drum Purchase Order No.	501103			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP	BOP	
	Model No.	3CPVC1.5-25PVC	3CPVC1.5-25PVC	3CPVC1.5-25PVC	
	Serial No.	L-8572	L-6488	L-6801	
	Date of Manufacture	01/13	01/13	01/13	
10.2[5]	POC ID No	93884	93885	93886	
10.2[7][B]/10.2[6]	POC Item Description	NITRATE SALTS, PLASTIC	NITRATE SALTS	NITRATE SALTS	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	267129 BG	267129 BG	267129 BG	N
10.2[14]	POC Assembly Gross Weight (lb)	395.0	418.6	396.2	
10.2[15]	POC Rad. Survey Results (mrem/hr)	1800	2000	900	
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	
10.3[5][A]	Free Liquid Volume/Units	2 GALLONS	6 oz.	4 oz.	
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING			
10.3[9][A]	PCB-contaminated Waste Description	N/A			A
10.3[9][B]	PCB Item ID No.		N		
10.3[10]	Remaining Waste Description	SEE COMMENTS		A	
10.3[13]/10.4[10]/10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	BAG OUT STUBS			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 8818354

Comments: ROOM TRASH, PLASTICS, NITRATE SALTS, KITTY LITTER, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 6-24-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: G Mk / [signature] / 1492351 / 6/28/13 / 1031
SOS or designee (print) Signature Z # Date/Time

Best Available Copy

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 6-21-13

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501325
Lot No.: 0238025
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Tolerance:	+/- 4% CW +/- 6% CCW	+/- 3% CW +/- 6% CCW

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JC 1808
Manufacture Date: 10/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: JOE QUINTANA / Joe Quintana 239987 6/21/13
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: JOE QUINTANA / Joe Quintana 239987 / 6/21/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: G Mz / [signature] 149235 6/28/12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 6-24-13 JC

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 93887

7.[24] Overpack drum closure ring torque wrench information:
- M&TE No.: 038373
- Cal. Expiration Date: 9-11-13
- Range in ft-lb: 10-80
- Tolerance: ±3% cw ±6% ccw

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / B. Gallegos / 2671291 6-24-13
Waste Handling Technician (print) Signature Z # Date

7.[27] Overpack drum closure ring torque value: 60 ft-lb

7.[30] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[35][D] 85-gal overpack drum gross weight (lb): 167.2 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / B. Gallegos / 2671291 6-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Mk / [signature] / 1492351 6/28/13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 93883

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501103
Lot #: 0234765
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: Bop
Model #: 60PVC1-52SPVC
Serial #: L-68851
Date of Manufacture: 1-13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: KM-554
Date of Manufacture: 11-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4%cw ±6%ccw	Tolerance:	±8%cw ±6%ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: Brandon Chavez Signature: [signature] Z#: 204742

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 75.8
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Brandon Chavez Operator Sign: [signature] Z#: 204742 Date: 6-21-13

Verifier Print: Brian Gallegos Verifier Sign: [signature] Z#: 267129 Date: 6-24-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 93883

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038373

Cal expiration date: 9-11-13

Range/ Value (ft-lbs): 10-80

--- Tolerance ±3% CW I 6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 252.8

Scale ID#: 019065

Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: B. Dollinger Date: 6-24-13

Verifier Print/Sign: [illegible] Date: 6-24-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S818354 Container Type: 55-GAL Gross Weight (lbs): 403

Inner Seal #: 011309 Filter Prefix: None Filter Serial #: None

AK Waste Stream: LA-CIN01.001 Certified RTR BDR: LA-HERTR-12-0092

TWSR Comments: LEACHED SOLIDS

Total PE-Ci Activity: 5.19E+00 Equivalent Combustible PE-Ci: 1.95E+00 AM-241 PE-Ci: 4.21E-01

Total Fissile Gram Equivalents: 57.3 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D009 ML 12/11/12

NCR RTR/NDA Comment: LANL: remediate-3 GAL. of prohibited liquid at 23" to 32"

RTR Pre-Screen Date: 6/23/2007 Comment: Impenetrable Obj.

Certified RTR Comment: Prohibited Liquid

Prohibited Items: ☐ Sealed > 4 Liters ✓ Liquid Pressurized Container ✓ Impenetrable Item ✓ Other

Security Determination: ✓ Green Yellow

Remediation Determination: VE ✓ PID Split Repack

Estimated 30-cm Dose Rate (mrem/hr): <100 ☐ >100 and <1,000 >1,000 and <10,000 >10,000

TRUCON Code: None Production Control Comments: Nitrate Salts apply mixture & EPA codes.

Performed By: Julie Gallegos (Production Control (Print)) Julie Gallegos (Signature) / 176905 (Z Number) 10/18/12 (Date)

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes ✓ No Unknown

Processing Determination: ✓ Accept Reject

WDP Engineering Comments: Nitrate Salts
Net Wt: 343# Generator info shows 2 items of nitrate salts, weights range from 44-121#. RTR BDR shows plastic bags + heterogeneous solids. It also shows prohibited liquids + lead-lined drum. Nitrate Salts, requires repack w/ admixture. No chemicals identified, nitrate salts carries waste codes for chromium, lead + mercury

Performed By: Valerie Rhodes (WDP Engineering (Print)) Valerie Rhodes (Signature) 112607 (Z Number) 12/12/12 (Date)

TRU Remediation Operations

✓ Waste Container Information Evaluated Less Than 170 lbs RTR Video Available

Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.

Processing Determination: ✓ Accept Reject

TRU Remediation Operations Comments: USE Proper PPE. Use proper ratio of kitty litter to waste in accordance with the procedure.

Performed By: Gilbert Mk (TRU Remediation Operations (Print)) (Signature) 149255 (Z Number) 6/19/13 (Date)

Jose Jerez (Signature) 221452 6/21/13

IHS Reviews ML 206342 12.17.12

Discardable Waste Log Sheet

DrumID: 011309

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS-458-F1	43.87	NITRATE SALTS		21.84	52	5/11	
2	DXFS-459-F1	20.23	NITRATE SALTS		15.42	52	5/11	
3	DXFS-460-F1	54.78	NITRATE SALTS		23.67	52	5/11	
		118.88 kg						

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0092
Examination Date:	8/27/2012
Waste Container ID:	S818354
Video/Audio Recorded Media Number:	LA-HERTR-12-0092 E&F
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-1571-12 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 177.0 kg Tare Wt.: 60.1 kg Net Wt.: 116.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Lead Lined: Fiberboard Liner: [X] No [ ] Yes [ ] No [X] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: S818354

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous Solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag, 90-mil liner with lid	9.4
Others: Lead Lined (LP)	23.0
Total Packaging Weight	60.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	112.9
Soils (S):	
Total WMP Weight:	116.9

CCP Radiography Data Sheet

Waste Container ID: S818354

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	[X] Yes [ ] No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [X] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[X] Yes [ ] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [X] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [X] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [X] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [X] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [X] No
Is there an indication of PCBs liquids?	[ ] Yes [X] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [X] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [X] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [X] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [X] No
Are there sealed containers GREATER than 4 liters?	[ ] Yes [X] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [X] No

Comments:CCP-SO-LANL-55 Inconsistencies associated with these packaging configurations (90-mil liner with lid) will not disqualify the container from meeting the waste stream description. NCR-LANL-1571-12

RTR Operator:

Eric Lyles		8/27/2012
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: Feb 21 2013

Container No. (5.[1])	S818354					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	219.99 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Nathan Wales (CCP (Print)) / 238166 (Z#)

Reviewed By: Sara Aragon (CCP (Print)) / 237975 (Z#)

Comments: N/a

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) / Julie Gallegos (Signature) / 170905 (Z#) / 2-23 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130221c\
Data File : S818354.D
Acq On : 21 Feb 2013 12:16 pm (#1); 21 Feb 2013 12:14 pm (#2)
Operator : NW
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 21 12:20:37 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Feb 21 08:46:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.930	GC1	62748	219.99	ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

H2 CH4.M Thu Feb 21 12:21:12 2013 UNIT12

6-24-13

0600 Assuming WCRR operations center. JCollman
0634 Beginning outside rounds.
0644 Item #3 is unsat, FSR in place, okay to proceed.
0650 Beginning inside rounds.
0652 Outside rounds complete.
0711 Item #63 is OOS, POD in place, okay to proceed.
0714 Inside rounds complete.
0825 Beginning glove changes on stations 1, 2, 7, 8 both hands.
0936 Late entry at 0800, both rounds reviewed by SOS. JC
0937 Mode changed from warm standby to operations in WCRRF yard and 50-69
0943 Bagging on S830776.
0947 Bag on is complete.
1210 Operators out for lunch.
1315 Bagging off 2 daughters and 1 POC, bagging on S855911.
1348 Initiating a drum movement from transportainer to 50-69.
1349 Late entry at 0935, glove changes complete. JC at 1255, operators resuming operations after lunch. JC
1401 Drum movement into 50-69 complete.
1411 Bag off/on complete.
1500 Beginning outside rounds. Beginning inside rounds.
1502 Item #3 is unsat, FSR in place, okay to proceed.
1513 Item #3 is OOS, POD in place, okay to proceed.
1515 Outside rounds complete.
1520 Inside rounds complete.
1553 Bagging off 2 daughters, bagging on S818354.
1616 Both rounds reviewed by SOS.
1633 Bag off/on complete.
1738 Bagging off 1 daughter and 3 POC's.
1838 Bag off complete.
1845 Mode changed to warm standby in WCRRF yard and 50-69.
1900 End of day. OCO position secured. JCollman

6-24-13 JCollman 6-24-13

No further entries this page.

0645 ASSUMED SOM WATCH [illegible] FOR 6-24-13.
0615 PREJOB. TO BEGIN DAY WITH GLOVE CHANGES. LOTO TRAINING AT 0900 FOR SOM, SOS etc.
0640 MONT CALL IN
0702 SHIFT BRIEF
0702 LOTO TRAINING
0930 GLOVE CHANGES COMPLETE. (STATIONS 1, 2, 7 AND 8)
0937 MODE CHANGE AT WCRR WARM/WARM TO OPERATION/OPERATION FOR SITE/50-69
0943 BADGED ON FIRST PATIENT.
1845 MODE CHANGE AT WCRR FROM OPERATIONAL/OPERATIONAL TO WARM/WARM FOR SITE/50-69 LATE MODE CHANGE DUE TO PIC ISSUE AT THE END OF SHIFT. HAD TO DO AN EXTRA POC WILL QUIT EARLY TOMORROW.
1850 SECURE SOM SHIFT.

PGM 3

NO FURTHER ENTRIES THIS PAGE

6/24/13 WCCR SOS LOG BOOK

0600 Assuming SOS Position. [illegible]

0615 ~~[illegible]~~ Conducted shift brief disscussed Fork Lift operations and drums Inside Also need to do Glove changes on station 1,2,7 and 8. prior to operations

0640 shift brief conducted.

0852 Beginning Glove changes on station 1,2,7 and 8

0853 Late entry signed off Inside and outside Rounds [illegible] 0800

0937 Mode change Complete WCCRF In operations. Late entries

[illegible] Completed Glove Change 0935. [illegible]

0943 Bagging on 5830776

0947 Bag on Complete

1210 Operators breaking for lunch

1315 Bagging off 2 daughters and 1 POC bagging on 5855811

1411 Bag off/on Complete.

1553 Bagging off 2 daughters bagging on 5818354

1616 reviewed Inside And outside Rounds

1633 bag off/on complete

1938 bagging off last drum of day

1838 bags off complete

1845 Mode Change Complete WCCRF In warm.

6/24/13 1855 Securing Position [illegible]

no Further entries on this page

Best Available Copy

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0079
Examination Date:	6/28/2013
Waste Container ID:	93883
Video/Audio Recorded Media Number:	LA-HERTR-13-0079 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 114.5 kg Tare Wt.: 33.4 kg Net Wt.: 81.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	55 %

CCP Radiography Data Sheet

Waste Container ID: 93883

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hand tools

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, 90 mil liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	27.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	47.6
Soils (S):	
Total WMP Weight:	81.1

CCP Radiography Data Sheet

Waste Container ID: 93883

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	[X] Yes [ ] No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [X] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[ ] Yes [X] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [X] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [X] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [X] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [X] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [X] No
Is there an indication of PCBs liquids?	[ ] Yes [X] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [X] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [X] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [X] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [X] No
Are there sealed containers GREATER than 4 liters?	[ ] Yes [X] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [X] No
Comments: N/A	

RTR Operator:

Michael Simmons		6/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93883	Count Sequence Number:	16111
Operator:	DCLTD231\Operator		
Assay Start:	7/1/2013 2:51:51 PM		
Description 1:	2LANDA1188		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 81.1 kg	Net:	81.1 kg
Container:	Volume: 208.0 l	Full:	55.0 %
Density:	0.710 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16111	Batch Number:	2LANDA1188
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93883	Analysis Date:	7/1/2013

Net Weight	81100.0 g		
Pu mass	2.72E+001	+- 6.13E+000	g
TRU Alpha Activity	1.09E+001	+- 1.70E+000	Ci
TRU Activity Concentration	1.35E+005	+- 2.10E+004	nCi/g
Pu-239 Equivalent Activity	1.10E+001	+- 1.70E+000	Ci
Pu-239 FGE	2.57E+001	+- 5.75E+000	g
Decay heat	3.60E-001	+- 5.67E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.14E-001	8.13E-005	1.52E-005	5.55E-006
PU238	2.49E-003	4.31E-002	9.72E-003	3.50E-005
PU239	2.55E+001	1.61E+000	3.62E-001	1.30E-003
PU240	1.63E+000	3.75E-001	8.46E-002	3.05E-004
AM241	2.56E+000	8.89E+000	1.66E+000	7.15E-002
PU241	3.17E-002	3.30E+000	7.44E-001	2.68E-003
PU242	5.45E-003	2.16E-005	4.87E-006	0.00E+000
SR90	1.86E-006	2.56E-004	4.78E-005	0.00E+000
CS137	2.92E-006	2.56E-004	4.78E-005	1.71E-006
U233	<LLD	<LLD	0.00E+000	1.05E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.02E-006
U238	<LLD	<LLD	0.00E+000	1.83E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-10-2013

ITR: _____ Date: 7-11-13

Automated Independent Technical Review

Count Sequence Number: 16111 Batch Number: 2LANDA1188
Counter ID: HENC #2
Container ID: 93883
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 7-8-13

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Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **93883**

BDR Number: **LA13FG12058**

Sampling Date: **7/3/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	214.25	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130703c\
Data File : 93883.D
Acq On : 3 Jul 2013 10:42 am (#1); 3 Jul 2013 10:40 am (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum through Filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 03 10:45:59 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	61114m	214.25	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0079
Examination Date:	6/28/2013
Waste Container ID:	93884
Video/Audio Recorded Media Number:	LA-HERTR-13-0079 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 175.0 kg Tare Wt.: 145.1 kg Net Wt.: 29.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 93884

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
AM:	
OM:	
OI:	
C:	
R:	
XPM:	
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	29.9
Soils (S):	
Total WMP Weight:	29.9

CCP Radiography Data Sheet

Waste Container ID: 93884

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid therefore, the liner is vented.

RTR Operator:

Michael Simmons		6/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93884	Count Sequence Number:	16106
Operator:	DCLTD231\Operator		
Assay Start:	7/1/2013 11:12:11 AM		
Description 1:	2LANDA1188		
Description 2:	POC = 175.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 29.9 kg	Net:	29.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.745 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16106	Batch Number:	2LANDA1188
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93884	Analysis Date:	7/1/2013

Net Weight	29900.0 g		
Pu mass	7.81E+000	+-	2.57E+000 g
TRU Alpha Activity	6.89E+000	+-	1.22E+000 Ci
TRU Activity Concentration	2.30E+005	+-	4.09E+004 nCi/g
Pu-239 Equivalent Activity	6.91E+000	+-	1.22E+000 Ci
Pu-239 FGE	7.40E+000	+-	2.41E+000 g
Decay heat	2.29E-001	+-	4.08E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	9.18E-002	6.56E-005	1.26E-005	3.96E-006
PU238	7.16E-004	1.24E-002	4.07E-003	3.50E-005
PU239	7.33E+000	4.61E-001	1.51E-001	1.30E-003
PU240	4.69E-001	1.08E-001	3.54E-002	3.05E-004
AM241	1.82E+000	6.31E+000	1.21E+000	1.45E-001
PU241	9.12E-003	9.48E-001	3.11E-001	2.68E-003
PU242	1.56E-003	6.21E-006	2.04E-006	0.00E+000
SR90	4.10E-007	5.66E-005	1.09E-005	0.00E+000
CS137	6.46E-007	5.66E-005	1.09E-005	9.68E-007
U233	<LLD	<LLD	0.00E+000	7.22E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.30E-006
U238	<LLD	<LLD	0.00E+000	1.26E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-10-2013

ITR: _____ Date: 7-11-13

Automated Independent Technical Review

Count Sequence Number: 16106 Batch Number: 2LANDA1188
Counter ID: HENC #2
Container ID: 93884
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	Ok
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok

Comments	Disposition
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 7-8-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **93884**

BDR Number: **LA13FG12058**

Sampling Date: **7/3/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	263.48	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130703c\
Data File : 93884.D
Acq On : 3 Jul 2013 11:07 am (#1); 3 Jul 2013 11:06 am (#2)
Operator : EL
Sample :
Misc : POC through Drum Filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 03 11:11:35 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	75158m	263.48	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0079
Examination Date:	6/28/2013
Waste Container ID:	93885
Video/Audio Recorded Media Number:	LA-HERTR-13-0079 E&F
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 177.0 kg Tare Wt.: 145.1 kg Net Wt.: 31.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 93885

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	24.4
Soils (S):	
Total WMP Weight:	31.9

CCP Radiography Data Sheet

Waste Container ID: 93885

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid therefore, the liner is vented.

RTR Operator:

Michael Simmons		6/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93885	Count Sequence Number:	16104
Operator:	DCLTD231\Operator		
Assay Start:	7/1/2013 9:44:10 AM		
Description 1:	2LANDA1188		
Description 2:	POC = 177.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 31.9 kg	Net:	31.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.756 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16104	Batch Number:	2LANDA1188
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	93885	Analysis Date:	7/1/2013

Net Weight	31900.0 g		
Pu mass	1.33E+001	+-	4.82E+000 g
TRU Alpha Activity	1.01E+001	+-	1.78E+000 Ci
TRU Activity Concentration	3.16E+005	+-	5.59E+004 nCi/g
Pu-239 Equivalent Activity	1.01E+001	+-	1.78E+000 Ci
Pu-239 FGE	1.26E+001	+-	4.52E+000 g
Decay heat	3.34E-001	+-	5.95E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.12E-001	7.99E-005	1.56E-005	8.06E-006
PU238	1.22E-003	2.10E-002	7.64E-003	3.50E-005
PU239	1.25E+001	7.83E-001	2.84E-001	1.30E-003
PU240	7.96E-001	1.83E-001	6.65E-002	3.05E-004
AM241	2.61E+000	9.08E+000	1.76E+000	3.33E-001
PU241	1.55E-002	1.61E+000	5.85E-001	2.68E-003
PU242	2.66E-003	1.05E-005	3.83E-006	0.00E+000
SR90	4.31E-006	5.95E-004	1.15E-004	0.00E+000
CS137	6.79E-006	5.95E-004	1.15E-004	2.39E-006
U233	<LLD	<LLD	0.00E+000	1.52E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.31E-006
U238	<LLD	<LLD	0.00E+000	2.17E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-10-2013

ITR: _____ Date: 7-11-13

Automated Independent Technical Review

Count Sequence Number: 16104 Batch Number: 2LANDA1188
Counter ID: HENC #2
Container ID: 93885
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 7-8-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **93885**

BDR Number: **LA13FG12058**

Sampling Date: **7/3/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	109.94	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130703c\
Data File : 93885.D
Acq On : 3 Jul 2013 11:14 am (#1); 3 Jul 2013 11:12 am (#2)
Operator : EL
Sample :
Misc : POC through Drum Filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 03 11:17:57 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.897	GC1	31360m	109.94	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0080
Examination Date:	7/1/2013
Waste Container ID:	93886
Video/Audio Recorded Media Number:	LA-HERTR-13-0080 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 180.5 kg Tare Wt.: 145.1 kg Net Wt.: 35.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 93886

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid, Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	29.4
Soils (S):	
Total WMP Weight:	35.4

CCP Radiography Data Sheet

Waste Container ID: 93886

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:Standard Pipe Overpack Container (P.O.C.)
There is separation between liner lid and liner therefore liner is vented.

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	7/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93886	Count Sequence Number:	23144
Operator:	D3PW2DK1\operator		
Assay Start:	7/2/2013 1:39:59 PM		
Description 1:	1LANDA1802		
Description 2:	POC Gross = 180.5		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 35.4 kg	Net:	35.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.773 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23144
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 93886

Batch Number: 1LANDA1802
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/2/2013

Net Weight	35400.0 g		
Pu mass	1.72E+001	+-	1.32E+001 g
TRU Alpha Activity	8.04E+000	+-	1.58E+000 Ci
TRU Activity Concentration	2.27E+005	+-	4.47E+004 nCi/g
Pu-239 Equivalent Activity	8.08E+000	+-	1.58E+000 Ci
Pu-239 FGE	1.63E+001	+-	1.32E+001 g
Decay heat	2.66E-001	+-	5.18E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	8.67E-007	1.20E-004	2.37E-005	0.00E+000
CS137	1.36E-006	1.20E-004	2.37E-005	2.00E-006
U233	<LLD	<LLD	0.00E+000	8.81E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.49E-006
NP237	1.23E-001	8.78E-005	1.73E-005	4.37E-006
PU238	1.58E-003	2.73E-002	2.26E-002	1.37E-003
U238	<LLD	<LLD	0.00E+000	1.57E-005
PU239	1.62E+001	1.02E+000	8.31E-001	5.11E-002
PU240	1.03E+000	2.38E-001	1.97E-001	1.19E-002
AM241	1.95E+000	6.76E+000	1.33E+000	2.83E-001
PU241	2.01E-002	2.09E+000	1.73E+000	1.05E-001
PU242	3.45E-003	1.37E-005	1.14E-005	0.00E+000

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 7-11-13

ITR: [illegible] Date: 7-12-2013

Automated Independent Technical Review

Count Sequence Number: 23144 Batch Number: 1LANDA1802
Counter ID: MCS HENC #1
Container ID: 93886
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/2/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 7-3-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **93886**

BDR Number: **LA13FG12061**

Sampling Date: **7/12/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	203.73	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130712c\
Data File : 93886.D
Acq On : 12 Jul 2013 2:33 pm (#1); 12 Jul 2013 2:31 pm (#2)
Operator : SA
Sample :
Misc : POC THROUGH DRUM FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 12 14:37:42 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.907	GC1	58115m	203.73	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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S818370

S818370

Container Profile 750847

File Options Reports Help

S818370

750847	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S818370

S818370
- 94089 – EMPTY
- 94088
- 94087

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
49.99947775	%			

Workarea Cleaned
Date: 7-29-13 EE

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S818370

6.2[4] Date Processed: 7-29-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☒ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☒ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D008 D007 D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☒ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☒ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☒ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☒ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☒ SAT ☐ UNSAT ☐ N/A

Performed By: Edward Martinez [signature] 123411 7-29-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5818370

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 398.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 518.2 lb

6.2[7] (S) Total Parent Drum Weight ≤ 624 lb (SR 4.5.1): ☒ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A

EWMO-FOD (print)	Signature	Z #	Date
		/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5818370

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	94087	94088		
10.1[4]	Daughter Drum Filter No.	KL-513	KL-523	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-8223	L-8197		
10.1[4]	Daughter Drum Purchase Order No.	501103	501103		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☒ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☒ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 gallons	1 gallon		
10.3[7][A]	Opaque/Non-penetrable Item Description:	~~lead shielding~~ N/A	lead shielding		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comment	see comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	70%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter stuff outs	Kitty litter plastic, Hex-drumers		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S818370

Comments: plastic, nitrate salts, kitty litter
stub outs, poly lid

11.1[1] Performed By: Clayton Mullins / CM / 240094 / 7/30/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] / R21452 / 8/14/13 0404
SOS or designee (print) Signature Z # Date/Time

Working Copy
7.29.13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Tolerance:		

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: EK-1132
Manufacture Date: 5/10

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. N/A Yes N/A No

5. [11] Performed By: N/A / / /
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: N/A in-lb

5. [18] 2-in. bung plug torque value: N/A ft-lb

Comments: NO PREPED AT TASO

8.1[1] Performed By: Edward Mt / 239911 / 7-29-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Perez / 221452 / 8-14-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

7-29-13

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94089

7.[24] Overpack drum closure ring torque wrench information:
M&TE No.: 038373
Cal. Expiration Date: 09/11/13
Range in ft-lb: 10 - 80
Tolerance: +/-3% cw and +/-6% CCW

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☒ Yes ☐ No

Performed By: Edward Martinez / [signature] / 223444 / 7-29-13
Waste Handling Technician (print) Signature Z # Date

7.[27] Overpack drum closure ring torque value: 60 ft-lb

7.[30] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10/14/14

7.[35][D] 85-gal overpack drum gross weight (lb): 171.4 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins / [signature] / 240092 / 7/30/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez / [signature] / 221452 / 8/14/13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 94087

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501103
Lot #: 0234766
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: GC PVC 15-2-5 PV2
Serial #: L-8223
Date of Manufacture: 3-13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: Nucsil
Model #: 019DS
Serial #: KL-513
Date of Manufacture: 11-11

RECORD torque wench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+1-4% and 4 lbs	Tolerance:	+1-3% and +1-6 lbs

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate

[x] Yes [ ] No

Print Name: Jason S. Signature: Z#: 116662

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.4
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print:	Jason S.	Operator Sign:		Z#: 116662	Date: 7-25-13
Verifier Print:	Clayton Mullins	Verifier Sign:		Z#: 240091	Date: 7/30/13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 94087

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓Mount lid with filter directly over drum seam.

✓Install ring with bolt positioned downward and directly over drum seam.

✓Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 09/11/2013

Range/ Value (ft-lbs): 10-80

— Tolerance +/-3% CW and +/-6% CCW.

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓Place one yellow radioactive waste label between the top two rolling hoops

✓Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

✓Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): _____

Scale ID#: 019065

✓Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓Have RCT monitor drum prior to moving to storage area

✓Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓Complete TWSR.

Operator Print/Sign: Clayton Mullins Date 7/29/13
Kevin Belosak

Verifier Print/Sign: Kevin Belosak Date: 7/29/13

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 94088

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [ ] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
Purchase Request #: 501103
Lot #: 022-34766
Date of Manufacture: 2-13

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:
Manufacturer: BOP
Model #: LCPVC 1.5-2 SPUC
Serial #: L-8197
Date of Manufacture: 3-13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [ ] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: Nucfil
Model #: 019 DS
Serial #: KL-523
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:
MATE ID #: 100216
Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: +2%/cw +1.6%/ccw

Jam Nut / Bung torque wrench:
MATE ID #: 038369
Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 10-80
Tolerance: +1.3%/cw +1.6%/ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: James Sal Signature: [signature] ZS: 116662

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 762
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: James Sal Operator Sign: [signature] ZS: 116662 Date: 7-24-13
Verifier Print: Clayton Mullis Verifier Sign: [signature] ZS: 240092 Date: 7/30/13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 94088

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date 9/11/13

Range/ Value (ft-lbs): 10-80 / 60

— Tolerance ±3% cw / [illegible] ±6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 314.0

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: Clayton Mullins CA Date 7/30/13

Verifier Print/Sign: Joshua Cole Date: 7-30-13

Working Copy
Date: 7-29-13 EE

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5818370

6.3[15] ($) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☒ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 398.2

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☒ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Edward Martinez [signature] 1239941 7-29-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez [signature] 1221452 8-14-13
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Jose Jerez [signature] 1221452 8-14-13 0403
SOS/SOM or designee (print) Signature Z # Date Time

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S818370 Container Type: 55-GAL Gross Weight (lbs): 402
Inner Seal #: 011312 Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS
Total PE-Ci Activity: 3.42E+00 Equivalent Combustible PE-Ci: 1.28E+00 AM-241 PE-Ci: 2.78E-01
Total Fissile Gram Equivalents: 37.8 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D008 D007 D009 - ME 12/14/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 8/1/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 25
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☑ Liquid ☑ Pressurized Container ☑ Impenetrable Item ☑ Other
Security Determination: ✓ Green Yellow
Remediation Determination: VE ☑ PID Split Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 >10,000
TRUCON Code: None Production Control Comments: Nitrate Salts apply mixture + EPA codes

Performed By: Julie Gallegos (Production Control (Print)) Julie Gallegos (Signature) 176905 (Z Number) 10/18/12 (Date)

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 342# Generator info shows 4 items of nitrate salts; weights range from 15-68#. No RTR BDR available for review. Nitrate salts are typically packaged in plastic bags + can contain unbounded liquids. RTR PS shows presence of liquids + impenetrable object. Nitrate salts require repack w/ admixture. No chemicals identified; nitrate salts carry waste codes for chromium lead + mercury

Performed By: Valerie Rhodes (WDP Engineering (Print)) Valerie Rhodes (Signature) 116609 (Z Number) 12/12/12 (Date)

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy-duty gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE PROPER PPE Mix Ratio

Performed By: GMK (TRU Remediation Operations (Print)) (Signature) 149235 (Z Number) 6/19/13 (Date)
Jose Perez (Signature) 221452 6/20/13

IHS REVIEW: RB 206362 12.17.12

Document No: EP-DIV-AP-0107

Discardable Waste Log Sheet

DrumID: 011312

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	LXFS-461-F1	11.59	NITRATE SALTS		24.79	52	5·11	
2	LXFS-462	10.23	NITRATE SALTS		2.24	52	5 11	
3	LXFS-463	30.68	NITRATE SALTS		11.41	52	5 11	
4	LXFS-464	6.82	NITRATE SALTS		1.71	52	5 11	
		59.32 kg						

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: Feb 13 2013

Container No. (5.[1])	S818370					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	2.13.13 ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	838.76 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero (CCP (Print)) 236973 (Z#)

Reviewed By: Rick Jagielski (CCP (Print)) 266088 (Z#)

Comments: n/a

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 176905 (Z#) 2-13-13 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130213C\
Data File : S818370.D
Acq On : 13 Feb 2013 2:16 pm (#1); 13 Feb 2013 2:11 pm (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gal drum, through unobstructed Nucfil-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 13 14:19:48 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	5.746	GC1	207242m	838.76	ppm	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

H2-CH4.M Wed Feb 13 14:19:54 2013

PROJECT NAME 7-29-13 DAYSHIFT NOTEBOOK NO.

0600 Assumed the WCRR SOM Position. John Guadagnoli
Reviewed shift turnover checklist and reviewed SOM logbook.
0635 Completed attending the pre-job brief conducted by the SOS (Gilbert). All topics were discussed on the pre-job brief form. Activities planned include: A transfer in and out, partial valve alignment for ~~New~~ 7-24-30 procedure revised to include V-010 in TA-55 area. The safety topic was slip hazards be cautious in 50/65 for rain water. Shift Order WCR-SO-003-R2 - Drum movements was discussed.
0700 Performed daily POD phone call with AREA G for WCRR Facilities.
0719 RCT notifies the Operations Center OCO that contamination was detected around station 6. The room was red lit and personnel exited. Additional have been taken. RCTs will perform additional surveys, and will brief operators on the decon RWP. Re-liminary results indicate ~900dpm alpha removable.
0729 Inside Operator and RCT report that while the operator was removing his later anti C, he got a hang nail caught which peeled back skin on his right hand - ring finger - the RCT observed him clear the PCM-2 Operations Center OCO entered EP-WCRR-RM-AOP-0210 R5 for injured person. The OM was notified and will initiate notification to FOD and others
0735 Occ Med is notified and RP-1 Supervisor - lined up a wound count. Operator is in route to Occ Med with RCT and IH, OM is notified
0738 RCT reports that station 6 Right hand and SS ring require replacement, and DECON will be required around port. 956 alpha removable was noted on the ring also 170 beta removable noted.
0807 Energy Solutions Operations Manager (Leah) provided instruction for Operators to use HEX ARMORS when deconning, and proceed to change the glove and ring.
0816 The vehicle barrier gates were requested to be disconnected to allow transfer into the transfer vehicle. OCO granted permission per procedure.
0845 ES/IH and Operator returned from Occ Med and notified the Ops Center OCO that the wound count was NDA. The Operator is required to occlude the wound and will be restricted from the 50/65 AREA (no glovebox work) till further evaluated. Notification was made to the OM - Exited AOP-0210
0905 Lights begin to Flicker at Operations Center - LAN LINES go down, the PIC notifies the SOS, that Rm 103 lights are out. Also Rm 104 and CAMs went into power failure
0913 Lights are coming back on and RCTs are resetting CAMs.
0920 RCT notifies the Ops Center that CAMs are reset and sufficient.
0921 The transfer out was completed and vehicle barrier gates secured
0927 Inside Operators initiate glove changes and Ring change on Port 6 and decon
1005 EP-WCRR-FP-DOP-0303 R-5 WCRRF Monthly Fire Suppression Supply Valve Alignment Check - Partial - Valve alignment completed for V-010 (TA-55) noted satisfactory
1008 RP-1 Supervisor notified the OCO that they observed after glove change out on station 6 right Hand glove, a 1" cut, when stretching the glove where the cut was noted (inside elbow area) there were two pin holes. RP & Supervisor will initiate an RPO. RCTs initiated 50 smears.

No further entries this page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

PROJECT NAME 7-29-13 DAYSHIFT (Continued) NOTEBOOK NO.

1020 EMR - were contacted, and they were aware of the power glitches.
1036 Inside Operations report that the glove change is completed and post survey are reported NDA, when respirators are surveyed and results announced RCTs will notify OCO when secured.
1045 Mode Change 50-69 / yard transition from Cold/warm to Operations / Operations
1102 Discussed with Craft supervisor the status of the fork truck which was taken from WCRR on Friday, the PM on the fork truck was completed except for the Mag Flux inspection of the tines. Craft supervisor will work on transferring it back to WCRR to allow operations to utilize and the PM can be completed in the parking lot tomorrow. Operations are working on re-inventory to ensure 55's go into facility to allow bag-on without the use of a fork truck - required for de-nesting.
1115 Outside Operations completed characterization of aqueous spec of item,
1144 The movement into 50/69 was completed - 2-55 and 2-85s
1204 Participated in the Daily WCRR - noon phone call with OM and PM.
1208 The first bag on was completed. Parent drum S855320.
1221 Bag on is completed
1404 Operations initiate to lower vehicle barrier gate with permission from the Operations Center and unload transfer of TRU-drums. 15 drums to be received 8-are SP-57 and 7 are SP-72's. - SP-72s are noted to be Nitrates.
1516 Bag off of 1 daughter was completed and bagging on of 1 daughter an continue processing
1722 Operators inside report bagging off daughters and parent and bagging on Parent drum S855917.
1753 Bag off of a daughter and bag on of a daughter was completed
1755 RP-1 reported during bag on, of the parent drum, they noticed a small tear in the ~~glove~~ bag, RCTs placed tape over the tear. There was no contamination detected, additional smears are in progress, Operator are in full face respirators.
1809 Operations discussed and are OK with taping and initiate processing however, they will follow RCT instructions.
Completed shift turnover with on-coming - Nightshift SOM and and reviewed shift turnover checklist
1814 Secured the SOM position dayshift John Guadagnoli

No more entries this page

SIGNATURE DATE 20
READ AND UNDERSTOOD

1814 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

1820 Approved and posted shift operations watchbill for nightshift. attended prejob brief conducted by SOS. IH discussed safety topic related to injured person earlier today (hang-nail incident) pre-check yourself thoroughly prior to dressing out and if pre-dispositioned to dry hands there are creams/balms available to reduce cracking/hangnails, etc. Discussed need to perform glove/bag inspections as careful as possible to prevent contamination and/or using material that should be changed out or discarded prior to use.

2025 Notified by MSS that light plant outside the vehicle access gate (primary) was changed out due to the original not working correctly. Was informed this is their last available backup.

2050 Notified by MSS that backup light plant is not working.

2105 IH evaluated WCRR yard for lighting as is - is acceptable for ~~walking~~ 7/29/13 walkway and general use (rounds). Should drum movements be required will utilize portable light stands.

2127 MSS was able to restart light plant and is now working.

2155 Denesting 2 drums and bagging off 1 daughter from parent # 5855917 and bagging on 5818370.

2225 Operators paused bag off due to RP-1 identifying contamination on a booty.

2235 RP-1 surveyed area and localized contamination to only the one booty - on the bottom of it @ 1000 dpm/100cm² alpha. RWP not exceeded. Resuming bag off/on.

2244 Bag on/off completed - denesting of 2 drums completed.

2300 Identified light plant again is not energized - called MSS and they will investigate.

2338 Bagging off one daughter.

2340 Late Entry @ 2315 - MSS restored the light plant to operation. RA9

7/30/13 0000 Operators breaking for lunch.

0110 Resuming operations.

0155 Operators taking a pause due to elevated readings on station # 8 (R) hand glove - RP-1 investigating.

0220 RP-1 lead informed Ops center of station 8 glove - identified a small spot on right forearm of fixed contamination @ 1000 dpm/100cm² alpha. All other surrounding areas surveyed were NDA. Station # 8 (R) will not be used until glove is changed out near end of shift. There was no evidence of glove degredation. RWP not exceeded.

0311 All bag offs completed for parent 5818370 (2 daughters) and bagged on 5834654. Drum to remain closed until glove change out completed.

0318 Completed Mode Change: WCRR yard / Blds 50-69 from Operations / Operations to Warm / Warm.

SIGNATURE Continued on next page → DATE 20

301

PROJECT NAME 7/29/13 7/30/13 Night Shift cont. NOTEBOOK NO.

0408 Glove change out station # 8 (R) Hand is completed.
0416 Completed Mode Change: WCRR yard / Bldg 50-69 from Warm / Warm to Operations / Operations.
0535 Completed movement out of 8 drums from 50-69 to the transportainers.
0542 Late Entry @ 0530 - Operators bagging off 1 daughter and 1 POC and bagging on another POC.
0608 Secured Night Shift SOM position. Turned over SOM to J. Gandaghoti.

No further entries this page

SIGNATURE DATE 7/30 20 13
READ AND UNDERSTOOD DATE 20

7-29-13
0400 Assuming WCRRF operations center - Cholarde
0415 Pre job being conducted by SOS.
0620 Starting outside rounds.
0627 Item #3 is unsat, FSR in place OK to proceed.
0640 Starting inside rounds.
0700 Item 43 is OOS, POD in place, OK to proceed.
0708 Inside rounds complete
0714 notified by RCT that contamination has been found on glovebox around station 6, they will be red lighting the room and all operators will exit. RCT's will need to enter another RWP and will brief operators. SOS has been notified.
0719 Notified by RCT's and Operator #31 that while removing latex gloves on right hand some skin peeled off on ring finger and began to bleed. Entering EP-WCRR-RM-AOP-0210, SOS and ES OM have been notified.
0727 RCT supervisor will be notifying OCMed and will be transporting operator for wound count
0735 IH, RCT and operator headed to OCMed.
0738 RCTs notifying operations center that station 6 right hand will need to be changed out and will also need to replace steel band. Contamination levels are 9516 dpm alpha and 170 beta
0810 Inside and outside rounds have been signed off by SOS.
0816 Permission has been granted to lower vehicle access gates for shipment to area G.
0845 Operator has returned from OCMed, wound count is NOA and is restricted from glovebox and HJE work. Exiting EP-WCRR-RM-AOP-0210.
0900 Lights have turned off and on in 50-69 and 50-84.
0913 RCT's have reported that they have cam fault alarms.
0918 Restoring vehicle access gates have been restored shipment to area G is loaded.
— continued on next page cholarde

7-29-13 -Continued from previous page -Clelande
0927 Starting glove change on station 6.
0949 Starting valve alignment on valve 10 only.
0958 Partial valve alignment completed.
1008 RCTs have notified RPO center that there was a 1/2 inch cut with 2 holes on station 6 Right hand glove on the Right elbow with 2 little holes. RCTs will need to perform 50-60 smears around glovebox, RPO will be initiated
1020 EM&R was contacted and have said they are aware of power glitches around the site.
1030 Glove change is complete. Poot job airmen good.
1045 Mode Change being performed TA50-69 and WCRRF yard now in Operations.
1114 Starting monument into 50-69. 4 drums from transportainer
1144 monument into 50-69 is complete
1208 Bagging on 3855320
1221 Bag on is complete.
1404 Permission granted to lower vehicle access gates to unload shipment from area G.
1516 Bagging off 1 daughter and continuing to process
1533 Bag on, Bag off complete.
1604 Starting inside rounds.
1624 Item #43 is OOS, POD in place okay to proceed.
7-29-13 1626 Vehicle access gates have been restored, unloading of transport vehicle is complete.
1638 Completed inside rounds.
1642 Starting outside rounds.
1650 Item #3 is unsat, FSR in place OK to proceed.
1658 Outside rounds complete.
1714 Inside and outside rounds signed off SOS.
1733 Bagging off, Bagging on 3855917.
- Continued on next page - Clelande

7-29-3 Continued from previous page - Chelanda.
1753 Bag on, bag off complete.
1755 RCTs have notified operations center that a hole has been found while bagging on parent. Tape was put over it, no contamination and RCT's will perform surveys ~~AD~~ CV 7-29-13
1809 Shift turnover with OCO Gerald Espinoza - Chelanda
HP
PJ

no further entries this page

7-29-13

1810 Assuming WCRRF Operations Center. [illegible]
1813 Notified by RCT supervisor that all Smears are NDA.
1815 Prejob being Conducted by SOS.
1835 Prejob Concluded.
1855 Operators entering 50-69 to begin processing.
2025 Notified by maintnance that lights along Pecos were having problems as an action they swapped out the lights and they are now functioning correctly.
2050 Notified by maintnance that the second light plant is not lighting up. Notified IH, IH is inspecting area for lighting.
2155 Denesting 2 drums and bagging on S818370. Also bagged off 1 daughter.
2225 Operators paused bag off due to hot booty.
2235 Operators are resuming bag off.
2244 Completed bag off/on and denesting.
2338 Bagging off 1 daughter, bagging daughter #2 on.
2350 Bag off Completed.
2400 Operators exiting 50-69 for lunch.
0110 Operators entering 50-69 to resume operating.
0155 Operators on pause inside 50-69 due to RCT's smear on station 8 right hand.
0207 Operators are out of pause however RCT's have requested they put a port cover and that the glove be changed before use.
0242 Bagging off second daughter bagging on S834654.
0311 Bag off/on Complete.
0318 WCRRF Yard and 50-69 in Warm Standby mode change complete
0340 Starting glove Change on Station 8 right hand.
0408 Glove Change completed.
0415 Starting inside rounds.
0416 Mode change complete WCRRF Yard and 50-69 in Operations
0420 Started outside rounds.

-Continued on next page [illegible]

7/29/13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [signature]
0615 Conducted shift brief
0620 started rounds.
0640 Concluded shift brief
0714 notified by RCT's contamination was found around station 6 They will be exiting the facility and need to go over RWP for decon.
0719 RCTs notified that operator 31 while removing Gloves Finger began bleeding Entered EP-WCRR-RM-AOP-0210
0727 RCTs notified OC med Individual will need to be transported for evaluation.
0735 Operator transported to OC med
0738 RCTs notified station 6 Glove will need to be changed
0810 Reviewed Inside and outside Rounds.
0816 starting shipment to G.
0845 Operator returned From OC med Would cont WOA was released with Restrictions. Exiting EP-WCRR-RM-AOP-0210
0900 Power bump In 50-69 and 50-84.
0913 RCTs have reported that they have Cam Fault Alarms.
0918 Shipment to G Complete
0927 Starting Glove Change on station 6
0949 Started Valve Alignments on valve V-016
0958 Patial Valve Alignments Complete.
1008 RCTs notified that Glove on station 6 right had holes and a 1/2" cut will be Performing 50 smears and rpo will be Initiated.
1020 EM & R notified that are aware of Power bump.
1036 Glove Change Complete
1045 Mode change Complete WCRR In operations
1114 moved in 4 Drums from transportainers
1144 Move In Complete.
1208 bagging on 5855320
1221 bag on complete
1230 operator Breaking for lunch
1325 operators resuming operations
1404 Starting shipment In From G.
Contin...

7/22/17 Continued From next Page

1516 Bagging off 1 daughter And Continuing to Process

1533 Bag on/off complete

1604 Starting Rounds

1626 Shipment Complete

1714 Reviewed Inside And outside Rounds

1724 Bagging on/off bagging on 5855917

1751 Bag on/off Complete.

1755 RCTs notified that as they were bagging on The Percent drum Moving In the drum It Caught And the bag was Ripped bag was taped up no contamination detected swipes will be performed.

1805 Shift turnover with Clayton Mullins [illegible]

no further entries on this page

7-29-13

WCRR SOS Log Book

1800 Assuming SOS position for the evening, [illegible] Completed turnover with Gilbert Martinez, discussed contamination and glove change on station 6 and Parents for D-Nesting.

1815 Starting Pre-Job brief, processing parents. Parent that is bagged on has a tear in it, need to be cautious during the bag off. Also have 2 85 gallon Parents that will need to be D-Nested. Safety Topic discussed event that happened during the day shift with an operator that had a hang nail and needed to go to Occ Med for wound count. Occurred when he was taking off his glove.

1845 Concluded Pre-Job brief.

2155 D-nesting 2 85's and bagging on Parent. Bagged off Parent that was left bagged on from the day shift with one ~~parent~~ daughter 7-29-13

2225 Operators paused due to contamination found on an operators booty.

2235 Operators resuming to bag off

2244 Completed bag off and on, D-Nesting also Complete

2332 Bagging off one daughter, bagging on another daughter

2350 Bag off complete.

0000 Operators breaking for lunch

0100 Operators returning from lunch. Light plant in the back of the facility not working. SOM notified maintenance at 2300 about the issue.

0215 Notified by operations center of some minor contamination that the RCT's found around the right glove of station 8 RCT's recommending to change out and to not use until it has been changed. Directed operators not to use station 8 finish processing and will change it prior to shift end.

0242 Bagging off second daughter and bagging on second parent then performing glove change on station 8 Right hand.

0311 Bag on Bag off Complete.

.29-13
7-29-13

Continued from Previous Page.

0340 Starting glove Change on station 8 right hand.
0408 Glove Change complete
0416 Mode Change WCRR yard and 50-69 are in Operations.
0523 Reviewed and signed rounds.
0530 Bagging off one daughter and one POC, bagging on Second POC
0535 Movement of 8 daughters from 50-69 to Transportainer Complete.
0600 Securing SOS position for the evening, turning over to Gilbert Martinez. Jm Jy

No further entries on this Page.

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0097
Examination Date:	8/1/2013
Waste Container ID:	94087
Video/Audio Recorded Media Number:	LA-RTR2-13-0097 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 130.0 kg Tare Wt.: 33.4 kg Net Wt.: 96.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 94087

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Tape roll

R:

XPM: Plastic bags, liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	2.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.1
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	89.5
Soils (S):	
Total WMP Weight:	96.6

CCP Radiography Data Sheet

Waste Container ID: 94087

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Eric Lyles		8/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94087	Count Sequence Number:	16296
Operator:	DCLTD231\Operator		
Assay Start:	8/2/2013 11:10:11 AM		
Description 1:	2LANDA1204		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 96.6 kg	Net:	96.6 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.580 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16296	Batch Number:	2LANDA1204
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94087	Analysis Date:	8/2/2013

Net Weight	96600.0 g		
Pu mass	1.17E+001	+- 2.70E+000	g
TRU Alpha Activity	5.97E+000	+- 2.75E+000	Ci
TRU Activity Concentration	6.18E+004	+- 2.84E+004	nCi/g
Pu-239 Equivalent Activity	5.99E+000	+- 2.75E+000	Ci
Pu-239 FGE	1.10E+001	+- 2.54E+000	g
Decay heat	1.97E-001	+- 9.12E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	9.30E-002	6.56E-005	1.09E-005	2.98E-006
PU238	1.07E-003	1.83E-002	4.24E-003	3.48E-005
PU239	1.10E+001	6.79E-001	1.57E-001	1.29E-003
PU240	7.01E-001	1.59E-001	3.68E-002	3.03E-004
AM241	1.49E+000	5.11E+000	2.74E+000	4.91E-002
PU241	1.36E-002	1.40E+000	3.24E-001	2.66E-003
PU242	2.34E-003	9.24E-006	2.14E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.62E-007
U233	<LLD	<LLD	0.00E+000	5.53E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.83E-006
U238	<LLD	<LLD	0.00E+000	1.21E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 8-7-13

ITR: _____ Date: 8-8-13

Automated Independent Technical Review

Count Sequence Number: 16296 Batch Number: 2LANDA1204
Counter ID: HENC #2
Container ID: 94087
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/2/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 8-5-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **94087**

BDR Number: **LA13FG12072**

Sampling Date: **8/5/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	294.49	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130805c\
Data File : 94087.D
Acq On : 5 Aug 2013 12:20 pm (#1); 5 Aug 2013 12:18 pm (#2)
Operator : GR
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (NucFil-019DS) (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 05 12:25:54 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	84004m	294.49	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0097
Examination Date:	8/1/2013
Waste Container ID:	94088
Video/Audio Recorded Media Number:	LA-RTR2-13-0097 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 142.5 kg Tare Wt.: 33.4 kg Net Wt.: 109.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	60 %

CCP Radiography Data Sheet

Waste Container ID: 94088

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	15.0
Other Inorganic Materials (OI)	
Cellulosics (C):	1.0
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	91.1
Soils (S):	
Total WMP Weight:	109.1

CCP Radiography Data Sheet

Waste Container ID: 94088

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Eric Lyles		8/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94088	Count Sequence Number:	23360
Operator:	D3PW2DK1\operator		
Assay Start:	8/2/2013 11:47:39 AM		
Description 1:	1LANDA1821		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 109.1 kg	Net:	109.1 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.870 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23360
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 94088

Batch Number: 1LANDA1821
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 8/2/2013

Net Weight	109100.0 g		
Pu mass	2.19E+001	+-	7.51E+000 g
TRU Alpha Activity	1.82E+000	+-	4.55E-001 Ci
TRU Activity Concentration	1.67E+004	+-	4.17E+003 nCi/g
Pu-239 Equivalent Activity	1.87E+000	+-	4.55E-001 Ci
Pu-239 FGE	2.07E+001	+-	7.05E+000 g
Decay heat	5.73E-002	+-	1.42E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.52E-001	1.78E-004	3.75E-005	5.44E-006
PU238	2.01E-003	3.44E-002	1.18E-002	3.33E-005
PU239	2.06E+001	1.28E+000	4.37E-001	1.24E-003
PU240	1.32E+000	2.99E-001	1.02E-001	2.90E-004
AM241	6.14E-002	2.11E-001	7.21E-002	2.04E-004
PU241	2.55E-002	2.63E+000	8.99E-001	2.55E-003
PU242	4.39E-003	1.74E-005	5.94E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.60E-006
U233	<LLD	<LLD	0.00E+000	1.04E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.82E-006
U238	<LLD	<LLD	0.00E+000	3.01E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 8-6-13

ITR: [signature] Date: 8-8-13

Automated Independent Technical Review

Count Sequence Number: 23360 Batch Number: 1LANDA1821
Counter ID: MCS HENC #1
Container ID: 94088
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/2/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Results are marked as invalid.	

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 8-6-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **94088**

BDR Number: **LA13FG12072**

Sampling Date: **8/5/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	350.22	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130805c\
Data File : 94088.D
Acq On : 5 Aug 2013 12:28 pm (#1); 5 Aug 2013 12:26 pm (#2)
Operator : GR
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (NucFil-019DS) (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 05 12:32:49 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	99900m	350.22	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S8183382

S818382

Container Profile 747392

File Options Reports Help

S818382

747392	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S818382

- S818382
  - LA00000068568
  - LA00000068561
  - LA00000068533 – EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

Working Copy
Date: 10-31-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S818382

6.2[4] Date Processed: 10-31-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2)
☑ N/A
N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: [illegible] / [signature] / [illegible] / 10-31-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S818382

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 413.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 83 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 10-31-13 496.6 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A / /
Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A / / /
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5818382

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68561	68568		
10.1[4]	Daughter Drum Filter No.	KM-763	LM-843	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10285	L-10283		A
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture	N			
10.2[5]	POC ID No		N		
10.2[7][B]/10.2[6]	POC Item Description	A			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)			A	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N A		N	
10.3[5][A]	Free Liquid Volume/Units	L/GALLONS		A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead Shielding	Lead Shielding		
10.3[9][A]	PCB-contaminated Waste Description		N		
10.3[9][B]	PCB Item ID No.			A	
10.3[10]	Remaining Waste Description	See comments	See comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	90%	N	
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter plastic	Kaiwas plastics		A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S818382

Comments: Nitrate SALTS, PLASTIC & POLY LINER LIDS, Kitty Litter, Stubout BAGS, Room Trash, KNIVES, PLASTIC PIPES, Flex Removal Gloves,

11.1[1] Performed By: Justin Lopez / [signature] 1666436 / 11-1-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Perez / [signature] 1221452 / 11-1-13 0535
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-4-13 JC

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366-1
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Tolerance:	+/- 4% cw and +/- 6% ccw	+/- 2% cw and +/- 6% ccw

Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: Q13
Serial No.: JL-1043
Manufacture Date: 10/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: Justin Lopez / [signature] / 10-4-13
Waste Handling Technician (print) Signature Z# Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/A

8.1[1] Performed By: Justin Lopez / [signature] / 10-4-13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Jose Jerez / [signature] / 11-1-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date:_____

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68533

7.[23] Overpack drum closure ring torque wrench information:

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: ±3% cw ± 6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Justin Lopez / [signature] 1266439 11-1-13
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 166.0 lb

Comments: N/C

8.1[1] Performed By: Justin Lopez / [signature] 1266436 11-1-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Perez / [signature] 1221452 11-1-13
Supervisor or designee (print) Signature Z # Date

UET WORKING COPY
Date: 10/24/13 AE

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 685601

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpsc 1.5-2spsc
Serial No.: L-10285
Manufacture Date: 5-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	035369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200 in. lb	10-80
Tolerance:	+/- 4% cw 6% ccw	+/- 3% cw +/- 6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Steven Mandragin / Steven Mandragin / 100271 / 10-28-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: KM-763
Manufacture Date: 11/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32]* Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 685601

Comments: N/C

5.[35] Performed By: Steven Mondragon / Steven Mondragon 1104741 10-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez / Jose Jerez 1221421 11-1-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68561

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: +/-3% cw +/-6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Adam Segovia / / /
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

N/A

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☐ N/A

Performed By: / / /
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☐ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☐ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68561

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 330.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Adam Scgovia / [signature] / 276202 / 10-31-13
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Joe Jerez / [signature] / 122192 / 11-1-13
Supervisor or designee (print) / Signature / Z # / Date

UET Working Copy
Date: 10-24-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68568

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc 1.5-2 6spvc
Serial No.: L-10283
Manufacture Date: 5/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	088369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200 in. lb.	10-80
Tolerance:	+4% cw +6% ccw	+-3% cw +-6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Steven Mendragon (Operator (print)) | Steven Mendragon (Signature) | 110490 (Z#) | 10-28-13 (Date)

5.[23] Filtered vent information:
Manufacturer: Nurfil
Model No.: 019DS
Serial No.: LM-843
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 68568

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA / [signature] / 191352 / 10/24/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Perez / [signature] / 122142 / 11-1-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: * 68568

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: +-3%cw +-6%ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Justin Lopez / [signature] 1266436 11-1-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Justin Lopez / [signature] 1266436 11-1-13
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68568

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 390.0 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Justin Lopez / [signature] / 1266836 / 11-1-13
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Jose Jorez / [signature] / 1221421 / 11-1-13
Supervisor or designee (print) / Signature / Z # / Date

Inspected SP78

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S818382 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 419.832
Total PE-Ci Activity: 2.97E+00 Equivalent Combustible PE-Ci: 1.11E+00
Total Fissile Gram Equivalents: 3.28E+01 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

RTR pre-screen indicated ~ 4 gallons of free liquid.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 274 lbs. and generator data shows 6 items of nitrate salts with weights ranging from ~ 17-98 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 7/30/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, Chromium, Mercury heavy weight.

Performed By: Johnny Smallwood (IHS Representative (Print)) | Signature | 244659 (Z#) | 7-31-13 (Date)

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No

Engineering Comments: NA

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature | 112609 (Z#) | 8/5/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And Kitty Litter Ratio

Performed By: G Martinez (TRU Operations (Print)) | Signature | 149235 (Z#) | 8/12/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use heavyweight gloves during processing. Use tools when possible to handle waste.

Approved By: Jose Jerez (OM or designee (Print)) | Signature | 221452 (Z#) | 8-12-13 (Date)

Discardable Waste Log Sheet

DrumID: 11783

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS-452-F1	25.69	NITRATE SALTS		0	42	13/11	G-465
2	IXFS-453-F1	13.18	NITRATE SALTS		7.38	52	5/11	G-465
3	IXFS-454-F1	7.73	NITRATE SALTS		5.58	52	5/11	G-465
4	IXFS-455-F1	17.95	NITRATE SALTS		6.5	52	5/11	G-465
5	IXFS-456-F1	44.77	NITRATE SALTS		8.4	52	5/11	G-465
6	IXFS-457-F1	15.45	NITRATE SALTS		6.96	52	5/11	G-465
		124.77 kg						

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 5/21/13

Container No. (5.[1])	S818382					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

NA

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)), 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)), 238866 (Z #)

Comments:

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 5/22/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130521c\
Data File : S818382.D
Acq On : 21 May 2013 4:17 pm (#1); 21-May-13, 16:16:49 (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL DRUM THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 21 16:25:08 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.574	96	4029268	201.25 ppmv	0.00
15) Chlorobenzene-d5	5.907	117	3481092	177.00 ppmv	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) - signals summed

vocgas.m Tue May 21 16:25:15 2013

10/31/13 Night Shift

1815 Received shift turnover checklist and assumed WCRR SOM position.

1821 Completed Mode change for both WCRR Yard and Blds 50-69 from Operations to Warm Stby due to lack of personnel to meet operations workbill.

1852 Prejob brief was completed. Issues discussed was changes to WCG lead windows - Station #2 lower inner lead window was replaced completely - taped in place ~~at~~ MRG 10/31/13 instead of velcro'd due to not being correct size. Facility needs to be in Cold at end of shift for tomorrows scheduled maintenance. RP-1 will brief to monthly ~~Rcpbrief~~ MRG 10/31/13 required RWP briefings at end of lunch break. Briefed active shift orders

1948 Completed Mode Change: WCRR Yard and Blds 50-69 from Warm/Warm to Operations/Operations.

2238 Completed bag off of 1 daughter - continuing ~~pro~~ MRG 11/1/13 processing.

11/1/13 0000 Operators breaking for lunch.

0110 RCT is briefing operators to monthly processing RWP

0130 Completed RWP briefing. Resuming operations

0353 Completed all bag offs for parent # 5818382 (2 daughters total) Port cover is in place.

0535 Completed drum movement from 50-69 to transportainers. 50-69 is deinventoried.

0541 Completed Mode change: WCRR Yard / Blds 50-69 from Operations / Operations to Warm / Cold.

11/1/13 0615 Relieved by J. Gandagnoli as WCRR SOM.

No further entries this page MRG

PAGE ENTRY DATE

10/31/13 WKW SOS Log Book
0600 Assuming SOS Position [illegible]
0605 Conducted shift brief
0645 Shift brief Conducted
0700 Operators entering SO-65
0855 Bagging off 1 daughter 1 POC and bagging on Another Daughter
0856 Starting shipment out of SO-65
1020 Shipment out complete
1154 Bagging off ~~[illegible]~~ 3 POC's and 1 daughter
1250 Bag off complete
1444 Bagging off/on S8 18382
1500 Bag on/off Complete.
1610 Relieved by Darell Blain. [illegible]
1610 Assumed ~~SOM~~ SOS Position from Gilbert Martinez [illegible]
1615 Moved 12 empty LLW drums from the transportaness to the outside LLW Storage area.
1620 Received 12 empty 55 gallon drums and 12 empty 85 gallon drums.
1710 LATE Entry: 1335 RCT's and Operators brought to our attention that the small lead window on station 2 was cracked and missing a piece. After calls to the CSE, Jack Vigil and others it was determined to send out some bigger windows to get cut to size. A small lead window was found in the MLA storage and a plan was put together with CSE's approval to tape this window to station 2 over the cracked window. Crew is having difficulty in getting the tape to stick. One operators EPD ~~1715 Started move out of 15 drums~~ [illegible] 10-31-13 alarmed while working around station #2.
1715 Started movement out of 15 drums.
1740 Movement out complete
1750 Moving in 2 drums to the high bay.
1805 Move in 2 drums to high bay completed.
1815 Rounds completed. Inside and outside.
1820 Turn over SOS position to Jose Jerez. [illegible]

No further entries on this page
[illegible]

DATE | PROJECT NAME WRPM Log Book | NOTEBOOK NO.

10/31/13

1800 ~~0600~~ Assuming SOS position for the day. Turnover completed with off going SOS. Daniel Blain - [illegible]

1820 ~~0620~~ Starting Pre-Job, Prepping Mode to WRPM Due to not having enough personnel to complete a watchbill, the operator running late to fill the Tech 1 spot on the watchbill. Turnover completed with outgoing crew and discussions on the broken window inside the glove box and what was done to mitigate the issue. Two parents are in the high bay, needing to be prepared and pushed in. Everything inside has been prepped and ready for us to operate once mode change into operations is complete. Will need to go into COD at the end of the shift for maintenance scheduled for tomorrow. RWP brief to be conducted at lunch time for the monthly RWP.

1845 ~~0645~~ Pre-Job Completed.

1930 ~~0700~~ Operator on site to fill Tech 1 position on the watchbill will be able to go into operations to start processing.

1948 Mode Change WRPM yard and 50-69 are in Operations.

2226 Bagging off first daughter and bagging on second daughter to continue processing. Parent drum being processed is 5818382.

2238 Bag on/off complete.

2010 ~~1745~~ Operators breaking for lunch

0110 Operators being briefed for monthly RWP briefing

0130 RWP Briefing complete, Operator returning from lunch to continue processing. Parent 5818382.

0205 Reviewed and signed outside rounds

0330 ~~0340~~ Bagging off last daughter and Parent for the shift. Operators will be performing glove box maintenance, glove inspections, cleaning of the box and replacing of the tape in the bottom of the glovebox.

0351 Bag off complete. Port cover has been placed on the glove box. Starting glovebox maintenance.

0510 Initiating movement of waste material out of 50-69.

0527 Reviewed Inside rounds and signed

0535 Movement out of 50-69 is complete.

0541 Mode Change complete 50-69 in COD. WRPM Yard is in WRPM

0605 Performing turnover with on-coming SOS Daniel Blain. Securing SOS position for the day [illegible]

No further entries on this page.

SIGNATURE | DATE 20
READ AND UNDERSTOOD | DATE 20

10-31-13
0605 Assuming DCRPF Operations under Chelande
0615 Pre job being conducted by SOS.
0645 Pre job conducted.
0700 Operators entering 50-69 to process.
0830 Starting to stage drums for shipment to area G shipment.
0855 Bagging off 1 daughter, 1 PCC and bagging on 1 daughter continuing to process..
0856 Permission to lower vehicle access gates.
1020 Vehicle access gates have been restored movement to transport vehicle is complete.
1154 Bagging off 3 PCC's and 1 daughter
1250 Bag offs are complete.
- 1444 Bagging off and bagging on 3818382
- 1500 Bag on, bag off is complete.
1645 Starting movement out of 50-69.
1649 Starting inside rounds.
1714 Item 63 is OOS, PCD in place, okay to proceed per CSE documentation.
1724 Inside rounds complete.
1735 movement out of 50-69 is complete.
1738 Starting outside rounds.
1747 Starting movement into 50-69.
1759 Outside rounds complete.
10-31-13 1815 Relieved by CCC Terre Coleman - Chelande

no further entries this page

10-31-13

1815 Assuming WCRR operations center - Coleman

1823 Pre-job and turnover with day shift being conducted.

1824 Late entry - at 1821, mode changed to warm standby in WCRRF yard and 50-69. Safety topic - when driving home after work, if you feel yourself becoming drowsy, pull over and take a few minutes to walk around or catch a few minutes rest before continuing (JC)

1850 Pre-job concluded.

1948 Mode changed to operations in WCRRF yard and 50-69.

1951 Operators entering 50-69 to resume operations on S818382.

2226 Bagging off 1 daughter, bagging on another daughter.

2238 Bag off/on complete.

11-1-13 0000 Operators out for lunch.

0110 Monthly RWP brief being conducted.

0130 RWP brief concluded. Beginning outside rounds.

0155 Outside rounds complete.

0330 Bagging off last daughter of the day.

0353 Bag off complete. Port cover in place.

0357 Beginning inside rounds.

0408 Item #63 in CDS, okay to proceed per CSE documentation.

0415 Inside rounds complete.

0510 Initiating a drum movement from 50-69 to a transportainer.

0535 Drum movement complete. All inventory has been removed from 50-69.

0536 Late entry: at 0527, both rounds reviewed by SOS.

0541 Mode change complete. WCRRF yard is in warm standby and 50-69 is in cold.

0550 RCRA's have been completed.

11-1-13 0600 Being relieved by CCO, Howard Smith - Coleman

No further entries this page.

10-31-13 Continued from previous page. Coleman

0321 ~~to~~ JC 10-31-13 Bagoff/on complete.

0338 Outside rounds complete.

0423 Beginning inside rounds.

0440 Item #63 is OOS, okay to proceed per CSE documentation

0443 Inside rounds complete.

0503 Both rounds reviewed by SOS.

0505 Bagging off 1 daughter, bagging on S824208.

0539 Bag off/on complete.

0558 Air quality has arrived to perform weekly stack monitoring.

10-31-13 0605 Being relieved by oco, Clarissa Velaide, Coleman

HM

No further entries this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0124
Examination Date:	11/6/2013
Waste Container ID:	68561
Video/Audio Recorded Media Number:	LA-RTR2-13-0124 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 150.0 kg Tare Wt.: 33.4 kg Net Wt.: 116.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68561

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, 90 Mil. liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	3.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	7.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	100.6
Soils (S):	
Total WMP Weight:	116.6

CCP Radiography Data Sheet

Waste Container ID: 68561

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: The scan of this drum was performed by in-training operator Eddie Rios under the supervision of qualified operator Benito Maestas.

RTR Operator:

Print Name	Signature	Date
Benito Maestas/ Eddie Rios	B Maestas / Eddie Rios	11/6/2013

NDA 2000 Assay Report

Item Information

Item ID:	68561	Count Sequence Number:	16683
Operator:	DCLTD231\Operator		
Assay Start:	11/6/2013 2:47:12 PM		
Description 1:	2LANDA1238		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 117.0 kg	Net:	117.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.630 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16683	Batch Number:	2LANDA1238
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68561	Analysis Date:	11/6/2013

Net Weight	117000.0 g		
Pu mass	2.78E+000	+-	5.50E-001 g
TRU Alpha Activity	2.23E+000	+-	1.09E+000 Ci
TRU Activity Concentration	1.91E+004	+-	9.34E+003 nCi/g
Pu-239 Equivalent Activity	2.24E+000	+-	1.09E+000 Ci
Pu-239 FGE	2.63E+000	+-	5.48E-001 g
Decay heat	7.37E-002	+-	3.63E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.70E-007
U233	<LLD	<LLD	0.00E+000	2.94E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	9.74E-007
NP237	2.23E-002	1.57E-005	2.77E-006	1.47E-006
PU238	2.54E-004	4.34E-003	1.10E-003	3.44E-004
U238	<LLD	<LLD	0.00E+000	8.26E-006
PU239	2.61E+000	1.62E-001	3.40E-002	1.28E-002
PU240	1.67E-001	3.78E-002	9.59E-003	3.00E-003
AM241	5.91E-001	2.03E+000	1.09E+000	2.68E-002
PU241	3.19E-003	3.28E-001	8.32E-002	2.61E-002
PU242	5.56E-004	2.20E-006	5.57E-007	0.00E+000
AM243	1.19E-005	2.39E-006	7.62E-007	2.07E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/11/13

ITR: _____ Date: 11/11/13

Automated Independent Technical Review

Count Sequence Number: 16683
Batch Number: 2LANDA1238
Counter ID: HENC #2
Container ID: 68561
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 11/6/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Cosmic Ray Rejection Analysis complete with warnings. - The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,42.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 11-7-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68561**

BDR Number: **LA13FG2117**

Sampling Date: **11/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	135.12	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131115c\
Data File : 68561.D
Acq On : 15 Nov 2013 12:33 pm (#1); 15-Nov-13, 12:33:06 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 12:41:52 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.594	96	4727542	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.891	117	3703658	177.50 ppmv	0.03
Target Compounds					Qvalue
1) Hydrogen	1.617	GC1	1016m	135.12 ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0123
Examination Date:	11/5/2013
Waste Container ID:	68568
Video/Audio Recorded Media Number:	LA-RTR2-13-0123 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 177.0 kg Tare Wt.: 33.4 kg Net Wt.: 143.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 68568

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Utility knife

AM:

OM: Scrap lead

OI:

C: Leather gloves

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	1.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	124.5
Soils (S):	
Total WMP Weight:	143.6

CCP Radiography Data Sheet

Waste Container ID: 68568

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	11/5/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68568	Count Sequence Number:	23782
Operator:	D3PW2DK1\operator		
Assay Start:	11/5/2013 1:15:00 PM		
Description 1:	1LANDA1859		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 144.0 kg	Net:	144.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.920 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23782	Batch Number:	1LANDA1859
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68568	Analysis Date:	11/5/2013

Net Weight	144000.0 g		
Pu mass	2.01E+001	+- 9.55E+000	g
TRU Alpha Activity	9.97E+000	+- 5.96E+000	Ci
TRU Activity Concentration	6.92E+004	+- 4.14E+004	nCi/g
Pu-239 Equivalent Activity	1.00E+001	+- 5.96E+000	Ci
Pu-239 FGE	1.99E+001	+- 9.53E+000	g
Decay heat	3.28E-001	+- 1.98E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.14E-006
U233	<LLD	<LLD	0.00E+000	7.47E-003
U234	1.99E-002	1.24E-004	4.84E-005	0.00E+000
U235	1.42E+000	3.07E-006	1.20E-006	3.06E-006
NP237	1.31E-001	9.25E-005	2.02E-005	3.82E-006
PU238	1.84E-003	3.14E-002	1.64E-002	9.57E-004
U238	<LLD	<LLD	0.00E+000	4.54E-005
PU239	1.89E+001	1.17E+000	5.91E-001	3.56E-002
PU240	1.21E+000	2.74E-001	1.44E-001	8.34E-003
AM241	2.48E+000	8.49E+000	5.93E+000	2.32E-001
PU241	2.31E-002	2.38E+000	1.25E+000	7.24E-002
PU242	4.03E-003	1.59E-005	8.34E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: D — R Date: 11·6·13

ITR: Jan Barton Date: 11/11/13

Automated Independent Technical Review

Count Sequence Number: 23782 Batch Number: 1LANDA1859
Counter ID: MCS HENC #1
Container ID: 68568
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/5/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	Ok
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis	
Override enabled; Gamma data specified as input.	Results taken from quantitative gamma data.
Results taken from Quantitative Gamma data.	
Results comparison test passed.	

Comments	Disposition
Section 4 - MGA Analysis Results are marked as invälid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-009, AK Source Document M237. MT-52,42.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 11-6-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68568**

BDR Number: **LA13FG2117**

Sampling Date: **11/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	154.14	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	2.52	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131115c\
Data File : 68568.D
Acq On : 15 Nov 2013 12:22 pm (#1); 15-Nov-13, 12:21:45 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 12:30:34 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.581	96	4980725	205.75 ppmv	0.06
15) Chlorobenzene-d5	5.887	117	3865678	177.50 ppmv	0.03
Target Compounds					Qvalue
1) Hydrogen	1.620	GC1	1159m	154.14 ppmv	
12) Benzene	3.258	78	44399	2.52 ppmv	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S818412

S818412

Container Profile 768137

File Options Reports Help

S818412

768137	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S818412

- S818412
  - LA00000068997
    - LA00000069618 LANL
    - LA00000069642 LANL
    - LA00000069703 – EMPTY
  - W801645 EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.0010	%			

Work Date: 4-17-14 JET

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68997

6.2[4] Date Processed: 4-17-14

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ____ 4-17-14 (Initial and Date)

4.3[6] ($) Stationary Fire Watch has been established: (> 300 PE-Ci Equivalent Combustible) (SAC 5.10.1.7.2) ☑ N/A ____ (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Frederick Dalubla / [signature] / 1228826 / 4-17-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68997

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 380.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 83 lb ☐ N/A

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 463.2 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[16] Retaining clips in place ☑ SAT ☐ UNSAT

6.2[18][D] Drum lift hinge pin retaining clip replaced. ____ / ____ / ____ ☑ N/A
Initials Z# Date

6.2[26] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print) Signature / Z # / Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 68997

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69618	69642	N	
10.1[4]	Daughter Drum Filter No.	KM-325	KL-308		
10.1[4]	Daughter Drum Bag Filter No.	L-10216	L-10228	A	
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[19][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[20][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[6]/10.2[7][B]	POC Item Description	N	A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)			N	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				A
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	3 GALLONS	1 GALLON		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N A	N A		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	90%	60%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER, BAG OFF STUBS	KITTY LITTER, BAG OFF STUBS		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68997

Comments: PLASTICS, ROOM TRASH, NITRATE SALTS, KITTY LITTER, 4 GALLONS PH-3 LIQUID NEAUTRALIZED TO PH-6, LEAD SHIELDING

11.1[1] Performed By: Brian Gallegos / B. Gallegos 267129 4-17-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez / M.J. 114935 4.22.14 0930
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 1
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: _____

Lot No.: _____

Manufacture Date: _____

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:		
Tolerance:		

Overpack filtered vent information:

Manufacturer: _____

Model No.: _____

Serial No.: _____

Manufacture Date: _____

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ Yes ☐ No

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb

5. [18] 2-in. bung plug torque value: _____ ft-lb

Comments: Drum not prepped @ WCRRF

8.1[1] Performed By: Frederico [illegible] / [signature] 127558261 4-17-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] M92251 4-22 14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 4-17-14

ATTACHMENT 4
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69703

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 16-80
Tolerance: +/- 3% cw +/- 6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Frederico Archuleta / [signature] / 1228826 / 4-17-14
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 171.4 lb

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA / [signature] / 1237720 / 4-17-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 149235 / 4-22-14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 4-3-14

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69618

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240118
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc 1.5-2 5pvc
Serial No.: L-10216
Manufacture Date: 5/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	08-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% cw +/-6% ccw	+/-3% cw +/-6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Steven Mendragon (Operator (print)) / Steven Mendragon (Signature) 1104791 (Z #) 4-3-14 (Date)

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: KM-325
Manufacture Date: 11/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 69618

Comments: N/C

5.[35] Performed By: Steven Mondragon (Operator (print)) | Steven Mondragon (Signature) | 1104741 (Z #) | 4-3-14 (Date)

7.1[4] Reviewed By: Gilbert Martin (Supervisor or designee (print)) | (Signature) | 1149335 (Z #) | 4.22.14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69618

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 16-80 ft-lb
Tolerance (+/-): +/- 3% cw +/- 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederico Hechlich [signature] 1228826 4-17-14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO ☐ N/A

Performed By: Frederico Hechlich [signature] 1228826 4-17-14
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69618

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 373.6 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Federico Acebedo (Operator (print)) [signature] (Signature) 1[illegible] (Z #) 4-17-14 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 149237 (Z #) 4-22-14 (Date)

Working Copy
Date: 4/3/14 HS

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69642

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240118
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 15·2 SPVC
Serial No.: L-10228
Manufacture Date: 5-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	08-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% cw +/-6% ccw	+/-3% cw +/-6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☒ YES ☐ NO

Performed By: Janos Sandoval (Operator (print)) [signature] (Signature) 141662 (Z #) 04-03-14 (Date)

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: KL-308
Manufacture Date: 11-11

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 69642

Comments: N/e

5.[35] Performed By: James Sanchez (Operator (print)) [signature] (Signature) 1166621 (Z #) 04-03-14 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 1493751 (Z #) 4.27-14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69642

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
Range: 16-80 ft-lb
Tolerance (+/-): ±3% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: BRIAN GALLEGOS / [signature] 267129 4-17-14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA / [signature] 123729 4-17-14
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69642

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 2150 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: GERALD ESPINOZA (Operator (print)) [signature] (Signature) 1237724 (Z #) 4-17-14 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 149235 (Z #) 4.22.14 (Date)

Working Copy
Date: 4-17-14

ATTACHMENT 2
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68997

6.3[15] ($) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 380.2

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Brian Gallegos [signature] 1267249 4-17-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez [signature] 1492357 4.22.14
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Gilbert Martinez [signature] 1492357 4.22.14 0940
SOS/SOM or designee (print) Signature Z # Date Time

1958 SP72 Non-GG Vented

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

DRUM # 68997

Planning and Technical Solutions

Container ID: S818412 Container Type: 85 GAL DRUM Gross Weight (lbs): 387.8595
Total PE-Ci Activity: 1.88E+00 Equivalent Combustible PE-Ci: 7.03E-01
Total Fissile Gram Equivalents: 2.07E+01 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Drum venting and gas sampling completed on 3/11/13. Attachment 3 of DOP-1030 is attached. RTR pre-screen indicates liquids in 90 mil liner, lead liner, and rigid liner in the drum.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~254 lbs. and generator data shows 3 items of nitrate salts with weights ranging from ~72-99 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 8/15/13 (Date)

IHS Representative

Potential IHS Safety Risks: ~~May Contain D007, D008, and D009 May Contain free liquids; No Other Hazard Noted.~~

Performed By: Johnny Smallwood (IHS Representative (Print)) | Signature | 241659 (Z#) | 8-21-13 (Date)

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No
Engineering Comments: NA

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature | 112609 (Z#) | 9/30/13 (Date)

TRU Remediation Operations

Potential Safety Risks: ~~USE PROCEDURES~~ CW 4-7-14 follow procedures

Performed By: Clarissa Velarde (TRU Operations (Print)) | Signature | 234679 (Z#) | 4/7/14 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject
OM or designee Comments: Follow current procedures and IWCS.

Approved By: David L. Blair (OM or designee (Print)) | Signature | 218069 (Z#) | 4-7-14 (Date)

Discardable Waste Log Sheet

DrumID: 011360

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS-465-F1	45	NITRATE SALTS		12.89	52	5/11	
2	IXFS-467-F1	37.73	NITRATE SALTS		6.68	52	5/11	
3	IXFS-468-R1	32.73	NITRATE SALTS		2.54	52	5/11	
		115.46 kg						

ATTACHMENT 2
Page 1 of 2

TA-54 AREA G DRUM VENTING PROCESS DRUM RECEIPT DATA SHEET

5.[3]/6.[3] Waste Container Unique Identifier: 5818412
PE-Ci Content: 1.87522108
PE-Ci Equivalent Combustible content: 1.63144234
FGE content 20.7109306
Weight (lb) 387.8595
Outermost Waste Container configuration:
☑ Vented 85-gal ☐ Unvented 85-gal ☐ Unvented 55-gal

5.[3]/6.[3] Performed By Chris Vigil [signature] 1630821 3-11-13
LTP-DDP Supervisor/designee (Print) Signature Z # Date

NOTE *Satisfactory inspection is indicated by a SAT answer for each inspection criteria below.*

	TRU Waste Container Bottom (5.[7]/6.[18])	TRU Waste Container (except bottom) (5.[9]/6.[6])
($) No obvious container degradation? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
($) No evidence that the container is, or has been, pressurized? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
($) No significant rust or corrosion such that wall thinning, pin holes, or breaches are likely or the load bearing capacity is suspect? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
($) No split seams, tears, obvious holes, punctures (of any size), creases, broken welds, or cracks? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
($) Container properly closed? [AC 5.6.8(9c)]		☑ SAT ☐ UNSAT
($) No dents, scrapes, or scratches that make the container's structural integrity questionable or prevent the top and bottom surfaces from being parallel? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
($) No discoloration, which would indicate leakage or other evidence of leakage of material from the container? [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
($) No evidence of container bulging [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
($) Container determined to be constructed of non-combustible material (i.e., exterior surfaces constructed of metal or concrete) [AC 5.6.8(9c)]	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT

6.[8] ($) Drum-lid restraint inspected for degradation (e.g., no indication of cracked parts, missing fasteners, loose or frayed parts, excessive wear, or unusual deformation): (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

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ATTACHMENT 2
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5.[3]/6.[3] Waste Container Unique Identifier: S818412

6.[10] ($) Drum-lid restraint installed: (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

6.[16] ($) UNVENTED WASTE CONTAINER STORAGE AREA SRs are satisfied and current:

CS

- UNVENTED DRUMS are not stacked, (e.g., are in a singular planar array). (SR 4.6.1 and NCS-CSLA-12-016) ☐ SAT ☐ UNSAT ☑ N/A
- UNVENTED DRUMS containing MAR ≥ 300 PE-Ci are separated from each other by at least 10 ft. (SR 4.6.3) ☐ SAT ☐ UNSAT ☑ N/A
- Distance between the posted perimeter of the UNVENTED WASTE CONTAINER STORAGE AREA and areas where normal operations occur is at least 15 ft [AC 5.6.8(9a)] ☐ SAT ☐ UNSAT ☑ N/A
- Access restrictions for the UNVENTED WASTE CONTAINER STORAGE AREA are in place. (SR 4.6.2) ☐ SAT ☐ UNSAT ☑ N/A

Comments: N/A

5.[19]/6.[28] Performed By: Chris Vigil [signature] 1630821 3-11-13
LTP-DDP Supervisor/designee (Print) Signature Z # Date

10.1[3] Reviewed by: Chris Vigil [signature] 1630821 3-11-13
LTP-DDP Supervisor/designee (print) Signature Z # Date

10.1[6] Acceptance criteria satisfied: ☑ YES ☐ NO

10.1[8] Approved by: Chris Vigil [signature] 1630821 3-11-13
SOS/SOM or designee (print) Signature Z # Date Time

ATTACHMENT 3
Page 1 of 3

TA-54 AREA G DRUM VENTING DATA SHEET

7.[2] Waste Container Unique Identifier: S818412

7.[3] Personnel stationed to prevent unauthorized entry into the 30-ft standoff distance outside of dome. ☑ SAT ☐ UNSAT ☐ N/A

7.[5]/ ($) Personnel have exited the 30-ft standoff distance. (SAC 5.6.4.3)

55-gal drum:	☑ SAT	☐ UNSAT	☐ N/A
85-gal drum:	☐ SAT	☐ UNSAT	☑ N/A

NOTE *All of the following data spaces may or may not be completed based on the drum configuration. For example, an unvented 55-gal drum without an 85-gal overpack drum would use a short-stem, filtered vent (NucFil-7DS) and the 85-gal overpack drum information is N/A. An unvented 55-gal drum overpacked into an unvented 85-gal overpack drum requires the completion of all of the following data spaces.*

7.[9]

Head Space Gas sample results:	85-gal (☑ N/A)	55-gal (☐ N/A)
Hydrogen	____ %	1.215967 %
Methane	____ ppm	0.000 ppm
VOC	____ ppm	11.44 ppm
Filter Vent Unique Identifier No.:	____	AN-323
Filter Vent Installed:		
Stub Stem (e.g., NucFil-007S)	☐ (☑ N/A)	☐ (☑ N/A)
Short Stem (e.g., NucFil-7DS)	☐ (☑ N/A)	☐ (☑ N/A)
Long Stem (e.g., NucFil-08DS)	☐ (☑ N/A)	☑ (☐ N/A)

ATTACHMENT 3
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7.[2] Waste Container Unique Identifier: 5818412

7.[10] ($) Waste container VENTED DRUM criteria: (TSR 1.1)

- Stub Stem (e.g., NucFil-007S) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 6.4% H_2, < 7,000 ppm VOC, and < 16,000 ppm Methane)
  - 55-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
- Short Stem (e.g., NucFil-7DS) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 6.4% H_2, < 7,000 ppm VOC, and < 16,000 ppm Methane)
  - 55-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
- Long Stem (e.g., NucFil-08DS) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 4.8% H_2, < 5,250 ppm VOC, and < 12,000 ppm Methane)
  - 55-gal drum: ☑ SAT ☐ UNSAT ☐ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A

7.[11][A] Waste drum venting status: ☐ UNVENTED ☑ N/A

7.[11][B][a] Number of required WIPP-approved filtered vents:

- 85-gal Waste Container _____ ☑ N/A
- 55-gal Waste Container _____ ☑ N/A

7.[11][B][c] ($) Personnel have exited the 30-ft standoff distance. (SAC 5.6.4.3)

Filter Vent	1	2	3	4	5	6	7	8
85-gal		☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A				
55-gal		☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A

ATTACHMENT 3
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7.[2] Waste Container Unique Identifier: 3818412

7.[11][B][f] Number of WIPP-approved filtered vents installed:
- 85-gal Waste Container _____ ☑ N/A
- 55-gal Waste Container _____ ☑ N/A

Filter Vent		1	2	3	4	5	6	7	8
85-gal	Type								
	Unique Identifier No.								
55-gal	Type				N/A				
	Unique Identifier No.								

7.[11][F] Drum-lid restraint inspected for degradation (e.g., no indication of cracked parts, missing fasteners, loose or frayed parts, excessive wear, or unusual deformation): (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

7.[11][H] Drum-lid restraint installed: (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

7.[12] Waste drum status:
- 85-gal Waste Container ☐ VENTED ☑ N/A
- 55-gal Waste Container ☑ VENTED ☐ N/A

7.[13][A] ($) 55-gal waste containers to be transferred to WCRRF satisfy the following criteria (WCRRF SAC 5.10.2.3.4.a): ☑ SAT ☐ UNSAT ~~☑ N/A~~ 3/4/14
- Hydrogen concentration less than or equal to 2.4% (24,000 ppm)
- VOC less than or equal to 5,250 ppm 4-7-14

Comments: UNSAT FIRST DRUM OF THE DAY
Meets requirements for transfer to WCRRF.

7.[11][M]/ 7.[23] Performed By Chris Vigil 163082 / 3-11-13
LTP-DDP Supervisor/designee (Print) Signature Z # Date

10.1[3] Overhead space heaters ON and thermostat set: ☐ SAT ☑ UNSAT

10.1[4] Reviewed by Chris Vigil 168082 / 3-11-13
LTP-DDP Supervisor/designee (print) Signature Z # Date

DVS Gas Determination Results Report

Date: 3/11/2013

Waste Container Number: S818412

Batch Number: DVS2130311

Filter Type Installed: 08DS

Number of Filters Installed: 1

Flammable Volatile Organic Compounds (VOCs)

Compound	Concentration (ppmV)	Upper Calibration Range (ppmV)	Exceeds Calibration (Y/N)	Calculated Value (if exceeds calibration)
Methanol	0	1591.00	N	N/A
Diethyl Ether	0	503.00	N	N/A
1,1 Dichloroethene	0	402.80	N	N/A
Acetone	1.65	1502.00	N	N/A
1,1-Dichloroethane	0	400.80	N	N/A
Cis 1,2-Dichloroethene	0	400.20	N	N/A
Methyl Ethyl Ketone	0	1503.00	N	N/A
Cyclohexane	0	497.30	N	N/A
Benzene	9.79	1492.00	N	N/A
1,2-Dichloroethane	0	400.80	N	N/A
N-Butyl Alcohol	0	200.20	N	N/A
Methyl Isobutyl Ketone	0	501.90	N	N/A
Toluene	0	1491.00	N	N/A
Chlorobenzene	0	186.60	N	N/A
Ethylbenzene	0	100.00	N	N/A
m,p-Xylene	0	100.09	N	N/A
o-Xylene	0	100.30	N	N/A
1,3,5-Trimethylbenzene	0	50.64	N	N/A
1,2,4-Trimethylbenzene	0	50.17	N	N/A

Flammable Tentative Identified Compounds (TIC)

Compound	Concentration (ppmV)	CAS Number
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Total Flammable VOCs	11.44	I.V.R. Intial and Date	JAB 3/11/13

Compound	Concentration		Upper Calibration Range		Exceeds Calibration (Y/N)
Hydrogen	1.1215967	%	6.45	%	N
Methane	0.000	ppm	15990.00	ppm	N

Comments:

AN-323

Doug Eisele — DVS Operator Print Name

Signature

03-11-13 — Date

4-17-14

0540 Assuming WCRRF operations center. KCleman
0556 Air quality arrived to perform the weekly stack monitoring.
0602 Air quality stack monitoring complete. Begining outside rounds.
0615 Pre-job being conducted by SOS.
0618 Outside rounds complete.
0625 Beginning inside rounds.
0630 Pre-job concluded.
0655 Both rounds reviewed by SOS.
0711 Mode changed to operations in WCRRF yard and 5069.
0715 Surveillance 4.1.1 performed. Received confirmation from IC that moving 3 drums into 5069 will not exceed our MAR limit.
0716 Initiating a drum movement from transportainer to 5069.
0722 Drum movement complete into 5069.
0750 Notified by RCT that the Red lights are not working to be able to denest. RCT's placing portable red lights. Possibly not turned back on after maintenance on breaker.
0755 Operators denesting 3 drums. Portable red lights in place.
0832 Denesting complete. Bagging on 69903. PPE is Sat.
0840 Bag on complete.
0926 Bagging off 1 daughter, bagging on another daughter. PPE check Sat.
0938 Bag off/on complete.
0942 Operators report an elevated CAM.
1011 Bagging off 1 daughter, bagging on 68997.
1036 Bag off/on complete.
1124 Bagging off 1 daughter, bagging on another daughter.
1136 Bag off/on complete.
1236 Bagging off 1 daughter, bagging on 53801. PPE check Sat.
1302 Bag off/on complete.

Continued on next page KCleman

4-17-14 Continued from previous page. JColeman
1336 Bagging off 1st daughter, bagging on another daughter. PPE. SC
1348 Bag off for complete.
1400 Beginning outside rounds. Beginning inside rounds.
1423 Inside rounds complete.
1425 Outside rounds complete.
1453 Both rounds reviewed by SOS.
1456 RCRA inspections complete.
1457 Bagging off last daughter of the day and placing port cover on.
1515 Bag off complete. Everything is in a safe configuration and port cover in place.
1520 Initiating a drum movement from 5069 to a transportation
1549 Drum movement out of 5069 complete. All inventory has been removed from 5069.
1558 Mode change complete. Cold in 5069, warm in WCRRF yard.
4-14-14 1600 End of day. CCD position secured. JColeman

No further entries this page.

4/17/14

1700 Assuming WCRRF Operations Center. CA

1710 Starting Pre-Job, discussed maintenance activities as well as briefed to RWP.

1740 Pre-Job complete.

1833 Starting to shut down ventilation, CAM's, 2 portables, have been source checked.

1842 Ventilation shut down.

1846 Power has been shut ~~down~~ down in 50-69 and 50-84. cm 4-17-14

2328 Maintenance complete, ready to re-energize 50-69 and 50-84.

2332 Power back on in 50-69 and 50-84.

2340 Starting ventilation startup

2349 Ventilation back up, all readings are normal.

0005 CAM's have been source checked.

0010 Beacon light, used for Hot Job Exclusion, not working. Breaker personnel re-entering 50-69 to check the issue.

0026 Beacon light is back. cm 4-18-18

4-18-14 0030 Securing Operations Center. CA

No Further Entries on this Page

4-17-14 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief discussed drums going into 50-69.

0630 Condcluded shift brief

0655 Reviewed Inside And outside Rounds

0711 Mode Change Complete WCRF In operations

0716 Starting Movement Into 50-69

0722 Move In Complete

0750 Ket's notified Red Lights not working will use portables for bagging off

0755 denesting 3 drums

0877 denesting Complete Bagging on 69903

0846 bag on Complete

0926 bagging off 1 daughter bagging on Another

093 bagg in lift complete

0942 ~~Lift~~ Gm 4/17/14 Operators Report of elevated Cam.

1011 Bagg off / on 68957

1036 Bag on/of complete

1124 Bagging off 1 daughter baggin on Another

1136 Bag in/lift complete

1236 Bagging off/on 53801

1302 Bag off/in Complete

1336 Baggsing of 1 daughter bagging on Another

1348 Bag in/lift complete

1400 starting Rounds

453 Reviewed Inside And outside Rounds

1457 Bagging on last drum of Day.

1515 Bag off complete

1520 Starting movement out of 50-69.

1549 Movement out Complete

1558 Mode Change Complete

1630 end of Day Securing Position [illegible]

no further entries.

4-17-14 WCRRF SOS Log Book

1655 Assuming SOS position.

1656 All log book entries for this shift will be made in the WCRRF Operations Center log book.

1658 Securing SOS position. CT

No Further Entries on this Page

4-17-14 WCRR SOM Dayshift

0557 Reviewed logs and assumed the WCRR SOM position [signature]

0632 Completed attending the pre-job brief conducted by the SES (Culbert). The safety topic was Stand safer over Confident, and watch out for each other. There are no scheduled transfers today. Discussion focused on IWD requirements, and spotters are to support forktruck operations with a vest at all times. Noted to operators - good catch on the long stem filter found in 50/69. Follow procedures and ensure all precautions and limitations are met. Currently there is one shift order in effect, Control of TLSRs.

0708 Completed the daily phone call with AREA 6 SOM updating WCRR POD activities

0711 Mode Change: 50/69 and yard transition from Cold/Warm to Operations/Operations

0722 Outside Operations complete transferring of 3 drums 53801-SP-36, 68997 SP-72 and 69903 SP72 into 50/69

0750 RCTs report that the red lights to notify personnel that rooms 102, 103 of 50/69 are on full face, are not working. RCTs will initiate use of portable. Notification will be made to maintenance to check breakers during pm shift.

0755 Operations initiate denesting 3 drums, with portable red lights in place.

0832 Inside Operations report denesting complete and personnel were bagging on PARENT drum 69903 SP 72

0840 Bag on is noted complete.

0926 Inside Operations initiate bag off of 1 daughter and bag on another

0938 bag off completed and operations continue to process.

0942 Operations report an elevated CAM.

1011 Bagging off 1 daughter - bagging on 68997.

1036 Bag on and Bag off is noted complete

1124 Bagging off 1 daughter and bagging on another daughter

1136 Bag off and on complete

1236 Bagging off 1 daughter bagging on Parent 53801

1302 Operations Complete Bag off.

1336 Operations bag on one daughter bag off the other and continue processing.

1348 Bag off on completed

1457 Inside Operations initiate bag off of daughter, empty parent and place portcover on it

1515 Bag offs completed and port covers in place on WCG - Safe Configuration

1517 Movement out completed all drums secured.

[illegible] Co. Annotates transition to Cold/WARM

4/17/14 WCRR SOM Night Shift

1055 Reviewed shift turnover checklist and assumed the WCRR SOM position. R

1725 Completed pre job brief conducted by Breaker Crew Supervisor. Discussed tonights work to be completed - Will require LO/TO @ PP-D Main Breaker supplying 50-69 and 84. Lineman will not be required from Utilities but fire protection is still required due to de-energizing fire panel in 50-69. Obtained CSE permission to remove Caution Locks/Tags as required from breakers inside 50-69 which are tagged open for capacity/load requirements. Work completed so far is estimated @ 40% due to time spent on drawing upgrades

1833 Verified CAM's are being supplied w/ temp power and source checked SAT, WCG pull covers in place - securing ventilation.

1842 Ventilation is secured.

1846 Power to 50-69 and 84 is secured.

2130 Breaker Crew reported they will complete tonights work earlier than expected - contacting fire protection to put on notice to be here @ 2300

2310 All breakers have been tested and reinstalled - Fire protection on site and being briefed to IWD and RWP (new personnel)

332 Power is restored to 50-69 and 84.

345 All locks and tags returned to Ops Center.

349 Operators reporting that Ventilation System is operating normally. Verified on remote reading in Ops Center that HVA-001 boilers are operating normally.

355 Breaker Crew Lead reported that job at end of today is 85-90% complete. Remaining for tomorrow ~~is only~~ are lighting panels associated w/ the UPS and forklift charging stations.

0010 Reviewed and approved Ventilation System Startup checklist.

025 Electrician verified that breaker supplying power to HSEA beacon lights was open/off - closed breaker and beacon lights are now operational

0024 Late Entry @ 0005 - RPI reported all CAMs operating normal.

030 Secured the SOM position. R

No further entries this page
RAT

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-14-0049
Examination Date:	4/23/2014
Waste Container ID:	69618
Video/Audio Recorded Media Number:	LA-HERTR-14-0049 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 169.5 kg Tare Wt.: 33.4 kg Net Wt.: 136.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

Waste Container ID: 69618

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	106.1
Soils (S):	
Total WMP Weight:	136.1

Waste Container ID: 69618

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	4/23/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69618	Count Sequence Number:	24589
Operator:	D3PW2DK1\operator		
Assay Start:	4/23/2014 2:13:23 PM		
Description 1:	1LANDA1933		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 136.0 kg	Net:	136.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.870 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24589	Batch Number:	1LANDA1933
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69618	Analysis Date:	4/23/2014

Net Weight	136000.0 g			
Pu mass	3.83E+000	+-	7.65E-001	g
TRU Alpha Activity	4.05E+000	+-	2.08E+000	Ci
TRU Activity Concentration	2.98E+004	+-	1.53E+004	nCi/g
Pu-239 Equivalent Activity	4.06E+000	+-	2.08E+000	Ci
Pu-239 FGE	3.63E+000	+-	7.62E-001	g
Decay heat	1.34E-001	+-	6.92E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.67E-007
U233	<LLD	<LLD	0.00E+000	5.25E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.59E-006
NP237	7.09E-002	5.00E-005	1.06E-005	2.77E-006
PU238	3.49E-004	5.97E-003	1.48E-003	7.88E-004
U238	<LLD	<LLD	0.00E+000	1.30E-005
PU239	3.60E+000	2.23E-001	4.73E-002	2.95E-002
PU240	2.30E-001	5.22E-002	1.33E-002	6.89E-003
AM241	1.10E+000	3.77E+000	2.08E+000	6.06E-002
PU241	4.30E-003	4.43E-001	1.13E-001	5.85E-002
PU242	7.68E-004	3.03E-006	7.72E-007	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 4-24-14

ITR: _____ Date: 4/28/14

Automated Independent Technical Review

Count Sequence Number: 24589
Batch Number: 1LANDA1933
Counter ID: MCS HENC #1
Container ID: 69618
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 4/23/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chamberlin Date: 4-24-14

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **69618**

BDR Number: **LA14FG2060**

Sampling Date: **4/30/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	179.38	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	2.89	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140430c\
Data File : 69618.D
Acq On : 30 Apr 2014 9:40 am (#1); 30-Apr-14, 09:39:24 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 30 09:47:59 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Tue Apr 08 10:24:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.529	96	2570968	199.75	ppmv	-0.02
15) Chlorobenzene-d5	5.842	117	2071946	175.25	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.619	GC1	1283m	179.38	ppmv	
12) Benzene	3.209	78	30248	2.89	ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0039
Examination Date:	4/23/2014
Waste Container ID:	69642
Video/Audio Recorded Media Number:	LA-RTR2-14-0039 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 97.5 kg Tare Wt.: 33.4 kg Net Wt.: 64.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	55 %

CCP Radiography Data Sheet

Waste Container ID: 69642

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: ~~Scrap metal~~ E.R. 4-24-14

AM:

OM: scrap lead E.R 4-24-14

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	~~5.0~~ E.R. 4-24-14
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0 E.R 4-24-14
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	~~59.1~~ 56.1 E.R. 4-24-14
Soils (S):	
Total WMP Weight:	64.1

CCP Radiography Data Sheet

Waste Container ID: 69642

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: ~~N/A~~ E.R. 4-24-14 on the recording I called out scrap metal after reviewing the recording I agree it is scrap lead.
E.R. 4-24-14

RTR Operator:

Print Name	Signature	Date
Eddie Rios	Eddie Rios	4/23/2014

NDA 2000 Assay Report

Item Information

Item ID:	69642	Count Sequence Number:	24587
Operator:	D3PW2DK1\operator		
Assay Start:	4/23/2014 11:54:54 AM		
Description 1:	1LANDA1933		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 64.1 kg	Net:	64.1 kg
Container:	Volume: 208.0 l	Full:	55.0 %
Density:	0.560 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24587	Batch Number:	1LANDA1933
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69642	Analysis Date:	4/23/2014

Net Weight	64100.0 g		
Pu mass	3.45E+000	+-	6.70E-001 g
TRU Alpha Activity	4.81E+000	+-	2.44E+000 Ci
TRU Activity Concentration	7.50E+004	+-	3.81E+004 nCi/g
Pu-239 Equivalent Activity	4.82E+000	+-	2.44E+000 Ci
Pu-239 FGE	3.28E+000	+-	6.68E-001 g
Decay heat	1.59E-001	+-	8.11E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.10E-007
U233	<LLD	<LLD	0.00E+000	3.93E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.07E-006
NP237	8.33E-002	5.87E-005	9.54E-006	2.13E-006
PU238	3.14E-004	5.37E-003	1.30E-003	5.96E-004
U238	<LLD	<LLD	0.00E+000	1.07E-005
PU239	3.24E+000	2.01E-001	4.14E-002	2.23E-002
PU240	2.07E-001	4.70E-002	1.18E-002	5.21E-003
AM241	1.33E+000	4.56E+000	2.44E+000	3.77E-002
PU241	3.87E-003	3.99E-001	9.98E-002	4.43E-002
PU242	6.91E-004	2.73E-006	6.82E-007	0.00E+000

Errors quoted at 1.000 sigma

Operator: [signature] Date: 4-24-14

ITR: [signature] Date: 4-28-14

Automated Independent Technical Review

Count Sequence Number: 24587
Batch Number: 1LANDA1933
Counter ID: MCS HENC #1
Container ID: 69642
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 4/23/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 4-24-14

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **69642**

BDR Number: **LA14FG2060**

Sampling Date: **4/30/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140430c\
Data File : 69642.D
Acq On : 30 Apr 2014 9:51 am (#1); 30-Apr-14, 09:50:26 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 30 09:59:31 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Tue Apr 08 10:24:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.568	96	2653968	199.75	ppmv	0.02
15) Chlorobenzene-d5	5.874	117	2128680	175.25	ppmv	0.02

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S818449

S818449

Container Profile 761022

File Options Reports Help

S818449

761022	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S818449

S818449
- LA00000068645 - EMPTY
- LA00000068630
- LA00000068633

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
50.0	%			

Working Copy
Date: 11/11/13 HS

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S818449

6.2[4] Date Processed: 11-11-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established: ☑ N/A
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) _____ (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb: 11-11-13
☑ YES ~~☑ NO~~ ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: [illegible] / [signature] / [illegible] / 11-11-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S818449

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 425.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 83 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 508 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. ____ / ____ / ____
Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A ____ / ____ / ____
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S 818 449

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68630	68633		
10.1[4]	Daughter Drum Filter No.	LM. 846	LM. 842	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-10132	L-10354		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	N/A		N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	6 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding	lead shielding		
10.3[9][A]	PCB-contaminated Waste Description	N/A		N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments	See comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	100%		
10.5[3]/10.6[2]	Description Waste Added During Processing	kitty litter	kitty litter plastic stuff - cat bags		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S 8.18449

Comments: Nitrate salts, 1 poly liner lid, lead shielding, plastic, kitty litter, 6 gallons PH-3 liquid, neutralized,

11.1[1] Performed By: [illegible] | [illegible] 122[illegible] | 11-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez [illegible] | 114935 | 11/12/13 0910
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11/12/13 HS

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366-1
Manufacture Date: 13

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:		
Tolerance:		

Overpack filtered vent information:

Manufacturer:
Model No.:
Serial No.:
Manufacture Date:

N/A

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ Yes ☐ No

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb

5. [18] 2-in. bung plug torque value: _____ ft-lb

Comments: Drum not prepped at WCCRF

8.1[1] Performed By: [illegible] / [signature] 1223826 / 11-12-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] [illegible] 142237 / 11/12/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11/11/13 HS

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68645

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: +/- 3% CW +/- 6% CCW

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Frederick Nobleta / [signature] 122[illegible] 11-11-13
Waste Handling Technician (print) Signature Z# Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 181.6 lb

Comments: N/C

8.1[1] Performed By: Frederick Nobleta / [signature] 122[illegible] / 11-11-13
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] [illegible] 11/11/13
Supervisor or designee (print) Signature Z# Date

11-1-13 gc

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68630

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.525pvc
Serial No.: L-10132
Manufacture Date: 5-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12-18-13	8-5-14
Range in ft-lb:	40-200	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chavez / [signature] 224742 / 11-7-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-846
Manufacture Date: 12-12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 68630

Comments: N/C

5.[35] Performed By: Brandon Chavez / [signature] R047112 / 11-7-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 1492351 11/12/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68630

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16 - 80
Tolerance: +/- 3% cw +/- 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederico [illegible] / [illegible] /228826/ 11.11.13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / /
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68630

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 309.8 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: [illegible] / [signature] 1228324 11-11-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: [illegible] / [signature] [illegible] 11/12/13
Supervisor or designee (print) Signature Z # Date

UET Copy

11-7-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68633

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.52Spvc
Serial No.: L-10354
Manufacture Date: 6-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12-18-13	8-5-14
Range in ft-lb:	40-200	16-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chase / [signature] 1004742 / 11-7-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-842
Manufacture Date: 12-12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 686633

Comments: N/A

5.[35] Performed By: Brandon Chavez / [signature] B47421 11-7-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 114935 11/12/13 11/13/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68633

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: +/- 3% cw +/- 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederick Schlosh / [signature] 028824 11-14-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: _____ / _____ / _____ / _____
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: JA 11-11-13 ~~019065~~ 68633

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 448.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: [illegible] / [signature] [illegible] / 11-11-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149232 11/12/13
Supervisor or designee (print) Signature Z # Date

working Copy
Date: 11/11/13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21]* Prepared Parent 55-Gal Drum Number: S818449

6.3[15] ($) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 425.0

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Frederico Hobbs / [signature] 1228886 11-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] M.J. 149235 11/12/13
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Gilbert Martinez / [signature] M.J. 149235 11/12/13 0900
SOS/SOM or designee (print) Signature Z # Date Time

Inspected SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions 85 11-403 97

Container ID: S818449 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 433.944
Total PE-Ci Activity: 2.39E+00 Equivalent Combustible PE-Ci: 8.98E-01
Total Fissile Gram Equivalents: 2.64E+01 Total Surface Dose Rate (mrem/hr): 8
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

RTR pre-screen indicates ~ 4 gallons of free liquid.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 275 lbs. and generator data indicates 4 items of nitrate salts with weights ranging from ~ 119 – 148 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature: Susan J. Ramsey | 100681 (Z#) | 7/30/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, Chromium, Mercury - 4 gals free liquid.

Performed By: Johnny Smallwood (IHS Representative (Print)) | Signature: Johnny Smallwood | 241659 (Z#) | 7-31-13 (Date)

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No

Engineering Comments: NA

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature: Valerie Rhodes | 112609 (Z#) | 8/15/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And Kitty Litter Ratio

Performed By: G mk (TRU Operations (Print)) | Signature: G mk | 149235 (Z#) | 8/12/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use hexarmor gloves during processing. Use tools when possible to handle waste.

Approved By: Jose. Jerez (OM or designee (Print)) | Signature: Jose Jerez | 221452 (Z#) | 8-12-13 (Date)

Discardable Waste Log Sheet

DrumID: 011366

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS-493-FB	30.22	NITRATE SALTS		7.93	52	5/11	
2	DXFS-474-F1	19.09	NITRATE SALTS		6.52	52	5/11	
3	DXFS-476-F1	8.64	NITRATE SALTS		2.21	52	5/11	
4	DXFS-477-F1	67.27	NITRATE SALTS		11.42	52	5/11	
		125.22 kg						

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 5/28/13

Container No. (5.[1])	5818449					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	972					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	4.03 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	58.43 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero (CCP (Print)), 236973 (Z#)

Reviewed By: Rick Jagielski (CCP (Print)), 266088 (Z#)

Comments:

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)), Susan S. Ramsey (Signature), 100681 (Z#), 5/28/13 (Date)

InstName : Unit 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S818449.D
Acq On : 28 May 2013 1:22 pm (#1); 28-May-13, 13:21:35 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NucFil-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 28 13:30:42 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.509	96	3740566	201.25	ppmv	-0.06
15) Chlorobenzene d5	5.848	117	3186434	177.00	ppmv	-0.05
Target Compounds						Qvalue
1) Hydrogen	1.606	GC1	4168m	586.43	ppmv	
12) Benzene	3.199	78	53890	4.03	ppmv	96

(#) = qualifier out of range (m) = manual integration (+) - signals summed

vocgas.m Tue May 28 13:30:51 2013

11/11/13

0600 ASSUMING OPERATIONS CENTER · H SMITH
0600 STARTING OUTSIDE ROUNDS
0615 STARTING PRE-JOB BRIEFING
0635 PRE-JOB COMPLETED
0635 0620 LATE ENTRY · COMPLETED OUTSIDE ROUNDS · HS
0655 OPERATORS ENTERING FACILITY TO BEGIN PROCESSING
0713 STARTING INSIDE ROUNDS
0720 RCT SUPERVISION NOTIFIED OPS. CENTER PCM OUT OF SERVICE WILL HAVE TO MANUALLY SURVEY OUT.
0732 ITEM #63,006 INSIDE ROUNDS. OKAY TO PROCEED PER CSE DOCUMENTATION
0743 INSIDE ROUNDS COMPLETED
0745 INSIDE & OUTSIDE ROUNDS REVIEWED BY SDS
0755 MODE CHANGE WCRR YARD AND TA50-69 CHANGE TO OPERATIONS MODE
0757 BEGINNING MOVEMENT FROM TA50-194/75 TO TA-50/69 FACILITY
0829 MOVEMENT INTO TA 50'69 IS COMPLETED
0841 BAGGING ON S870381
0855 BAGGING ON COMPLETED
1051 BAGGING OFF-BAGGING ON DAUGHTER AND CONTINUING TO PROCESS
1109 BAG OF COMPLETE, AND CONTINUE TO PROCESS
1155 BAGGING OFF DAUGHTER, BAGGING ON DAUGHTER
1207 BAG OFF COMPLETED
1222 OPERATORS EXIT BUILDING FOR LUNCH, AND DISCUSSING SHIFT ALIGNMENT FOR HOLIDAYS
1335 OPERATORS RETURNING TO PROCESS
1400 STARTING OUTSIDE ROUNDS
1423 BEGINNING DENESTING AND BAGGING ON S870213
1424 COMPLETED OUTSIDE ROUNDS
1431 OPERATORS INFORMED OPERATIONS CENTER DRUM S870213 HAS BROKEN RING AND WILL NOT BE PROCESS AT THIS TIME
1527 BAG ON-BAG OFF COMPLETE BAG ON S818449

CONTINUED ON NEXT PAGE HASMITH →

11/11/13 CONTINUED FROM PREVIOUS PAGE H SMITH

1528 OPERATORS INFORMED OPS. CENTER HS 11/11/13 RING DISPLACE DRUM ALSO WET WITH FLUID. S870213 DID NOT PROCESS

1622 BAGGING OFF DAUGHTER BAGGING ON DAUGHTER

1640 BAG ON COMPLETE, CONTINUING THE PROCESS

1646 STARTING INSIDE ROUNDS, OKAY TO PROCEED, POD IN PLACE PER CSE DOCUMENTATION

1722 COMPLETED INSIDE ROUNDS

1734 BAGGING OFF AND BAGGING ON S824184

1740 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SOS

11/11/13 HS 1800 BEING RELIEVED BY OCO TERI COLEMAN - H.SMITH

NO FURTHER ENTRIES ON THIS PAGE H SMITH

1-11-13
0600 Incoming DCRRF SIS position - Orlando - starting outside
0615 Pre job briefing being conducted, performed briefs EP-WERR-WO-DOS-0222 and discussed Rigging safety
1620 completed outside rounds
0713 Starting inside rounds
0720 late entry pre job concluded at 0635 - Orlando
0721 Pat notified that PCM is not operable will need to manually secure operations when leaving.
0745 Rounds have been signed off
0755 made change performed to operations
0757 Starting movement into 50-69
0800 late entry operators entering 50-69 to perform rinse scale verification and re tape of box outside operators moving in supplies and getting ready for re inventory of building 0455 Orlando
0829 movement into 50-69 is complete.
0841 Bagging on 9870381
0857 Bag on complete.
1053 Bagging off 1 daughter, bagging on another daughter.
1109 Bag on, Bag off complete
1155 Bagging off 1 daughter
1207 Bag off is complete
1222 Operators eating for lunch
1311 Operators meeting with ES Om discussing shift work hours during holidays
1334 Operators entering 50-69 to continue process
1423 Denesting and bagging on 9870213
1433 Operators returning opa center that the ring was broken on 9870213 and will not bag on on detect the drum
1505 denesting of 2 drums complete, bagged on 9815449 9870213 ring is misplaced and drum is wet
1646 Starting inside rounds
1700 late entry Bagging off daughter, Bagging on a daughter at 1622 Orlando
1703 late entry Bag on, Bag off complete continuing to process 1640 - Orlando
1736 Bagging off, Bagging on 9824184
1740 Rounds have been signed off.
805 Bag on, Bag off complete
1-11-13 1808 Being relieved by SIS Jose Lerez Orlando

no further entries this page

11-11-13

1800 Assuming WCRR operations center. - JCleeman

1805 Bag off/on complete.

1820 Pre-job and turnover with day shift being conducted.

1838 Pre-job concluded. Briefed to EP-WCRR-WO-DOP-0221 and EP-WCRR-WO-DOP-0222.

1858 Operators entering 5069 to begin operations on S824184.

1922 Initiating a drum movement from 5069 to a transportainer.

2002 Drum movement complete.

2004 Initiating a drum movement from transportainer to 5069.

2025 Drum movement complete.

2124 Bagging off 1 daughter, 1 POC, and bagging on another daughter.

2157 Bag off/on complete. Continuing to process S824184.

2315 SOS states that operators notified him of missing clips on the drum lift. Operators beginning to detest 3 drums and will replace the clips after lunch.

11-12-13 0000 Denesting complete.

0013 Operators out for lunch.

0020 Beginning outside rounds.

0050 Outside rounds complete.

0125 Operators back from lunch.

0212 Bagging off 1 daughter, bagging on S825810

0239 Bag off/on complete.

0341 Bagging off 1 daughter, 1 POC, bagging on another POC.

0406 Bag off/on complete.

0430 Beginning inside rounds.

0452 Item #63-15005, okay to proceed per CSE documentation.

0453 Inside rounds complete.

0518 Both rounds reviewed by SOS.

11-12-13 0602 Being relieved by CCO Howard Smith - JCleeman

HS

~~No further entries this page.~~

[illegible]-13 DAYSHIFT

0559 Reviewed shift turnover checklist and logbook entries and assumed the WCRR SOM position [signature]

0[illegible] Completed attending the pre-job brief conducted by [illegible] the SES. The safety topic was inspection of hoisting and rigging equipment. There are no transfers scheduled for today. A facility update was provided which included shift turnover information, the bottom of the glove box requires taping and supplies are required for bag in. Shift Orders in effect were discussed WCRR-SH-13-005 R-2 - Manual Drum Movements and WCRR-SH-13-005 R0 Precautions to prevent bag tears.

0721 RP-1 reported that the FCM-2 in Bay 69 was not [illegible]. messages were left for the radiological technicians - to support in repair.

0705 Mode Change: 50-69 /yard transition from cold/warm to Operations / Operations

[illegible] The transfer of 4 parent drums into the facility from the transportainers is completed. Observed operators wearing proper PPE, communication was adequate between the spotter and forktruck driver. Forktruck tires will require replacement.

[illegible]841 Operators initiated bag on of PARENT drum 5870381

0855 Operators completed bag on

[illegible]:50 Inside operators report initiating bag off of daughter, bag on another and continue.

[illegible] Operators initiate bag off of a daughter and bag on and continue processing.

1307 Operators complete bag on

1330 Energy Solutions PM (Lead) completes discussing scheduled work for holidays.

1433 Inside Operators initiate denesting of 5870213

1431 Operators identify cracked ring therefore will hold off on 5870213 - notsking and will initiate denesting a different parent.

1527 Inside operators complete denesting, prepping and bagging on Parent 5818449

1622 Operators initiate bag off of a daughter drum and bag on of another

1640 Bag on is noted completed - and processing continues.

1735 Inside operators report bag off of daughter and bag on Parent 5824184

1801 Initiated shift turnover checklist with nightshift SOM.

1815 Relieved by R. AXTELL as WCRR SOM [signature]

No further entries this page

[signature]

11/11/13 Night Shift

1815 Reviewed shift turnover checklist, approved and posted WCRR Night shift watchbill. Assumed WCRR SOM position.

1840 Concluded pre job brief conducted by SOS. Operators briefed and signed shift orders WCRR-SH-003R, Manual Drum Movements and SH-005 R.0 Precautions to prevent bag tears. Briefed workers to new revisions for EP-WCRR-WO DOP-221 and 222. Safety topic was watch out for wildlife in roadways - one operator hit an Elk last week.

2002 Completed moving 6 drums from 50-69 to transportainers.

2025 Completed moving 3 drums from transportainers into 50-69 for processing.

2157 Operators completed bagging off 1 POC and 1 daughter, continuing to process

2315 SOS reported that operators identified a drum lift belly band clip missing. ML-2 custodian on shift will obtain a clip from storage when the break for lunch.

11/12/13 0000 Completed denesting 3 drums

0013 Operators breaking for lunch.

0125 Resuming operations.

0239 Completed all bag offs for parent # 5824184 (2 daughters, 1 POC) total and bagged on drum # 5825810

0245 SOS reported that the belly band clip was replaced upon operators resuming operation. Also reported that denesting slings were located in 50-69.

11/12/13 0406 Completed bagging off 1 daughter and 1 POC. Continuing processing.

0520 Reviewed inside and outside round sheets.

0602 Completed review of compliance tracking schedule and updated status board.

11/12/13 0608 Relieved by J. Gundagnoli as SOM.

No further entries this page

RL9

WCR 505 Log Book

11/11/13

1800 Assuming 505 position for the evening from [illegible]

1806 Performing turnover with off going 505 Clarissa Velarde

1815 Starting Pre-Job. PCM is now start process in getting [illegible] out. [illegible] to do a walk [illegible] to them being released. Need to move out Buster and move in Raven. Joe Rucci based on and ready to start. Intery Tyler [illegible] while crossing the road, RCC hit [illegible] on the way home. Friday morning. Prior to this procedure 32 and 322, also bridge operator out sick today.

1827 Pre-Job complete.

1858 Operators entering 50-69 to start processing

1922 Starting cam movement out of 50-69 to Transportaine, total of 6 cams being moved out

2002 Movement out complete, starting movement into the facility of 3 plants.

2005 Movement in complete.

2024 Bagging off 1 daughter and 1 PC, bagging on another daughter and continuing to process.

2[illegible] Bag on/off complete, [illegible] to process 5824/84

2[illegible] Operator [illegible] stating that the clips for the cam [illegible] are missing. We are [illegible] to replace these I have them from [illegible], need to find out from operators how many are needed.

2340 Operators starting to process three records from [illegible] employees

11/12/13 0001 [illegible] D-[illegible] [illegible]

0005 [illegible] Operators breaking for lunch

0[illegible] Operators returning from break, [illegible] to replace clip on the [illegible] and need to [illegible] the [illegible] in the [illegible] section [illegible] the [illegible] of operation.

0137 Receive an [illegible] [illegible]

0212 Clip has been replaced. Start to bag off 1 daughter and [illegible] [illegible] 5824/84

0237 Bag on/bag off complete

0244 Bag on one daughter and 1 PC bag on another PC

0400 Bag on/bag off complete

0419 Paperwork [illegible] records and signed.

0426 Unable to bag off last daughter due to [illegible] being backin too high, operators having to pull [illegible] out [illegible] will need to bag off PC [illegible] on another PC to [illegible] today

0[illegible] Securing 505 position for the day, turning over to [illegible] 505.

11/12/13

No further entries on this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0128
Examination Date:	11/14/2013
Waste Container ID:	68630
Video/Audio Recorded Media Number:	LA-RTR2-13-0128 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 140.5 kg Tare Wt.: 33.4 kg Net Wt.: 107.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 68630

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, plastic lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	98.1
Soils (S):	
Total WMP Weight:	107.1

CCP Radiography Data Sheet

Waste Container ID: 68630

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Benito Maestas		11/14/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68630	Count Sequence Number:	16733
Operator:	DCLTD231\Operator		
Assay Start:	11/18/2013 2:33:07 PM		
Description 1:	2LANDA1242		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 107.0 kg	Net:	107.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.690 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16733	Batch Number:	2LANDA1242
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68630	Analysis Date:	11/18/2013

Net Weight	107000.0 g			
Pu mass	9.64E+000	+-	1.85E+000	g
TRU Alpha Activity	5.31E+000	+-	2.50E+000	Ci
TRU Activity Concentration	4.96E+004	+-	2.33E+004	nCi/g
Pu-239 Equivalent Activity	5.33E+000	+-	2.50E+000	Ci
Pu-239 FGE	9.11E+000	+-	1.84E+000	g
Decay heat	1.75E-001	+-	8.30E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.30E-007
U233	<LLD	<LLD	0.00E+000	5.39E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.21E-006
NP237	5.49E-002	3.87E-005	7.14E-006	2.90E-006
PU238	8.81E-004	1.51E-002	3.74E-003	6.25E-004
U238	<LLD	<LLD	0.00E+000	1.48E-005
PU239	9.05E+000	5.61E-001	1.14E-001	2.33E-002
PU240	5.78E-001	1.31E-001	3.26E-002	5.45E-003
AM241	1.34E+000	4.60E+000	2.49E+000	4.82E-002
PU241	1.10E-002	1.14E+000	2.82E-001	4.72E-002
PU242	1.93E-003	7.62E-006	1.89E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11/25/13

Automated Independent Technical Review

Count Sequence Number: 16733
Batch Number: 2LANDA1242
Counter ID: HENC #2
Container ID: 68630
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 11/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 11-19-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68630**

BDR Number: **LA13FG2121**

Sampling Date: **11/27/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	128.34	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131127C\
Data File : 68630.D
Acq On : 27 Nov 2013 10:28 am (#1); 27-Nov-13, 10:28:07 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 27 10:37:34 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.565	96	4167786	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.868	117	3254250	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.614	GC1	965m	128.34	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0128
Examination Date:	11/14/2013
Waste Container ID:	68633
Video/Audio Recorded Media Number:	LA-RTR2-13-0128 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 203.0 kg Tare Wt.: 33.4 kg Net Wt.: 169.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68633

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	
R:	
XPM:	Plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	157.5
Soils (S):	
Total WMP Weight:	169.6

CCP Radiography Data Sheet

Waste Container ID: 68633

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Benito Maestas		11/14/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68633	Count Sequence Number:	16730
Operator:	DCLTD231\Operator		
Assay Start:	11/18/2013 11:47:27 AM		
Description 1:	2LANDA1242		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 170.0 kg	Net:	170.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.910 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16730	Batch Number:	2LANDA1242
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68633	Analysis Date:	11/18/2013

Net Weight	170000.0 g		
Pu mass	1.95E+001	+- 4.29E+000	g
TRU Alpha Activity	1.08E+001	+- 5.21E+000	Ci
TRU Activity Concentration	6.36E+004	+- 3.06E+004	nCi/g
Pu-239 Equivalent Activity	1.09E+001	+- 5.21E+000	Ci
Pu-239 FGE	1.84E+001	+- 4.28E+000	g
Decay heat	3.57E-001	+- 1.73E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.54E-007
U233	<LLD	<LLD	0.00E+000	7.77E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.44E-006
NP237	1.34E-001	9.42E-005	2.04E-005	4.21E-006
PU238	1.78E-003	3.05E-002	8.33E-003	9.38E-004
U238	<LLD	<LLD	0.00E+000	2.60E-005
PU239	1.83E+001	1.14E+000	2.66E-001	3.49E-002
PU240	1.17E+000	2.66E-001	7.26E-002	8.17E-003
AM241	2.74E+000	9.38E+000	5.20E+000	5.99E-002
PU241	2.24E-002	2.30E+000	6.29E-001	7.08E-002
PU242	3.91E-003	1.54E-005	4.22E-006	0.00E+000
AM243	6.91E-005	1.38E-005	3.77E-006	9.09E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: Jim Barton Date: 11/25/13

Automated Independent Technical Review

Count Sequence Number: 16730
Batch Number: 2LANDA1242
Counter ID: HENC #2
Container ID: 68633
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 11/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 11-19-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68633**

BDR Number: **LA13FG2120**

Sampling Date: **11/25/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	241.38	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131125c\
Data File : 68633.D
Acq On : 25 Nov 2013 2:25 pm (#1); 25-Nov-13, 14:24:25 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 14:34:44 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.565	96	4143644	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.865	117	3273467	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.628	GC1	1815m	241.38	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S821203

S821203

Container Profile 754228

File Options Reports Help

S821203

754228	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S821203

- S821203
  - LA00000068449 - WCS
    - LASB50072
  - LA00000068416 - WIPP
  - LA00000068460 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S821203

6.2[4] Date Processed: 9-23-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] **($)** TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] **($)** Three 1-Liter containers carbon spheroids or MET-~~L~~-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] **($)** Stationary Fire Watch has been established: ☑ N/A
(> 300 PE-Ci Equivalent Combustible) N/A
(SAC 5.10.1.7.2) (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brandon Chavez [signature] 801142 9-24-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S821203

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 440.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120.0 ~~560.0~~ lb EM 9-23-13

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 560.0 lb

6.2[7] **(S)** Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A

Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S821203

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68416	68449		
10.1[4]	Daughter Drum Filter No.	LM-269	LM-270	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-6739	L-6753		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☒ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☒ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture	N		N	
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		A	A	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 gallons	N/A		
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead	Lead		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments	See comments		A
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	100%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter Stubouts	plastic		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S821203

Comments: Nitrate salts, plastic, stub outs, Kitty litter, lead shielding.

11.1[1] Performed By: Brandon Chavez / [signature] / 120171 / 9-24-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: G [illegible] / [signature] / 149285 / 9/25/13 0810
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 9-24-13

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413724
Lot No.: 210113
Manufacture Date: 12

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Tolerance:		

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: HK-1413
Manufacture Date: 8-01

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ Yes ☐ No

5. [11] Performed By: _____ / _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

N/A

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb

5. [18] 2-in. bung plug torque value: _____ ft-lb

Comments: prepped at TA-54 not At WCRRF

8.1[1] Performed By: Brandon Chace / [signature] 104112 / 9-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: G Mk / [signature] 149235 / 9/25/13
Supervisor or designee (print) Signature Z # Date

9-24-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68460

7.[23] Overpack drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±3% cal +6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez | [signature] Z04742 9-24-13
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 012065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 175.8 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez | [signature] Z04742 9-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Mtz | [signature] 149238 9/25/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 9-17-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68416

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 02/0999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: TSOP
Model No.: 6C AVC 1.5-2 SPVC
Serial No.: L-6739
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	+/- 4% cal +/- 6% ccu	+/- 3% cal +/- 6% ccu

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederick [illegible] [illegible] 12288261 9-17-13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-269
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): * 76 lbs

5.[34][E] Drum ID No.: 68416

Comments: N/C

5.[35] Performed By: Federico Archuleta / [signature] 12288261 9-17-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G [signature] / [signature] 1414285 9/25/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-17-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68916

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±3% CW ±6% CCW

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chavez / [signature] 001742 / 9-24-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☐ N/A

Performed By: N/A / / / /
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☐ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☐ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68416

6.[26]* Scale File ID number: 019065 *

6.[27] Scale is within the calibration frequency. ☐ SAT ☐ UNSAT

6.[28] Drum gross weight: 248.6 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/A

6.[32] Performed By: Brandon Chacz / [signature] / 2017412 / 9-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G Mk / [signature] / 146958 / 9/25/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68449

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.52Spvc
Serial No.: L6753
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%ocn ±6%ccn	±3%ocn ±6%ccn

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: JOE QUINTANA (Operator (print)) Joe Q (Signature) 139987 (Z#) 9/18/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM 270
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 68440

Comments: N/A

5.[35] Performed By: JOE QUINTANA / Joe Q / 239987 / 9/18/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert M / [signature] / 149251 / 9/25/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-24-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68449

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: ±3%cw ± 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chavez / [signature] 2017021 9-24-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A / / / /
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68449

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 429.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Brandon Chavez / [signature] 1004742 9-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 14935 9-25-13
Supervisor or designee (print) Signature Z # Date

9-23-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S821203

6.3[15] **(S)** 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 440.0

6.3[19] **(S)** Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Edward Mtz, [signature], 239911, 9-23-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Mtz, [signature], 149235, 9/25/13
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: G Mtz, [signature], 149235, 9/25/13, 0500
SOS/SOM or designee (print) Signature Z # Date Time

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S821203 Container Type: 85-GAL Gross Weight (lbs): 456

Inner Seal #: 009967 Filter Prefix: LAVC Filter Serial #: 02972; 03651

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS CAUTION-MAY BE PRES. DUE TO CO-2NO GAS GEN.

Total PE-Ci Activity: 1.30E+01 Equivalent Combustible PE-Ci: 4.96E+00 AM-241 PE-Ci: No data

Total Fissile Gram Equivalents: 144.0 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 2/20/2007 Comment: Impenetrable Obj,

Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☑ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000

TRUCON Code: LA125M Production Control Comments: Ensure EPA Codes D007, D008, and D009 are only label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: R. W. Jones (Production Control (Print)) Signature: R. W. Jones Z Number: 117434 Date: 9.1.10

SUSAN S. RAMSEY Signature: Susan S. Ramsey Z Number: 100681 Date: 11/27/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: RTR pre-screen indicates impenetrable object. Waste disposal record indicates leached solids in form of nitrate salts. Net weight 298 lbs. Log sheet indicates 6 items, heaviest is 97 lbs. May require RWP for > 1,000 mrem/hr @ 30-cm.

Performed By: Michael D. Garcia (WDP Engineering (Print)) Signature: Michael Garcia Z Number: 099143 Date: 9/8/10

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use Heavyweight gloves during processing. Do not push or press on waste with hands.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure. 1-8-13

Performed By: Julie Gallegos (TRU Remediation Operations (Print)) Signature: Julie Gallegos Z Number: 176905 Date: 9.2.10

ROBIN SAJUT RRS 277995 1-14-13

IHS Review Johny Anaflard CSP, No IH concerns. 12/4/12

Discardable Waste Log Sheet

DrumID: 009967

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IX 566 OX10	23.64	NITRATE SALTS		14.68	52	5/11	
2	IXPS 565 F1	22.73	NITRATE SALTS		11.58	52	5/11	
3	IXPS 567 F1	17.73	NITRATE SALTS		11.61	52	5/11	
4	IXPS 568 F1	10	NITRATE SALTS		0.24	52	5/11	
5	IXF 569 OX11	16.82	NITRATE SALTS		8.09	52	5/11	
6	IXPS 570 F1	44.09	NITRATE SALTS		106.9	52	5/11	
		135.01 kg						

1 2 7 2 0 3 1 3

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 9/16/10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Erik Loechell	Erik Loechell	234183	9-20-10
	/	/	/

Container No. (7.[1]):	S812507	S821203	S902101C
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal.	55 gal.	55 gal.
Current Filter Vent No. (7.[1]):	72	72	72
New Filter Vent No.: (7.[8][A]):	72	72	72
WIPP-Approved Filter Vent (7.[8][B]):	☒ SAT ☐ UNSAT	☒ SAT ☐ UNSAT	☒ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene		7.57	
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene			
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	0	7.57	0

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet*

Container Number (7.[1])	S862507	S821203	S902106
Hydrogen Reading (ppm) (7.[10]):	0 ppm	413.39 ppm	0 ppm
Methane Reading (ppm) (7.[10]):	0 ppm	0 ppm	0 ppm
Total VOC Reading (ppm) (7.[11]):	0 ppm	7.57 ppm	0 ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c] 7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a] 7.[9][G][b])	☐ YES ☐ NO ☒ N/A	☐ YES ☐ NO ☒ N/A	☐ YES ☐ NO ☒ N/A
Filter Torque Value (7.[9][F][a] 7.[9][G][d]) *	N/A	N/A	N/A

* No torque value required for 072 or 073 filters – Record N/A as applicable

Comments: 55 gal. drum inside 85 gal. overpack.

11.1[1] Performed By: Valerie Martinez, Valerie Martinez 239958 9/14/10
Waste Handling Operator (print) Signature Z # Date

11.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).

☒ No deficiencies

11.1[7][A] WCRRF waste container satisfies the following criteria: ☒ SAT ☐ UNSAT

- Hydrogen – less than or equal to 32,000 ppm
- VOC – less than or equal to 7,000 ppm

11.1[7][B] Reviewed By: Kenny Romero, Kenny Romero 111222 9.21.10
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\100916c\
Data File : S821203.D
Acq On : 16 Sep 2010 2:31 pm (#1); 16-Sep-10, 14:30:58 (#2)
Operator : RG
Sample :
Misc : 55 GAL. LFL SAMPLE FROM 85 GAL. OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 16 14:44:22 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Aug 18 13:26:05 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.704	96	2944537	207.75	ppmv	0.06
15) Chlorobenzene-d5	6.027	117	2214652	180.75	ppmv	0.05
Target Compounds						Qvalue
1) Hydrogen	1.669	GC1	3168m	413.39	ppmv	
12) Benzene	3.371	78	101525	7.57	ppmv	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Thu Sep 16 14:44:44 2010

9/23/13 Night Shift

1805 Reviewed Shift turnover checklist and assumed WCRR SOM position.

1806 Approved and posted Night Shift Operations watch bill.

1815 Attended prejob brief conducted by SOS. Discussed conditions of waste containers inside 50-69 to process - denesting of drums w/ bad rings - precautions and possible path forward including use of slings in a choker configuration similar to re-nesting POC's. IH safety topic was smoking cessation and programs offered @ LANL.

2115 Completed bag off of parent 5846172 and all daughters (2 total) bagged on drum # 5821203. ~~Denested 821203~~ MR 9/23/13 After denesting.

2344 Completed drum movement of 3 drums from 50-69 to transportainers.

2355 Operators reported fume hood is alarming. Directed operators to check FE-002 flowrate on Allen Bradley - flowrate reported to be 6200 cfm - normal reading.

9/24/13 0009 Requested RP-1 to conduct surveys in vicinity of fume hood. It was reported to OCO from operators that when checking the Allen Bradley that keying the radios caused interference.

0017 Operators breaking for lunch.

0035 RP-1 completed surveys of area around fume hood - all are NDA. Portable CAM unit was placed in front of fume hood as a precautionary measure. Researching past e-mails and log entries for previous fume hood alarms w/ actions taken.

0220 Fume hood alarm has not reset - notified OM

0235 Contacted CSE regarding fume hood alarm - He stated that as long as other ventillation system parameters are normal (verified) that ~~since~~ MR 9/24/13 since fume hood is inoperable and sealed off w/ tape & plastic that operations should not be affected. He recommended trying a reset of the alarm.

0241 Operator reported that reset of fume hood alarm failed. Operator has silenced the audible alarm.

0247 With concurrence of CSE per OM as IOD - Immediate Operability

Continued on next page →

9/23/13 Night Shift Continued

9/23/13 0247 Determination has been completed for the Containment Ventilation System - Alarming fume hood is an inoperable piece of equipment not credited in the TSR's. Due to all other parameters with the CVS indicating normal the system is operable.

0250 Resuming operations.

0316 Completed movement of 3 drums into 50-69.

0358 SOS reported that fume hood is alarming once again w/ an error message of "Emergency". Directing personnel to place waste in safe configuration

0405 Contacted CSE - directed alarm to again be reset - alarm was reset successfully. Operator identified there was no difference in flow rates on meter reading.

0407 Operators completed bagging of one daughter. SOS reported that parent still has 1/3 of contents left in it however lid is degraded and probably will not be able to be put back on parent to place waste is safe configuration.

0410 Notified OM of current conditions. He directed if lid could not be placed on parent drum to continue processing until safe configuration is obtained.

0422 Operators were able to close parent drum on WCB - waste is in a safe configuration.

0440 Late Entry @ 0406 - Operator @ fume hood reported that meter display is now indicating "Caution" but is not alarming - flow rate is the same. KKG

0540 Completed review of rounds - verified that all ventilation readings are normal.

0540 Late Entry @ 0511 - Sent E-mail to CSE C. Pelcher requesting assistance w/ Fume Hood alarm first thing this morning. KKG

0613 Relieved by J. Guadagnoli as SOM.

No further entries this page KKG

9-24-13 Day shift

0601 Reviewed the shift turnover checklist and assumed the SOM Position [illegible]

0645 Completed attending the pre-job brief conducted by the SOS (Gilbert). The safety message was be prepared for emergencies. Also when picking up loads, use legs and two man rule for specific lifts. Roles and Responsibilities were assigned. A transfer in of 18 drums and transfer out of 12 drums were noted as scheduled. The Fume hood was noted to be alarmed on Nightshift. An IOD was conducted based on AIRFLOW readings. The CSE and OM were in discussion. Nightshift Operators indicated the Fume hood alarmed upon exiting and the glovebox is in a safe configuration (lid on drum). Alarm status will need to be verified.

0708 Completed morning status POD update with AREA 6 - SOM.

0740 Completed discussion with OM, RP-1, ES-PM, regarding the alarm on the Fume Hood, Currently there is no ALARM condition, RP-1 will place a CAMM in front of the fume hood as precautionary - Operators can enter and resume work. The CSE will arrive at WCRRF verify damper position and will reset controller. Procedure driven work is released.

0815 CSE arrives to enter 50/69 and verify damper and set points -

0920 CSE exits and verifies damper open - per valve alignment and set points are noted to alarm when No FLOW ∅ exists. Neg. pressure is maintained in the B-Box. RCT Terry Healy supported CSE.

0955 Initiated Review of Timely Order Logbook -

1052 P+T notified the SOM that Drum 5-853492 is being dropped from the transfer in, due to the drum ring noting to be 1/4" crack.

1100 Notification is made to the Operations Center that an operator inside 50/69 Rm 102 cut his finger - RP-1/RCTs responding.

1102 OCD enters, EP-WCRR- RM-EDP-0309-R3 -Injured Person at WCRR-

1104 OCD Notifies IH/and the ES/Management.

1105 SOM notifies the OM, noting operator cut his left hand thumb approximately 3/4 inch on inside (print area) there was no blood. OCC med was notified of person to be in route. The operator was wearing nitrile gloves.

1116 Operator is escorted to OCC MED, and the RP-1 supervisor reports the HAND is NDA, smears on the banding are NDA, and the operator exited through the PCM-2 - OK - no detection

9-24-13 DAYSHIFT.

continued
1116 of any contamination. Notification / updates were provided to the OM. The OM is notifying the FOD, Project Manager, and DOE.

1121 Operations inside completed the bag off of the parent Drum 9821203 which generated 2 daughters.

1204 The SOS briefs the operators on the proper use of PPE

1220 The briefs are concluded by the SOS

1238 The operator returns from OCC Med. noting at that all counts were NDA. The operator will be restricted from entering contamination and Hi Rad Areas for 1 week. The EOP-0309-R3 was exited by the OCO.

1253 SOS/SOM/ESH discussed putting appropriate hazard controls into an ILOD which allows Energy Solutions personnel to adjust the 85 gallon drum grabber with concurrence from the maintenance manager. The SOS will brief operators and document the briefing tomorrow.

1330 Operators enter the area to continue processing

1400 Inside Operators initiate bag offs and denesting, and bag on of Parent Drum ~~9831~~ 5851739

1450 Operations completed bag-offs and bags on of Parent successfully

1630 Completed observing Operators and RCTs remove drums from the Transfer Vehicle and stage for transfer to the transportainer. Appropriate PPE was worn and complied. Operators performed inspection of drums utilizing the procedure. One drum was noted as 20 mrem at contact. All drums over 5 mrem were being flagged with chandeliers.

1631 Late Entry for 1611 inside operations report Bag off of 1 daughter and Bag On another

1706 The transfer to the transportainer was noted completed.

1718 Inside Operators report bag off of a daughter and Parent Drum 5851739 which generated 2 Daughters, and bag on of Parent Drum 5841314

1805 Conducted shift turnover with Nightshift SOM

1812 Relieved of SOM position John Guadagnoli

No further Entries this page

1-23-13 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted Shift brief EP-WCRR-RM-ACP-0202, R3 And EP-DIV-DCP-00086, R1. Also talked About Fatigue.

0645 Concluded shift brief Operators Attending All Hand Meeting

0710 Reviewed Inside And outside Rounds

0955 Personal back from All Hand Meeting

1000 Mode Change Complete WCRRF In operations.

1005 Inventory Control notified that they are having Issues with label maker (Shortines) Contacted waste help on Issue

1126 bagging on first drum of day labels will be printed to TA 46 Drum # 90586 PPE check sat.

1-23-13 1137 PPE Check

1158 RCT have paused work In facility Drum 90886 has Potential Chrystalization ES IH making Determination

1205 OK to Proceed Per IH

1225 bagging off and bagging on 90925

1300 Operators breaking for lunch

1400 Operators entering facility From lunch

1500 Bagging off and bagging on ~~90966~~ 90965

1528 PPE Check

1604 Bagging on And bagging off. Bagged on 90957

1600 Inside And outside Rounds Reviewed ~~90957~~ GM 1.27.13

1704 Bagging off last drum of day.

1755 Mode Change Complete WCRRF In warm.

1-25-13 1830 end of shift Securing SOS Position [illegible] on

RG

No further entries on this Page

1.24B WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief Discussed sliding of drums. In transport. Vehicle And In building.

0635 shift brief Concluded.

0709 Reviewed Inside And outside Rounds.

0720 Mode Change Complete

0757 Bagging on 90134 First drum of day

0810 PPE Check

0848 Bagging off And bagging on 90885

0850 PPE Check sat

0930 PPE Check sat

1010 Bagging off And bagging on 90932

1040 PPE Check

1110 Bagging off And bagging on 5834480

1140 Inside personal notified of a 30 gallon sealed.

1155 Drum has been breached.

1225 30 minute wait on sealed 30 gallon Elapsed

1309 PPE check sat.

1330 Bagging off And bagging on 5818279

1415 Operator Inside Informed that drum has a lot of Small Can that have to be opened with Can opener. may take longer time to process

1635 Reviewed Inside And outside Rounds

1705 bagging off First drum of day

1706 ~~1530~~ late entrie Bagging off And bagging on 5823305 1550 Gm

1800 mode change complete WCRRF In warm.

1830 end of shift securing SOS Position [illegible]

HG

No further entries on this page

9-23-13

0550 ASSUMMING WCRRF OPO POSITION HASMITH
0551 SCALE VERIFICATIONS BEING PERFORMED
0551 BEGINNING OUTSIDE ROUNDS
0615 BEGINNING PRE-JOB BRIEFING
0617 ITEM #19 OUTSIDE ROUNDS UNSAT PERMISSION TO PROCEED PER CSE
0625 OUTSIDE ROUNDS COMPLETED
0628 STARTING INSIDE ROUNDS
0635 PRE-JOB CONCLUDED
0640 BEING ~~RELIEF~~ 9/23/13 HS RELIEVED BY OCO CVELARDE, HASMITH
0641 Assuming WCRRF Operations center OCO position - CVelarde
0715 Item #63 is OOS, POD in place okay to proceed per CSE documentation
0718 WCCH receptacle has been placed in the off position.
0732 Inside and outside rounds signed off by SDS.
0734 Forklift 943092 has error code 6, 303 and 304 have been notified. SOM will contact maintenance.
0745 mode change has been performed TASD-69 and WCRRF yard are now in operations.
0800 Starting movement into SD-69
0821 movement into SD-69 is complete
0853 Starting to denest 3 drums will be bagging on 9846195
0939 Denesting is complete of 1 drum. Operators did not ~~bag~~ 9-24-13 denest 2 drums due to degraded lid and broken ring. Bag on of 9846195 is complete.
1000 Starting movement of drums to transport vehicle Permission granted to lower vehicle access gates.
1047 Bagging off 1 daughter, bagging on 1 daughter.
1103 Bag on, Bag off is complete.
1140 Vehicle access gates have been restored, movement complete to transport vehicle.
1147 Starting movement into 50-69.
1203 movement into 50-69 is complete.
1304 being relieved by OCO Howard Smith - CVelarde
1305 1403 9/23/13 ASSUMMING OPERATIONS CENTER FROM CVELARDE - HSMITH
1403 STARTING DENESTING PRICESS, BAGGING OFF S 846195 AND 1 DAUGHTER, BAGGING ON S846172
CONTINUED ON NEXT PAGE - HSMITH

9/23/13 CONTINUED FROM PREVIOUS PAGE - H SMITH
1406 CONTINUING THE PROCESS
1507 DENESTING COMPLETE, BAG ON BAG OFF COMPLETE
BAGGED ON S846172, DENESTED 1 DRUM, DID NOT
DENEST S846037 DUE TO HOLES IN LID.
1519 STARTING INSIDE ROUNDS
1533 STARTING OUTSIDE ROUNDS
1543 ITEM #63 ODS INSIDE ROUNDS, OKAY TO PROCEED
PER CSE DOCUMENTATION, PDD IN PLACE
1548 ITEM #19 UNSAT OUTSIDE ROUNDS, OKAY TO PROCEED
PER CSE DOCUMENTATION, FSR IN PLACE
1553 COMPLETED OUTSIDE ROUNDS
1555 INSIDE ROUNDS COMPLETE
1630 OUTSIDE ROUNDS REVIEWED BY SDS
1640 STARTING MOVEMENT INTO TA50-69 FROM TA50-194/75
1647 ADVISED BY SDS INSIDE ROUNDS REVIEWED AT 1639
1650 MOVEMENT INTO TA50-69 COMPLETE
1655 ~~MOVET~~ 9/23/13 HS STARTING MOVEMENT INTO TA50-194/75 FROM
TA50-69
1700 MOVEMENT INTO TA50-194/75 COMPLETE
1703 BAGGING OFF BAGGING ON
1723 BAG ON BAG OFF COMPLETE, CONTINUING TO PROCESS
9/23/13 1800 BEING RELIEVED BY OCO TERRI COLEMAN H SMITH
HS

NO FURTHER ENTRIES ON THIS PAGE

9-23-13

1800 Assuming WCRR operations center. JCollins

1820 Beginning pre-job.

1830 Pre-job concluded.

1914 Operators entering 50-69

2020 Operators denesting, bagging off 1 daughter and bagging on S821203.

2115 Denesting, bag off/on complete.

2334 Initiating a drum movement from 50-69 to a transportainer and transportainer to 50-69.

unexpected condition 2355 Operators report that the fume hood is alarming. Contacted RCT's who stated to reset the fume hood alarm. Operators report that on the Allen Bradley, FE-002 is reading 6200 cfm. SOS and SOM notified.

2356 Late entry-At 2344, the drum movement out of 50-69 was complete. JC

2413 0009 SOM states that the RCT's should take a few area smears to be safe to make sure nothing is coming out. Also operators state that the radios interfere with the Allen Bradley.

0035 RCT states all smears of the fume hood are NSA and he has also placed the portable CAM in front of the fume hood for precautionary measures.

0036 Late entry-At 0017, operators out for lunch JC

0224 OM notified by SOM.

0227 OM states to reset the alarm.

0235 SOM notified CSE.

0241 Operator states reset of fume hood failed.

0247 Per CSE, SOM will initiate an IOD for the fume hood.

0250 Operators notified to resume operations.

0316 Movement into 50-69 complete.

0352 Bagging off 1 daughter, bagging on another daughter

0358 Operators state the fume hood is alarming reading "emergency". SOM has been notified. Operators will complete the bag off and place everything in a safe configuration.

Continued on next page JCollins

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0115
Examination Date:	9/26/2013
Waste Container ID:	68416
Video/Audio Recorded Media Number:	LA-RTR2-13-0115 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 113.0 kg Tare Wt.: 33.4 kg Net Wt.: 79.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 68416

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bags, 90 mil liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	73.6
Soils (S):	
Total WMP Weight:	79.6

CCP Radiography Data Sheet

Waste Container ID: 68416

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: The scan of this drum was performed by in-training operator Eddie Rios under the supervision of qualified operator Michael Simmons.

RTR Operator:

M. Simmons/ E. Rios	Eddie Rios	9/26/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68416	Count Sequence Number:	23676
Operator:	D3PW2DK1\operator		
Assay Start:	10/2/2013 2:40:15 PM		
Description 1:	1LANDA1850		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 79.6 kg	Net:	79.6 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	0.770 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

021
CJ 6/18/14

NDA 2000 Assay Report

Item Information

Item ID:	68416	Count Sequence Number:	23676
Operator:	D3PW2DK1\operator		
Assay Start:	10/2/2013 2:40:15 PM		
Description 1:	1LANDA1850		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 79.6 kg	Net:	79.6 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	0.770 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

CJ 6/17/14

CJ 6/17/14 021A

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23676
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68416

Batch Number: 1LANDA1850
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/2/2013

Net Weight	79600.0 g		
Pu mass	1.01E+002	+-	1.60E+001 g
TRU Alpha Activity	1.29E+001	+-	1.29E+000 Ci
TRU Activity Concentration	1.62E+005	+-	1.62E+004 nCi/g
Pu-239 Equivalent Activity	1.31E+001	+-	1.29E+000 Ci
Pu-239 FGE	9.53E+001	+-	1.50E+001 g
Decay heat	4.13E-001	+-	4.13E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.33E-001	9.39E-005	1.84E-005	5.10E-006
PU238	9.24E-003	1.58E-001	2.50E-002	3.28E-005
PU239	9.48E+001	5.88E+000	9.30E-001	1.22E-003
PU240	6.06E+000	1.38E+000	2.18E-001	2.86E-004
AM241	1.59E+000	5.46E+000	8.63E-001	1.13E-003
PU241	1.16E-001	1.20E+001	1.90E+000	2.49E-003
PU242	2.02E-002	7.99E-005	1.26E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.36E-007
U233	<LLD	<LLD	0.00E+000	9.96E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.00E-006
U238	<LLD	<LLD	0.00E+000	1.92E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6-6-14

ITR: [signature] Date: 6.9.14

022
CJ 6/7/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23676
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68416

Batch Number: 1LANDA1850
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/2/2013

Net Weight	79600.0 g		
Pu mass	1.01E+002	+-	1.60E+001 g
TRU Alpha Activity	8.39E+000	+-	9.68E-001 Ci
TRU Activity Concentration	1.05E+005	+-	1.22E+004 nCi/g
Pu-239 Equivalent Activity	8.61E+000	+-	9.69E-001 Ci
Pu-239 FGE	9.52E+001	+-	1.50E+001 g
Decay heat	2.64E-001	+-	3.02E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.33E-001	9.39E-005	1.84E-005	5.10E-006
PU238	9.24E-003	1.58E-001	2.50E-002	3.28E-005
PU239	9.48E+001	5.88E+000	9.30E-001	1.22E-003
PU240	6.06E+000	1.38E+000	2.18E-001	2.86E-004
AM241	2.84E-001	9.73E-001	1.54E-001	2.02E-004
PU241	1.16E-001	1.20E+001	1.90E+000	2.49E-003
PU242	2.02E-002	7.99E-005	1.26E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.36E-007
U233	<LLD	<LLD	0.00E+000	9.96E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.00E-006
U238	<LLD	<LLD	0.00E+000	1.92E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 10/3/13

ITR: [signature] Date: 10-3-13

SUPERCEDED CJ 6/17/14

CJ 6/17/14 022A

Automated Independent Technical Review

Count Sequence Number: 23676
Batch Number: 1LANDA1850
Counter ID: MCS HENC #1
Container ID: 68416
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 10/2/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

023
CJ 6/17/14

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma results.

Expert Review by: Bart B. Marah Date: 6/3/14

023A
CJ 6/17/14

CJ 6/17/14

SUPERSEDED

Automated Independent Technical Review

Count Sequence Number: 23676
Batch Number: 1LANDA1850
Counter ID: MCS HENC #1
Container ID: 68416
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 10/2/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 10-3-13

ES 6/17/14 023B

Waste Container ID: **68416**

BDR Number: **LA13FG12107**

Sampling Date: **10/23/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	429.18	
74-82-8	Methane	9.63	U
67-56-1	Methanol	30.57	U
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	11.55	U
75-34-3	1,1-Dichloroethane	2.29	U
156-59-2	cis-1,2-Dichloroethene	0.36	U
78-93-3	Methyl ethyl ketone	2.55	U
110-82-7	Cyclohexane	2.09	U
71-43-2	Benzene	1.27	
107-06-2	1,2-Dichloroethane	0.92	U
71-36-3	1-Butanol	0.54	U
108-10-1	Methyl isobutyl ketone	3.11	U
108-88-3	Toluene	2.73	U
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\131023C\
Data File : 68416.D
Acq On : 23 Oct 2013 1:32 pm (#1); 23 Oct 2013 1:31 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 23 13:40:19 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed May 22 12:06:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.063	96	7200043	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	5370668	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	122425	429.18	ppmv	100
12) Benzene	3.720	78	37496	1.27	ppmv	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0119
Examination Date:	12/9/2013
Waste Container ID:	68449
Video/Audio Recorded Media Number:	LA-HERTR-13-0119 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 195.0 kg Tare Wt.: 33.4 kg Net Wt.: 161.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68449

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	137.6
Soils (S):	
Total WMP Weight:	161.6

CCP Radiography Data Sheet

Waste Container ID: 68449

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Benito Maestas		12/9/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68449	Count Sequence Number:	24028
Operator:	D3PW2DK1\operator		
Assay Start:	12/20/2013 11:06:51 AM		
Description 1:	1LANDA1884		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 162.0 kg	Net:	162.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.870 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24028	Batch Number:	1LANDA1884
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68449	Analysis Date:	12/20/2013

Net Weight	162000.0 g			
Pu mass	7.22E+001	+-	2.61E+001	g
TRU Alpha Activity	1.28E+001	+-	5.47E+000	Ci
TRU Activity Concentration	7.89E+004	+-	3.38E+004	nCi/g
Pu-239 Equivalent Activity	1.29E+001	+-	5.47E+000	Ci
Pu-239 FGE	6.81E+001	+-	2.60E+001	g
Decay heat	4.14E-001	+-	1.81E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.09E-006
U233	<LLD	<LLD	0.00E+000	9.40E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.62E-006
NP237	1.56E-001	1.10E-004	2.32E-005	4.86E-006
PU238	6.59E-003	1.13E-001	4.57E-002	2.47E-003
U238	<LLD	<LLD	0.00E+000	2.45E-005
PU239	6.77E+001	4.20E+000	1.61E+000	9.22E-002
PU240	4.33E+000	9.83E-001	4.03E-001	2.16E-002
AM241	2.18E+000	7.48E+000	5.21E+000	2.57E-001
PU241	8.23E-002	8.48E+000	3.47E+000	1.86E-001
PU242	1.44E-002	5.71E-005	2.34E-005	0.00E+000

Errors quoted at 1.000 sigma

Operator: Marla Sa Date: 1.2.14

ITR: Brit Lupton Date: 1-7-14

Automated Independent Technical Review

Count Sequence Number: 24028 Batch Number: 1LANDA1884
Counter ID: MCS HENC #1
Container ID: 68449
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/20/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 1-2-14

Waste Container ID: **68449**

BDR Number: **LA14FG2003**

Sampling Date: **1/10/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	452.18	
74-82-8	Methane	142.14	U
67-56-1	Methanol	41.82	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	5.25	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140110c\
Data File : 68449.D
Acq On : 10 Jan 2014 12:01 pm (#1); 10-Jan-14, 12:00:51 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 10 12:10:18 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.535	96	3528389	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.848	117	2658042	177.50	ppmv	-0.01
Target Compounds						Qvalue
1) Hydrogen	1.612	GC1	3400m	452.18	ppmv	
4) Methanol	0.883	31	11791	41.82	ppmv	100
12) Benzene	3.219	78	65479	5.25	ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S822541

S822541

Container Profile 763456

File Options Reports Help

S822541

763456	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S822541

- S822541
  - 94203
    - LASB02092
  - 94206
  - 94205
  - 94207 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.0010445	%			

ATTACHMENT 1
Page 1 of 4

81513 jc

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S822541

6.2[4] Date Processed: 8/15/13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☑ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] **($)** TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019069
Cal. Due Date: 10/14/14

4.3[5][B] **($)** Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] **($)** Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☐ SAT ☑ UNSAT ☐ N/A

Performed By: Clayta Mullins, CA 240092, 8/15/13
Waste Handling Tech (print) Signature Z # Date

change gloves station 2 right and station 7 both left and right. CM

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5822541

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 394.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 160.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 554.0 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A / / /

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1

Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5822541

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	94203		N	
10.1[4]	Daughter Drum Filter No.	KL-444			
10.1[4]	Daughter Drum Bag Filter No.	L-8195		A	
10.1[4]	Daughter Drum Purchase Order No.	501323			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP		
	Model No.	6CPVC15-2CPVC	6CPVC15-2PVC		
	Serial No.	L-8161	L-8213		
	Date of Manufacture	3-13	3-13		
10.2[5]	POC ID No	D-2444/ 94205	D-2376/ 94206		
10.2[7][B]/10.2[6]	POC Item Description	Nitrate Salts Kitty litter	Nitrate Salts Kitty litter		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	98 116662	8-8-8 cm 240096		
10.2[14]	POC Assembly Gross Weight (lb)	414.6	380.9		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1621	1451	N/A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/a			
10.3[5][A]	Free Liquid Volume/Units	1-gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Rad			
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	plastics			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5822541

Comments: Nitrate Salts, Kitty litter, Plastic and Room Trash

11.1[1] Performed By: Clayton Mullins, CM 240092, 8/15/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jocz, [signature] 321452, 8/24/13 0915
SOS or designee (print) Signature Z # Date/Time

Workbook copy
Date: 81513 gr

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501012
Lot No.: 0233945
Manufacture Date: 2012

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Tolerance:		

Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 019DS
Serial No.: EK-1154
Manufacture Date: 5/10

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. N/A ☐ Yes ☐ No

5. [11] Performed By: _____ / _____ / _____
Waste Handling Technician (print) Signature Z# Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: N/A _____ in-lb

5. [18] 2-in. bung plug torque value: _____ ft-lb

Comments: not prepped at TA-50

8.1[1] Performed By: Clayton Mullins / CA 240072 / 8/15/13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Jose Jerez / [signature] 221452 / 8/24/13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 5
Page 1 of 1

8/5/13 JL

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94207

7.[24] Overpack drum closure ring torque wrench information:
M&TE No.: 038373
Cal. Expiration Date: 9/11/13
Range in ft-lb: 10-80
Tolerance: ±3% cw / ±6% ccw

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Clayton Mullins, CM 240096, 8/15/13
Waste Handling Technician (print) Signature Z # Date

7.[27] Overpack drum closure ring torque value: 60 ft-lb

7.[30] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10/14/14

7.[35][D] 85-gal overpack drum gross weight (lb): 171.4 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins, CM 240096 8/15/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Perez, [signature] 221452, 8/24/13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 94203

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501323
Lot #: 0237720
Date of Manufacture: 13

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 16CPVC-1.5SPVC
Serial #: L-8195
Date of Manufacture: 3-12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 019DS
Serial #: KL-444
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+/- 4% cw +/- 6% ccw	Tolerance:	+/- 3% cw +/- 6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

- [x] Yes
- [ ] No

Print Name: Frederick Ashlock Signature: [signature] Z#: 228826

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 75.8
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Frederick Ashlock Operator Sign: [signature] Z#: 228826 Date: 8-13-13

Verifier Print: Clayton Mullins Verifier Sign: [signature] Z#: 240092 Date: 8/15/13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 94203

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 09-11-13

Range/ Value (ft-lbs): 10-80

--- Tolerance +/-3% cw +/-6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 156.6

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date 8-15-13

Verifier Print/Sign: [illegible] Date: 8-15-13

8/14/13 (CM)

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5822541

6.3[15] ($) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10/14/14

6.3[18] Prepared parent 55-gal drum weight (lb): 394.0

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Clayton Mullins, CM — Waste Handling Technician (print) Signature — Z# 240092 — Date 8/14/13

8.1[7] Reviewed By: Jose Perez, [signature] — Supervisor or designee (print) Signature — Z# 221452 — Date 8/24/13

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Jose Perez, [signature] — SOS/SOM or designee (print) Signature — Z# 221452 — Date 8-24-13 — Time 0915

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S822541 Container Type: 55-GAL Gross Weight (lbs): 399
Inner Seal #: 011324 Filter Prefix: LAVC Filter Serial #: 02702
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: LA-HERTR-12-0094
TWSR Comments: LEACHED SOLIDS
Total PE-Ci Activity: 3.53E+00 Equivalent Combustible PE-Ci: 1.33E+00 AM-241 PE-Ci: 2.87E-01
Total Fissile Gram Equivalents: 39.0 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007 D008 D009 VE 12/11/12
NCR RTR/NDA Comment: LANL: remediate-1.) 4 Gallons of prohibited liquid in plastic bags at 20" and 32."2.) 90mil rigid liner not vented, constituting a sealed container greater than 4 liters
RTR Pre-Screen Date: 3/20/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 26"
Certified RTR Comment: Prohibted Liquid - >4 Liter
Prohibited Items: ☑ Sealed > 4 Liters ☑ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☑ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☐ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: None Production Control Comments: Nitrate Salts apply mixture + EPA Codes.

Performed By: Julie Gallegos (Production Control (Print)) / Julie Gallegos (Signature) / 176905 (Z Number) / 10/18/12 (Date)

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 339# Generator info shows 2 items of nitrate salts, with weights of 46# + 193#. RTR BDR shows plastic bags + homogenous solids. It also shows prohibited liquids, >4 L sealed container(s), + lead lined drum. Nitrate salts require repack w/ admixture. No chemicals identified, nitrate salts carry waste codes for chromium, lead, + mercury.

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 12/12/12 (Date)

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use Proper PPE Mix Ratio

Performed By: G ML (TRU Remediation Operations (Print)) / G M. (Signature) / 149235 (Z Number) / 6/19/13 (Date)
Jose Jerez / Jose Jerez / 221452 / 6/22/13

IHS REVIEW: AS 206362 12/17/12

Discardable Waste Log Sheet

DrumID: 011324

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS 486 F1	87.5	NITRATE SALTS		31.3	52	5/11	
2	IXFS 487 FA	20.91	NITRATE SALTS		10.17	52	5/11	
		108.41 kg						

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0094
Examination Date:	8/29/2012
Waste Container ID:	S822541
Video/Audio Recorded Media Number:	LA-HERTR-12-0094 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-1633-12 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 175.5 kg Tare Wt.: 60.1 kg Net Wt.: 115.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [X] No [ ] Yes [ ] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [ ] No [X] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: S822541

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag 90 MIL Liner with Liner Lid	9.4
Other: Lead Lined (LP)	23.0
Total Packaging Weight	60.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	111.4
Soils (S):	
Total WMP Weight:	115.4

CCP Radiography Data Sheet

Waste Container ID: S822541

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	[X] Yes [ ] No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [X] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[X] Yes [ ] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [X] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [X] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [X] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [X] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [X] No
Is there an indication of PCBs liquids?	[ ] Yes [X] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [X] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [X] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [X] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [X] No
Are there sealed containers GREATER than 4 liters?	[X] Yes [ ] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [X] No

Comments: Per CCP-SO-LANL-55 Inconsistencies associated with these packaging configurations (90 MIL. Liner with Liner Lid) will not disqualify the container from meeting the waste stream description. NCR-LANL-1633-12

RTR Operator:

Eric Lyles		8/29/2012
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: Feb 21 2013

Container No. (5.[1])	S82E42					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	172					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	6 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	11435 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	4273 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Nathan Wiles, 258866
CCP (Print) Z#

Reviewed By: Sara Aragon, 23 9475
CCP (Print) Z#

Comments:
N/a

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Julie Gallegos, Julie Gallegos, 176945, 2-21-13
Waste Handling Operator (print) Signature Z# Date

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130221c\
Data File : S822542.D
Acq On : 21 Feb 2013 2:59 pm (#1); 21 Feb 2013 2:57 pm (#2)
Operator : NW
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 21 15:04:05 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Feb 21 08:46:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.930	GC1	203755m	714.35	ppmv	
2) Methane	3.837	GC1	5551m	42.23	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

H2-CH4.M Thu Feb 21 15:04:12 2013 UNIT12

8-14-13 DAYSHIFT

0608 Reviewed shift turnover checklist and assumed SOM position - [illegible]

0650 Completed pre-job brief with the SOS (Gilbert). The safety topic was to ensure communication is clear, understood with repeat backs and have a questioning attitude. The ES/PM informed all operators that following procedures is a requirement and personnel will be monitored. There is one transfer scheduled out. Currently Parent drum S793767 is bagged on. Shift Orders - Drum Movements and Precautions to prevent Bag Tears is in affect.

0705 Completed the daily call with AREA 6 SOM - POD

0823 WO# 470295-01 weather strip repair for Ops Center - 50-84 door was reviewed and approved to work.

0855 WO# 454468-01 / 50-69 - TSR - (M) Valve Alignment Inspection 4.2.4 was reviewed and approved to conduct, and is on the POD

0900 Weather strip work performed by craft on 50-84 door is complete.

0914 Operators initiated Bagging off 1 daughter and POC and Bagging on 1 POC to continue the process.

0930 Operators inside notified the operations Center that they identified a hole in the bag. The hole was contained and currently no contamination detected.

0950 RCT reported that during the bagoff of the daughter drum and while transitioning from the red lift table to the coaster, prior to bagging off (making the cut) the top edge of the drum contacted the box and the cut occured. 2000 dpm alpha removable was detected. RCT had operators place a piece of tape over the cut - contained contamination. and completed the bagoff and bagged on an empty POC. RCTs will perform a 50 count survey, the 2000dpm was within the RWP limits operations will pause pending the survey. Notification was made to the OM.

1010 Inside operators inform the OCO that bagoffs are completed

1012 QA arrives at WCRRF to assess bag off/bag on bags and initiates discussion with SOS/SOM on ML-2 storage issues - Notification made to the OM - Also the procedure writer reviewed Procedure with production Inventory and provided a demonstration on the hand held tracker, EP-WCRR-WO-DOP-0208 comments from Night shift were provided to the procedure writer for updating DOP-0208 - Section 7 step 7 - needs clear shipping set-up worksheet and section 6 step 8 needs step delete/clear.

(continued on next page)

(8-14-13 DAYSHIFT continued)

1020 The SOM requested QA – to provide updates to the Non conformance logbook. He will provide an updated list to the OCO and the OCO will update the Logbook.

1025 Operators exited to take a break while surveys were being conducted.

1053 RP-1 reports all surveys are NDA – and release area to work

1055 Operator enter and continue to operate / process the drum

1115 Valve alignment has been completed.

1200 Attended daily call in conference call with OM/PM and SOM/and Mike oversight.

1210 Bagging off 1 ~~daughter~~ POC 8-14-13, and daughter being bagged on –

1223 Bag on / Bag off noted complete

1300 Operators exit facility to break for lunch, RP-1 indicates there are not enough RCTs to support change over and continuous processing through lunch.

1400 Operator enter 50/69 to initiate processing.

1402 CSE, PLANNER, CRAFT SUPERVISOR and Overhead Door personnel arrive to obtain RWP brief and scope the roll up door for potential replacement.

1428 Operations Center entered the 30/30 rule for Severe Weather EPLXRR-RM-ADP-0207

1450 Inside operators informed the Operations Center that drum 5799767 was bagged off and drum 5855637 Pennent was bagged on – operations continue.

1458 The Operations Center exited the 30/30 rule for Severe Weather ADP-0207.

1522 Bag on and Bag offs were completed, CAMs were noted elevated, RCTs will request pause and allow CAMs to cycle.

1554 RCTs notify OCO that CAMs are noted back to Normal. All operators passed thru the hand and foot monitor successfully. Operations resumed

1620 The non-conformance logbook is up to date in the Operations Center.

1725 Inside operations report bagging off 1 daughter and bagging on 1 daughter

1730 Outside Operations complete the movement of 5 drums from the facility to trans pontainer

1809 Conducted shift turnover and reviewed checklist turnover with Nightshift SOM

1812 Served the dayshift SOM position [signature]

LB 8-30-13

No further Entries this page

[signature] 8-14-13

8/14/13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [illegible]

0610 Had meeting with ES OM And PM Also operators 16, 30 and 31 on Procedure violation from day Prior OM will contact me about Further actions.

0630 Meet Concluded with ES OM And PM operators 16, 30 and 31

0633 Conducted Shift brief with operators Discussed Procedure Compliance And Childish behavior As well as pointing Fingers and other crew we are a team and need to work as one.

0703 Concluded shift brief

0758 Starting movement from transportainer to Area 6

0858 Shipment complete.

0913 Starting Monthly Valve Alignment

0914 Bagging off 1 daughter And POC Bagging on 1 POC And continuing

0930 Operator notified of Hole In Bag No Contamination Operators Following PCL Instruction. notified SOM Minor Incident

0950 Minor Incident while operator was bagging on drum. Operato Pulled drum For bag off At this time drum was Coming off drum LIFT table And At the Port bag was torn at this time It was taped off And the Bag off was Completed. RCT found 200 DPM within RWP Limits RCTs will Conduct 50 smears Operators will exit till smears Count are Returned.

1025 Operators Exiting Facility

1040 QA onsite to inspect bags.

1053 Notified BY RCT smear are ok resuming operation.

1115 Valve Alignment Complete.

1210 Bagging off 1 POC And Daughter being bagged on

1223 Bag on/off complete

1428 30-20 Rule due to Lightning.

1450 Bagging of 5793767 Bagging on 5855637

1458 Resuming outdoor operation

1522 Bag on/off complete notified of elevated cams RCTs will Allow cams to cycle

1554 RCTs notified cams are normal operator thru Hand and Foot no Contamination Found

1615 Begin Rounds

Continued from next Page

4/14/3
1650 Inspected Inside and outside Boards.
1725 Bag on/OFF on Daughter
1741 Bag on/off complete
1830 Shift brief completed with Jose Jerez

no further entries on this Page

8-14-13

1815 Assuming WCRF operations center - K Oleman
1835 Pre-job being conducted by SOS.
1858 Pre-job concluded.
2045 Notified by Tech 50 that station 8 right and left ha gloves need to be changed out.
2114 Beginning to de-nest 3 drums.
2200 Denesting complete. Bagging off S855637, bagging on S822542.
2222 Bag off/on complete. Everything is in a safe configurat
2229 Mode change complete. We are now in Warm Standby in WCRF yard and 50-69.
~~2230 Beginning~~ JC 8-14-13
2319 Beginning glove changes on Station 8, L + R gloves.
2343 Glove changes complete.
2346 Mode Change complete. We are now in operations in WCRF yard and 50-69
0224 Bagging off 1 daughter, bagging on another daughter.
0240 Bag off/on complete.
0426 Bagging off, bagging on S822541.
0452 Beginning outside rounds.
0455 Bag off/on complete. Beginning inside rounds.
0503 Item #3 is unset, FSR in place, okay to proceed.
0514 Outside rounds completed.
0521 Inside rounds completed.
0523 Item #63 is OOS, POD in place, okay to proceed.
0527 Inside rounds complete.
0530 Initiating a drum movement from 50-69 to a transportainer
0549 Drum movement out of 50-69 complete.
0555 Both rounds reviewed by SOS.
8-15-13 0612 Shift turnover briefing with OCO, Clarissa Velarde. Colu

No further entries this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0103
Examination Date:	8/21/2013
Waste Container ID:	94203
Video/Audio Recorded Media Number:	LA-RTR2-13-0103 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 156.5 kg Tare Wt.: 33.4 kg Net Wt.: 123.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 94203

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM: Scrap lead

OI:

C:

R: Leaded rubber gloves

XPM: Plastic lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	5.0
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	101.1
Soils (S):	
Total WMP Weight:	123.1

CCP Radiography Data Sheet

Waste Container ID: 94203

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:N/A

RTR Operator:

Benito Maestas		8/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94203	Count Sequence Number:	16445
Operator:	DCLTD231\Operator		
Assay Start:	8/22/2013 1:59:20 PM		
Description 1:	2LANDA1216		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 123.0 kg	Net:	123.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.740 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16445	Batch Number:	2LANDA1216
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94203	Analysis Date:	8/22/2013

Net Weight	123000.0 g		
Pu mass	2.07E+001	+-	4.08E+000 g
TRU Alpha Activity	1.42E+001	+-	6.80E+000 Ci
TRU Activity Concentration	1.15E+005	+-	5.53E+004 nCi/g
Pu-239 Equivalent Activity	1.42E+001	+-	6.80E+000 Ci
Pu-239 FGE	2.04E+001	+-	4.08E+000 g
Decay heat	4.68E-001	+-	2.26E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.13E-006
U233	<LLD	<LLD	0.00E+000	1.12E-002
U234	3.28E-002	2.04E-004	6.85E-005	0.00E+000
U235	2.34E+000	5.05E-006	1.69E-006	4.63E-006
NP237	2.04E-001	1.44E-004	2.76E-005	6.05E-006
PU238	7.54E-003	1.29E-001	1.04E-001	5.36E-003
U238	<LLD	<LLD	0.00E+000	2.69E-005
PU239	1.88E+001	1.16E+000	2.51E-001	4.83E-002
PU240	1.82E+000	4.12E-001	9.75E-002	1.71E-002
AM241	3.63E+000	1.25E+001	6.79E+000	1.02E-001
PU241	2.62E-002	2.70E+000	6.46E-001	1.12E-001
PU242	5.45E-002	2.15E-004	9.83E-005	0.00E+000
AM243	2.46E-003	4.91E-004	9.45E-005	8.25E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 8/27/13

ITR: _____ Date: 8-27-13

Automated Independent Technical Review

Count Sequence Number: 16445 Batch Number: 2LANDA1216
Counter ID: HENC #2
Container ID: 94203
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than n-sigma * the correction factor error.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	OK Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors. MCA Deadtime greater than the upper limit of 50.0%.	OK No spectral distortion observed. Deadtime = 61.36%

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 8/27/13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **94203**

BDR Number: **LA13FG12087**

Sampling Date: **9/4/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	301.64	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130904c\
Data File : 94203.D
Acq On : 4 Sep 2013 11:09 am (#1); 4 Sep 2013 11:08 am (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 12:23:55 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.897	GC1	86043m	301.64	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0103
Examination Date:	8/21/2013
Waste Container ID:	94205
Video/Audio Recorded Media Number:	LA-RTR2-13-0103 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 188.0 kg Tare Wt.: 145.1 kg Net Wt.: 42.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 94205

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve(Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	0.2
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	42.7
Soils (S):	
Total WMP Weight:	42.9

CCP Radiography Data Sheet

Waste Container ID: 94205

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:
Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid, therefore, the liner is vented.

RTR Operator:

Benito Maestas		8/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94205	Count Sequence Number:	16443
Operator:	DCLTD231\Operator		
Assay Start:	8/22/2013 12:34:13 PM		
Description 1:	2LANDA1216		
Description 2:	POC - GROSS WT. = 188.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 42.9 kg	Net:	42.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.811 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16443	Batch Number:	2LANDA1216
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94205	Analysis Date:	8/22/2013

Net Weight	42900.0 g			
Pu mass	1.14E+001	+-	2.51E+000	g
TRU Alpha Activity	1.60E+001	+-	8.31E+000	Ci
TRU Activity Concentration	3.73E+005	+-	1.94E+005	nCi/g
Pu-239 Equivalent Activity	1.60E+001	+-	8.31E+000	Ci
Pu-239 FGE	1.09E+001	+-	2.50E+000	g
Decay heat	5.30E-001	+-	2.76E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.01E-006
U233	<LLD	<LLD	0.00E+000	1.07E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.55E-006
NP237	2.11E-001	1.49E-004	3.01E-005	5.74E-006
PU238	1.05E-003	1.79E-002	4.88E-003	1.12E-003
U238	<LLD	<LLD	0.00E+000	2.36E-005
PU239	1.07E+001	6.66E-001	1.55E-001	4.16E-002
PU240	6.87E-001	1.56E-001	4.25E-002	9.73E-003
AM241	4.42E+000	1.51E+001	8.31E+000	8.73E-002
PU241	1.33E-002	1.37E+000	3.72E-001	8.53E-002
PU242	2.29E-003	9.06E-006	2.47E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: Ann Barton Date: 8/27/13

ITR: Date: 8-27-13

Automated Independent Technical Review

Count Sequence Number: 16443 Batch Number: 2LANDA1216
Counter ID: HENC #2
Container ID: 94205
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	OK Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test failed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 8/27/13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **94205**

BDR Number: **LA13FG12087**

Sampling Date: **9/4/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	162.81	
74-82-8	Methane	26.19	
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130904c\
Data File : 94205.D
Acq On : 4 Sep 2013 10:13 am (#1); 4 Sep 2013 10:12 am (#2)
Operator : EL
Sample :
Misc : POC through Drum Filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 10:17:35 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	46443m	162.81	ppmv	
2) Methane	3.727	GC1	3491m	26.19	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0103
Examination Date:	8/21/2013
Waste Container ID:	94206
Video/Audio Recorded Media Number:	LA-RTR2-13-0103 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 172.5 kg Tare Wt.: 145.1 kg Net Wt.: 27.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 94206

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
AM:	
OM:	Scrap lead
OI:	
C:	
R:	
XPM:	
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve(Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	26.4
Soils (S):	
Total WMP Weight:	27.4

CCP Radiography Data Sheet

Waste Container ID: 94206

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:
Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid, therefore, the liner is vented.

RTR Operator:

Benito Maestas		8/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94206	Count Sequence Number:	16446
Operator:	DCLTD231\Operator		
Assay Start:	8/22/2013 2:51:22 PM		
Description 1:	2LANDA1216		
Description 2:	POC - GROSS WT = 172.5		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 27.4 kg	Net:	27.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.737 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16446	Batch Number:	2LANDA1216
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94206	Analysis Date:	8/22/2013

Net Weight	27400.0 g			
Pu mass	7.02E+000	+-	1.48E+000	g
TRU Alpha Activity	7.57E+000	+-	3.84E+000	Ci
TRU Activity Concentration	2.76E+005	+-	1.40E+005	nCi/g
Pu-239 Equivalent Activity	7.58E+000	+-	3.84E+000	Ci
Pu-239 FGE	6.66E+000	+-	1.47E+000	g
Decay heat	2.51E-001	+-	1.28E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.41E-007
U233	<LLD	<LLD	0.00E+000	6.51E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.12E-006
NP237	9.31E-002	6.57E-005	1.25E-005	3.51E-006
PU238	6.43E-004	1.10E-002	2.91E-003	7.05E-004
U238	<LLD	<LLD	0.00E+000	1.55E-005
PU239	6.59E+000	4.08E-001	9.14E-002	2.62E-002
PU240	4.21E-001	9.56E-002	2.53E-002	6.14E-003
AM241	2.06E+000	7.05E+000	3.84E+000	5.04E-002
PU241	8.14E-003	8.38E-001	2.22E-001	5.38E-002
PU242	1.41E-003	5.55E-006	1.47E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: Sari Barton Date: 8/27/13

ITR: Date: 8-27-13

Automated Independent Technical Review

Count Sequence Number: 16446 Batch Number: 2LANDA1216
Counter ID: HENC #2
Container ID: 94206
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	OK Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 8/27/13

Waste Container ID: **94206**

BDR Number: **LA13FG12087**

Sampling Date: **9/4/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	182.70	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130904c\
Data File : 94206.D
Acq On : 4 Sep 2013 10:26 am (#1); 4 Sep 2013 10:24 am (#2)
Operator : EL
Sample :
Misc : POC through Drum Filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 10:30:05 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.893	GC1	52114m	182.70	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

26

S822542

S822542

Container Profile 757184

File Options Reports Help

S822542

757184	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S822542

- S822542
  - 94202 - EMPTY
  - 94201 - LANL
    - LASB50086
  - 94200 - WIPP

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
49.99947775	%			

Working Copy
Date: 8-14-13 [illegible]

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: ~~S8228~~ cm 8-14-13 S822542

6.2[4] Date Processed: 8/14/13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: ~~10/14/13~~ cm 8-14-13 10/14/14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Clayton Mullins, CM 1240092 8/15/13
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5822542

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 440.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 560.8 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	N/A1 Signature	Z #	Date

ATTACHMENT 1

Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5822542

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	94200	94201		
10.1[4]	Daughter Drum Filter No.	KL-442	KL-430	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-6888	L-8220		N/A
10.1[4]	Daughter Drum Purchase Order No.	501321	501321		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A		
10.3[5][A]	Free Liquid Volume/Units	5 gal.	2 gal.		
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A	Lead shielding		
10.3[9][A]	PCB-contaminated Waste Description		N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments	see comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	30%	100%		
10.5[3]/10.6[2]	Description Waste Added During Processing	plastics, WCG gloves, kitty litter	plastics WCG gloves, kitter litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5822542

Comments: plastics and nitrate salts

11.1[1] Performed By: Clayton Mullins, CM 1240092, 8/15/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Perez, [signature] 221452, 8/15/13 0621
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 8/14/13 EM

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Tolerance:		

Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 019DS
Serial No.: EK-1134
Manufacture Date: 5/10

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. N/A ☐ Yes ☐ No

5. [11] Performed By: _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: N/A in-lb

5. [18] 2-in. bung plug torque value: _____ ft-lb

Comments: ~~n/a~~ EM 8-14-13 not prepped at TA-50

8.1[1] Performed By: Clayton Mullins / CM 124092 / 8/14/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Jerez / [signature] 12452 / 8/15/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 8-14-13 JL

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94202

7.[24] Overpack drum closure ring torque wrench information:
M&TE No.: 038373
Cal. Expiration Date: 9/11/13
Range in ft-lb: 10-80
Tolerance: ±3% cw / ±6% ccw

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Clayton Mullins, CA — 1240092 — 8/14/13
Waste Handling Technician (print) Signature — Z # — Date

7.[27] Overpack drum closure ring torque value: 60 ft-lb

7.[30] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10/14/14

7.[35][D] 85-gal overpack drum gross weight (lb): 170.2 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins, CA — 1240092 — 8/15/13
Waste Handling Technician (print) Signature — Z # — Date

8.1[7] Reviewed By: Jose Jerez, [signature] — Z1452 — 8/15/13
Supervisor or designee (print) Signature — Z # — Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 94200

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 201321
Lot #: 0237720
Date of Manufacture: 13

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: DOP
Model #: 6CPVC-1.5-23PVC
Serial #: L-6888
Date of Manufacture: 1/13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019 DS
Serial #: KL-442
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038365
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: MICHAEL MONTOYA Signature: [signature] Z#: 191352

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 75.8
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: MICHAEL MONTOYA Operator Sign: [signature] Z#: 191352 Date: 8/13/13

Verifier Print: Clayton Mullins Verifier Sign: [signature] Z#: 240092 Date: 8/14/13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 94200

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓Mount lid with filter directly over drum seam.

✓Install ring with bolt positioned downward and directly over drum seam.

✓Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 9/11/13

Range/ Value (ft-lbs): 10-80 / 60

Tolerance ±3% cw / ±6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓Place one yellow radioactive waste label between the top two rolling hoops

✓Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

✓Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 202.0

Scale ID#: 019065

✓Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓Have RCT monitor drum prior to moving to storage area

✓Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓Complete TWSR.

Operator Print/Sign: Clayton Mullins CA Date 8/15/13

Verifier Print/Sign: Justin Colier Date: 8-15-13

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 94201

1. Drum/Lid Assembly

- ☑ Remove and discard ¾" bung from lid
- ☑ Remove Lid
- ☑ Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- ☑ Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 501321
Lot #: 0237720
Date of Manufacture: 13

2. Drum Liner Bag/Filter Assembly:

- ☑ Place yellow vinyl tape, with smear centered on tape, over filter
- ☑ Fill bag with air from compressed air source
- ☑ Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- ☑ Stretch bag's bungee cord
- ☑ Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CNC-1.5-2SPVC
Serial #: L-8220
Date of Manufacture: 3/13

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- ☑ Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- ☑ Place cardboard/plastic liner into drum liner bag/filter assembly
- ☑ Line up filter with drum seam
- ☑ Place liner/bag/filter assembly into drum
- ☑ Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- ☑ Place lid and ring onto drum
- ☑ Tighten ring sufficiently to simply hold lid in place
- ☑ Torque 2" bung plug
- ☑ Apply sealant to filter threads, screw in ¾" bung hole, and torque
- ☑ Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 219 DS
Serial #: KL-2130
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+/- 4% cw +/- 6% ccw	Tolerance:	+/- 3% cw +/- 6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Frederico Archuleta Signature [signature] Z#: 228826

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 76.0
File ID #: 019005

- ☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- ☑ Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- ☑ Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: BRIAN GALLEGOS Operator Sign: [signature] Z#: 267129 Date: 8-13-13

Verifier Print: _____ Verifier Sign: _____ Z#: _____ Date: _____

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 94201

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓Mount lid with filter directly over drum seam

✓Install ring with bolt positioned downward and directly over drum seam

✓Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press

✓Tighten jam nut

Record torque wrench information:

MT&E #: 038373

Cal expiration date 9/11/13

Range/ Value (ft-lbs): 10 - 80 / 60

--- Tolerance ± 3% cw / ± 6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels

✓Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label

✓Place one barcode drum ID label to the right of drum seam between the top two rolling hoops

✓Place one yellow radioactive waste label between the top two rolling hoops

✓Place one yellow radioactive waste label in the center of the drum lid

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops

OR

✓Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information

Gross Weight(lbs) 503.4

Scale ID# 019065

✓Using a permanent marker, write the gross weight on the drum lid

4. FINALIZE DOCUMENTATION

✓Have RCT monitor drum prior to moving to storage area

✓Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓Complete TWSR

Operator Print/Sign: Clayton Mullins Date 8/15/13

Verifier Print/Sign: Gerald Espinoza Date: 8-15-13

8/14/13 (cw)

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5822542

6.3[15] ($) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10/14/14

6.3[18] Prepared parent 55-gal drum weight (lb): 440.8

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Clayton Mullins / [signature] / 240092 / 8/14/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez / [signature] / 221452 / 8/15/13
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Jose Jerez / [signature] / 221452 / 8/15/13 / 0623
SOS/SOM or designee (print) Signature Z # Date Time

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S822542 Container Type: 55-GAL Gross Weight (lbs): 310
Inner Seal #: 011368 Filter Prefix: LAVC Filter Serial #: 03716
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: LA-HERTR-12-0089
TWSR Comments: LEACHED SOLIDS EVAPORATOR SALTS
Total PE-Ci Activity: 1.34E+01 Equivalent Combustible PE-Ci: 5.03E+00 AM-241 PE-Ci: 1.09E+00
Total Fissile Gram Equivalents: 148.3 Total Surface Dose Rate (mrem/hr): 44
EPA Code(s): D007 D008 D009 WE 12/11/12
NCR RTR/NDA Comment: LANL: remediate-3 GAL. of prohibited liquid in plastic bags at 16" to 32".
RTR Pre-Screen Date: 12/11/2006 Comment: Impenetrable Obj.
Certified RTR Comment: Prohibited liquid
Prohibited Items: ☐ Sealed > 4 Liters ☑ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☐ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ 1,000 and <10,000 ☐ >10,000
TRUCON Code: None Production Control Comments: Apply Kitty Litter in liner / zipper mixture

Performed By: Julie Gallegos / Julie Gallegos / 176905 / 10/18/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt ≈ 250# Generator info shows 6 items of nitrate salts, weights range from 6–160#. RTR BDR shows scrap lead, plastic bags + homogeneous solids. It also shows prohibited liquids. ~~RTR BDR also~~ VR 12/12/12
Nitrate salts require repack w/ admixture. No chemicals identified. Nitrate salts carry waste codes for chromium, lead, + mercury

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 12/12/12
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: Use Proper PPE and Kitty Litter Ratio

Performed By: Gilbert Martinez / Gilbert Martinez / 149235 / 6/28/13
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jorez / Jose Jorez / 221452 / 7/22-13 7/2/13

IHS review: VR 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 011368

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS 478 F1	18.41	NITRATE SALTS		12.22	52	5/11	
2	IXFS 491 F1	2.92	NITRATE SALTS		0.3	52	5/11	
3	IXFS 480 F1	9.09	NITRATE SALTS		0	52	5/11	
4	IXFS 484 F1	19.09	NITRATE SALTS		23.7	52	5/11	
5	IXFS 483 F1	18.55	NITRATE SALTS		92.67	52	5/11	
6	IXFS 485 F1	72.74	NITRATE SALTS		28.64	52	5/11	
		140.8 kg						

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0089
Examination Date:	8/23/2012
Waste Container ID:	S822542
Video/Audio Recorded Media Number:	LA-HERTR-12-0089 C
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [x] Yes NCR No.: NCR-LANL-1563-12 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 196.5 kg Tare Wt.: 35.1 kg Net Wt.: 161.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Fiberboard Liner: [x] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: S822542

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous Solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP): 90 mil liner with Liner lid EL 8/23/12	7.4
Others:	0.0 EL 8/23/12
Total Packaging Weight	35.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	16.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	141.4
Soils (S):	
Total WMP Weight:	161.4

CCP Radiography Data Sheet

Waste Container ID: S822542

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	[x] Yes [ ] No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [x] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[x] Yes [ ] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [x] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [x] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [x] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [x] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [x] No
Is there an indication of PCBs liquids?	[ ] Yes [x] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [x] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [x] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [x] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [x] No
Are there sealed containers GREATER than 4 liters?	[ ] Yes [x] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [x] No
Comments: NCR-LANL-1563-12	

RTR Operator:

Eric Lyles		8/23/2012
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: Feb 21 2013

Container No. (5.[1])	587542					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	172					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	6 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	11435 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	4273 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Nathan Wiles (CCP (Print)) 1 2 58 1 6 4 (Z#)

Reviewed By: Sara Aragon (CCP (Print)) 1 23 74 75 (Z#)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 1 7 6 9 5 (Z#) 2-21-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130221c\
Data File : S822542.D
Acq On : 21 Feb 2013 2:59 pm (#1); 21 Feb 2013 2:57 pm (#2)
Operator : NW
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 21 15:04:05 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Feb 21 08:46:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.930	GC1	203755m	714.35	ppmv	
2) Methane	3.837	GC1	5551m	42.23	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

H2-CH4.M Thu Feb 21 15:04:12 2013 UNIT12

8-4-13

1815 Assuming WCRF operations center. [illegible]

1835 Pre-job being conducted by SOS.

1858 Pre-job concluded

2045 Notified by Tech 50 that station 8 right and left hand gloves need to be changed out

2114 Beginning to de-nest 3 drums.

2200 Denesting complete. Bagging off S855637, bagging on S822542.

2222 Bag off/on complete. Everything is in a safe configuration

2229 Mode change complete. We are now in Warm Stand by in WCRF yard and 50-69

~~2235 Beginning~~ [illegible]

2319 Beginning glove changes on Station 8, L + R gloves.

2343 Glove changes complete.

2346 Mode change complete. We are now in operations. WCRF yard and 50-69

0224 Bagging off/daughter, bagging on another daughter.

0240 Bag off/on complete.

0426 Bagging off, bagging on S822541.

0452 Beginning outside rounds.

0455 Bag off/on complete. Beginning inside rounds.

0503 Item #3 is unit, FSR in place, okay to proceed

0514 Outside rounds completed.

0521 Inside rounds completed.

0523 Item #6 is OCS, HD in place, okay to proceed

0527 Inside rounds complete.

0530 Initiating a drum movement from 50-69 to a transportainer

0549 Drum movement out of 50-69 complete.

0555 Bot rounds [illegible] by SOS.

8-5-13 0612 [illegible] turnover briefing with OSC, [illegible]

No further activity this page

8-14-13 DAYSHIFT

0608 Reviewed shift turnover checklist and assumed SOM position - [signature]

0650 Completed pre-job brief with the 505 (Gilbert). The safety topic was to ensure communication is clear, understood with repeat backs and have a questioning attitude. The ES/PM informed all operators that following procedures is a requirement and personnel will be monitored. There is one transfer scheduled out. Currently Parent drum S793767 is bagged on. Shift Orders - Drum Movements and Precautions to prevent Bag Tears is in affect.

0705 Completed the daily call with AREA G SOM - POD

0823 WO# 470295-01 weather strip repair for Ops Center -50-84 door was reviewed and approved to work.

0855 WO# 454468-01 / 50-69 - TSR - (m) Valve Alignment Inspection 4.2.4 was reviewed and approved to conduct, and is on the POD

0906 Weather strip work performed by craft on 50-84 door is complete.

0914 Operators initiated Bagging off 1 daughter and POC and Bagging on 1 POC to continue the process.

0930 Operators inside notified the operations Center that they identified a hole in the bag. The hole was contained and currently no contamination detected.

0950 RCT reported that ~~the~~ during bagoff of the daughter drum and while transitioning from the red lift table to the coaster, prior to bagging off (making the cut) the top edge of the drum contacted the box and the cut occured. 2000 dpm alpha removable was detected. RCT had operators place a piece of tape over the cut - contained contamination. and completed the bagoff and bagged on an empty POC. RCTs will perform a 50 count survey, the 2000dpm was within the RWP limits operations will pause pending the survey. Notification was made to the OM.

1010 Inside operators inform the OCO that bagoffs are completed.

1012 QA - arrives at WCRRF to assess bag off/bag on bags and initiates discussion with 505/SOM on MLLW storage issues - Notification made to the OM - Also the procedure writer reviewed Procedure with production Inventory and provided a demonstration on the hand held tracker, EP-WCRR-WO-DOP-0208 comments from Night shift were provided to the procedure writer for updating DOP-0208 - Section 7 step 7 - needs clear shipping set-up worksheet and section 6 step 8 needs step delete/clear.

(Continued on Next Page)

No further entries this page [signature]

(8-14-13 DAYSHIFT continued)

1020 The SOM requested QA – to provide updates to the Non conformance logbook. He will provide an updated list to the OCO and the OCO will update the Logbook.

1025 Operators exited to take a break while surveys were being conducted.

1053 RP-1 reports all Smears are NDA – and release area to work

1055 Operator enter and continue to operate / process the drum

1115 Valve alignment has been completed.

1200 Attended daily call in conference call with OM/PM and SOM/and Mike oversight.

1210 Bagging off 1 ~~daughter~~ PDC, and daughter being bagged on –

1223 Bag on / Bag off noted complete

1300 Operators exit facility to break for lunch, RP-1 indicates there are not enough RCTs to support change over and continuous processing through lunch.

1400 Operator enter 30/69 to initiate processing.

1402 CSE, PLANNER, CRAFT SUPERVISOR and Overhead Door personnel arrive to obtain RWP brief and scope the roll up door for potential replacement.

1428 Operations Center entered the 30/30 rule for Severe Weather EPI-XRR-RM-NOP-0207

1450 Inside operators informed the Operations Center that drum 5799767 was bagged off and drum 5855637 Pement was bagged on – operations continue.

1458 The Operations Center Exited the 30/30 rule for Severe Weather NOP-0207.

1522 Bag on and Bag offs were completed, CAMs were noted elevated, RCTs will request pause and allow CAMs to cycle.

1554 RCTs notify OCO that CAMs are noted back to Normal. All operators passed thru the hand and foot monitor successfully. Operations resumed

1620 The non-conformance log book is up to date in the Operations Center.

1725 Inside operations report bagging off 1 daughter and bagging on 1 daughter

1730 Outside Operations complete the movement of 5 drums from the facility to trans pontainer

1809 Conducted shift turnover and reviewed checklist turnover with Nightshift SOM

1812 Secured the dayshift SOM position [signature]

No further Entries this page

[signature] 8-14-13

8/14/13 Night Shift

1812 Reviewed shift turnover checklist, approved and posted Night Shift operations watchbill and assumed WCRR SOM position.

1830 Attended pre job brief conducted by SOS. Safety topic was snake bites - actions - awareness due to increase of activity. Discussed procedural compliance, importance of fully completing paperwork including reviews/corrections. Shift Orders in effect for Manual Drum Movements and Precautions to prevent bag tears.

2045 Notified by SOS that glove inspections are calling out for station #8 with R&L be changed out. Operators continuing to process w/out using station #8 until bag off's are completed and mode can be changed.

2200 Operators completed denesting 3 drums.

2222 All bag off's completed for parent #5855637 (2 daughters total) bagged on 5822542.

2229 Completed Mode Change: WCRR Yard/Bldg 50-69 from Operations/Operations to Warm/Warm to perform glove changes.

2319 Operators starting glove changes

2343 Operators completed glove changes on station #8 R&L.

2344 Completed Mode Change: WCRR yard/Bldg 50-69 from Warm/Warm to Operations/Operations.

8/15/13 0224 Bagging off 1 daughter, bagging on a second daughter

0240 Bag on/off complete.

0455 All bag off's of parent #5822542 are completed (2 daughters total) New parent #5822541 is bagged on.

0530 Started movement of 6 drums from 50-69 to transportation.

0549 Drum movements completed.

0608 Turned over SOM position to day shift. Secured as night shift SOM.

8/20/13

No further entries this page

HR9

8/14/13 WCRR SOS LOG BOOK

0000 Assuming SOS Position [illegible]

0610 Had meeting with ES OM And PM Also operators 16, 30 And 31 on procedure violation from day Prior OM will contact me about Further actions.

0630 Meet concluded with ES OM And PM operators 16, 30 and 31

0633 Conducted Shift brief with operators Discussed Procedure Compliance And Childish behavior as well as pointing fingers and other crew, we are a team and need to work as one.

0703 Concluded shift brief.

0758 Starting movement from transportation to Bay 6

0858 Shipment complete.

0913 Starting Monthly Valve Alignment.

0914 Bagging off 1 daughter And Poc Bagging on 1 POC And continuing.

0930 Operator notified of Hole In Bag No Contamination Operators Following RCI. Instruction. utilized SOM Minor Incident

0950 Minor Incident while operator was bagging on daughter. Operator Pulled drum For bag off At this time drum was removing off drum lift table And hit the Port bag was torn at this time It was taped off And the Bag off was Completed. RCT found 200 DPM within RWP limits RCTs will Conduct 50 smears Operators will exit till smears Count are Returned.

1025 Operators Exiting Facility

1040 QA onsite to inspect bags.

1051 Notified BY RCT smear are ok Resuming operation.

1115 Valve Alignment Complete.

1210 bagging off 1 Poc And Daughter being bagged on

1223 Bag on/off complete

1428 30-20 rule due to Lightning.

1450 Bagging of 5793767 Bagging on 5955637

1458 Resuming outdoor operation

1522 Bag on/off complete notified of elevated cams RCTs will Allow cams to cycle

1554 RCTs notified cams are normal operator Thru Hand and Foot no Contamination Found.

1615 Bagging Rounds.

Continued on next Page

2/14/3	Continued from next Page
1850	Reviewed Inside and outside Bundle.
1725	Bag on/OFF on Daughter
1741	Bag on/off complete
1830	Shift brief completed with Jose Jerez

no further entries on this Page

8/14/13 WCRR 505 Log Book

1800 Assuming 505 position for the evening. [illegible]. Performed turnover with off going 505 Gilbert Martinez

1815 Meeting with Energy Solutions Ops Manager two 505's and other Production Manager discussing sequence of events from the prior shift discussing procedure violations and path forward.

1830 Concluded meeting with Energy Solutions Ops manager starting Pre-Job brief with crew. Safety Topic discussing snake bites and actions to take. Day crew processed one parent and second one is bagged on almost complete once complete, will need to D-Nest remaining parents for processing. Discussed Procedure compliance with the crews and ensuring paperwork is completed

1900 Completed Pre-Job brief.

2045 Notified by operator that station 8 right and left hand gloves need to be changed

2114 Processing of Parent that was bagged on by day shift complete, will start to D-Nest 3 parents

2200 D-Nesting complete, Bagging off 5855637, Bagging on 5822542

2222 Bag on, Bag off complete

2229 Mode Change. WCRR yard and 50-69 in WARM for glove changes on station 8 Right and left

2319 Beginning glove changes on station 8

2343 Glove Changes complete

2346 Mode change complete. WCRR yard and 50-69 are in Operations.

0030 Operator breaking for lunch

0130 Operators returning from lunch.

0224 Bagging off 1 daughter, bagging on second daughter to continue processing

0240 Bag off complete.

0426 Bagging off, Bagging on 5822541

0452 Bag on, Bag off complete

0549 Movement from 50-69 to Transportainer Complete.

0555 Rounds Reviewed and signed.

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0103
Examination Date:	8/21/2013
Waste Container ID:	94200
Video/Audio Recorded Media Number:	LA-RTR2-13-0103 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 91.5 kg Tare Wt.: 33.4 kg Net Wt.: 58.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 94200

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Scrap metal
AM:	
OM:	
OI:	
C:	
R:	Leaded rubber gloves
XPM:	Plastic bags, plastic lid
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	5.0
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	49.0
Soils (S):	
Total WMP Weight:	58.1

CCP Radiography Data Sheet

Waste Container ID: 94200

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	[X] Yes [ ] No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [X] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[ ] Yes [X] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [X] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [X] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [X] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [X] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [X] No
Is there an indication of PCBs liquids?	[ ] Yes [X] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [X] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [X] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [X] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [X] No
Are there sealed containers GREATER than 4 liters?	[ ] Yes [X] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [X] No
Comments:N/A	

RTR Operator:

Benito Maestas		8/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94200	Count Sequence Number:	23501
Operator:	D3PW2DK1\operator		
Assay Start:	8/23/2013 10:32:56 AM		
Description 1:	1LANDA1833		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 58.1 kg	Net:	58.1 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	0.560 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23501	Batch Number:	1LANDA1833
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	94200	Analysis Date:	8/23/2013

Net Weight	58100.0 g			
Pu mass	1.94E+000	+-	4.92E-001	g
TRU Alpha Activity	1.59E+000	+-	7.75E-001	Ci
TRU Activity Concentration	2.73E+004	+-	1.33E+004	nCi/g
Pu-239 Equivalent Activity	1.59E+000	+-	7.75E-001	Ci
Pu-239 FGE	1.83E+000	+-	4.61E-001	g
Decay heat	5.24E-002	+-	2.58E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.93E-002	1.36E-005	2.24E-006	1.26E-006
PU238	1.77E-004	3.03E-003	7.69E-004	3.36E-005
PU239	1.82E+000	1.13E-001	2.86E-002	1.25E-003
PU240	1.16E-001	2.64E-002	6.70E-003	2.93E-004
AM241	4.21E-001	1.44E+000	7.75E-001	2.77E-002
PU241	2.24E-003	2.31E-001	5.87E-002	2.57E-003
PU242	3.88E-004	1.53E-006	3.89E-007	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.81E-007
U233	<LLD	<LLD	0.00E+000	2.44E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	7.20E-007
U238	<LLD	<LLD	0.00E+000	5.50E-006

Errors quoted at 1.000 sigma

Operator: Martha [illegible] Date: 8.27.13

ITR: [illegible] Date: 8.27.13

Automated Independent Technical Review

Count Sequence Number: 23501 Batch Number: 1LANDA1833
Counter ID: MCS HENC #1
Container ID: 94200
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/23/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Cosmic Ray Rejection Analysis complete with warnings. - The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 8-26-13

Waste Container ID: **94200**

BDR Number: **LA13FG12087**

Sampling Date: **9/4/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	52.36	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130904c\
Data File : 94200.D
Acq On : 4 Sep 2013 12:37 pm (#1); 4 Sep 2013 12:35 pm (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 12:40:43 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.893	GC1	14935m	52.36	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0103
Examination Date:	8/21/2013
Waste Container ID:	94201
Video/Audio Recorded Media Number:	LA-RTR2-13-0103 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 228.0 kg Tare Wt.: 33.4 kg Net Wt.: 194.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	100 %

CCP Radiography Data Sheet

Waste Container ID: 94201

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
AM:	
OM:	Scrap lead
OI:	
C:	
R:	Leaded rubber gloves
XPM:	Plastic bags, plastic containers
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	2.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	5.0
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	181.6
Soils (S):	
Total WMP Weight:	194.6

CCP Radiography Data Sheet

Waste Container ID: 94201

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:N/A

RTR Operator:

Benito Maestas		8/21/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94201	Count Sequence Number:	16442
Operator:	DCLTD231\Operator		
Assay Start:	8/22/2013 11:48:38 AM		
Description 1:	2LANDA1216		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 195.0 kg	Net:	195.0 kg
Container:	Volume: 208.0 l	Full:	100.0 %
Density:	0.940 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16442	Batch Number:	2LANDA1216
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94201	Analysis Date:	8/22/2013

Net Weight	195000.0 g		
Pu mass	1.32E+002	+- 2.97E+001	g
TRU Alpha Activity	2.38E+001	+- 8.05E+000	Ci
TRU Activity Concentration	1.22E+005	+- 4.13E+004	nCi/g
Pu-239 Equivalent Activity	2.41E+001	+- 8.05E+000	Ci
Pu-239 FGE	1.25E+002	+- 2.96E+001	g
Decay heat	7.70E-001	+- 2.67E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.22E-006
U233	<LLD	<LLD	0.00E+000	1.52E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.89E-006
NP237	2.17E-001	1.53E-004	3.37E-005	8.23E-006
PU238	1.21E-002	2.07E-001	5.74E-002	1.83E-003
U238	<LLD	<LLD	0.00E+000	3.11E-005
PU239	1.24E+002	7.68E+000	1.84E+000	6.81E-002
PU240	7.92E+000	1.80E+000	4.99E-001	1.59E-002
AM241	4.10E+000	1.41E+001	7.82E+000	1.23E-001
PU241	1.53E-001	1.58E+001	4.38E+000	1.40E-001
PU242	2.64E-002	1.04E-004	2.90E-005	0.00E+000
AM243	9.02E-004	1.80E-004	4.03E-005	1.10E-005

Errors quoted at 1.000 sigma

Operator: Ami Barton Date: 8/27/13

ITR: Date: 8-27-13

Automated Independent Technical Review

Count Sequence Number: 16442 Batch Number: 2LANDA1216
Counter ID: HENC #2
Container ID: 94201
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. NCC Pu mass was above calibration range. FGE is greater than the upper limit of 200.00 The Standard NCC Pu effective mass exceeds the Upper Calibration Limit. No roots found within the limits while determining the Standard NCC Pu Mass, Chose largest positive root. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	OK The measured Pu-240 eff. mass exceeds the 16.28g calibration limit of the neutron instrument. Neutron data show multiplication. Neutron results not applied. Gamma results applied. Gamma results consistent with AK
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.

Comments	Disposition
Section 4 - MGA Analysis Expert review is recommended; the following validity tests failed: Normalized fit value (1.33) is greater than allowed (1.15). Fit value (6.23) is greater than allowed (2.50). Pu239 weight percent is outside limits [92.5, 95.0]. Note: The measured and declared isotopics are inconsistent.	Isotopic analysis failed. AK Isotopics applied. The AK information utilized was provided by Steve, AKE, and conists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Jared D [illegible] Date: 8/27/13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **94201**

BDR Number: **LA14FG12011**

Sampling Date: **1/24/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	3.39	U
74-82-8	Methane	6.56	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\140124c\
Data File : 94201.D
Acq On : 24 Jan 2014 1:18 pm (#1); 24 Jan 2014 1:16 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NUCFIL-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 24 13:24:44 2014
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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S822679

S822679

Container Profile 746996

File Options Reports Help

S822679

746996	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S822679

S822679
- LA00000069638
- LA00000069645
- LA00000069705 -EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.1	%			

Working Copy
Date: 4-21-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: SX226679

6.2[4] Date Processed: 4.21.14

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY

4.3[4][B] Platform Scale: Equipment No.: 0190105
Cal. Due Date: 10.14.14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) GE 4.21.14 (Initial and Date)

4.3[6] ($) Stationary Fire Watch has been established: (> 300 PE-Ci Equivalent Combustible) (SAC 5.10.1.7.2) ☑ N/A (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: GERALD ESPINOZA / [signature] / 1237729 / 4.21.14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 5822.0171		
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	510.6 lb	
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	_____ lb	☑ N/A
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	510.0 lb	
6.2[7]	(S) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT	☐ UNSAT
6.2[16]	Retaining clips in place	☑ SAT	☐ UNSAT
6.2[18][D]	Drum lift hinge pin retaining clip replaced: ____ / ____ / ____ (Initials / Z# / Date)		☑ N/A

6.2[26] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 38276079

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69638	69645		
10.1[4]	Daughter Drum Filter No.	KM-306	KL-321	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-17347	L-17351		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[19][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[20][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No.				
10.2[6]/10.2[7][B]	POC Item Description			N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	3 GAL.	-NA-		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	70%		
10.5[3]/10.6[2]	Description Waste Added During Processing	PLASTIC	PLASTIC		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S822679

Comments: LEAD SHIELDING, PLASTIC, LIQUID, NITRATE SALTS, KITTY LITTER.

11.1[1] Performed By: GERALD ESPINOZA [signature] 237720 14:21-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martin [signature] 149235 14.2214 0810
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 4-21-14

ATTACHMENT 1
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0240323
Manufacture Date: 13

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	N	N
Cal. Expiration Date:	A	A
Tolerance:		

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-214
Manufacture Date: 12.12

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: GERALD ESPINOZA [signature] 1237701 4-21-14
Waste Handling Technician (print) Signature Z# Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: N/A in-lb

5. [18] 2-in. bung plug torque value: N/A ft-lb

Comments: PREPPED @ 54

8.1[1] Performed By: GERALD ESPINOZA [signature] 1237729 4-21-14
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: / / /
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 4-21-14

ATTACHMENT 4
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69705

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 16-80
Tolerance: ±3% CW ±6% CCW

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: GERALD ESPINOZA [signature] 2377201 4-31-14
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 1898 lb

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA [signature] 2377201 4-21-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez [signature] 1492351 4-22-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 4-3-14

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69638

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240118
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC-1.5-2SPVC
Serial No.: L-17347
Manufacture Date: 11/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	106310	D36245
Cal. Expiration Date:	11/12/14	08/05/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: MICHAEL MONTOYA / [signature] / M135774 / 03-14
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: KM-306
Manufacture Date: 11/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 69638

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA / [signature] 191352 / 4-03-14
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Gilbert Martin / [signature] 149835 / 4-22-14
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 691638

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 116.80 ft-lb
Tolerance (+/-): ±3% CW ±6% CCW

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: GERALD ESPINOZA (Operator (print)) (Signature) 1237729 (Z #) 4-21-14 (Date)

6.[12] Drum closure ring torque value: 120 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA (Operator (print)) (Signature) 1237729 (Z #) 4-21-14 (Date)

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69638

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 331.0 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: GERALD ESPINOZA [signature] 237720 4.21.14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 149235 4.22.14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 4/3/14 RS

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69645

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 024011B
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2SPVC
Serial No.: L-17331
Manufacture Date: 11/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	101310	03625
Cal. Expiration Date:	11-12-14	08-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+1.4%cw +1.6%ccw	+1.3%cw +1.66%ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Randy Roybal (Operator (print)) [signature] (Signature) 118703 (Z#) 04/03/14 (Date)

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: KL-321
Manufacture Date: 11/11

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 69645

Comments: N/C

5.[35] Performed By: Randy Roybal (Operator (print)) / [signature] (Signature) / 187634 (Z #) / 04/07/14 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) / [signature] (Signature) / 149235 (Z #) / 4-22-14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69645

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 40-80 ft-lb
Tolerance (+/-): ±3% CW ±4% CCW

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: GERALD ESPINOZA (signature) 1237729 4-21-14
Operator (print) Signature Z# Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA (signature) 1237726 4-21-14
Operator (print) Signature Z# Date

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 696645

6.[26] Scale File ID number: 0190065

6.[27] Scale is within the calibration frequency: ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 353.0 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: JERRICO ESPINOZA [signature] 2511701 4.21.14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 149235 4.22.14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 4-21-14ev.

ATTACHMENT 2
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 3822679

6.3[15] (S) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 510.0

6.3[19] (S) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA [signature] 123779 4-21-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez [signature] 1492371 4-22-14
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Gilbert Martinez [signature] 1492371 4-22-14 0815
SOS/SOM or designee (print) Signature Z # Date Time

Impacted Non-GG

1958

SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S822679 Container Type: 85 GAL DRUM Gross Weight (lbs): 486.6435
Total PE-Ci Activity: 3.20E+00 Equivalent Combustible PE-Ci: 1.20E+00
Total Fissile Gram Equivalents: 3.37E+01 Total Surface Dose Rate (mrem/hr): 26
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

RTR pre-screen indicates ~6.5 gallons of liquid and lead liner in the drum.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~283 lbs, and generator data shows 6 items of nitrate salts with weights ranging from ~19–83 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 8/15/13 (Date)

IHS Representative

Potential IHS Safety Risks: Many Contain D007, D008, and D009 Contains free liquid, No Other liquids or hazards

Performed By: Johnny Stanford (IHS Representative (Print)) | Signature | Z# | 8-21-13 (Date)

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No

Engineering Comments: NA

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Valerie Rhodes (Signature) | 142609 (Z#) | 3/6/14 (Date)

TRU Remediation Operations

Potential Safety Risks: Use proper tools and PPE when processing, as well as correct amount of kitty liter, 3 to 1.

Performed By: Clayton Mullins (TRU Operations (Print)) | Signature | 240092 (Z#) | 3/12/14 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use heavy-duty gloves when processing. Ensure all liquids are remediated.

Approved By: Jose Perez (OM or designee (Print)) | Signature | 221452 (Z#) | 3/13/14 (Date)

Discardable Waste Log Sheet

DrumID: 011301

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS 492 OX2	24.54	NITRATE SALTS		16.99	52	5/11	
2	IXFS 493 OX3	8.86	NITRATE SALTS		2.88	52	5/11	
3	IXFS 494 F1	37.73	NITRATE SALTS		9.1	52	5/11	
4	IXFS 495 F1	8.86	NITRATE SALTS		2.96	54	5/11	
5	IXFS 496 F1	33.64	NITRATE SALTS		3.73	52	5/11	
6	IXFS 497 FA	15	NITRATE SALTS		0.3	54	5/11	
		128.63 kg						

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 5/29/13

Container No. (5.[1])	S822679					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal (overpacked in 85-Gal)					
Filtered Vent Type (5.[1])	072					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	12.23 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	610.77 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)), 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)), 238866 (Z #)

Comments:
Email from Erik Lorchell verified container was sampled from 55 gal. container based on filter information.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)), [signature] (Signature), 120681 (Z #), 6/3/13 (Date)

72

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130529c\
Data File : S822679.D
Acq On : 29 May 2013 1:30 pm (#1); 29-May-13, 13:29:44 (#2)
Operator : SA
Sample :
Misc : 85 GAL LFL THROUGH UNOBSTRUCTED-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 29 13:38:43 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.581	96	4021830	201.25	ppmv	0.01
15) Chlorobenzene-d5	5.907	117	3481561	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.606	GC1	4341m	610.77	ppmv	
12) Benzene	3.258	78	175915	12.23	ppmv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Wed May 29 13:38:52 2013

4-21-14 WCRR SOS LOG BOOK

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief Discussed drum's going into 50-69 All SP# 72. Also Discussed the right Glove For the Job.

0630 Concluded shift brief. started Rounds

0738 Reviewed Inside And outside Rounds

0750 Mode change Complete WCRRF In operations Mode

0806 Starting movements into 50-69

0819 Movement complete

0843 Starting to denest 3 drums

0959 Denesting Complete Bagged on 5822679

1109 Bagging off 1 daughter Bagging on Another

1128 Bag on/off complete

1226 RCTs reported that Cam. 11536 pump is not working

1355 RCTs notified Cam is back up And Running

1404 Bagging off 1 on 68993

1424 Bag on/off Complete

1430 Starting Rounds

1515 Reviewed Inside And outside Round

1536 Bagging off 1 Poc And 1 daughter Final drum of day

1605 Bag on/off Complete

1612 ~~1630 end~~ GMY 4-21-13 Mode Change Complete WCRRF In warm

1630 end of Day securing Position [illegible]

no further entries on this page

Best Available Copy

4-21-14 WCRR SOM

0557 Reviewed the logs and assumed the WCRR SOM position. John Guadagnoli
0631 Completed attending the pre-job brief conducted by the SOS (Lalbert)
The Safety Topic was a scenario - what if a person attending the pre-job were to pass out - what actions would be taken. Response - call 911 -
The SOS indicated that there was not enough manpower to work thru lunch.
Briefed Operators on the shift orders incorporated into DOP-1199, and which one is in effect. No transfers are scheduled out today. There should be an ethlene glycol pick-up by WMC.
0708 Completed the daily phone call to the AREA-G SOM updating daily PODs.
0819 Outside Operations completed the movement into the facility (4 drums total)
0843 Inside operations initiate denesting of 3 drums.
0844 Late Entry for 0750 hrs - Mode Change conducted; 50/69 and yard transitioned at 0750 hrs from Cold/WARM to Operations/Operations. JJG - 4-21-14
0910 Notified by the WMC that the State of NM environmental department arrived at AREA-G. SOM notified WRRF-SOS/DCO/OM and AREA G SOM.
0959 Operations complete de-nesting 3 drums and completed bag-on of Parent drum S822679-SP 72.
1109 Inside operators report bagging off 1 daughter and bagging on another and continue processing
1128 Inside Operators report bag off and bag on complete.
1220 Completed the noon phone call with OM, ES/PM, PM, SOM and others
1226 RP-1/RCTs report the east portable CAM in 50/69 went out, its the pump that seems to not be working. RCTs will initiate replacement, while the operators exit for lunch.
1300 Notification of non working CAM was made to the RAD Engineer to work with RP-1 supervisor to obtain backup or get it fixed. Per RWP - operators will not be able to bag off. Operations are ready to bag off.
1315 RP-1 enters area to evaluate pump on CAM. with RCT (Ken & Terry). Notification voice mail left with OM.
1350 RP-1 reports they got the CAM operational. One propellar vein on the motor had broke which was carbon base. RP-1 supervisor had ordered backups and switched them out.
1404 Inside Operators report, initiating bag off of daughter and bag on of Parent 68993
1430 Operations report bag off and bag on was completed
1504 Inside Operators report they have a POC
1536 Inside operators report bagging off relaughter a POC and will place lost cover on

4-21-14 WCRR-SDM (cont.)

1549 Discussed with the WMC - results for one NEW GEN drum W801926 - and she will work with C-BENX to enter results in WCATS and notify SDM when completed. Notification also made to Production Inventory.

1605 Inside Operators report bag off is completed and the WCG port cover was put in place. The WCG is in a safe configuration.

1612 Mode Change: 50/69 and yard transition from Operations/Operations to WARM/WARM

1621 Secured the WCRR SDM position [signature]

No further entries this page
[signature]

4-21-14

0400 Assuming WCERF Operations center - Orlando
0415 Pre-job being conducted by SOS
0430 Pre-job concluded.
0455 Starting outside rounds.
0715 Outside rounds completed
0738 Rounds signed off by SOS
0750 mode changed to operations TA50-69 and WCERF yard.
0806 Test execute completed SR 4.1.1 performed, starting movement into 50-69.
0819 movement into 50-69 is complete.
0843 Starting to dinest 3 drums.
- 0959 Dinesting completed, Bagged on 5822679
1109 Bagging off 1 daughter, bagging on 1 daughter
1128 bag on, bag off complete continuing to process.
1226 RCTs reporting that cam 115316 ~~pump~~ a 4-21-14 pump is not working. it is the portable cam located on the east side.
1355 RCTs have notified ops center that cam is back up and running.
1404 Bagging off, bagging on 68993
1424 Bag on, bag off complete
1430 Starting inside rounds
1435 Starting outside rounds.
1454 Outside rounds complete
1457 Inside rounds complete
1515 Rounds signed off by SOS
1536 Bagging off 1 daughter, POC and empty. Installing port cover.
1609 Bag off complete.
1612 mode changed to warm TA50-69 and WCERF yard.
4-21-14 1630 end of day WCERF Operations Center position secured.

no further entries this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0040
Examination Date:	4/25/2014
Waste Container ID:	69638
Video/Audio Recorded Media Number:	LA-RTR2-14-0040 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 150.0 kg Tare Wt.: 33.4 kg Net Wt.: 116.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

Waste Container ID: 69638

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	111.6
Soils (S):	
Total WMP Weight:	116.6

CCP Radiography Data Sheet

Waste Container ID: 69638

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	4/25/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69638	Count Sequence Number:	24602
Operator:	D3PW2DK1\operator		
Assay Start:	4/28/2014 10:05:14 AM		
Description 1:	1LANDA1935		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 117.0 kg	Net:	117.0 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.800 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24602	Batch Number:	1LANDA1935
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69638	Analysis Date:	4/28/2014

Net Weight	117000.0 g		
Pu mass	6.22E+000	+-	1.40E+000 g
TRU Alpha Activity	7.93E+000	+-	4.10E+000 Ci
TRU Activity Concentration	6.78E+004	+-	3.50E+004 nCi/g
Pu-239 Equivalent Activity	7.96E+000	+-	4.10E+000 Ci
Pu-239 FGE	5.89E+000	+-	1.40E+000 g
Decay heat	2.63E-001	+-	1.36E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.04E-006
U233	<LLD	<LLD	0.00E+000	7.75E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.31E-006
NP237	1.46E-001	1.03E-004	2.07E-005	4.09E-006
PU238	6.22E-004	1.06E-002	2.97E-003	1.06E-003
U238	<LLD	<LLD	0.00E+000	1.75E-005
PU239	5.80E+000	3.60E-001	8.66E-002	3.58E-002
PU240	4.04E-001	9.18E-002	2.56E-002	9.14E-003
AM241	2.18E+000	7.47E+000	4.10E+000	9.13E-002
PU241	1.56E-002	1.60E+000	4.47E-001	1.60E-001
PU242	2.36E-003	9.34E-006	2.61E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: Marla [illegible] Date: 4.29.14

ITR: Brit Lupkth Date: 4-30-14

Automated Independent Technical Review

Count Sequence Number: 24602 Batch Number: 1LANDA1935
Counter ID: MCS HENC #1
Container ID: 69638
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chandler Date: 4-29-14

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-14-0050
Examination Date:	4/25/2014
Waste Container ID:	69645
Video/Audio Recorded Media Number:	LA-HERTR-14-0050 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 160.0 kg Tare Wt.: 33.4 kg Net Wt.: 126.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	55 %

CCP Radiography Data Sheet

Waste Container ID: 69645

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	100.6
Soils (S):	
Total WMP Weight:	126.6

Waste Container ID: 69645

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Michael Simmons		4/25/2014
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

************************    Item Information    ************************

Item ID:            69645              Count Sequence Number:  17134
Operator:           DCLTD231\Operator
Assay Start:        4/28/2014  12:52:52 PM
Description 1:      2LANDA1284
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gal Drum
Weight:             Net:       127.0   kg        Net:   127.0 kg
Container:          Volume:    208.0   l        Full:    55.0 %
Density:                         1.110 kg /l

************************   System Configuration   ************************

Counter:                        HENC #2
Count Type:                     Item Count
Collimator/Geometry Setting:    All Banks on GEO -  0

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	17134	Batch Number:	2LANDA1284
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69645	Analysis Date:	4/28/2014

Net Weight	127000.0 g		
Pu mass	1.83E+001	+-	9.52E+000 g
TRU Alpha Activity	1.57E+001	+-	3.55E+000 Ci
TRU Activity Concentration	1.24E+005	+-	2.79E+004 nCi/g
Pu-239 Equivalent Activity	1.58E+001	+-	3.55E+000 Ci
Pu-239 FGE	1.72E+001	+-	9.49E+000 g
Decay heat	5.20E-001	+-	1.18E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.88E-007
U233	<LLD	<LLD	0.00E+000	9.37E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.96E-006
NP237	2.00E-001	1.41E-004	3.43E-005	5.14E-006
PU238	1.67E-003	2.85E-002	1.63E-002	1.08E-003
U238	<LLD	<LLD	0.00E+000	2.42E-005
PU239	1.71E+001	1.06E+000	5.88E-001	4.00E-002
PU240	1.19E+000	2.70E-001	1.55E-001	1.02E-002
AM241	4.19E+000	1.44E+001	3.49E+000	2.34E-001
PU241	2.56E-002	2.64E+000	1.52E+000	1.00E-001
PU242	6.96E-003	2.75E-005	1.58E-005	0.00E+000
AM243	5.12E-003	1.02E-003	2.49E-004	7.06E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 4/30/14

ITR: _____ Date: 4.30.14

Automated Independent Technical Review

Count Sequence Number: 17134 Batch Number: 2LANDA1284
Counter ID: HENC #2
Container ID: 69645
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate, Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 4-29-14