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ENTERED

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: OCT 16 2014
Symbol: ENV-DO-14-0277
LAUR: 14-27118
Locates Action No.: Not Applicable

NMED
Hazardous Waste Bureau

OCT 16 2014

RECEIVED

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 17

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* table which is 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. This submittal includes remediation and repackaging documentation for daughter containers resulting from the repackaging and remediation of the 267 original nitrate salt-bearing waste containers and is the seventeenth 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.

36630

Enclosure 1 includes the pertinent documentation for fourteen (14) 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/lm

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 17

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)
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)
Enrique Torres, ADEP, (E-File)
James S. Clemmons, LTP, (E-File)
Donald L. Allen, LTP, (E-File)
Scott A. Miller, LTP-SSS, (E-File)

Cy (continued):
Selena Z. Sauer, LC-ESH, (E-File)
Kenneth M. Hargis, LTP-PTS, (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)

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 17

ENV-DO-14-0277

LA-UR-14-27118

Date: OCT 16 2014

ParentID	Intermediate Daughters	PKG_ID	Overpacked Into
S862241		68378	
S862241		68417	SB02094
S862255		68572	
S862255		68574	
S862411	90925	92239	
S863696		90931	
S863696	90933	92374	
S863696	90934	92680	
S863696	90932	92684	
S863787	90955	92129	SB02023
S863787	90956	92192	
S863787	90953	92227	SB02089
S863787	90957	92678	
S863788	90939	92233	
S863788	90941	92357	SB02087
S863788	90941	92358	
S863788	90942	92376	
S863789		68671	
S863789		68680	
S864662		68608	
S864662		68614	
S864663		68679	SB50102
S864694	68738	68681	SB50058
S864694	68738	69061	SB50035
S870065	68721	68687	
S870213		69013	
S870213		69413	SB50100
S870213		69492	SB50043
S870338	68815	69196	SB50046
S870338	68815	69209	SB50010
S870381		68623	
S870381		68625	SB50013
S870475		93576	
S870475		93577	
S870478	68742	69158	SB50055
S870478	68742	69183	SB50443

S862241

S862241

Container F 760830

File Options Reports Help

S862241

760830	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

S862241

S862241
- LA00000068366 -EMPTY
- LA00000068417
  - LASB02094
- LA00000068378

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000068417	0.0	kg

Working Copy
Date: 9/18/13 HS

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S862241

6.2[4] Date Processed: 9-18-13

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 / 1204742 / 9-18-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5862241

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 379.6 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) 379.6 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.: 5862241

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68417	68378		
10.1[4]	Daughter Drum Filter No.	LM-275	AN-675	N	
10.1[4]	Daughter Drum Bag Filter No.	L-11530	L-6784	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				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N		
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				
10.3[5][A]	Free Liquid Volume/Units	3 gal	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.			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%	100%		
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic kitty litter	plastic kitty litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5862241

Comments: Lead, Nitrate salts, Kitty litter, Liquid, PH-4 Plastic

11.1[1] Performed By: Federico [illegible] [illegible] 1223520 9-18-13
Waste Handling Tech (print) Signature Z# Date

11.1[8] Reviewed By: Gilbert [illegible] [illegible] 1492351 9/18/13 1815
SOS or designee (print) Signature Z# Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date 7-3-13

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 6238025
Manufacture Date: 13

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% ± 6% ccw

Overpack filtered vent information:

Manufacturer: [illegible]
Model No.: 013
Serial No.: TL-1825
Manufacture Date: 13

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

5.[11] Performed By: MICHAEL MONTOYA [signature] 191352 7-03-13
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: MICHAEL MONTOYA [signature] 191352 7-03-13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Gilbert Martinez [signature] 149235 9/18/13
Supervisor or designee (print) Signature Z# Date

9/18/13 45

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68366

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038316
Cal. Expiration Date: 8-2-13
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: Brandon Chacz / [signature] Z04742 9-18 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: 10/1/14

7.[34][D] 85-gal overpack drum gross weight (lb): 169.6 lb

Comments: N/C

8.1[1] Performed By: Fred[illegible] / [signature] 1225341 9/18/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] M.J. 149237 9/18/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 9-10-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68378

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.: 6CPUL1.5-2 5PUC
Serial No.: L-6784
Manufacture Date: 01/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	106216	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: IAN MARQUEZ [signature] [signature] Z26248 9-11-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 019DS
Serial No.: AN-675
Manufacture Date: 01/13

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.: 68378

Comments: N/C

5.[35] Performed By: [illegible] / [illegible] [illegible] / 9-18-13
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Gilbert Martinez / [illegible] M.J 149205 9/18/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 9-18-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 168378

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% cal. +/- 6% ccd

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

Performed By: Frederick Mahlich / [signature] / 225426 / 9-18-13
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
9-14-13

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.: 68378

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 306-2 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] | [illegible] | [illegible] | 9-18-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez | [illegible] | [illegible] | 9/18/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 9-17-13 W

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68417

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.: 6CPVC 1.5 - 2 SPVC
Serial No.: L-11530
Manufacture Date: 6/13

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: Frederick Archuleta / [signature] 1228826 / 9-17-13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-375
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.: 68417

Comments: N/C

5.[35] Performed By: [illegible] / [illegible] 122[illegible] 9-17-13
Operator (print) Signature Z# Date

7.1[4] Reviewed By: G Martin / [illegible] 149375 9/18/13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 2
Page 1 of 2

Working Copy
9/18/13 HS

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 684117

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

M&TE No.: 038370
Cal. Expiration Date: 8-2-13
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] [illegible] 9-18-13
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.:	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

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

Performed By: Brandon Chavez / [signature] [illegible] 9-18-13
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: 30 in-lb ☐ N/A

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68417

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 273.6 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: Brandon Chavez / [signature] 1047121 9-18-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 145235 9/18/13
Supervisor or designee (print) Signature Z # Date

1940
3P7

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S862241 Container Type: 55-GAL Gross Weight (lbs): 396
Inner Seal #: 021216 Filter Prefix: LAVC Filter Serial #: 03382
K Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLID MST 12 A0759
Total PE-Ci Activity: 1.12E+01 Equivalent Combustible PE-Ci: 4.21E+00 AM-241 PE-Ci: 9.12E-01
Total Fissile Gram Equivalents: 124.1 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 5/2/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured Liquid Location: 27
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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) / Signature / 100681 (Z Number) / 12/20/12 (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. 336# Generator info shows 9 items of nitrate salts, weights range from 10-67# No RTR BDR. Nitrate salts typically packaged in plastic bags, other debris thru decomposed liquids may be present. RTR PS shows prohibited liquids, impenetrable object(s), and unpunctured liner. No chemicals identified, nitrate salts carry waste codes for chromium, lead + mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Signature / 112609 (Z Number) / 1/17/13 (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: G Mk (TRU Remediation Operations (Print)) / Signature / 149235 (Z Number) / 6/20/13 (Date)
Jose Jerez / Z21452 / 6/22/13

IHS Review [illegible] Small Cs?, may contain Pb, Hg + Cr
No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021216

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	10X21W1		9.010	SALTS		3.61	52	1/13	G468	
2	10X21W2		4.820	SALTS		6.41	52	1/13	G468	
3	10X23W1		9.200	SALTS		11.77	52	1/13	G468	
4	2DS5W1		6.230	SALTS		2.31	52	1/13	G468	
5	10X23E2		6.970	SALTS		2.12	52	1/13	G468	
6	2DS5W2		30.100	SALTS		64.71	52	1/13	G468	
7	XOX6W1		11.680	SALTS		27.79	52	1/13	G468	
8	20X12E1		15.730	SALTS		7.48	52	1/13	G468	
9	2DS10W2		8.680	SALTS		5.58	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 179.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	131.78	102.42
Totals	131.78	102.42

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4/11/13

Container No. (5.[1])	S842241					
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])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	417.59 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

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 #), 5/30/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130411c\
Data File : S862241.D
Acq On : 11 Apr 2013 12:19 pm (#1); 11-Apr-13, 12:18:41 (#2)
Operator : SA
Sample :
Misc : 55 GALLON LFL THROUGH UNOBSTRUCTED 072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 12:29:10 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	4565307	201.25	ppmv	-0.06
15) Chlorobenzene-d5	5.848	117	3888819	177.00	ppmv	-0.05
Target Compounds						Qvalue
1) Hydrogen	1.597	GC1	2968m	417.59	ppmv	

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

vocgas.m Thu Apr 11 12:29:24 2013

9-18-13

0600 Assuming WCRF OCO position on Training H Smith
0600 ASSUMING WCRF OCO POSITION IN TRAINING H SMITH
0615 PRE-JOB BRIEFING 9/18/13 HS CONDUCTED BY SOS
0630 PRE-JOB BRIEFING CONCLUDED
0635 OPERATORS ENTERING BUILDING TA50-69 TO START PROCESSING
0730 Starting to process 3841240
0800 CSE setting to scope drumlift.
0801 Operators resigning operations under that Fork lift ~~#940~~ 9-18-13 = 943092 is unsat for daily inspection. Error code is ESL 9-17-13 SOS and Sam have been notified. Sam will be contacting maintenance.
0820 Bagging off 1 daughter, bagging on 1 daughter and [illegible] material to process.
0850 Bag on, Bag off is complete.
0855 Maintenance setting MRRF yard to scope forklift. WO # 00446212-02. 50-69 Equipment Servicing.
0953 Bagging off, ~~3841241~~ 9-18-13, Bagging on 3841241
1000 Bag on, Bag off is complete.
1001 Starting movement out of 50-69
1120 Bagging off 1 daughter bagging on another than was used processing
1150 Bag on Bag off complete.
1254 Starting movement into 50-69
1319 Movement into 50-69 is complete.
1400 Bagging off and Bagging on 3553599
1408 Bag on, Bag off is complete.
1450 RCT painting inside operations due to water leaking on roof. RMS are performing swipes.
1501 Smears are MDA okay to continue processing.
1513 Starting cutting rounds
1520 Item #19 is unsat, FSK on place okay to proceed use accumulation.
1530 Starting inside rounds.
- Continued on next page - [illegible]

-Continued from previous page entries

1530 Complete outside rounds.

1534 Item # 03 & 005, POI in place, okay to proceed per SE documentation.

1550 Inside rounds complete.

1445 Bagging off daughter, bagging on daughter, entering to release

1405 Begin, bag off complete

1400 Inside and outside rounds signed off by SE.

1402 Bagging off and bagging on = 8424463.

1840 Operations notifying operations center that bag off will not be performed. 9842463 will not be bagged off.

1818 9-18-13 Returned by CCC Terri Coleman Melanie, H SMITH

119 JJ

no further entries this page

9-18-13 DAYSHIFT

0602 Reviewed the shift turnover checklist and assumed the WCRR SOM position [illegible]

0630 Completed attending the pre-job brief conducted by the SOS - (Gilbert). Updates were provided in regards to the facility - there were two leaks noted on Nightshift - One by the scale, and the other by the portable CAM. The Safety topic discussed was sharps and the horsetail/plastic cutter (highly contaminated) and to take precaution when handling. There is a scheduled transfer out. Drum movements were discussed. Roles and Responsibilities were assigned. The SOM called the ALARA Center to evaluate why the glove change expander is not working properly, awaiting evaluation.

0710 Discussed with Area G SOM, daily POD activities.

0730 RP-1 identified the PCM-2 requires a foot board change out. The techs were notified. Work will be scheduled between drums.

0801 Operators informed the Operations Center that the large Forktruck is noted with Error Code 6, and will not move. An FSR was submitted and notification was made to Jack-, he will notify the crafts.

0820 Inside Operations report bagging off 1 daughter and bagging on another and continue to process.

0850 Inside Operations report bag off completed.

0955 Inside Operations report initiating bag off and bag on of parent 5862241

0956 Crafts entered the Yard upon receiving RWP brief and escort to scope the fork truck. Upon review there was a micro switch which was not engaging. Upon starting fork truck, the micro switch engaged and started the fork truck. Craft and planner will order another micro switch. IWD and Work Package 44621202 Equip Servicing Yard Fork truck was not required.

1004 CSE- Art Crawford provided documentation on Level Determination for the 8" round Filters - noting ML-3 and the spacers, gaskets, and glue - ML-4. as a result copies were provided to the SOS for the Level B custodian, and the Operations Center Operator for placement into the file.

1024 Bag offs reported completed - (NOTED) parent drum 5841240 generated 2 daughters

1136 Inside Operations report bagging off 1 daughter and bagging on another. and continue processing of parent drum 5862241

1145 Completed reviewing 5 work packages - 1 RWP requires updating

1230 Completed daily telephone Calling facility update with OM, SOM, PM.

9-18-13 DAYSHIFT (CONT)

1254 Outside operations, starting movement into 50/69 - 2 drums - 55 gallon
1319 The transfer into 50/69 was completed.
1400 Inside Operations initiated bag offs of daughter and Parent, and Bag On of Parent 5853899.
1437 Inside Operations report bag offs were Completed. Parent drum ~~Noted to~~ 9-18-13 5862241 was noted to generate 2 daughters. Operations continue to process.
1438 QA arrives at WCRRF to perform a walkthru of Level B storage. The Level B custodian is assisting in the walkthru.
1450 RCTs request a Pause, inside Operations noted water drippage near scales. RCTs initiate counting smears -
1501 All smears were noted NDA, operations continued.
1538 A debrief was conducted with ES QA, and the LEVEL B custodian. The Level B custodian completed the walk thru with LANL QA. The following were noted requiring corrections; Two shelves require labelling which will will include the two pallets on the floor (i.e. additional signage). Two Operators on Nightshift require read and sign of a LANL procedure and 1 operator requires read and sign on an ES procedure. There were excess bad glovebox gloves and bags which require discarding. All information was provided to the ES/Production Manager. The SOM will request support from the WMC on excessing/recycle of bad glovebox gloves and bags. LANL QA will invite DOE to a walkthru next week - preferrably Tuesday or Wednesday or will perform an assessment.
1639 Inside Operators report bagging off 1 daughter and bag on another and continue.
1657 All bag offs and bag ons were completed -
1746 Inside operators ~~initiated~~ LEAVE 9-18-13 bag off of Parent 5853899 which will generated 2 daughters. Operators and RCTs ~~might~~ will run - past 1830 - monitoring time. 9-18-13
1756 Initiated shift turnover with the nightshift SOM.
1802 Relieved of SOM position by nightshift, also - Parent drum 5853899 is ready to bag off. repeat relieved of SOM position by nightshift SOM R. Axtell.
John Guadagnoli 9-18-13

No Further Actions on Entries this page
J Guadagnoli

9/18/13 WCRR 505 LOG Book

0600 Assuming Position [illegible]

0615 Conducted shift brief discussed the drum that is currently bagged on Also Roof Is Leaking again need to watch bubble on Roof And be Aware of wet slippery surfacers.

0635 Concluded shift brief.

0637 Operators entering 50-69 to start processing

0800 CE entering to scope drum lift.

0801 Operators notified Forklift unsafe Error code #6 showing up som has been notified

0826 Bagging off 1 daughter bagging on Another And continuing

0850 Bag on/off Complete

0935 Maintenance entering 50-69 to scope Forklift

0953 Bagging off Bagging on 5862241

1030 Bag on/off complete

1101 Starting movement out of 50-69

1131 Bagging off 1 daughter bagging on Another end continuing

1156 Bag on/off Complete

1254 Starting Move Into 50-69.

1314 Move on Complete.

1400 Bagging off and bagging on 5853899

1438 Bag on/off complete

1450 RCA's pausing work due to water on scale will Perform smears.

1501 Smearr are LDA ok to proceede

1513 Started Rounds.

1645 Bagging off 1 daughter bagging on Another And continuing to process

1655 bag on/off complete

1656 Inside and outside Rounds signed off

1814 Relieved by Clayton Mullins.

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-RTR2-13-0113
Examination Date:	9/24/2013
Waste Container ID:	68378
Video/Audio Recorded Media Number:	LA-RTR2-13-0113 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:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 138.5 kg Tare Wt.: 33.4 kg Net Wt.: 105.1 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:	70 %

CCP Radiography Data Sheet

Waste Container ID: 68378

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bag

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):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	83.1
Soils (S):	
Total WMP Weight:	105.1

CCP Radiography Data Sheet

Waste Container ID: 68378

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 Thad Hasselstrom.

RTR Operator:		
Eddie Rios Thad Hasselstrom	Eddie Rios Thad Hasselstrom	9-24-13 E.R. 9-24-13 9/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68378	Count Sequence Number:	23662
Operator:	D3PW2DK1\operator		
Assay Start:	9/26/2013 3:20:11 PM		
Description 1:	1LANDA1849		
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: 105.0 kg	Net:	105.0 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.720 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:	23662	Batch Number:	1LANDA1849
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:	68378	Analysis Date:	9/26/2013

Net Weight	105000.0 g		
Pu mass	1.33E+002	+- 2.20E+001	g
TRU Alpha Activity	1.53E+001	+- 1.60E+000	Ci
TRU Activity Concentration	1.46E+005	+- 1.52E+004	nCi/g
Pu-239 Equivalent Activity	1.56E+001	+- 1.60E+000	Ci
Pu-239 FGE	1.26E+002	+- 2.06E+001	g
Decay heat	4.88E-001	+- 5.08E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.45E-001	1.02E-004	1.94E-005	7.85E-006
PU238	1.22E-002	2.09E-001	3.44E-002	3.39E-005
PU239	1.25E+002	7.77E+000	1.28E+000	1.26E-003
PU240	8.01E+000	1.82E+000	3.00E-001	2.95E-004
AM241	1.60E+000	5.48E+000	9.04E-001	8.91E-004
PU241	1.54E-001	1.59E+001	2.61E+000	2.58E-003
PU242	2.67E-002	1.06E-004	1.74E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.66E-007
U233	<LLD	<LLD	0.00E+000	2.57E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.55E-006
U238	<LLD	<LLD	0.00E+000	2.94E-005
AM243	4.51E-002	9.02E-003	1.72E-003	3.55E-005

Errors quoted at 1.000 sigma

Operator: Brittlephth Date: 10-1-13

ITR: D Date: 10.1.13

Automated Independent Technical Review

Count Sequence Number: 23662 Batch Number: 1LANDA1849
Counter ID: MCS HENC #1
Container ID: 68378
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/26/2013

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. Analysis Status: Override enabled; data marked not available but were used. 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. MCA Deadtime greater than the upper limit of 50.0%.	Ok MCA deadtime = 51.93%. No spectral distortion observed.

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am241 from direct gamma used.

Expert Review by: Sherri Chamberlin Date: 9-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68378**

BDR Number: **LA13FG12107**

Sampling Date: **10/23/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	480.89	
74-82-8	Methane	9.63	U
67-56-1	Methanol	65.09	
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	0.47	U
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 : 68378.D
Acq On : 23 Oct 2013 12:44 pm (#1); 23 Oct 2013 12:43 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 12:52:20 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	4.064	96	7233082	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.639	117	5343785	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.907	GC1	137173	480.89 ppmv	100
4) Methanol	0.828	31	24876	65.09 ppmv	100

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

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S862241

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0113
Examination Date:	9/24/2013
Waste Container ID:	68417
Video/Audio Recorded Media Number:	LA-RTR2-13-0113 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:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 124.0 kg Tare Wt.: 33.4 kg Net Wt.: 90.6 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: 68417

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
AM:	
OM:	
OI:	
C:	
R:	Rubber gloves
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):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	3.0
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	82.6
Soils (S):	
Total WMP Weight:	90.6

CCP Radiography Data Sheet

Waste Container ID: 68417

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 Thad Hasselstrom.
Operator did not call Liner lid during recording.

RTR Operator:		
Eddie Rios Thad Hasselstrom	Eddie Rios Thad Hasselstrom	9-24-13 9/24/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            68417              Count Sequence Number:  23661
Operator:           D3PW2DK1\operator
Assay Start:        9/26/2013   2:37:44 PM
Description 1:      1LANDA1849
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:        90.6   kg        Net:    90.6 kg
Container:          Volume:    208.0   l        Full:    75.0 %
Density:                         0.580 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: 23661
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68417

Batch Number: 1LANDA1849
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 9/26/2013

Net Weight	90600.0 g		
Pu mass	1.76E+002	+- 3.41E+001	g
TRU Alpha Activity	1.89E+001	+- 2.34E+000	Ci
TRU Activity Concentration	2.08E+005	+- 2.59E+004	nCi/g
Pu-239 Equivalent Activity	1.93E+001	+- 2.34E+000	Ci
Pu-239 FGE	1.66E+002	+- 3.20E+001	g
Decay heat	6.01E-001	+- 7.42E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.35E-001	9.48E-005	1.59E-005	8.82E-006
PU238	1.61E-002	2.75E-001	5.33E-002	3.36E-005
PU239	1.65E+002	1.02E+001	1.98E+000	1.25E-003
PU240	1.06E+001	2.40E+000	4.65E-001	2.93E-004
AM241	1.74E+000	5.95E+000	1.15E+000	7.27E-004
PU241	2.03E-001	2.09E+001	4.05E+000	2.56E-003
PU242	3.52E-002	1.39E-004	2.70E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.17E-006
U233	<LLD	<LLD	0.00E+000	2.34E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.72E-006
U238	<LLD	<LLD	0.00E+000	3.59E-005
AM243	2.62E-002	5.25E-003	8.82E-004	3.77E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 10-1-13

ITR: [illegible] Date: 10.1.13

Automated Independent Technical Review

Count Sequence Number: 23661 Batch Number: 1LANDA1849
Counter ID: MCS HENC #1
Container ID: 68417
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/26/2013

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. Analysis Status: Override enabled; data marked not available but were used. 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. MCA Deadtime greater than the upper limit of 50.0%. Spectrum Validity Check engine has suggested data review.	Ok MCA deadtime = 67.92% No spectral distortion observed. Spectrum valid.

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Pu239 FGE >200g with 2*TMU but <325g. Am241 from direct gamma used.

Expert Review by: Sherri Chandler Date: 9-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68417**

BDR Number: **LA13FG12107**

Sampling Date: **10/23/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	354.04	
74-82-8	Methane	9.63	U
67-56-1	Methanol	44.93	
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	0.47	U
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 : 68417.D
Acq On : 23 Oct 2013 1:44 pm (#1); 23 Oct 2013 1:43 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 13:53:10 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	7180959	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	5396267	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.907	GC1	100990m	354.04	ppmv	
4) Methanol	0.824	31	17047	44.93	ppmv	100

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

33

S862255

S862255

Container 760883

File Options Reports Help

S862255

760883	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

S862255

S862255
- LA00000068530 -EMPTY
- LA00000068572
- LA00000068574

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
39.99	%			

ATTACHMENT 1 Date: 10-28-13
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5862255

6.2[4] Date Processed: 10-28-13

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 and 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: James Sandoval / [signature] / 1116662 / 10-28-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S862255

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 341.4 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) 341.4 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 / /
Initials Z# Date

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 586255

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68572	68574		
10.1[4]	Daughter Drum Filter No.	LM-834	LM-840	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-11504	L-10333		
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	2 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding	lead shielding		
10.3[9][A]	PCB-contaminated Waste Description		N/A		
10.3[9][B]	PCB Item ID No.			N/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%	70%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Glove Bag Gloves Hex Arors	Plastic stub out bags		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S862255

Comments: Room Trash, plastic, Hex Armor gloves, Glove Bag gloves, 2 gallons PH-5 liquid & Neutralized, Kitty litter, Plastic poly liner lid, lead shielding, Nitrate salts

11.1[1] Performed By: Frederick Rebelek / [signature] 1225826 / 10-28-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Darrel C. Blain / [signature] 1218069 / 10/28/13 1655
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-4-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 501563
Lot No.: 02383666-1
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	+/- 3% cw and +/- 6% ccw

Overpack filtered vent information:
Manufacturer: NucFil
Model No.: 013
Serial No.: JL-1049
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 Coffee / [signature] Z66481 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/C

8.1[1] Performed By: Justin Coffee / [signature] Z66481 10-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Darrel L. Blain / [signature] Z18069 10/28/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-28-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68530

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-6-14
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: Frederick Aldridge / [signature] 1228826 / 10-28-13
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): 161.8 lb

Comments: N/C

8.1[1] Performed By: Frederick Aldridge / [signature] 1228826 / 10-28-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [signature] 1218069 / 10/28/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68572

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 - 25PVC
Serial No.: L-11504
Manufacture Date: 6/13

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	12-15-13
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] 191352 / 10/24/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 01905
Serial No.: LM-834
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.: 68572

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA [signature] 191352 10/24/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blair [signature] 218069 10/28/13
Supervisor or designee (print) Signature Z # Date

UET Working Copy
Date: 10-24-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68572

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
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: Frederico Hebleta / [signature] / 1228261 / 10-28-13
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: 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.: 68572

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 262.2 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: Frederico Hernandez / [signature] / 1278826 / 10-28-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blair / [signature] / R185791 / 10/28/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

WORKING COPY 10-24-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68574

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.: 6CAVL 1.5-25PVC
Serial No.: L-10333
Manufacture Date: 6/13

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:

Operator (print)	Signature	Z #	Date
Bruno Gallegos	B. Gallegos	247129	10-24-13
Brian Cordova	[illegible]	[illegible]	10-24-13

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019D5
Serial No.: LM-840
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.: 68574

Comments: N/C

5.[35]	Performed By:	BRIAN GALLEGOS Brian Gallegos Operator (print)	Signature	267129 1285504	10-24-13 10-24-13 Date
7.1[4]	Reviewed By:	Darrel L. Blain Supervisor or designee (print)	Signature	1218879	10/28/13 Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68574

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

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
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: [illegible] / [signature] / 1228800 / 10-24-13
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.: 68574

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 269.6 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: Frederica Achebete / [signature] / 122884 / 10-28-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] / 218069 / 10/28/13
Supervisor or designee (print) Signature Z # Date

SP72

1140

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S862255 Container Type: 55-GAL Gross Weight (lbs): 324

Inner Seal #: 021200 Filter Prefix: LAVC Filter Serial #: 01135

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST 12 A10760

Total PE-Ci Activity: 3.62E+00 Equivalent Combustible PE-Ci: 1.36E+00 AM-241 PE-Ci: 2.93E-01

Total Fissile Gram Equivalents: 39.9 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): None D007, D008, D009 VR 1/7/13

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 5/5/2007 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 11/20/12 ☑ 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: Where EPA Code D007, D008, and D009 are on the 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 / R. W. Jones 117434 11.13.11
Production Control (Print) Signature Z Number Date

SUSAN S. RAMSOY / Susan S. Ramsoy 160681 11/20/12

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: Nitrate Salts
Net Wt: 264#. Generator info shows 12 items of nitrate salts, with weights ranging from 4-30#. No RTR BDR. RTR 5 shows impenetrable item(s). Nitrate salts typically packaged in plastic bags; debris &/or undocumented liquids often present. Applicable waste codes are chromium, lead, & mercury. Repack with admixture required.

Performed By: Valerie Rhodes / Valerie Rhodes 112609 / 1/7/13
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 hexarmour gloves during processing.

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: Jose Perez / Jose Perez 122452 / 2-5-13
TRU Remediation Operations (Print) Signature Z Number Date

ROBINSHOT 272955 2/1/13

HS REVIEW: RB 206362 11.27.12

NOTES: D007 = Chromium
D008 = LEAD

Noncertified TRU Waste Drum Item Information

DrumID: 021200

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	2LR26W1		2.890	SALTS		1.44	52	1/13	G468	
2	20X24E2		6.500	SALTS		1.01	52	1/13	G468	
3	20X24W1		13.690	SALTS		8.56	52	1/13	G468	
4	20X24E1		3.700	SALTS		0.91	52	1/13	G468	
5	2LR21E1		2.000	SALTS		0.15	52	1/13	G468	
6	2LR20W1		6.530	SALTS		1.93	52	1/13	G468	
7	20X13W1		13.720	SALTS		4.95	52	1/13	G468	
8	20X21W1		4.920	SALTS		1.19	52	1/13	G468	
9	20X21E1		9.540	SALTS		4.18	52	1/13	G468	
10	2LR27W1		2.900	SALTS		4.18	52	1/13	G468	
11	20X26W1		4.920	SALTS		7.72	52	1/13	G468	
12	20X26E1		8.090	SALTS		9.86	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 147.

Material Type	SNM (grams)	Items Net Wt (kg)
52	46.08	79.40
Totals	46.08	79.40

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/27/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Erik Lochell	Erik Lochell	1234183	1-31-11

Container No. (7.[1]):	S832452	S870179	S862255
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	55gal	55gal
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			
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	165.41		
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	165.41	Ø	Ø

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	5832452	5870179	5867255
Hydrogen Reading (ppm) (7.[10]):	295.53 ppm	476.57 ppm	368.80 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	165.4 ppm	Ø ppm	Ø 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: N/C

11.1[1] Performed By: Alicia Herrera, [signature] 918450 / 3/1/11
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]/ 11.1[8] Reviewed By: Kenny Romero, [signature] 1117686 / 2.3.11
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110127c\
Data File : S862255.D
Acq On : 27 Jan 2011 12:50 pm (#1); 27 Jan 2011 12:49 pm (#2)
Operator : GR
Sample :
ClientName : Unit 8
Misc : 55 GAL LFL DRUM FROM UNDER DRUM LID (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 13:46:45 2011
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	3.246	96	4253623	209.00 ppm	0.00
15) Chlorobenzene-d5	5.930	117	3545398	184.00 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.321	GC1	93386m	368.80 ppm	

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

Vocgas.m Thu Jan 27 13:46:55 2011

10-28-13

0600 Assuming WERRF operations center - Orlando
0615 Pre-job being conducted by SOS
0641 Pre-job has been concluded
0717 Starting outside rounds
0739 Completed outside rounds
0747 Starting inside rounds.
0821 Item 63 is OOS, PCD in place, okay to proceed per CSE documentation
0835 Inside rounds complete.
0849 Rounds have been signed off by SOS.
0905 Mode change performed TAST-69 and WERRF yard now in operations
0907 Starting movement into ST 69.
0940 Movement into ST 69 complete
0950 Bagging on 3802255
1013 Bag on complete
1100 Notified by Operations that glove changes will need to be performed
1106 Mode change to warm TAST-69 and WERRF yard
1116 Operations will be changing out Station 4 and 8 right and left
1132 Starting glove changes Station 4 and 8
1220 Glove changes are complete
1250 Mode change performed TAST 69 and WERRF yard now in operations
1356 Bagging off 1 daughter, bagging on 1 daughter.
1413 Bag on, bag off complete
1500 Bagging off, Bagging on 3843594
1504 Starting outside rounds.
1524 Outside rounds complete.
1534 Bag on, Bag off complete
1546 Starting rounds inside.
1607 Item 63 is OOS, PCD in place okay to proceed per CSE documentation.
1650 Rounds signed off by SOS
1708 Bagging off 1 daughter, Bagging on another
-Continued on next page - Orlando

1028 13 - Continued from previous page - Cleland
1724 Bag on, Bag off complete.
1028 1800 Relieved by Oil Terre Coleman - Cleland

no further entries this page

Carried

10-28-13 DAYSHIFT

0557 ASSUMED the WCRR SOM position John Sundaqual
Reviewed the WCRRF SOM turnover checklist and reviewed logs
0610 Completed attending the pre-job brief conducted by the SOS (Gilbert). The safety topic was safe driving - noted at Nights animals and pedestrians. Roles and responsibilities were assigned. The SOM discussed/briefed on shift orders WCRR-SH-13-003 R_2 - Manual Drum Movements, WCRR-SH-13-005. R_0 - Precautions to prevent Bag Tears The ES/PM discussed TSR/PEC; Limits associated with YARD and Facility, No transfers will be conducted today from AREA 4 on to AREA 5.
0705 Completed the daily AREA 4 - POD status update
0730 Reviewed caution tag logbook and requested ES/PM to ~~of~~ have an operator evaluate caution tags on equipment for compliance. 10-28-13
0737 Operators complete outside rounds
0837 Operators complete inside rounds.
0905 Mode Change WCRR YARD and 50/69 Facility transition from WARM/COLD to Operations/Operations.
0940 Operations complete moving Four Parent drums into 50/69 Facility
1013 Inside operators complete prepping and bagon of Parent drum 5862255
1026 Initiated review of the Operator AID logbook. Note Operator AID 50-11-01 R_2 Combustible loading required updating to R_3. - updated and requested the SOS to post the current version and de-post R_2.
1104 Inside Operations obtained wipes from BAG-ON, and upon initiating wipe down of gloves and inspection, determined stations 4 and 8 both pair require changing due to being worn. The glovebox was is in safe configuration Mode Change conducted WCRR YARD and 50/69 Facility transition from Operations/Operations to WARM/WARM
1132 Inside Operations initiate glove changes
1200 Completed daily facility status with OM, PM, ES, and SOS
1220 Glove stations were completed (stations 4 and 8 - Left and Right) changed.
1230 Mode Change WCRR Yard and 50/69 transition from WARM/WARM to Operations/Operations
1356 Inside Operations report bagging off laboratory and bagging on another.
1430 BAG on and bagg off is noted completed.
1500 Operations report bag off conducted and bagging on 5843594
1536 Bag off and Bag on reported completed
1547 Review approved and authorized WO #477284-01 - 50/69 Adjust Temp/lights

(Continued on NEXT Page)

10-28-13 Day Shift Continued

1625 Discussed PIOI-25 and PIOI-4 requirements with CSE (A. Crawford) Set up a meeting to go over requirements/changes to existing protocol. Procedure may require changing. New forms will be created. Meeting set for 10-29-13 - Lou's office 0800hrs

1642 - Operations obtained a new 24 hour clock for 52/69 facility. Also drum dolly/coaster manipulator bars were obtained for WLRRF and AREA 6, Dome 412

1709 Operators report bagging off a daughter and bagging on another and continue to operate.

~~1724 Bag off and bag on was not completed~~

1801 Inside Operations report Tank drum 08435594 generated one daughter and requires additional processing prior to bagging off.

1811 Completed review of shift turnover checklist with incoming Sour-R Axtell

1818 Relieved by R Axtell [signature]

No further entries this page

[signature]

10/28/13 WCKK SOS LOG BOOK

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief discussed Safe Driving and some TSK Questions were asked.

0648 Shift brief concluded.

0717 Started Rounds.

0848 Reviewed Inside and outside Rounds.

0905 Mode change complete

0907 Starting Movement into Facility

0940 Move in Complete

0950 Bagging on 5862255 as well as wipe offs to clean glove and due a thorough Inspection.

1013 Bag on Complete operators will clean box and due good inspection of Gloves

1100 Operators notified glove Changes will need to be Performed

1101 Mode change Complete were in warm

1116 Changing Gloves on station 4 and 8

1157 Starting Glove Changes

1220 Glove Changes Complete

1230 Mode change complete were in operations

1356 Bagging off 1 daughter Bagging on another

1415 Bag on/off complete

1500 Relieved by Daryl Blain [illegible]

1500 Assuming SOS position from Gilbert Martinez Received turnover from Gilbert Martinez DKB

1501 Starting bag off and bag on 5843598.

1536 Bag off and on completed.

1650 Rounds reviewed and signed off

1710 Bagging off 1 daughter and bagging on 1 more daughter.

1724 Bag off/on completed.

1805 Operators out of 30-69

1815 Turned over to Clayton ~~Mathews~~ DKB 10-28-13 Mailing.

HEA ~~1820 Secured~~ DKB 10/28/13

No further entries this Page DKB

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0122
Examination Date:	11/1/2013
Waste Container ID:	68572
Video/Audio Recorded Media Number:	LA-RTR2-13-0122 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.: 119.0 kg Tare Wt.: 33.4 kg Net Wt.: 85.6 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:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68572

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R: Leaded rubber gloves

XPM: 90 mil 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):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	5.0
Plastics (waste materials) (XPM):	10.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	58.6
Soils (S):	
Total WMP Weight:	85.6

CCP Radiography Data Sheet

Waste Container ID: 68572

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		11/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68572	Count Sequence Number:	16667
Operator:	DCLTD231\Operator		
Assay Start:	11/1/2013 12:43:46 PM		
Description 1:	2LANDA1236		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 85.6 kg	Net:	85.6 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.480 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: 16667
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 68572

Batch Number: 2LANDA1236
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 11/1/2013

Net Weight	85600.0 g		
Pu mass	1.90E+001	+-	3.19E+000 g
TRU Alpha Activity	4.27E+000	+-	1.54E+000 Ci
TRU Activity Concentration	4.99E+004	+-	1.80E+004 nCi/g
Pu-239 Equivalent Activity	4.31E+000	+-	1.54E+000 Ci
Pu-239 FGE	1.79E+001	+-	3.18E+000 g
Decay heat	1.39E-001	+-	5.12E-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	5.17E-007
U233	<LLD	<LLD	0.00E+000	5.33E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.66E-006
NP237	5.87E-002	4.14E-005	6.14E-006	1.23E-006
PU238	1.74E-003	2.97E-002	6.76E-003	6.71E-004
U238	<LLD	<LLD	0.00E+000	1.02E-005
PU239	1.78E+001	1.11E+000	1.97E-001	2.50E-002
PU240	1.14E+000	2.59E-001	5.89E-002	5.85E-003
AM241	8.38E-001	2.88E+000	1.53E+000	4.73E-002
PU241	2.18E-002	2.25E+000	5.12E-001	5.08E-002
PU242	3.81E-003	1.50E-005	3.42E-006	0.00E+000
AM243	1.52E-003	3.03E-004	4.52E-005	7.59E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-4-13

ITR: _____ Date: 11.5.13

Automated Independent Technical Review

Count Sequence Number: 16667 Batch Number: 2LANDA1236
Counter ID: HENC #2
Container ID: 68572
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/1/2013

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. 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 Expert review is recommended; the following validity tests failed: Normalized fit value (36.41) is greater than allowed (1.15). Fit value (502.3) 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

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: ~~9/4/13~~ 11/4/13 F 11/4/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68572**

BDR Number: **LA13FG2117**

Sampling Date: **11/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	93.10	
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 : 68572.D
Acq On : 15 Nov 2013 1:51 pm (#1); 15-Nov-13, 13:50:32 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 13:59:15 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	3.542	96	4225966	205.75 ppmv	0.02
15) Chlorobenzene-d5	5.848	117	3310677	177.50 ppmv	-0.01
Target Compounds					Qvalue
1) Hydrogen	1.614	GC1	700m	93.10 ppmv	

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

S862255

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0122
Examination Date:	11/1/2013
Waste Container ID:	68574
Video/Audio Recorded Media Number:	LA-RTR2-13-0122 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.: 122.5 kg Tare Wt.: 33.4 kg Net Wt.: 89.1 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:	70 %

CCP Radiography Data Sheet

Waste Container ID: 68574

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	24.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	59.1
Soils (S):	
Total WMP Weight:	89.1

CCP Radiography Data Sheet

Waste Container ID: 68574

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		11/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68574	Count Sequence Number:	23776
Operator:	D3PW2DK1\operator		
Assay Start:	11/1/2013 1:43:43 PM		
Description 1:	1LANDA1858		
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: 89.1 kg	Net:	89.1 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.610 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:	23776	Batch Number:	1LANDA1858
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:	68574	Analysis Date:	11/1/2013

Net Weight	89100.0 g		
Pu mass	1.61E+001	+-	3.22E+000 g
TRU Alpha Activity	3.05E+000	+-	1.03E+000 Ci
TRU Activity Concentration	3.42E+004	+-	1.15E+004 nCi/g
Pu-239 Equivalent Activity	3.08E+000	+-	1.03E+000 Ci
Pu-239 FGE	1.52E+001	+-	3.21E+000 g
Decay heat	9.90E-002	+-	3.41E-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	3.94E-007
U233	<LLD	<LLD	0.00E+000	4.18E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.16E-006
NP237	3.59E-002	2.53E-005	4.34E-006	1.81E-006
PU238	1.47E-003	2.51E-002	6.24E-003	9.45E-004
U238	<LLD	<LLD	0.00E+000	9.99E-006
PU239	1.51E+001	9.36E-001	1.99E-001	3.52E-002
PU240	9.65E-001	2.19E-001	5.59E-002	8.24E-003
AM241	5.45E-001	1.87E+000	1.01E+000	4.08E-002
PU241	1.85E-002	1.90E+000	4.86E-001	7.15E-002
PU242	3.22E-003	1.27E-005	3.25E-006	0.00E+000
AM243	1.33E-003	2.67E-004	4.62E-005	5.49E-006

Errors quoted at 1.000 sigma

Operator: D - R Date: 11·5·13

ITR: Martha Eg Date: 11·5·13

Automated Independent Technical Review

Count Sequence Number: 23776 Batch Number: 1LANDA1858
Counter ID: MCS HENC #1
Container ID: 68574
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/1/2013

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: Sherri Chamberlin Date: 11-4-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68574**

BDR Number: **LA13FG2117**

Sampling Date: **11/15/2013**

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\131115c\
Data File : 68574.D
Acq On : 15 Nov 2013 2:45 pm (#1); 15-Nov-13, 14:44:51 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 14:53:27 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	3.552	96	4262140	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.858	117	3330045	177.50 ppmv	0.00

Target Compounds	Qvalue

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

S862411

S862411

Container Profile 748791

File Options Reports Help

S862411

748791	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

S862411

- S862411
  - 90926 – EMPTY
  - 90925
    - 92240 – EMPTY
    - 92239

Task History

Transfer Details

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

Working Copy
Date: 2-14-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 9862411

6.2[4] Date Processed: 2-14-12

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: NONE

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] **(S)** 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: 9-3-12

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

4.3[6] **(S)** 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

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

Performed By: Michael Romero Michael Romero 182723 2-14-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 315.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 80 lb

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: S8162411

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 395.8 lb

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90925			
10.1[4]	Daughter Drum Filter No.	CL-1375		N	
10.1[4]	Daughter Drum Bag Filter No.	WO 1579		A	
10.1[4]	Daughter Drum Purchase Order No.	415090			
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[7][D]/10.2[8][D]	Bag-out Bag Filter No.				
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[7][A]	Opaque/Non-penetrable Item Description:	Lead shielding	N	A	
10.3[5][A]	Free Liquid Volume/Units	6 ounces			
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[12]/ 10.5[5]	Daughter Drum % Full (%)	90%			
10.5[4]	Description Waste Added During Processing	Plastic			

ATTACHMENT 1
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4.1[6][B] Parent Waste Container No.: S862411

Comments: plastic, Lead shielding, Salts

11.1[1] Performed By: Michael Romero Michael Romero 182723 / 2-14-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Anthony Vigil 184824 12-15-12 0830
SOS/SOM (print) Signature Z # Date/Time

Attachment 1. Checklist for Overpacking Drums Into an 85–Gal Overpack

85-Gallon Overpack ID Number 90924

RECORD Drum Filter information: NOCFil-013	
Filter ID Number: GK-334	
Date of Manufacture: 7/10	

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#	N/A	M&TE ID#	038373
Cal Expiration Date		Cal Expiration Date	5-30-12
			±3% cw
Tolerance		Tolerance	±6% ccw
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☑ Yes ☐ No
		Bung Torque Wrench	
		M&TE ID#	N/A
		Cal Expiration Date	
		Tolerance	
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☐ N/A

Previously used 85-gallon container inspected (as applicable) ☑ SAT ☐ UNSAT

Filter vent torque value: (new container only) _____ in-lb ☑ N/A

Drum lid 2-inch bung torque value: (If applicable) _____ ft-lb ☑ N/A

Drum lid ring-bolt torque value: 60 ft-lb

Drum lid ring threaded end touching jam nut: ☐ YES ☑ NO

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
Eddie Rios	[signature]	E.R.	182821	2-14-12
Michael Romero	[signature]	MR	182723	2-14-12

(5)

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

Drum ID#: 90925

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 #: 415090
Lot #: 0220644
Date of Manufacture: 2011

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: ROP
Model #: 3CPVC-1523PVC
Serial #: WO-1579
Date of Manufacture: 6/11

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: NUTIL
Model #: 01905
Serial #: CL-1375
Date of Manufacture: 3/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9/12/12	Cal Expiration Date:	8/12/12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	+/-390 cw +/-690 ccw	Tolerance:	+/-390 cw +/-690 ccw

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

[x] Yes [ ] No

Print Name: L M Montaño Signature: L M Montaño Z#: 085042

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 75.6
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: L M Montaño Operator Sign: L M Montaño Z#: 085042 Date: 2/7/12

Verifier Print: Eddie Rios Verifier Sign: Eddie Rios Z#: 187822 Date: 2-13-12

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

DRUM ID#: 90925

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: 5-30-12

Range/ Value (ft-lbs): 20-80

--- Tolerance +-3%/ea / +-6%/ea

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.): 341.0

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: [illegible] Date: 2-13-12

Verifier Print/Sign: [illegible] Date: 2-14-12

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S862411 Container Type: 85-GAL Gross Weight (lbs): 317
Inner Seal #: 019363 Filter Prefix: LAVC Filter Serial #: 02803; 05482
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A02025
Total PE-Ci Activity: 6.74E+00 Equivalent Combustible PE-Ci: 2.53E+00 AM-241 PE-Ci: No data
Total Fissile Gram Equivalents: 91.6 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/8/2007 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:

Performed By: R. W. Jones / R. W. Jones / 117434 / 9.27.10
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: RTR pre-screen indicated impenetrable object. Solid Waste record indicates leached solids in form of Uranium nitrate salt. 11 items, heaviest item is 15Kg (33lbs). Net weight of 11 items is 63 Kg (139lbs). May require RWP for >1,000 and <10,000 mrem/hr @ 30-cm.

Performed By: Michael Garcia / Michael Garcia / 099143 / 10/27/10
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:

Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments:

Performed By: Julie Gallegos / Julie Gallegos / 176905 / 12-1-10
TRU Remediation Operations (Print) Signature Z Number Date

Noncertified TRU Waste Drum Item Information

DrumID: 019363

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	LCU16140NW		3.180	URANIUM NITRATE SALT		13.15	53	1/13	DRM19647
2	LCU21312NE		3.370	URANIUM NITRATE SALT		18.44	54	1/13	G468
3	LCU21312NE		3.360	URANIUM NITRATE SALT		481.6	32	5/	G468
4	9LCU130NE1		8.260	URANIUM NITRATE SALT		1.89	53	1/13	G468
5	8LCU113NW1		4.560	URANIUM NITRATE SALT		5.2	53	1/13	G468
6	8LCU113NW1		4.560	URANIUM NITRATE SALT		2000.	15	5/	G468
7	8LCU214NE1		2.480	URANIUM NITRATE SALT		1.19	53	1/13	G468
8	8LCU315NW1		2.140	URANIUM NITRATE SALT		1.15	53	1/13	G468
9	12U0X5E1		1.000	URANIUM NITRATE SALT		7.96	54	1/13	G468
10	12U0X5E1		14.960	URANIUM NITRATE SALT		9000.	12	5/	G468
11	1U0X16E1		14.960	NITRATE SALTS		8.53	54	1/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 143.6

Material Type	SNM (grams)	Items Net Wt (kg)
12	9000.	14.96
15	2000.	4.56
32	481.58	3.36
53	22.58	20.62
54	34.93	19.33
Totals	11539.	62.83

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 9.24.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	1237975	9-28-10

Container No. (7.[1]):	S822712	S852999	S862411
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	55gal	55gal
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			
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	3.61		
o-Xylene			
Acetone			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	3.61	Ø	Ø

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	5822712	5852999	5862411
Hydrogen Reading (ppm) (7.[10]):	1338.28 ppm	124.88 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	3.61 ppm	Ø ppm	Ø 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:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 9-28-10
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 111886 9 28
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\100924c\
Data File : S862411.D
Acq On : 24 Sep 2010 9:27 am (#1); 24-Sep-10, 09:26:17 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM FROM INSIDE 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 24 09:36:38 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	3.674	96	2884418	207.75	ppmv	0.03
15) Chlorobenzene-d5	6.000	117	2088739	180.75	ppmv	0.03

Target Compounds	Qvalue

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

vocgas.m Fri Sep 24 09:36:45 2010

PROJECT NAME _____ NOTEBOOK NO. _____

2-14-12

0600 Assuming WCRR operations center. Tcolemar
0615 Beginning outside rounds.
0625 Pre-job being held on glove changes to be performed on stations 2(L) 4(L) 6(R) 8(R).
0640 Outside rounds complete. We will not be able to perform inside rounds until glove changes are complete.
0737 Beginning glove changes.
0754 All glove changes complete (Stations 2, 4, 6, 8).
0842 Beginning inside rounds.
0851 Permission granted to lower the vehicle access gates to begin to load transfer vehicle for shipment to Area G.
0900 Item #60 on the rounds is 005. Per CSE we are okay to proceed.
0925 Vehicle access gates have been restored. Transfer vehicle loaded. Transportainers secured. TSP logbook updated. Both ~~tc~~ tc 2-14-12 rounds complete and reviewed by SOS.
0928 Mode change complete. We are now in operations.
1014 Bagging off drum #5863708 and 1 POC, bagging on #5862411.
1027 Badge-bag on complete. Beginning to de-nest 5 drums.
1055 De-nesting complete. Beginning to process.
1123 Permission granted to lower vehicle access gates to begin receipt of drums from Area G.
1150 Bagging off 5862411, bagging on 5860096.
1158 Shipment from Area G has been accepted. Vehicle access gates have been restored.
1200 Notified by Inventory control that on his printout of the database (QA) it states to verify that the interior ~~limitt~~ tc 2-14-12 limit of 889 PE-Ci has not been exceeded by planned transfer. It should read 800 PE-Ci. SOM notified, who then notified OM and the owner of the spreadsheet.
1219 Notified by operators inside that they noticed the lead lined window on station #2 was broken and needs to be replaced.
1344 Initiating a drum movement from transportainer to 8069.
1348 Drum movement complete.
1351 Operator 20 notified operations center of a High High pressure alarm on the WCG. Entered EPRI CRR RMA ARP-411. SOM notified.
1354 Entering LCO's 3.0.1 (General) and 3.3.1 and 3.3.2
1358 OM notified
1410 FOS notified by SOM.
1412 DOE notified. Mister alarm acknowledged.
1422 Ventilation shut down.
1428 Ventilation restarted. All readings normal.
1446 Per tc 2-14-12 Further investigation identified operators

continued on next page. Tcolemar

SIGNATURE _____ DATE _____ 20 _____
READ AND UNDERSTOOD DATE 20

PROJECT NAME NOTEBOOK NO.

Continued from previous page - JColeman

2-14-12 introduced the glovebox window into the glovebox introductory port and caused the High High alarm to to be activated

1517 Initiating a drum movement from 5069 to a transportaine

1533 Late entry at 1428 all operational limits were met. Eyited LCO'S. JC

1547 Beginning outside rounds.

1555 Drum movement out of facility complete.

1602 Beginning inside rounds.

1623 Item #60 on the rounds is OOS. PICSE, we are okay to proceed.

1631 Inside rounds complete.

1632 Bagging off 5860096 and 1 POC. Bagging on 5863696.

1650 Bag off complete. Did not bag on 5863696.

1700 Rounds retrieved by SOS.

JC 2-14-12 1700 Mode change complete. We are now in warm standby.

1705 End of day. Operations secure. JColeman

No further entries this page

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

0000 Reviewed previous shift turnover and assumed the WCRR SOM. Operating 3 General
0040 Listened in on morning call in. WCRR is currently investigating contamination on glove box gloves. Operators will be going inside to change out gloves on stations #2 and #4 left glove and stations #1 and #3 right glove. The facility is currently in WARM standby.
0131 Reported by Operation Center that glovebox gloves are being to be changed out.
0154 Reported by Operation Center that glovebox maintenance is complete. At present no briefing will be conducted after all operators come out from process area.
0835 Post-job briefing conducted to discuss contamination on glovebox gloves that occurred on 2-13-12. The following information was obtained Station #2 #4 Left gloves contained 1500 dpm thumbpad on Station #2, Station #4 contained 5,000 dpm on the cuff. Station #1 & right glove contained contamination on cuff and station #3 right hand contained 1500 dpm to hand and swipes and smears were taken prior to operations on 2.13.12 and RDH results were reported. Possible areas of concern for breaches were discussed. Warning TLD per cuff area. Actions that will be taken are as follows: Change out gloves on a more routine basis and RCTs perform a more thorough inspection.
0928 Mode change complete. WCRR YARD and 50-100 from WARM mode to OPERATIONS. @ HP 50-54
1000 Walk down of WCRR foot print with ARTIC operations. Machine shop operators want to move a large piece of equipment but of their building 50-54. They have scheduled a time and date on when they will move equipment knowing they aren't crossing WCRR footprint.
1025 Notified by Shift Operations Supervisor that transport vehicle is positioned far away from vehicle access gates. Operators did not bring down vehicle barriers. SOM notified P.T. transportation personnel to come re-position vehicle prior to WCRR accepting shipment.
1050 P.T. transportation came by and move transport vehicle. Truck is positioned correctly. Operation will resume with loading and accepting shipment.
1055 SOM reviewing maintenance schedule for upcoming weekend noted that UPS and concrete floor modification are both scheduled to work on 2.17.12. SOM called back night to get with maintenance supervisor to ensure

SIGNATURE _____ DATE _____ 20 ___
READ AND UNDERSTOOD _____ DATE _____ 20 ___

the ventilation is not going to be shut down during UPS maintenance. If UPS is going to work and ventilation needs to come down, the concrete floors will not be able to be worked.
1125 Nick Vail called back to SOM and unified with maintenance supervisor that ventilation will not be shut down during concrete maintenance.
1300 Notified by Inventory control that on the print out of the database (CAN) at status to verify that the interior chamber. Of shelved read 800 pCi. SOM notified on spreadsheet owner and CSE. All agreed to proceed as written until a change is made to spreadsheet. Procedure hasn't been violated. Procedure has correct values.
1320 Notified by operation center that they noticed that the main head lamp window on station #2 is cracked and need to be re-plated.
1351 Notified by operation center that a high-high pressure alarm on the WCRR was reported. ARP-0411 has been entered.
1354 Operation Center entered LCOs 3.0.1 general 3.3.1 and 3.3.2 at 1m.
1358 OM notified by SOM.
1410 EDD notified by SOM.
1412 DOE notified by SOM.
1423 Ventilation was shut down per procedure. Probable cause of alarm was that the head lamp window was introduced through introductory port causing alarm to activate.
1428 Ventilation restored. All readings are normal. All operational limits were met and LCOs were exited.
1530 DOE tour with Alan Cx. Entry up to step off pad.
1700 Mode change complete. WCRR, YARD and 50-100 from OPERATIONS to WARM mode.
1730 Securing the work SOM position

No further entries

SIGNATURE [signature] DATE 2.14 20 12
READ AND UNDERSTOOD _____ DATE _____ 20 ___

250

PROJECT NAME WCRR SOS LOG-BOOK NOTEBOOK NO.

2-14-12

0615 Reviewed SOS Turnover Assuming SOS Position
0616 Pre-Job on Changing gloves
0630 Pre-Job on Changing gloves Concluded
0645 Starting Pre-Job on Processing Drums & Shipments.
0705 Pre-Job Concluded
0708 Outside Rounds Reviewed
0832 Starting Post Job on Glove Changes
0900 Post Job concluded
0925 Reviewed Rounds
0928 Mode CHANGE COMPLETE from warm to operation in Yard & Building
1030 Notified LANCE to come back to 50-69 & back up the truck more toward the vehicle barrier.
1031 LATE ENTRY AT 1015 Operators brought it to my attention that the transport truck was not backed up far enough to the vehicle barriers.
1218 Notified By operator that lead window inside glove box was cracked
1351 Operator inside notified of a high high pressure alarm on the WC6. Entered EP-WCRR-RM-ARP-0411
1354 Entering LCO's 3.0.1 & 3.3.1, 3.3.2
1358 On Notified
1410 FOD Notified
1412 DOE Notified
1422 Ventilation shut down
1428 Restarted ventilation
1700 Mode change complete Also reviewed Rounds
1705 End of DAY Securing WCRR SOS position.

No Further Entries on this page

SIGNATURE _____ DATE _____ 20
READ AND UNDERSTOOD _____ DATE _____ 20

HET 10-24-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No. 0925

6.2[4] Date Processed: 10/24/12

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, D009, D008

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]] (S) 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] (S) 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] (S) 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 weights 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: JOE QUINTANA [signature] 239187 10/24/12
Waste Handling Tech (print) Signature ID Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90925

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 3500 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) 476.0 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:

EWMO-FOD (print) Signature / / Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90925

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92239			
10.1[4]	Daughter Drum Filter No.	AM-834			
10.1[4]	Daughter Drum Bag Filter No.	L-3755			
10.1[4]	Daughter Drum Purchase Order No.	416265			
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.				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No				
10.3[10]	Remaining Waste Description	See comments		N/A	
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90925

Comments: LEAD, SALTS, PLASTIC, KITTY LITTER

11.1[1] Performed By: JOE QUINTANA [signature] 239987 10/24/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: JOSE JEREZ [signature] 221452 10/25/12 0939
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: NuCFil
Model No.: 013
Serial No.: 4L-794
Manufacture Date: 8-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021451
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate ☑ Yes ☐ No

Performed By: Steven Mendoza / Steven Mendoza / 10-23-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Steven Mendoza / Steven Mendoza / 10-23-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Tejeda / Jose Tejeda / 10-23-12
Supervisor or designee (print) Signature Z # Date

UET Working Copy

10-24-12 ω

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92240

7.[25] Overpack drum closure ring torque wrench information
M&TE No.: 040329
Cal. Expiration Date: 3-15-13
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez / [signature] 204782 10-24-12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 5[illegible] lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 204782 10-24-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez / [signature] 224132 10-25-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92239

1. Drum/Lid Assembly

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

RECORD drum information

Purchase Request #: 416265
Lot #: 622265
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

- [ ] Place yellow vinyl tape, with arrow 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: Bel
Model #: [illegible]
Serial #: [illegible]
Date of Manufacture: [illegible]

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: [illegible]
Model #: [illegible]
Serial #: [illegible]
Date of Manufacture: [illegible]

RECORD torque wrench information

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #	04804	M&TE ID #	02151
Cal Expiration Date	[illegible]	Cal Expiration Date	[illegible]
Range (ft-lbs or in-lbs)	[illegible]	Range (ft-lbs or in-lbs)	[illegible]
Tolerance	[illegible]	Tolerance	[illegible]

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

- [x] Yes
- [ ] No

Print Name: [illegible] Signature: [illegible] ZN: [illegible]

5. Weigh Drum Assembly

RECORD weight information

Tare weight (lbs): 76.2 lbs
File ID #: 09065

- [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: [illegible] Operator Sign: [illegible] ZN: [illegible] Date: 10-18-12

Verifier Print: Brandon Chavez Verifier Sign: [illegible] ZN: 209702 Date: 10-26-12

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

DRUM ID#: 92239

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 #: 040329

Cal expiration date: 3/15/13

Range/ Value (ft-lbs): 16 - 0

Tolerance +- 3% low +- 6% high

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): 410.8

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: Joe Lumpkins Date: 10/24/12

Verifier Print/Sign: Brandon Chaver Date: 10-24-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

12

Production Control

Container ID: 90925 Container Type: 55-GAL Gross Weight (lbs): 341

Container Seal #: None Filter Prefix: None Filter Serial #: CL-1375

RCRA Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S862411

Total PE-Ci Activity: 6.74E+00 Equivalent Combustible PE-Ci: 2.53E+00 AM-241 PE-Ci: 1.08E+00

Total Fissile Gram Equivalents: 91.6 Total Surface Dose Rate (mrem/hr): 12

EPA Code(s): D008 D007 D009 10/9/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 6/26/2012 Comment: Impenetrable Liquid present S3000 Drum

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: TBD Production Control Comments: Need to add EPA Codes D007 & D009. Nitrate salts mixed with Wasteloc 770® from previous repack campaign. A minimum of 1:2 of kitty litter ratio must be mixed with 1:0 volume of nitrate salts

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan S. Ramsey Z Number: 100681 Date: 9/4/12

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: Nitrate Salts/debris

Net Wt

Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign. This resulting daughter 55-gal drum may contain nitrate salts or a combination of nitrate salts and debris. RTR PS identifies impenetrable item(s) (likely homogeneous nitrate salts or debris such as lead) and liquids (requiring adjustment to the admixture/nitrate salt ratio). Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for > 1000 + < 10000 mrem/hr

Net Wt: 272 lb

Performed By: Valerie Rhodes (WDP Engineering (Print)) Valerie Rhodes Signature: Valerie Rhodes Z Number: 112609 Date: 10/10/12

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. Use Heavy duty gloves when processing waste.

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: Juan Jy Jose Jerez (TRU Remediation Operations (Print)) Signature: Juan Jy Z Number: 221452 Date: 10-11-12

Z# 249750 10/15/12

HHS Review: RB 206262 10.11.12

Noncertified TRU Waste Drum Item Information

DrumID: 019369

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auch (Pg/La)	Comments
1	LCU16140WW		3.180	URANIUM NITRATE SALT		13.15	53	1/13	BRK19647
2	LCU21312WW		3.370	URANIUM NITRATE SALT		18.84	54	1/13	0468
3	LCU21312WW		3.360	URANIUM NITRATE SALT		481.6	32	5/	0468
4	9LCU130WW1		8.260	URANIUM NITRATE SALT		1.89	53	1/13	0468
5	8LCU113WW1		4.560	URANIUM NITRATE SALT		5.2	53	1/13	0468
6	8LCU113WW1		4.560	URANIUM NITRATE SALT		2000.	15	5/	0468
7	8LCU214WW1		2.480	URANIUM NITRATE SALT		1.19	53	1/13	0468
8	8LCU315WW1		2.140	URANIUM NITRATE SALT		1.15	53	1/13	0468
9	L2UXX5W1		1.000	URANIUM NITRATE SALT		7.96	54	1/13	0468
10	12UXX5W1		14.940	URANIUM NITRATE SALT		9000.	12	5/	0468
11	1UXX16W1		14.960	NITRATE SALTS		0.53	54	1/13	0468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 143.4

Material Type	SNM (grams)	Items Net Wt (kg)
12	9000.	14.96
15	2000.	4.56
32	481.58	3.36
53	22.58	20.67
54	34.93	19.33
Totals	11539.	63.83

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date 10/5/12

Container No. (5.[1])	96475					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	190S					
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])	43.51 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	276.0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By SARA ARAGON (CCP (Print)) 237475 (Z #)

Reviewed By NATHAN WALES (CCP (Print)) 238866 (Z #)

Comments None

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 #) 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path C:\msdchem\1\DATA\121005c\
Data File 90925 D
Acq On 5 Oct 2012 12:59 pm (#1) 5 Oct 2012 12:58 pm (#2
Operator SA
Sample :
InstName Unit 8
Misc 55 GAL LFL DRUM THROUGH 19DS UNOBSTRUCTED (Sig #1) (Sig #2)
ALS Vial 1 Sample Multiplier: 1

Quant Time Oct 05 13:07 17 2012
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	3.259	96	2551818	206.00	ppm	0.00
19) Chlorobenzene d5	5.936	117	2203314	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.299	GC1	68197m	276.01	ppm	
4) Methanol	0.785	31	9472	39.39	ppm	100
17) Toluene	4.776	92	20986	4.22	ppm	99

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

Vocgas.m Fri Oct 05 13:07:27 2012

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PROJECT NAME _____ NOTEBOOK NO. _____

10-24-12

0700 Assuming WCRRF operations center - CVelarde.
0701 Starting outside rounds
0731 Starting inside rounds.
0846 ~~Start~~ 10-24-12 completed outside, on 10-24-12 inside rounds
0762 Inside and outside rounds signed off by SOS.
0730 attending mandatory monthly safety meeting.
0846 late entry at 0846 SOM was notified by contamination on glovebox in bagging part. levels below RWP. levels.
0847 Rots notifying SOM it will be OK to go into operations.
#9 0901 mode change performed TASD-69 and WCRRF yard now in operations
0950 Bagging on 90925
1014 starting movement into SD-69
1017 bag on is complete.
1050 ~~Movement into~~ movement into 50-69 complete.
1104 starting movement out of SD 69.
1159 Starting bag off of 90925 and bagging on 90892
1235 bag on and bag off complete
1245 Operators exiting for lunch break.
1335 Operators entering TASD-69 to continue processing.
1440 Starting inside rounds.
1506 Completed inside rounds and starting outside rounds
1520 Completed outside rounds starting bag off of 90892
1540 bag off complete.
1555 Shift turnover with OCC Teri Coleman - CVelarde
1556 Assuming WCRR operations center. - JCleeman
1557 Mode change complete. We are now in warm standby.
#1 1630 End of day. Operations secure - JCleeman

No further entries this page

SIGNATURE _____ DATE _____ 20 _____
READ AND UNDERSTOOD _____ DATE _____ 20 _____

10/24/12

0600 Reviewed shift turnover checklist and assumed SOM duties
0645 Notified by RP-1 supervisor that during RMI's identified >10 < 20 dpm on WCG bag on port. Will recount smears to see if radon.
0730 Attended monthly safety brief.
0847 RP-1 supervisor reported no decay of smear - OK to proceed w/ operations but will have operators wipe down area and re-survey.
0901 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.
1035 Requested by Operations PIC via SOS that hex armour gloves to be put into WCG via introductory port. Discussed w/ RP-1 supervisor and decided best way to introduce would be to bag off parent and introduce on the re-bag on. Need for hex armour's was covered on pre job.
1112 Released WO # 449794-09 FY13 PF Electrical Shop Support to allow PF-4 electrical workers to work on lathe in Bldg 50-54. Contacted scheduling to put on our emerge log. LO/TO will use machine shop procedures and devices.
1400 Attended weekly ALARA meeting. WCG window replacements, Doses @ WCRR, Lead vests, replace portal inventory over next few years. Current cumulative dose for WCRR is ≈ 2300 mrem
1455 Reviewed the 50-69 Structural Design Integrity Inspection Report completed by CSE. Identified that roof was not inspected and CSE reported as SAT. He reported that roof access is not allowed due to changes in fall protection but he saw no evidence of leakage, etc from inside inspection.
1557 Completed mode change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.
1630 Secured SOM position.

No further entries this page

10/24 12

10-24-12 UCCR 505 Log Book

0600 Assuming 505 position. [illegible]

0615 Starting Pre-Job brief. Post safety meeting this morning. Continuing to process SPH 72

0830 Concluded Pre Job Brief

0832 Rounds signed off

0901 MODE Change To Operations

1230 Crew breaking for lunch. No RCT support available to cover second crew.

1330 Crew going in for processing second drum.

1521 Inside and outside rounds signed off

1557 Mode Change Complete. To UCRM

10-24-12 1640 Securing 505 position for the day. [illegible]

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See Another Entries on this page

S86Z-411

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0001
Examination Date:	1/7/2013
Waste Container ID:	92239
Video/Audio Recorded Media Number:	LA-RTR2-13-0001 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 186.5 kg Tare Wt.: 33.4 kg Net Wt.: 153.1 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:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92239

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):	3.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	137.1
Soils (S):	
Total WMP Weight:	153.1

CCP Radiography Data Sheet

Waste Container ID: 92239

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		1/7/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92239	Count Sequence Number:	21787
Operator:	D3PW2DK1\operator		
Assay Start:	1/7/2013 2:16:20 PM		
Description 1:	1LANDA1692		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 153.0 kg	Net:	153.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
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

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	21787	Batch Number:	1LANDA1692
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92239	Analysis Date:	1/7/2013

Net Weight	153000.0 g		
Pu mass	7.94E+001	+- 1.36E+001	g
TRU Alpha Activity	1.27E+001	+- 1.42E+000	Ci
TRU Activity Concentration	8.30E+004	+- 9.31E+003	nCi/g
Pu-239 Equivalent Activity	1.34E+001	+- 1.43E+000	Ci
Pu-239 FGE	9.29E+001	+- 1.28E+001	g
Decay heat	4.10E-001	+- 4.65E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.04E-001	7.42E-005	1.46E-005	4.38E-006
PU238	3.01E-002	5.20E-001	8.92E-002	8.42E-005
PU239	7.07E+001	4.44E+000	7.62E-001	7.19E-004
PU240	8.19E+000	1.88E+000	3.23E-001	3.04E-004
AM241	1.68E+000	5.85E+000	1.16E+000	8.54E-002
PU241	3.61E-001	3.75E+001	6.43E+000	6.07E-003
PU242	1.27E-001	5.05E-004	8.66E-005	0.00E+000
SR90	1.61E-008	2.22E-006	1.24E-006	0.00E+000
CS137	2.53E-008	2.22E-006	1.24E-006	1.08E-006
U233	<LLD	<LLD	0.00E+000	9.19E-003
U234	4.59E-001	2.91E-003	5.87E-004	0.00E+000
U235	3.29E+001	7.20E-005	1.45E-005	4.66E-006
U238	8.60E+003	2.93E-003	5.75E-004	1.37E-004
AM243	1.77E-003	3.57E-004	7.08E-005	1.20E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1/11/13

ITR: _____ Date: 1-11-13

Automated Independent Technical Review

Count Sequence Number: 21787
Batch Number: 1LANDA1692
Counter ID: MCS HENC #1
Container ID: 92239
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 1/7/2013

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. Analysis Status: Override enabled; data marked not available but were used. 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-53,54.

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
U-235 mass is greater than the upper limit of 10.0 g. Total U mass is greater than the upper limit of 500.0 g.	U235/U238 results verified by AK and gamma spectrum. Results valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 1-8-13

Attachment 4 – Flammable Gas Analysis Form

5862411

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

Waste Container ID: **92239**

BDR Number: **LA13FG8001**

Sampling Date: **1/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	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)

Data Path : C:\msdchem\1\DATA\130115c\
Data File : 92239.D
Acq On : 15 Jan 2013 3:06 pm (#1); 15 Jan 2013 3:05 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 15 15:13:50 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	3.256	96	2430057	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2140661	179.50 ppm	0.00

Target Compounds	Qvalue

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

S863696

S863696

Container P 747618

File Options Reports Help

S863696

747618	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

S863696

- S863696
  - 90935 – EMPTY
  - 90934
    - 92681 – EMPTY
    - 92680
  - 90933
    - 92375 – EMPTY
    - 92374
  - 90932
    - 92684
    - 92685 – EMPTY
  - 90931

Task History

Transfer Details

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

2-15-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S863696

6.2[4] Date Processed: 2-15-12

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: None

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 9-3-12

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

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

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

Performed By: Eddie Rios / [signature] 187822 [signature] 2-15-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 389.2 lb

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

ATTACHMENT 1

Page 2 of 3

4.1[6][B] Parent Waste Container No.: S863696

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 509.2 lb

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90931			
10.1[4]	Daughter Drum Filter No.	CL-1358			
10.1[4]	Daughter Drum Bag Filter No.	CL-121			
10.1[4]	Daughter Drum Purchase Order No.	415090			
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		NUCFIL	NUCFIL	NUCFIL
	Model No.		036	036	036
	Serial No.		CL-225	CL-134	CL-223
	Date of Manufacture		12-11	12-11	12-11
10.2[5]	POC ID No		90932	90933	90934
10.2[7][B]/10.2[6]	POC Item Description	N A	Salts & Plastic	Salts, plastic	Salts, Plastic
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.		CL-225	CL-134	CL-223
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		E. Rios 187822	E. Rios 187822	E. Rios 187822
10.2[14]	POC Assembly Gross Weight (lb)		418.8	400.0	
10.2[15]	POC Rad. Survey Results (mrem/hr)		501	501	501
10.3[3][A]	Approx. Containerized Liquid Vol./Units		8 gallons	N/A	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead shielding			
10.3[5][A]	Free Liquid Volume/Units	8-10 gallons			
10.3[9][A]	PCB-contaminated Waste Description	none		A	
10.3[9][B]	PCB Item ID No.	none		N	
10.3[10]	Remaining Waste Description	Salts Plastic absorbent			
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	70%			
10.5[4]	Description Waste Added During Processing	Cheese cloth absorbent			

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S863676

Comments: 6-10 gallons of liquid salts used about 50 pounds of absorbent and bagged off 9 PCC's which contained some lead shielding due to high reading on lead.

11.1[1] Performed By: Cadia Rios, [signature] 187822, 2-15-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Anthony Vigil, [signature] 184868, 2-23-12 0805
SOS/SOM (print) Signature Z # Date/Time

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

Drum ID#: 90931

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 #: 415040
- Lot #: 022D(o 4H
- Date of Manufacture: 11

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: NUCFIL
- Model #: 036-DR-PVC
- Serial #: LL-121
- Date of Manufacture: 12-11

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 #: CL-1358
- Date of Manufacture: 3-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9-12-12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	110-80
Tolerance:	±3% 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: Tommy Romero Signature: [signature] Z#: 234253

5. Weigh Drum Assembly

RECORD weight information
- Tare wight (lbs)
- 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: Tommy Romero Operator Sign: [signature] Z#: 234253 Date: 2-13-12
Verifier Print: Eddie Rios Verifier Sign: [signature] Z#: 187622 Date: 2-15-12

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

DRUM ID#: 90931

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: 9/30/12

Range/ Value (ft-lbs): +-3% cm / +-6% cm

Tolerance 20-80 lbs

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): 157.0

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: Eddie King Date 2-15-12

Verifier Print/Sign: Don Packard Date: 02-15-12

SP13

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S863696 Container Type: 85-GAL Gross Weight (lbs): 398
Inner Seal #: 021090 Filter Prefix: LAVC Filter Serial #: 00201; 05593
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A02026
Total PE-Ci Activity: 1.21E+01 Equivalent Combustible PE-Ci: 4.52E+00 AM-241 PE-Ci: 1.11E+00
Total Fissile Gram Equivalents: 122.8 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/25/2007 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:

Performed By: R. W. Jones (Production Control (Print)) / R. W. Jones (Signature) / 117434 (Z Number) / 10.28.10 (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: Solid waste record indicates leached solids in form of nitrate salts. 14 items of salts, heaviest item is 13 kg (30 lbs), net weight of 14 items is 96 kg (211 lbs). May require RWP for >1,000 and <10,000 mrem/hr @ 30 cm.

Performed By: Michael Garcia (WDP Engineering (Print)) / Michael Garcia (Signature) / 099143 (Z Number) / 11/11/10 (Date)

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns:

Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments:

Performed By: C. Velarde (TRU Remediation Operations (Print)) / C. Velarde (Signature) / 284079 (Z Number) / 12/2/10 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 021090

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	7RR7W1		5.820	NITRATE SALTS		3.28	52	9/13	
2	7OX9E1		4.110	NITRATE SALTS		0.71	52	9/13	
3	6RR16E1		13.280	NITRATE SALTS		7.8	52	9/13	
4	6RR16W1A		9.080	NITRATE SALTS		13.98	52	9/13	
5	6RR16W1B		8.500	NITRATE SALTS		13.09	52	9/13	
6	6OX20E1		6.440	NITRATE SALTS		3.74	52	9/13	
7	6OX30W1		7.660	NITRATE SALTS		3.86	52	9/13	
8	7DS7E1		3.590	NITRATE SALTS		58.65	53	9/13	
9	6DS19E3A		3.800	NITRATE SALTS		1.13	52	9/13	
10	6DS19E3B		5.500	NITRATE SALTS		2.11	52	9/13	
11	7LR8W1A		7.450	NITRATE SALTS		3.92	52	9/13	
12	7LR8W1B		7.870	NITRATE SALTS		18.41	52	9/13	
13	7OX14W1		8.500	NITRATE SALTS		0.918	52	9/13	
14	7OX14E1		4.020	NITRATE SALTS		0.3	52	9/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 180.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	73.248	92.03
53	58.65	3.59
Totals	131.9	95.62

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 10-26-10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	623775	10-28-10

Container No. (7.[1]):	S892970	S863694	S891441
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			
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			50.79
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	Ø	50.79

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	5893970	5863696	5891461
Hydrogen Reading (ppm) (7.[10]):	689.33ppm	576.73 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	50.79 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:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera, [signature] 198450, 10.27.10
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]/ 11.1[8] Reviewed By: Kenny Romero, Kenny Romero 111861, 11.4.10
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101026c\
Data File : S863696.D
Acq On : 26 Oct 2010 1:26 pm (#1); 26 Oct 2010 1:25 pm (#2)
Operator : EL
Sample :
InstName : Unit 8
Misc : 55GAL LFL DRUM FROM INSIDE 85GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 26 13:34:46 2010
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	3.243	96	6393410	209.00 ppm	0.00
15) Chlorobenzene-d5	5.930	117	5292243	184.00 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.325	GC1	137714m	576.73 ppm	

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

Vocgas.m Tue Oct 26 13:34:58 2010

PROJECT NAME NOTEBOOK NO

2-16-12 Assuming WCRR operations center - Coleman
0600 Beginning outside rounds.
0612 Beginning pre-job brief
0615 Beginning inside rounds
0642 Outside rounds complete.
0637 Item #60 is OOS on the rounds. Per CSE, we are okay to proceed.
0721 Inside rounds complete.
0726 Rounds completed and reviewed by SOS.
0730 Mode change complete. We are now in operations.
0735 Bagging on drum #5863696.
0748 Notified by SOS that operators relayed to him that the drum they have opened contains at least 7 to 10 gallons so far without pulling any packages out yet. More absorbent being taken inside 50-69.
0922 Initiating a drum movement from transportainer to the transfer vehicle for a shipment to Area G. Permission granted to lower vehicle access gates.
1005 Vehicle access gates restored. Transfer vehicle loaded. Transportainers secured.
1025 Bagging off 5863696 and 3 POC's, bagging on ~~5863987~~. JC 2-15-12 5871844. They could not get the bag off of 5863787.
1139 Bagging off 5863787 and 1 POC, Bagging on 5863788.
1202 Bag off and bagon complete. Exiting facility for lunch.
1325 Shift turnover Brief with CO. Clarissa Velarde - Coleman
1326 Assuming WCRR Operations center - Velarde
1333 Operations on pause due to liquid on box having a pH of 3-4
1340 Starting movement out of 50-69 to transportainer
1403 movement complete out of 50-69
1436 Operator notifying OPS Center that they will be introducing neutralizer through introductory port.
1442 Completed introduction of neutralizer will continue processing drum.
1519 Operator notifying OPS center of Rad line check on lead winder
1520 Starting outside rounds ~~Velarde~~ 2-15-12.
1530 Starting movement from transportainer to 50-69
1538 Outside rounds completed.
1543 Starting bag off of 5863788 and 2 POC's
1545 Movement completed into 50-69
1548 Starting inside rounds
1610 Item #60 on rounds is OOS. Per CSE documentation OK to proceed
1630 Mode change performed We are now in Waken. Ops secure. OK. Velarde

2-16-12

no further entries this page.

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

0000 Assumed the WCRR SOM position and received the previous shift turnover. Completed safety pre-job briefs conducted by Shift Operations Director. SOM discussed lessons learned from WCG High High Alarm and the use of the introductory post. SOM also discussed the importance of locking up all ~~buildings~~ buildings at the end of shift. @2-15-12

0040 Morning call up with FOD. Comes to discuss is pay attention to detail and watch out for each other. Discuss all near misses and discuss any procedure changes to using the introductory post.

0725 Upgraded solution package #70 with production control. Comes identified we no more than one drum at a time can be brought up to WCRRF due to SECI and a temporary fire watch needs to be established on the WCG. RP-1 will have to evaluate the use of glovebags used inside the WCG.

0735 Mode change complete. WCRR YARD and 50-69 from WARM mode to OPERATIONS.

0845 Notified by OCO that first drum of the day contains approximately 7 to 10 gallons.

1333 Notified by OCO that liquid on box for drum contains a list of B-4 operators waiting on neutralizer.

1430 @2-15-12 ~~1440~~ Operators will be introducing neutralizer by introductory post.

1519 OCO notified of a hairline crack on small inner lead lined window. No AOP required to be entered. Glovebox wasn't breached.

1030 Mode change complete. WCRR YARD and 50-69 from OPERATIONS to WARM.

1040 Securing the watch. [signature]

LJ 2-21-12

no further entries

SIGNATURE [signature] DATE 2-15 20 12
READ AND UNDERSTOOD DATE 20

2-15-12

0600 REVIEWED SOS TURNOVER ASSUMING SOS POSITION. Anthony U.A.

0615 PRE-JOB OPERATORS ON PROCESSING, DRUM MOVEMENTS, SHIPMENTS, ARTIC OP'S, AND TALKED ABOUT NOT USING THE INTRODUCTORY PORT DUE TO POSSIBLE ALARMS. WE ALSO DISCUSSED NEAR MISSES IN OUR AREA AS WELL AS IN OTHER AREA'S PER FOD.

0700 PRE-JOB CONCLUDED

0730 REVIEWED INSIDE AND OUTSIDE ROUNDS

0735 MODE CHANGE COMPLETE FROM WARM TO OPERATIONS IN YARD AND BUILDING

0748 BAGGING ON FIRST DRUM

0845 Drum Operators are processing has 10 gallons of liquid

1333 Operators paused due to liquid on box having a p.h. of 3-4

1436 Operators introducing absorbent & neutralizer through introductory port.

1442 Using introductory port complete

1519 Notified of a hair line crack on inner window.

1630 Mode change complete

1633 Reviewed Rounds

1640 End of shift Securing WCRR SOS Position.

No Further Entries on this page.

SIGNATURE _____ DATE _____ 20 ____

READ AND UNDERSTOOD _____ DATE _____ 20 ____

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0020
Examination Date:	2/6/2013
Waste Container ID:	90931
Video/Audio Recorded Media Number:	LA-RTR2-13-0020 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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:	LA224
Waste Matrix Code:	S3140
Waste Stream I.D.:	LA-MIN04-S.001
Waste Container Weights:	Gross Wt.: 71.0 kg Tare Wt.: 33.4 kg Net Wt.: 37.6 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:	45 %

CCP Radiography Data Sheet

Waste Container ID: 90931

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Tape rolls

R:

XPM: Plastic bags, plastic 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):	1.5
Other Inorganic Materials (OI)	
Cellulosics (C):	0.5
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	33.6
Soils (S):	
Total WMP Weight:	37.6

CCP Radiography Data Sheet

Waste Container ID: 90931

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:

Dennis Powell	Dennis Powell	2/6/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	90931	Count Sequence Number:	15056
Operator:	DCLTD231\Operator		
Assay Start:	2/14/2013 11:44:36 AM		
Description 1:	2LANDA1099		
Description 2:	N/A		
Location:	LANL-TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 37.6 kg	Net:	37.6 kg
Container:	Volume: 208.0 l	Full:	45.0 %
Density:	0.400 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:	15056	Batch Number:	2LANDA1099
Assay Instrument:	HENC #2	Location:	LANL-TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	90931	Analysis Date:	2/14/2013

Net Weight	37600.0 g	
Pu mass	1.54E+001 +-	1.92E+000 g
TRU Alpha Activity	2.89E+000 +-	8.92E-001 Ci
TRU Activity Concentration	7.68E+004 +-	2.37E+004 nCi/g
Pu-239 Equivalent Activity	2.92E+000 +-	8.92E-001 Ci
Pu-239 FGE	1.51E+001 +-	1.92E+000 g
Decay heat	9.38E-002 +-	2.98E-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	2.60E-007
U233	<LLD	<LLD	0.00E+000	3.22E-003
U234	1.53E-002	9.71E-005	1.50E-005	0.00E+000
U235	1.10E+000	2.40E-006	3.71E-007	9.25E-007
NP237	3.19E-002	2.28E-005	3.07E-006	7.90E-007
PU238	4.35E-003	7.52E-002	1.51E-002	1.21E-003
U238	<LLD	<LLD	0.00E+000	8.28E-006
PU239	1.43E+001	9.01E-001	1.21E-001	1.44E-002
PU240	1.03E+000	2.38E-001	3.36E-002	3.81E-003
AM241	4.82E-001	1.67E+000	8.83E-001	2.79E-002
PU241	1.82E-002	1.89E+000	2.78E-001	3.03E-002
PU242	1.23E-002	4.90E-005	8.18E-006	0.00E+000
AM243	1.92E-004	3.88E-005	5.41E-006	4.24E-006

Errors quoted at 1.000 sigma

Operator: Sam Barton Date: 2/18/13

ITR: [signature] Date: 2-18-13

Automated Independent Technical Review

Count Sequence Number: 15056 Batch Number: 2LANDA1099
Counter ID: HENC #2
Container ID: 90931
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 2/14/2013

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	Ok
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: 2-18-13

5863696

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **90931**

BDR Number: **LA13FG8015**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	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)

Data Path : C:\msdchem\1\DATA\130301c\
Data File : 90931.D
Acq On : 1 Mar 2013 1:03 pm
Operator : NW
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 13:11:18 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	3.256	96	2476377	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	2213160	179.50 ppm	0.00

Target Compounds Qvalue

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

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90982

6.2[4] Date Processed: 1-24-13

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 / 1-24-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90932

5.[18] Measured Parent Drum Weight (lb) including items secured to drum top, as applicable: 423.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B] Total Parent Drum Weight (lb) 423.2 lb
6.2[6]

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

VMO-EOD (print) Signature / # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90932

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92684			
10.1[4]	Daughter Drum Filter No.	JL-1144	N		
10.1[4]	Daughter Drum Bag Filter No.	L-4081		A	
10.1[4]	Daughter Drum Purchase Order No.	501011			
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			A	
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	N		
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[8]	Daughter Drum % Full (%)	75%			
10.5[3]/10.6[2]	Description Waste Added During Processing	STUB OUT BAGS			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90932

Comments: ROOM TRASH, POC LIDS, PLASTICS, CARDBOARD, SALTS, KITTY-LITTER, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 1-24-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: JOE JEREZ / [signature] 221452 / 1-26-13 1130
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413659
Lot No.: 208849
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: 11-33
Manufacture Date: 9-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	+-4% cw +-6% ccw	+-3% cw +-6% ccw

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

Performed By: Steven Mandragon / Steven Mandragon / 1104741 / 1-22-13
Waste Handling Technician (print) / Signature / Z # / Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]. 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/A

8.1[1] Performed By: Steven Mandragon / Steven Mandragon / 1104741 / 1-22-13
Waste Handling Technician (print) / Signature / Z # / Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] / 2214521 / 1-26-13
Supervisor or designee (print) / Signature / Z # / Date

Working Copy
Date: 1-24-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92685

7.[25] Overpack drum closure ring torque wrench information:

M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: ±3% cw ± 6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brian Gallegos [signature] 267129 1-24-13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 323.8 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos [signature] 267129 1-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez [signature] 221521 1-26-13
Supervisor or designee (print) Signature Z # Date

-17-13

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

Drum ID#: 92684

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 #: 50641
Lot #: 2333370
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: BGD
Model #: GCPVC 7.5-2 SPVC
Serial #: L-6091
Date of Manufacture: 6-12

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 #: 01989
Serial #: SL-7144
Date of Manufacture: 10/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038369
Cal Expiration Date:	9-26-13	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 Romero Signature: Michael Romero Z#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 75.6
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 Romero Operator Sign: Michael Romero Z#: 182723 Date: 1-17-13

Verifier Print: BRIAN GALLEGOS Verifier Sign: Brian Gallegos Z#: 267129 Date: ~~1-23-13~~ 1-24-13

1-24-13

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

DRUM ID#: 92684

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 # : 038367

Cal expiration date: 3-16-13

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) 300.2

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: B. Dabney Date: ~~1-23-13~~ 1-24-13 1-24-13 BG

Verifier Print/Sign: Don Pacheco Date: ~~1-23-13~~ 1-24-13 1-24-13 BG

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90932 Container Type: POC Gross Weight (lbs): 419

Seal #: None Filter Prefix: None Filter Serial #: EL-432; EL-492

Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S863696 WTS-12STD-891

Total PE-Ci Activity: 3.01E+00 Equivalent Combustible PE-Ci: 1.13E+00 AM-241 PE-Ci: 2.79E-01

Total Fissile Gram Equivalents: 30.7 Total Surface Dose Rate (mrem/hr): L –

EPA Code(s): D008 D007 D009 VR 10/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

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: TBD Production Control Comments: Need to add EPA Codes D007 & D009 Nitrate salts mixed with Waste Lock 770 from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey Signature Susan B. Ramsey 100681 Date 9/10/12
Production Control (Print) Z Number

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 – POC

Net Wt: 109 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for [redacted], and mercury. No chemicals present. May require RWP for >100 & <1000 mrem/hr

Performed By: Valerie Rhodes Signature Valerie Rhodes 112689 Date 10/8/12
WDP Engineering (Print) Z Number

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Hexarmour gloves when processing waste. 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

Performed By: Jose Perez Signature Jose Perez 221452 Date 10-9-12
TRU Remediation Operations (Print) Z Number

CR Z# 249750 10/18/12

IHS REVIEW: RB 206362 10.4.12

Noncertified TRU Waste Drum Item Information

DrumID: 021090

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	7RR7W1		5.820	NITRATE SALTS		3.28	52	9/13	
2	7OX9E1		4.110	NITRATE SALTS		0.71	52	9/13	
3	6RR16E1		13.280	NITRATE SALTS		7.8	52	9/13	
4	6RR16W1A		9.080	NITRATE SALTS		13.98	52	9/13	
5	6RR16W1B		8.500	NITRATE SALTS		13.09	52	9/13	
6	6OX30E1		6.440	NITRATE SALTS		3.74	52	9/13	
7	6OX30W1		7.660	NITRATE SALTS		3.86	52	9/13	
8	7DS7E1		3.590	NITRATE SALTS		58.65	53	9/13	
9	6DS19E3A		3.800	NITRATE SALTS		1.13	52	9/13	
10	6DS19E3B		5.500	NITRATE SALTS		2.11	52	9/13	
11	7LR8W1A		7.450	NITRATE SALTS		3.92	52	9/13	
12	7LR8W1B		7.870	NITRATE SALTS		18.41	52	9/13	
13	7OX14W1		8.500	NITRATE SALTS		0.918	52	9/13	
14	7OX14E1		4.020	NITRATE SALTS		0.3	52	9/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 180.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	73.248	92.03
53	58.65	3.59
Totals	131.9	95.62

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 10·3·12

Container No. (5.[1])	90932					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
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])	4857.83 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: None

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: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 10·4·12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90932.D
Acq On : 3 Oct 2012 5:18 pm (#1); 03-Oct-12, 17:17:25 (#2)
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 17:25:41 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.555	96	6265551	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.884	117	5526497	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.540	GC1	34343	4857.83	ppmv	100

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

report [illegible] Assuming WCRRF Operations Center [illegible] [illegible] [illegible] inside and outside [illegible] rounds.

0615 ASSUMING OPERATIONS CENTER LOG BOOK UNDER THE DIRECTION OF CLARISSA VELARDE OCO OJT INSTRUCTOR, STARTING THE PRE JOB BRIEF

0617 OUTSIDE ROUNDS complete

0625 ITEM #61 ON THE INSIDE ROUNDS IS OOS, THERE IS NO POD IN PLACE WE ARE OK TO PROCEED.

0633 INSIDE ROUNDS completed

0644 Pre job complete

0645 Rounds signed off By SOS @0709

0709 PERFORMED MODE CHANGE FOR WCRRF YARD, AND TA-50-69 IN OPERATIONS.

0720 BAGGED ON DRUM # 90934

0857 Bag on complete

0808 PPE CHECK IS SAT

0810 BAGGING OFF, bagging ON 90885

0848 PPE CHECK IS SAT

0850 Bag on of 90885 complete

0920 PPE CHECK IS SAT

0930 PPE CHECK IS SAT

0951 BAGGING OFF AND BAGGING ON DRUM # 90932

010 Bag on complete

1038 PPE CHECK SAT

1040 BAGGING OFF AND BAGGING ON DRUM # S834480

1110 Bag off complete

1139 WCRRF OPERATORS INFORMED OPS CENTER THAT THEY HAVE A 30 gal SEALED IN THE GLOVEBOX, THE GLOVEBOX HAS BEEN DE-ENERGIZED

1146

1155 30 gal drum breached

226 30 minute WAIT TIME HAS ELAPSED

1309 PPE CHECK IS SAT

1330 BAGGING OFF, BAGGING ON S818279

1358 Bag on complete

415 Operators called in to inform ops center and SOS that this drum will be taking time to process due to the many cans that will need to be opened one at a time

Continue on next page B. FORDHAM

Int, Int Douglas 11018

92894

1/24/13 CONTINUED From Previous PAGE B FORDHAM

1425 STARTED INSIDE ROUNDS

1439 ITEM # 61 is OOS, ok to proceed POD inplace

1441 INSIDE ROUNDS complete

1527 STARTING OUTSIDE ROUNDS

1530 BAGGING ON AND BAGGING OFF S823305

1535 PPE CHECK INSIDE IS SAT

1553 bag off complete

1554 outside rounds complete

1705 STARTED TO BAG OFF LAST DRUM

1730 BAG OFF complete; post inspection on drum left performed all of the clips are inplace.

1800 Move change performed

1801 Securing OCO position under instruction Brian Fordham

1820 [illegible]

HH [illegible]

1/24/13

0000 Assumed the WERR SOM position. Jeanette Fernandez

0015 Attended the pre-job briefing conducted by SOS. Discussed memo on approval for disposal of empty/waste containers with beam. Discussed safety and staffing issues briefly, especially because Rick Gregorek had worked four days straight.

0100 Met in meeting with TA-54 SOM. Stated WERR and CVS was attended, print page forward, review accounts (e.g. daily times) all being filled out correctly.

0130 Mode change complete. WERR YARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.

0145 Date certified and attended shift brief. WERR-SH-13 011 Daily Check for Lazaris. (AB)

0155 Begining on first round of the day.

0230 SOM departed TA-54 bld. 247.

1030 SOM attended Solution Package Meeting held at TA50-54.

1200 SOM attended daily status meeting held at TA50-54.

1730 An FSR was initiated to repair the security door (fence) outside of 50-69. Item # 3 on the round sheet was marked UNSAT.

1800 Mode change complete. WERR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM.

1830 Securing the SOM position. Jeanette Fernandez

no further entries to this page.

Jeanette Fernandez 1/24 13

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.

0728 Mode change Complete

0757 Bagging in 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 of 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

1302 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 entry Bagging off And bagging on 5823305 1530 Gm

1800 mode change complete WCRRF In warm.

1830 end of shift securing SOS Position [illegible]

HG

No further entries on this page

5863696

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0024
Examination Date:	2/12/2013
Waste Container ID:	92684
Video/Audio Recorded Media Number:	LA-RTR2-13-0024 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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.: 136.0 kg Tare Wt.: 33.4 kg Net Wt.: 102.6 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: 92684

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, hardware

AM:

OM: Scrap lead

OI:

C: Fiberboard packing material, fiberboard insert sleeve

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):	15.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	20.0
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	51.6
Soils (S):	
Total WMP Weight:	102.6

CCP Radiography Data Sheet

Waste Container ID: 92684

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		2/12/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID: 92684 Count Sequence Number: 22087
Operator: D3PW2DK1\operator
Assay Start: 2/15/2013 2:32:01 PM
Description 1: 1LANDA1715
Description 2: N/A
Location: LANL TA-54
Comment: AK-6
Matrix Type: Homo Sol. S3000
Container Type: 55 gallon drum
Weight: Net: 103.0 kg Net: 103.0 kg
Container: Volume: 208.0 l Full: 80.0 %
Density: 0.620 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:	22087	Batch Number:	1LANDA1715
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54.
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92684	Analysis Date:	2/15/2013

Net Weight	103000.0 g		
Pu mass	2.73E+001	+- 4.34E+000	g
TRU Alpha Activity	6.28E+000	+- 2.26E+000	Ci
TRU Activity Concentration	6.10E+004	+- 2.20E+004	nCi/g
Pu-239 Equivalent Activity	6.36E+000	+- 2.26E+000	Ci
Pu-239 FGE	2.56E+001	+- 4.05E+000	g
Decay heat	2.05E-001	+- 7.55E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.36E-002	4.54E-005	7.87E-006	2.71E-006
PU238	6.60E-003	1.14E-001	1.82E-002	8.42E-005
PU239	2.54E+001	1.60E+000	2.55E-001	1.18E-003
PU240	1.73E+000	3.99E-001	6.34E-002	2.94E-004
AM241	1.20E+000	4.17E+000	2.25E+000	6.33E-002
PU241	4.50E-002	4.68E+000	7.45E-001	3.45E-003
PU242	3.36E-002	1.33E-004	2.12E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.47E-007
U233	<LLD	<LLD	0.00E+000	5.50E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.61E-006
U238	<LLD	<LLD	0.00E+000	1.49E-005
AM243	5.06E-004	1.02E-004	1.80E-005	7.35E-006

Errors quoted at 1.000 sigma

Operator: Don R Ole Date: 2-19-13

ITR: Maria Fu Date: 2-20-13

Automated Independent Technical Review

Count Sequence Number: 22087 Batch Number: 1LANDA1715
Counter ID: MCS HENC #1
Container ID: 92684
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 2/15/2013

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. FRAM results applied. FRAM results attached.
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: 2-19-13

Attachment 4 – Flammable Gas Analysis Form

5863696

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

Waste Container ID: **92684**

BDR Number: **LA13FG8015**

Sampling Date: **3/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	109.02	
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	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)

Data Path : C:\msdchem\1\DATA\130301c\
Data File : 92684.D
Acq On : 1 Mar 2013 1:25 pm (#1); 1 Mar 2013 1:24 pm (#2)
Operator : NW
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 13:35:33 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	2348699	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	2101347	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.309	GC1	26937m	109.02 ppm	

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

~~Working Copy~~
Date: 11-14-12
JC

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90933

6.2[4] Date Processed: 11/14/12

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: Michael Romero Michael Romero 182723 11/14/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90933

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 401.1 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) 401.1 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.: 90933

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92374			
10.1[4]	Daughter Drum Filter No.	DL-1305		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4348			
10.1[4]	Daughter Drum Purchase Order No.	416184			
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)	N/A			
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units			N/A	
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
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[8]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90933

Comments: plastic, salts, bolts, kitty litter, cardboard liner metal lid.

11.1[1] Performed By: Michael Romero [signature] 182723 11/14/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [signature] [signature] 141733 11/14/12 1045
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11/8/12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413954
Lot No.:	211426
Manufacture Date:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	IL-270
Manufacture Date:	9-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Brandon Chavez (Brandon Chavez) 149235 11-8-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez (Brandon Chavez) 149235 11-8-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Mh (Gilbert Mh) 149235 11-19-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-14-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92275

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/15/13
Range in ft-lb: 16/80
Tolerance: ±3% cw ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero [signature] 182760 11/14/12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 015069
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 3221 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182760 11/14/12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert [illegible] [signature] 149275 11-19-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92374

1. Drum/Lid Assembly

- [ ] Remove and discard ½" 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 #: 416184
Lot #: 022442-9
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [ ] 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 #: BCHVC-1.5-L SPR
Serial #: L-4348
Date of Manufacture: 7/12

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 ½" 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 #: 41903
Serial #: 3C-1305
Date of Manufacture: 10/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	4-26-13	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
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: Eddie Rios Signature: [signature] Z#: 187822

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.2
File ID #: 019045

- [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: Eddie Rios Operator Sign: [signature] Z#: 187822 Date: 11-8-12

Verifier Print: Michael Romero Verifier Sign: [signature] Z#: 182723 Date: 11/14/12

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

DRUM ID#: 92374

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 #: 040329

Cal expiration date: 3/15/13

Range/ Value (ft-lbs): 16/80

--- 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) 282.2

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: Steven Mandanger Date 11/14/12

Verifier Print/Sign: Michael Rem Date: 11/14/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90933 Container Type: POC Gross Weight (lbs): 400
Container Seal #: None Filter Prefix: None Filter Serial #: EL-437; EL-447
RTK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S863696 WTS-12STD-890
Total PE-Ci Activity: 3.01E+00 Equivalent Combustible PE-Ci: 1.13E+00 AM-241 PE-Ci: 2.79E-01
Total Fissile Gram Equivalents: 30.7 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 VE 10/9/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
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: TBD Production Control Comments: Need to add EPA Codes D007 & D009
Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1:2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts
Performed By: Susan Ramsey Production Control (Print) Signature Z Number 100681 Date 9/10/12

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: Nitrate Salts – POC
Net Wt: 90 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for >100 & < 1000 mrem/hr

Performed By: Valerie Rhodes WDP Engineering (Print) Signature Valerie Rhodes Z Number 112[illegible] Date 10/4/12

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns: Use Heavyweight gloves when processing. Do not push or press on waste.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure
Performed By: Joe Jover TRU Remediation Operations (Print) Signature Z Number 221452 Date 10-11-12
LL Z#249750 10/15/12
IHS Review: AG 206362 10.11.12

Noncertified TRU Waste Drum Item Information

DrumID: 021090

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Lm)	Comments
1	7XE7W1		5.820	NITRATE SALTS		3.28	52	9/13	
2	70X9E1		4.110	NITRATE SALTS		0.71	52	9/13	
3	6XE16E1		13.280	NITRATE SALTS		7.8	52	9/13	
4	6XE16W1A		9.080	NITRATE SALTS		13.98	52	9/13	
5	6XE16W1B		8.800	NITRATE SALTS		13.09	52	9/13	
6	60X20E1		6.440	NITRATE SALTS		3.74	52	9/13	
7	60X30W1		7.660	NITRATE SALTS		3.86	52	9/13	
8	7DE7E1		3.590	NITRATE SALTS		58.65	53	9/13	
9	6DE19E3A		3.800	NITRATE SALTS		1.13	52	9/13	
10	6DE19E3B		5.500	NITRATE SALTS		2.11	52	9/13	
11	7LE8W1A		7.450	NITRATE SALTS		3.92	52	9/13	
12	7LE8W1B		7.870	NITRATE SALTS		18.41	52	9/13	
13	70X14W1		8.500	NITRATE SALTS		0.918	52	9/13	
14	70X14E1		4.020	NITRATE SALTS		0.3	52	9/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 180.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	73.348	92.03
53	58.65	3.59
Totals	131.9	95.62

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 10/5/12

Container No. (5.[1])	904333					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
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])	141.17 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)), 237975 (Z #)

Reviewed By: NATHAN WALES (CCP (Print)), 238866 (Z #)

Comments: Per attached email, container has been verified as POC.

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 #), 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90933.D
Acq On : 5 Oct 2012 2:13 pm (#1); 05-Oct-12, 14:13:15 (#2
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed (Sig #1) ; (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 14:21:54 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	Qion	Response	Conc Unit	rev(Min)
Internal Standards					
3) Fluorobenzene	3.539	96	6003653	201.2[illegible] ppm\	0.00
15) Chlorobenzene-d5	5.868	117	5319069	177.0[illegible] ppm\	0.00
Target Compounds					.value
1) Hydrogen	1.615	GC1	998	141.1[illegible] ppmv	100

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

11-14-12
0540 Assuming UCRR operations center. JC Crew
0550 Beginning outside rounds.
0556 Beginning inside rounds.
0608 Outside rounds complete
0615 Inside rounds complete. Pre-job being conducted by SCS.
0642 Pre-job completed.
0643 Job briefing data, both rounds reviewed by SCS.
0651 We are now in operations. Mode change complete.
0735 Initiating drum movement from storage area to 5064.
0136 Bagging on drum #90933.
0144 Drum movement into facility complete. Bag on complete
0209 Bagging off 90933, bagging on 90942.
0823 Bag on complete.
0828 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Utah.
0835 Bagging off 90942, bagging on 91001.
0848 Bag on complete.
0911 Transfer vehicle loaded. Vehicle access gates lowered. Transportainers closed and latched.
0920 Bagging off 91001, bagging on 90991.
0932 Bag on complete.
1026 Bagging off 90991.
1033 Bag off complete.
1045 Initiating drum movement from 5064 to a temporary storage area.
1100 Drum movement complete. All inventory has been removed from the facility.
1118 Mode change complete. We are now in COLD in 5069 and warm in UCRRF yard.
1350 ~~1445~~ JC 11-14-12 Beginning outside rounds.
1400 Begin inside rounds.
1410 Outside rounds complete.
1422 Inside rounds complete.
1511 Clock maintenance performed on clock box and is completed.
1512 Both rounds reviewed by SCS.
11-14-12 1632 Friday day, 3 pickets SCW JC Crew

See further entries this page

11/14/12

0600 Assumed WCRR SOM position
0615 Attended pre job brief conducted by SOS. Discussed work plan for the day, night time driving safety tips, sharps in glove box.
0659 Completed mode change: WCRR yard / Bldg 50-69 from Warm / ~~Cold~~ 11/14/12 Warm to Operations / Operations.
0736 First drum bagged out to WCG
1020 Bagging off 4th (last drum) to be processed today
1118 Completed Mode Change: WCRR yard / Bldg 50-69 from Operations / Operations to Warm / Cold.
1120 (Late Entry 1030) Received copy of USQ and WEF required to ship 3 TRU drums out of WCCR
1240 Verified w/ OSPET that all TWSR's for tomorrows shipment have been generated and checked w/ inventory control that 22 containers will be on tomorrows shipment.
1245 (Late Entry 1200) Status and PM on 1200 call in WCRR and DUS work/issues.
1250 Reviewed MSS work packages for Dec PM's, standing WO's for FY 13.
1347 Released WO # 416885-06 54-WCRR FY12 Relamping for 196 and Bldg 54.
1400 Attended mandatory meeting @ NSSB regarding major issues at LANL and other DOE sites raising management concerns.
1515 SOS reported that WCG glovebox maintenance was conducted including thorough wipedown of glovebox, replacing tape, no gloves were changed.
1530 OCO reported that electricians replaced lights inside 196 however outside light fixtures will require replacement.
1630 Secured SOM pos tn.

No further entries this date

11/14/12

11-14-12 WCRR SOS Log Book

0600 Assuming SOS position for the day. Reviewed SOS log book for yesterdays operation. [illegible]

0615 Started Pre-Job brief. Safety Topic on Drivers watching out for pedestrians during night time. Operators performing outside rounds should have a flashlight on when inspecting the barriers along the side of the road. 1 Shipment out. 4 drums remaining to process, going to COD this afternoon.

0630 Pre-Job brief Completed

0640 Inside and Outside rounds signed off be second SOS

0659 MODE Change. Operations in the Yard and 50-69.

0736 Bagging on first drum for the day

1033 Bagging off last drum for the day.

1118 Mode Change. Going into COD in 50-69 Yard will be in WARM. Processed 4 parents today from Solution Package 72. 4 Daughters generated no FOC's

1230 Crew going into 50-69 to perform glovebox maintenance Performing inspections on gloves, wiping down the inside of the glovebox, general Housekeeping inside of 50-69.

1530 Crew out from doing Glove box maintenance

11-14-12 1630 Securing SOS position for the day. [illegible]

HG

No further entries on this Page.

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

586310916

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0013
Examination Date:	1/28/2013
Waste Container ID:	92374
Video/Audio Recorded Media Number:	LA-RTR2-13-0013 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	~~[X]~~ No [X] Yes B.M. 1-30-13 B.M. 1-30-13 B.M. 1-30-13 B.M. 1-30-13 NCR No.: ~~N/A~~ NCR-LANL-0402-13 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 128.0 kg Tare Wt.: 33.4 kg Net Wt.: 94.6 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:	95 %

22 7514 1-30-13

CCP Radiography Data Sheet

Waste Container ID: 92374

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware,metal lid

AM:

OM:

OI:

C: Fiberboard packing material, fiberboard insert sleeve

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):	18.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	15.0
Rubber (R):	5.0
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	50.6
Soils (S):	
Total WMP Weight:	94.6

CCP Radiography Data Sheet

Waste Container ID: 92374

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?	BM 1.30.13 ☒ Yes ~~☒~~ No BM 1.30.13
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~~ BM 1.30.13 B.M 1.30.13

NCR-LANL-0402-13

RTR Operator:

Benito Maestas		1/28/2013
Print Name	Signature	Date 1.30.13

NDA 2000 Assay Report

Item Information

Item ID:	92374	Count Sequence Number:	16471
Operator:	DCLTD231\Operator		
Assay Start:	9/6/2013 1:24:49 PM		
Description 1:	2LANDA1219		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 94.6 kg	Net:	94.6 kg
Container:	Volume: 208.0 l	Full:	100.0 %
Density:	0.460 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:	16471	Batch Number:	2LANDA1219
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	92374	Analysis Date:	9/6/2013

Net Weight	94600.0 g		
Pu mass	5.22E+001	+-	1.10E+001 g
TRU Alpha Activity	1.17E+001	+-	4.15E+000 Ci
TRU Activity Concentration	1.24E+005	+-	4.39E+004 nCi/g
Pu-239 Equivalent Activity	1.19E+001	+-	4.15E+000 Ci
Pu-239 FGE	4.87E+001	+-	1.02E+001 g
Decay heat	3.82E-001	+-	1.38E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.05E-001	7.42E-005	1.07E-005	1.70E-006
PU238	8.61E-003	1.47E-001	3.10E-002	5.15E-005
PU239	4.84E+001	3.00E+000	6.32E-001	1.05E-003
PU240	3.71E+000	8.41E-001	1.77E-001	2.94E-004
AM241	2.25E+000	7.72E+000	4.10E+000	4.64E-002
PU241	8.16E-002	8.41E+000	1.77E+000	2.94E-003
PU242	2.20E-002	8.68E-005	1.83E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.96E-007
U233	<LLD	<LLD	0.00E+000	6.46E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.91E-006
U238	<LLD	<LLD	0.00E+000	1.54E-005
AM243	6.93E-004	1.39E-004	2.04E-005	9.34E-006

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 9-11-13

ITR: [illegible] Date: 9-11-13

Automated Independent Technical Review

Count Sequence Number: 16471 Batch Number: 2LANDA1219
Counter ID: HENC #2
Container ID: 92374
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/6/2013

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-52,53.
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: 9-10-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92374**

BDR Number: **LA13FG8009**

Sampling Date: **2/6/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	186.82	
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	6.78	
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	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)

Data Path : C:\msdchem\1\DATA\130206C\
Data File : 92374.D
Acq On : 6 Feb 2013 1:51 pm (#1); 6 Feb 2013 1:50 pm (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 13:58:49 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	3.256	96	2682460	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2396151	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.299	GC1	46160m	186.82	ppm	
17) Toluene	4.776	92	37519	6.78	ppm	99

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

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Working Copy
UET 1/24/13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90934

6.2[4] Date Processed: 1-24-13

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.: 019045
Cal. Due Date: 1-24-13

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 / [signature] / 2671229 / 1-24-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 90934	
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):	.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	425.0 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.: 90934

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92680			
10.1[4]	Daughter Drum Filter No.	JL-12391	N		
10.1[4]	Daughter Drum Bag Filter No.	L-6127		A	
10.1[4]	Daughter Drum Purchase Order No.	501011			
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			A	
10.3[5][A]	Free Liquid Volume/Units	12 oz.			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N			
10.3[9][A]	PCB-contaminated Waste Description	A	N		
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[8]	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.: 90934

Comments: ROOM TRASH, POC LIDS, PLASTICS, CARD BOARD, SALTS, KITTY-LITTER, NEUTRALIZER, CLOTH (CHEESE).

11.1[1] Performed By: BRIAN GALLEGOS [signature] 260129 1-24-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez [signature] 221452, 1-26-13 ROC
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413659
Lot No.: 308849
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NOVEL
Model No.: 013
Serial No.: IL-48
Manufacture Date: N/A

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	+-4% cw +-6% ccw	+-3% cw +-6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☒ Yes ☐ No

Performed By: Steven Mandragon / Steven Mandragon 1104741 1-22-13
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: in-lb

5.[15] 2 in. bung plug torque value: ft-lb

Comments: N/A

8.1[1] Performed By: Steven Mandragon / Steven Mandragon 1104741 1-22-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☒ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] 221452 1-26-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92681

7.[25] Overpack drum closure ring torque wrench information:

M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: ±3% and ±6% accu

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / [signature] / 267129 1-24-13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 325.4 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 1-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez / [signature] / 221452 1-26-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 926810

1. Drum/Lid Assembly

- [x] Remove and discard ⅝" 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 #: 5ofoil
Lot #: 253370
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: Bap
Model #: Cocoon L5-7
Serial #: L-6127
Date of Manufacture: 6-12

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: Nufil
Model #: 019 DS
Serial #: SL-1239
Date of Manufacture: 10-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	044664	M&TE ID #:	038369
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% ±2%	Tolerance:	±3% ±2%

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

[x] Yes [ ] No

Print Name: Michael Romero Signature: [signature] Z#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 75.4
File ID #: 019065

- [x] 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: Michael Romero Operator Sign: [signature] Z#: 182723 Date: 1-16-13

Verifier Print: BRIAN GALLEGOS Verifier Sign: [signature] Z#: 207129 Date: 1-24-13

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

DRUM ID#: 92680

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 #: 038367

Cal expiration date: 3-16-13

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): 302.0

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: [signature] Date 1-24-13

Verifier Print/Sign: [signature] Date: 1-24-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90934 Container Type: POC Gross Weight (lbs): 421

Container Seal #: None Filter Prefix: None Filter Serial #: EL-214; EL-321

RTK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S863696 WTS-12STD-868

Total PE-Ci Activity: 3.01E+00 Equivalent Combustible PE-Ci: 1.13E+00 AM-241 PE-Ci: 2.79E-01

Total Fissile Gram Equivalents: 30.7 Total Surface Dose Rate (mrem/hr): 4

EPA Code(s): D008 D007 D009 MR 10/2/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

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: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1:2 volume of Waste Lock 770® must be mixed with nitrate salts

Performed By: Susan Ramsey [illegible] [illegible] 9/10/12

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 – POC

Net Wt: 111 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium, [redacted] and mercury. No chemicals present. May require RWP for >100 + <1000 mrem/hr

Performed By: Valerie Rhodes [illegible] [illegible] [illegible]

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: Use Hexavalent Gloves when processing waste. Do not push or press on waste. Use tools to remote handle waste

Processing Determination: Accept Reject

TRU Remediation Operations Comments: Ensure tight liner is bagged on with waste drum. Ensure proper ratio is added to waste

Performed By: Jose Perez [illegible] [illegible] 10-4-12

TRU Remediation Operations (Print) Signature Z Number Date

Z# 249750 10/9/12

IHS Review AB 2063062 10.3.12

Noncertified TRU Waste Drum Item Information

DrumID: 021090

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	NT	Auth (Pg/Ln)	Comments
1	7RR7W1		5.820	NITRATE SALTS		3.28	52	9/13	
2	7OX9E1		4.110	NITRATE SALTS		0.71	52	9/13	
3	6RR16E1		13.280	NITRATE SALTS		7.8	52	9/13	
4	6RR16W1A		9.080	NITRATE SALTS		13.98	52	9/13	
5	6RR16W1B		8.500	NITRATE SALTS		13.09	52	9/13	
6	6OX20E1		6.440	NITRATE SALTS		3.74	52	9/13	
7	6OX30W1		7.660	NITRATE SALTS		3.86	52	9/13	
8	7DS7E1		3.590	NITRATE SALTS		58.65	53	9/13	
9	6DS19E3A		3.800	NITRATE SALTS		1.13	52	9/13	
10	6DS19E3B		5.500	NITRATE SALTS		2.11	52	9/13	
11	7LR8W1A		7.450	NITRATE SALTS		3.92	52	9/13	
12	7LR8W1B		7.870	NITRATE SALTS		18.41	52	9/13	
13	7OX14W1		8.500	NITRATE SALTS		0.918	52	9/13	
14	7OX14E1		4.020	NITRATE SALTS		0.3	52	9/13	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 180.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	73.248	92.03
53	58.65	3.59
Totals	131.9	95.62

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 9/28/12

Container No. (5.[1])	90934					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
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

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)), 237975 (Z #)

Reviewed By: NATHAN WALES (CCP (Print)), 238666 (Z #)

Comments: None

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 S. RAMSEY (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90934.D
Acq On : 28 Sep 2012 10:19 am (#1); 28 Sep 2012 10:18 am (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 10:26:32 2012
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	3.256	96	2660205	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2273407	179.50 ppm	0.00

Target Compounds Qvalue

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

Vocgas.m Fri Sep 28 10:27:06 2012

report, [illegible] Assuming WCRRF Operations [illegible] Checklists
complete [illegible] starting inside and outside ~~[illegible]~~ rounds.
in OST.

0615 ASSUMING OPERATIONS CENTER LOG BOOK UNDER THE DIRECTION OF CLARISSA VELARDE OCO OJT INSTRUCTOR [illegible] STARTING THE PRE JOB BRIEF

0617 OUTSIDE ROUNDS complete

0625 ITEM #61 ON THE INSIDE ROUNDS IS OOS, THERE IS NO POD

0633 IN PLACE WE ARE OK TO PROCEED.

0644 INSIDE ROUNDS completed

0645 Pre job. complete

0709 ROUNDS SIGNED OFF BY SOS @0709

0720 PERFORMED MODE CHANGE FOR WCRRF YARD, AND TA-50-69 IN OPERATIONS.

0757 BAGGED ON DRUM # 90934

0808 BAG on complete

0810 PPE CHECK IS SAT

0848 BAGGING OFF, bagging ON 90885

0850 PPE CHECK IS SAT

0920 Bag on of 90885 complete

0930 PPE CHECK IS SAT

0951 PPE CHECK IS SAT

010 BAGGING OFF AND BAGGING ON DRUM # 90932

1038 Bag on complete

1040 PPE CHESK SAT

110 BAGGING OFF AND BAGGING ON DRUM # S834480

139 BAG OFF COMPLETE

140 WCRRF OPERATORS INFORMED OPS CENTER THAT THEY HAVE A 30 gal SEALED IN THE GLOVEBOX, THE GLOVEBOX HAS BEEN DE-ENERGIZED

155 30 gal drum breached

226 30 minute WAIT TIME HAS ELAPSED.

1309 PPE CHECK IS SAT

1330 BAGGING OFF, BAGGING ON S818279

1358 BAG on complete

1415 Operators called in to inform ops center and SOS that this drum will be taking time to process due to the many cans that will need to be opened one at a time

Continue on next PAGE B FORDHAM

Int, - Int Douglas 110018
92894

1/24/13	CONTINUED FROM PREVIOUS PAGE B FORDHAM
1425	STARTED INSIDE ROUNDS
1439	ITEM # 61 IS OOS, OK to proceed POD inplace
1441	INSIDE ROUNDS complete
1527	STARTING OUTSIDE ROUNDS
1530	BAGGING ON AND BAGGING OFF S823305
1535	PPE CHECK INSIDE IS SAT
1553	bag off complete
1554	outside rounds complete
1705	STARTED TO BAG OFF LAST DRUM
1730	BAG OFF complete; post inspection on drum left performed all of the clips are inplace.
1800	Move change performed
1801	Securing OCO position under instruction Brian Fordham
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

1/24/12

0800 Assumed the WCRR SOM position. Jeanine Fernandez
0815 Attended the pre-job briefing conducted by SOS.
Discussed methods approved for disposal of
empty containers with team. Discussed safety
and staying focused today, especially because work
on TA-54 will be ramping up.
0830 Met in meeting with TA-54 SOM, Steve (WCRR and
SOS) was contacted prior to departure to provide
documents (e.g. daily forms) for closing ground test
complex.
0900 Mode change complete. WCRR YARD/50-109 from
WARM/WARM to OPERATIONS/OPERATIONS.
0945 Joint walk down attended with SOM, SOS, PRC-SA-12, 41
Daily checks for workers. (JF)
0930 Battery on post commander the day.
0930 Shift turned over to TA-54 SOM.
1030 SOM attended Solution Package Meeting held at TA50-54.
1200 SOM attended daily status meeting held at TA50-54.
1730 An FSR was initiated to repair the security door (fence) outside of 50-109. Item #3 on the round sheet was marked UNSAT.
1800 Mode change complete. WCRR YARD/50-109 from OPERATIONS/OPERATIONS to WARM/WARM.
1830 Securing the SOM position. Jeanine Fernandez

no further entries to this page.

Jeanine Fernandez 1/24 13

1-24B WCRR SOS LOG Book

0600 Assuming SOS Position [illegible] M.J.

0605 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 in 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 8818279

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 Final drum of day

1706 ~~1530~~ 1550 Gm late entrie Bagging off And bagging on 5823305

1800 mode change complete WCRRF In warm.

1830 end of shift securing SOS Position [illegible]

HG

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-RTR2-13-0043
Examination Date:	3/13/2013
Waste Container ID:	92680
Video/Audio Recorded Media Number:	LA-RTR2-13-0043 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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.: 137.0 kg Tare Wt.: 33.4 kg Net Wt.: 103.6 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: 92680

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, scrap metal, metal lid

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

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):	18.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	73.6
Soils (S):	
Total WMP Weight:	103.6

CCP Radiography Data Sheet

Waste Container ID: 92680

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	3/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92680	Count Sequence Number:	22340
Operator:	D3PW2DK1\operator		
Assay Start:	3/22/2013 12:43:16 PM		
Description 1:	1LANDA1736		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 104.0 kg	Net:	104.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.670 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: 22340
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92680

Batch Number: 1LANDA1736
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 3/22/2013

Net Weight	104000.0 g		
Pu mass	6.43E+000	+-	1.08E+000 g
TRU Alpha Activity	2.83E+000	+-	1.27E+000 Ci
TRU Activity Concentration	2.72E+004	+-	1.22E+004 nCi/g
Pu-239 Equivalent Activity	2.85E+000	+-	1.27E+000 Ci
Pu-239 FGE	6.01E+000	+-	1.07E+000 g
Decay heat	9.36E-002	+-	4.23E-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	5.17E-007
U233	<LLD	<LLD	0.00E+000	3.91E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.18E-006
NP237	3.95E-002	2.82E-005	5.13E-006	1.85E-006
PU238	1.12E-003	1.94E-002	4.45E-003	1.02E-003
U238	<LLD	<LLD	0.00E+000	1.02E-005
PU239	5.96E+000	3.75E-001	6.75E-002	1.96E-002
PU240	4.56E-001	1.05E-001	2.40E-002	5.48E-003
AM241	6.72E-001	2.33E+000	1.26E+000	4.48E-002
PU241	1.03E-002	1.07E+000	2.45E-001	5.59E-002
PU242	2.71E-003	1.07E-005	2.46E-006	0.00E+000
AM243	3.08E-004	6.22E-005	1.15E-005	5.36E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 3/26/13

ITR: Mark Gonzales Date: 3-26-13

Automated Independent Technical Review

Count Sequence Number: 22340 Batch Number: 1LANDA1736
Counter ID: MCS HENC #1
Container ID: 92680
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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-52,53.
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 Chamberlain Date: 3-26-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92680**

BDR Number: **LA13FG2032**

Sampling Date: **3/28/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	174.33	
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\130328c\
Data File : 92680.D
Acq On : 28 Mar 2013 1:25 pm (#1); 28-Mar-13, 13:24:25 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 14:42:52 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	3.607	96	3993601	201.25	ppmv	0.04
15) Chlorobenzene-d5	5.927	117	3469313	177.00	ppmv	0.03
Target Compounds						Qvalue
1) Hydrogen	1.610	GC1	1239m	174.33	ppmv	

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

S863/88

S863788

Container Profile 769661

File Options Reports Help

S863788

769661	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

S863788

- S863788
  - 90943 – EMPTY
  - 90942
    - 92377 – EMPTY
    - 92376
  - 90941
    - 92359 – EMPTY
    - 92358
    - 92357
      - LASB02087
  - 90939
    - 92234 – EMPTY
    - 92233

Task History

Transfer Details

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

Working Copy
Date: 2-15-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S863788

6.2[4] Date Processed: 2-15-12

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: none

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 2-15-12

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

4.3[6] **($)** Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) E. Rios
(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

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

Performed By: Eddie Rios Eddie Rios 187824 2-15-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 361.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 80 lb

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: SB637888

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 341.2 lb

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

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90939	N/A	N/A	
10.1[4]	Daughter Drum Filter No.	CL-1357			
10.1[4]	Daughter Drum Bag Filter No.	LL-123			
10.1[4]	Daughter Drum Purchase Order No.	415090			
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		NUCFIL	NUCFIL	
	Model No.		036	036	
	Serial No.		LL-112	LL-240	
	Date of Manufacture		12-11	12-11	
10.2[5]	POC ID No		90940	90942	
10.2[7][B]/10.2[6]	POC Item Description		salts Plastic liquid absorbent	salts, Plastic liquid Absorbent	
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.		LL-112	LL-240	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		E. Rios 187822	E. Rios 187822	
10.2[14]	POC Assembly Gross Weight (lb)		390.0	377.4	
10.2[15]	POC Rad. Survey Results (mrem/hr)		1000 mrh		
10.3[3][A]	Approx. Containerized Liquid Vol./Units	none		none	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead shielding a 55 gallon poly liner		Lead shielding of a 55 gallon liner	
10.3[5][A]	Free Liquid Volume/Units	5 Gallons			
10.3[9][A]	PCB-contaminated Waste Description	none		none	
10.3[9][B]	PCB Item ID No.	none		none	
10.3[10]	Remaining Waste Description	Plastic salts, liquid Absorbent	See comments	See comments	
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	100%	95%	95%	
10.5[4]	Description Waste Added During Processing	Cheese cloth		Plastic cheese cloth tape	

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S863788

Comments: liquid, sulfs., liquid had a PH < 4 had to neutralize.

11.1[1] Performed By: Robie Rios / Robie Rios 18[illegible] 2-15-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: _____ / _____ / _____ / _____
SOS/SOM (print) Signature Z # Date/Time

Copy 2-15-12

Attachment 1. Checklist for Overpacking Drums Into an 85–Gal Overpack

85-Gallon Overpack ID Number 70943

RECORD Drum Filter information:	NUCFIL
Filter ID Number:	HK-44
Date of Manufacture:	8/10

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#	N/A	M&TE ID#	038373
Cal Expiration Date		Cal Expiration Date	5-30-12
			+-3%loc
Tolerance		Tolerance	+-6%cc
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☑ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No
		Bung Torque Wrench	
		M&TE ID#	N/A
		Cal Expiration Date	
		Tolerance	
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☑ N/A

Previously used 85-gallon container inspected (as applicable) ☑ SAT ☐ UNSAT

Filter vent torque value: (new container only) N/A in-lb ☑ N/A

Drum lid 2-inch bung torque value: (If applicable) N/A ft-lb ☑ N/A

Drum lid ring-bolt torque value: 60 ft-lb

Drum lid ring threaded end touching jam nut: ☐ YES ☑ NO

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
Eddie Rios	Eddie Rios	E. Rios	187824	2-15-12
B. Foreman	B. F	B.F.	235635	2-15-12

863788

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

Drum ID#: 90939

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 #: 415090
Lot #: 0220 1022
Date of Manufacture: 11

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: NOLFIL
Model #: 036-DA-PVL
Serial #: LL-123
Date of Manufacture: 12-11

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 #: LL-1357
Date of Manufacture: 3-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9-12-12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±3% 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: Timmy Romero Signature: [signature] Z#: 234253

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 75.6
File ID #: 049865

- [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: Timmy Romero Operator Sign: [signature] Z#: 234253 Date: 2-13-12

Verifier Print: Eddie Rios Verifier Sign: [signature] Z#: 137822 Date: 2-15-12

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

DRUM ID#: 90939

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 # : 03873

Cal expiration date: 5-30-12

Range/ Value (ft-lbs): 20-80

--- 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.): 290.2

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: [illegible] Date: 2-15-12

Verifier Print/Sign: [illegible] Date: 2-15-12

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S863788 Container Type: 85-GAL Gross Weight (lbs): 376

Inner Seal #: 021126 Filter Prefix: LAVC Filter Serial #: 00137; 05362

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST 12 A02030

Total PE-Ci Activity: 4.01E+00 Equivalent Combustible PE-Ci: 1.50E+00 AM-241 PE-Ci: 3.26E-01

Total Fissile Gram Equivalents: 44.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 1/25/2007 Comment: None

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:

Performed By: R. W. Jones / R. W. Jones / 117434 / 10-28-10
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: Solid waste records indicates leached solids in form of ~~leached solids~~ mis 11/11/10 salts. 14 items of salts, heaviest is 14 kg (31 lbs). May require KwP for >100 and <1,000 mrem/hr @ 30-cm. Specific salt is a nitrate salt.

Performed By: Michael Garcia / Michael Garcia / 099143 / 11/11/10
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:

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments:

Performed By: Clarissa Velarde / Clarissa Velarde / 234079 / 11-30-10
TRU Remediation Operations (Print) Signature Z Number Date

Noncertified TRU Waste Drum Item Information

DrumID: 021126

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	30X12W1		6.550	SALTS		6.22	52	9/13	G468
2	30X12E1		13.340	SALTS		8.01	52	9/13	G468
3	30X6W1		12.990	SALTS		3.42	52	9/13	G468
4	3LR6W2		7.050	SALTS		1.17	52	9/13	G468
5	3RR4E1		3.480	SALTS		6.71	52	9/13	G468
6	3LR6W1		4.080	SALTS		0.44	52	9/13	G468
7	3LR4W1		2.420	SALTS		0.73	52	9/13	G468
8	25X28W2		14.090	SALTS		7.51	52	9/13	G468
9	30X25E1		6.170	SALTS		1.44	52	9/13	G468
11	3LR27W2		3.220	SALTS		0.84	52	9/13	G468
12	30X20E1		8.220	SALTS		2.22	52	9/13	G468
13	30X25W2		6.460	SALTS		2.97	52	9/13	G468
14	40X1W2		2.970	SALTS		5.37	52	9/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 170.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	47.05	91.04
Totals	47.05	91.04

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 10.25.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	1237975	10-28-10
	/	/	/

Container No. (7.[1]):	S863788	S862493	S863065
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	55gal	55gal
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			
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]):	Ø	Ø	Ø

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	S863788	S862493	S863065
Hydrogen Reading (ppm) (7.[10]):	Ø ppm	4965.80 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø 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:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera, [signature] 198450, 10.27.10
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 111886, 11.4.10
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101025c\
Data File : S863788.D
Acq On : 25 Oct 2010 11:48 am (#1); 25 Oct 2010 11:47 am (#2)
Operator : EL
Sample :
LastName : Unit 8
Misc : 55 GALLON LFL DRUM FROM UNDER DRUM LID (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 25 11:59:25 2010
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	3.246	96	7230571	209.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	5984032	184.00 ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Mon Oct 25 11:59:31 2010

2-15-12 PROJECT NAME _____ NOTEBOOK NO. _____

0600 Assuming WCRR operations center. JColeman
0612 Beginning outside rounds.
0615 Beginning pre-job brief.
0642 Beginning inside rounds
0637 outside rounds complete.
0721 Item #60 is OOS on the rounds. Per CSE, we are okay to proceed.
0726 Inside rounds complete.
0730 Rounds completed and reviewed by SOS.
0735 mode change complete. We are now in operations.
0748 Bagging on drum #5863696.
0845 Notified by SOS that operators relayed to him that the drum they have opened contains at least 7 to 10 gallons so far without pulling any packages out yet. More absorbent being taken inside 50-109.
0922 Initiating a drum movement from transportainer to the transfer vehicle for a shipment to Area G. Permission granted to lower vehicle access gates.
1005 Vehicle access gates restored. Transfer vehicle loaded. Transportainers secured.
1025 Bagging off 5863696 and 3 POC's, bagging on ~~5863987~~. JC 2-15-12 5871844. They could not get the bolt off of 5863787.
1139 Bagging off 5863787 and 1 POC. Bagging on 5863788.
1202 Bagging and main complete. Exiting facility for lunch.
1325 Shift turnover brief with CO, Clarissa Velarde-JColeman
1326 assuming WCRR Operations center. CVelarde
1333 Operations on pause due to liquid on box having a ph of 3-4
1340 Starting movement out of 50-109 to transportainer
1403 movement complete out of 50-109
1430 Operator notifying OPS Center that they will be introducing nutrilizer through introductory port.
1442 completed introduction of nutrilizer with contents processing drum
1519 Operator notifying OPS center of hairline crack on lead window
1520 Starting outside rounds ~~rounds~~ 2-15-12.
1530 Starting movement from transportainer to 50-109.
1538 Outside rounds completed.
1543 Starting bag off of 5863788 and 2 POC's
1545 movement completed into 50-109
1548 Starting inside rounds
1610 Item #60 on rounds is OOS. Per CSE documentation OK to proceed.
1630 Mode change performed we are now in warm. Ops secure. CV. CVelarde

no further entries this page.

SIGNATURE _____ DATE _____ 20 _____
READ AND UNDERSTOOD DATE 20

PROJECT NAME 215-12 NOTEBOOK NO.

0000 Assumed the WCRR SOM position and reviewed the previous shift turnover (Janelle Fleming)
0015 Pre-job brief conducted by Shift Operations Supervisor. SOM discussed lessons learned from WCG High High Alarm and the use of the introductory port. SOM also discussed the importance of locking up all shutters buildings at the end of shift. @2-15-12
0040 Morning call in with FOD. Issues to discuss is paying attention to detail and watch out for each other. Discuss all near misses and discuss any procedure changes to using the introductory port.
0725 Discussed solution package #10 with production control. Issues identified all no more than one drum at a time can be brought up to WCRRF due to PECI and a stationary drip water needs to be established on the WCG. RP-1 will have to evaluate the use of glovebags used inside the WCG.
0735 Mode change complete. WCRR YARD and 50-69 from WARM mode to OPERATIONS.
0845 Notified by OCD that first drum of the day contains approximately 7 to 10 gallons.
1333 Notified by OCD that liquid on box for drum contains a pH of 6. 3-4 operators waiting on neutralizer. @2-15-12
1431 1440 Operators will be introducing neutralizer by introductory port.
1519 OCD notified of a hairline crack on small inner lead filled window. No dose required to be entered. Glovebox wasn't breached.
1030 Mode change complete WCRR YARD and 50-69 from OPERATIONS to WARM
1040 Securing the watch. Janelle Fleming

2-15-12

No Neutral Entered

SIGNATURE Janelle Fleming DATE 2-15 20 12
READ AND UNDERSTOOD DATE 20

251

PROJECT NAME WCRR SOS LOG-BOOK NOTEBOOK NO.

2-15-12

0600 REVIEWED SOS TURNOVER ASSUMING SOS POSITION. Anthony [illegible]

0615 PRE-JOB OPERATORS ON PROCESSING, DRUM MOVEMENTS, SHIPMENTS, ARTIC OP'S, AND TALKED ABOUT NOT USING THE INTRODUCTORY PORT DUE TO POSSIBLE ALARMS. WE ALSO DISCUSSED NEAR MISSES IN OUR AREA AS WELL AS IN OTHER AREA'S PER FOD.

0700 PRE-JOB CONCLUDED

0730 REVIEWED INSIDE AND OUTSIDE ROUNDS

0735 MODE CHANGE COMPLETE FROM WARM TO OPERATIONS IN YARD AND BUILDING

0748 BAGGING ON FIRST DRUM

0845 Drum Operators are processing has 10 gallons of liquid.

1333 Operators paused due to liquid on box having a ph of 3-4

1436 Operators introducing absorbent & neutralizer through introductory port.

1442 Using introductory port complete

1519 Noticed of a hair line crack on inner window.

1630 Mode change complete

1633 Reviewed Rounds

1640 End of shift securing WCRR SOS Position. [illegible]

No Further Entries on this page

SIGNATURE _____ DATE _____ 20 ____

READ AND UNDERSTOOD _____ DATE _____ 20 ____

Working Copy
Date: 10-23-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90939

6.2[4] Date Processed: 10/23/12

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, D009, D008

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: JOE QUINTANA [signature] 239987, 10/23/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90939
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	295.4 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)	415.4 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.: 90939

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92233			
10.1[4]	Daughter Drum Filter No.	AM-844			
10.1[4]	Daughter Drum Bag Filter No.	L 3753			
10.1[4]	Daughter Drum Purchase Order No.	416265			
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				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments	N/A		
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	100 %			
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90939

Comments: HEXAMON GLOVES, PLASTICS, SALTS, KITTY LITTER, LEAD

11.1[1] Performed By: JOE QUINTANA [signature] 239987, 10/23/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: JOSE JEREZ [signature] R221457, 10-24-12 1053
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415954
Lot No.: 211428
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: Nuclear
Model No.: 013
Serial No.: HL-807
Manufacture Date: 8-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Michael Romero Michael Romero 182723 10-16-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: n/c

8.1[1] Performed By: Michael Romero Michael Romero 182723 10-16-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez [signature] 221421 10-24-12
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 5
Page 1 of 1

Working Copy

10 23 12 @ **WCRRF OVERPACK DRUM CLOSURE DATA SHEET** 10-24-12

7.[19] Overpack Drum Unique Identifier No.: ~~92232~~ 92234

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/15/13
Range in ft-lb: 16-80
Tolerance: + - 3%, CW + - 6%, CCW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: JOE QUINTANA, Joe Q 239987 10/23/12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019066
Platform scale calibration expiration date: 7/31/13

7.[36][D] 85-gal overpack drum gross weight (lb): 160.8 lb

Comments: N/C

8.1[1] Performed By: JOE QUINTANA, Joe Q 239987, 10/23/12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez, Jose Perez 221452 10-24-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92233

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 #: 416265
Lot #: 022522.5
Date of Manufacture: 12

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: DOP
Model #: GCPV 1.5-2-SPVC
Serial #: L-3753
Date of Manufacture: 6/12

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 #: 0165
Serial #: A16-844
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614	M&TE ID #:	021151
Cal Expiration Date:	10-19-12	Cal Expiration Date:	10/17/13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	± 4% or ± 6%	Tolerance:	

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

[x] Yes [ ] No

Print Name: Edwin Rios Signature: [signature] Z#: 187822

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.1
File ID #: 019065

- [x] 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: Edwin Rios Operator Sign: [signature] Z#: 187822 Date: 10-18-12

Verifier Print: JOE QUINTANA Verifier Sign: [signature] Z#: 239987 Date: 10/23/12

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

10/22/12 JR

DRUM ID#: ~~99~~ 92233

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 #: 040329

Cal expiration date: 3/15/13

Range/ Value (ft-lbs): 16-80

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.): 337.2

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: [signature] Date: 10/23/12

Verifier Print/Sign: [signature] Date: [illegible]

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90939 Container Type: 55-GAL Gross Weight (lbs): 290
Container Seal #: None Filter Prefix: None Filter Serial #: CL-1357
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S863788
Total PE-Ci Activity: 1.34E+00 Equivalent Combustible PE-Ci: 5.01E-01 AM-241 PE-Ci: 1.09E-01
Total Fissile Gram Equivalents: 14.8 Total Surface Dose Rate (mrem/hr): 44
EPA Code(s): D008 D007 D009 10/9/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/27/2012 Comment: Impenetrable, $3000
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: TBD Production Control Comments: Due to add EPA Codes D007 & D009
Nitrate salts mixed with WasteLoc 770 (R) from previous repack campaign. A minimum of 1:2 volume of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.
Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan S. Ramsey Z Number: 100681 Date: 9/4/12

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: Nitrate Salts/debris
Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign. This resulting daughter 55-gal drum may contain nitrate salts or a combination of nitrate salts and debris. RTR PS identifies impenetrable item(s) (likely homogeneous nitrate salts or debris such as lead). Nitrate salts may contain undocumented liquids (requiring adjustment to the admixture/nitrate salt ratio). Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr
Net Wt: 221 lb
Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112[illegible] Date: 10/10/12

TRU Remediation Operations

Valerie Rhodes
☑ Waste Container Information Evaluated ☐ Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns: Use proper PPE to process waste. Do not push or press on waste. Use Heavy duty gloves to handle waste
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure
Performed By: Jose Jerez (TRU Remediation Operations (Print)) Signature: Jose Jerez Z Number: 221452 Date: 10-11-12
JR Z# 249750 10/15/12
HS REVIEW: AB 206362 10.11.12

Nonmartified TRU Waste Drum Item Information

DrumID: 021126

Item No	ItemID	Problem Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	HT	Auth (Pg/Lm)	Comments
1	30X12N1		6.550	SALTS		6.22	52	9/13	G468
2	30X12R1		13.340	SALTS		8.01	52	9/13	G468
3	30X8W1		12.990	SALTS		3.42	52	9/13	G468
4	31R6W2		7.050	SALTS		1.17	52	9/13	G468
5	30X4R1		3.480	SALTS		6.71	52	9/13	G468
6	31R5W1		4.080	SALTS		0.44	52	9/13	G468
7	31R4W1		2.420	SALTS		0.73	52	9/13	G468
8	25X2W2		14.090	SALTS		7.51	52	9/13	G468
9	30X25X1		6.170	SALTS		1.44	52	9/13	G468
11	31R27W2		3.220	SALTS		0.84	52	9/13	G468
12	30X20X1		8.220	SALTS		2.22	52	9/13	G468
13	30X23W2		6.460	SALTS		2.87	52	9/13	G468
14	40X1W2		2.970	SALTS		5.37	52	9/13	G468

Nonmartified Waste Drum Material Summary

Gross Wt (kg): 170.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	47.05	91.84
Totals	47.05	91.84

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 10/5/12

Container No. (5.[1])	90939					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19DS					
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])	170.41 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	195.48 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON — CCP (Print) — Z# 237975

Reviewed By: NATHAN WALES — CCP (Print) — Z# 238866

Comments: None

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 — Z# 100681 — Date 10/10/12

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90939.D
Acq On : 5 Oct 2012 3:45 pm (#1); 05-Oct-12, 15:45:01 (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 0190S,unobstructed (Sig #1 , Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 15:53:37 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Lev(Min)
Internal Standards						
3) Fluorobenzene	3.545	96	5845835	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.871	117	5176358	177.00	ppmv	0.00
Target Compounds						Value
1) Hydrogen	1.616	GC1	1352	195.48	ppmv	100
4) Methanol	0.850	31	84577	150.81	ppmv	100
17) Toluene	4.834	92	218392	[illegible]	ppmv	96

(#) = qualifier out of range (m) = manual integration (+) = 5 or [illegible] summed

PROJECT NAME _____ NOTEBOOK NO. _____

10-23-12

0700 Assuming WRRF operations center Cleland.
0605 Starting outside and inside rounds.
0615 Pre-job being conducted by SCE.
0634 Inside rounds complete.
0630 Outside rounds complete.
0650 Inside and outside rounds signed off by SOS
0742 CSE completed 151691 TA50-69 building structure integrity.
0800 Mode change performed TA50-69 and WRRF gained now in operations
0802 bagging on 90888
0804 bag on to complete.
0814 notified by lead RCT they will no be able to support lunch coverage due to training.
0903 Bagging off 90888 and bagging on 90993
0910/~~0921~~ 90993 Bagging off complete.
1001 bagging off 90993 and bagging on 90939
1013 operating movement into 50-69
1022 bag on and bag off is complete.
1115 bagging off 90939 and bagging on 90965
1134 bag on bag off complete.
1149 Operators driving TA50-69 for lunch no RCT coverage.
1150 Operators entering TA50-69 to continue processing.
1405 Starting inside rounds.
1410 Starting outside rounds.
1426 bagging off 90965 and bagging on 90895.
1435 Outside rounds completed
1438 Completed inside rounds.
1451 bag on bag off complete.
1546 bagging off 90895
1604 bag off to complete
1630 mode change performed TA50-69 and WRRF gained now in warm mode.
1631 End of day WRRF operations center secure - Cleland

No further entries this page

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD DATE _____ 20__

10.23.12

0100 Assumed the WCRR SOM position. [signature]
0115 Pre op briefing conducted by SOS. Discussed supplies needed such as kitty litter. Also the building integrity ISI will be conducted first thing this morning.
0630 Notified by OCO that there is a hole in the men's restroom causing mice to come into the building. Rest Control was called out to come and pick up another rodent. SOM notified Jack Vigil who will get with MSS on a path forward.
0800 Made change complete WCRR YARD 150.69 from WARM/WARM to OPERATIONS/OPERATIONS.
0830 Notified by RP-1 supervisor that they will not be able to support operations through lunch due to being short staffed due to training.
1129 SOM and SSW worked on ensuring an LWD is available for D/S steps DOS testing. OM was notified and is helping in getting proper approvals for NFT to use existing LAWS LWD to allow changing of parts. @ 10.23.12
1300 Met with Jack Vigil to go over maintenance for the up coming months. Offered weekends in November. Jack Vigil will work with MSS on maintenance.
1535 Notified by inventory control that he is having problems with printing labels through oracle database. A request to waste shelf has been sent. SOM requested inventory control to try using the operation center computer.
1547 Signed off on WCRRF Quarterly Combustible Loading Surveillance 4.4.1. Requested Operation center to update status board and ISR/ISI compliance tracking data base. The total combustible quantity equalled to 0.516 lb/ft² which meets are 0.60 lb/ft² requirement.
1430 Made change complete WCRR YARD 150.69 from OPERATIONS/OPERATIONS to WARM/WARM.
1445 Securing the SOM watch. [signature]

11-6-12

No Further Entries this page

[signature] 10.23 12

10-23-12 WXRR 505 Log Book

0600 Assuming 505 position for the day - Jan Jay

0605 Starting Pre Job brief. Engineering performing Building integrity inspection. Should take about 30 minutes. No shipments in or out today. Processing daughter drums from 5P02.

0630 Concluded Pre-Job brief.

0650 Inside and outside rounds signed off

0742 Engineer completed building integrity ~~insp~~ inspection 10-23-12

0754 Waiting for SSW to be onsite to go into Ops Mode.

0800 Mode Change Completed. In Operations Mode.

0815 Lead RCT notifying Operations that they will not be able to support us working through lunch due to mandatory training they need to attend and also short handed on RCT's due to wounds.

0830 Late Entry. At 0806 first drum was bagged on

1145 First Crew breaking for lunch. Second Crew on standby waiting for RCT's so that they can go in to process drum #4 that was bagged on prior to breaking for lunch.

1245 Second Crew going in to start processing Parent drum #4 for the day.

1430 Signed off on outside rounds

1512 Signed off on inside rounds

1630 Mode Change WARM in the yard and 59-69.

10-23-12 1634 Securing 505 position for the day. Jan Jay

1159

No further entries on this page.

CCP Radiography Data Sheet

583188

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0105
Examination Date:	9/4/2013
Waste Container ID:	92233
Video/Audio Recorded Media Number:	LA-RTR2-13-0105 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:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 152.5 kg Tare Wt.: 33.4 kg Net Wt.: 119.1 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:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92233

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	
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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	5.0
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	96.1
Soils (S):	
Total WMP Weight:	119.1

CCP Radiography Data Sheet

Waste Container ID: 92233

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		9/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92233	Count Sequence Number:	23525
Operator:	D3PW2DK1\operator		
Assay Start:	9/4/2013 12:34:08 PM		
Description 1:	1LANDA1835		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 119.0 kg	Net:	119.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.640 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:	23525	Batch Number:	1LANDA1835
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:	92233	Analysis Date:	9/4/2013

Net Weight	119000.0 g		
Pu mass	1.53E+001	+-	2.83E+000 g
TRU Alpha Activity	3.78E+000	+-	1.45E+000 Ci
TRU Activity Concentration	3.18E+004	+-	1.22E+004 nCi/g
Pu-239 Equivalent Activity	3.82E+000	+-	1.45E+000 Ci
Pu-239 FGE	1.45E+001	+-	2.66E+000 g
Decay heat	1.24E-001	+-	4.80E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.83E-002	3.40E-005	6.01E-006	2.13E-006
PU238	1.40E-003	2.40E-002	4.43E-003	3.24E-005
PU239	1.44E+001	8.92E-001	1.65E-001	1.20E-003
PU240	9.20E-001	2.09E-001	3.85E-002	2.82E-004
AM241	7.75E-001	2.66E+000	1.44E+000	4.86E-002
PU241	1.77E-002	1.83E+000	3.37E-001	2.47E-003
PU242	3.07E-003	1.21E-005	2.24E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.49E-007
U233	<LLD	<LLD	0.00E+000	4.60E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.31E-006
U238	<LLD	<LLD	0.00E+000	1.25E-005
AM243	8.31E-004	1.66E-004	2.96E-005	6.07E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 9.5.13

ITR: [signature] Date: 9.5.13

Automated Independent Technical Review

Count Sequence Number: 23525 Batch Number: 1LANDA1835
Counter ID: MCS HENC #1
Container ID: 92233
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/4/2013

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.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 9-5-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92233**

BDR Number: **LA13FG2098**

Sampling Date: **9/9/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	166.24	
74-82-8	Methane	142.14	U
67-56-1	Methanol	406.39	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	50.03	
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	12.53	
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
79-20-9	Methyl Acetate	32.84
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
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\130909c\
Data File : 92233.D
Acq On : 9 Sep 2013 11:44 am (#1); 09-Sep-13, 11:44:15 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 11:53:34 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	5209317	205.75	ppmv	0.06
15) Chlorobenzene-d5	5.884	117	3970598	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.619	GC1	1250m	166.24	ppmv	
4) Methanol	0.883	31	169158	406.39	ppmv	100
7) Acetone	1.422	58	77314	50.03	ppmv	79
17) Toluene	4.850	92	178022	12.53	ppmv	99

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

UET
Working Copy
Date: 11-13-12 JL

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90941

6.2[4] Date Processed: 11/13/12

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: Gerald Espinoza [signature] [illegible] 11/13/12
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 9C5341

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 391 2 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) 391 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:

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90941

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92357			
10.1[4]	Daughter Drum Filter No.	JL1310		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L1733			
10.1[4]	Daughter Drum Purchase Order No.	416184			
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			
	Model No.	66PV1.5-29PUC			
	Serial No.	L-36710			
	Date of Manufacture	6/12			
10.2[5]	POC ID No	92358			
10.2[7][B]/10.2[6]	POC Item Description	plastic			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	GE 237720			
10.2[14]	POC Assembly Gross Weight (lb)	327.2			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1300.		N/A	
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:	N/A			
10.3[9][A]	PCB-contaminated Waste Description				
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[8]	Daughter Drum % Full (%)	75%			
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.: 909411

Comments: Salts, Plastic, Cheese Cloth, Cardboard.

11.1[1] Performed By: Gerardo Espinoza, [signature] 1237120 11/19/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez [signature] 145235 11.19.12 1445
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11-8-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 019D9
Serial No.: IL-294
Manufacture Date: 9-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	040151
Cal. Expiration Date:	9-26-12 134	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

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

Performed By: Michael Romero / [signature] [illegible] 11-8-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero / [signature] [illegible] 11-8-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Martinez / [signature] MJ 145235 11-19-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-13-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: P2359

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/15/13
Range in ft-lb: 16-80
Tolerance: ±3% CW ±6% CCW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerardo Espinoza / [signature] / [illegible] 11/13/12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-21-13

7.[36][D] 85-gal overpack drum gross weight (lb): 333.2 lb

Comments: N/C

8.1[1] Performed By: Gerardo Espinoza / [signature] / [illegible] 11/13/12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Martinez / [signature] / M. J. 149255 11-19-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92357

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 #: 416184
Lot #: 2837224
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 #: 6CPUC1.5-2SPUC
Serial #: L-1733
Date of Manufacture: 2-12

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: Durfill
Model #: 015 D3
Serial #: JL-1310
Date of Manufacture: 10/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040654	M&TE ID #:	021151
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±4% ccw	Tolerance:	±3% cw ±3% ccw

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

[x] Yes [ ] No

Print Name: Michael Romero Signature: [signature] Z#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 76.2
File ID #: 019065

- [x] 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
- [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 Romero Operator Sign: [signature] Z#: 182723 Date: 11-7-12

Verifier Print: Gerald Espenza Verifier Sign: [signature] Z#: 237720 Date: 11/13/12

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

DRUM ID#: 92357

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 #: 040879

Cal expiration date: 3-15-13

Range/ Value (ft-lbs): 16-80

Tolerance ± 3% ou ± 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): 259.2

Scale ID#: 019005

✓ 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: Gerald Espinoza Date: 11/13/12

Verifier Print/Sign: Brian Gallegos Date: 11-13-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90941 Container Type: POC Gross Weight (lbs): 390

Container Seal #: None Filter Prefix: None Filter Serial #: EL-314; EL-330

RTR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S863788 WTS-12STD-811

Total PE-Ci Activity: 1.34E+00 Equivalent Combustible PE-Ci: 5.01E-01 AM-241 PE-Ci: 1.09E-01

Total Fissile Gram Equivalents: 14.8 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 HC 10/2/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

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: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1:2 volumes of kitty litter/zeolite must be mixed with 1:0 volume of nitrate salts.

Performed By: Susan Ramsey / Production Control (Print) Signature: Susan P. Ramsey Z Number: 100681 Date: 9/10/12

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: Nitrate Salts – POC

Net Wt: 80 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium, lead and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes / WDP Engineering (Print) Signature: Valerie Rhodes Z Number: [redacted] Date: 10/2/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Wear proper PPE when handling waste drums. Use proper tools for the job.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Ensure kitty litter is bagged in with waste drum and proper mixture is performed of waste material

Performed By: Joe Jerez / TRU Remediation Operations (Print) Signature: Joe Jerez Z Number: 224452 Date: 10-4-12

LR Z# 249750 10/9/12

HS REVIEW: RS 200362 10.3.12

Nonsertified TRU Waste Drum Item Information

DrumID: 021176

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Lm)	Comments
1	30X12W1		6.550	SALTS		6.22	52	9/13	G468
2	30X12E1		13.340	SALTS		8.01	52	9/13	G468
3	30X6W1		12.990	SALTS		3.42	52	9/13	G468
4	3LR6W2		7.050	SALTS		1.17	52	9/13	G468
5	3RR4E1		3.480	SALTS		4.71	52	9/13	G468
6	3LR6W1		4.080	SALTS		0.44	52	9/13	G468
7	3LR4W1		2.420	SALTS		0.73	52	9/13	G468
8	25X28W2		14.090	SALTS		7.51	52	9/13	G468
9	30X25E1		6.170	SALTS		1.44	52	9/13	G468
11	3LR27W2		3.220	SALTS		0.84	52	9/13	G468
12	30X20E1		8.220	SALTS		2.22	52	9/13	G468
13	30X25W2		6.460	SALTS		2.97	52	9/13	G468
14	40X1W2		2.970	SALTS		5.37	52	9/13	G468

Nonsertified Waste Drum Material Summary

Gross Wt (kg): 170.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	47.05	91.04
Totals	47.05	91.04

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 9/28/12

Container No. (5.[1])	90941					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	PLDS					
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])	191.54 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	2825.43 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: Sara Aragon (CCP (Print)) 237975 (Z#)

Reviewed By: Nathan Wales (CCP (Print)) 238666 (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: Susan S. Ramsey (Waste Handling Operator (print)) Susan S. Ramsey (Signature) 100688 (Z#) 10/1/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90941.D
Acq On : 28 Sep 2012 11:00 am
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 11:08:30 2012
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	3.256	96	2559728	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2225009	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.765	GC1	698113m	2825.43 ppm	
4) Methanol	0.788	31	46205	191.54 ppm	100

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

Vocgas.m Fri Sep 28 11:08:39 2012

11-13-12

0600 Assuming WCRRF operations center checklist
0615 Pre job being conducted by SOS
0620 Started inside rounds completed outside rounds.
0655 Inside rounds complete
0718 Inside and outside rounds signed off by SOS.
0731 Mode change performed TASD-49 and WCRRF yard now in operation
0739 Tool lift installation complete
0805 Permission granted to start movement into SD-49
0817 bagging on 90884
0900 Completed movement into SD-69, bag on complete.
0913 Permission granted to lower vehicle access gate for load of transport vehicle.
0931 bagging off 90834, bagging on 90941
0958 bag on, bag off complete
1024 Vehicle access gate have been restored. loading of trans vehicle is complete.
1057 bagging off 90941, bagging on 90890
1102 starting movement into SD 69
1101 movement into SD-69 is complete
1105 bag on, bag off complete.
1152 bagging off 90890, bagging on. 90897
1210 bag off, bag on complete.
1319 bagging off, 90897 and bagging on 90972
1340 bag off, bag on complete
1443 bagging off 90972, bagging on 90974
1454 bag on, bag off complete.
1455 starting inside rounds
1526 completed inside rounds
1528 starting movement out of SD 69
1552 bagging off, 90974
1554 Completed movement out of SD-69.
1600 Starting outside rounds
1615 Completed outside rounds
1616 bag off to complete.
1618 Rounds have been signed off by SOS
1620 mode change performed TASD-49 and WCRRF yard now in warm standby.
1640 end of day WCRRF operations center secure checklist

MM

[illegible] returns this page

11/13/12

0600 Assumed WCRR SOM position

0615 Attended pre-job brief conducted by SOS. Discussed winter weather early closure / late opening plans for safety topic, use of handrails, weekend work including contamination event.

0702 CSE completed signoff of work packages from weekend maintenance.

0739 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Cold to Operations / Operations.

1100 Briefed to RWP for entering radiation areas.

1200 Conducted call in for solution package processing @ WCRR and team call in regarding production @ WCRR and DUS

1400 Attended meeting for DUS Filter change out w/ RPI and DDP Management. Discussed possibility of utilizing Bldg 412 instead of setting up temporary enclosure in one of the domes. PM will give guidance.

1510 (Late Entry 1310) Performed walkdown of containers in TRU storage transportainers w/ Tech 39.

1620 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1745 Secured SOM position.

No Further Entries this Date

11-13-12 WCRR SOS Log Book

0600 Assuming SOS position for the day

0615 Pre-Job brief started. Discussed Changes to snow and increment weather procedure Delayed starts and early dismissal. 1 Shipment out eight drums remaining to process prior to receiving inventory from the yard and 50-69 to put in Cold.

0640 Pre-Job concluded

0655 Signed off on outside rounds.

0718 Signed off on inside rounds

0739 Mode Change to Operations in Yard and Building 50-69.

1618 ~~Mode Change Complete WCRRF In u~~ Reviewed Inside And outside Rounds.

1620 Mode Change Complete WCRRF In warm standby.

11-13-12 1630 end of shift Securing SOS Position

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-RTR2-13-0105
Examination Date:	9/4/2013
Waste Container ID:	92357
Video/Audio Recorded Media Number:	LA-RTR2-13-0105 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:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 117.5 kg Tare Wt.: 33.4 kg Net Wt.: 84.1 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 92357

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal lid, hardware, scrap metal

AM:

OM:

OI:

C: Fiberboard packing material

R:

XPM: Plastic lids, 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):	12.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	4.0
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.1
Soils (S):	
Total WMP Weight:	84.1

CCP Radiography Data Sheet

Waste Container ID: 92357

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		9/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92357	Count Sequence Number:	23541
Operator:	D3PW2DK1\operator		
Assay Start:	9/5/2013 3:27:16 PM		
Description 1:	1LANDA1836		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 84.1 kg	Net:	84.1 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.670 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

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CS 6/12/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23541
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 92357

Batch Number: 1LANDA1836
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 9/5/2013

Net Weight	84100.0 g		
Pu mass	2.06E+001	+-	3.16E+000 g
TRU Alpha Activity	5.21E+000	+-	5.99E-001 Ci
TRU Activity Concentration	6.19E+004	+-	7.13E+003 nCi/g
Pu-239 Equivalent Activity	5.25E+000	+-	5.99E-001 Ci
Pu-239 FGE	1.94E+001	+-	2.97E+000 g
Decay heat	1.70E-001	+-	1.98E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.00E-001	7.08E-005	1.28E-005	3.11E-006
PU238	1.88E-003	3.22E-002	4.95E-003	3.28E-005
PU239	1.93E+001	1.20E+000	1.84E-001	1.22E-003
PU240	1.23E+000	2.80E-001	4.31E-002	2.85E-004
AM241	1.08E+000	3.70E+000	5.69E-001	3.76E-003
PU241	2.38E-002	2.45E+000	3.77E-001	2.50E-003
PU242	4.12E-003	1.63E-005	2.50E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.01E-007
U233	<LLD	<LLD	0.00E+000	6.39E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.99E-006
U238	<LLD	<LLD	0.00E+000	1.21E-005
AM243	7.21E-004	1.44E-004	2.65E-005	8.84E-006

Errors quoted at 1.000 sigma

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

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

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CB 6/12/14

Automated Independent Technical Review

Count Sequence Number: 23541 Batch Number: 1LANDA1836
Counter ID: MCS HENC #1
Container ID: 92357
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/5/2013

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.
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
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.

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CS 6/12/14 CS 6/12/14

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. Marak Date: 6/5/14

CS 6/12/14 5/A

Waste Container ID: **92357**

BDR Number: **LA13FG12093**

Sampling Date: **9/13/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	199.58	
74-82-8	Methane	9.63	U
67-56-1	Methanol	157.78	
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	0.47	U
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	4.28	
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\130913c\
Data File : 92357.D
Acq On : 13 Sep 2013 1:30 pm (#1); 13 Sep 2013 1:29 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 13 13:38:31 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	4.060	96	8351421	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6189309	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.897	GC1	56929m	199.58	ppmv	
4) Methanol	0.824	31	69628m	157.78	ppmv	
17) Toluene	5.577	92	106934	4.28	ppmv	96

(#) = 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-RTR2-12-0132
Examination Date:	11/19/2012
Waste Container ID:	92358
Video/Audio Recorded Media Number:	LA-RTR2-12-0132 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 148.0 kg Tare Wt.: 145.1 kg Net Wt.: 2.9 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: 92358

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal can

AM:

OM:

OI:

C:

R:

XPM: Plastic bags, plastic sheeting

OR:

IN:

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):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.9
Organic Matrix (OR):	
Inorganic Matrix (IN):	
Soils (S):	
Total WMP Weight:	2.9

CCP Radiography Data Sheet

Waste Container ID: 92358

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:

Benito Maestas		11/19/2012
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

************************    Item Information    ************************

Item ID:            92358              Count Sequence Number:  21648
Operator:           D3PW2DK1\operator
Assay Start:        12/4/2012   4:10:12 PM
Description 1:      1LANDA1678
Description 2:      POC, 148.0
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Debris S5000
Container Type:     55 gallon drum
Weight:             Net:         2.9   kg        Net:     2.9 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         0.609 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:	21648	Batch Number:	1LANDA1678
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92358	Analysis Date:	12/4/2012

Net Weight	2900.0 g		
Pu mass	1.80E+000	+-	3.59E-001 g
TRU Alpha Activity	3.54E-001	+-	4.88E-002 Ci
TRU Activity Concentration	1.22E+005	+-	1.68E+004 nCi/g
Pu-239 Equivalent Activity	3.58E-001	+-	4.88E-002 Ci
Pu-239 FGE	1.70E+000	+-	3.37E-001 g
Decay heat	1.15E-002	+-	1.61E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.77E-003	5.55E-006	9.75E-007	7.27E-007
PU238	1.66E-004	2.86E-003	5.71E-004	3.42E-005
PU239	1.69E+000	1.06E-001	2.12E-002	1.27E-003
PU240	1.08E-001	2.48E-002	4.95E-003	2.96E-004
AM241	6.33E-002	2.20E-001	4.37E-002	1.55E-002
PU241	2.16E-003	2.24E-001	4.47E-002	2.68E-003
PU242	3.60E-004	1.43E-006	2.85E-007	0.00E+000
SR90	4.44E-009	6.13E-007	1.62E-007	0.00E+000
CS137	6.99E-009	6.13E-007	1.62E-007	1.87E-007
U233	<LLD	<LLD	0.00E+000	1.46E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.15E-007
U238	<LLD	<LLD	0.00E+000	4.95E-006
CM243	2.14E-007	1.11E-005	2.17E-006	2.85E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 12-10-2012

ITR: _____ Date: 12-10-12

Automated Independent Technical Review

Count Sequence Number: 21648
Batch Number: 1LANDA1678
Counter ID: MCS HENC #1
Container ID: 92358
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 12/4/2012

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: Sherri Chamberlin Date: 12-5-12

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92358**

BDR Number: **LA13FG2007**

Sampling Date: **1/31/2013**

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\130131c\
Data File : 92358.D
Acq On : 31 Jan 2013 3:17 pm (#1); 31-Jan-13, 15:16:50 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 31 15:25:33 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	3.607	96	4888295	201.25 ppmv	0.04
15) Chlorobenzene-d5	5.930	117	4382933	177.00 ppmv	0.03

Target Compounds	Qvalue

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

46

UET

Working Copy
Date: 11-14-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90942

6.2[4] Date Processed: 11/14/12

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: Michael Romero Michael Romero 182773 11/14/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90942

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 376.4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B] Total Parent Drum Weight (lb) 376.4 lb
6.2[6]

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.: 90942

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92376			
10.1[4]	Daughter Drum Filter No.	JL-1308		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4402			
10.1[4]	Daughter Drum Purchase Order No.	416184			
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	N/A	N/A		
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
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[8]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90912

Comments: plastic, cardboard liners, salts, kitty litter, bolts metal lid

11.1[1] Performed By: Michael Romero [signature] 182729 11/14/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez [signature] 149235 11-19-12 1005
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11-8-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 413954
Lot No.: 211126
Manufacture Date: 2010

5.[8] Overpack filtered vent information:
Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL-254
Manufacture Date: 9-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	± 4% cw ± 6% ccw	± 3% cw ± 6% ccw

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

Performed By: Brandon Chavez / [signature] [illegible] 11-8-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb
BC 11-8-12
5.[15] 2 in. bung plug torque value: ~~30~~ 30 ft-lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] [illegible] 11-8-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Mt / [signature] 142235 11.19.12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-14-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92377

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/13/13
Range in ft-lb: 16/80
Tolerance: ±3% cw ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero [signature] 189270 11/14/12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 015065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 322.4 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 189270 11/14/12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert Martinez [signature] 149255 11.19.12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92376

1. Drum/Lid Assembly

- [x] Remove and discard ⅝" 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 #: 416184
- Lot #: 0229224
- 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 #: 6CDVC 1.5-2.5PVC
- Serial #: 2-4402
- Date of Manufacture: 7-12

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 ⅝" 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 #: JL-1308
- Date of Manufacture: 10-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	9-26-12	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
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: Brandon Chavez Signature: [signature] ZI#: 204742

5. Weigh Drum Assembly

RECORD weight information
- Tare wtght (lbs) 75.8
- File ID #: 015065

[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] ZI#: 204742 Date: 11-8-12

Verifier Print: Michael Romero Verifier Sign: [signature] ZI#: 182723 Date: 11/14/12

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

DRUM ID#: 92376

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 #: 040329

Cal expiration date: 3/15/13

Range/ Value (ft-lbs): 16/80

--- 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) 258.2

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: Gerald Espinoza [signature] Date 11/14/12

Verifier Print/Sign: Michael Romero Date: 11/14/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90942 Container Type: POC Gross Weight (lbs): 371

Container Seal #: None Filter Prefix: None Filter Serial #: EL-449; EL-488

RTK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S863788 WTS-12STD-879

Total PE-Ci Activity: 1.34E+00 Equivalent Combustible PE-Ci: 5.01E-01 AM-241 PE-Ci: 1.09E-01

Total Fissile Gram Equivalents: 14.8 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VE 10/2/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

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: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1:2 volume of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan P. Ramsey Z Number: 100681 Date: 9/10/12

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: Nitrate Salts – POC

Net Wt: 67 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112608 Date: 10/2/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Ensure that Hexamesh are used while processing waste. Do not push or press on waste.

Processing Determination: ☑ Accept ☐ Reject

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

Performed By: Jose Jerez (TRU Remediation Operations (Print)) Signature: Jose Jerez Z Number: 224452 Date: 10-4-12

Lab Z# 249750 10/9/12

IHS Review July Smellard LSP Contains lead, Hg, & Chromium. 10-3-12

Noncertified TRU Waste Drum Item Information

DrumID: 021126

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Hazs Code	SNM (g)	HT	Auth (Pg/Ln)	Comments
1	30X12W1		6.550	SALTS		6.22	52	9/13	G468
2	30X12E1		13.340	SALTS		8.01	52	9/13	G468
3	30X6W1		12.990	SALTS		3.42	52	9/13	G468
4	31R6W2		7.050	SALTS		1.17	52	9/13	G468
5	3REAR1		3.480	SALTS		6.71	52	9/13	G468
6	31R6W1		4.080	SALTS		0.44	52	9/13	G468
7	31R4W1		2.420	SALTS		0.73	52	9/13	G468
8	25X28W2		14.090	SALTS		7.51	52	9/13	G468
9	30X25E1		6.170	SALTS		1.44	52	9/13	G468
11	31R27W2		3.220	SALTS		0.84	52	9/13	G468
12	30X20E1		8.220	SALTS		2.22	52	9/13	G468
13	30X23W2		6.460	SALTS		2.97	52	9/13	G468
14	40X1W2		2.970	SALTS		5.37	52	9/13	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 170.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	47.05	91.04
Totals	47.05	91.04

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 9/28/12

Container No. (5.[1])	90942					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PVC					
Filtered Vent Type (5.[1])	19DS					
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

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON — 237975
CCP (Print) Z #

Reviewed By: NATHAN WALES — 238866
CCP (Print) Z #

Comments: None

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 S. RAMSEY, Susan S. Ramsey 100681 10/2/12
Waste Handling Operator (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90942.D
Acq On : 28 Sep 2012 1:55 pm (#1); 28 Sep 2012 1:54 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 14:05:15 2012
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	3.259	96	2410479	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2165466	179.50 ppm	0.00

Target Compounds Qvalue

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

Vocgas.m Fri Sep 28 14:05:30 2012

11-14-12
0540 Assuming WRF operations with JC Oliver
0550 Beginning outside rounds.
0558 Beginning inside rounds.
0608 Outside rounds complete
0615 Inside rounds complete. Pre-job being conducted by SCS.
0642 Pre-job completed.
0643 Lot computer data, both rounds reviewed by SCS.
0654 We are now in operations. Mode change complete.
0735 Initiating drum movement from storage area to 5069.
0736 Bagging on drum #90933.
0744 Drum movement into facility complete. Bag on complete
0807 Bagging off 90933, bagging on 90942.
0823 Bag on complete.
0828 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Utah.
0835 Bagging off 90942, bagging on 91001.
0848 Bag on complete.
0916 Transfer vehicle loaded. Vehicle access gates returned. Transportainers closed and latched.
0920 Bagging off 91001, bagging on 90911.
0930 Bag on complete.
1020 Bagging off 90911.
1033 Bag off complete.
1045 Initiating drum movement from 5069 to a storage cell.
1100 Drum movement complete. All inventory has been removed from the facility.
1118 Mode change complete. We are now in COD in 5069 and warm in WRF yard.
1350 ~~1415~~ JC 11-14-12 Beginning outside rounds.
1400 Begin inside rounds.
1410 Outside rounds complete.
1422 Inside rounds complete.
1500 Glovebox maintenance performed on glovebox and is completed.
1512 Both rounds reviewed by SCS.
11-14-12 1630 End of day. Operations secure. JC Oliver

No further entries this page

11/14/12

0600 Assumed WCRR SOM position
0615 Attended pre job brief conducted by SOS. Discussed work plan for the day, night time driving safety tips, sharps in glove box.
0659 Completed mode change: WCRR Yard / Bldg 50-69 from Warm / ~~Cold~~ 11/14/12 Warm to Operations / Operations.
0736 First drum bagged onto WCG
1020 Bagging off 4th (last drum) to be processed today
1118 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.
1120 (Late Entry 1030) Received copy of USQ and WEF required to ship 3 TRU drums out of WCCR
1240 Verified w/ OSPET that all TWSR's for tomorrows shipment have been generated and checked w/ inventory control that 22 containers will be on tomorrows shipment
1245 (Late Entry 1200) Statused PM on 1200 call in WCRR and DUS work/issues.
1250 Reviewed MSS work packages for Dec PM's, standing WO's for FY 13.
1347 Released WO # 416885-06 54-WCRRF FY12 Relamping for 196 and Bldg 54.
1400 Attended mandatory meeting @ NSSB regarding major issues at LANL and other DOE sites raising management concerns.
1515 SOS reported that WCG glovebox maintenance was conducted including thorough wipedown of glovebox, replacing tape, no gloves were changed.
1530 OCO reported that electricians replaced lights inside 196 however outside light fixtures will require replacement.
1630 Secured SOM position.

No further entries this date

11/14/12

11-14-12 WCRR SOS Log Book

0600 Assuming SOS position for the day. Reviewed SOS log book for yesterdays operation. Jim Jy

0615 Started Pre-Job brief. Safety Topic on Drivers watching out for pedestrians during night time. Operators performing outside rounds should have a flashlight on when inspecting the barriers along the side of the road. 1 shipment out. 4 drums remaining to process, going to COD this afternoon.

0630 Pre-Job brief completed

0640 Inside and Outside rounds signed off be second SOS

0659 MODE Change. Operations in the Yard and 50-69.

0736 Bagging on first drum for the day

1033 Bagging off last drum for the day.

1118 Mode Change. Going into COD in 50-69 Yard will be in WARM. Processed 4 parents today from Solution Package 72. 4 Daughters generated no POC's

1230 Crew going into 50-69 to perform glovebox maintenance Performing inspections on gloves, wiping down the inside of the glovebox, general Housekeeping inside of 50-69.

1530 Crew out from doing Glove box maintenance

11-14-12 1630 Securing SOS position for the day. Jim Jy

1149

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-RTR2-13-0012
Examination Date:	1/25/2013
Waste Container ID:	92376
Video/Audio Recorded Media Number:	LA-RTR2-13-0012 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 117.0 kg Tare Wt.: 33.4 kg Net Wt.: 83.6 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: 92376

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Pipe component lid, metal hardware

AM:

OM: Scrap lead

OI:

C: Cloth material, coveralls, fiberboard, fiberboard liner sleeve

R:

XPM: 90 mil plastic 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 Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	18.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.2
Other Inorganic Materials (OI)	
Cellulosics (C):	16.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	42.4
Soils (S):	
Total WMP Weight:	83.6

CCP Radiography Data Sheet

Waste Container ID: 92376

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		1/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92376	Count Sequence Number:	21927
Operator:	D3PW2DK1\operator		
Assay Start:	1/29/2013 9:59:22 AM		
Description 1:	1LANDA1703		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 83.6 kg	Net:	83.6 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.540 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:	21927	Batch Number:	1LANDA1703
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92376	Analysis Date:	1/29/2013

Net Weight	83600.0 g		
Pu mass	1.70E+001	+-	3.23E+000 g
TRU Alpha Activity	4.22E+000	+-	1.59E+000 Ci
TRU Activity Concentration	5.04E+004	+-	1.90E+004 nCi/g
Pu-239 Equivalent Activity	4.26E+000	+-	1.59E+000 Ci
Pu-239 FGE	1.60E+001	+-	3.03E+000 g
Decay heat	1.38E-001	+-	5.31E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.00E-002	4.29E-005	6.86E-006	2.38E-006
PU238	1.56E-003	2.70E-002	5.13E-003	3.81E-005
PU239	1.59E+001	1.00E+000	1.90E-001	1.42E-003
PU240	1.02E+000	2.34E-001	4.45E-002	3.31E-004
AM241	8.50E-001	2.95E+000	1.58E+000	5.79E-002
PU241	2.02E-002	2.10E+000	3.99E-001	2.97E-003
PU242	3.40E-003	1.35E-005	2.56E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.07E-007
U233	<LLD	<LLD	0.00E+000	4.90E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.46E-006
U238	<LLD	<LLD	0.00E+000	1.12E-005
AM243	8.53E-004	1.72E-004	2.79E-005	6.68E-006

Errors quoted at 1.000 sigma

Operator: Sam Barton Date: 2/1/13

ITR: [illegible] Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 21927
Batch Number: 1LANDA1703
Counter ID: MCS HENC #1
Container ID: 92376
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/29/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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: 1-31-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92376**

BDR Number: **LA13FG8009**

Sampling Date: **2/6/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	157.50	
74-82-8	Methane	213.40	U
67-56-1	Methanol	40.38	
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	4.50	
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	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)

Data Path : C:\msdchem\1\DATA\130206C\
Data File : 92376.D
Acq On : 6 Feb 2013 2:01 pm
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 14:09:10 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	3.259	96	2661256	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2387038	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.304	GC1	38916m	157.50	ppm	
4) Methanol	0.788	31	10127	40.38	ppm	100
17) Toluene	4.776	92	24796	4.50	ppm	99

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

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S863789

S863789

Container Profile 768176

File Options Reports Help

S863789

768176	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

Genealogy

S863789

- S863789
  - LA00000068680
  - LA00000068671
  - LA00000069101 — EMPTY

Working Copy
Date: 11-20-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: ~~S87~~ MG 11/20/13 S863789

6.2[4] Date Processed: 11/20/13

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: M. Gonzalez / 239980 / 11/20/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S 863789

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 368.4 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) 368.4 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.: S863789

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68680	68607		
10.1[4]	Daughter Drum Filter No.	LM-893	LM-861		
10.1[4]	Daughter Drum Bag Filter No.	L-10097	L-11514		
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				
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	N/A		
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 (%)	100%	80%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic & Kitty litter	~~Lead~~ Kitty litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S863789

Comments: NITRATE SALTS, PLASTIC, LIQUID, LEAD SHIELDING.

11.1[1] Performed By: GERALD ESPINOZA / [signature] 237720 11-2013
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez / [signature] 1149235 11/25/13 1000
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11-20-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238367
Manufacture Date: 2013

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

	Filtered Vent	2-in. Bung
M&TE No.:	~~038369~~ 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.: 019DS
Serial No.: LM-384
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: M. Gonzalez / [signature] / 123998 / 11/20/13
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: M. Gonzalez / [signature] / 123998 / 11/20/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Perez / [signature] / 224521 / 11/21/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-20-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69101

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038369
Cal. Expiration Date: 12/18/2013
Range in ft-lb: 60 ft-lbs
Tolerance: +/-3% CW and +/-6% CCW

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

Performed By: Jose Jerez / [signature] / 221422 / 11/20/13
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): 160.4 lb

Comments: None

8.1[1] Performed By: Jose Jerez / [signature] / 221422 / 11-20-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 149235 / 11/25/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11/13/13 HS

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68671

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: ZOP
Model No.: 6 CAVC 1.5 - 2 SMK
Serial No.: L-11514
Manufacture Date: 6/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	03861245
Cal. Expiration Date:	12-18-13	8-5-14
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: Frederick Ashlock | [signature] | 1228021 | 11-13-13
Operator (print) | Signature | Z # | Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: LM-861
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.: 68671

Comments: N/C

5.[35] Performed By: Frederico Arbulata / [signature] 1228261 11-13-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Marbn 22 / [signature] 1452351 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.: 68671

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

M&TE No.: 038369
Cal. Expiration Date: 12/18/2013
Range: 16 - 80 ft-lbs ft-lb
Tolerance (+/-): +/- 3% (CW) and +/- 6% (CCW)

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

Performed By: Jose Jerez / [signature] / 22142 / 11/20/13
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:	N/A in-lb	N/A 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: _____ 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.: 68671

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 233.8 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: Jose Jerez | [signature] | 122142 | 11/20/13
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Gilbert Martinez | [signature] | 149257 | 11/25/13
Supervisor or designee (print) | Signature | Z # | Date

UET Working Copy
Date: 11-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68680

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.: 6CPUC 1.5-25PUC
Serial No.: L-10097
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100246	036245
Cal. Expiration Date:	12-18-13	8-05-14
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: Brian Gallegos / Brian Gallegos / 267129 / 11-18-13
Brian Cordova / [signature] / 287741 / 11/18/13
Operator (print) / Signature / Z# / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: ~~LM-893~~ 01905 11/18/13
Serial No.: LM-893
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.: 68680

Comments: N/C

5.[35] Performed By: Brian Cordova / Brian Gallegos / Bri Gallegos — Z# 207129 — Date 11-18-13
Operator (print) / Signature / Z# / Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] — Z# 149278 — Date 11/25/13
Supervisor or designee (print) / Signature / Z# / Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68680

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

M&TE No.: 038369
Cal. Expiration Date: 12/18/2013
Range: 16 - 80 ft - lbs 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: Jose Perez / [signature] / R2142 / 11/20/13
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:	N/A in-lb	N/A 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: _____ 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.: 686080

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 330.8 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: Jose Perez (Operator (print)), [signature] (Signature), 122452 (Z #), 11/20/13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)), [signature] (Signature), 144231 (Z #), 11/25/13 (Date)

Working Copy
Date: 11-20-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5863789

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): 368.4

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: M. Gonzales [signature] 1239985 11/20/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez [signature] 1221521 11/21/13
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] 1142351 11/25/13 1011
SOS/SOM or designee (print) Signature Z # Date Time

1939
SP7

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S863789 Container Type: 55-GAL Gross Weight (lbs): 384
Inner Seal #: 021007 Filter Prefix: LAVC Filter Serial #: 01172
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A02022
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
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 4/19/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 26"
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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Signature / 100681 / 12/20/12
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: 324# Generator info shows 10 items of nitrate salts; weights range from 7-33#. No RTR BDR. Nitrate salts typically packaged in plastic bags; other debris & undocumented liquids may be present. RTR PS shows prohibited liquids & impenetrable object(s). Nitrate salts carry waste codes for chromium, lead, & mercury. No chemicals identified. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 1162609 / 6/17/13
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 Heavyweight gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE and Kitty Litter Ratio

Performed By: GMK / [signature] / 1149235 / 6/20/13
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez / [signature] / 221452 / 6/22/13

145 Review [illegible] CSP, may contain Pb, Hg + Cr No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021007

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	40X2SE2		9.620	NITRATE SALTS		2.33	52	9/13	G468	
2	40X2SE1		7.370	NITRATE SALTS		1.66	52	9/13	G468	
3	40X21E1		11.600	NITRATE SALTS		2.56	52	9/13	G468	
4	4LR30W1		3.490	NITRATE SALTS		4.08	52	9/13	G468	
5	5LR5E1		6.860	NITRATE SALTS		2.45	52	9/13	G468	
6	5LR5E2		8.380	NITRATE SALTS		1.7	52	9/13	G468	
7	5RR8E2		13.490	NITRATE SALTS		12.1	52	9/13	G468	
8	50YGE1		10.420	NITRATE SALTS		8.65	52	9/13	G468	
9	5DS7W1A		14.670	NITRATE SALTS		3.41	52	9/13	G468	
10	5DS7W1B		10.900	NITRATE SALTS		2.53	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 174.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	41.47	96.80
Totals	41.47	96.80

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4/11/13

Container No. (5.[1])	S863789					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	073					
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

5.[7] Certified CCP Technician:

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

Reviewed By: Nathan Wales / 238564
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 / 5/20/13
Waste Handling Operator (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130411c\
Data File : S863789.D
Acq On : 11 Apr 2013 2:13 pm (#1); 11 Apr 2013 2:12 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL THROUGH UNOBSTRUCTED 073 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 15:52:04 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	3.256	96	1997099	206.00 ppm	0.00
15) Chlorobenzene-d5	5.943	117	1807356	179.50 ppm	0.00

Target Compounds Qvalue

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

Vocgas.m Thu Apr 11 15:52:16 2013

11-20-13

0400 Assuming WCRRF operations center - CrL Lde
0415 pre job Being ~~conducted~~ GV 11-20-13 performed by SOS. Briefing on Attachment A and IWD's.
0751 Permission granted to lower vehicle access gates for shipment out of WCRRF
0828 Bagging off 3891279 and will be putting on part cover to decon and retape catch pan.
0839 Vehicle access gates have been restored shipment out of WCRRF as 11-20-13 50-69 is complete.
0905 Bag off is complete, starting decon of catch pan
0935 Bagging on 3811692. Decon of catch pan is complete.
1206 Bagging off 3811692 and will decast after lunch.
1229 Bag off is complete.
1232 RCTs requesting operators use hand and foot monitors before exiting for lunch.
1245 Operators exiting for lunch.
1416 Starting movement into 50-69
1500 Starting inside rounds, completed movement into 50-69.
1512 operator notified ops center that while stepping out of 50-194 he hyperextended left knee.
1515 entering EP-WCRR-RM-EOP-0309, SOS and SCM have been notified and operator being taken to IH immediately
1520 Item 43 is DOS, PPE in place, OK to proceed per CSE documentation.
1522 OM has been notified and will make other notifications
1532 Work Care has notified operator to place ice on left knee
1536 Inside rounds complete; starting movement out of 50-69.
1548 Starting to decast 2 drums and will bag on 3843789 after decasting is complete.
1601 Operator has been advised to ice every 15 mins, keep elevated and take ibuprofen.

continued on next page - CrL Lde

11-20-13 - Continued on next page - CWelande

1406 Exiting EP-WCER-RM-EOP-0309

1407 Starting outside rounds.

1430 Outside rounds complete.

1440 Rounds signed off by SOS.

1455 Dunesting and Bag on is complete

11-20-13 1801 Being Relieved by DCO Turi Coleman - CWelande

No further entries this page

11-20-13

1801 Assuming WCRR operations center. Coleman
1817 Turnover with day shift being conducted.
1822 Pre-job being conducted by SBS.
1845 ~~1837~~ Pre-job concluded.
1930 Operators entering 5069 to resume operations on drum S863789.
2003 Tech 38 notified ops center that the lights inside 5069 flickered. He states everything appears to be running normally and no alarms are sounding. SOS, SOM notified.
2138 Bagging off 1 daughter, bagging on another daughter.
2150 Bag off/on complete.
2328 Bagging off 1 daughter, bagging on S864663.
11-21-13 0000 Bag off/on complete.
0015 Beginning outside rounds. Operators out for lunch.
0041 Outside rounds complete.
0116 Operators back from lunch.
Unexpected condition 0139 Notified by RCT that he is calling a pause and having the operators pull out of the box due to the CAM manager being frozen. SOS, SOM notified. RCT trying to call the on call RC
0145 RCT states that the screen for the CAM manager has gone completely blank. He has instructed the operators to perform a controlled exit. SOS, SOM notified. Everything is in a safe configuration.
0200 RCT's have been instructed by the on call RCT to unplug the CAM manager and plug it back in to see if it will reset.
0201 RCT's entering 5069 high bay to unplug/plug the CAM manager
0206 RCT states the CAM manager appears to be working again and will wait one count cycle to be sure.
0211 RCT's instructed by on call RCT to let the CAM manager run two full cycles.
0245 Operators entering 5069 to resume operations on S864663.
0335 Beginning a drum movement from 5069 to a transportainer and transportainer to 5069.
0416 Both drum movements complete.
0426 Beginning inside rounds.
0438 Item #63 is OOS, OKay to proceed per CSE documentation.
Continued on next page. Coleman

11-20-13 DAY SHIFT

0607 Reviewed shift turnover checklist and assumed WCRR SOM position John Gendagnuli

0658 Completed attending the pre-job brief conducted by the SOS (Gilbert) Safety topic was Good Practices for Contamination Control. Check hands and feet regularly. The SOS provided an update for the facility with drum bagged on, and decon of pen required after bag off. Brief conducted on current shift orders, briefed on IWDs, briefed on UET requirements for PFITs item. There is one transfer scheduled out to AREA G

0715 Completed the daily phone call to AREA G SOM statusing POD

0828 Operators complete processing S891279 from night shift which generated 1 daughter. The port cover will be placed on the BAG Port, and operators will wipe down the catch pan upon being accessable.

0905 The transfer of 13 drums from WCRRF to AREA G is completed with operators observed with proper PPE being worn.

0935 Inside operators report bagging on Parent drum S811692.

0943 Bag on is noted complete and operators will continue to process

1204 Completed attending the scheduled 1100 Contamination review meeting list of actions/follow up, will be shared with Operators.

1206 Operators Bag Off S811692 and indicate they will de-nest after lunch.

1229 The bag off was noted completed and the port cover was put in place

1232 RCTs request all operators to utilize the hand foot monitor prior to exiting.

1245 Operators exit for lunch

1300 EP-DIV-AP-20059 IPC-1 - EWMO Watchbill Administration was reviewed and the OCO logbook was updated.

1512 Notification was made to the Operations Center that an operator was supporting the movement from 50-194 transportainer to 50/69 and when stepping out of the transportainer took one large step to the asphalt instead of onto cement then asphalt and hyper extended the knee or twisted it. Notification was made to management / SOM

1518 OCO entered EP-WCRR-RM-EOP-0309 - Injured person at WCRR minor injury - there were no open cuts and ES/IH will evaluate and support transfer of operator to their own primary care physician.

1525 Notified OM and OM will notify DOE

1600 Information from the ES/PM (DB) indicates "Workcare" requests the operator to ice the area - report to work in the am. If unable, then notify supervisor

1606 OCO exits EOP-0309 - Injured person at WCRRF

11-20-13 DAYSHIFT cont.

1627 Completed escorting MNL/IH (R. Stone) to the transportainers to observe and measure step area. He suggested painting with non-skid black and yellow hatch marks - Email will follow after he reviews OSHA requirements.

1658 Inside operations complete de-nesting and bag on of Parent S863789.

1801 Current condition of bag-on - drum was opened - liquid was neutralized - waste is in daughter drum

1810 Completed shift turnover checklist with on-coming SOM -

1815 Relieved of SOM duties by R. Axtell. [illegible]

No further entries this page

11/20/13 Night Shift

1815 Reviewed shift turnover checklist, approved and posted Night shift operations watchbill and assumed WCRR SOM position.

1847 Prejob brief conducted by SOS (C. Mullins) was completed. IH safety topic was todays injury at the transportainer - giving greater attention to path of travel and w/ inclement weather moving in. RP-1 had thorough discussion on recent contamination events - covered corrective actions from todays meeting ie: glove surveys, painting of floor, manufacture of new drip pan, WCG maintenance etc. Briefed the active shift orders for manual drum movements and preventing bag tears.

2003 Notified by OCO that a minor flicker of lighting occured in 50-69. Operators inside reported no disruption of ventilation system. All systems/instruments operating normally.

2150 Completed bag off of 1 daughter - continuing to process.

11/21/13 0000 Completed all bag offs for parent # 5863789 (2 daughters total). bagged on parent # 5864643.

0015 Operators breaking for lunch

0114 Resuming operations.

0139 Notified by OCO that the CAM manager is reported to be frozen. Suspending operations while RP-1 investigates.

0145 RP-1 reported that the CAM manager went completly blank - Operators performing a controlled exit from room 102, parent drum was placed in safe configuration. RCT's are troubleshooting and contacting on call supervision.

0206 Per RP-1 supervision the CAM manager was unplugged and plugged back into power receptacle for reset. It appears to be working normal. Noted that the CAM manager that went down was the one for CAMs A-1 thru ~~8~~ 11/21/13 A-6. No issues with the other CAM managers.

0211 Per RP-1 supervision will have CAMs run through 2 cycles to ensure working properly prior to resuming operations.

0245 Resuming operations.

0416 Operators completed movements of drums between 50-69 and transportainers - both ways. 4 drums out of 50-69 and

cont. next page →

11/20/13 Night Shift continued

11/21/13 0414 2 drums moved into 50-69 for processing

0507 Completed review of AM round sheets.

0510 Reviewed compliance tracking worksheet and ensured status board updated.

0550 Operators completed all bagoffs for parent #5864643 (1 Dumpster total). Operators are cleaning inside of glovebox and leaving WCG in safe configuration without drum bagged on due to morning all hands meeting.

11/21/13 0611 Relieved by J. Gandagnoli as SOM. [illegible]

No further entries this page [illegible]

PROJECT NAME WWK SOS Log Book NOTEBOOK NO.

11/20/13

0600 Assuming SOS Position [illegible]

0615 Conducted a shift brief went over states of Glove box Also went over EOP's and [illegible] operations will need to bag off and decon patch pan. Note contamination found this may be due from to bagging on another Drum

0700 Shift brief Concluded

0751 Started shipment out of work.

0820 Bagging off 3891279 and will be putting on port cover & decon patch pan.

0839 Vehicle access Gate Restored Shipment complete

0905 Bag off Complete starting Decon

0935 Decon complete Bagging on 5811692

1200 Bagging off 5811692 will Demob after lunch

1229 Bag off Complete

1245 Operators Exiting for lunch

1345 Operators resuming operations

1414 Starting Movement Tote 5069

1500 Started Rounds Movement to Complete

1512 notified by operator outside while stepping out of Trailer he twisted his Knee

1515 Entering EOP-0309 sign initiated Individual Taken to I and called work Place.

1522 EM notified of Knee Injury.

1537 work care was initiated made to place Ice on Knee

1545 starting to Record 7 drums. And bag on 5813784

1601 Operator advised to Ice every 15 min And keep Elevated take Tylenol

1606 Exiting EOP-0309

1640 Reviewed Tension And outside Rounds

1655 Demobing And bag on Complete

1659 Relieved by Clayton Mathis

11/20/13

No further entries on this Page

Best Available Copy

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

29 PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

11/20/13

1810 ~~Ass~~ 11-20-13 Assuming SOS position. CA

1822 Starting Pre-Job with turnover from day shift. Also discussed watch where you walk, especially at night with the weather getting colder.

1845 Pre-Job complete.

2003 Tech. 38 notifies that lights inside 50-69 flickered, everything appears to be normal.

2136 Bagging off 1st daughter, bagging on a 2nd.

2150 Bag off/on complete.

2328 Bagging off 2nd daughter, bagging on 5864663

0001 Bag off/on complete.

0012 Turning over SOS position to Jose Jerez. CA

0015 Assuming SOS position for the remainder of shift. Jim Fry

Operators breaking for lunch.

0115 Operators returning from lunch and will start to process ~~11-20-13~~ 5864663.

0118 Reviewed and signed outside rounds.

expiration 0140 RCT's reporting that the CAM manager in the highway is frozen, Operators pausing work. RCT contacting on-call personnel for assistance

0145 RCT unable to get intouch with anyone, checked the CAM manager again and system is completely down, RCT asking all operators to come out of 50-69.

0245 CAM manager up and running, RCT's let the CAM's run through a couple of cycles to ensure that the system is looking properly. Operators headed into the facility to resume operations.

0418 Reviewed and signed inside rounds.

0524 Bagging off 1 daughter and Parent, not bagging anything on due to not knowing if day crew will be changing modes to WARM for attendance to all hands meeting being held. Leaving the facility in a safe configuration until further guidance given.

NA

0550 Bag off complete. Facility in a safe configuration.

11/20/13 0615 Securing SOS position for the day and turning over to Gilbert Martinez. Jim Fry

No further entries on this page.

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0132
Examination Date:	12/2/2013
Waste Container ID:	68671
Video/Audio Recorded Media Number:	LA-RTR2-13-0132 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.: 101.5 kg Tare Wt.: 33.4 kg Net Wt.: 68.1 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:	45 %

CCP Radiography Data Sheet

Waste Container ID: 68671

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic sheeting, plastic bag

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):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.1
Soils (S):	
Total WMP Weight:	68.1

CCP Radiography Data Sheet

Waste Container ID: 68671

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:

Print Name	Signature	Date
Benito Maestas	B. Maestas	12/2/2013

NDA 2000 Assay Report

Item Information

Item ID:	68671	Count Sequence Number:	16795
Operator:	DCLTD231\Operator		
Assay Start:	12/3/2013 1:22:52 PM		
Description 1:	2LANDA1248		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 68.1 kg	Net:	68.1 kg
Container:	Volume: 208.0 l	Full:	45.0 %
Density:	0.730 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:	16795	Batch Number:	2LANDA1248
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68671	Analysis Date:	12/3/2013

Net Weight	68100.0 g		
Pu mass	1.73E+001	+-	7.93E+000 g
TRU Alpha Activity	3.40E+000	+-	1.55E+000 Ci
TRU Activity Concentration	4.99E+004	+-	2.28E+004 nCi/g
Pu-239 Equivalent Activity	3.44E+000	+-	1.55E+000 Ci
Pu-239 FGE	1.64E+001	+-	7.91E+000 g
Decay heat	1.10E-001	+-	5.13E-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	3.54E-007
U233	<LLD	<LLD	0.00E+000	3.53E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.08E-006
NP237	2.87E-002	2.02E-005	3.84E-006	9.07E-007
PU238	1.58E-003	2.71E-002	1.37E-002	4.12E-004
U238	<LLD	<LLD	0.00E+000	1.12E-005
PU239	1.63E+001	1.01E+000	4.91E-001	1.53E-002
PU240	1.04E+000	2.36E-001	1.20E-001	3.59E-003
AM241	6.20E-001	2.13E+000	1.47E+000	6.84E-002
PU241	1.98E-002	2.04E+000	1.03E+000	3.10E-002
PU242	3.47E-003	1.37E-005	6.94E-006	0.00E+000
AM243	2.77E-004	5.54E-005	1.07E-005	4.81E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 12·4·13

ITR: _____ Date: 12/9/13

Automated Independent Technical Review

Count Sequence Number: 16795
Batch Number: 2LANDA1248
Counter ID: HENC #2
Container ID: 68671
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 12/3/2013

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.	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: 12-4-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68671**

BDR Number: **LA13FG2124**

Sampling Date: **12/6/2013**

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\131206C\
Data File : 68671.D
Acq On : 6 Dec 2013 10:31 am (#1); 06-Dec-13, 10:30:50 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 06 12:02:11 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	3.588	96	3927977	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.888	117	3090256	177.50 ppmv	0.03

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-RTR2-13-0132
Examination Date:	12/2/2013
Waste Container ID:	68680
Video/Audio Recorded Media Number:	LA-RTR2-13-0132 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 68680

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

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):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	107.6
Soils (S):	
Total WMP Weight:	116.6

CCP Radiography Data Sheet

Waste Container ID: 68680

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		12/2/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68680	Count Sequence Number:	16803
Operator:	DCLTD231\Operator		
Assay Start:	12/4/2013 12:23:05 PM		
Description 1:	2LANDA1249		
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:	80.0 %
Density:	0.700 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: 16803
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 68680

Batch Number: 2LANDA1249
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 12/4/2013

Net Weight	117000.0 g	
Pu mass	4.35E+001 +-	9.45E+000 g
TRU Alpha Activity	1.10E+001 +-	1.56E+000 Ci
TRU Activity Concentration	9.43E+004 +-	1.33E+004 nCi/g
Pu-239 Equivalent Activity	1.11E+001 +-	1.56E+000 Ci
Pu-239 FGE	4.11E+001 +-	8.87E+000 g
Decay heat	3.60E-001 +-	5.14E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.51E-001	1.06E-004	1.96E-005	2.39E-006
PU238	3.97E-003	6.80E-002	1.48E-002	3.82E-005
PU239	4.08E+001	2.53E+000	5.50E-001	1.42E-003
PU240	2.61E+000	5.93E-001	1.29E-001	3.33E-004
AM241	2.28E+000	7.83E+000	1.45E+000	1.84E-001
PU241	4.98E-002	5.13E+000	1.11E+000	2.88E-003
PU242	8.72E-003	3.44E-005	7.47E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.76E-007
U233	<LLD	<LLD	0.00E+000	9.70E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.21E-006
U238	<LLD	<LLD	0.00E+000	1.82E-005
AM243	2.07E-003	4.15E-004	7.70E-005	1.37E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 12/10/13

ITR: _____ Date: 12·11·13

Automated Independent Technical Review

Count Sequence Number: 16803 Batch Number: 2LANDA1249
Counter ID: HENC #2
Container ID: 68680
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/4/2013

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; 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: Shari Chandler Date: 12-5-13

Waste Container ID: **68680**

BDR Number: **LA13FG2124**

Sampling Date: **12/6/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	231.28	
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\131206C\
Data File : 68680.D
Acq On : 6 Dec 2013 1:30 pm (#1); 06-Dec-13, 13:29:41 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 06 13:46:49 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	3885531	205.75 ppmv	0.06
15) Chlorobenzene-d5	5.881	117	3080039	177.50 ppmv	0.02
Target Compounds					Qvalue
1) Hydrogen	1.614	GC1	1739m	231.28 ppmv	

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

S864662

S864662

Container Profile 768192

File Options Reports Help

S864662

768192	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

Genealogy

S864662

- S864662
  - LA00000068608
  - LA00000068614
  - LA00000068594—EMPTY

ATTACHMENT 1
Page 1 of 4

Working Copy
Date: 11/5/13

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 8864662

6.2[4] Date Processed: 11-05-13

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: D001, 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] (S) 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] (S) 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] (S) 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: BRIAN GALLEGOS / B. Gallegos / 267179 11-05-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 38646602	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	411.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	83.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	494.2 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# / N/A Date

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

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5864662

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68608	68614		
10.1[4]	Daughter Drum Filter No.	LM-304	LM-319	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10361	L-10337		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				
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	1 gallon	N/A		
10.3[5][A]	Free Liquid Volume/Units	2 gallons	N/A		
10.3[7][A]	Opaque/Non-penetrable Item Description:	N	Lead Shielding		
10.3[9][A]	PCB-contaminated Waste Description	A	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%	75%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty Litter	Plastic Kitty Litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S8646062

Comments: Lead, Plastic, Poly Liner, Liquid, Kitty Litter

11.1[1] Performed By: Melinda Stewart, Melinda Stewart, 1277268, 11/6/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Juarez, Jose Juarez, 224452, 11/7/13 2000
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10/31/13 JE

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 02383664
Manufacture Date: 13

5.[8] Overpack 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
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% cw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: J2-1900
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 GERALD ESPINOZA / [signature] / 123724 / 10/31/13
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: GERALD ESPINOZA / [signature] / 123724 / 10/31/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Sevar / [signature] / 221452 / 11/7/13
Supervisor or designee (print) Signature Z # Date

~~Working Copy~~
Date: 11/5/13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68594

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: Melinda Stewart / Melinda Stewart 1072268 11-5-13
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): 171.0 lb

Comments: N/C

8.1[1] Performed By: Melinda Stewart / Melinda Stewart 1072268 11-6-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Perez / [signature] 1224521 11/7/13
Supervisor or designee (print) Signature Z # Date

11 31-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 608608

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.: 6cpvc1.5-2 spvc
Serial No.: L-10361
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 in-lb	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: GERALD ESPINOZA / [signature] / 1237720 / 10/31/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: CM-304
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.: 68608

Comments: N/C

5.[35] Performed By: GERALD ESPINORA [signature] 1237720 / 10/31/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Perez [signature] 1221421 11/7/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68608

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: Melinda Stewart / Melinda Stewart 1277268 11-5-13
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: Melinda Stewart / Melinda Stewart 1277268 / 11-5-13
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.: 2X66X

6.[26] Scale File ID number: MS 11-5-13 C19C65

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

6.[28] Drum gross weight: 368.8 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: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 1277265 (Z #) 11-6-13 (Date)

7.1[4] Reviewed By: Jose Jorge (Supervisor or designee (print)) (Signature) 1221321 (Z #) 11/13 (Date)

10-31-13 [illegible] **ATTACHMENT 1**
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 608614

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.: 6cpvc1.5-2 spvc
Serial No.: L-10337
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 in-lb	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: GERALD ESPINOZA / [signature] / 1237729 10/31/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: CM-319
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.: 68614

Comments: N/A

5.[35] Performed By: GERALD ESPENOZA | [signature] | 1237726 | 10/31/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Perez | [signature] | 1221521 | 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.: 68614

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: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 127728 (Z #) 11-5-13 (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: N/A (Operator (print)) / N/A (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.: 68614

6.[26] Scale File ID number: E19C65

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

6.[28] Drum gross weight: 302.0 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: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 1272681 (Z #) 11-6-13 (Date)

7.1[4] Reviewed By: Jose Jerez (Supervisor or designee (print)) (Signature) 1221452 (Z #) 11-7-13 (Date)

pg 40
sp 72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S864662 Container Type: 55-GAL Gross Weight (lbs): 415
Inner Seal #: 021228 Filter Prefix: LAVC Filter Serial #: 04700
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS NITRATE SALT MST 12 A02034
Total PE-Ci Activity: 2.99E+00 / Equivalent Combustible PE-Ci: 1.12E+00 / AM-241 PE-Ci: 2.47E-01
Total Fissile Gram Equivalents: 32.8 Total Surface Dose Rate (mrem/hr): 8
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 5/2/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 24
Certified RTR Comment: None

Prohibited Items: ☑ ~~Sealed~~ > 4 Liters ☒ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: 7 ☑ 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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) / Susan B. Ramsey (Signature) / 100681 (Z Number) / 12/20/12 (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: 355#. Generator info shows 13 items of nitrate salts; weights range from 12-3#. No RTR BDR. Nitrate salts typically packaged in plastic bags; undequipment liquids + other debris may be present. RTR PS shows prohibited liquids + impenetrable item(s). No chemicals identified; nitrate salts carry waste codes for chromium, lead, + mercury. Nitrate salts require repack w/ admixture

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 1/17/13 (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: G Mk (TRU Remediation Operations (Print)) / G Mk (Signature) / 1149235 (Z Number) / 6/20/12 (Date)
Jose Javez / Jose Javez / 221452 / 6/22/13

1145 Review Safety Analysis and CSP, May contain Pb, Hg, & Cr
No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 021228

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	9LR23E1		8.040	NITRATE SALTS	R00	1.11	52	9/13	G468	
2	9LR24W1		5.640	NITRATE SALTS	R00	0.72	52	9/13	G468	
3	9LR24E1		6.870	NITRATE SALTS	R00	0.74	52	9/13	G468	
4	90W23W1		8.870	NITRATE SALTS	R00	4.42	52	9/13	G468	
5	9LR25E1		8.590	NITRATE SALTS	R00	1.03	52	9/13	G468	
6	9LR25W1		6.770	NITRATE SALTS	R00	1.7	52	9/13	G468	
7	9LR26W1		5.880	NITRATE SALTS	R00	3.3	52	9/13	G468	
8	90X29E1		13.900	NITRATE SALTS	R00	5.82	52	9/13	G468	
9	90X29E2		10.250	NITRATE SALTS	R00	2.06	52	9/13	G468	
10	9LR26E1		9.430	NITRATE SALTS	R00	7.48	52	9/13	G468	
11	9LR30W1		7.210	NITRATE SALTS	R00	0.64	52	9/13	G468	
12	9LR30E1		12.230	NITRATE SALTS	R00	4.2	52	9/13	G468	
13	10DS2E1		6.150	NITRATE SALTS	R00	1.64	53	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 188.

Material Type	SNM (grams)	Items Net Wt (kg)
52	33.22	103.68
53	1.64	6.15
Totals	34.86	109.83

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 4/18/13

Container No. (5.[1])	S864667					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	190S					
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])	1652.92 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: Erik Loechell (CCP (Print)), 234183 (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)), Susan J. Ramsey (Signature), 100681 (Z #), 5/24/13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130418c\
Data File : S864662.D
Acq On : 18 Apr 2013 3:43 pm (#1); 18 Apr 2013 3:42 pm (#2)
Operator : EL
Sample :
Misc : 55 GAL DRUM FROM FILTER-UN-19DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 18 16:00:44 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 20 11:23:15 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.057	96	8371667	207.75 ppmv	0.00
15) Chlorobenzene d5	6.636	117	6757448	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.900	GC1	471467m	1652.92 ppmv	

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

VOCGAS.M Thu Apr 18 16:00:58 2013 UNIT12

11-5-13

0545~~0620~~ HS Assumming WCRR OPS. CENTER H.SMITH
11-5-13 HS
0545~~0620~~ ~~0620~~ 11-5-13 0541 LATE ENTRY, COMPLETED OUTSIDE ROUNDS

0615 STARTING PRE-JOB BRIEFING, DISCUSSING EMPLOYEE SAFETY.

0655 PRE-JOB BRIEFING COMPLETED

0802 BAGGING OFF, BAGGING ON 1 DAUGHTER

0922 BEGINNING MOVEMENT INTO TA 50-69 FROM TA50-17, TA50-194/75 TRANSPORTAINERS

0952 BAGGING OFF 1 DAUGHTER BAGGING ON S 823127

1027 BAG OFF - BAG ON COMPLETE, MOVEMENT COMPLETED

1045 PERMISSION GRANTED TO MANIPULATE WASTE, BEGIN MOVE OUT TO TRANSPORTAINERS

1047 TECH 15 REPORTED TO OPS. CENTER, WHILE OPERATOR WAS NEUTRALIZING LIQUID FROM DRUM ON BOX, NOTICED LIQUID SMOULDERING, TO NOTIFY I-H, PORTS HAVE BEEN PUT ON STATIONS #1 & #2 OPERATORS HAVE PAUSED WAITING FOR RESULTS FROM I-H AND RCT'S.

1106 PER RCT'S INSTRUCTIONS OPERATORS ARE EXITING BUILDING TA50-69 FOR PAUSE TO DISCUSS EVENTS

1113 MOVEMENT INTO TA50-194 AS COMPLETE

1325 OPERATOR RETURNED FROM OCC MED WITH NO RESTRICTIONS, OK TO RETURN TO WORK

1326 ~~1304~~ HS 11/5/13 1304, OPERATORS ENTER BUILDING TO CHECK GLOVEBOX GLOVES. LATE ENTRY

1341 SOS ADVISED OPS. CENTER, NO BREACH IN GLOVES, NO DEGRADATION OF HEK-ARMOR GLOVE WHERE LIQUID CAME IN CONTACT WITH GLOVE, RCT'S PERFORMING SMEAR. SOS WILL BRIEF OPERATORS BEFORE REENTERING FACILITY.

1352 SOS BRIEFED OPERATORS ON GLOVE CONDITIONS AND LIMITS OF WORK WITH CHEMICALS, AND ADVISED OPERATORS THAT WITH OCC MED & RCT'S WERE GIVEN PERMISSION TO RETURN TO WORK

CONTINUED OF NEXT PAGE - H SMITH

11-5-13 CONTINUED FROM PREVIOUS PAGE H SMITH

1422 OPERATORS RE ENTER BUILDING TO CONTINUE TO PROCESS

1435 STARTING INSIDE ROUNDS.

1445 STARTING OUTSIDE ROUNDS.

1455 ITEM #63 OOS, OKAY TO PROCEED PER CSE DOCUMENTATION TO INSIDE ROUNDS

1457 COMPLETED INSIDE ROUNDS

1505 COMPLETED OUTSIDE ROUNDS

1540 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SOS

1555 BAGGING OFF - BAGGING ON 1 DAUGHTER AND CONTINUE TO PROCESS

1614 BAG OFF COMPLETE

1733 BAGGING OFF DAUGHTER BAGGING ON S864662

1802 BAG OFF COMPLETE

11-5-13 BEING RELIEVED BY OLD CLAYTON MULLINS HASMITH

HS

NO FURTHER ENTRIES ON THIS PAGE HSMITH

11/5/13

1805 Assuming WCRRF Operations Center. CA

1820 SOS starting Pre-Job with turnover from day shift. Also discussed similar response to situation that happened today, as well as brieted to new IWD.

1844 Pre-Job complete.

2326 Bagging off 1st daughter, bagging on a 2nd.

2337 Bag off/on complete.

0140 Turning over Operations Center to Jose Jerez. CA

0140 Assuming OCO position, completed turnover with Clayton Mullins. Jim Fry

0145 Operator reporting that during inspecting the drum lift he noticed that it was leaking. SOM was notified and he is going to the highlay to identify the leak.

0200 SOM reporting that it is leaking and it is coming from a seal from inside of the hydraulic motor. a Caution tag has been generated and placed on the Roto Grip

0235 Starting outside rounds.

0300 Completed outside rounds.

040 Bagging off Parent and one daughter, Bagging on 5822952

0428 Bag on Bag off Complete.

0436 Starting Inside rounds.

0455 Inside rounds complete.

0535 Inside and outside rounds reviewed and signed by SOS Operators performing housekeeping duties per SOM inside and outside of the facility.

0555 Securing OCO position for the evening. Turning over to H. Smith. Jim Fry

11-6-13

No further entries on this page.

WCRR DAYSHIFT 11-5-13

0630 ASSUMED SOM WATCH FOR 11-5-13.
0640 MORNING CALL IN.
1030 BAG OFF/BAG ON 5823127.
1108 WORKERS CALLED A PAUSE BECAUSE OF A WORKERS HAND GOING NUMB WHILE NUETRALIZING A HALF GALLON OF A LIQUID WITH A PH OF 11.
1115 LEFT MESSAGE WITH FOD OVER T1108 ENTRY
1117 REPORTED T1108 TO PROGRAM MANAGER.
1125 DIRECT CONTACT TO FOD. T1108 ENTRY
1200 TUESDAY ROUNDUP/DAILY CALL IN.
1216 SENDING T1108 TO OCCMED FOR DOCUMENTING.
1224 TURN SOM DUTIES OVER TO J. GUADAGNOLI.
1224 Assumed the SOM Duties at WCRRF
1325 Operator returned from OCCMed and it was identified they he can return to work and there were no restrictions.
1341 An operator, RCT, and ES/IH entered the facility and inspected the glovebox glove station Left hand. All surveys were NDA and the glove was noted acceptable no degradation. Upon discussion with ES/IH the employees hand ~~[illegible]~~ gloved came in contact with the solution Black/Brown liquid dripping from the edge of the drum when he felt the difference in temperature. Drum #5823127
1405 Conducted follow up with machine shop to status operations on steel plates. the shop noted arrival of material at SM-30 and should be able to work on the plates tomorrow.
1523 Conducted follow up on parts for the generator - The planner indicated parts were to be procured offsite and the package will include changing the air filter and performing a load test. Anticipated to be scheduled during our next maintenance day.
1535 Inside operators report bagging off and bagging on / daughter and continue to process.
1614 Bag off is noted completed
1733 Operators report bagging off another daughter and bagging on Parent 5864662
1802 Bag offs and bag ons noted completed.
1805 Initiated shift turnover check list
1807 Relieved of SOM duties by A. Axtell

No Further Entries this Page

11/5/13 Night Shift

1807 Reviewed shift turnover checklist, approved and posted Night shift operations watchbill. Assumed WCRR SOM position.
1845 Pre job brief conducted by SOS completed. IH safety topic was related to day shift operator experiencing numbness on hand when liquid came in contact w/ gloves. Stressed importance of pausing work and notifying management/IH/safety for evaluation. IH also briefed workers to new IWD covering Decontamination. Briefed workers to active shift orders for Manual Drum Movements and Precautions to prevent bag tears. Covered current status of parent drum on WCG. Stressed being aware when "zoning out" and working on auto-pilot. Keep communicating with one another when on WCG to ensure everyone is engaged and on same page.
1915 Released by signature IWD # 2013-002 Decon activities outside the WCG and within the Transportainers. OCO updating the master IWD index.
2200 Operator reporting that drum in process proving to be difficult Drum contents is packed tightly and hardened - like being frozen.
2337 Completed bag off of first ~~drum~~ daughter 11/5/13 daughter. Continuing to process.
11/6/13 0015 Operators breaking for lunch.
0115 Resuming operations.
0145 Notified by OCO that the Roto Grip used in 50-69 is reported to have a hydraulic leak. Entering 50-69 at high bay to investigate.
0200 Roto Grip is determined to be leaking at the hydraulic motor that rotates drums. Leak is small - leaving a quarter size drop on the floor. When operator wiped the area dry, fluid was visible again as a drop within a minute. Taking the Roto Grip out of service w/ Caution tag and submitting an FSR. Movement of drums on and off platform scale will take place using fork lift.
0428 Completed all bag offs for parent # 5864662 (2 daughters total) Bagged on 5822952.

Continued next page →

11/5/13 Night shift continued

11/6/13 0445 SOS informed that empty 85 containing ~~old~~ UNLS processed parent drum cannot be placed onto scale w/ forklift due to no drum grabber for 85's inside 50-69. Inventory control has in the past assigned standard tare weight of 150 lbs to nested drums.

0541 Reviewed AM round sheets

11/6/13 0603 Relieved by J. Guadagnoli as CWCRL SOM.

No further entries this page RLG

WCRR SOS Log Book

11/05/13

0600 0600 Assuming SOS position for the day. Conducted turn over with the off going SOS Jose Jerez DXB

0615 0615 Started Pre job brief with off going shift. Parent bagged on with 30% remaining. Safety talk about over tightening bands, glove box ergonomics, split the kitty litter in half to ~ 20 lbs. Staying focused with task at hand.

0802 0802 Bagging off/on 1 daughter

0922 0922 Begin move into IA-50-69.

0952 Bagging off 1 daughter and Bagging on S 823127

1027 Bag on/off and movement completed.

1045 Move out of 50-69.

1047 ~~Tech 15~~ DXB 11-5-13 Minor Condition: Tech ~~15~~ 14 DXB 11-5-13 reported that he was neutralizing a liquid from drum # S 823127. He had some liquid run across his left knuckle area. He felt a tingling sensation and then his hand got cold. The liquid was not the normal color of yellow/green it was a coffee color. All work was paused and the drum was put into a safe configuration. All workers exited the building. RCT's surveyed the area and found no gross contamination. Management was notified. along with IH Tech 15 was sent to OC Med just to document the incident per Robert Allred.

1300 Tech 15, IH and RCT entering 50-69 to inspect gloves on station 1 to ensure gloves were not breached. Everyone was briefed to know and what to look for while inspecting the glove. Use the right hand glove, do not stick hand on left side. Have RCT monitor for any contamination

1325 Tech 14 returns from OC med with no restrictions. Needs to report back to OC Med 11/06/13 @ 0700 for a recheck.

1327 Tech 15 reports that after glove inspection completed no degradation of Hex Armour glove or glove box glove. Both gloves not breeched. RCT reports no contamination found in glove.

1400 Crew briefed about the pause work situation and returning to work. Will continue to process drum # S823127.

1540 Signed off inside/outside rounds

1555 Bag on/bag off 1 daughter and continue to process.

1614 Bag on/off completed.

1733 Bag off daughter. Bag on S 864662.

1810 Secured SOS Position for the day. Turning over to Jose Jerez. DXB

No further entries on this page. DXB

PROJECT NAME WCRR 505 Log Book NOTEBOOK NO.

11/5/13

1800-0600 Assuming 505 position for the evening. [illegible]

1810 Performing turnover with off going 5th Daniel Blaine

1815 Starting Pre-Job Operators from Day crew giving turn-over, Fresh Parent on the box and two daughter, one daughter has a bag that split and needs to be replaced. Discussed incident with operator that felt a COLD sensation on his hand while processing. It was contacted and was determined that it was phase. Discussed with operators that the appropriate thing is to stop work if it happens again and notify the appropriate personnel so it can be discussed. Also discussed wearing proper clothing for the weather. Have three operators in training will be shorthanded, enough people to make a watchbill.

1845 Concluded Pre-Job brief

1910 Operators headed to the back to start processing 5864602

2100 Operators reporting that material in the parent drum is completely solid and they are having a hard time chipping away at it, one operator believes that the material may be frozen, hard to tell

2226 Bagging off one daughter, bagging on second daughter.

2251 Bag on Bag off complete.

0015 Operators breaking for lunch

0115 Operator returning from lunch.

minor issue 0145 Operator reporting that the drum handler has a hydraulic leak SOM is going out to the high bay to look at it to make determination.

0200 SOM reporting that hydraulic leak is coming from a seal inside of the hydraulic motor. A Caution tag has been generated and placed on the Roto Grip.

0410 Bagging off Parent and one daughter, Bagging on 5822952

11/9 0428 Bag on Bag off complete

0535 Reviewed and signed off on the rounds. Per instruction from the SOM the parent that was bagged on was not opened. All operators to perform housekeeping inside and outside, ensuring all PPE is stocked along with supplies for the next crew.

11/6/13 0615 Securing 505 position. [illegible]

Do further entries on this page

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

CCP Radiography Data Sheet

58641662

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68608
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 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.: 167.0 kg Tare Wt.: 33.4 kg Net Wt.: 133.6 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:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68608

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):	8.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	125.1
Soils (S):	
Total WMP Weight:	133.6

CCP Radiography Data Sheet

Waste Container ID: 68608

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		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68608	Count Sequence Number:	23851
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 10:47:28 AM		
Description 1:	1LANDA1866		
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: 134.0 kg	Net:	134.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.760 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:	23851	Batch Number:	1LANDA1866
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:	68608	Analysis Date:	11/15/2013

Net Weight	134000.0 g		
Pu mass	1.96E+001	+- 8.62E+000	g
TRU Alpha Activity	9.56E+000	+- 5.64E+000	Ci
TRU Activity Concentration	7.14E+004	+- 4.21E+004	nCi/g
Pu-239 Equivalent Activity	9.61E+000	+- 5.64E+000	Ci
Pu-239 FGE	1.85E+001	+- 8.60E+000	g
Decay heat	3.15E-001	+- 1.87E-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	1.11E-006
U233	<LLD	<LLD	0.00E+000	9.90E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.70E-006
NP237	1.33E-001	9.37E-005	1.83E-005	4.54E-006
PU238	1.79E-003	3.06E-002	1.50E-002	1.26E-003
U238	<LLD	<LLD	0.00E+000	2.31E-005
PU239	1.84E+001	1.14E+000	5.33E-001	4.69E-002
PU240	1.20E+000	2.72E-001	1.33E-001	1.12E-002
AM241	2.37E+000	8.12E+000	5.62E+000	2.13E-001
PU241	2.25E-002	2.32E+000	1.13E+000	9.53E-002
PU242	3.93E-003	1.55E-005	7.58E-006	0.00E+000
AM243	3.35E-003	6.70E-004	1.32E-004	1.39E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23851 Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68608
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

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-52,53.
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 Chamber Date: 11-19-13

Waste Container ID: **68608**

BDR Number: **LA13FG2120**

Sampling Date: **11/25/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	657.65	
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 : 68608.D
Acq On : 25 Nov 2013 1:29 pm (#1); 25-Nov-13, 13:28:37 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 13:37:28 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	3.584	96	4235910	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.881	117	3355071	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.624	GC1	4945m	657.65	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-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68614
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 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.: 137.0 kg Tare Wt.: 33.4 kg Net Wt.: 103.6 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 68614

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):	35.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	62.6
Soils (S):	
Total WMP Weight:	103.6

CCP Radiography Data Sheet

Waste Container ID: 68614

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		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68614	Count Sequence Number:	23858
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 3:42:03 PM		
Description 1:	1LANDA1866		
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: 104.0 kg	Net:	104.0 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.830 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: 23858
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68614

Batch Number: 1LANDA1866
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 11/15/2013

Net Weight	104000.0 g	
Pu mass	1.81E+001 +-	9.78E+000 g
TRU Alpha Activity	1.15E+001 +-	7.06E+000 Ci
TRU Activity Concentration	1.10E+005 +-	6.78E+004 nCi/g
Pu-239 Equivalent Activity	1.15E+001 +-	7.06E+000 Ci
Pu-239 FGE	1.71E+001 +-	9.76E+000 g
Decay heat	3.78E-001 +-	2.34E-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	9.48E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.57E-006
NP237	1.54E-001	1.09E-004	2.23E-005	4.11E-006
PU238	1.65E-003	2.82E-002	1.68E-002	1.18E-003
U238	<LLD	<LLD	0.00E+000	2.45E-005
PU239	1.69E+001	1.05E+000	6.05E-001	4.38E-002
PU240	1.11E+000	2.51E-001	1.49E-001	1.05E-002
AM241	2.95E+000	1.01E+001	7.03E+000	1.85E-001
PU241	2.07E-002	2.13E+000	1.27E+000	8.90E-002
PU242	3.62E-003	1.43E-005	8.48E-006	0.00E+000
AM243	3.87E-003	7.74E-004	1.60E-004	1.25E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23858 Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68614
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

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 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-52,53.
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: 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: **68614**

BDR Number: **LA13FG2119**

Sampling Date: **11/22/2013**

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\131122c\
Data File : 68614.D
Acq On : 22 Nov 2013 12:40 pm (#1); 22-Nov-13, 12:39:40 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 12:48:05 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	4226407	205.75 ppmv	0.02
15) Chlorobenzene-d5	5.848	117	3353023	177.50 ppmv	-0.01

Target Compounds	Qvalue

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

S864663

S864663

Container 754053

File Options Reports Help

S864663

754053	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

S864663

- S864663
  - LA00000068679
    - LASB50102
  - LA00000069008 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

Working Copy
Date: 11-20-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5864663

6.2[4] Date Processed: 11/20/13

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: Jose Jerez / [signature] / 221452 / 11/20/13
Waste Handling Tech (print) / Signature / Z # / Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S864663

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 4238 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) 506.8 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.: S864663

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68679			
10.1[4]	Daughter Drum Filter No.	LM-897		N	
10.1[4]	Daughter Drum Bag Filter No.	L-10034		A	
10.1[4]	Daughter Drum Purchase Order No.	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			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#)				
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		
10.3[5][A]	Free Liquid Volume/Units	4 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead shielding	A		
10.3[9][A]	PCB-contaminated Waste Description	N 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	Kitty Litter Plastic Hit Armor			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S864663

Comments: Nitrate salts, poly lid, Kitty litter, stub outs, plastics, Hex Armor, and lead shielding

11.1[1] Performed By: Edward Martinez, [signature] 1239911 11-21-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Jerez, [signature] 221432, 11/22/13 0156
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11-21-13

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: 12

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.: 019
Serial No.: EK-1114
Manufacture Date: 5/10

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☒ Yes (N/A) ☒ No (N/A)

5. [11] Performed By: Edward Mtz [signature] 1239941 11-21-13
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: Was not prepped at TA-50

8.1[1] Performed By: Edward Mtz [signature] 1239941 11-21-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Jever [signature] 1224452 11/22/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-21-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69000

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 036245
Cal. Expiration Date: 08/05/2014
Range in ft-lb: 16-80
Tolerance: +/-3% CW and +/-6% CCW

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

Performed By: Edward Martinez 1239911 11-21-13
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): 171.8 lb

Comments: N/C

8.1[1] Performed By: Edward Martinez 1239911 11-21-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Perez 1221452 11/22/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68679

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.: 6CPUC1.5-2 SPUC
Serial No.: L-10034
Manufacture Date: 5/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	076245
Cal. Expiration Date:	12-18-13	8-05-14
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: Brian Gallegos / Brian Gallegos / Brian Gallegos — 267129 11-18-13 / 1287544 11/18/13
Operator (print) / Signature / Z# / Date

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 019DS
Serial No.: LM-897
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.: 68679

Comments: N/C

5.[35] Performed By: Brian Gallegos / Brian Gallegos / 267129 / 11-18-13
Brian Cordova / [signature] / 1287544 / 11/18/13
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Jose Joyce / [signature] / R214321 / 11/22/13
Supervisor or designee (print) / Signature / Z # / Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68679

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

M&TE No.: 036245
Cal. Expiration Date: 08/05/2014
Range: 16-80 ft-lb
Tolerance (+/-): +/-3% cw and +/-6% ccw

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

Performed By: Edward Martinez [signature] 1234911 11-21-13
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-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: N/A
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.: 68679

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 506.6 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: Edward Martinez (Operator (print)) [signature] (Signature) 1239911 (Z #) 11-21-13 (Date)

7.1[4] Reviewed By: Jose Jerez (Supervisor or designee (print)) [signature] (Signature) 12214521 (Z #) 11/21/13 (Date)

Working Copy
Date: 11-21-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S864663

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): 423.8

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 Martinez / [signature] / 1239941A / 11-21-13
Waste Handling Technician (print) / Signature / Z # / Date

8.1[7] Reviewed By: Jose Jerez / [signature] / 1224521 / 11/22/13
Supervisor or designee (print) / Signature / Z # / Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Randy Axtell / [signature] / 1109185 / 11/22/13 / 0158
SOS/SOM or designee (print) / Signature / Z # / Date / Time

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

pr 2d SP12

Production Control

Container ID: S864663 Container Type: 55-GAL Gross Weight (lbs): 429

Inner Seal #: 023160 Filter Prefix: LAVC Filter Serial #: 05759

WDR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST 12 RM#434 A02038

Total PE-Ci Activity: 3.32E+00 Equivalent Combustible PE-Ci: 1.25E+00 AM-241 PE-Ci: 2.81E-01

Total Fissile Gram Equivalents: 35.8 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D007; D008; D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 6/1/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured 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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Susan J. Ramsey / 100681 / 12/20/12
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. 369# Generator info shows 9 items of nitrate salts, weighing 22-37# each. No RTR BDR. Nitrate salts typically packaged in plastic bags; other debris may be present. RTR PS shows prohibited liquids + unpunctured liner. No chemicals identified; nitrate salts carry waste codes for chromium, lead, + mercury. Nitrate salts require repack w/ admixture

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/17/13
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 hexarmaure gloves during processing.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: USE Rocan PPE And Kitty Litter Ratio

Performed By: G Mk / G Mk / 144935 / 6/20/13
TRU Remediation Operations (Print) Signature Z Number Date

Jose Jerez / Jose Jerez / 221452 / 6/22/13

145 Review Johnny Anderland CSP, may contain Pb, Hg + Cr No other concerns 1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 023160

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	10DS2W1		11.890	NITRATE SALTS	R00	4.82	53	9/13	G468	
2	10LR3E1		13.390	NITRATE SALTS	R00	4.59	52	9/13	G468	
3	10LR3W1		9.810	NITRATE SALTS	R00	1.32	52	9/13	G468	
4	10EV7E1		11.020	NITRATE SALTS	R00	2.4	52	9/13	G468	
5	10OX9W1		16.490	NITRATE SALTS	R00	10.63	52	9/13	G468	
6	10OX8E1		15.270	NITRATE SALTS	R00	4.58	52	9/13	G468	
7	10LR9E1		14.670	NITRATE SALTS	R00	2.4	52	9/13	G468	
8	10LR8W1		10.220	NITRATE SALTS	R00	1.11	52	9/13	G468	
9	10LR8E1		12.830	NITRATE SALTS	R00	6.35	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 194.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	33.38	103.70
53	4.82	11.89
Totals	38.2	115.59

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])	5864663					
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])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1531.78 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 : S864663.D
Acq On : 28 May 2013 12:36 pm (#1); 28-May-13, 12:35:28 (#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 12:44:43 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	3.575	96	4161034	201.25	ppmv	0.00
15)	Chlorobenzene-d5	5.907	117	3551040	177.00	ppmv	0.00
Target Compounds							Qvalue
1)	Hydrogen	1.606	GC1	10887	1531.78	ppmv	100

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

vocgas.m Tue May 28 12:45:35 2013

11-20-13

1801 Assuming WCER operations center. KCleman
1817 Turnover with day shift being conducted.
1822 Pre-job being conducted by SBS.
1845 ~~1832~~ Pre-job concluded.
1930 Operators entering 5069 to resume operations on drum S863789.
2003 Tech 38 notified ops center that the lights inside 5069 flickered. He states everything appears to be running normally and no alarms are sounding. SOS, SOM notified.
2138 Bagging off 1 daughter, bagging on another daughter.
2150 Bag off/on complete.
2328 Bagging off 1 daughter, bagging on S864663.
11-21-13 0000 Bag off/on complete.
0015 Beginning outside rounds. Operators out for lunch.
0041 Outside rounds complete.
0116 Operators back from lunch.
unexpected condition 0139 Notified by RCT that he is calling a pause and having the operators pull out of the box due to the CAM manager being frozen. SOS, SOM notified. RCT trying to call the on call RC
0145 RCT states that the screen for the CAM manager has gone completely blank. He has instructed the operators to perform a controlled exit. SOS, SOM notified. Everything is in a safe configuration.
0200 RCT's have been instructed by the on call RCT to unplug the CAM manager and plug it back in to see if it will reset.
0201 RCT's entering 5069 high bay to unplug/plug the CAM manager
0206 RCT states the CAM manager appears to be working again and will wait one count cycle to be sure.
0211 RCT's instructed by on call RCT to let the CAM manager run two full cycles.
0245 Operators entering 5069 to resume operations on S864663.
0335 Beginning a drum movement from 5069 to a transportainer and transportainer to 5069.
0416 Both drum movements complete.
0426 Beginning inside rounds.
0438 Tech #63 is OOS, okay to proceed per CSE documentation.
Continued on next page KCleman

11-21-13 Continued from next page. Coleman
0442 Inside rounds complete.
0458 Both rounds reviewed by SOS.
0523 Bagging off 1 daughter.
0550 Bag off complete. Port cover on parent port. Operators have cleared the WCG.
0556 Air quality has arrived to perform the weekly stack monitoring.
11-21-13 0605 Being relieved by OCO Clarissa Velarde - Coleman

No further entries this page

11/20/13 Night Shift

1815 Reviewed shift turnover checklist, approved and posted Night shift operations watchbill and assumed WCRR SOM position.

1847 Prejob brief conducted by SOS (C. Mullins) was completed IH safety topic was todays injury at the transportainer - giving greater attention to path of travel and inclement weather moving in. RP-1 had thorough discussion on recent contamination events - covered corrective actions from todays meeting ie: glove surveys, painting of floor, manufacture of new drip pan, WCG maintenance etc. Briefed the active shift orders for manual drum movements and preventing bag tears.

2003 Notified by OCO that a minor flicker of lighting occured in 50-69. Operators inside reported no disruption of ventilation system. All systems/instruments operating normally.

2150 Completed bag off of 1 daughter - continuing to process.

11/21/13 0000 Completed all bag offs for parent # 5863789 (2 daughters total) bagged on parent # 5864643.

0015 Operators breaking for lunch

0114 Resuming operations.

0139 Notified by OCO that the CAM manager is reported to be frozen. Suspending operations while RP-1 investigates.

0145 RP-1 reported that the CAM manager went completly blank - Operators performing a controlled exit from room 102, parent drum was placed in safe configuration. RCT's are troubleshooting and contacting on call supervision.

0206 Per RP-1 supervision the CAM manager was unplugged and plugged back into power receptacle for reset. It appears to be working normal. Noted that the CAM manager that went down was the one for CAMs A-1 thru ~~8~~ 11/21/13 A-6. No issues with the other CAM managers.

0211 Per RP-1 supervision will have CAMs run through 2 cycles to ensure working properly prior to resuming operations.

0245 Resuming operations.

0416 Operators completed movements of drums between 50-69 and transportainers - both ways. 4 drums out of 50-69 and

cont. next page →

11/20/13 Night Shift continued

11/21/13 0414 2 drums moved into 50-69 for processing

0507 Completed review of AM round sheets.

0510 Reviewed compliance tracking worksheet and ensured status board updated.

0550 Operators completed all bagoffs for parent #5864663 (1 Dumpster total). Operators are cleaning inside of glovebox and leaving WCG in safe configuration without drum bagged on due to morning all hands meeting.

11/21/13 0611 Relieved by J. Guadagnoli as SOM.

No further entries this page

RJ

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

11/20/13

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief report over status of Glove box Also went over PPE's and Job Posting. Operators will need to bag off that Decon catch Pan. date contamination Found. This must be done prior to bagging on Another Drum.

0700 Shift brief Concluded.

0751 Started shipment out of were.

0820 Bagging off 5891279 and will be putting on port cover to clean catch pan.

0835 Vehicle leaves Site finished Shipment complete

0905 Bag off Complete starting Decon

0935 Decon complete Bagging on 5811692

1200 Bagging off 5811692 will Depart after lunch.

1225 Bag off Complete

1245 Operators Exiting for lunch

1345 Operators resuming operations.

1416 Starting Movement Job SO-69

1500 Started Loads Movement to Complete

1512 notified by operator outside while stepping out of Transfer Building he twisted his Knee

1515 entering EOS-0309 was notified Technical Taken to TK and Called Work Care.

1522 EMT notified of Knee Injury.

1537 work care was notified Medic to place Ice on Knee

1545 starting to Remove 7 drums and bag on 5863784

1601 Operator Moved to Fan every 15 min Rest hour Elevated take Temperature

1606 Entry EOS-0309

1610 Reviewed Inside and outside Rounds.

1655 Demobing and bag on Complete

Relieved by Clayton Walker

No further entries on this page

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

11/20/13

1810 Assuming SOS position. CA

1822 Starting Pre-Job with turnover from day shift. Also discussed watch where you walk, especially at night with the weather getting colder.

1845 Pre-Job complete.

2003 Tech. 38 notifies that lights inside SO-69 flickered, everything appears to be normal.

2136 Bagging off 1st daughter, bagging on a 2nd.

2150 Bag off/on complete.

2328 Bagging off 2nd daughter, bagging on 5864663.

0001 Bag off/on complete.

0012 Turning over SOS position to Jose Jerez. CA

0015 Assuming SOS position for the remainder of shift Jose Jerez

Operators breaking for lunch.

0115 Operators returning from lunch and will start to process 5864663.

0130 Reviewed and signed outside rounds.

0140 RCT's reporting that the CAM manager in the Lighting is Frozen, Operators pausing work. RCT contacting on-call personnel for assistance

0145 RCT unable to get intouch with anyone, checked the CAM manager again and system is completely down, RCT asking all operators to come out of SO-69.

0205 CAM manager up and running, RCT's let the CAM's run through a couple of cycles to ensure that the system is working properly. Operators headed into the facility to resume operations.

0428 Reviewed and signed inside rounds.

0524 Bagging off 1 daughter and Present not bagging anything on due to not knowing if day crew will be changing under to WARN for attendance to all hands meeting being held. Leaving the facility in a safe configuration until further guidance given.

0550 Bag off complete. Facility in a safe configuration.

0615 Securing SOS position for the day and turning over to Gilbert Martinez. Jose Jerez

No further entries on this page.

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-RTR2-13-0133
Examination Date:	12/4/2013
Waste Container ID:	68679
Video/Audio Recorded Media Number:	LA-RTR2-13-0133 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.: 229.5 kg Tare Wt.: 33.4 kg Net Wt.: 196.1 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:	100 %

CCP Radiography Data Sheet

Waste Container ID: 68679

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):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	187.1
Soils (S):	
Total WMP Weight:	196.1

CCP Radiography Data Sheet

Waste Container ID: 68679

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:

Print Name	Signature	Date
Benito Maestas		12/4/2013

58641663

NDA 2000 Assay Report

Item Information

Item ID:	68679	Count Sequence Number:	23945
Operator:	D3PW2DK1\operator		
Assay Start:	12/6/2013 8:50:05 AM		
Description 1:	1LANDA1874		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 196.0 kg	Net:	196.0 kg
Container:	Volume: 208.0 l	Full:	100.0 %
Density:	0.940 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:	23945	Batch Number:	1LANDA1874
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:	68679	Analysis Date:	12/6/2013

Net Weight	196000.0 g		
Pu mass	4.06E+001	+-	8.49E+000 g
TRU Alpha Activity	1.82E+001	+-	3.30E+000 Ci
TRU Activity Concentration	9.30E+004	+-	1.68E+004 nCi/g
Pu-239 Equivalent Activity	1.84E+001	+-	3.30E+000 Ci
Pu-239 FGE	3.57E+001	+-	8.39E+000 g
Decay heat	5.99E-001	+-	1.10E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	3.55E-008	4.90E-006	2.84E-006	0.00E+000
CS137	5.64E-008	4.90E-006	2.84E-006	1.53E-006
U233	<LLD	<LLD	0.00E+000	1.37E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.00E-006
NP237	2.33E-001	1.64E-004	3.62E-005	6.47E-006
PU238	1.32E-002	2.25E-001	1.36E-001	6.73E-003
U238	<LLD	<LLD	0.00E+000	3.36E-005
PU239	3.52E+001	2.18E+000	5.20E-001	6.53E-002
PU240	5.14E+000	1.17E+000	2.93E-001	3.49E-002
AM241	4.27E+000	1.47E+001	3.24E+000	1.41E-001
PU241	1.11E-001	1.14E+001	2.76E+000	3.42E-001
PU242	1.24E-001	4.92E-004	1.83E-004	0.00E+000
AM243	6.02E-003	1.20E-003	2.68E-004	1.91E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 12·11·13

ITR: _____ Date: 12·11·13

Automated Independent Technical Review

Count Sequence Number: 23945
Batch Number: 1LANDA1874
Counter ID: MCS HENC #1
Container ID: 68679
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 12/6/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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. FRAM results applied. FRAM results attached.
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 Chamberlain Date: 12-10-13

Waste Container ID: **68679**

BDR Number: **LA13FG2128**

Sampling Date: **12/13/2013**

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\131213c\
Data File : 68679.D
Acq On : 13 Dec 2013 12:52 pm (#1); 13-Dec-13, 12:52:13 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 13 13:00:36 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	3.587	96	3838143	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.891	117	3016336	177.50	ppmv	0.03

Target Compounds	Qvalue

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

20

~~21~~

12-13-13 SM

S864694

S864694

Container 754291

File Options Reports Help

S864694

754291	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

S864694

- S864694
  - LA00000068738
    - LA00000069139 EMPTY
    - LA00000068681 – LANL
      - LASB50058
    - LA00000069061 LWCS
      - LASB50035
  - W798074 – EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.001	%			

ATTACHMENT 1
Page 1 of 4

Working Copy
Date: 12/15/13 1745

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 608738

6.2[4] Date Processed: 12-15-13

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, D005, 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] (S) 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] (S) 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] (S) 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: Federico Arbolida / [signature] 1228824 / 12-15-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 685738

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 403.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 403.6 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.: 608738

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68681	69061		
10.1[4]	Daughter Drum Filter No.	LM-883	JL-862	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-10099	L-11528		
10.1[4]	Daughter Drum Purchase Order No.	501578	501892		
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	4 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding		N/A	
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	See comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	90%	70%	N/A	
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.: 608738

Comments: Plastic, Room trash, Nitrate Salts 4 gallons PH-0 liquid neutralized, plastic poly liner lid, lead shielding, 1 Drum Ring,

11.1[1] Performed By: Frederick Billah 1 [signature] 1225824 1/2-15-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Darrel L. Blain 1 [signature] 1218069 1/2/15/13 1221
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 12/15/13 HS

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 at WCRRF

8.1[1] Performed By: Fredrico Abalos / [signature] 1228824 / 12-15-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: David L. Blain / [signature] 218069 / 12-15-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-14-13a

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69139

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: Frederico [illegible] / [illegible] 1228826 / 12-15-13
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): 165.2 lb

Comments: N/C

8.1[1] Performed By: Frederico [illegible] / [illegible] 1228826 / 12-15-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [illegible] 1218069 / 12-15-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68681

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.: 6CPVC1.5-2 SPVC
Serial No.: L-10099
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	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: Brian Gallegos / Brian Gallegos / 207129 / 11-18-13
Brian Cordova / [signature] / 1285441 / 11/18/13
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: NUCFil
Model No.: 019DS
Serial No.: LM-883
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.: 68681

Comments: N/C

5.[35]	Performed By:	Brian Gallegos Brian Cordova Operator (print)	Brian Gallegos Signature	247129 1283544	11-18-13 11/18/13 Z # Date
7.1[4]	Reviewed By:	Darrel L. Blain Supervisor or designee (print)	Signature	1218069	12/15/13 Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68681

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

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
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: Frederick Ashleta / [signature] / 1228526 / 12-15-13
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-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: Frederick Ashleta / [signature] / / /
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.: 68681

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: Frederico Rebolledo (Operator (print)) [signature] (Signature) 1228026 (Z #) 12-15-13 (Date)

7.1[4] Reviewed By: Darrel L. Blain (Supervisor or designee (print)) [signature] (Signature) 1218069 (Z #) 12/15/13 (Date)

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 12/13/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69061

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 5C 12-18-13 ~~3cpvc-1.5-23pvc~~ 6cpvc-1.5-25pvc
Serial No.: L-11528
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:	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: Justin Cofer / [signature] 066481 12-13-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 0190S
Serial No.: JL-862
Manufacture Date: 10-11

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.: 69061

Comments: N/C

5.[35] Performed By: Federico Arbolita / [signature] 1228826 / 12/15/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrell L. Blain / [signature] 1218069 / 12/15/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 690061

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

M&TE No.: 038569
Cal. Expiration Date: 12-18-13
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: Federico Arbulata / [signature] 12288261 12-15-13
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-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: Federico Arbulata / [signature] 12288261 12-15-13
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.: 69061

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 256.0 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: Federico Hernandez (Operator (print)) [signature] (Signature) 12288261 (Z #) 12-15-13 (Date)

7.1[4] Reviewed By: Darrel L. Blain (Supervisor or designee (print)) [signature] (Signature) 12180691 (Z #) 12-15-13 (Date)

Working Copy
Date: 12-14-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68738

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): 403.6

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: Frederick Ashley / [signature] 1228826 / 12-14-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [signature] 1218069 / 12-15-13
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Clayton Mallie / [signature] 240094 / 1/23/14 / 1529
~~Darrel L. Blain / [signature] 1218069 / 12/15/13 / 1226~~ cm 1-23-14
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum 1924 / SP72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container re-labeled & given new number @ WCATS. B. Bonillo 11/20/13

Container ID: S864694 \ 68738 Container Type: 85-GAL Gross Weight (lbs): 409

Inner Seal #: 023173 Filter Prefix: LAVC Filter Serial #: 01928; 04849

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST 12 A02033

Total PE-Ci Activity: 8.80E+00 Equivalent Combustible PE-Ci: 3.30E+00 AM-241 PE-Ci: 7.14E-01

Total Fissile Gram Equivalents: 97.2 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): [redacted] D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 7/21/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured 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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / [signature] / 100681 / 11/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering Put in compliant 85 gal in 412/224 to ship to WCCR. new number assigned

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: 349#, Generator info shows 11 items of nitrate salts, with weights ranging from 1P-43#. No RTR BDR. RTR PS shows prohibited liquids, impenetrable item(s), + unpunctured liner. Nitrate salts typically packaged in plastic bags, debris, for undocumented liquids often present. Applicable waste codes are chromium, lead, + mercury. Repack w/ admixture required.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/7/13
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: USE Proper PPE And Kitty Litter Ratio

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Do not push or press on waste with hands. Use heavy duty gloves during processing.

Performed By: Gilbert Martinez / [signature] / 1149235 / 11/13/13
TRU Remediation Operations (Print) Signature Z Number Date

Darrel L. Blain / [signature] / 218069 / 11/14/13
Jose Juarez / [signature] / 221452 / 12/6/13

HS REVIEW: RS 226362 11.27.12 NOTES: D007 = Chromium
D008 = LEAD

Noncertified TRU Waste Drum Item Information

DrumID: 023173

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	10LR8W2		8.120	NITRATE SALT	R00	0.85	52	9/13	G468	
2	100X16W1		19.590	NITRATE SALTS	R00	17.37	52	9/13	G468	
3	10LR14W1		13.850	NITRATE SALTS	R00	15.78	52	9/13	G468	
4	10LR15E2		6.010	NITRATE SALTS	R00	1.42	52	9/13	G468	
5	10LR22W1		12.710	NITRATE SALTS	R00	6.67	52	9/13	G468	
6	10DS24W1		6.480	NITRATE SALTS	R00	3.68	52	9/13	G468	
7	10LR23E1		8.560	NITRATE SALTS	R00	2.02	52	9/13	G468	
8	100X24E1		4.840	NITRATE SALTS	R00	7.88	52	9/13	G468	
9	10T127W1		5.450	NITRATE SALTS	R00	14.22	52	9/13	G468	
10	100X28W1		13.620	NITRATE SALTS	R00	17.84	52	9/13	G468	
11	10LR30W1		9.600	NITRATE SALTS	R00	15.55	52	9/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 185.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	103.28	108.83
Totals	103.28	108.83

5872

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 11/26/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	Sara Aragon	1237975	11-31-11
	/	/	/

Container No. (7.[1]):	5824181	5857532	5864694
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	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	9.45		
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]):	9.45	Ø	Ø

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	5824181	5858532	5864194
Hydrogen Reading (ppm) (7.[10]):	518.65 ppm	145.32 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	9.45 ppm	Ø ppm	Ø 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:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera, [signature] 198450, 1/31/11
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 111788 1-31-11
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110126c\
Data File : S864694.D
Acq On : 26 Jan 2011 2:17 pm (#1); 26-Jan-11, 14:16:58 (#2)
Operator : EL
Sample :
Misc : 55 GAL LFL DRUM FROM 85 GAL OVERPACK
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 26 14:27:17 2011
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jan 10 10:28:07 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.665	96	9880385	205.50 ppmv	0.03
15) Chlorobenzene-d5	5.997	117	7768258	182.75 ppmv	0.04

Target Compounds	Qvalue

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

vocgas.m Wed Jan 26 14:38:34 2011

12-15-13

0550 ASSUMING WCRR OPS CENTER POSITION H SMITH
0550 STARTING OUT SIDE ROUNDS
0606 OUTSIDE ROUND COMPLETED
0610 STARTING PRE-JOB BRIEFING
0614 STARTING INSIDE ROUNDS
0628 ITEM #63 INSIDE ROUNDS OOS, POD IN PLACE, PERMISSION TO PROCEED PER CSE DOCUMENTATION
0640 ~~0t~~ 0445 12/15/13 INSIDE ROUNDS COMPLETED.
0656 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SDS
0736 BAGGING ON 68738
0747 BAG ON COMPLETED
0751 OPERATORS NOTIFIED OPS CENTER CAMS ELEVATED AFTER BAG ON, RCT'S CHECKING AND WILL NOTIFY
0753 OPERATORS NOTIFIED OPS. CENTER, RCT STATES CAM A LITTLE ELEVATED, BACK TO NORMAL RANGE AND RELENSE ROOM FOR PROCESSING. CONTINUING TO PROCESS
0858 BAGGING OFF - BAGGING ON 1 DAUGHTER
0913 BAG ON COMPLETED
0958 BEGIN DENESTING 4 DRUMS
1014 OPERATORS CALLED OUT WHILE DENESTING S842526 FOUND HOLES IN LID. THEY FILLED HOLES WITH SILICONE AND TAPED, ALSO TOOK PICTURES AND CONTINUED DENESTING.
1105 RCT'S NOTIFIED OPS. CENTER CAMS ALARM ~~[illegible]~~ 12/15/13 HS LOW FLOW ALARM, WILL NEED TO CHANGE FILTERS AND RESET AFTER DENESTING
1136 BAG ON, BAG OFF, DENESTING COMPLETED, BAGGED ~~ON~~ S842526
1146 LATE ENTRY: MODE CHANGE TO OPERATIONS IN WCRR YARD AND TA50-69 AT 0703 HS
1330 BAGGING OFF 1 DAUGHTER, 1 POC, BAGGING ON DAUGHTER
HS 1354 BAG ON-BAG OFF COMPLETED, CONTINUING TO PROCESS
1415 PERMISSION GRANTED TO BEGIN MOVEMENT INTO TA 50-69
1429 MOVEMENT INTO TA50-69 COMPLETED
1440 STARTING OUTSIDE ROUNDS
1451 BAGGING OFF BAGGING ON 67835
12/15/13 1452 CONTINUED IN NEW LOG BOOK H SMITH

12-15-13 CONTINUED FROM PREVIOUS LOGBOOK H SMITH
1459 COMPLETED OUTSIDE ROUNDS
1522 BAG OFF - BAG ON COMPLETED
1603 PERMISSION GRANTED TO MOVE WASTE FROM TA50-69 TO TA50-194
1604 OPERATORS NOTIFIED OPS CENTER BOX SMOULDERING AND TURNING ORANGE CLOUD, NOTIFYING I.H.
1608 ITEM # 63 INSIDE ROUNDS OOS. POD IN PLACE, PERMISSION TO PROCEED PER CSE DOCUMENTATION
1613 INSIDE ROUNDS COMPLETED
1622 MOVEMENT TO TA50-75 FROM TA50-69 IS COMPLETED 9 CONTAINERS MOVED FROM TA50-69.
1635 OPERATORS NOTIFIED OPS CENTER OF REACTION DUE TO
ABNORMAL EVENT FAST CHEMICAL CHANGE WHEN NUETRALIZER WAS ADDED IN THE BOX. OPERATORS ADDED MORE KITTY LITTER WHICH SLOWED THE PROCESS. IH IS OBSERVING AND HAS GIVEN PERMISSION TO CONTINUE PROCESSING.
1638 LATE ENTRY: OPERATORS NOTIFIED OPS CENTER OF 12-15-13 HS ~~SMOULDERING~~ SMOULDERING IN BOX DISCHARGING ORANGE CLOUD. NOTIFIED SOM & SOS AND IH, AT 1632. HS
1656 BAGGING OFF - BAGGING ON 1 DAUGHTER
1702 I-H INFORMED OPS. CENTER OF NO MORE REACTION TO LIQUID, AND WILL CONTINUE TO PROCESS.
1712 BAG ON, BAG OFF COMPLETE OF DAUGHTER
1713 INSIDE AND OUTSIDE ROUNDS REVIEW BY SOS
1732 BAGGING OFF 2ND DAUGHTER AND INSTALLING PORT COVER
1802 BAG OFF COMPLETE
1805 WCG RECEPTACLE HAS BEEN TURNED ON
1811 MODE CHANGE DECREASE TO WARM - WARM STANDBY
12-15-13 1830 END OF DAY, WCRR OPS CENTER SECURED H SMITH

NO FURTHER ENTRIES ON THIS PAGE H SMITH

12/15/13 WCRR SOM

0600 Assumed the WCRR SOM position.

0635 Completed pre job brief conducted by SOS. Safety topic from IH was to keep focused on last day of shift. House Keeping of WCO to be performed @ end of shift w/ thorough glove inspections. Challenged operators to improve efficiencies of operations - one idea was to have enough glove expanders to prep all gloves prior to donning respirators - currently have 2 inside 50-69. Due to changing to 5272 processing, outside PIC is accumulating materials required i.e. Kitty litter, neutralizer, etc.

0654 Inside / Outside rounds reviewed w/ TSR Tracking sheet updated / Status board updated.

0703 Completed Mode Change: WCRR Yard / Blds 50-69 from Warm / Warm to Operations / Operations.

0747 Completed bag on of drum # 68738.

0751 Operators notified OCO of slightly elevated CAMs, RP-1 investig

0753 RP-1 reported that CAMs are reading normal - continuing to process.

0913 Completed bag off of 1 daughter - continuing to process.

0958 Operators beginning to denest 4 drums (~~7~~ 12/15/13 SP 72's)

1014 While denesting drum # 5842524 operators encountered a hole in the lid of inner drum. They filled the holes w/ silicone and taped over, pictures were taken and continued to denest

1105 RP-1 reported to ops center they have a low flow alarm on CAMs. CAMs still functional and filters will be changed after denesting completed.

1136 Denesting is completed. All bag offs completed for drum # 68738 (2 daughters total). Completed bag on of drum # 5842524.

1215 RP-1 lead reported that all CAM filters were changed out despite only 1 was alarming — others were indicating getting close to low flow set points and Monday is scheduled change out day.

1354 Completed bag off of 1 daughter and 1 POC - continuing to process.

1400 SOS update from 412 operations - had an operator become sick so will complete SWB ~~bag~~ 12/15/13 denest in progress. Another operator is being provided from Dome 375 operations to assist

continued on next page →

12/15/13 WCRR SOM continued.

1423 Relieved by L. Jalbert as SOM.

1423 ASSUMED SOM DUTIES.

1604 During neutralization of 300 parent liquids (pH of 4 → pH of 7), orange/brown vapors appeared. Pause called, workers stepped back and IH investigated. IH was onbox at time. Minor exothermic reaction. No damage to bags, gloves or tooling. Not unusual for most neutralization concern Nitric acid.

1623 Move out commences (a containers)

12-15-13 1635 Ops resumed - IH considered it a 'fast' reaction

1652 ~~1756~~ Bag off 1st daughter, bag on second daughter commences

1702 IH concludes observation of neutralization activities.

1712 bag on, bag off of daughters complete

1738 bag off commences for second daughter, parent, install port covers

1811 Mode change: Operations/operations to WARM/WARM FOR SITE/FACILITY

1812 LATE ENTRY T 1755: BAG OFFS COMPLETE

1830 SECURE SOM SHIFT.

No further entries this page

PROJECT NAME NOTEBOOK NO

12-15-13

0600 Touring WCRRF SOS position Clarke

0615 Pre job being conducted briefed to being safe while dressing, glove changes and efficiency.

0635 Pre job concluded.

0656 Rounds signed off

0730 Bagging on 48738

0747 Bag on completed

0858 Bagging on 1 daughter, Bagging off 1 daughter

0913 Bag on complete

0948 Starting to dress 4 drums

1136 Bag on, Bag off completed bagged on 5842526 and completed dressing.

1137 Late entry - mode change to operations inside TASC lab and WCRRF yard at 703 Clarke

1330 Starting bag off of 1 daughter and 1 POC will be bagging on another daughter

1354 Bag on, Bag off complete.

1415 Starting movement into SC 69.

1429 movement into SC 69 is complete.

1440 Starting at 12-15-13 outside rounds.

1455 Bagging off, bagging on 47835

1459 Completed outside rounds.

1522 Bag on, bag off complete

1603 Starting movement into transportainers

1604 notified by OPS center of smoldering liquid and turning into thick smoke inside glove box. LH has been notified

1613 Inside rounds complete

1629 movement out of SC 69 complete

1635 LH notified that reaction in WCG was caused from a past chemical change when neutralizer was added. OK to continue processing.

1654 Bagging on 1 daughter, bagging off 1 daughter

1712 Bag on, Bag off, complete

1713 Rounds signed off

1735 Starting bag off and installing port cover

1803 Bag on, Bag off complete

1805 WCG recirculate has been turned on

1811 mode change performed to warm standby in SC 69 and WCRRF yard

1830 End of day SOS position secure Clarke

No further entries this page

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0138
Examination Date:	12/19/2013
Waste Container ID:	68681
Video/Audio Recorded Media Number:	LA-RTR2-13-0138 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.: 169.0 kg Tare Wt.: 33.4 kg Net Wt.: 135.6 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 68681

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hand tool, closure ring, hardware, scrap metal

AM:

OM:

OI:

C:

R:

XPM: 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):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	132.6
Soils (S):	
Total WMP Weight:	135.6

CCP Radiography Data Sheet

Waste Container ID: 68681

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	12/19/2013
Print Name	Signature	Date

5864694

NDA 2000 Assay Report

Item Information

Item ID:	68681	Count Sequence Number:	24104
Operator:	D3PW2DK1\operator		
Assay Start:	1/14/2014 11:19:31 AM		
Description 1:	1LANDA1890		
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:	80.0 %
Density:	0.820 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:	24104	Batch Number:	1LANDA1890
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:	68681	Analysis Date:	1/14/2014

Net Weight	136000.0 g		
Pu mass	8.29E+001	+-	2.69E+001 g
TRU Alpha Activity	1.11E+001	+-	2.00E+000 Ci
TRU Activity Concentration	8.14E+004	+-	1.47E+004 nCi/g
Pu-239 Equivalent Activity	1.12E+001	+-	2.00E+000 Ci
Pu-239 FGE	7.82E+001	+-	2.68E+001 g
Decay heat	3.56E-001	+-	6.33E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.66E-008	2.29E-006	1.08E-006	0.00E+000
CS137	2.64E-008	2.29E-006	1.08E-006	7.96E-007
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	2.57E-006
NP237	1.17E-001	8.23E-005	1.67E-005	4.12E-006
PU238	7.57E-003	1.29E-001	4.76E-002	1.90E-003
U238	<LLD	<LLD	0.00E+000	1.76E-005
PU239	7.78E+001	4.83E+000	1.66E+000	7.09E-002
PU240	4.97E+000	1.13E+000	4.21E-001	1.66E-002
AM241	1.45E+000	4.98E+000	1.02E+000	1.83E-001
PU241	9.43E-002	9.71E+000	3.62E+000	1.43E-001
PU242	1.66E-002	6.56E-005	2.44E-005	0.00E+000
AM243	2.62E-003	5.24E-004	1.08E-004	1.23E-005

Errors quoted at 1.000 sigma

Operator: D R Date: 1·15·14

ITR: Date: 1/20/14

Automated Independent Technical Review

Count Sequence Number: 24104 Batch Number: 1LANDA1890
Counter ID: MCS HENC #1
Container ID: 68681
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/14/2014

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: Sheri Chamberlin Date: 1-15-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68681**

BDR Number: **LA14FG12008**

Sampling Date: **1/16/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	311.86	
74-82-8	Methane	6.56	U
67-56-1	Methanol	7.40	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.70	
75-34-3	1,1-Dichloroethane	0.72	U
156-59-2	cis-1,2-Dichloroethene	0.09	U
78-93-3	Methyl ethyl ketone	0.90	U
110-82-7	Cyclohexane	0.59	U
71-43-2	Benzene	0.17	U
107-06-2	1,2-Dichloroethane	0.56	U
71-36-3	1-Butanol	0.38	U
108-10-1	Methyl isobutyl ketone	0.66	U
108-88-3	Toluene	0.93	U
108-90-7	Chlorobenzene	0.67	U
100-41-4	Ethylbenzene	0.59	U
108-38-3/106-42-3	m- and p-Xylene	0.38	U
95-47-6	o-Xylene	0.36	U
108-67-8	1,3,5-Trimethylbenzene	0.65	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\140116c\
Data File : 68681.D
Acq On : 16 Jan 2014 1:20 pm
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 16 13:30:53 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Tue Dec 03 09:52:38 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.063	96	8911623	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	6703406	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.907	GC1	88959m	311.86	ppmv	
4) Methanol	0.834	31	3484	7.40	ppmv	100
7) Acetone	1.370	58	1652	0.70	ppmv	80

(#) = 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-RTR2-13-0138
Examination Date:	12/19/2013
Waste Container ID:	69061
Video/Audio Recorded Media Number:	LA-RTR2-13-0138 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.: 116.0 kg Tare Wt.: 33.4 kg Net Wt.: 82.6 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: 69061

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bag

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):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.6
Soils (S):	
Total WMP Weight:	82.6

CCP Radiography Data Sheet

Waste Container ID: 69061

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	12/19/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69061	Count Sequence Number:	24054
Operator:	D3PW2DK1\operator		
Assay Start:	1/3/2014 11:47:54 AM		
Description 1:	1LANDA1886		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 82.6 kg	Net:	82.6 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	0.790 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:	24054	Batch Number:	1LANDA1886
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:	69061	Analysis Date:	1/3/2014

Net Weight	82600.0 g		
Pu mass	7.53E+001	+-	1.22E+001 g
TRU Alpha Activity	1.20E+001	+-	4.53E+000 Ci
TRU Activity Concentration	1.45E+005	+-	5.49E+004 nCi/g
Pu-239 Equivalent Activity	1.21E+001	+-	4.53E+000 Ci
Pu-239 FGE	7.10E+001	+-	1.15E+001 g
Decay heat	3.87E-001	+-	1.50E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.09E-001	7.70E-005	1.53E-005	3.45E-006
PU238	6.88E-003	1.18E-001	1.91E-002	3.36E-005
PU239	7.07E+001	4.38E+000	7.11E-001	1.25E-003
PU240	4.52E+000	1.03E+000	1.66E-001	2.93E-004
AM241	1.88E+000	6.46E+000	4.47E+000	1.51E-001
PU241	8.58E-002	8.84E+000	1.43E+000	2.52E-003
PU242	1.51E-002	5.96E-005	9.66E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.28E-007
U233	<LLD	<LLD	0.00E+000	7.70E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.12E-006
U238	<LLD	<LLD	0.00E+000	1.85E-005
AM243	3.04E-003	6.08E-004	1.22E-004	1.03E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-7-14

ITR: _____ Date: 1-9-14

Automated Independent Technical Review

Count Sequence Number: 24054 Batch Number: 1LANDA1886
Counter ID: MCS HENC #1
Container ID: 69061
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/3/2014

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; 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: Sherri Chandler Date: 1-6-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69061**

BDR Number: **LA14FG2003**

Sampling Date: **1/10/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	116.77	
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\140110c\
Data File : 69061.D
Acq On : 10 Jan 2014 1:13 pm (#1); 10-Jan-14, 13:12:20 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 10 13:21:36 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	3.542	96	3185168	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.848	117	2542224	177.50	ppmv	-0.01
Target Compounds						Qvalue
1) Hydrogen	1.618	GC1	878m	116.77	ppmv	

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

S870065

S870065

Container Profile 754206

File Options Reports Help

S870065

754206	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

Genealogy

S870065

- S870065
  - LA00000068721
    - LA00000069106 – EMPTY
    - LA00000068687
  - W798028 - EMPTY

Working Copy
Date: 11-21-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: ~~68725~~ 68721 cm 11-21-13

6.2[4] Date Processed: 11/21/13

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: Clayton Mullins / CA 124092 / 11/21/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: CM 11-21-13 ~~68725~~ 68721

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 367.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 23.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 390.2 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.: CR 11-21-13 ~~68725~~ 68721

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68687			
10.1[4]	Daughter Drum Filter No.	LM-892		N	
10.1[4]	Daughter Drum Bag Filter No.	L-10030			A
10.1[4]	Daughter Drum Purchase Order No.	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#)				
10.2[14]	POC Assembly Gross Weight (lb)			N/A	
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	3g			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding			
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	plastics, Hex-armors, kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: CT 11-21-13 ~~68725~~ 68721

Comments: plastics, nitrate salts

11.1[1] Performed By: Clayton Mullins / CM 1240092 / 11/21/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Jerez / [signature] 1221452 / 11/22/13 0430
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 11-21-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238028
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:	N/A	N/A
Tolerance:	N/A	N/A

Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 019 DS
Serial No.: AN-722
Manufacture Date: 1/13

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

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: N/A ft-lb

Comments: not prepped at TA-50

8.1[1] Performed By: Clayton Mullins / CA / 129002 / 11/21/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Juarez / [signature] / R201152 / 11/22/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 11-21-13

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69106

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: Clayton Mullins, CM 1240921 11/21/13
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): 170.8 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins, CM 1240921 11/22/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Perez, [signature] 1214521 11/22/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68687

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.: 6cpuc-1.5 2.5PVC
Serial No.: L-10030
Manufacture Date: 05/13

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	08/06/14
Range:	40-200 in-lb	16-30 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: Andrew H. Romero (Operator (print)) | Andrew H Romero (Signature) | 1570061 (Z #) | 11/18/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NucFil
Model No.: 019DS
Serial No.: LM-892
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.: 68687

Comments: N/A

5.[35] Performed By: Andrew H. Romero (Operator (print)) Andrew H. Romero (Signature) 1870061 (Z #) 11/18/13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) (Signature) 1240092 (Z #) 11/21/13 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68687

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

M&TE No.: 038369
Cal. Expiration Date: 12 18 13
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: Clayton Mullins / C T / 1240421 / 11/21/13
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:	N/A in-lb	N/A 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: _____ 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.: 68687

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 458.8 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: Clayton Mullins (Operator (print)), CT (Signature), 240092 (Z #), 11/22/13 (Date)

7.1[4] Reviewed By: Jose Jerez (Supervisor or designee (print)), [signature] (Signature), 221452 (Z #), 11/22/13 (Date)

Working Copy
Date: 11-21-13

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 11-21-13 ~~68725~~ 68721

6.3[15] (S) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019005
Platform scale calibration expiration date: 10/14/14

6.3[18] Prepared parent 55-gal drum weight (lb): 367.2

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: Clayton Mullins / CM / 240094 / 11/21/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Sevez / [signature] / 221452 / 11/22/13
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Randy Axtell / [signature] / 109185 / 11/22/13 / 0429
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum 1428 SP78

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container re-labeled & given new number. Bartnik 11/12/13

Container ID: Parent S870065 | Daughter 168721 Container Type: 85-GAL Gross Weight (lbs): 440

Inner Seal #: 023187 Filter Prefix: LAVC Filter Serial #: 00211; 05505

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST 12 RM#434 A02029. CONTAINER WEIGHT PHYSICALLY VERIFIED.

Total PE-Ci Activity: 5.96E+00 Equivalent Combustible PE-Ci: 2.24E+00 AM-241 PE-Ci: 4.84E-01

Total Fissile Gram Equivalents: 65.9 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 7/2/2007 Comment: Impenetrable Obj, Liner Not Punctured

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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Susan S. Ramsey / 100681 / 11/20/12
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: 380#. Generator info shows 10 items of nitrate salts, with weights ranging from 7-31#. No RTR BDR. RTR PS shows impenetrable item(s) + unpunctured liner. Nitrate salts typically packaged in plastic bags; debris + undocumented liquids often present. Applicable waste codes are chromium, lead + mercury. Repack w/ admixture required.

Performed By: Valerie Rhodes / Valerie Rhodes / 112605 / 2/7/13
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: USE Proper PPE And Kitty Litter Ratio

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments:

Performed By: Gilbert Martinez / [signature] / 149235 / 11/13/13
TRU Remediation Operations (Print) Signature Z Number Date

Darrel L. Blain / [signature] / 218069 / 11/14/13
Jose Jarez / [signature] / 221452 / 11/19/13

IHS REVIEW: PL 2000302 11.27.12 NOTES: D007 = chromium
D008 = LEAD

Noncertified TRU Waste Drum Item Information

DrumID: 023187

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	11LR12E1		4.480	NITRATE SALTS	R00	2.01	52	1/13	G468	
2	11OX6W1		11.070	NITRATE SALTS	R00	9.11	52	1/13	G468	
3	11LR7E1		10.120	NITRATE SALTS	R00	8.13	52	1/13	G468	
4	11OX14E1		14.110	NITRATE SALTS	R00	18.63	52	1/13	G468	
5	10RR14W1		8.350	NITRATE SALTS	R00	6.51	52	1/13	G468	
6	11DS20W1		4.820	NITRATE SALTS	R00	2.48	52	1/13	G468	
7	12LR2E1		3.270	NITRATE SALTS	R00	0.53	52	1/13	G468	
8	12OX4E1		9.550	NITRATE SALTS	R00	7.	52	1/13	G468	
9	11LR20E2		12.460	NITRATE SALTS	R00	6.59	52	1/13	G468	
10	12LR8E2		14.140	NITRATE SALTS	R00	8.99	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 368.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	69.98	92.37
Totals	69.98	92.37

SP 72

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1·11·11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[redacted]	Z096933	11-12-11

Container No. (7.[1]):	S8619168	S823243	S810065
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	55gal	55gal
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			
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]):	Ø	Ø	Ø

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

	Container Number (7.[1]):	S861968	S873243	[illegible]0065
	Hydrogen Reading (ppm) (7.[10]):	27.90 ppm	312.37 ppm	[illegible].36 ppm
	Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
	Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø 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:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 1-12-11
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 111766 / 1-13-11
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110111c\
Data File : S870065.D
Acq On : 11 Jan 2011 4:19 pm (#1); 11-Jan-11, 16:18:26 (#2)
Operator : EL
Sample :
Misc : 55 GAL LFL DRUM FROM 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 11 16:28:47 2011
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jan 10 10:28:07 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.655	96	9354111	205.50	ppmv	0.02
15) Chlorobenzene-d5	5.981	117	7982681	182.75	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.657	GC1	1106m	141.36	ppmv	

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

vocgas.m Tue Jan 11 16:29:03 2011

11-21-13

1806 Assuming WCRR operational center - JCleman

1905 We have finished the frito pie lunch supplied by upper management and the SOS is now conducting the pre-job.

1930 Pre-job concluded.

2115 Operators state they are still waiting for the forklift to dry off before they can denest. Currently there are no drums denested to start processing.

2151 Operator reported to SOS that the light is out in the yard by 50-69. SOS notified SOM.

2155 Operators denesting 68721 and bagging it on.

2230 Denesting + bag on complete.

2235 Operators reporting 2 leaks right on top of the scale in 50-69.

11-22-13 0002 Operators out for lunch.

0035 Beginning outside rounds.

0108 Operators back from lunch.

0110 Outside rounds complete.

0139 Bagging off 1 daughter.

0201 Bag off complete.

0205 Beginning inside rounds.

0218 Item #63 is OOS, okay to proceed per CSE documentation.

0230 WCG receptacle has been energized. Inside rounds complete.

0240 Initiating a drum movement of 6 drums out of 50-69 to a transportainer.

0310 Drum movement of 6 out of 50-69 complete. All inventory has been removed from the facility. JC 11-22-13

@ 0327 Mode changed to Warm in WCRRF yard and cold in 50-69.

11-22-13 0600 End of day. OCO position secured. JCleman

HG

No further entries this page

11/21/13 Night Shift

1804 Reviewed shift turnover checklist and assumed WCRR SOM position.

1818 Approved and posted the night shift operations watchbill.

1905 LANS management meeting w/ night shift concluded D. Cox gave talk on 3706 schedule and upcoming projects affecting WCRR. Operators brought up issues w/ night shift operations. Management requested that crew come up w/ plan to present to management.

1930 Pre job brief conducted by SOS was performed. IH safety topic was today injury @ WCRR involving Unitech employee C (landing service) - stressed not to be in a hurry and to fully recognize hazards in area. Briefed active shift orders. Discussed drum lift status from todays maintenance. Covered status of facility/waste drums, changing weather conditions and watching for slippery conditions

2230 Denested drum # 68721 and bagged onto WCG.

2235 Operators reporting leaks into 50-69 from rain @ the platform scale and respirator room.

11/22/13 0002 Operators breaking for lunch.

0108 Resuming operations.

0201 Completed bag off of 1 daughter - processing of parent drum is completed. Operators using remainder of shift for WCG wipedown, glove inspections and changes if necessary.

0310 Completed movement of 6 drums from 50-69 to transportainers. Bldg 50-69 is deinventoried. Performed MOV of movement, noted good practice of clearing forklift travel path of snow prior to moving drums.

0327 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.

0335 RCRA rounds completed.

0340 Reviewed round sheets and TSR tracking worksheet - status board is updated.

0430 SOS reported that glove inspections after WCG cleanup found none that require changing. Operators are leaving the buckets in areas of 50-69 where rain water/snow melt continues

continued next page →

31

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

11/21/13

1811 Assumed SOS position. CA

1812 Will be enjoying frito pies brought in by upper management.

1905 Starting Pre-Job, discussed all safety hazards, especially with storm possibly heading in.

1928 Turning over SOS position to Jose Jerez. CA

1930 Assuming SOS position for the evening. Jose Jerez

1945 Operators going into Processing facility to get ~~Ed~~ for D-Vesting.

2115 Unable to take the forklift into 50-69 to start processing due to it being wet from sitting outside in the rain. Operators have used towels to dry it completely off, waiting on fires to dry out some more before pushing it in to start D-Vesting.

2200 Operators have the forklift inside and are making the final preparations to start D-Vest. Operators starting to DVest and Bag on one Parent (6872)

2230 D-Vesting and Bag on Complete

2235 Operators inside 50-69 reporting of two new leaks inside of the facility, drove the scale.

11-21-13 0015-~~2215~~ Operators breaking for lunch.

0115 Operators ~~for~~ 11-21-13 returning from lunch

0125 Reviewed and signed outside rounds.

0141 Starting to Bag off one daughter and Parent. Final drum for the shift. Operators will be doing glovebox maintenance glove inspections and housekeeping.

0230 WLG receptacle has been energized

0240 Starting drum movement from 50-69 to Transportainer. Continuing to snow, area where forklift will be traveling has been cleared out. Energy Solutions JH agreed of the area of travel.

0310 Drum movement complete, Containers moved into transportainer had snow on them. Operators tried to wipe down as best as possible

0320 Mode Change complete WCRR yard is in WARM, 50-69 is in COLD

0335 Late entry. Bag off Complete. Operators performing house keeping

0400 Operators performing outside operations.

0600 Securing SOS position for the shift. Jose Jerez

No further entries on this page.

SIGNATURE _____ DATE _____ 20 ____

READ AND UNDERSTOOD _____ DATE _____ 20 ____

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0133
Examination Date:	12/4/2013
Waste Container ID:	68687
Video/Audio Recorded Media Number:	LA-RTR2-13-0133 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.: 208.0 kg Tare Wt.: 33.4 kg Net Wt.: 174.6 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:	100 %

CCP Radiography Data Sheet

Waste Container ID: 68687

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Tape roll

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):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.1
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	164.5
Soils (S):	
Total WMP Weight:	174.6

CCP Radiography Data Sheet

Waste Container ID: 68687

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		12/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68687	Count Sequence Number:	23950
Operator:	D3PW2DK1\operator		
Assay Start:	12/6/2013 12:44:49 PM		
Description 1:	1LANDA1874		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 175.0 kg	Net:	175.0 kg
Container:	Volume: 208.0 l	Full:	100.0 %
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:	23950	Batch Number:	1LANDA1874
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:	68687	Analysis Date:	12/6/2013

Net Weight	175000.0 g		
Pu mass	7.19E+001	+-	1.67E+001 g
TRU Alpha Activity	1.10E+001	+-	1.59E+000 Ci
TRU Activity Concentration	6.27E+004	+-	9.11E+003 nCi/g
Pu-239 Equivalent Activity	1.11E+001	+-	1.60E+000 Ci
Pu-239 FGE	6.78E+001	+-	1.67E+001 g
Decay heat	3.54E-001	+-	5.15E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.31E-008	1.80E-006	1.13E-006	0.00E+000
CS137	2.08E-008	1.80E-006	1.13E-006	8.42E-007
U233	<LLD	<LLD	0.00E+000	8.75E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.50E-006
NP237	1.22E-001	8.64E-005	1.78E-005	4.08E-006
PU238	6.56E-003	1.12E-001	3.13E-002	1.54E-003
U238	<LLD	<LLD	0.00E+000	1.64E-005
PU239	6.75E+001	4.18E+000	1.03E+000	5.72E-002
PU240	4.31E+000	9.79E-001	2.79E-001	1.34E-002
AM241	1.66E+000	5.69E+000	1.18E+000	8.71E-002
PU241	8.21E-002	8.46E+000	2.41E+000	1.16E-001
PU242	1.44E-002	5.68E-005	1.62E-005	0.00E+000
AM243	2.33E-003	4.65E-004	9.70E-005	1.21E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 12 11 13

ITR: _____ Date: 12 11 13

Automated Independent Technical Review

Count Sequence Number: 23950 Batch Number: 1LANDA1874
Counter ID: MCS HENC #1
Container ID: 68687
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/6/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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: Sherri Chandler Date: 12-10-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68687**

BDR Number: **LA13FG2128**

Sampling Date: **12/13/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	147.76	
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

12-13-13

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131213c\
Data File : 68687.D
Acq On : 13 Dec 2013 2:30 pm (#1); 13-Dec-13, 14:29:59 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 13 14:39:01 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	3.526	96	3455079	205.75 ppmv	0.00
15) Chlorobenzene-d5	5.845	117	2754265	177.50 ppmv	-0.02
Target Compounds					Qvalue
1) Hydrogen	1.617	GC1	1111m	147.76 ppmv	

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

S870213

S870213

Container 753909

File Options Reports Help

S870213

753909	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

S870213

- S870213
  - LA00000069530 — EMPTY
  - LA00000069013
  - LA00000069413
    - LASB50100
  - LA00000069492
    - LASB50043

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000069492	0.0	kg

Working Copy
3-14-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S 870213

6.2[4] Date Processed: 3/1/14

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

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

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) JQ 3/1/14 (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: JOE QUINTANA / Joe Z 239957 / 3/1/14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
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4.1[6][B] Parent Waste Container No.: 5870213

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 400.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb ☑ N/A

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 400.8 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. ____ / ____ / ____ ☐ N/A
Initials Z# Date

6.2[26] 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 870213

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69492	69413		
10.1[4]	Daughter Drum Filter No.	RM359	RM382		
10.1[4]	Daughter Drum Bag Filter No.	L10163	L17392		
10.1[4]	Daughter Drum Purchase Order No.	501210	501210		
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			
	Model No.	SPV-1,52-CPVC			
	Serial No.	L10116			
	Date of Manufacture	3/12			
10.2[5]	POC ID No	69013			
10.2[6]/10.2[7][B]	POC Item Description	NITRATE SALTS			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	JQ 239987			
10.2[14]	POC Assembly Gross Weight (lb)	349.4			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1.5 AT CONTACT			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	N/A			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.	N/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 (%)	95	80		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER	KITTY LITTER		

ATTACHMENT 1
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4.1[6][B] Parent Waste Container No.: S 870213

Comments: LEAD, NITRATE SALTS, LIQUID W + 1 PH. NEUTRALIZED TO 7. (49 GALLONS) STUBBOIS, POLY LID, POLY LINER,

11.1[1] Performed By: JOE QUINTANA, Joe Z 23445 7, 3/1/14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Jerez, [signature] R21451c 1/2/14 0650
SOS or designee (print) Signature Z # Date Time

Working Copy
Date: 3-1-14

ATTACHMENT 1
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
- Purchase Order No.: 501563
- Lot No.: 0238367
- Manufacture Date: 2013
- SERIAL # 098

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.: 01905
- Serial No.: AN 258
- Manufacture Date: 1/13

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 239987, 3/1/14
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: N/A ~~60~~ JQ 3/1/14 in-lb

5. [18] 2-in. bung plug torque value: N/A ft-lb

Comments: NOT PREPPED IN WCCRF

8.1[1] Performed By: JOE QUINTANA, Joe Q 239987, 3/1/14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Jerez, [signature] 221452, 3/2/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 4
Page 1 of 1

Working Copy
Date: 3-1-14

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69530

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: JOE QUINTANA, Joe Q 239987, 3/1/14
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): 203.6 lb

Comments: N/C

8.1[1] Performed By: JOE QUINTANA, Joe Q 239987 3/1/14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez, Jose Jerez R21452, 3/2/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 2-11-14

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69413

5.[3] Drum information:
Purchase Order No.: 501210
Lot No.: 02371779
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC-1.5-2SPVC
Serial No.: L-17392
Manufacture Date: 11/13

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	8-5-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4% cw ± 6% ccw	±2% cw ± 6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO 2-11-14

Performed By: Jesus Sanchez ERNESTO SENA — Operator (print) — Signature — 116662 1291398 — Z # — 2/11/14 — Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: KM-382
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
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5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs
ES 2/11/14

5.[34][E] Drum ID No.: 693413

Comments:

5.[35] Performed By: ERNESIO SANTA (Operator (print)) [signature] (Signature) 1291398 (Z #) 2/11/14 (Date)

7.1[4] Reviewed By: JOSE JUAREZ (Supervisor or designee (print)) [signature] (Signature) 2214521 (Z #) 3/2/14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69413

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

M&TE No.: 038376
Cal. Expiration Date: 8/2/14
Range: 16 80 ft-lb
Tolerance (+/-): +/- 3%. CCW
+/- 6%. CCW

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

Performed By: JOE QUINTANA / Joe Q / 234987 / 3/1/14
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.:	N/A	N/A
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: N/A / / / /
Operator (print) Signature Z # Date

NOT PREPARED IN WCRRF

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.: 69413

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 292.8 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: JOE QUINTANA, Joe Q 239987, 3/1/14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez, [signature] 2214521 3/2/14
Supervisor or designee (print) Signature Z # Date

Working Copy
2/27/14 HS

ATTACHMENT 1
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WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69492

5.[3] Drum information:
Purchase Order No.: 501210
Lot No.: 0237179
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPUC-1.5-25PUC
Serial No.: L-10163
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: Brian Cordova (Operator (print)) [signature] (Signature) [illegible] (Z #) 2/27/14 (Date)

5.[23] Filtered vent information:
Manufacturer: MUCF
Model No.: 019DS
Serial No.: KM-359
Manufacture Date: ~~13~~ 11/12
BC 2/27/14

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.: 69492

Comments: N/C

5.[35] Performed By: Brian Cordova / [signature] 2575[illegible] / 2/20/14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez / [signature] 2214521 3/2/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69492

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: JOE QUINTANA / [signature] 239987 / 3/1/14
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:	N/A	N/A
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: NOT PREPPED IN WCRRF / / /
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.: 69492

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 352.4 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: JOE QUINTANA, [signature] 239987, 3/1/14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez, [signature] 221452, 3/2/14
Supervisor or designee (print) Signature Z # Date

Parent Drum SP72 1941

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S870213 Container Type: 85-GAL Gross Weight (lbs): 403

Inner Seal #: 023672 Filter Prefix: LAVC Filter Serial #: 05044; AL-522

Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST 12 RM#434 A02036. 55 GALLON DRUM CHANGED TO 85 GALLON DRUM AND FILTER # IS AL-522 PER JUAN 11/22/2011.

Total PE-Ci Activity: 3.73E+00 Equivalent Combustible PE-Ci: 1.40E+00 AM-241 PE-Ci: 3.03E-01

Total Fissile Gram Equivalents: 41.2 Total Surface Dose Rate (mrem/hr): 0

EPA Code(s): D007; D008; D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 4/25/2007 Comment: Impenetrable Obj, Liner Not Punctured

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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan G. Ramsey Z Number: 100681 Date: 12/20/12

WDP Engineering

Rejected @ WCRF - cracked drum ring & liquid inside 85 gal. 11/19/13 11/19/13

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: 32 lb Generator info shows 12 items of nitrate salts, weighing 11-32# each. No RTR BDR. Nitrate salts typically packaged in plastic bags; other debris likely present. RTR PS shows impenetrable item + unpunctured liner. Nitrate salts carry waste codes for chromium, lead, + mercury. No chemicals identified; undocumented liquids may be present. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: [illegible] Date: 1/17/13

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 Prover PPE and Kitty Litter Ratio

Performed By: Jose Perez (TRU Remediation Operations (Print)) Signature: Jose Perez Z Number: 221452 Date: 6/20/13

IHG Review - Jeremy Amelburg CSP, May contain Pb, Hg & Cr NU

Other IH concerns 1-29-13

Clayton Mullins CA 240092 2/25/14

Noncertified TRU Waste Drum Item Information

DrumID: 023672

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	12OX12E1		9.950	NITRATE SALTS	R00	12.43	52	1/13	G468	
2	12LR12E1		11.070	NITRATE SALTS	R00	0.36	52	1/13	G468	
3	12RR15W1		7.820	NITRATE SALTS	R00	1.94	52	1/13	G468	
4	12OX18E1		6.980	NITRATE SALTS	R00	4.	52	1/13	G468	
5	12DS16W1		5.910	NITRATE SALTS	R00	1.83	52	1/3	G468	
6	12OX30E1		12.980	NITRATE SALTS	R00	6.01	52	1/13	G468	
7	12OX18W1		7.020	NITRATE SALTS	R00	3.64	52	1/13	G468	
8	12LR17W1		5.860	NITRATE SALTS	R00	0.37	52	1/13	G468	
9	10S6G1		4.890	NITRATE SALTS	R00	0.82	52	1/13	G468	
10	1LR14W1		14.590	NITRATE SALTS	R00	1.89	52	1/13	G468	
11	10X14E1		10.320	NITRATE SALTS	R00	5.97	52	1/13	G468	
12	10X21ES1		6.450	NITRATE SALTS	R00	3.55	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 182.9

Material Type	SNM (grams)	Items Net Wt (kg)
52	42.81	103.84
Totals	42.81	103.84

ATTACHMENT 1
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TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 5/29/13

Container No. (5.[1])	S870217					
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])	970					
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])	731.91 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

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

Reviewed By: Nathan Wiles (CCP (Print)), 238866 (Z #)

Comments: N/C

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), 111681 (Z #), 6/3/13 (Date)

ATTACHMENT 1
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HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1-12-11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[redacted]	1236998	1-13-11

CCP (Print)	Signature	Z #	Date

Container No. (7.[1]):	S870123	56689	58091
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	13	19DS
New Filter Vent No.: (7.[8][A]):	72	13	19DS
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene			
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]):	Ø	Ø	Ø

ATTACHMENT 1
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NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	5870123	56689	58091
Hydrogen Reading (ppm) (7.[10]):	154.90 ppm	576.16 ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	13	19DS
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	038371	038371
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	5/6/11	5/6/11
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	±3%	±3%
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	10 ft lbs.	10 ft lbs.

* No torque value required for 072 or 073 filters – Record N/A as applicable

Comments: N/C

11.1[1] Performed By: Alicia Herrera / [signature] 198450 1-13-11
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 112861 1-26-11
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

72

InstName : Unit 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130529c\
Data File : S870213.D
Acq On : 29 May 2013 2:08 pm (#1); 29-May-13, 14:07:59 (#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 14:20:53 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	3.545	96	3948529	201.25 ppmv	-0.0
15) Chlorobenzene-d5	5.884	117	3441389	177.00 ppmv	-0.0
Target Compounds					Qvalue
1) Hydrogen	1.608	GC1	5202m	731.91 ppmv	

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

vocgas.m Wed May 29 14:21:01 2013

3-1-14
0600 Assuming WCRR operations center - TColeman
0617 Pre-job being conducted by SOS. Briefing to EP-WCRR-WO-DOP 1198 R.1, also monthly RWP's.
0700 Pre-job concluded.
0705 Beginning outside rounds.
0725 Beginning inside rounds. Outside rounds complete.
0735 Assuming OPS center under TCRI COLMAN (in training) Alan Sgt TColeman
0748 ~~ie~~ DS 3-1-14 inside Rounds complete
0759 Permission granted to move waste from transportainer into 50/69
0810 Rounds Reviewed By SOS
0815 Mode changed to operation in WCRR yard and 50/69
0839 Movement of drums into 50/69 complete permission granted to move drums from 50/69 into transportainer
0900 Movement out of 50/69 complete, transportainers secure
0922 Bagging off 1 daughter, bagging on another daughter.
0931 Bag off/on complete.
1044 Bag off/on 1 daughter and bagging on parent 5870213
1100 Bag off/on complet
1200 Notified by inside pic they are requesting IH to evaluate yellow liquid found in drum
1230 IH informed operators to neutralize liquid
1237 Operators out for lunch
1320 ~~OK~~ DS 3-1-14 Operations put on hold ret's need to fix instrument
1440 Started inside rounds
1454 Item 63005 OK to proceed pod in place
1459 Completed inside rounds
1500 Resuming operations
1524 Bagging off/on 1 daughter
1530 Bagg on/off complete
1555 Operators noticed a drip of water on scale
1643 Started outside rounds
1645 Starting bag off 1 daughter and 1 pod puting on port cover
1702 Bag off complet
1750 Rounds ~~Revi~~ DS 3-1-14 Reviewed By SOS
1808 End of day operation center secured

-No further entrys this page

3-1-14 WCRR SOM

0558 Reviewed logs and assumed the WCRR SOM position John Guadagnoli

0655 Completed attending the pre-job brief conducted by the SOS (Clayton) the Safety Topic was inspect PPE, and monitor each other. Discussion focused on movements in and out and staging drums, due to a planned WCATs outage scheduled from noon till 2000 hrs (800PM) - Requested the SOS to review micro-calibration equipment and ensure availability and charging. The RCT Lead briefed operators on the Monthly RWP-2012-0015 and Quarterly RWP-2012-0069. Procedure DOP-1198 was briefed on and operators signed the roster. The procedure will be posted on Monday. Parent drum 68966 is currently bagged on

0701 Completed updating the AREA G SOM of WCRRF and 412 POD activities.

0758 Outside operations initiate a movement from the transportainers to 50/69 facility, 4 drums total, solution packages 3, 17, and 69 - all priority 2's. Also a movement out will be initiated.

0815 Mode Change: 50/69 and 412 transition from WARM/WARM to Operations/Operations.

0900 All movements to the transportainer were noted completed, also movements to 50/69.

0922 Inside operators initiate bagging off a daughter drum and bagging on another... Also the operators noted all of the SP-72s - were noted upon opening to release 6-7 gallons of liquid, - which was neutralized and 40 liter added - 3-1 ratio

0931 Bag off and Bag on is noted completed by inside operations

1045 Inside operators report bagging of 1 daughter and bag on of another daughter, Bagging off Parent (Empty) and initiate bag on of Parent S870213 SP-72

1101 Inside operators report the bag offs and bag ons are completed.

1235 Operators break for lunch, and report this drum was noted to have 4-5 gallons of liquid (acidic) requiring neutralizing and is currently ~2/3 full.

1340 Operators enter 50/69 to continue processing - the PIC noted a PH of 1 before neutralizing.

~~3-1-14~~ 1523 3-1-14 1530 Observed operators working on the drum on the WCG and asked how it was going, they indicated they were ready to bag off and will discuss with the SOS de-nesting.

Inside operators initiate bag off of 1 daughter and bag on of another

1531 Bag off and Bag On was completed

1555 Operators notified the Operations Leader of 1 drip from the ceiling onto the scale they will wipe and monitor - Outside conditions noted as drizzle

1640 Inside operators initiate bag off of daughter and parent drum and will initiate denesting. Dependent on time, they will bag on another parent. Also a POC is being bagged off.

1702 Bag off is noted completed, and operators placed the port cover on the WCG Operations will prep for de-nesting.

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

3/1/14

0600 Assuming SOS position. CA

0615 Starting Pre-Job, discussed keeping up with good PPE practices, as far as wearing proper PPE and performing PPE checks. Went over new revision for glovebox operations procedure, WO-DOP-1198. Briefed to processing and radiation area RWP's.

0705 Pre-Job complete.

0810 Signed off on the rounds.

0815 Mode change complete, WCRRF yard and 50-69 are now in Operations.

0818 Starting movement into 50-69.

0839 Movement in complete, starting movement out of 50-69.

0900 Movement out complete.

0922 Bagging off 2nd daughter, bagging on a 3rd.

0931 Bag off/on complete.

1044 Bagging off 3rd daughter, bagging on S870213.

1100 Bag off/on complete.

1200 Notified by operators inside requesting IH to observe reaction from liquid (pH 0-1) SOM notified as well.

1230 IH observed liquid, ok to continue.

1420 Processing paused to allow RCT's to fix equipment used for dosing items in WCG.

1500 Instrumentation working properly again, resuming operation.

1524 Bagging off 1st daughter, bagging on a 2nd

1530 Bag off/on complete.

1555 Operators observe a slow leak from the roof above the scale, will keep an eye on leak and place bucket to catch water if necessary.

3-1-14 1600 Turning over SOS position to Jose Jerez. CA

1600 Assuming SOS position for the remainder of shift. JJ

1645 Starting to Bag off one daughter and 1 POC

1702 Bag off complete. Placing Port Covers on WCG. Prepping area for D-Nesting tomorrow morning.

1750 Reviewed and signed inside rounds.

1808 Operators exited facility. Will need to change gloves in the morning on station 7, 8 and 1 right hand and left hand on station 3. Will also need 4 55's, 2 POC's, 3 Dnesting bags and Rad Trash bags.

1808 Mode Change Complete. WCRR yard and 50-69 are in WARM.

3-1-14 1915 ~~Securing SOS position for the evening. JJ~~

~~No further activities.~~

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0027
Examination Date:	3/6/2014
Waste Container ID:	69013
Video/Audio Recorded Media Number:	LA-RTR2-14-0027 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.: 158.5 kg Tare Wt.: 145.1 kg Net Wt.: 13.4 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:	50 %

CCP Radiography Data Sheet

Waste Container ID: 69013

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bag

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):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	11.4
Soils (S):	
Total WMP Weight:	13.4

CCP Radiography Data Sheet

Waste Container ID: 69013

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	3/6/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID: 69013 Count Sequence Number: 24509
Operator: D3PW2DK1\operator
Assay Start: 3/10/2014 1:57:52 PM
Description 1: 1LANDA1925
Description 2: POC 158.5
Location: LANL TA-54
Comment: AK-6
Matrix Type: Homo Sol. S3000
Container Type: 55 gallon drum
Weight: Net: 13.4 kg Net: 13.4 kg
Container: Volume: 208.0 l Full: 95.0 %
Density: 0.662 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:	24509	Batch Number:	1LANDA1925
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:	69013	Analysis Date:	3/10/2014

Net Weight	13400.0 g		
Pu mass	3.78E+000	+-	2.36E+000 g
TRU Alpha Activity	6.57E-001	+-	3.02E-001 Ci
TRU Activity Concentration	4.91E+004	+-	2.25E+004 nCi/g
Pu-239 Equivalent Activity	6.65E-001	+-	3.02E-001 Ci
Pu-239 FGE	3.57E+000	+-	2.35E+000 g
Decay heat	2.13E-002	+-	9.89E-003 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	1.99E-007
U233	<LLD	<LLD	0.00E+000	2.15E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.63E-007
NP237	8.41E-003	5.93E-006	1.10E-006	9.57E-007
PU238	3.45E-004	5.90E-003	3.98E-003	3.93E-004
U238	<LLD	<LLD	0.00E+000	5.00E-006
PU239	3.55E+000	2.20E-001	1.46E-001	1.47E-002
PU240	2.27E-001	5.15E-002	3.49E-002	3.43E-003
AM241	1.11E-001	3.80E-001	2.62E-001	4.59E-002
PU241	4.27E-003	4.40E-001	2.98E-001	2.93E-002
PU242	7.58E-004	2.99E-006	2.03E-006	0.00E+000
AM243	2.89E-004	5.77E-005	1.05E-005	3.03E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 3/11/14

ITR: Brit Trujillo Date: 3-12-14

Automated Independent Technical Review

Count Sequence Number: 24509 Batch Number: 1LANDA1925
Counter ID: MCS HENC #1
Container ID: 69013
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/10/2014

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: Sheri Chamberlin Date: 3-11-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69013**

BDR Number: **LA14FG2047**

Sampling Date: **3/26/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	94.96	
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\140326C\
Data File : 69013.D
Acq On : 26 Mar 2014 10:52 am (#1); 26-Mar-14, 10:51:39 (#2)
Operator : DE
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 11:01:45 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	3.542	96	3460576	205.75 ppmv	0.02
15) Chlorobenzene-d5	5.852	117	2726074	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.615	GC1	714m	94.96 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-RTR2-14-0027
Examination Date:	3/6/2014
Waste Container ID:	69413
Video/Audio Recorded Media Number:	LA-RTR2-14-0027 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.: 133.0 kg Tare Wt.: 33.4 kg Net Wt.: 99.6 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:	65 %

CCP Radiography Data Sheet

Waste Container ID: 69413

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bag

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):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	92.6
Soils (S):	
Total WMP Weight:	99.6

CCP Radiography Data Sheet

Waste Container ID: 69413

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	3/6/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69413	Count Sequence Number:	24495
Operator:	D3PW2DK1\operator		
Assay Start:	3/7/2014 1:32:01 PM		
Description 1:	1LANDA1924		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 99.6 kg	Net:	99.6 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.740 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:	24495	Batch Number:	1LANDA1924
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:	69413	Analysis Date:	3/7/2014

Net Weight	99600.0 g		
Pu mass	2.04E+001	+-	4.24E+000 g
TRU Alpha Activity	4.03E+000	+-	1.41E+000 Ci
TRU Activity Concentration	4.04E+004	+-	1.41E+004 nCi/g
Pu-239 Equivalent Activity	4.07E+000	+-	1.41E+000 Ci
Pu-239 FGE	1.93E+001	+-	4.23E+000 g
Decay heat	1.31E-001	+-	4.66E-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	5.01E-007
U233	<LLD	<LLD	0.00E+000	5.68E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.53E-006
NP237	7.27E-002	5.12E-005	9.82E-006	2.45E-006
PU238	1.86E-003	3.18E-002	8.12E-003	1.10E-003
U238	<LLD	<LLD	0.00E+000	1.04E-005
PU239	1.92E+001	1.19E+000	2.62E-001	4.11E-002
PU240	1.23E+000	2.78E-001	7.29E-002	9.61E-003
AM241	7.37E-001	2.53E+000	1.38E+000	5.29E-002
PU241	2.31E-002	2.38E+000	6.23E-001	8.21E-002
PU242	4.09E-003	1.62E-005	4.24E-006	0.00E+000
AM243	1.62E-003	3.24E-004	6.27E-005	7.50E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 3-11-14

ITR: D = RC Date: 3-12-14

Automated Independent Technical Review

Count Sequence Number: 24495 Batch Number: 1LANDA1924
Counter ID: MCS HENC #1
Container ID: 69413
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/7/2014

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 Chamberlin Date: 3-11-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69413**

BDR Number: **LA14FG2039**

Sampling Date: **3/14/2014**

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\140314C\
Data File : 69413.D
Acq On : 14 Mar 2014 10:53 am (#1); 14-Mar-14, 10:53:01 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 11:01:36 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	3.584	96	3246546	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.884	117	2603236	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-HERTR-14-0030
Examination Date:	3/6/2014
Waste Container ID:	69492
Video/Audio Recorded Media Number:	LA-HERTR-14-0030 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:	75 %

CCP Radiography Data Sheet

Waste Container ID: 69492

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):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	118.6
Soils (S):	
Total WMP Weight:	126.6

CCP Radiography Data Sheet

Waste Container ID: 69492

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		3/6/2014
Print Name	Signature	Date

S8/0215

NDA 2000 Assay Report

Item Information

Item ID:	69492	Count Sequence Number:	24483
Operator:	D3PW2DK1\operator		
Assay Start:	3/6/2014 3:35:12 PM		
Description 1:	1LANDA1923		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 127.0 kg	Net:	127.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.810 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:	24483	Batch Number:	1LANDA1923
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:	69492	Analysis Date:	3/6/2014

Net Weight	127000.0 g		
Pu mass	4.63E+001	+-	8.92E+000 g
TRU Alpha Activity	7.12E+000	+-	2.11E+000 Ci
TRU Activity Concentration	5.60E+004	+-	1.66E+004 nCi/g
Pu-239 Equivalent Activity	7.22E+000	+-	2.11E+000 Ci
Pu-239 FGE	4.37E+001	+-	8.37E+000 g
Decay heat	2.30E-001	+-	6.99E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.21E-001	8.50E-005	1.72E-005	6.02E-006
PU238	4.22E-003	7.22E-002	1.39E-002	3.30E-005
PU239	4.35E+001	2.70E+000	5.19E-001	1.23E-003
PU240	2.78E+000	6.31E-001	1.21E-001	2.89E-004
AM241	1.08E+000	3.72E+000	2.04E+000	7.52E-002
PU241	5.23E-002	5.39E+000	1.04E+000	2.47E-003
PU242	9.27E-003	3.66E-005	7.05E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.42E-007
U233	<LLD	<LLD	0.00E+000	7.62E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.08E-006
U238	<LLD	<LLD	0.00E+000	1.27E-005
AM243	2.61E-003	5.21E-004	1.06E-004	9.70E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 3/10/14

ITR: _____ Date: 3.12.14

Automated Independent Technical Review

Count Sequence Number: 24483 Batch Number: 1LANDA1923
Counter ID: MCS HENC #1
Container ID: 69492
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/6/2014

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; 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 Chamberlain Date: 3-10-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69492**

BDR Number: **LA14FG2039**

Sampling Date: **3/14/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	292.85	
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\140314C\
Data File : 69492.D
Acq On : 14 Mar 2014 10:18 am (#1); 14-Mar-14, 10:17:44 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 14 10:27:00 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	3.588	96	3348944	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.884	117	2662032	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.610	GC1	2202m	292.85	ppmv	

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

20

S870381

S870381

Container Profile 768388

File Options Reports Help

S870381

768388	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

Genealogy

S870381

- S870381
  - LA00000068625 - LANL
    - LASB50013
  - LA00000068623 - W IPP
  - LA00000068639 - EMPTY

ATTACHMENT 1
Page 1 of 4

Working Copy
Date: 11/11/13 HS

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S870281

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) 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: Frederick [illegible] / [signature] / 228241 / 11-11-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S870381

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 399.6 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) 482 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.: S870381

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68623	68625		
10.1[4]	Daughter Drum Filter No.	LM-849	LM-869	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10355	L-10130	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				
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	2 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 (%)	90%	60%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter	Kitty litter Plastic sheet Bags		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S87038

Comments: Nitrate salts, kitty litter, plastic, Room trash, 1 poly liner lid w/ Retaining Ring, 2' gallons PH-3 liquid, neutralized and absorbed, lead shielding

11.1[1] Performed By: Frederick Ashleh 122324 11-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Mayhew 149351 11/12/13 1000
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 11/7/13 HS

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	036245
Cal. Expiration Date:	12/18/13	8/5/14
Tolerance:	+/- 4%, cw +/- 6%, ccw	+/- 3%, cw +/- 6%, ccw

Overpack filtered vent information:

Manufacturer:	NULFIL
Model No.:	013
Serial No.:	JL 1026
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 [signature] 239987 11/7/13
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 [signature] 239987 11/7/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Mathews [signature] [illegible] [illegible]
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.: 68639

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: [illegible] / [signature] 1228826 / 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): 162 lb

Comments: N/C

8.1[1] Performed By: [illegible] / [signature] 1228826 / 11-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 1425 / 11/21
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

11-7-13 JL

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68623

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-10355
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	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] 804742 11-7-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-849
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.: 686623

Comments: N/C

5.[35] Performed By: Brandon Chavez / [signature] 2047421 11-7-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert [illegible] / [signature] [illegible] 11/11/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68623

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: [illegible] / [illegible] / [illegible] / 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: Gilbert Martinez / [illegible] / [illegible] / 149237 / 11/12/1
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.: 68623

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 300.6 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: Frederick [illegible] | [illegible] | 1232261 | 11.11.13
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Gilbert [illegible] | [illegible] | 1142357 | 11/12/13
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 1
Page 1 of 2

11-7 13 [illegible]

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68625

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0290119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.525pvc
Serial No.: L-10130
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:	±1%ocw ±6%ccw	±3%ocw ±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] 204742 11-7-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUFIL
Model No.: 019DS
Serial No.: LM-869
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.: 68625

Comments: N/A

5.[35] Performed By: Brandon Chacz / [signature] 241742 11-7-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149351 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.: 68625

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% cal +/- 6% ccal

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

Performed By: [illegible] / [signature] 7228826 / 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.:		
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.: 68625

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 294.6 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: Frederick Bohlen / [signature] 1228861 11-11-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilberto Martinez [signature] 149335 11/12/13
Supervisor or designee (print) Signature Z # Date

1941
SP72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

11-11-13 Ø

Container ID: S870381 Container Type: ~~85-GAL~~ 55-GAL Gross Weight (lbs): 401

Inner Seal #: 023855 Filter Prefix: LAVC Filter Serial #: 05358

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: LEACHED SOLIDS MST 12 RM#434 A02035

Total PE-Ci Activity: 4.10E+00 Equivalent Combustible PE-Ci: 1.54E+00 AM-241 PE-Ci: 3.33E-01

Total Fissile Gram Equivalents: 45.3 Total Surface Dose Rate (mrem/hr): 5

EPA Code(s): D007; D008; D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 6/23/2007 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: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Susan S. Ramsey / 100681 / 11/20/12
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: 341#. Generator info shows 11 items of nitrate salts, with weights ranging from 9-31#. No RTR BDR. RTR PS shows impenetrable item(s). Nitrate salts typically packaged in plastic bags; debris &/or undocumented liquids often present. Applicable waste codes are chromium, lead, + mercury. Repack with admixture is required.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/7/13
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 Hexarmour gloves during processing.

Processing Determination: ✓ Accept Reject

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

Performed By: Jose Jerez / Jose Jerez / 122452 / 12-5-13
TRU Remediation Operations (Print) Signature Z Number Date

ROBIN SHAUT 272958 2-11-13

IHS REVIEW: AS 260362 11.27.12 NOTES: D007 = chromium
D008 = LEAD

Noncertified TRU Waste Drum Item Information

DrumID: 023855

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	4DS2ES1		9.280	NITRATE SALTS	R00	4.1	52	1/13	G468	
2	4LR1ES1		5.880	NITRATE SALTS	R00	1.37	52	1/13	G468	
3	3DS26ES1		12.270	NITRATE SALTS	R00	4.56	52	1/13	G468	
4	4LR24ES1		6.700	NITRATE SALTS	R00	3.67	52	1/13	G468	
5	40X9WS1		12.800	NITRATE SALTS	R00	8.72	52	1/13	G468	
6	40X22WS1		9.300	NITRATE SALTS	R00	4.83	52	1/13	G468	
7	4DS9WS1		13.900	NITRATE SALTS	R00	5.85	52	1/13	G468	
8	50X5WS1		10.320	NITRATE SALTS	R00	6.6	52	1/13	G468	
9	4LR28WS1		10.820	NITRATE SALTS	R00	4.69	52	1/13	G468	
10	51R1WS1		4.110	NITRATE SALTS	R00	0.36	52	1/13	G468	
11	5DS4ES1		5.050	NITRATE SALTS	R00	3.33	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 181.9

Material Type	SNM (grams)	Items Net Wt (kg)
52	48.08	100.43
Totals	48.08	100.43

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 1/19/11

Container No. (5.[1])	S870381					
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])	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])	773 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 238564
CCP (Print) Z #

Reviewed By: _____
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 S. RAMSEY, Susan S. Ramsey 11/27/12
Waste Handling Operator (print) Signature Z # Date

SP72

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/19/11

7.[7] Certified CCP Technician:

CCP (Print)	/ Signature	/ Z #	/ Date
CCP (Print)	/ Signature	/ Z #	/ Date

Container No. (7.[1]):	S870381	S870196	
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	
Current Filter Vent No. (7.[1]):	72	72	
New Filter Vent No.: (7.[8][A]):	72	72	
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene		1.40	
Chlorobenzene		5.18	
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane		1.67	
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]):	Ø	8.25	

No Further Entries
1/24/11

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

	Container Number (7.[1]):	5870381	5870196	
	Hydrogen Reading (ppm) (7.[10]):	773.22 ppm	1215.89 ppm	ppm
	Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	ppm
	Total VOC Reading (ppm) (7.[11]):	Ø ppm	8.25 ppm	ppm
	Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	
	WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	
	Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	
	Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	
	Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][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	

No further Entries 1/24/11

* No torque value required for 072 or 073 filters – Record N/A as applicable

Comments:
N/C

11.1[1] Performed By: Alicia Herrera / [signature] 198480 / 1/24/11
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]/ 11.1[8] Reviewed By: _____ / _____ / _____ / _____
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110119c\
Data File : S870381.D
Acq On : 19 Jan 2011 1:38 pm (#1); 19 Jan 2011 1:37 pm (#2)
Operator : EL
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 19 13:45:43 2011
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	3.246	96	4262082	209.00 ppm	0.00
15) Chlorobenzene-d5	5.930	117	3502084	184.00 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.352	GC1	195792	773.22 ppm	100

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

Vocgas.m Wed Jan 19 13:45:47 2011

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 #63,005 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 →

11-13 DAYSHIFT

0559 Reviewed shift turnover checklist and logbook entries and assumed the WCRR SOM position [signature]

0631 Completed attending the pre-job brief conducted by Charles the SOS. The safety topic was inspection of hoisting and rigging equipment. There are no transfers scheduled for today. A facility update was provided with included shift turnover information, the bottom of the glovebox requires piping and supplies are required for bagg in. Shift Orders in effect were discussed WCRR-SH-13-003 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 50-69 was not functional. Messages were left for the radiological technicians - to support in repair.

0755 Mode Change: 50-69 /yard transition from cold/warm to Operations / Operations

0827 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.

0841 Operators initiated bag on of PARENT drum 5870381

0855 Operators completed bag on

1050 Inside operators report initiating bag off of 1 daughter, bag on another and continue.

1105 Operators initiate bag off of a daughter and bag on and continue processing.

1207 Operators complete bag on

1330 Energy Solutions PM (Leak) completes discussing scheduled work for holidays.

1423 Inside Operators initiate denesting of 5870213

1431 Operators identify cracked ring therefore will hold off on 5870213 - not sling 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]

PROJECT LOG

1-11-13

0000 Incoming OCRRF 305 position Cleland - starting outside

0615 Pre job briefing being conducted, performed briefing EP-WCRR-WO-DOP-0222 and discussed Rigging safety

1620 completed outside rounds

0713 Starting inside rounds

0720 late entry pre job concluded at 0635 - Cleland

0721 Pat notified that PCM is not operable will need to manually survey operators when leaving.

0745 Rounds have been signed off

0755 mode change performed to operations

0757 Starting movement into 50-69.

0800 late entry Operators returning 50-69 to perform normal scale verification and retape of box outside operators moving in supplies and getting ready for reinventory of building 0455 Cleland

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 waiting for lunch

1311 Operators meeting with ES OM discussing shift work runs during holidays

1334 Operators returning 50-69 to continue processing

1423 Denesting and bagging on 9870213

1433 Operators notifying OPA center that the ring was broken on 9870213 and will not bag on or detect the drum

1505 denesting of 2 drums complete, bagged on 9818449 9870213 ring is misplaced and drum is wet.

1044 Starting inside rounds

1100 late entry Bagging off daughter, Bagging on a daughter at 1422 Cleland

1723 late entry Bag on, Bag off complete continuing to process 1440 - Cleland

1736 Bagging off, Bagging on 9824184

1740 Rounds have been signed off.

805 Bag on, Bag off complete.

1-11-13 1508 Being released by SCS Securing - Cleland

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-RTR2-13-0128
Examination Date:	11/14/2013
Waste Container ID:	68623
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.: 136.5 kg Tare Wt.: 33.4 kg Net Wt.: 103.1 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 68623

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):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	93.1
Soils (S):	
Total WMP Weight:	103.1

CCP Radiography Data Sheet

Waste Container ID: 68623

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	[signature]	11/14/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68623	Count Sequence Number:	16716
Operator:	DCLTD231\Operator		
Assay Start:	11/15/2013 9:01:31 AM		
Description 1:	2LANDA1241		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 103.0 kg	Net:	103.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.620 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:	16716	Batch Number:	2LANDA1241
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68623	Analysis Date:	11/15/2013

Net Weight	103000.0 g			
Pu mass	2.83E+001	+-	5.27E+000	g
TRU Alpha Activity	1.48E+001	+-	6.85E+000	Ci
TRU Activity Concentration	1.43E+005	+-	6.65E+004	nCi/g
Pu-239 Equivalent Activity	1.48E+001	+-	6.85E+000	Ci
Pu-239 FGE	2.67E+001	+-	5.26E+000	g
Decay heat	4.87E-001	+-	2.28E-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	1.06E-006
U233	<LLD	<LLD	0.00E+000	1.48E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.61E-006
NP237	1.89E-001	1.34E-004	2.30E-005	3.28E-006
PU238	2.58E-003	4.41E-002	1.07E-002	1.36E-003
U238	<LLD	<LLD	0.00E+000	2.22E-005
PU239	2.65E+001	1.64E+000	3.26E-001	5.06E-002
PU240	1.70E+000	3.85E-001	9.37E-002	1.18E-002
AM241	3.70E+000	1.27E+001	6.84E+000	1.29E-001
PU241	3.24E-002	3.34E+000	8.12E-001	1.03E-001
PU242	5.66E-003	2.23E-005	5.44E-006	0.00E+000
AM243	9.03E-003	1.81E-003	3.12E-004	2.14E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-22-13

ITR: _____ Date: 11·22·13

Automated Independent Technical Review

Count Sequence Number: 16716
Batch Number: 2LANDA1241
Counter ID: HENC #2
Container ID: 68623
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 11/15/2013

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.	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.

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	OK
MCA Deadtime greater than the upper limit of 50.0%.	No spectral distortion observed.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 11/22/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68623**

BDR Number: **LA13FG2120**

Sampling Date: **11/25/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	398.58	
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 : 68623.D
Acq On : 25 Nov 2013 1:51 pm (#1); 25-Nov-13, 13:50:57 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 13:59:51 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	3.548	96	4108883	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.852	117	3255759	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.626	GC1	2997m	398.58	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:	68625
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.: 133.5 kg Tare Wt.: 33.4 kg Net Wt.: 100.1 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 68625

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):	7.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	89.1
Soils (S):	
Total WMP Weight:	100.1

CCP Radiography Data Sheet

Waste Container ID: 68625

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	[signature]	11/14/2013
Print Name	Signature	Date

5870381

NDA 2000 Assay Report

Item Information

Item ID:	68625	Count Sequence Number:	16718
Operator:	DCLTD231\Operator		
Assay Start:	11/15/2013 10:37:45 AM		
Description 1:	2LANDA1241		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 100.0 kg	Net:	100.0 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.800 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: 16718
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 15
Item ID: 68625

Batch Number: 2LANDA1241
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 11/15/2013

Net Weight	100000.0 g		
Pu mass	3.86E+001	+-	8.09E+000 g
TRU Alpha Activity	2.81E+001	+-	1.38E+001 Ci
TRU Activity Concentration	2.81E+005	+-	1.38E+005 nCi/g
Pu-239 Equivalent Activity	2.82E+001	+-	1.38E+001 Ci
Pu-239 FGE	3.93E+001	+-	8.10E+000 g
Decay heat	9.27E-001	+-	4.60E-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	2.09E-006
U233	<LLD	<LLD	0.00E+000	1.95E-002
U234	6.23E-002	3.88E-004	9.35E-005	0.00E+000
U235	4.44E+000	9.59E-006	2.31E-006	5.52E-006
NP237	3.19E-001	2.25E-004	4.50E-005	4.11E-006
PU238	3.52E-003	6.02E-002	1.59E-002	1.63E-003
U238	<LLD	<LLD	0.00E+000	3.97E-005
PU239	3.62E+001	2.24E+000	5.00E-001	6.06E-002
PU240	2.31E+000	5.25E-001	1.39E-001	1.42E-002
AM241	7.36E+000	2.52E+001	1.38E+001	1.41E-001
PU241	4.42E-002	4.55E+000	1.20E+000	1.23E-001
PU242	7.72E-003	3.05E-005	8.05E-006	0.00E+000
AM243	1.38E-002	2.76E-003	5.54E-004	2.67E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-22-13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 16718 Batch Number: 2LANDA1241
Counter ID: HENC #2
Container ID: 68625
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	OK
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; Gamma data specified as input.	Results taken from quantitative gamma data.
Results taken from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	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.
Results are marked as invalid.	

Comments	Disposition
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 F[illegible] Date: 11/22/13

Waste Container ID: **68625**

BDR Number: **LA13FG2120**

Sampling Date: **11/25/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	608.58	
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 : 68625.D
Acq On : 25 Nov 2013 2:02 pm (#1); 25-Nov-13, 14:02:04 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 14:10:55 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	3.574	96	4223979	205.75 ppmv	0.06
15) Chlorobenzene-d5	5.874	117	3330949	177.50 ppmv	0.01
Target Compounds					Qvalue
1) Hydrogen	1.628	GC1	4576m	608.58 ppmv	

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

S870475

S870475

Container 754119

File Options Reports Help

S870475

754119	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

S870475

S870475
- 93580 - EMPTY
- 93577
- 93576

Task History

Transfer Details

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

Working Copy
Date: 4-28-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S870175

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

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: None

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] B0772 4-27-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No. S8 10415

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 3792 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 1200 lb

6.2[5][B] Total Parent Drum Weight (lb) 4992 lb
6.2[6]

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

FWMO-FOD (print)	Signature	I. #	Date
	L/A		

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: SS70475

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93576	93577	N	
10.1[4]	Daughter Drum Filter No.	LM-14	LM-28		
10.1[4]	Daughter Drum Bag Filter No.	L-6660	L-6647	A	
10.1[4]	Daughter Drum Purchase Order No.	501011	501186		
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		
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				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead	N/A	N	
10.3[9][A]	PCB-contaminated Waste Description			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 (%)	60%	100%	N	
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic	Plastic	A	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5870475

Comments: Poly liner, lead, Kitty litter, Plastic, Salt and Absorbed Acid-Neutralizing Added.

11.1[1] Performed By: Brandon Chavez [signature] 1204783 5-27-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez, [signature] 1221452, 5-1-13 0911
SOS or designee (print) Signature Z # Date/Time

Working Copy
4-25-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 414996
Lot No.: 217570
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: EL-31b
Manufacture Date: 5/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	D40694	038369
Cal. Expiration Date:	9-26-13	12-18-13
Tolerance:	+/-4% cw +/-6% ccw	+/-3% cw +/-6% ccw

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

Performed By: Clayton Mullins / Michael Montoya / [signature] / 240092 / 191352 / 4/25/13 / 4/25/13
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins / Michael Montoya / [signature] / 240092 / 191352 / 4/25/13 / 4/25/13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] / R2145215 / 5-1-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 04-28-13 w

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 93580

7.[25] 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 +/- 6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: James Sandoval [signature] 111662 / 04-28-13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 07-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 209.1 lb

Comments: N/C

8.1[1] Performed By: James Sandoval [signature] 111662 / 04-28-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez [signature] 1221452 / 5-1-13
Supervisor or designee (print) Signature Z # Date

1A

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

Drum ID#: 93576

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 #: 501011
Lot #: A033403
Date of Manufacture: 2012

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: BAP
Model #: 6CPVC-1.5-25PVC
Serial #: L-6660
Date of Manufacture: 1-13

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 #: 019DS
Serial #: CM-44
Date of Manufacture: 12/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038369
Cal Expiration Date:	9/26/13	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: Justin Grace Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 76.0
File ID#: 019065

☑ 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: Clayton Mullins Operator Sign: [signature] Z#: 248092 Date: 4/25/13

Verifier Print: Brandon Crowe Verifier Sign: [signature] Z#: ~~204712~~ 204712 Date: 4-27-13

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

DRUM ID#: 93576

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

N/A 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): 293.8

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: Brandon Chacez Date 4-27-13

Verifier Print/Sign: [illegible] Date 4-27-13

1B

Working Copy Date 4-26-13 A

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

Drum ID#: 93577

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 #: 501186
Lot #: 0234763
Date of Manufacture: Lold

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 #: 6PVC-L3-25PVC
Serial #: L-6647
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 #: ~~LM-28~~ 019DS
Serial #: LM-28
Date of Manufacture: 12-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038369
Cal Expiration Date:	9-26-13	Cal Expiration Date:	6-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% ca ±6% ca	Tolerance:	±3% ca ±6% ca

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Justin Lopez Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information
Tare wtight (lbs) 75.6
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: Justin Lopez Operator Sign: [signature] Z#: 266436 Date: 4-26-13
Verifier Print: James Sanford Verifier Sign: [signature] Z#: 116662 Date: 4-28-13

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

DRUM ID#: 93577

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): 312.7

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: [signature] Date 04-28-13

Verifier Print/Sign: Brandon Crane Date: 4-28-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

SP1 — CCP SP 72 MR 6.10.12

Production Control

Container ID: S870475 Container Type: 55-GAL Gross Weight (lbs): 385

Inner Seal #: 023920 Filter Prefix: LAS Filter Serial #: 05133

AK Waste Stream: LA-MHD01.001 Certified RTR BDR: LA-RTR2-11-0147

TWSR Comments: LEACHED SOLIDS MST 12 RM#401 A04460

Total PE-Ci Activity: 6.49E+00 Equivalent Combustible PE-Ci: 2.44E+00 AM-241 PE-Ci: 5.27E-01

Total Fissile Gram Equivalents: 71.7 Total Surface Dose Rate (mrem/hr): 3

EPA Code(s): None

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 7/31/2007 Comment: Liquids, Impenetrable Obj, Liner Not Punctured, Liquid Location: 25

Certified RTR Comment: Unvented Liner, Impenetrable Items

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: 10/31/12 ☑ 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 on the label. A minimum of 1:2 volumes of kitty litter must be mixed with 1.0 volume of nitrate salts.

Performed By: R. W. Jones — Production Control (Print) — Signature — 117434 Z Number — 1.24.12 Date

SUSAN S. RAMSOY — Signature — 100681 Z Number — 10/31/12 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: 325lb. Historical info shows 12 items of nitrate salts, ranging in weight from 7lb to 35lb. RTR inventory shows 55 gal drum has 90 mil liner + contains scrap lead, plastic, + homogeneous solid material. Nitrate salts may contain undocumented liquids

Performed By: Valerie Rhodes — WDP Engineering (Print) — Signature — 112609 Z Number — 2/7/12 Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Do not puncture or press on waste with hands. Use Heavyweight gloves when processing

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of Kitty litter to waste

Performed By: Melissa Velarde — TRU Remediation Operations (Print) — Signature — 149235 Z Number — 4/15/5 Date

Jose Jerez — Signature — 234019 Z Number — 2/8/12 Date

221952 — 11-29-12

IHS Review pending Amalgamated CSP, may contain Pb, Cr, Hg

11/5/12

Noncertified TRU Waste Drum Item Information

DrumID: 023920

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	HT	Auth (Pg/Ln)		Comments
1	4LR30ES1		5.700	NITRATE SALTS	R00	6.19	52	1/13	G468	
2	5DS11ES1		6.350	NITRATE SALTS	R00	5.68	52	1/13	G468	
3	50X13WS1		15.880	NITRATE SALTS	R00	27.79	52	1/13	G468	
4	51R29WS1		12.100	NITRATE SALTS	R00	3.01	52	1/13	G468	
5	61R2ES1		5.500	NITRATE SALTS	R00	3.42	52	1/13	G468	
6	61R10WS1		7.300	NITRATE SALTS	R00	3.63	52	1/13	G468	
7	61R15WS1		10.200	NITRATE SALTS	R00	11.22	52	1/13	G468	
8	61R25WS1		6.700	NITRATE SALTS	R00	1.56	52	1/13	G468	
9	60X23ES1		4.360	NITRATE SALTS	R00	2.4	52	1/13	G468	
10	60X8ES1		3.150	NITRATE SALTS	R00	5.13	52	1/13	G468	
11	60X30WS1		7.810	NITRATE SALTS	R00	2.82	52	1/13	G468	
12	61R30ES1		14.760	NITRATE SALTS	R00	5.34	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 174.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	76.19	99.81
Totals	76.19	99.81

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-11-0147
Examination Date:	11/15/2011
Waste Container ID:	S870475
Video/Audio Recorded Media Number:	LA-RTR2-11-0147 A
Procedure and Revision No.:	CCP-TP-053 Rev. 11
NCR(s) associated with the container? (e.g., Prohibited Items)	☐ NO ☑ YES NCR No.: NCR-LANL-3836-11 NCR No.: NCR-LANL-3837-11

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt: 170.0 kg. Tare Wt: 35.1 kg. Net Wt: 134.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Unvented AP 12/1/11
Number of Layers of Confinement:	~~Appears to be 1 layer~~ Can not verify AP 12/1/11
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S870475

Section 3: Container Inventory and Comments (Detailed descriptions)
Scrap lead
Plastic bag, horsetail
homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP): Rigid Liner	7.4
Others:	0.0
Total Packaging Weight:	35.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	66.5
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	66.4
Soils (S):	
Total WMP Weight:	134.9

Can not verify ID tag/ln

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S870475

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block, except for Question 1)	Yes	No
Is there observable liquid?	☑	☐
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐	☑
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐	☑
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐	☑
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐	☑
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐	☑
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])?	☐	☑
Is there an indication of wastes containing explosives or compressed gases?	☐	☑
Is there an indication of PCBs liquids?	☐	☑
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003)?	☐	☑
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☑	☐
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?	☐	☑
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐	☑
Are there sealed containers GREATER than 4 liters?	☑	☐
Are there indications of inadequate protection for heavy and/or sharp objects?	☐	☑

Comments: NCR-LANL-3836-11
NCR-LANL-3837-11

RTR Operator:

Print Name	Signature	Date
Philip Dillard		11/15/11

12/1/11

SP 1

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 1/26/12

Container No. (5.[1])	S824188	S870475	S891513			
Filtered Vent Type (5.[1])	72	72	72			
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])	2.61 ppm	Ø ppm	Ø ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	447.58 ppm	Ø ppm	Ø ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	Ø ppm	Ø ppm	ppm	ppm	ppm

No Tweezer Entries 1/30/12
No Tweezer Entries 1/30/12
No Tweezer Entries 1/30/12

5.[7] Certified CCP Technician:

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

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

Comments: N/C

6.1[2][A] (S) WCRRF waste container satisfies the following criteria ☑ SAT ☐ UNSAT

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

[illegible] Performed [illegible] Alvin Herrera [illegible] 198450 1/26/12

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120126c\
Data File : S870475.D
Acq On : 26 Jan 2012 4:15 pm (#1); 26-Jan-12, 16:14:45 (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL SAMPLED UNDER DRUM LID -072 FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 26 16:33:39 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Tue Oct 18 13:58:45 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.628	96	6685729	209.00	ppmv	0.00
15) Chlorobenzene-d5	5.934	117	5599273	185.50	ppmv	-0.01

Target Compounds Qvalue

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

vocgas.m Thu Jan 26 16:33:45 2012

4-28-13

0600 Assuming WCRRF Operations center - Orlando

0607 Starting outside rounds.

0615 Pre job being conducted by SOS.

0616 Starting inside rounds.

0619 Item # 3 is unsat, FSR in place OK to proceed.

0630 Item # 63 is OOS, POD in place, OK to proceed.

0640 Completed inside rounds.

0650 Rounds signed off by SOS.

0655 mode changed to operations in TA50-69 and WCRRF yard.

0824 Bagging on 3870475

0837 Bag on complete.

1023 Bagging off Dr daughter

1044 Bag on, Bag off complete.

1146 Starting to direct drum 5824187

1214 Denesting completed.

1400 Bagging on 3824187, Bagging off 3824187.

1428 Bag off complete.

1513 Starting 4-28-13 outside rounds

1516 Item # 3 is unsat FSR in place OK to proceed

1535 Starting inside rounds. Completed outside round

1553 Item 63 is OOS, POD in place OKay to proceed.

1555 Completed inside rounds

1610 Bagging off daughter

1626 Bag on, Bag off complete.

1720 Bagging off 3824187

1747 Bag off complete.

1754 Starting movement ~~to~~ 4-28-13 Out of 50-69.

1810 ~~1810~~ Completed movement out of 50-69.

1815 mode change performed TA50-69 and WCRRF yard in warm standby.

1830 End of day WCRRF Operations center secure Orlando

no further entries this page.

4.28.13

0000 Assumed the WCRR SOM position. Jeanette S. Menendez
0015 Attended the pre-job briefing conducted by SOS. Work scheduled maintenance performed on drum lift. RPI discussed laying down plastic where paint is coming off on contaminated areas. Smears/Sliwipe were taken on 4.27.13 on these areas and no contamination detected. E.S. IH was asked by SOM to follow up on SWP and availability of paint to allow operations to conduct painting possibly on next maintenance day.
0055 Mode change complete. WCRR YARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.
0825 Bagging on first drum of the day. Operations had to lay down plastic on areas of concern where paint was showing per RPI requirements.
1044 Bag offs complete for first parent drum, resulting in two daughters.
1146 Starting to de-rust 85 gallon over-pack.
1214 Welding complete.
1220 Operations coming out for lunch.
1225 Late entry 1015 field observations in ARTIC met with operator #513 to discuss concerns with the Nuclitl 190s filters. There is a screw like part on the filter that has popped off/loosened on a couple of occasions. Operations were instructed to place those filters to the side and notify their supervisor next time this occurs. SOM will follow up with QA for a pathforward.
1306 SOM left at Nuclitl 190s filter for incoming SOM to follow up with QA on Monday 4.29.13. An e-mail was also sent to incoming SOM explaining issues with filter.
1450 Begin complete of second parent.
1720 Bag offs ~~complete of second parent~~ getting started on second parent and daughters.
1747 Bagoffs complete. Operations completed processing two parent drums producing four daughters both from SP#72.
1754 Movements taking place within the buildings and yard.
1810 All movements complete.
1815 Mode change complete. WCRR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM.
1835 Securing the SOM position. Jeanette S. Menendez

No further entries this page.

Jeanette S. Menendez 4.28.13

4/28/13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief discussed putting down plastic on floor where magenta paint is showing

0635 Shift brief Concluded

0650 Reviewed Inside And outside Rounds

0655 Mode change Complete WCRRF In operations.

0659 Operators will be putting Down plastic as directed by RP-1 personal

1824 Bagging on S870475

0837 Bagging on Complete

1023 Bagging off one daughter

1044 Bag off Complete

1115 Turn over position to Jose Jesus. [illegible]

1115 Completed turnover with Gilbert Martinez, Assuming SOS position Jose [illegible]

1145 Operators starting to D-West 1 Parent from 85 gallon overpa

1215 D-Nesting Complete.

1245 Operators breaking for lunch.

1345 Operators returning from lunch

1400 Starting to Bag on second drum and Bag off first drum

1430 Bag on, Bag off Complete First drum generated two daughte PPE check SAT.

4/28/13 1610 Bagging off one daughter, bagging on second daughter.

1720 Bagging off final drum.

1810 Signed and Reviewed inside Rounds

1815 Mode Change Complete WCRR yard and 50-69 are in WARM

4/28/13 1825 Securing SOS position for the day. Jean [illegible]

AM

WO Routine activities on this page

CCP Radiography Data Sheet

S870475

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0065
Examination Date:	5/1/2013
Waste Container ID:	93576
Video/Audio Recorded Media Number:	LA-RTR2-13-0065 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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.: 133.5 kg Tare Wt.: 33.4 kg Net Wt.: 100.1 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 93576

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal, hardware

AM:

OM: Scrap lead

OI:

C:

R: Leaded rubber gloves

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):	4.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	10.0
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	70.1
Soils (S):	
Total WMP Weight:	100.1

CCP Radiography Data Sheet

Waste Container ID: 93576

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	[signature]	5/1/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93576	Count Sequence Number:	22688
Operator:	D3PW2DK1\operator		
Assay Start:	5/2/2013 10:36:23 AM		
Description 1:	1LANDA1763		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 100.0 kg	Net:	100.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.600 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: 22688
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 93576

Batch Number: 1LANDA1763
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 5/2/2013

Net Weight	100000.0 g		
Pu mass	3.28E+001	+-	5.42E+000 g
TRU Alpha Activity	8.83E+000	+-	1.10E+000 Ci
TRU Activity Concentration	8.83E+004	+-	1.10E+004 nCi/g
Pu-239 Equivalent Activity	8.90E+000	+-	1.10E+000 Ci
Pu-239 FGE	3.10E+001	+-	5.08E+000 g
Decay heat	2.89E-001	+-	3.67E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.28E-001	9.18E-005	1.56E-005	4.38E-006
PU238	3.01E-003	5.21E-002	8.60E-003	3.36E-005
PU239	3.08E+001	1.94E+000	3.20E-001	1.25E-003
PU240	1.97E+000	4.53E-001	7.47E-002	2.92E-004
AM241	1.84E+000	6.38E+000	1.05E+000	4.12E-003
PU241	3.86E-002	4.01E+000	6.62E-001	2.59E-003
PU242	6.57E-003	2.61E-005	4.30E-006	0.00E+000
SR90	1.79E-008	2.46E-006	1.31E-006	0.00E+000
CS137	2.81E-008	2.46E-006	1.31E-006	1.04E-006
U233	<LLD	<LLD	0.00E+000	1.03E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.07E-006
U238	<LLD	<LLD	0.00E+000	2.09E-005
AM243	5.42E-003	1.09E-003	1.88E-004	1.48E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 5-7-13

ITR: _____ Date: 5-7-13

Automated Independent Technical Review

Count Sequence Number: 22688 Batch Number: 1LANDA1763
Counter ID: MCS HENC #1
Container ID: 93576
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 5/2/2013

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; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Analysis Status: Override enabled; data marked not available but were used. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	
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
MCA Deadtime greater than the upper limit of 50.0%.	MCA deadtime = 51.75%
Spectrum Validity Check engine has suggested data review.	No spectral distortion observed.

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 from direct gamma used.

Expert Review by: Sheri Chambers Date: 5-6-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93576**

BDR Number: **LA13FG2054**

Sampling Date: **5/13/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	660.02	
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\130513C\
Data File : 93576.D
Acq On : 13 May 2013 11:24 am (#1); 13-May-13, 11:23:46 (#2)
Operator : ~~RJ~~ 5-13-13 EL
Sample : EL
Misc : 55 Gallon Drum through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 13 11:32:35 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	3.588	96	4331859	201.25 ppmv	0.02
15) Chlorobenzene-d5	5.917	117	3787625	177.00 ppmv	0.02
Target Compounds					Qvalue
1) Hydrogen	1.607	GC1	4691m	660.02 ppmv	

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

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CCP Radiography Data Sheet

5870475

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0065
Examination Date:	5/1/2013
Waste Container ID:	93577
Video/Audio Recorded Media Number:	LA-RTR2-13-0065 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
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.: 142.0 kg Tare Wt.: 33.4 kg Net Wt.: 108.6 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: 93577

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):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	100.6
Soils (S):	
Total WMP Weight:	108.6

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CCP Radiography Data Sheet

Waste Container ID: 93577

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:

Print Name	Signature	Date
Benito Maestas	[signature]	5/1/2013

NDA 2000 Assay Report

Item Information

Item ID:	93577	Count Sequence Number:	22691
Operator:	D3PW2DK1\operator		
Assay Start:	5/2/2013 12:52:21 PM		
Description 1:	1LANDA1763		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 109.0 kg	Net:	109.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.660 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: 22691
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 93577

Batch Number: 1LANDA1763
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 5/2/2013

Net Weight	109000.0 g		
Pu mass	7.80E+001	+-	1.44E+001 g
TRU Alpha Activity	1.30E+001	+-	4.01E+000 Ci
TRU Activity Concentration	1.20E+005	+-	3.68E+004 nCi/g
Pu-239 Equivalent Activity	1.32E+001	+-	4.01E+000 Ci
Pu-239 FGE	7.36E+001	+-	1.35E+001 g
Decay heat	4.23E-001	+-	1.34E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.27E-001	9.06E-005	1.62E-005	4.29E-006
PU238	7.16E-003	1.24E-001	2.29E-002	3.36E-005
PU239	7.32E+001	4.61E+000	8.51E-001	1.25E-003
PU240	4.68E+000	1.08E+000	1.99E-001	2.92E-004
AM241	2.08E+000	7.24E+000	3.92E+000	9.81E-002
PU241	9.18E-002	9.54E+000	1.76E+000	2.59E-003
PU242	1.56E-002	6.20E-005	1.15E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.93E-007
U233	<LLD	<LLD	0.00E+000	9.80E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.79E-006
U238	<LLD	<LLD	0.00E+000	2.16E-005
AM243	4.96E-003	1.00E-003	1.81E-004	1.33E-005

Errors quoted at 1.000 sigma

Operator: Marsha Gu Date: 5-7-13

ITR: [illegible] Date: 5-7-13

Automated Independent Technical Review

Count Sequence Number: 22691 Batch Number: 1LANDA1763
Counter ID: MCS HENC #1
Container ID: 93577
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 5/2/2013

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; 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 specifie 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: 5-6-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93577**

BDR Number: **LA13FG2054**

Sampling Date: **5/13/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	623.43	
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\130513C\
Data File : 93577.D
Acq On : 13 May 2013 10:26 am (#1); 13-May-13, 10:25:42 (#2)
Operator : ~~RJ~~ 5-13-13 EL
Sample : EL
Misc : 55 Gallon Drum through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 13 10:34:58 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	3.568	96	4384159	201.25 ppmv	0.00
15) Chlorobenzene-d5	5.900	117	3803613	177.00 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.606	GC1	4431m	623.43 ppmv	

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

S870478

S870478

Container 754326

File Options Reports Help

S870478

754326	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

S870478

- S870478
  - LA00000068742
    - LA00000069218 - EMPTY
    - LA00000069183 - LANL
      - LASB50443
    - LA00000069158 - WCS
      - LASB50055
  - W798112 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000069158	0.0	kg

Working Copy
Date: 1-11-14 a)

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68742

6.2[4] Date Processed: 1-11-14

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: NONE

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: Brian Gallegos / B. Gallegos / 467129 1-12-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68742

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 409.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 105.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 514.0 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.: 68742

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69183	69158	N	
10.1[4]	Daughter Drum Filter No.	AN-659	JL-826	A	
10.1[4]	Daughter Drum Bag Filter No.	L-18148	L-10360		
10.1[4]	Daughter Drum Purchase Order No.	501892	501892		
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	6 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	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%	30%		
10.5[3]/10.6[2]	Description Waste Added During Processing	BAG OUT STUBS, KITTY LITTER	BAG OUT STUBS, KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68742

Comments: ROOM TRASH, PLASTIC, HEX ARMOURS, NITRATE SALTS, KITTY LITTER, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / Bri Gallegos 1267129 1-11-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez / [illegible] 149235 1/12/14 0950
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 1-11-14

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:		
Tolerance:		

Overpack filtered vent information:

Manufacturer:
Model No.:
Serial No.:
Manufacture Date:

PREPARED AT TA-54

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:

8.1[1] Performed By: BRIAN GALLEGOS / Bri Nolley / 269129 1-11-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] / 149235 / 1/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 1-11-14 CV

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69218

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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: Brian Gallegos / [signature] / 267129 1-11-14
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): 172.0 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / [signature] / 267129 1-11-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 142351 1/12/14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 1-4-14

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69183

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.52Spvc
Serial No.: L-10148
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	8-5-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±1%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] 204742 / 1-6-14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: AN-659
Manufacture Date: 1-13

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.: 69183

Comments: NE

5.[35] Performed By: Brandon Chavez / [signature] 204742 1-6-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 145275 11/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69183

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 / Brian Gallegos / 267129 / 1-11-14
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: Gilbert Gin / 1/12/14 / [illegible] / [illegible] / [illegible] 1/12/14
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.: 69183

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 427.0 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: Brian Gallegos / [signature] / 1267129 / 1-11-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 1453351 / 1/12/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

1/5/14 HJ

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69158

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPU C1.52SQVC
Serial No.: L10360
Manufacture Date: 6/13

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	8/5/14
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: Joe Quintana (Operator (print)) | Joe Q (Signature) | 239987 (Z#) | 1/8/14 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 01905
Serial No.: JL-826
Manufacture Date: 10/11

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.: 69158

Comments: N/C

5.[35] Performed By: JOE QUINTARP | Joe Q | 739987 | 1/5/14
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Gilbert Martinez | [signature] | 142235 | 1/12/14
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69158

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] / 2467129 / 1-11-14
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: Gilbert Martinez / [signature] / 1469251 / 1/12/14
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.: 69158

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 181.8 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: Brian Gallegos / [signature] / 1267129 / 1-11-14
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 149351 / 1/12/14
Supervisor or designee (print) / Signature / Z # / Date

Working Copy
Date: 1-11-14

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68742

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): 409.0

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: Brian Gallegos / [signature] / 267129 / 1-11-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 149355 / 1/12/14
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] / 149355 / 1/12/14 / 0957
SOS/SOM or designee (print) Signature Z # Date Time

Salvage SP77 T2
Drum NC
6.10.12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container re-labeled & given new number in WCATS. B. Smyth 11/20/13

Container ID: S870478 \ 168742 Container Type: 85-GAL Gross Weight (lbs): 410
Inner Seal #: 023799 Filter Prefix: LAS; LAVC Filter Serial #: 02927; 03507
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 A04445
Total PE-Ci Activity: 4.45E+00 Equivalent Combustible PE-Ci: 1.67E+00 AM-241 PE-Ci: 3.61E-01
Total Fissile Gram Equivalents: 49.2 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/30/2007 Comment: Impenetrable Obj.
Certified RTR Comment: None
Prohibited Items: ☒ Sealed > 4 Liters ☒ Liquid ☒ Pressurized Container ☑ Impenetrable Item ☒ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ ~~Repack~~ 10/31/12 ☐ ~~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 on the 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)) / R. W. Jones (Signature) / 117434 (Z Number) / 12-1-11 (Date)

WDP Engineering SUSAN S. RAMSEY Putting compliant SCS in 5112/224 covers new drum id. / Susan S. Ramsey / 100681 / 10/31/12

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Leached solids - nitrate salts
Net wt: 350 lb. Thirteen items; heaviest item weighs ~60 lb while others range from 7 lb to 25 lb.
55 gal drum overpacked in 85 gal drum
May require RWP for >100 and <1000 mrem/hr @ 30 cm
Drums w/ nitrate salts may contain undocumented liquids

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z-Number) / 12/11/11 (Date)

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: USE Proper PPE And Kitty Litter Rule
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Do not push or press on waste with hands.

Performed By: Gilbert Martinez / Vanessa Velarde (TRU Remediation Operations (Print)) / Signature / 149235 / 234174 (Z Number) / 11/18/13 (Date)
Darrel L. Blain / Darrel L. Blain / 218069 / 11/14/13

HTS Review Jeremy Arnold CSP, May contain Pb, Hg, Cr
11/5/12

Document No: EP-DIV-AP-0107

WCRRF Page 1 of 1
Monday, November 07, 2011

Jose Jerez / Jose Jerez / 221452 / 12/6/13

Noncertified TRU Waste Drum Item Information

DrumID: 023799

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	7LRWS1		5.040	NITRATE SALTS	R00	1.82	52	1/13	G468	
2	7LR7WS1		10.720	NITRATE SALTS	R00	2.06	52	1/13	G468	
3	7LR1WS1		9.390	NITRATE SALTS	R00	2.18	52	1/13	G468	
4	70X7ES1		3.110	NITRATE SALTS	R00	0.73	52	1/13	G468	
5	7LR15WS1		5.190	NITRATE SALTS	R00	3.74	52	1/13	G468	
6	70X16ES1		4.120	NITRATE SALTS	R00	4.16	52	1/13	G468	
7	7LR14ES1		11.540	NITRATE SALTS	R00	6.86	52	1/13	G468	
8	7LR17ES1		1.800	NITRATE SALTS	R00	1.37	52	1/13	G468	
9	7LR9WS1		5.750	NITRATE SALTS	R00	3.82	52	1/13	G468	
10	70S21ES1		27.170	NITRATE SALTS	R00	15.45	52	1/13	G468	
11	70X21WS1		5.540	NITRATE SALTS	R00	2.76	52	1/13	G468	
12	70X30WS1		8.300	NITRATE SALTS	R00	2.7	52	1/13	G468	
13	7DS29WS1		10.400	NITRATE SALTS	R00	4.59	52	1/13	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 186.

Material Type	SNM (grams)	Items Net Wt (kg)
52	52.24	108.07
Totals	52.24	108.07

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/21/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Erik Loechell	[signature]	1234831	1-31-11
	/	/	/

Container No. (7.[1]):	S870478	S825893	S833341
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			
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			61.50
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	Ø	61.50

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	S870478	S825893	S833341
Hydrogen Reading (ppm) (7.[10]):	1413.34 ppm	Ø ppm	1560.46 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	61.50 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:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 1/26/11
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]/ 11.1[8] Reviewed By: Kenny Romero Kenny Romero 111288 1.31.11
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110121c\
Data File : S870478.D
Acq On : 21 Jan 2011 12:18 pm (#1); 21 Jan 2011 12:17 pm (#2)
Operator : GR
Sample :
InstName : Unit 8
Misc : 55 GAL DRUM FROM INSIDE 85 GAL OVERPACK. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 21 12:27:11 2011
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	3.246	96	4353010	209.00 ppm	0.00
15) Chlorobenzene-d5	5.930	117	3657213	184.00 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.360	GC1	357882	1413.34 ppm	100

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

Vocgas.m Fri Jan 21 12:27:18 2011

1-11-14
0555 Assuming WCRRF operations center - Cleland.
0615 Pre job being conducted by SOS.
0630 Pre job concluded by SOS.
0635 Starting outside rounds.
0650 Starting inside rounds.
0701 ~~Inside~~ Outside 1-11-14 rounds completed
0722 inside rounds complete.
0728 Rounds signed off by SOS.
0730 mode change to operations, TRU 69 and WCRRF yard.
0755 moving out of 50-69
0804 Starting to denest 4 drums.
0819 movement out of 50-69 is complete.
0930 Denesting complete, Bagging on 48742.
0937 Bag on complete.
1102 Bagging off 2 daughters, Bagging on 48818.
1138 Bag off and Bag on complete
1327 Bagging off 1 daughter bagging on another daughter
1339 Bag on, Bag off complete
1420 Bagging off, Bagging on 48826
1442 Bag on, Bag off complete
1445 Starting outside rounds
1452 notified by operators that drum 48826 is full of water and glovebox has water in ports. RCT's monitoring and operators cleaning up
1516 Starting inside rounds. Outside rounds complete.
1520 Starting movement into 50-69 4 drums
1525 Bagging off 1 daughter, Bagging on 1 daughter
1539 Item 13 is OOS, PDD in place okay to proceed per CST documentation.
1542 Bag off is complete. movement into 50-69 complete
1553 Starting movement out 50-69.
1600 Inside rounds complete.
1620 movement out of 50-69 complete.
1651 Bagging off 1 daughter and POC, will put on port cover.
- Continued on next page - Cleland

1/11/14 WCRR SOM

0600 Assumed the WCRR SOM position.

0630 Completed attending the pre job brief conducted by SOS (G. Martinez). Discussed attention to detail in all things - not just processing/operations but support functions as well. Work for today to include denesting and prep of 4 drums first thing (SP-72's). Station 2 inner lead window was broken yesterday - operators are using steel plate instead of lead window for shielding (lower window)

0730 Completed Mode Change: WCRR Yard/Bldg 50-69 from Warm/Warm to Operations/Operations.

0731 Operators reset thermostat in 50-69 to 68°F.

0734 Late Entry @ 0725 - Contacted ES Lead working @ Dome 412 regarding RWP for processing in glovebag. RP-1 does not have it yet however work is continuing without - Localized ventilation is being used which is acceptable under current RWP being worked to. J. Cassel cleared w/ RP-1 that this is an acceptable path forward for this drum.

0819 Completed move out of 5 drums from 50-69 to transportainers.

0830 Denesting operations completed of 4 drums - bagging on drum #68742.

0837 Bag on completed.

1000 SOM going to TA-54 to see 412 operations

1100 Meeting w/ J. Cassel at Bldg 412 noted the following - 1st drum was completed under the drum fume hood - pump was drained of all liquids w/ 2 daughters being generated. Operators were in process of moving in second drum to work. Certification of Glove bag proposed to take place in afternoon after completion of second drum.

1215 SOM back on site @ WCRR.

1220 Late Entry @ 1138 - Completed all bag offs for parent #68742 (2 daughters total), bagged on drum #68818.

1442 Completed all bag offs for parent #68818 (2 daughters total), bagged on drum #68826.

1452 Ops center notified that drum on WCG when opened was full of liquid - enough to flow into drum ports along bottom of WCG. RCT's are monitoring for dose - operators taking steps to absorb and clean up.

continued on next page →

PROJECT NAME WCRR SCS LCC Book NOTEBOOK NO.

1/11/14

0600 Assuming SCS Position Jeff [illegible]

0615 Conducted Shift Brief discussed drum Facade need denesting. also discussed replacement of lead lined glass on station 2 was replaced with steel Plate Per operators makes more sense to have Plate vs. Glass on this station.

0630 Pre Job concluded

0728 Reviewed inside and outside Rounds.

0738 Made Change Complete WCRRF In operations.

0755 Moving out of SC 69

0801 Starting to denest 21 drums.

0880 Move out complete

0930 Denesting Complete bagging on 68742

0937 Bag on Complete

1106 Bagging off 2 daughters Bagging on 68818

1138 Bag on/off Complete

1327 Bagging off 1 daughter Bagging on mother

1339 Bag on/off Complete

1420 Bagging off for on 68826

1442 Bag on/off complete

1442 starting Rounds

1452 notified by operators that drum 68826 is full of water and filterbox has water in it. RCTs will monitor and operators will clean up.

1520 Starting movement to SC 69 4 drums

1525 Bagging off 1 daughter bagging on mother

1547 Bag off for Complete movement to Complete

1553 Starting Move out

1620 Move out complete

1651 Bagging off 1 daughter and RCT test drum for day

1730 Bag off Complete

1735 Starting Move out of SC 69

1755 Made Change Complete WCRRF In Warm

1758 Move out complete

1800 end of day Solung SCS Position Jeff

HA

Best Available Copy

Previous entries on this page

SIGNATURE _____ DATE _____ 20 ___

READ AND UNDERSTOOD _____ DATE _____ 20 ___

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0006
Examination Date:	1/16/2014
Waste Container ID:	69158
Video/Audio Recorded Media Number:	LA-RTR2-14-0006 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.: 82.5 kg Tare Wt.: 33.4 kg Net Wt.: 49.1 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:	40 %

CCP Radiography Data Sheet

Waste Container ID: 69158

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bag

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):	19.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	27.6
Soils (S):	
Total WMP Weight:	49.1

CCP Radiography Data Sheet

Waste Container ID: 69158

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		1/16/2014
Print Name	Signature	Date

5870478

NDA 2000 Assay Report

Item Information

Item ID:	69158	Count Sequence Number:	24135
Operator:	D3PW2DK1\operator		
Assay Start:	1/17/2014 9:50:51 AM		
Description 1:	1LANDA1892		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 49.1 kg	Net:	49.1 kg
Container:	Volume: 208.0 l	Full:	40.0 %
Density:	0.590 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:	24135	Batch Number:	1LANDA1892
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:	69158	Analysis Date:	1/17/2014

Net Weight	49100.0 g			
Pu mass	9.57E+001	+-	1.78E+001	g
TRU Alpha Activity	1.90E+001	+-	2.27E+000	Ci
TRU Activity Concentration	3.86E+005	+-	4.62E+004	nCi/g
Pu-239 Equivalent Activity	1.92E+001	+-	2.27E+000	Ci
Pu-239 FGE	9.03E+001	+-	1.67E+001	g
Decay heat	6.16E-001	+-	7.44E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.43E-001	1.01E-004	1.69E-005	3.70E-006
PU238	8.73E-003	1.49E-001	2.78E-002	3.31E-005
PU239	8.98E+001	5.57E+000	1.04E+000	1.23E-003
PU240	5.74E+000	1.30E+000	2.42E-001	2.89E-004
AM241	3.48E+000	1.19E+001	2.01E+000	1.58E-001
PU241	1.09E-001	1.12E+001	2.08E+000	2.48E-003
PU242	1.92E-002	7.57E-005	1.41E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.16E-006
U233	<LLD	<LLD	0.00E+000	8.34E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.14E-006
U238	<LLD	<LLD	0.00E+000	2.50E-005
AM243	4.65E-003	9.29E-004	1.58E-004	1.15E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1·21·14

ITR: _____ Date: 1/22/14

Automated Independent Technical Review

Count Sequence Number: 24135 Batch Number: 1LANDA1892
Counter ID: MCS HENC #1
Container ID: 69158
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/17/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Add-a-Source perturbation out of limits.	
Add-a-Source Calibration exceeds Lower Limit.	AAS clamped to one.
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
Add-a-Source reals correction factor is below calibration lower limit.	AAS clamped to one.
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
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. Analysis Status: Override enabled; data marked not available but were used. 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: 1-20-14

Waste Container ID: **69158**

BDR Number: **LA14FG2009**

Sampling Date: **1/24/2014**

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\140124c\
Data File : 69158.D
Acq On : 24 Jan 2014 1:58 pm (#1); 24-Jan-14, 13:57:37 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH ~~FITLER~~ FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1 1-24-14 SA

Quant Time: Jan 24 14:07:58 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	3.565	96	2822770	205.75 ppmv	0.05
15) Chlorobenzene-d5	5.868	117	2292043	177.50 ppmv	0.00

Target Compounds	Qvalue

(#) = 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-RTR2-14-0006
Examination Date:	1/16/2014
Waste Container ID:	69183
Video/Audio Recorded Media Number:	LA-RTR2-14-0006 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.: 193.5 kg Tare Wt.: 33.4 kg Net Wt.: 160.1 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:	100 %

CCP Radiography Data Sheet

Waste Container ID: 69183

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

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):	3.0
Other Inorganic Materials (OI)	
Cellulosics (C):	4.0
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	145.1
Soils (S):	
Total WMP Weight:	160.1

CCP Radiography Data Sheet

Waste Container ID: 69183

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		1/16/2014
Print Name	Signature	Date

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NDA 2000 Assay Report

Item Information

Item ID:	69183	Count Sequence Number:	24168
Operator:	D3PW2DK1\operator		
Assay Start:	1/22/2014 10:16:41 AM		
Description 1:	1LANDA1895		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 160.0 kg	Net:	160.0 kg
Container:	Volume: 208.0 l	Full:	100.0 %
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

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24168	Batch Number:	1LANDA1895
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:	69183	Analysis Date:	1/22/2014

Net Weight	160000.0 g			
Pu mass	4.96E+001	+-	2.12E+001	g
TRU Alpha Activity	1.47E+001	+-	7.80E+000	Ci
TRU Activity Concentration	9.21E+004	+-	4.87E+004	nCi/g
Pu-239 Equivalent Activity	1.48E+001	+-	7.80E+000	Ci
Pu-239 FGE	4.68E+001	+-	2.12E+001	g
Decay heat	4.82E-001	+-	2.59E-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	1.64E-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	4.79E-006
NP237	1.86E-001	1.31E-004	2.58E-005	7.10E-006
PU238	4.52E-003	7.74E-002	3.66E-002	1.95E-003
U238	<LLD	<LLD	0.00E+000	3.03E-005
PU239	4.66E+001	2.89E+000	1.31E+000	7.28E-002
PU240	2.98E+000	6.76E-001	3.22E-001	1.70E-002
AM241	3.23E+000	1.11E+001	7.68E+000	3.48E-001
PU241	5.63E-002	5.80E+000	2.77E+000	1.46E-001
PU242	9.93E-003	3.92E-005	1.87E-005	0.00E+000
AM243	7.39E-003	1.48E-003	2.93E-004	2.27E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-24-14

ITR: _____ Date: 1-24-14

Automated Independent Technical Review

Count Sequence Number: 24168 Batch Number: 1LANDA1895
Counter ID: MCS HENC #1
Container ID: 69183
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/22/2014

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. 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. 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. MCA Deadtime greater than the upper limit of 50.0%. Spectrum Validity Check engine has suggested data review.	Ok MCA deadtime =56.71%. No spectral distortion observed. Spectrum valid.

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 1-23-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69183**

BDR Number: **LA14FG2009**

Sampling Date: **1/24/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	115.17	
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\140124c\
Data File : 69183.D
Acq On : 24 Jan 2014 12:44 pm (#1); 24-Jan-14, 12:43:27 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH ~~FIPLER~~ FILTER (Sig #1); (Sig #2) 1-24-14
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 24 12:52:28 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	3.552	96	2848767	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.861	117	2285880	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.610	GC1	866m	115.17	ppmv	

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

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