ERID-262529

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 2 3 2014
Symbol: ENV-DO-14-0322
LAUR: 14-27915
Locates Action No.: Not Applicable

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

Dear Mr. Kieling:

Subject: Transmittal of Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 20

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 twentieth 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.

Enclosure 1 includes the pertinent documentation for nine 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/kt

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 20

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 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)
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)
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Los Alamos NATIONAL LABORATORY EST. 1943

COPY

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RECEIVED
OCT 2 3 2014
NMED
Hazardous Waste Bureau

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Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

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Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 20
ENV-DO-14-0322
LA-UR-14-27915

October 2014



ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 20

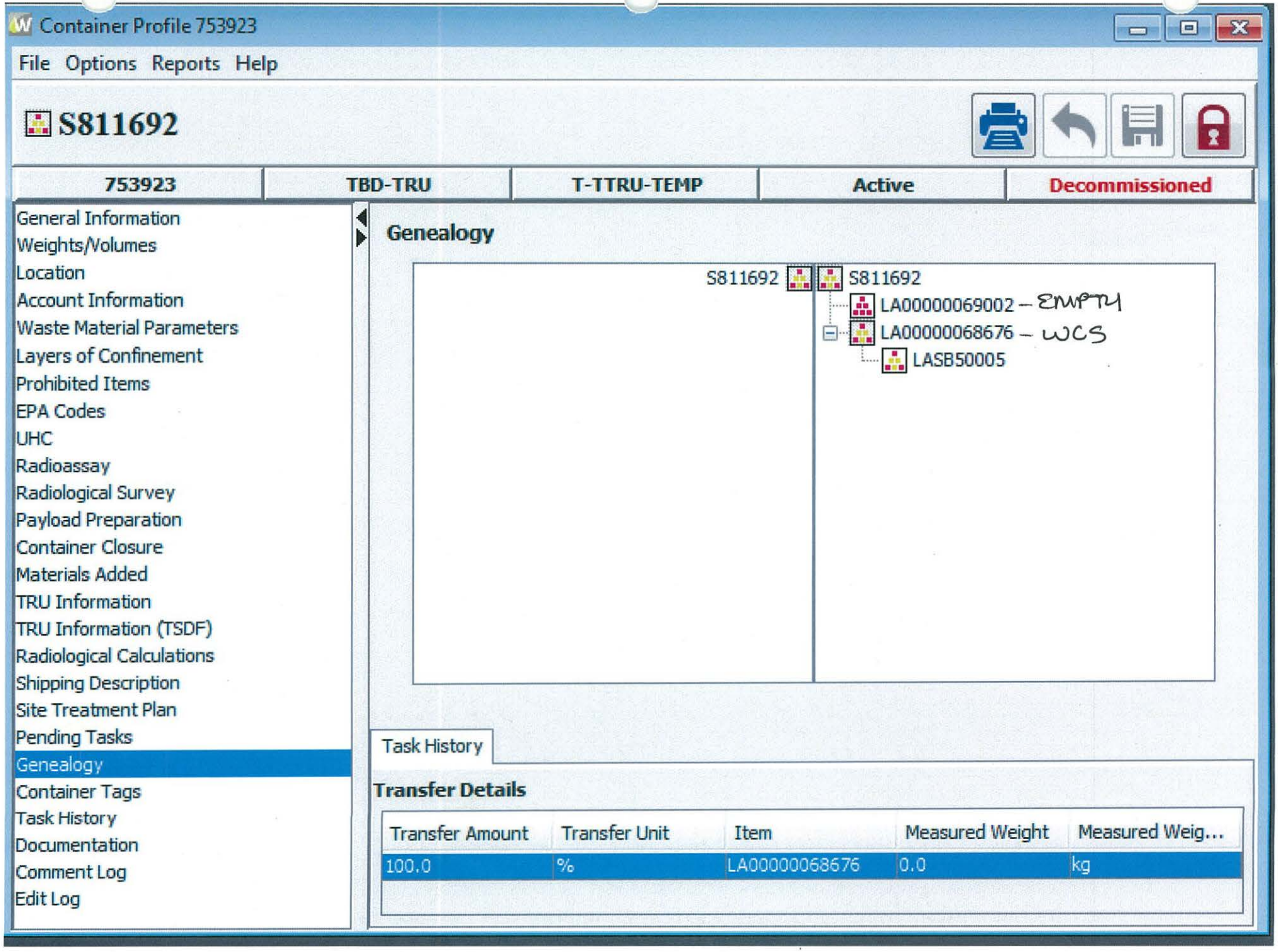
ENV-DO-14-0322

LA-UR-14-27915

Date: OCT 2 3 2014

ParentID	Intermediate Daughters	PKG_ID
S811692		68676
S813620		93841
S813620		93842
S813620		93843
S813620		93844
S816304		94007
S816304		94008
S816342		94011
S816342		94012
S816342		94013
S816342		94014
S816342	94010	94016
S816394		94003
S816692		68565
S816692		68581
S816768		69519
S816768		69604
S816768		69620
S823276	68752	69091
S823276	68752	69191
S823276	68752	69217
S824551		90715
S824551	90718	92468
S824551	90718	92469
S824551	90718	92470
S824551	90720	92476
S824551	90720	92477
S824551	90721	92479
S824551	90719	92481
S824551	90719	92482
S824551	90722	92484
S824551	90723	92488
S824551	90723	92489
S824551	90725	92492
S824551	90724	92494
S824551	90724	92495
S824551	90724	92496

S811692


Container Profile 753923
File Options Reports Help
S811692
753923
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
S811692
S811692
LA00000069002 – EMPTY
LA00000068676 – WCS
LASB50005
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
100.0
%
LA00000068676
0.0
kg

UET Working Copy Date: 11-20-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET (B2) 9/22/14

S811692 69002

4.1[6][B] Parent Waste Container No.: ~~S811692~~ / ~~69002~~ MB 11/20/13

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: MICHAEL MONTOYA / [signature] / 191352 / 11/20/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: ~~581692~~ Gm/ms/ks / ~~69002~~ (B) 9/22/14 S811692	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	305.4 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	22 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	327.4 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.: 5811692

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68676			
10.1[4]	Daughter Drum Filter No.	L-10044			
10.1[4]	Daughter Drum Bag Filter No.	LM-887			
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)				
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	2.5 GALLONS			
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	PLASTIC KITTY LITTER			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S811692

Comments: LIQUIDS, KITTY LITTER, LEAD SHIELDING, POLY-LINER LID, NITRATE SALTS

11.1[1] Performed By: M. Gonzalez 1239851 11/20/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martini 149235 11/25/13 1617
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.:	413659
Lot No.:	208849
Manufacture Date:	2010

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

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

Overpack filtered vent information:

Manufacturer:	Nucfil
Model No.:	DS-019
Serial No.:	LM-385
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. Gonzales 1239985 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: Miguel Gonzales 1239985 11/20/13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez 149235 11/25/13
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.: 69002

7.[23] Overpack drum closure ring torque wrench information:
- M&TE No.: 038369
- Cal. Expiration Date: 12/18/13
- Range in ft-lb: 30-60
- 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: M. Gonzales / [signature] 1239985 / 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): 175.4 lb

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: Gilfred Martinez / [signature] 1497285 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.: 68676

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.: 6CPVC1.5-2SPVC
Serial No.: L-10044
Manufacture Date: 05-13

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

	Filtered Vent	2 in. Bung
M&TE No.:	100216	11-18-13 03625 036245
Cal. Expiration Date:	12-18-13	08-05-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% 1.cw +/-6% 1.cw	+/-3% 1.cw +/-6% 1.cw

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

Performed By: James Smith / [signature] / 111662 / 11-18-13
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: Nucon
Model No.: 019DS
Serial No.: LM-887
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: 11-18-13 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 (32) 9/22/14

5.[34][E] Drum ID No.: ~~68766~~ 68676

Comments: N/C

5.[35] Performed By: James S. [illegible] / [signature] [illegible] 11-18-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149235 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.: 66676

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: M. Gonzales (Operator (print)) _____ (Signature) 1239485 (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	N
Cal. Expiration Date:		
Range:	A in-lb	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: M Gonzales (Operator (print)) _____ (Signature) 1239485 (Z #) 11/20/13 (Date)

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68676

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 473.0 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: M. Gonzales (Operator (print)) _____ (Signature) 1239985 (Z #) 11/20/13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) _____ (Signature) 1492357 (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: 5811692

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): 305.4

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 (Waste Handling Technician (print)) (Signature) Z# 1239981 Date 11/20/13

8.1[7] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) (Signature) Z# 1149237 Date 11/20/13

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Gilbert Martinez (SOS/SOM or designee (print)) (Signature) Z# 1149237 Date 11/25/13 Time 1020 GMM 11/25/13

Imputen SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S811692 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 376.8345
Total PE-Ci Activity: 8.33E-01 Equivalent Combustible PE-Ci: 3.12E-01
Total Fissile Gram Equivalents: 4.24E+00 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

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

RTR pre-meen indicates ~ 5.5 gallons of free liquid.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 212 lbs. and generator data shows 10 items of nitrate salts with weights ranging from ~[redacted] lbs.

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

IHS Representative

Potential IHS Safety Risks: May contain lead, chromium, Mercury Contains liquids

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

LTP Engineering

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

Engineering Comments: NA

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

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And KITTY Litter Ratio

Performed By: Gilbert Martinez | [signature] | 149235 | 8/8/13
TRU Operations (Print) | Signature | Z# | Date

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

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

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

Inspected 5/17

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 1971

Production Control

Container ID: S811692 Container Type: 55-GAL Gross Weight (lbs): 377
Inner Seal #: 009066 Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-MIN02-V.001 Certified RTR BDR: No BDR
TWSR Comments: None
Total PE-Ci Activity: 8.33E-01 Equivalent Combustible PE-Ci: 3.12E-01 AM-241 Total Ci No data
Total Fissile Gram Equivalents: 4.2 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/16/2013 Comment: Prohibited liquid >1% - approximately 5.5 gallons
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)) / Susan D Ramsey (Signature) / 100681 (Z Number) / 5/21/13 (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:

Performed By: 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: TRU Remediation Operations (Print) / Signature / Z Number / Date

Discardable Waste Log Sheet

DrumID: 009066

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS-319-F1	21.82	NITRATE SALTS		1.7	42	5/11	
2	IXFS-320-F1	12.95	NITRATE SALTS		0	52	5/11	
3	IXFS-321-F1	4.32	NITRATE SALTS		0	52	5/11	
4	IXFS-322-F1	18.86	NITRATE SALTS		0	52	5/11	
5	IXFS-323-F1	8.18	NITRATE SALTS		0.2	52	5/11	
6	V425A	7.72	NITRATE SALTS		1.47	52	5/11	
7	IXFS-325-F1	2.73	NITRATE SALTS		0.42	52	5/11	
8	IXFS-326-F1	3.18	NITRATE SALTS		0	54	5/11	
9	IXFS-327-F1	8.64	NITRATE SALTS		0	52	5/11	
10	IXFS-328-F1	7.95	NITRATE SALTS		2.2	52	5/11	
		96.35 kg						

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 5/21/13

Container No. (5.[1])	S81692					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: [illegible] 727175
CCP (Print) Z #

Reviewed By: [illegible] 735566
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 [signature] [illegible] 5/22/13
Waste Handling Operator (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130521c\
Data File : S811692.D
Acq On : 21 May 2013 3:54 pm (#1); 21-May-13, 15:53:45 (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL DRUM THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 21 16:02:12 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	3.529	96	3921155	201.25	ppmv	0.04
15) Chlorobenzene-d5	5.868	117	3352222	177.00	ppmv	-0.03
Target Compounds						Qvalue

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

vocgas.m Tue May 21 16:02:20 2013

11-20-13

0600 Morning WCEF operations center - Crd Inde
0615 pre job being conducted 11-20-13 performed by SOS Bruce on Attachment A and 100's.
0751 Permission granted to lower vehicle access gates for shipment out of WCEF
0828 Bagging off 3891279 and will be putting on vent cover to clean and retape catch pan.
0839 Vehicle access gates have been restored after shipment out of 50-69 is complete. WCEF @ 11-20-13
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 decon after lunch.
1229 Bag off is complete.
1232 Cat's requesting operators use hand and foot monitor 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-WCEF-RM-EOP-0309, SOS and SCM have been notified and operator being taken to IH mission
1520 Item 43 is OOS, PPD 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 decon 2 drums and will bag on 3863789 after decon is complete.
1601 Operator has been advised to ice every 15 mins, Keep elevated and take ibuprofen.

- continued on next page -Crd Inde

11-20-13 ~ Continued on next page - CWelander

1606 Exiting EP-WCER-RM-EOP-0309

1607 Starting outside rounds.

1630 Outside rounds complete.

1640 Rounds signed off by EOS.

1655 Dressing and Bag on is complete.

11-2013 1801 Being Retrieved by DCO Tina Coleman - CWelander

No further entries this page

11-20-13

1801 Assuming WCCR operations center. KColeman
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 manage
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 SOS, OKay to proceed per CSE documentation.
Continued on next page KColeman

11-21-13 Continued from next page. Coleman
0442 Inside rounds complete.
JJ 0458 Both rounds reviewed by SOS.
0523 Bagging off 1 daughter.
HA 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 Claissa Velarde-Coleman

No further entries this page

11-20-13 DAY SHIFT

0607 Reviewed shift turnover checklist and assumed WCRR SOM position John Gendagnol

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 PETs item. There is one transfer scheduled out to AREA G

0715 Completed the daily phone call to AREA G SOM stating using POD

0828 Operators complete processing S891279 from night shift which generated 1 daughter. The port cover will be placed on the BAGPort, 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 transporainer to 50/69 and when stepping out of the transporainer took one large step to the asphalt instead of onto cement then asphalt and hyper extended the Knee on 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/FM will evaluate and support transfer of operator to their own primary care physicians.

1525 Notified OM and OM will notify DOE

1600 Information from the ES/FM (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 WCRR

11-20-13 DAYSHIFT cont.

1627 Completed escorting LANL/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 9863789.

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. John Lundagard

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 Pre-job brief conducted by SOS (C. Mullins) was completed. IH safety topic was today's injury at the transportainer - giving greater attention to path of travel and wf increment weather moving in. RP-1 had thorough discussion on recent contamination events - covered corrective actions from today's meeting ie: glove surveys, painting of floor, manufacture of new drip pan, WCC 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.

0414 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

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 WCO 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

End

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PROJECT NAME WCRR SOS Log Book NOTEBOOK NO.

11/20/13

0600 Assuming SOS Position Mulch mtg
0615 Conducted shift brief went over status of Glove box Also went over EWDs and Crews briefing. Operators will need to bag off and decon catch pan. Once contamination found. This may be done Prior to bagging on Another Drum.
0700 Shift brief Concluded
0751 Started shipment out of vessel
0828 Bagging off 5891279 and will be putting on port cover & decon catch 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 Depart after Lunch
1229 Bag off complete
1245 Operators exiting for Lunch
1345 Operators resuming operations.
1416 Starting Movement Tote 5069
1500 Started Rounds. Movement In Complete
1512 notified by operator outside while stepping out of Transfer he twisted his knee
1515 Entering EOB-0309 was notified Individual Taken to IH and Cables work Care.
1522 OM notified of knee Injury.
1537 work care was modified needs to place Ice on knee
1545 Starting to Record 2 drums. And bag on 5863784
1601 Operator Advised to Ice every 15 min And knee Elevated take Discomfort
1606 Exiting EOB-0309
1640 Reviewed Tasks and outside Rounds.
1655 Dismissing and bag on Completion
11/20/13 1659 Relieved by Clayton Mullis

Not 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:	68676
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.: 214.0 kg Tare Wt.: 33.4 kg Net Wt.: 180.6 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: 68676

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):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	168.6
Soils (S):	
Total WMP Weight:	180.6

CCP Radiography Data Sheet

Waste Container ID: 68676

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	B [signature]	12/2/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68676	Count Sequence Number:	23989		
Operator:	D3PW2DK1\operator				
Assay Start:	12/13/2013 4:00:07 PM				
Description 1:	1LANDA1879				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6, (MT-42)				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	181.0	kg	Net:	181.0 kg
Container:	Volume:	208.0	l	Full:	100.0 %
Density:		0.870 kg /l			

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23989	Batch Number:	1LANDA1879
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:	68676	Analysis Date:	12/13/2013

Net Weight	181000.0 g		
Pu mass	6.07E+000	+- 9.61E-001	g
TRU Alpha Activity	5.88E+000	+- 2.95E+000	Ci
TRU Activity Concentration	3.25E+004	+- 1.63E+004	nCi/g
Pu-239 Equivalent Activity	5.91E+000	+- 2.95E+000	Ci
Pu-239 FGE	4.24E+000	+- 8.75E-001	g
Decay heat	1.95E-001	+- 9.80E-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	8.03E-007
U233	<LLD	<LLD	0.00E+000	5.87E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.72E-006
NP237	1.05E-001	7.38E-005	1.56E-005	3.10E-006
PU238	1.17E-002	1.99E-001	5.06E-002	2.46E-002
U238	<LLD	<LLD	0.00E+000	2.22E-005
PU239	4.13E+000	2.56E-001	5.42E-002	3.17E-002
PU240	3.71E-001	8.43E-002	2.14E-002	1.04E-002
AM241	1.56E+000	5.34E+000	2.95E+000	6.22E-002
PU241	2.40E-002	2.47E+000	6.27E-001	3.05E-001
PU242	1.53E+000	6.03E-003	1.53E-003	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 12-17-13

ITR: DER Date: 12-17-13

Automated Independent Technical Review

Count Sequence Number: 23989 Batch Number: 1LANDA1879
Counter ID: MCS HENC #1
Container ID: 68676
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/13/2013

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-52,42,54
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chandler Date: 12-16-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68676**

BDR Number: **LA13FG12133**

Sampling Date: **12/20/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	398.08	
74-82-8	Methane	6.56	U
67-56-1	Methanol	5.17	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.54	
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	1.08	
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\131220c\
Data File : 68676.D
Acq On : 20 Dec 2013 10:07 am (#1); 20 Dec 2013 10:06 am (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

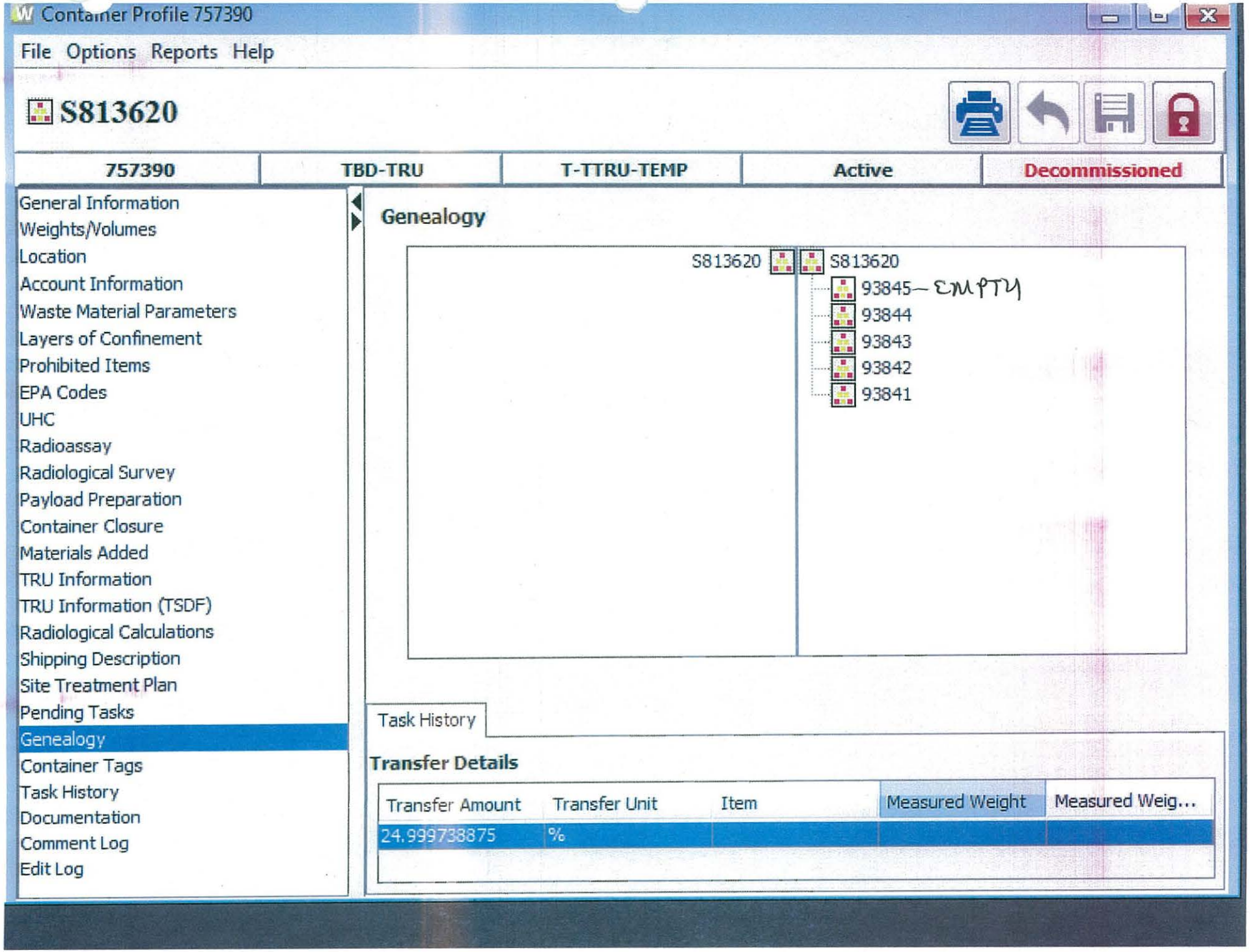
Quant Time: Dec 20 10:15:34 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Tue Dec 03 09:52:38 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
3) Fluorobenzene	4.057	96	7228923	207.75	ppmv		0.00
15) Chlorobenzene-d5	6.636	117	5829884	178.75	ppmv		0.00
Target Compounds							Qvalue
1) Hydrogen	1.913	GC1	113553m	398.08	ppmv		
4) Methanol	0.831	31	1975	5.17	ppmv		100
7) Acetone	1.363	58	1030	0.54	ppmv	#	42
12) Benzene	3.717	78	31922	1.08	ppmv		95

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

28
~~29~~
EL 14544

S813620


Container Profile 757390
File Options Reports Help
S813620
757390
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
S813620
S813620
93845 – EMPTY
93844
93843
93842
93841
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
24.999738875
%

Working Copy
Date: 6-18-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S813620

6.2[4] Date Processed: 6-18-13

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, D009

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

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

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

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

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

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

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

Performed By: Brandon Cloer [signature] [illegible] 16-18-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5813620

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 424.4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 160 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 604.4 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
N/A	/	/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5813620

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	93811	93812	93843	
10.1[4]	Daughter Drum Filter No.	KM-544	KM-541	KM-531	N/A
10.1[4]	Daughter Drum Bag Filter No.	L-6853	L6808	L-6877	
10.1[4]	Daughter Drum Purchase Order No.	501103	501103	501103	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☒ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☒ N/A
10.2[4]	POC bag-on bag: Manufacturer	Bop			
	Model No.	6qarc1.52spc			
	Serial No.	L-6459			
	Date of Manufacture	1-13		N	
10.2[5]	POC ID No	93844			
10.2[7][B]/10.2[6]	POC Item Description	salts Kitty litter			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BC 204772		A	
10.2[14]	POC Assembly Gross Weight (lb)	364.6			
10.2[15]	POC Rad. Survey Results (mrem/hr)	700.5			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			A
10.3[5][A]	Free Liquid Volume/Units	1gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead	Lead	Lead	
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments	see comment	see comments	N
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	50%	60%	60%	
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter	Kitty Litter	Kitty Litter	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 873620

Comments: plastic / salts / kitty litter

11.1[1] Performed By: Brandon Chavez / [signature] [illegible] 6/21/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 122452 6/21/13 0842
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 4-25-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	4149916
Lot No.:	219285
Manufacture Date:	2011

5.[8] Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	EL-322
Manufacture Date:	05/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	09-26-13	12-18-13
Tolerance:	+/-4% cw and +/-6% ccw	+/-3% cw and +/-6% ccw

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

Performed By: Kevin Belcastro / Kevin Belcastro 123[illegible] 04/25/13
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: Kevin Belcastro / Kevin Belcastro 123[illegible] 04/25/13
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 / Jose Jerez 122452 6/21/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 6-18-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 93845

7.[24] Overpack drum closure ring torque wrench information:

M&TE No.: 038373
Cal. Expiration Date: 9-11-13
Range in ft-lb: 10-80
Tolerance: ~~±3~~ ±3%CW ± 6% CCW

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

Performed By: Brandon Chavez / [signature] Z# 6-18-13
Waste Handling Technician (print) Signature Z# Date

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

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

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

7.[35][D] 85-gal overpack drum gross weight (lb): 175.0 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 6/18/13
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Jose Javier / [signature] 6/20/13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 93841

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 #: 301103
- Lot #: 8234765
- 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: Bel
- Model #: LoCAVC1.5-2SPVC
- Serial #: L-6853
- Date of Manufacture: 1/13

3. Cardboard Lined/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: NUCAL
- Model #: 01905
- Serial #: KH-549
- Date of Manufacture: 11/12

RECORD torque wrench information:

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

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Brian Gallegos Signature: B. Gallegos ZR: 2671294

5. Weigh Drum Assembly
RECORD weight information
- Tare weight (lbs) 762
- 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: Brian Gallegos Operator Sign: B. Gallegos ZR: 2671294 Date: 6-14-13

Verifier Print: Brandon Chavez Verifier Sign: Brandon Chavez ZR: 2017172 Date: 6-18-13

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

DRUM ID#: ~~93842~~ 93841 (B) 9/23/14

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038373

Cal expiration date: 9-11-13

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

-- Tolerance ± 3% CW ± 6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 167.0

Scale ID#: 039065

✓ 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: 6-18-13

Verifier Print/Sign: [signature] Date: 6/18/13

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

Drum ID#: 93842

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 #: 501103
- Lot #: 0334765
- 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: 3M
- Model #: CCRVC 15-25PVC
- Serial #: L-6908
- 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 #: 019 DS
- Serial #: Kn 3541
- Date of Manufacture: 12

RECORD torque wrench information:

Filter torque wrench:	Jam Nut / Bung torque wrench:
M&TE ID #: 10216	M&TE ID #: 038369
Cal Expiration Date: 12-18-13	Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 40 - 200	Range (ft-lbs or in-lbs): 10 - 80
Tolerance: +/- 4 ft-lbs or +/- 5%	Tolerance: +/- 1 ft-lb or +/- 10%

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

Print Name: Ian Marquez / Gerald Espinoza Signature: [signature] ZS: 236705 / 237720

5. Weigh Drum Assembly
RECORD weight information
- Tare Wight (lbs) 76.2
- File ID #: 01905
- ☑ 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

Gerald Espinoza

Operator Print: Ian Marquez Operator Sign: [signature] ZS: 237720 / 236705 Date: 6-11-13

Verifier Print: Brandon Chance Verifier Sign: [signature] ZS: 201702 Date: 6-18-13

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

DRUM ID#: 93842

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% or ±6 in-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:

✓ 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): 274.8

Scale ID#: 049065

✓ 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: [redacted] Date: 6-18-13

Verifier Print/Sign: missing signature. Barbara Angello Z# 167341 Date: 9/23/2014

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

Drum ID#: 93843

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 #: 50103
Lot #: 0234765
Date of Manufacture: 2013

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 #: Wave 15-2 Spvc
Serial #: L-6917
Date of Manufacture: 01/13

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 #: 0185
Serial #: KM-531
Date of Manufacture: 11/12

RECORD torque wrench information:

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

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Kevin Belusek Signature: Kevin Belusek ZS: 238199

5. Weigh Drum Assembly
RECORD weight information
Tare weight (lbs) 760
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: Kevin Belusek Operator Sign: Kevin Belusek ZS: 238199 Date: 06/11/13
Verifier Print: Brandon Chavez Verifier Sign: [illegible] ZS: 294782 Date: 6-18-13

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

DRUM ID#: 98843

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 ±10% ~~±3%~~ 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.): 281.2

✓ 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: 6-14-13

Verifier Print/Sign: [signature] Date: 6-18-13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S813620 | Container Type: 55-GAL | Gross Weight (lbs): 408

Inner Seal #: 000479 | Filter Prefix: None | Filter Serial #: None

AK Waste Stream: LA-CIN01.001 | Certified RTR BDR: LA-HERTR-12-0100

TWSR Comments: LEACHED SOLIDS-YELLOW TAGGED

Total PE-Ci Activity: ~~0.00E+00~~ 1.85E+01 | Equivalent Combustible PE-Ci: ~~0.00E+00~~ 6.99E+00 1.51.13 | AM-241 PE-Ci: ~~0.00E+00~~ 1.79E+01 1.51.13

Total Fissile Gram Equivalents: ~~0.0~~ 0.8 1.31.13 | Total Surface Dose Rate (mrem/hr): 2

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

NCR RTR/NDA Comment: LANL: remediate-4 GAL of liquid between 24 and 32 inches

RTR Pre-Screen Date: 7/31/2007 | Comment: Liquids, Impenetrable Obj Liquid Location: 26

Certified RTR Comment: 4 GAL of liquid between 24 and 32 inches

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

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☑ PID ☐ Split ☐ Repack

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

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

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

WDP Engineering

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

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts
Net Wt: 348# Generator info shows 3 items of nitrate salts; weights range from 35-100#. RTR BDR shows plastic bags + homogeneous solids as well as prohibited liquids + lead-lined drum. Nitrate salts require repack w/ admixture. They carry waste codes for chromium, lead, + mercury. No chemicals identified.

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Valerie Rhodes (Signature) | 112689 (Z Number) | 12/11/12 (Date)

TRU Remediation Operations

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

Other Specific Safety Concerns: Do not push or press on waste with hands. Use proper ratio of kitty litter to waste, in accordance with procedure

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: USE Proper PPE

Performed By: G Mth (TRU Remediation Operations (Print)) | [signature] (Signature) | 149235 (Z Number) | 5/18/13 (Date)

Jose Jerez | Jose Jerez | 221452 | 5/18/13

IHS REVIEW: RS 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 000479

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS 368 FI	15.91	NITRATE SALTS		0	52	5/11	
2	DXFS 371 FI	37.27	NITRATE SALTS		0	52	5/11	
3	DXFS 373 FI	45.23	NITRATE SALTS		0	52	5/11	

98.41 kg

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CCP Radiography Data Sheet

Section 1: General Information		
[X] RTR Examination	[ ] RTR Replicate Scan	[ ] RTR Independent Observation
Site ID:	LANL	
Batch Number:	LA-HERTR-12-0100	
Examination Date:	9/18/2012	
Waste Container ID:	S813620	
Video/Audio Recorded Media Number:	LA-HERTR-12-0100	A&B
Procedure and Revision No.:	CCP-TP-053	Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-1642-12 NCR No.: N/A	

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 190.5 kg Tare Wt.: 60.1 kg Net Wt.: 130.4 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: [X] No [ ] Yes Mechanical Vent: [ ] No [X] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [ ] No [X] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: S813620

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag and Rigid Liner/Lid	9.4
Other: Lead Lined (LP)	23.0
Total Packaging Weight	60.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	128.4
Soils (S):	
Total WMP Weight:	130.4

CCP Radiography Data Sheet

Waste Container ID: S813620

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

Comments: NCR-LANL-1642-12 PER CCP-SO-LANL-55 INCONSISTENCIES ASSOCIATED WITH THESE PACKAGING CONFIGURATIONS (RIGID LINER WITH OR WITHOUT LID) WILL NOT DISQUALIFY THE CONTAINER FROM MEETING THE WASTE STREAM DESCRIPTION TJH 9-20-12

RTR Operator:		
Thad Hasselstrom	Thad Hasselstrom	9/18/2012
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Jan 29 2013

Container No. (5.[1])	3813620					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	N/A 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)) 233516 (Z#)

Comments: n/a

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

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

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 176905 (Z#) 1-30-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130129c\
Data File : S813620.D
Acq On : 29 Jan 2013 2:18 pm (#1); 29 Jan 2013 2:17 pm (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED FILTER-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 14:22:35 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Oct 04 08:07:46 2012
Response via : Initial Calibration

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

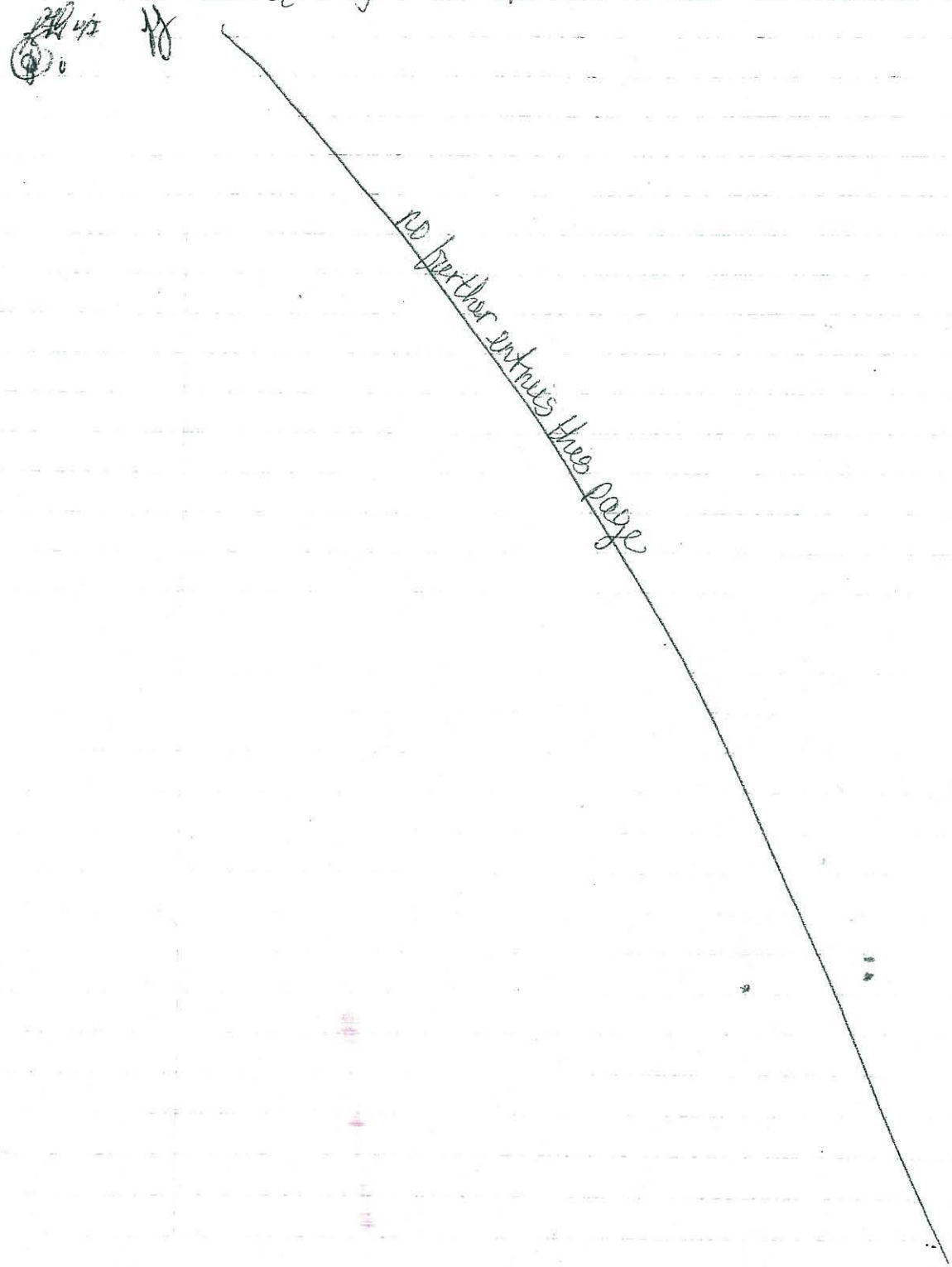
Target Compounds Qvalue

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

H2-CH4.M Tue Jan 29 14:22:59 2013 UNIT12

4-18-13
0600 Assuming WCRRF operations center - CKelande
0610 Starting inside and outside rounds.
0615 Pre job being conducted by SOS
0619 Item #4 Unsat, Per CSE okay to proceed.
0627 Item #63 is OOS, POD in place, Okay to proceed.
0630 Completed outside rounds.
0635 Completed inside rounds.
0653 Rounds signed off by SOS.
0722 mode change performed TA5D-69 and WCRRF now in operation
0740 Starting movement out of 5D-69.
0751 Bagging on S813620
0758 Completed movement out of 5D-69.
0801 Starting staging of drums for shipment to area G.
0812 Bag on complete
0836 Bagging off 1 daughter, Bagging on another, Continue to process drum.
0850 Permission granted to lower vehicle access gates for shipment to area g.
0900 PPE check is sat.
0933 vehicle access gates have been restored movement to transport vehicle is complete.
1012 Bagging off daughter, bagging on daughter
1150 Bagging off, Bagging on 9811872
1253 late entry at 1230 Bag off complete.
1449 Bagging off 1 daughter.
1510 Bag on complete, Bag off complete
1531 Starting outside rounds
1535 Starting inside rounds
1539 Item #3 is unsat, FSR in place okay to proceed.
1549 Completed outside rounds.
1551 Item #63 is OOS, POD in place ok to proceed.
1600 Inside rounds complete.
1637 Starting movement into 5D-69.
1659 movement into 5D-69 complete.
1708 Starting movement out of 5D-69
- Continued on next page - CKelande

L-1813 -Continued from previous page ended-
1720 movement out of 50-69 complete.
1733 Starting bag off of 9811872
1746 bag off complete.
1808 TAS-69 and WCREF yard now warm standby.
L-1813 1830 End of day WCREF operations watch secure -ended-



PROJECT NAME 6.18.13 NOTEBOOK NO.

0600 Assumed the WCRR SOM position. Jaqueline S Mundy
0612 Turned over the SOM duties U/I to J. Guddagnoli. JSM
0612 Assumed the SOM duties U/I from Guddagnoli.
0633 Completed attending the pre-job conducted by the SOS (Jose). The safety topic discussed was the use of safety glasses when using Loctite There is one scheduled transfer to Area 6 of 21 drums going out The SOS discussed roles and responsibilities and station 7 - left and right hand require changing. The SOS focused on taking time changing gloves, ensure there is no gap with the expanders, and ensure no contamination. The SOS reviewed shift order requirements, and oversight when sliding drums off of the lift table and scale. The SOM reviewed item 3 on Rounds being unsat with weeds greater than 18", this is not a S step, and comments are on Round sheets JSM U/I @
0700 Call into TA 54 SOM daily brief JSM @
0709 SOS reported that glove changes are not required at this time, further evaluation will be conducted JSM U/I
0722 Mode Change complete, WCRR YARD / 50-69 from WARM/WARM to Operations/Operations Jaqueline S Mundy JSM
0802 1st Bag On completed for parcel drum SB13620 JSM U/I @
0950 Drum transfers from the Transportainer to the transfer vehicle were completed. Twenty one drums total. ES/IH were present in the field and observed the movements. - safe and compliant, the transfer was noted as exclusive use by P&T. JSM U/I @
1200 Conducted LEL call in with support personnel - No Issues noted JSM U/I @
1220 Completed daily facility update with SOM and PM. No Issues noted JSM U/I @
1257 Conducted debrief with DOE/FR and SOM. Items noted as needing follow up by SOS and ES/IH are 3 ladders, two of the three do not have annual inspection stickers. ES/IH will follow up. Also several Operators RIDS and postings were checked in the field. as a result, Posting 015 requires removal, Operator Aid 50 10-01 requires Rev 24 replaced with Rev 25. and Posting 6.6.13 Operator Aid 50 10-05 requires updating with version in logbook - Operator Aid. Notification was made to the OCD and SOS for correcting. JSM U/I @
1506 Operations reported correcting the Operator AID items identified at 1257 hrs, however could not locate Posting #015. DOE/FR was notified and she will review her notes JSM U/I @
1600 All rounds were completed inside and outside - JSM U/I. @
1808 Mode Change complete WCRRF YARD and 50-69 Operational/Operational to WARM/WARM. Operations processed 2 parents, generating 5 daughters and 1 POC JSM U/I @
1823 Securing the SOM duties. Jaqueline S Mundy JSM U/I

No further Entries Thru shift @ JSM U/I

SIGNATURE Jaqueline S Mundy JSM U/I DATE 6.18 2013
READ AND UNDERSTOOD _____ DATE _____ 20__

WCRR SOS Log Book

6/18/13

0600 Assuming SOS position for the day. Jan Jay
0615 Starting Pre-Job. Safety Topic, discussing the use of Lock Tite ensuring that Operators use Nitrile Gloves and Safety Glasses IWD for lock tite identifies this, IWD for Preping daughters does not, this IWD needs to be changed. Gloves on Station 7 needing to be changed. Processing Parents, have one shipment out today. DOE on-site and will be inside of the processing facility to watch procedure use and operations. Also discussed 30/30 for lightning. If you are in the yard and see lightning and hear thunder Stop operations, place everything in a safe configuration, take shelter and notify Operations Center.
0640 Concluded Pre-Job brief.
0653 Reviewed and signed rounds.
0726 Mode Change complete WCRR Yard and 50-69 are in Operations.
0756 Bag on of first Parent drum complete.
0836 Bagging off one daughter, bagging on second daughter, continuing to process first Parent
1012 Bagging off second daughter, bagging on third daughter. Continuing to process first Parent.
1144 Bagging off 1 POC and 3 daughters, Bagging on second Parent
1230 Bag off complete
1449 Bagging off one daughter
1510 Bag on Bag off complete
1617 Reviewed and signed off on rounds
1733 Bagging off last drum for the day.
6-18-13 21746 Bag off Complete, Operators stating that station 7 needs to be changed, station 8 left hand needs to be watched Plastic on the floor in the exclusion area needs to be changed out, Roto Grip is tearing through it.
1808 Mode Change complete WCRR Yard and 50-69 are in WAREA.
1920 Securing SOS position for the day. Jan Jay

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-RTR2-13-0087
Examination Date:	6/24/2013
Waste Container ID:	93841
Video/Audio Recorded Media Number:	LA-RTR2-13-0087 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 76.0 kg Tare Wt.: 33.4 kg Net Wt.: 42.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	60 %

CCP Radiography Data Sheet

Waste Container ID: 93841

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Scrap metal
AM:	
OM:	
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):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	35.6
Soils (S):	
Total WMP Weight:	42.6

CCP Radiography Data Sheet

Waste Container ID: 93841

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

RTR Operator:

Benito Maestas	B [signature]	6/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93841	Count Sequence Number:	23085		
Operator:	D3PW2DK1\operator				
Assay Start:	6/25/2013 10:00:59 AM				
Description 1:	1LANDA1797				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	42.6	kg	Net:	42.6 kg
Container:	Volume:	208.0	l	Full:	60.0 %
Density:		0.340 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:	23085	Batch Number:	1LANDA1797
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:	93841	Analysis Date:	6/25/2013

Net Weight	42600.0 g	
Pu mass	9.61E-001 +-	3.06E-001 g
TRU Alpha Activity	7.91E-001 +-	3.79E-001 Ci
TRU Activity Concentration	1.86E+004 +-	8.90E+003 nCi/g
Pu-239 Equivalent Activity	7.93E-001 +-	3.79E-001 Ci
Pu-239 FGE	9.10E-001 +-	2.87E-001 g
Decay heat	2.63E-002 +-	1.27E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.29E-002	9.22E-006	1.17E-006	7.26E-007
PU238	8.81E-005	1.52E-003	4.85E-004	3.42E-005
PU239	9.02E-001	5.67E-002	1.81E-002	1.27E-003
PU240	5.77E-002	1.33E-002	4.22E-003	2.97E-004
AM241	2.07E-001	7.20E-001	3.79E-001	1.51E-002
PU241	1.12E-003	1.17E-001	3.71E-002	2.62E-003
PU242	1.92E-004	7.64E-007	2.43E-007	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.09E-007
U233	<LLD	<LLD	0.00E+000	1.36E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.90E-007
U238	<LLD	<LLD	0.00E+000	3.64E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 7/1/13

ITR: Bert Upton Date: 7-9-13

Automated Independent Technical Review

Count Sequence Number: 23085 Batch Number: 1LANDA1797
Counter ID: MCS HENC #1
Container ID: 93841
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/25/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	OK
Cosmic Ray Rejection Analysis complete with warnings. - The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	OK
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Pu results taken from Passive Neutron data, U from Quantitative Gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 7/1/13

013

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93841**

BDR Number: **LA13FG12057**

Sampling Date: **7/2/2013**

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

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130702c\
Data File : 93841.D
Acq On : 2 Jul 2013 12:20 pm (#1); 2 Jul 2013 12:18 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NUCFIL-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 02 12:25:00 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

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

Target Compounds Qvalue

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

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0087
Examination Date:	6/24/2013
Waste Container ID:	93842
Video/Audio Recorded Media Number:	LA-RTR2-13-0087 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 125.0 kg Tare Wt.: 33.4 kg Net Wt.: 91.6 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: 93842

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:	

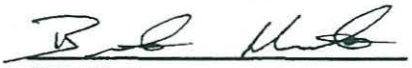
Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	82.6
Soils (S):	
Total WMP Weight:	91.6

CCP Radiography Data Sheet

Waste Container ID: 93842

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		6/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93842		Count Sequence Number:	23107	
Operator:	D3PW2DK1\operator				
Assay Start:	6/27/2013 12:33:58 PM				
Description 1:	1LANDA1799				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	91.6 kg	Net:	91.6 kg	
Container:	Volume:	208.0 l	Full:	75.0 %	
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:	23107	Batch Number:	1LANDA1799
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:	93842	Analysis Date:	6/27/2013

Net Weight	91600.0 g		
Pu mass	1.11E+000	+-	2.04E-001 g
TRU Alpha Activity	1.73E+000	+-	2.82E-001 Ci
TRU Activity Concentration	1.89E+004	+-	3.08E+003 nCi/g
Pu-239 Equivalent Activity	1.73E+000	+-	2.82E-001 Ci
Pu-239 FGE	1.06E+000	+-	2.03E-001 g
Decay heat	5.76E-002	+-	9.41E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
CO60	9.41E-011	1.07E-007	2.39E-008	5.10E-008
SR90	7.37E-009	1.02E-006	4.15E-007	0.00E+000
CS137	1.16E-008	1.02E-006	4.15E-007	4.03E-007
U233	<LLD	<LLD	0.00E+000	2.78E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.26E-007
NP237	3.24E-002	2.31E-005	3.89E-006	1.41E-006
PU238	1.02E-004	1.77E-003	4.11E-004	4.77E-004
U238	<LLD	<LLD	0.00E+000	7.27E-006
PU239	1.05E+000	6.58E-002	1.28E-002	1.78E-002
PU240	6.69E-002	1.54E-002	3.69E-003	4.15E-003
AM241	4.74E-001	1.65E+000	2.81E-001	3.15E-002
PU241	1.30E-003	1.35E-001	3.25E-002	3.65E-002
PU242	2.23E-004	8.85E-007	2.13E-007	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-9-13

ITR: _____ Date: 7-9-2013

Automated Independent Technical Review

Count Sequence Number: 23107 Batch Number: 1LANDA1799
Counter ID: MCS HENC #1
Container ID: 93842
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/27/2013

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. 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 Chamberlain Date: 7-2-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93842**

BDR Number: **LA13FG12056**

Sampling Date: **6/28/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	33.78	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130628c\
Data File : 93842.D
Acq On : 28 Jun 2013 10:09 am (#1); 28 Jun 2013 10:08 am (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 28 10:14:14 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	9636m	33.78	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-RTR2-13-0087
Examination Date:	6/24/2013
Waste Container ID:	93843
Video/Audio Recorded Media Number:	LA-RTR2-13-0087 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 93843

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):	15.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	75.6
Soils (S):	
Total WMP Weight:	94.6

CCP Radiography Data Sheet

Waste Container ID: 93843

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	B [signature]	6/24/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93843	Count Sequence Number:	23086
Operator:	D3PW2DK1\operator		
Assay Start:	6/25/2013 10:47:17 AM		
Description 1:	1LANDA1797		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 94.6 kg	Net:	94.6 kg
Container:	Volume: 208.0 l	Full:	60.0 %
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:	23086	Batch Number:	1LANDA1797
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:	93843	Analysis Date:	6/25/2013

Net Weight	94600.0 g	
Pu mass	4.50E+000 +-	1.87E+000 g
TRU Alpha Activity	4.29E+000 +-	2.17E+000 Ci
TRU Activity Concentration	4.54E+004 +-	2.29E+004 nCi/g
Pu-239 Equivalent Activity	4.30E+000 +-	2.17E+000 Ci
Pu-239 FGE	4.26E+000 +-	1.76E+000 g
Decay heat	1.43E-001 +-	7.24E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.63E-002	4.02E-005	7.84E-006	2.11E-006
PU238	4.12E-004	7.13E-003	2.97E-003	3.42E-005
PU239	4.22E+000	2.66E-001	1.10E-001	1.27E-003
PU240	2.70E-001	6.21E-002	2.58E-002	2.97E-004
AM241	1.14E+000	3.96E+000	2.16E+000	4.03E-002
PU241	5.26E-003	5.46E-001	2.27E-001	2.62E-003
PU242	9.01E-004	3.58E-006	1.49E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.29E-007
U233	<LLD	<LLD	0.00E+000	3.99E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.13E-006
U238	<LLD	<LLD	0.00E+000	1.23E-005

Errors quoted at 1.000 sigma

Operator: Ann Barton Date: 7/1/13

ITR: Brit Tupton Date: 7-9-13

Automated Independent Technical Review

Count Sequence Number: 23086 Batch Number: 1LANDA1797
Counter ID: MCS HENC #1
Container ID: 93843
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/25/2013

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

Expert Review by: _____ Date: 7/1/13

018

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93843**

BDR Number: **LA13FG12056**

Sampling Date: **6/28/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	112.74	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130628c\
Data File : 93843.D
Acq On : 28 Jun 2013 2:17 pm (#1); 28 Jun 2013 2:15 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 28 14:21:09 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	32158m	112.74	ppmv	

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0076
Examination Date:	6/25/2013
Waste Container ID:	93844
Video/Audio Recorded Media Number:	LA-HERTR-13-0076 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 165.5 kg Tare Wt.: 145.1 kg Net Wt.: 20.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 93844

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid, Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	15.4
Soils (S):	
Total WMP Weight:	20.4

CCP Radiography Data Sheet

Waste Container ID: 93844

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	[signature]	6/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93844	Count Sequence Number:	23101
Operator:	D3PW2DK1\operator		
Assay Start:	6/26/2013 3:16:53 PM		
Description 1:	1LANDA1798		
Description 2:	POC-Gross Wt.= 165.5		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 20.4 kg	Net:	20.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.697 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:	23101	Batch Number:	1LANDA1798
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:	93844	Analysis Date:	6/26/2013

Net Weight	20400.0 g		
Pu mass	1.49E+000	+- 1.35E+000	g
TRU Alpha Activity	1.86E+000	+- 1.21E+000	Ci
TRU Activity Concentration	9.11E+004	+- 5.92E+004	nCi/g
Pu-239 Equivalent Activity	1.86E+000	+- 1.21E+000	Ci
Pu-239 FGE	1.41E+000	+- 1.26E+000	g
Decay heat	6.19E-002	+- 4.03E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.30E-002	1.64E-005	3.07E-006	1.53E-006
PU238	1.36E-004	2.36E-003	2.14E-003	3.44E-005
PU239	1.40E+000	8.79E-002	7.95E-002	1.28E-003
PU240	8.94E-002	2.05E-002	1.86E-002	2.99E-004
AM241	5.04E-001	1.75E+000	1.21E+000	8.79E-002
PU241	1.74E-003	1.81E-001	1.64E-001	2.63E-003
PU242	2.98E-004	1.18E-006	1.07E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.61E-007
U233	<LLD	<LLD	0.00E+000	2.88E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.15E-007
U238	<LLD	<LLD	0.00E+000	9.44E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-9-2013

ITR: _____ Date: 7-9-13

U24

Automated Independent Technical Review

Count Sequence Number: 23101 Batch Number: 1LANDA1798
Counter ID: MCS HENC #1
Container ID: 93844
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 6/26/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Fiducial nuclide not identified.	Pu239 peaks fitted but <MDA.
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
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Clemmons Date: 7-1-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93844**

BDR Number: **LA13FG12056**

Sampling Date: **6/28/2013**

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

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130628c\
Data File : 93844.D
Acq On : 28 Jun 2013 2:09 pm (#1); 28 Jun 2013 2:07 pm (#2)
Operator : SA
Sample :
Misc : POC THROUGH DRUM FILTER, NucFil-019DS
ALS Vial : 1 Sample Multiplier: 1

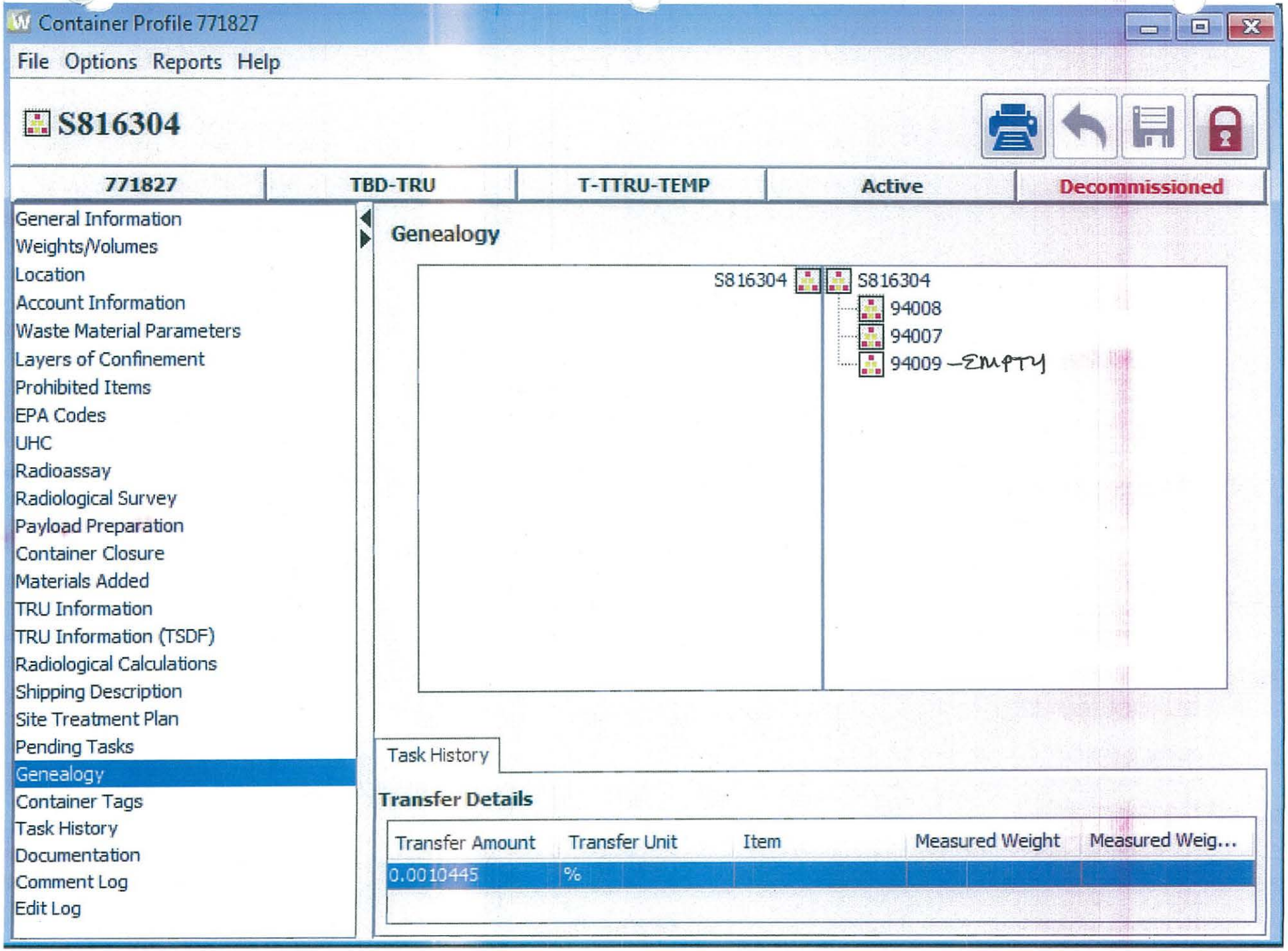
Quant Time: Jun 28 14:17:01 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

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

Target Compounds Qvalue

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

S816304


Container Profile 771827
File Options Reports Help
S816304
771827
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
S816304
S816304
94008
94007
94009 -EMPTY
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
0.0010445
%

Working Copy
Date: 07/11/13 KB

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816304

6.2[4] Date Processed: 7-12-13

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 / Bri Gallegos / 267129 7-12-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5816304

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 463.4 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) 463.4 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
	N/A		

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 316304

	Daughter Drums				
10.1[4]/10.2[4]	Daughter Drum No.	94007	94008		
10.1[4]	Daughter Drum Filter No.	KL-651	KH-506	N	
10.1[4]	Daughter Drum Bag Filter No.	L-8152	L-6883	A	
10.1[4]	Daughter Drum Purchase Order No.	501103	501103		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
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#)	N	A		
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 GALLONS	1 LITER		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N A	N A		
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%	50%		
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.: 5816304

Comments: ROOM TRASH, PLASTICS, 2 GALLONS OF ACID WHICH WAS NOT ABLE TO BE NEAUTRALIZED BUT WAS SOLIDIFIED, NITRATE SALTS, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 260129 7-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: JOSE JEREZ / [signature] / 221452 / 7/11/13 0500
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 6-28-13 JC

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:	12

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

	Filtered Vent	2-in. Bung
M&TE No.:	1002116	0383609
Cal. Expiration Date:	12.18.13	12.18.13
Tolerance:	40-200	10-80

Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	JL-18603
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] / 237120 / 6-28-13
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] / 237120 / 6-28-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Joe Jerez / [signature] / 221452 / 7/18/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 07/11/13 KB

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: ~~94010~~ 94009 (B2) 9/23/2014

7.[24] Overpack drum closure ring torque wrench information:
- M&TE No.: 032373
- Cal. Expiration Date: 9-11-13
- Range in ft-lb: 10-80
- Tolerance: 3% cw ± 6% ccw

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

Performed By: BRIAN GALLEGOS / Brian Gallegos / 267129
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[35][D] 85-gal overpack drum gross weight (lb): 190.6 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Brian Gallegos / 267129 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez / Jose Jerez / 221452 / 7-12-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 94007

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 501103
Lot #: 0B3476
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BoP
Model #: 6cPVC-15-25PVC
Serial #: L-8152
Date of Manufacture: 3-13

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 019DS
Serial #: KL-651
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-15-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4% or ±6%	Tolerance:	±3% or ±6%

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#: Z66436

5. Weigh Drum Assembly

RECORD weight information
Tare wtght (lbs) 75.8
File ID #: 019005

- [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#: Z66436 Date: 7-10-13

Verifier Print: Brian Gallegos Verifier Sign: [signature] Z#: Z07129 Date: 7-11-13

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

DRUM ID#: 94007

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 # : 038573

Cal expiration date: 9-11-13

Range/ Value (ft-lbs): ~~±3% cw ±6% ccw~~ 7-11-13 BA 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): 356.4

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: B. Bailey Date: 7-11-13

Verifier Print/Sign: [signature] Date: 7-11-13

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

Drum ID#: 94008

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 #: 501103
Lot #: 0234765
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: Bor
Model #: 3.0VL 1.5-25 PVC
Serial #: L-6883
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: NELFIL
Model #: 01905
Serial #: KM-506
Date of Manufacture: 11-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	058369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40 - 200	Range (ft-lbs or in-lbs):	10 - 80
Tolerance:	+/- 4.0 in-lbs or 4.6 in-lbs	Tolerance:	+/- 3.0 in-lbs or 4.6 in-lbs

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

☑ Yes ☐ No

Print Name: IAN MARQUEZ Signature: [signature] Z#: 276708

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 75.6
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: Ian Marquez Operator Sign: [signature] Z#: 276708 Date: 7-1-13

Verifier Print: Brian Gallegos Verifier Sign: [signature] Z#: 260129 Date: 7-11-13

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

DRUM ID#: 94008

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 9-11-13

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

Tolerance ±3% cw ±6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 242.4

Scale ID#: D190605

✓ 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. Hall Date: 7-11-13

Verifier Print/Sign: [signature] Date: 7-11-13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816304 Container Type: 55-GAL Gross Weight (lbs): 469
Inner Seal #: 000371 Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS-YELLOW TAGGED
Total PE-Ci Activity: 1.89E+00 Equivalent Combustible PE-Ci: 7.10E-01 AM-241 PE-Ci: 1.54E-01
Total Fissile Gram Equivalents: 20.9 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 WE 12/11/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 3/15/2012 Comment: Lead Liner, Liquid 18"
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☑ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☐ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: None Production Control Comments: WE 11/29/12 Nitrate Salt, apply mixture & EPA codes

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

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt. 409# Generator info shows 3 items of nitrate salts, weights range from 6-199#. No RTR BDR available for review. Nitrate salts are typically packaged in plastic bags & can contain undocumented liquids. RTR PS shows presence of liquids & lead lined drum. Nitrate salts require repack w/ admixture. No chemicals identified. nitrate salts carry waste codes for Chromium, lead, & mercury.

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

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use Hexarmor gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proven PPE, Use proper ratio of kitty litter to Nitrate Salts in accordance with the procedure.
Performed By: G Mth (TRU Remediation Operations (Print)) (Signature) / 1149235 (Z Number) 6.2.13 (Date)
Joe Jeer 221452 6-9-13

IHS REVIEW RS 246362 12.17.12

Discardable Waste Log Sheet

DrumID: 000371

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	DXFS-378-F1	2.84	NITRATE SALTS		0	53	5/11	
2	DXFS-379-F1	49.09	NITRATE SALTS		12.1	52	5/11	
3	DXFS-380-FA	90.45	NITRATE SALTS		10.1	52	5/11	
		142.38 kg						

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Feb 21 2013

Container No. (5.[1])	9816304					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	91.13 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 / 238166
CCP (Print) Z#

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

Comments:
N/a

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

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

6.1[3] Performed By: Julie Gallegos / Julie Gallegos / 170905 2.21.13
Waste Handling Operator (print) Signature Z# Date

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130221c\
Data File : S816304.D
Acq On : 21 Feb 2013 2:51 pm (#1); 21 Feb 2013 2:49 pm (#2)
Operator : NW
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 21 14:55:27 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Feb 21 08:46:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.930	GC1	25993m	91.13	ppmv	

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

H2-CH4.M Thu Feb 21 14:55:42 2013 UNIT12

7-11-13
0600 Assuming WCCF operations center. CD Dade
0602 Rounds have been signed off by SOS
0618 The job being conducted by SOS.
0800 Starting movement out of 5069
0804 Bagging on 5816394.
0813 Bag on complete.
0819 Permission granted to lower vehicle access gates for movement to area 4.
0854 Vehicle access gates have been restored movement to area 4 complete.
0855 Operator exiting 5069. He is feeling ~~nauseous~~. CV 7-11-13 nauseous. SOS has been notified and IH will be ~~alerted~~. CV 7-11-13 evaluating operator.
1025 Bagging off 5816394, Bagging on 5816305
1052 Bag on, Bag off complete.
1124 Permission granted to lower vehicle access barriers for unloading of transport vehicle.
1330 Bagging off, Bagging on 5816304
1353 Bag on Bag off complete.
1510 Starting outside rounds.
1516 Item #3 is unsat FSR in place OK to proceed.
1522 Bagging off (daughter)
1523 Starting inside rounds
1527 Outside rounds complete.
1550 At 1500 notified by SOS that he has bumped his outside in the parking lot entering EP-WCCF-PM-EP 209. RCTs, SOS and DOE were notified and OM has transported him to DCmed.
1617 Bagging off, Bagging on 5816342
1631 Rounds have been signed off by SOS.
1650 notified by operator of WCG high high pressure FE-002 alert, and HVA-001
1652 Argon alarm acknowledged, suspend operations operators following RCT instructions
1656 Another argon alarm acknowledged.
-Continued on next page-Released.

Continued from previous page - Avelonde.

1658 SCS, SM, OM, FOD acknowledged - entering EP-ICRR-ARP-0411, 405, 408, 409. and entering LCO 3.3.1 and ~~3.3.6~~ CR 7-11-13 3.3.2 and 3.0.1

1701 Emte contacted and asking about any power bumps.

1703 power dispatch contacted no power outages.

1705 Generator did not kick on. OSE has been notified ok to turn back on.

1740 Operators entering to restart ventilation.

1744 Ventilation has been restarted.

1746 Ventilation start up failure.

1751 Ventilation has been restarted.

1803 Ventilation readings are normal.

1815 performed shift turnover with OCC Tami Coleman-Deane

A Quarter Inch is this page

9 PROJECT NAME 7-11-13 DAYSHIFT NOTEBOOK NO.

0614 Reviewed the shift turnover checklist, reviewed approved and posted oncoming watchbill. Completed turnover with Nightshift SOM and assumed the WCRR SOM position. [illegible]

0640 Completed attending the pre-job brief conducted by (Gilbert) the SOS. Issues identified by the team include: Operators complained of heat in the back area especially when wearing lead vests. Requested the temperature to be lowered - even 1-2 degrees, the dose rate on the SF-57 Nitrate Salts are high, Time, distance and shielding was discussed. EPD requirements discussed The team is low on Kev-Kool sleeves, it was suggested Tyvex sleeves be used over the gauntlets. Shift Order WCRR-SH-13-003 R2 - Manual Drum Movements is still in effect. One transfer out is scheduled to AREA G.

0710 Completed daily FOD conference call in

0745 DOE/FR and DOE facility representative (SF) arrive to perform assessment of SB69 floor drains

0801 Upon performing a move out of 7 drums from inside the facility, operations bagged on SB16394

0845 DOE exited the operations center and their concern was in their opinion the drains require cleaning and the truck bay floor drain looks clogged.

0846 late Entry for 0832 One operator reported nausea after opening plastic new bag on bags. Notification was made to the ES/IH, operator is sitting in fresh air and ES/IH is monitoring.

0856 The transfer out of 12 drums to AREA G is completed. No issues noted. Upon review of the transfer in, one SEDs document was missing for drum 93752 - Notification was made to Production Control, they are acquiring SEDs.

0922 Notification was made to the Operations Center by P&T that drum SB46084 was being dropped.

1011 With EWMO support the SOM conducted walkdown of portable light on the parking lot at WCRR, the diesel fuel was dripping onto the catch pan - Notification was made to Craft supervision to change out and replace the catch pan. The OCO was also notified.

1025 Operations initiated bagging off SB16394 and bagging on SB16305

1052 Bag on and off were reported completed

1215 Completed the daily facility update to the PM/OM.

1305 The crafts repaired the diesel generator leak on the light power plant, they requested laborers to replace the catch pan and kitty litter.

1312 The nauseated operator was reported to be feeling better and the SOS on ES/IH declared him ready and fit for duty. He entered 50-69 to support operations.

1450 SOM notified OM that the SOM bumped his forehead in the parking lot outside controlled area, noted as 1st AID notification made to OM.

1500 OCO entered EPWCRR-RM-EDP-0009, RCTs SOS and DOE were notified. SOM exiting to OCC Med with OM for First AID - bandage

1650 Notified by operator/SOS of WCG high high Pressure FE-002 flow and HVK-001

1652 Mixer Room acknowledged/SOM + OM suspend operations and 7-13-13 following operations following RCT instructions,

1658 The SOS, SOM, OM, FOD + DOE were all notified, also entered EP-WCRR-ARP-0411, 405, 408, 409 and entering LCO 3.3.1 and 3.3.2 and 3.0.

(Continued on Next Page)

SIGNATURE _____ DATE 20

READ AND UNDERSTOOD _____ DATE 20

no further entries this page

1701 EM&R Contacted and did not know of any power bumps
1703 Power dispatch contacted and did not know of any power bumps
1705 Generator did not kick on, and CSE was contacted.
1740 Operators entered to restart Ventilation.
1744 Ventilation was restarted
1745 Inside Operator indicates Ventilation start up failure
1751 Ventilation has been restarted.
1803 All Ventilation readings are normal, EXISTING LCOs.
1815 Conducted shift brief turnover with oncoming SOM Nightshift
1818 The nightshift SOM completed signing off the watchbill.
1820 It was discussed by OM, RP-1, SOM, and CSE, that potentially the filters require changing in the WCG glovebox, this will be scheduled Monday AM.
1825 Secured the SOM position for Day shift /s/ Lundegard

7-12-13

No further Entries this Page

/s/

7/12/13

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

7/11/13 WCKR SOS LOG BOOK

0600 Assuming SOS position.

0615 Conducting shift brief talked about heat Inside And staying Hydrated

0635 shift brief Complete

0645 Operators entering Facility.

0800 starting movement out of 50-69

0804 Bagging on 5816394

0813 Bag off/on complete

0819 Operators Lowering access gates

0824 movement complete

0855 Operator exiting 50-69 He is Feeling Ill IH will evaluate operator.

1025 Bagging off 5816394 Bagging on 5816305

1052 Bag on/off Complete

1125 Lowering access gates For unloading transport vehicale.

1530 Bagging off bagging on 5816304

1533 Bag off/on Complete

1570 Starting Rounds.

1572 Bagging off daughter.

1550 Late entry At 1500 notified sum bumped his head entered EP WCKR-EOP-209 sum transported to ormond

1607 Bagging off bagging on 5816342

1631 Reviewed Inside And outside Rounds.

1650 (on 7-11-13 ~~Operators~~ operators Inside Notified of WCG high high pressure FE-002 low and HOG-001

1652 mixer Alarm acknowledged Suspended operations, operators Following RCT Instruction.

1656 Breathe mixer Acknowledged

1658 entering EP-WCKR-AKP-0411, 405, 408, 409 and entering LCO 3.3.1 AND 3.3.2 And 3.3.6

1740 Operators Monitoring to restard ventilation

1744 Ventilation Restarted.

1746 Ventilation Start up failure

1751 Ventilation restarted.

1803 Ventilation numbers normal

1920 Sos turn over with clayton Mullins

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94007
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 161.5 kg Tare Wt.: 33.4 kg Net Wt.: 128.1 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: 94007

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Hand tool
AM:	
OM:	Scrap lead
OI:	
C:	
R:	
XPM:	Plastic bags, 90 mil liner lid
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.2
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	3.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	118.4
Soils (S):	
Total WMP Weight:	128.1

CCP Radiography Data Sheet

Waste Container ID: 94007

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

Comments: N/A

RTR Operator:

Michael Simmons		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94007		Count Sequence Number:	16187	
Operator:	DCLTD231\Operator				
Assay Start:	7/17/2013 1:05:27 PM				
Description 1:	2LANDA1195				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	128.0 kg	Net:	128.0 kg	
Container:	Volume:	208.0 l	Full:	90.0 %	
Density:		0.680 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:	16187	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94007	Analysis Date:	7/17/2013

Net Weight	128000.0 g	
Pu mass	1.39E+001 +-	3.30E+000 g
TRU Alpha Activity	1.17E+000 +-	2.03E-001 Ci
TRU Activity Concentration	9.14E+003 +-	1.58E+003 nCi/g
Pu-239 Equivalent Activity	1.20E+000 +-	2.03E-001 Ci
Pu-239 FGE	1.31E+001 +-	3.10E+000 g
Decay heat	3.67E-002 +-	6.30E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.39E-002	5.28E-005	9.61E-006	2.58E-006
PU238	1.27E-003	2.20E-002	5.23E-003	3.59E-005
PU239	1.30E+001	8.21E-001	1.95E-001	1.34E-003
PU240	8.34E-001	1.92E-001	4.55E-002	3.12E-004
AM241	3.89E-002	1.35E-001	3.21E-002	2.20E-004
PU241	1.62E-002	1.68E+000	4.00E-001	2.74E-003
PU242	2.78E-003	1.10E-005	2.62E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.43E-007
U233	<LLD	<LLD	0.00E+000	4.79E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.57E-006
U238	<LLD	<LLD	0.00E+000	1.18E-005

Errors quoted at 1.000 sigma

Operator: Brittnyht Date: 7-19-13

ITR: [signature] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16187 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94007
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

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

Expert Review by: Sherri Chambers Date: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94007**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	118.66	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130718c\
Data File : 94007.D
Acq On : 18 Jul 2013 2:04 pm (#1); 18 Jul 2013 2:03 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 18 15:29:31 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	33848m	118.66	ppmv	

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94008
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 110.0 kg Tare Wt.: 33.4 kg Net Wt.: 76.6 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:	40 %

CCP Radiography Data Sheet

Waste Container ID: 94008

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):	18.4
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	54.2
Soils (S):	
Total WMP Weight:	76.6

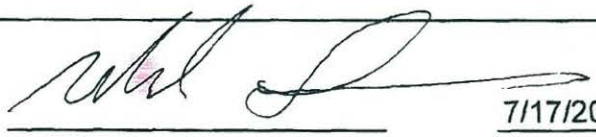
CCP Radiography Data Sheet

Waste Container ID: 94008

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

Comments: N/A

RTR Operator:

Michael Simmons		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94008		Count Sequence Number:	16196	
Operator:	DCLTD231\Operator				
Assay Start:	7/18/2013 11:31:55 AM				
Description 1:	2LANDA1196				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	76.6	kg	Net:	76.6 kg
Container:	Volume:	208.0	l	Full:	40.0 %
Density:		0.920	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:	16196	Batch Number:	2LANDA1196
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94008	Analysis Date:	7/18/2013

Net Weight	76600.0 g
Pu mass	7.40E+000 +- 1.66E+000 g
TRU Alpha Activity	2.70E+000 +- 1.20E+000 Ci
TRU Activity Concentration	3.52E+004 +- 1.56E+004 nCi/g
Pu-239 Equivalent Activity	2.72E+000 +- 1.20E+000 Ci
Pu-239 FGE	6.98E+000 +- 1.66E+000 g
Decay heat	8.89E-002 +- 4.00E-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	3.62E-007
U233	<LLD	<LLD	0.00E+000	3.67E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.18E-006
NP237	4.32E-002	3.09E-005	6.74E-006	2.01E-006
PU238	6.78E-004	1.17E-002	3.25E-003	4.32E-004
U238	<LLD	<LLD	0.00E+000	9.34E-006
PU239	6.94E+000	4.37E-001	1.04E-001	1.61E-002
PU240	4.44E-001	1.02E-001	2.83E-002	3.76E-003
AM241	6.19E-001	2.15E+000	1.19E+000	2.92E-002
PU241	8.62E-003	8.96E-001	2.49E-001	3.30E-002
PU242	1.48E-003	5.88E-006	1.63E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-22-13

ITR: _____ Date: 7-23-2013

Automated Independent Technical Review

Count Sequence Number: 16196 Batch Number: 2LANDA1196
Counter ID: HENC #2
Container ID: 94008
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chambers Date: 7-22-13

08

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94008**

BDR Number: **LA13FG12065**

Sampling Date: **7/19/2013**

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

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130719c\
Data File : 94008.D
Acq On : 19 Jul 2013 1:37 pm (#1); 19 Jul 2013 1:35 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NUCFIL-019DS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 19 13:43:43 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

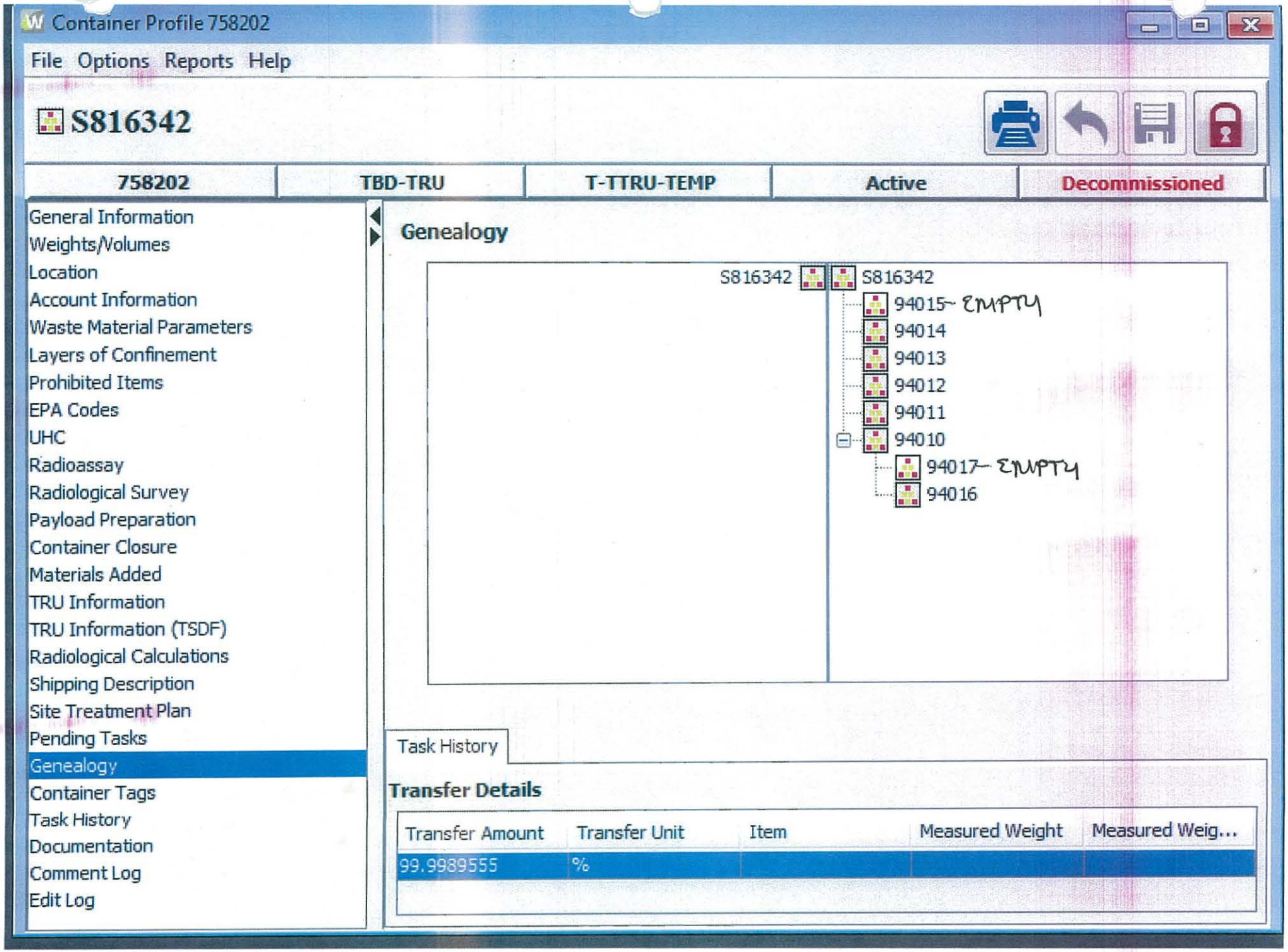
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Target Compounds Qvalue

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

H2-CH4.M Fri Jul 19 14:04:00 2013 UNIT12

S816342


Container Profile 758202
File Options Reports Help
S816342
758202
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
S816342
S816342
94015- EMPTY
94014
94013
94012
94011
94010
94017- EMPTY
94016
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
99.9989555
%

Working Copy
Date: 7-11-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S816342

6.2[4] Date Processed: 7-11-13

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: 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 / Brian Gallegos / 216729 7-11-13
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 5816342	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	535.2 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)	535.2 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.: 581642

		Daughter Drums	94013 Ge 7-30-13	94014 Ge 7-30-13	
10.1[4]/10.2[4]	Daughter Drum No.	94010	94014	94012	
10.1[4]	Daughter Drum Filter No.	KL-648	KL 643	KL-649	N/A
10.1[4]	Daughter Drum Bag Filter No.	L-8143	L-8138	L-8009	
10.1[4]	Daughter Drum Purchase Order No.	501103	501103	501103	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP		
	Model No.	3cpvl.5-2spvc	3cpvl.5-2spvc		
	Serial No.	L-6911	L-8004		
	Date of Manufacture	1-13	1-13		
10.2[5]	POC ID No	D-24604/94011	D-24605/94012		
10.2[7][B]/10.2[6]	POC Item Description	Nitrate Salts	Nitrate Salts	N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	GE 237720	GE 237720		
10.2[14]	POC Assembly Gross Weight (lb)	379.6	364.2		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000.5	900.5		N/A
10.3[3][A]	Approx. Containerized Liquid Vol./Units	NA	NA	NA	
10.3[5][A]	Free Liquid Volume/Units	2 GAL	2 GAL	2 GAL	
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead	lead	lead	
10.3[9][A]	PCB-contaminated Waste Description		N/A		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE Comments	SEE Comments	SEE COMMENTS	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	20%	80%	70%	
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic gaskets	Plastic	PLASTIC	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S816342

Comments: Nitrate Salts, Kitty litter, lead Shielding, Plastic,

11.1[1] Performed By: Gerald Espinoza / [signature] / 237720 / 7-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Perez / [signature] / 221452 / 8-14-13 2130
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 7-11-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415251
Lot No.: 0220446
Manufacture Date: 11

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: JM 7-1013-019DS
Serial No.: FK-1145
Manufacture Date: 6-10

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

5. [11] Performed By: Jan Marquez [signature] [illegible] 7-11-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/A

8.1[1] Performed By: Jan Marquez [signature] [illegible] 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullis [signature] 124092 7/16/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94015

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

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

Performed By: Gerald Espinoza / [signature] / 231720 / 7-11-13
Waste Handling Technician (print) Signature Z # Date

7.[27] Overpack drum closure ring torque value: 100 ft-lb

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

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

7.[35][D] 85-gal overpack drum gross weight (lb): 175.4 lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] / 231720 / 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: GMH / [signature] / 149755 / 7/16/13
Supervisor or designee (print) Signature Z # Date

#4A

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

Drum ID#: 94010

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
- [ ] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
Purchase Request #: 501103
Lot #: 0234766
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:
Manufacturer: BOP
Model #: 6part-15-2Spirc
Serial #: L-8143
Date of Manufacture: 3-13

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

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [ ] 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
- [ ] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: Nucfil
Model #: 01905
Serial #: KL-648
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±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: Justin Lopez Signature: _____ Z#: 266436

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 76.0
File ID #: 019005
[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
- [ ] 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: _____ Z#: 266436 Date: 7-10-13
Verifier Print: Gerald Espinoza Verifier Sign: _____ Z#: 237720 Date: 7.11.13

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

DRUM ID#: 94010

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 #: 038873

Cal expiration date: 9-11-13

Range/ Value (ft-lbs): 30-80

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): 105.60

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: 7/12/13

Verifier Print/Sign: Kevin Borowiak Date: 07/12/13

#4D

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

Drum ID#: 94013

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 #: 30103
Lot #: 0034766
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPVC-1.5-25PVC
Serial #: L-6138
Date of Manufacture: 3-13

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: NuCF1
Model #: 019DS
Serial #: KL-643
Date of Manufacture: 11-11

RECORD torque wrench information:

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

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

[x] Yes [ ] No

Print Name: Justin Colet Signature: _____ Z#: 266436

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.0
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: Justin Colet Operator Sign: _____ Z#: 266436 Date: 7-10-13

Verifier Print: Gerald Espinoza Verifier Sign: _____ Z#: 237720 Date: 7.11.13

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

DRUM ID#: 94013

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 9.11.13

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

--- Tolerance ± 3% cw ± 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs) 313.60

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 7.12.13

Verifier Print/Sign: Kevin Belusak Date: 07/12/13

#4E

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

Drum ID#: 94494

1. Drum/Lid Assembly

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

RECORD drum information:

Purchase Request #: 501103
Lot #: 0134766
Date of Manufacture: 2/13

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPUC-1.5-23PVC
Serial #: L-8009
Date of Manufacture: 3-13

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

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

4. Install Lid/Drum Filter

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

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 019DS
Serial #: RL-6109
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-15-13	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: Justin Lopez Signature: [signature] Z#: 266436

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 75.8
File ID #: 019006

- [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: 7-10-13

Verifier Print: Gerald Espinoza Verifier Sign: [signature] Z#: 237720 Date: 7.11.13

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

DRUM ID#: 74014

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions.

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E # : 038373

Cal expiration date: 9.11.13

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

Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 319.0

Scale ID#: 0190105

✓ 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: 7.12.13

Verifier Print/Sign: Kevin Berlusak Date: 07/12/13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816342 Container Type: 55-GAL Gross Weight (lbs): 532
Inner Seal #: 010129 Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: LA-HERTR-12-0082
TWSR Comments: LEACHED-SOLIDS RM 434
Total PE-Ci Activity: 6.04E+00 Equivalent Combustible PE-Ci: 2.26E+00 AM-241 PE-Ci: 6.11E-01
Total Fissile Gram Equivalents: 62.2 Total Surface Dose Rate (mrem/hr): 9
EPA Code(s): D008 D007 D009 - WE 11/1/12
NCR RTR/NDA Comment: LANL: remediate-8 GAL. of prohibited liquid in plastic bags at 10" to 32"
RTR Pre-Screen Date: 12/11/2006 Comment: Impenetrable Obj,
Certified RTR Comment: Prohibited liquid
RTR BDR shows scrap lead

Prohibited Items: ☐ Sealed > 4 Liters ☑ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☐ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: None Production Control Comments: Nitrate Salts apply mixture + EPA codes
Material Split package MT42 separately MT52.

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

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 472# Generator info shows 7 items of nitrate salts; weights range from 44-73#. RTR BDR shows scrap lead, plastic bag + homogeneous solids. It also shows prohibited liquids. Nitrate salts require repack with admixture. No chemicals identified. Nitrate salts carry waste codes for chromium, lead, + mercury.

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

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use kevlar gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE. Use proper ratio of kitty litter to waste in accordance with the procedure.
Performed By: G mh (TRU Remediation Operations (Print)) / (Signature) / 149235 (Z Number) / 6-2-13 (Date)
Jose Jerez / Jose Jerez / 221452 / 6-21-13

IHS REVIEW: RS 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 10129

Item#	ItemID	Net (kg)	Matrix	M Code	NDE	WIT	Audit	Remarks
1	DFS-383-F1	20	NITRATE SALTS		2.96	52	/11	
2	DFS-382-F1	22.95	NITRATE SALTS		1.53	42		
3	DFS-384-F1	23.45	NITRATE SALTS		37.66	52	/11	
4	DFS-385-F1	26.5	NITRATE SALTS		8.67	52	/11	
5	DFS-386-F1	22.73	NITRATE SALTS		3.86	52	/11	
6	DFS-387-F1	25.3	NITRATE SALTS		4.33	52	/11	
7	DFS-388-FA	33.19	NITRATE SALTS		9.11	52	/11	
		174.12 kg						

Attachment 2 – CCP Radiography Data Sheet

☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-12-0082
Examination Date:	08/15/12
Waste Container ID:	S816342
Video/Audio Recorded Media Number:	LA-HERTR-12-0082 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-1484-12 NCR No.: N/A

Container Type:	55 GALLON DRUM
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt: 240.0 kg. Tare Wt: 37.1 kg. Net Wt: 202.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner-Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	75 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S816342

Section 4: Container Inventory and Comments (Detailed description of
Scrap lead
Plastic bag
Homogeneous solids

Packaging Material:		Estimated Weight (kg)
Steel (ST):		27.7
Plastics (PP):	Plastic Liner Bag and 90mil Liner and Lid	9.4
Others:		0.0
Total Packaging Weight:		37.1
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):		
Plastics (waste materials) (XPM):		2.0
Organic Matrix (OR):		
Inorganic Matrix (IN):		188.9
Soils (S):		
Total WMP Weight:		202.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: S816342

	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?	☐	☑
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-1484-12
After review the operator stated on the audio/video recording media 0 Layers of confinement. The correct estimate is 1 Layer of confinement. This attachment 2 reflects the correct data.

RTR Operator:

Eric Lyles		08/15/12
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Jan 29 2013

Container No. (5.[1])	9816342					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	N/A 1-30-13 ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1380.12 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)) 1237975 (Z#)

Reviewed By: Nathan Wales (CCP (Print)) 1233616 (Z#)

Comments: n/a

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

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

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 176905 (Z#) 1-30-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130129c\
Data File : S816342.D
Acq On : 29 Jan 2013 3:09 pm (#1); 29 Jan 2013 3:07 pm (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED FILTER-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 15:13:49 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Oct 04 08:07:46 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.927	GC1	389793m	1380.12	ppmv	

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

H2-CH4.M Tue Jan 29 15:13:54 2013 UNIT12

9-11-13

0600 Assuming WCRF Operations center. CD Lander
0612 Rounds have been signed off by SOS.
0618 The job being conducted by SOS.
0800 Starting movement out of 5069
0804 Bagging on 9816394.
0813 Bag on complete.
0819 Permission granted to lower vehicle access gates for movement to area 6.
0854 Vehicle access gates have been restored movement to area 6 complete.
0855 Operator exiting 5069. He is feeling ~~nauseous~~. CV 9-11-13 nauseous. SOS has been notified and IH will be ~~alerted~~ 9-11-13 evaluating operator.
1025 Bagging off 9816394, Bagging on 9816305
1052 Bag on, Bag off complete.
1124 Permission granted to lower vehicle access barriers for unloading of transport vehicle.
1330 Bagging off, Bagging on 9816304
1353 Bag on Bag off complete.
1510 Starting outside rounds.
1516 Item #3 is unsat FSR in place OK to proceed.
1522 Bagging off (daughter).
1523 Starting inside rounds.
1527 Outside rounds complete.
1550 At 1500 notified by SOS that he has bumped his outside in the parking lot. Initiating EP-WCRF-PM-EDP-209. RCTs, SOS and DOE were notified and OM has transported him to OCmed.
1617 Bagging off, Bagging on 9816342
1631 Rounds have been signed off by SOS.
1650 Notified by Operators of WCC high high pressure FE-002 blows, and HOA-001
1652 Buzzer alarm acknowledged, suspend operations operators following RCT instructions
1656 Another buzzer alarm acknowledged.
—Continued on next page—Chelander.

Continued from previous page - Avelardo.
1658 SOS, SOM, OM, FOD acknowledged entering EP-6 CRR ARP-0411, 405, 468, 409. and entering LCO 3.3.1 and ~~3.3.8~~ 07-11-13 3.3.2 and 3.0.1
1701 Emre contacted and asking about any power bumps.
1703 power dispatch contacted no power outages.
1705 Generator did not kick on. CSE has been notified ok to turn back on.
1740 Operators entering to restart ventilation.
1744 Ventilation has been restored.
1746 Ventilation start up failure.
1751 Ventilation has been restarted.
1803 Ventilation readings are normal.
1815 performed shift turnover with OCO Terri Coleman Dave

11-12
18
18
18.
1'
1'
1'
2
0
0
0
0

A further entries this page

7-13
1815 Assuming WCRR operations center. - JColeman
1817 Pre-job being conducted by SOS.
1820 Contacted Engineering Manager designee on call to come to WCRR to sign off on the LCO paperwork.
1842 Engineering Manager designee has arrived to sign off on the LCO paperwork. Exiting LCOs. Pre-job concluded.
1954 Initiating a drum movement from transportainer to 50-69.
1955 late entry - at 1917, operators entering 50-69 to resume operations on drum # 581634 2. (JC)
2008 Drum movement into 50-69 complete.
2103 Initiating a drum movement from 5069 to a transportainer).
2130 Drum movement out of 50-69 complete. JC 7-11-13 JC 7-11-13
2203 Bagging off 1 daughter and 21 POC's, bagging on another ~~daughter~~ POC JC 7-11-13
2220 late entry at 2145, and JC 7-11-13 an operator walking down the hallway hit his (R) shoulder on the corner of the BBS box on the wall. SOS, SOM notified of a long bed scratch. Entered EP-WCRR-RM-EOP0309. IH also notified. (JC)
2225 DOE hotline called and a message was left by SOM.
2235 Bag off/on complete.
2253 Entering EP-WCRR-RM-AOP-0207 due to lightning.
2257 Beginning 30 minute wait time again due to another clap of thunder.
2300 Entered an FSR # 109073 for the BBS box to be relocated).
2305 Beginning 30 minute wait time again due to another clap of thunder.
2314 Beginning 30 minute wait time again due to another clap of thunder.
2316 Beginning 30 minute wait time again due to another clap of thunder.
2318 30 more for thunder.
2323 30 more for thunder.
2340 30 more for thunder.
2358 Bagging off 1 POC, bagging on a daughter.
0017 Bag off/on complete.
0036 Exiting EP-WCRR-RM-AOP-0207. Resuming outside operations.
Continued on next page - JColeman

7-12-13 Continued from previous page. - JColeman
0210 Entered an FSR# 109014 for the leaking ceiling inside the Artic area, bldg 37.
0246 Bagging off 1 daughter, bagging on another daughter.
0253 Beginning outside rounds.
0258 Item #3 is unsat, Okay to proceed, FSR in place. Bag off/on complete.
0308 Beginning inside rounds.
0315 Outside rounds complete.
0342 Item #63 is 005, Okay to proceed, POD in place.
0345 Inside rounds complete.
0423 Bagging off 1 daughter, bagging on 94010 to reabsorb with Kitty Litter.
0450 Bag off/on complete.
0512 Bagging off final drum.
0525 Bag off complete.
0558 Initiating a drum movement from 50 to 9 to a transportainer.
0610 Both rounds reviewed by SCS.
0615 Drum movement complete. All inventory has now been removed from the facility.
0626 Mode change complete. We are now in warm in WCRRF yard and cold in 50 to 9.
7-12-13 0630 End of day. CCO position secure - JColeman
HH

Do not write entries this page

0614 Reviewed the shift turnover checklist, reviewed approved and posted oncoming watchbill. Completed turnover with Nightshift SOM and assumed the WCRR SOM position [illegible]

0640 Completed attending the pre-job brief conducted by (Gilbert) the SOS. Issues identified by the team include: Operators complained of heat in the back area especially when wearing lead vests. Requested the temperature to be lowered - even 1-2 degrees. The dose rate on the SF-57 Nitrate Salts are high, Time, distance and shielding was discussed. EPD requirements discussed The team is to don HEX-ARMOR sleeves, it was suggested Tyvex sleeves be used over the gauntlets. Shift Order WCRR-SH-13-003 R2 - Manual Drum Movements is still in effect, One transfer out is scheduled to AREA G.

0710 Completed daily FOD conference call in

0745 DOE/FR and DOE Facility representative (FR) arrive to perform assessment of SD 69 Floordrains

0801 Upon performing a move out of 7 drums from inside the facility, operations bagged on SB16394

0845 DOE exited the operations center and their concern was in their opinion the drains require cleaning and the truck bay Floor drain looks clogged.

0846 late Entry for 0830 One operator reported nausea after opening plastic new bag on bags, Notification was made to the ES/IH, operator is sitting in fresh air and ES/IH is monitoring.

0856 The transfer out of 12 drums to AREA G is completed. No issues noted - Upon review of the transfer in, one SED document was missing for drum 93752 - Notification was made to Production Control, they are acquiring SEDs.

0922 Notification was made to the Operations Center by P&T that drum SB16084 was being dropped.

1011 With EWMD support the SOM conducted walkdown of portable light in the parking lot at WCRR, the diesel fuel was dripping onto the catch pan - Notification was made to Craft supervision to change out and replace the catch pan, The OCC was also notified.

1025 Operations initated bagging off SB16394 and bagging on SB16305

1052 Bag on and off were reported completed

1215 Completed the daily facility update to the PM/OM.

1305 The crafts repaired the diesel generator leak on the light power plant, they requested Interns to replace the catch pan and Kitty Litter.

1312 The nauseated operator was reported to be feeling better and the SOS on ES/IH declared him ready and fit for duty. He entered 50.9 to support operations.

1450 SOM notified OM that the SOM bumped his forehead in the parking lot outside controlled area, noted as 1st AID notification made to OM.

1500 OCC entered EPWCRR-RM-EAP-0009, RCTs SOS and DOE were notified. SOM exiting to OCC Med work OM for First AID - bandage

1650 Notified by operator/SOS of WCG high high Pressure FE-002 flow and (IVA-20)

1652 Mixer Alarm acknowledged/SOM + OM suspend operations and following operators following RCT instructions,

1658 The SOS, SOM, OM, FOD + DOE were all notified, also entered EP-WCRR-ARP-0411, 405, 408, 409 and entering LCO 3.3.1 and 3.3.2 and 3.0.

(continued on Next Page)

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD no further entries this page DATE _____ 20__

PROJECT NAME 7-11-13 DAY SHIFT Continued NOTEBOOK NO.

1701 EM&R Contacted and did not know of any power bumps
1703 Power dispatch contacted and did not know of any power bumps
1705 Generator did not kick on, and CSE was contacted.
1740 Operators entered to restart Ventilation.
1744 Ventilation was restarted
1746 Inside Operators indicate S Ventilation start up failure
1751 Ventilation has been restarted.
1803 All Ventilation readings are normal, Exiting LCOs.
1815 Conducted shift brief turnover with oncoming SOM Nightshift
1818 The nightshift SOM completed signing off the watchbill.
1820 It was discussed by OM, RP-L, SOM, and CSE, that potentially the filters require changing in the WCG glovebox, this will be scheduled Monday AM.
1825 Secured the SOM position for DAY shift [illegible]

CB 7-12-13

No further Entries this Page

[illegible]

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

271

PROJECT NAME 7/11/13 Night Shift NOTEBOOK NO.

1825 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

1845 Attended pre job brief conducted by SOS. Discussed current condition of facility and path forward to resume operations. Shift Order WCRR-SH-13-003 R2 Manual Drum Movements still in effect. At end of shift facility needs to be in Cold for maintenance.

1850 Completed close out of LCO entry paperwork

2008 Completed movement of drums into 50-69 for derusting / processing

2130 Drum movement out of 50-69 to transportainers complete.

2145 Notified of operator walking down hallway 50-69 hit his right arm on BBS mail box resulting in a 2 inch scratch barely producing blood. Entered into EP-WCRR-RM-EOP-0309 for minor injury. Notified OM and ES-TH. Placed padding on sharp corners of metal box.

2225 Left message on DOE Hotline of minor injury.

2230 Notified by SOS that drum being processed is a nitrate salt drum

2253 Entering EP-WCRR-RM-AOP-0207 Severe Weather due to lightning. Implementing 30/30 rule.

2300 OCO instructed on FSR to have the BBS box relocated.

2305 Restarting 30 minute clock for lightning.

7/12/130036 Exited EP-WCRR-RM-AOP-0207. Resuming outside operations.

0210 SOS identified leakage of water into Area 6 building from roof caused by rain. FSR submitted.

0450 Completed all bag offs related to parent drum 5816342. Bagged on 94010 to reprocess using Kitty Litter. Drum had initially been processed w/ Waste Lock absorbent instead of Kitty Litter.

0525 Completed all bag offs. Production for this shift is 1 parent, 3 daughters and 2 POC's on the 7/12/13 2330-0600 shift. Weekly totals are 15 parents processed resulting in 24 daughters and 6 POC's.

0611 Review of inside rounds had item #37 WCC vacuum reading -0.52 inches wc. Per directions in Section 6.14 Filter change is scheduled for Monday 7/15/13.

0624 Completed Mode change: WCRR Yard - Warm 50-69 is Cold.

0632 Secured night shift SOM position - turned over to day shift SOM.

7-12-13

No further entries this page

SIGNATURE _____ DATE 7/12 20 13

READ AND UNDERSTOOD _____ DATE _____ 20 _____

7/11/13 WCKR SOS LOG BOOK

0600 Assuming SOS position.
0615 Conducting shift brief talked about heat Inside. Need staying Hydrated.
0635 Shift brief Complete
0645 Operators entering Facility.
0700 starting movement out of 50-69
0804 Bagging on S816354
0813 Bag off/on complete
0819 Operators Lowering access gates
0834 movement Complete
0855 Operator exiting 50-69 He is Feeling ill IH will evaluate operator.
1023 Bagging off S816394 Bagging on S816305
1052 Bag on/off Complete
1125 Lowering access gates For Unloading transport Vehicle.
1530 Bagging off bagging on S816304
1533 Bag off/on Complete
1540 Starting Rounds.
1542 Bagging off daughter.
1550 Late entry At 1500 notified sam bumped his head entered EP-WCKR-BM BOP-205 sam transported to aimed
1607 Bagging off bagging on S816342
1631 Reviewed Inside And outside Rounds.
1650 on 7-9-13 ~~Operators~~ operators Inside notified of WCB high high pressure PE-002 Low and HPA-001
1652 mixer Hkrm acknowledged Suspended operations, operators following PCF Instruction.
1656 Booth mixer Acknowledged
1658 entering EP-WCKR-ARP-0411, 405, 407, 409 and entering LCO 3.3.1 And 3.3.2 And 3.3.0
1740 Operators Monitoring for restard ventilation
1744 Ventilation Restarted.
1746 Ventilation start up failure
1751 Ventilation restarted.
1803 Ventilation numbers normal
1820 Sos turns over with clayton Mullins No further entries.

7/11/13 WCRR SOS Log Book
1815 Assuming SOS position. CK
1820 Starting Pre-Job, discussed alarms and potential for alarms overnight due to low flow rate on the outlet HEPA's of the WCG. Also having to go to cold at end of shift.
1851 Pre-~~Job~~ cm 7-11-13 Job complete.
1855 Late entry @ 1842 Exiting LCO's. CK
1954 Starting movement into 50-69.
2008 Movement into 50-69 complete.
2020 Operators inside state that suction in WCG feels ~~non~~ cm 7-11-13 weak almost like there is no suction. Will continue to keep an ~~ego~~ cm 7-11-13 eye on that. Also told by day shift operator that drum lift making grinding sound, will perform inspection at most convient time. Inner roll up door in high bay when closing ended up stuck on one side about 5ft. off the ground, after raising it up a foot it closed properly.
2103 Starting movement out of 50-69.
2130 Move out complete.
2203 Bagging off 1 daughter and 1 POC, bagging on a POC.
2220 Late entry @ 2145 an operator bumped into the BBS box in the hallway, causing his ® shoulder to scratch. SOM and IH notified, entering EP-WCRR-RM-EOP-0309
2225 SOM left message on DOE hotline.
2235 Bag off/on complete.
2253 Entering EP-WCRR-RM-AOP-0207 because of lightning.
2300 FSR submitted #109073 to have BBS box relocated.
2358 Bagging off 1 POC, bagging a daughter on.
0017 Bag off/on complete.
0036 Exiting EP-WCRR-RM-AOP-0207.
0210 FSR submitted #109074 for leaks in artic roof.
0243 Bagging off 1 daughter and bagging on another daughter
0258 Bag off/on complete.
Continued on ~~7-11-13~~ cm 7-11-13 ~~Next~~ cm 7-11-13 Next Page. CM/HS

7/12/13 Continued from previous page. C Mullins
0423 Bagging off 1 daughter, bagging on 94010 to add kitty liter.
0450 Bag off/on complete.
0512 Bagging off final drum.
0525 Bag off complete.
0558 Starting movement out of 50-69.
0610 Signed off on the rounds.
0622 Move out complete.
0625 Securing SOS position. CM

RLH

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-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94011
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 172.0 kg Tare Wt.: 145.1 kg Net Wt.: 26.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

Waste Container ID: 94011

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	24.9
Soils (S):	
Total WMP Weight:	26.9

CCP Radiography Data Sheet

Waste Container ID: 94011

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid, therefore, the liner is vented.	
RTR Operator: Michael Simmons (Print Name) / Signature / 7/17/2013 (Date)	

NDA 2000 Assay Report

Item Information

Item ID:	94011		Count Sequence Number:	16189	
Operator:	DCLTD231\Operator				
Assay Start:	7/17/2013 2:38:36 PM				
Description 1:	2LANDA1195				
Description 2:	POC - Gross Wt. = 172.0 Kg				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	26.9	kg	Net:	26.9 kg
Container:	Volume:	208.0	l	Full:	95.0 %
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:	16189	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94011	Analysis Date:	7/17/2013

Net Weight	26900.0 g		
Pu mass	4.80E+000	+- 2.91E+000	g
TRU Alpha Activity	3.78E+000	+- 2.37E+000	Ci
TRU Activity Concentration	1.41E+005	+- 8.80E+004	nCi/g
Pu-239 Equivalent Activity	3.79E+000	+- 2.37E+000	Ci
Pu-239 FGE	4.45E+000	+- 2.90E+000	g
Decay heat	1.26E-001	+- 7.90E-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	3.99E-007
U233	<LLD	<LLD	0.00E+000	4.20E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.36E-006
NP237	3.25E-002	2.32E-005	4.45E-006	2.28E-006
PU238	1.14E-003	1.98E-002	1.33E-002	1.11E-003
U238	<LLD	<LLD	0.00E+000	8.46E-006
PU239	4.41E+000	2.77E-001	1.82E-001	1.55E-002
PU240	2.88E-001	6.63E-002	4.46E-002	3.72E-003
AM241	9.85E-001	3.42E+000	2.36E+000	9.44E-002
PU241	6.71E-003	6.98E-001	4.70E-001	3.91E-002
PU242	9.91E-002	3.93E-004	2.65E-004	0.00E+000

Errors quoted at 1.000 sigma

Operator: [signature] Date: 7-19-13

ITR: [signature] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16189 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94011
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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. 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-52,42.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

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

Expert Review by: Sheri Chambers Date: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94011**

BDR Number: **LA13FG12068**

Sampling Date: **7/30/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	140.75	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130730c\
Data File : 94011.D
Acq On : 30 Jul 2013 1:31 pm (#1); 30 Jul 2013 1:30 pm (#2)
Operator : SA
Sample :
Misc : POC THROUGH DRUM FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 30 13:36:44 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	40148m	140.75	ppmv	

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0084
Examination Date:	7/16/2013
Waste Container ID:	94012
Video/Audio Recorded Media Number:	LA-HERTR-13-0084 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 165.0 kg Tare Wt.: 145.1 kg Net Wt.: 19.9 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 94012

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid, Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP) Fiberboard 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):	1.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	17.4
Soils (S):	
Total WMP Weight:	19.9

CCP Radiography Data Sheet

Waste Container ID: 94012

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

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

RTR Operator:

Benito Maestas	[signature]	7/16/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94012		Count Sequence Number:	16183	
Operator:	DCLTD231\Operator				
Assay Start:	7/17/2013 9:37:00 AM				
Description 1:	2LANDA1195				
Description 2:	POC - Gross Wt. = 165 Kg				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	19.9 kg	Net:	19.9 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:	.	0.695 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:	16183	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94012	Analysis Date:	7/17/2013

Net Weight	19900.0 g	
Pu mass	2.42E+000 +-	4.17E-001 g
TRU Alpha Activity	5.26E+000 +-	3.49E+000 Ci
TRU Activity Concentration	2.64E+005 +-	1.76E+005 nCi/g
Pu-239 Equivalent Activity	5.26E+000 +-	3.49E+000 Ci
Pu-239 FGE	2.26E+000 +-	4.16E-001 g
Decay heat	1.75E-001 +-	1.17E-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	4.41E-007
U233	<LLD	<LLD	0.00E+000	4.91E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.58E-006
NP237	4.97E-002	3.55E-005	6.58E-006	2.71E-006
PU238	5.77E-004	9.98E-003	2.34E-003	1.49E-003
U238	<LLD	<LLD	0.00E+000	1.05E-005
PU239	2.22E+000	1.40E-001	2.62E-002	2.09E-002
PU240	1.45E-001	3.34E-002	7.83E-003	4.99E-003
AM241	1.46E+000	5.07E+000	3.49E+000	1.04E-001
PU241	3.38E-003	3.52E-001	8.24E-002	5.26E-002
PU242	4.97E-002	1.97E-004	4.60E-005	0.00E+000
AM243	5.99E-004	1.21E-004	2.26E-005	3.63E-006

Errors quoted at 1.000 sigma

Operator: Brittapleth Date: 7-19-13

ITR: [signature] Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16183 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94012
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
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 Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,42.
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94012**

BDR Number: **LA13FG12069**

Sampling Date: **7/31/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	80.85	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130731C\
Data File : 94012.D
Acq On : 31 Jul 2013 10:43 am (#1); 31 Jul 2013 10:41 am (#2)
Operator : RJ
Sample :
Misc : POC through drum filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 31 10:48:04 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	23063m	80.85	ppmv	

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

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94013
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 142.0 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 94013

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	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):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	104.6
Soils (S):	
Total WMP Weight:	108.6

CCP Radiography Data Sheet

Waste Container ID: 94013

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

RTR Operator:		
Michael Simmons		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94013		Count Sequence Number:	16197	
Operator:	DCLTD231\Operator				
Assay Start:	7/18/2013 12:13:33 PM				
Description 1:	2LANDA1196				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	109.0 kg	Net:	109.0 kg	
Container:	Volume:	208.0 l	Full:	60.0 %	
Density:		0.870 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:	16197	Batch Number:	2LANDA1196
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94013	Analysis Date:	7/18/2013

Net Weight	109000.0 g	
Pu mass	2.86E+001 +-	6.11E+000 g
TRU Alpha Activity	2.33E+001 +-	1.17E+001 Ci
TRU Activity Concentration	2.14E+005 +-	1.07E+005 nCi/g
Pu-239 Equivalent Activity	2.34E+001 +-	1.17E+001 Ci
Pu-239 FGE	2.65E+001 +-	6.09E+000 g
Decay heat	7.75E-001 +-	3.91E-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	1.85E-006
U233	<LLD	<LLD	0.00E+000	1.38E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.43E-006
NP237	3.58E-001	2.56E-004	5.38E-005	7.66E-006
PU238	6.82E-003	1.18E-001	3.20E-002	3.90E-003
U238	<LLD	<LLD	0.00E+000	3.75E-005
PU239	2.63E+001	1.65E+000	3.83E-001	5.46E-002
PU240	1.72E+000	3.95E-001	1.07E-001	1.31E-002
AM241	6.10E+000	2.12E+001	1.17E+001	1.14E-001
PU241	4.00E-002	4.16E+000	1.13E+000	1.38E-001
PU242	5.90E-001	2.34E-003	6.35E-004	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-22-13

ITR: _____ Date: 7-23-2013

Automated Independent Technical Review

Count Sequence Number: 16197 Batch Number: 2LANDA1196
Counter ID: HENC #2
Container ID: 94013
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,42.

Comments	Disposition
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: Sherri Chambers Date: 7-22-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94013**

BDR Number: **LA13FG12065**

Sampling Date: **7/19/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	563.09	
74-82-8	Methane	15.92	
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130719c\
Data File : 94013.D
Acq On : 19 Jul 2013 1:47 pm (#1); 19 Jul 2013 1:45 pm (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NUCFIL-019DS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 19 13:51:41 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	160622m	563.09	ppmv	
2) Methane	3.753	GC1	2123m	15.92	ppmv	

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

H2-CH4.M Fri Jul 19 14:04:31 2013 UNIT12

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94014
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 144.5 kg Tare Wt.: 33.4 kg Net Wt.: 111.1 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: 94014

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):	11.1
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	96.0
Soils (S):	
Total WMP Weight:	111.1

CCP Radiography Data Sheet

Waste Container ID: 94014

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	[signature]	7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94014	Count Sequence Number:	16190
Operator:	DCLTD231\Operator		
Assay Start:	7/17/2013 3:19:16 PM		
Description 1:	2LANDA1195		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 111.0 kg	Net:	111.0 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.890 kg /l		

System Configuration

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

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	16190	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94014	Analysis Date:	7/17/2013

Net Weight	111000.0 g	
Pu mass	3.64E+001 +-	7.82E+000 g
TRU Alpha Activity	3.20E+000 +-	4.75E-001 Ci
TRU Activity Concentration	2.89E+004 +-	4.28E+003 nCi/g
Pu-239 Equivalent Activity	3.29E+000 +-	4.75E-001 Ci
Pu-239 FGE	3.36E+001 +-	7.18E+000 g
Decay heat	1.01E-001 +-	1.48E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.84E-001	2.03E-004	4.33E-005	5.82E-006
PU238	8.67E-003	1.50E-001	3.22E-002	5.94E-005
PU239	3.34E+001	2.10E+000	4.51E-001	8.32E-004
PU240	2.18E+000	5.02E-001	1.08E-001	1.99E-004
AM241	1.29E-001	4.49E-001	9.65E-002	1.78E-004
PU241	5.09E-002	5.29E+000	1.14E+000	2.09E-003
PU242	7.49E-001	2.97E-003	6.39E-004	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.53E-006
U233	<LLD	<LLD	0.00E+000	1.07E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.28E-006
U238	<LLD	<LLD	0.00E+000	3.39E-005

Errors quoted at 1.000 sigma

Operator: Brett Upton Date: 7-19-13

ITR: [signature] Date: 7-22-13

J32

Automated Independent Technical Review

Count Sequence Number: 16190 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94014
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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. 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.

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Ratio of Pu-239 414 to 129 keV line activities is above the limit of 2.50	Not data affecting, neutron results applied.
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94014**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	21.54	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130718c\
Data File : 94014.D
Acq On : 18 Jul 2013 1:17 pm (#1); 18 Jul 2013 1:16 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 18 13:23:13 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	6143m	21.54	ppmv	

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

Working Copy
Date: 7-11-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 94010 (original parent SA16342)

6.2[4] Date Processed: 07/12/13

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

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

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

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

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

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 07/31/13

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: Kevin Beluscak / Kevin Beluscak 123[illegible] / 07/12/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 94010

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 105.6 lb

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

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 105.6 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.: 9401O

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	940116		N	
10.1[4]	Daughter Drum Filter No.	KL-500			
10.1[4]	Daughter Drum Bag Filter No.	L-8132		A	
10.1[4]	Daughter Drum Purchase Order No.	501103			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	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:				
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	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	50%		A	
10.5[3]/10.6[2]	Description Waste Added During Processing	stab outs Kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 94010

Comments: Nitrate Salts, Plastic,

11.1[1] Performed By: Kevin Bunsen / Kevin Bunsen 123849 / 07/12/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Clayton Miller / CA 124092 / 7/16/13 1421
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 7-11-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415251
Lot No.: 0220646
Manufacture Date: 11

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: IM 7-1013-019DS
Serial No.: FK-1145
Manufacture Date: 6-10

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

5. [11] Performed By: Jan Marquez [signature] [illegible] 7-11-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/A

8.1[1] Performed By: Jan Marquez [signature] [illegible] 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullis, CA 124092 7/16/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94017

7.[24] Overpack drum closure ring torque wrench information:
- M&TE No.: 038373
- Cal. Expiration Date: 09/11/13
- Range in ft-lb: 10-80
- Tolerance: +/- 3% CW and +/- 6% CCW

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

Performed By: Kevin Beluscak / Kevin Beluscak 123[illegible] / 07/12/13
Waste Handling Technician (print) Signature Z # Date

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

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

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 07/31/13

7.[35][D] 85-gal overpack drum gross weight (lb): 168.6 lb

Comments: N/C

8.1[1] Performed By: Kevin Beluscak / Kevin Beluscak 123[illegible] / 07/12/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullis / [signature] 240092 / 7/16/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 940110

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

RECORD drum information:
- Purchase Request #: 50103
- Lot #: 0234766
- 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 #: BCPVC1.5-2SPVC
- Serial #: 1-8132
- Date of Manufacture: 2-13

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 #: D190S
- Serial #: KL-500
- Date of Manufacture: 11-11

RECORD torque wrench information:

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

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

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

5. Weigh Drum Assembly
RECORD weight information
- Tare wtght (lbs) 75.8
- File ID #: 014065
- [x] Write the tare weight on drum using permanent marker

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

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

Operator Print: MICHAEL MONTOYA Operator Sign: [signature] Z#: 191352 Date: 7-08-13

Verifier Print: Kevin Belusca Verifier Sign: Kevin Belusca Z#: 238199 Date: 07/12/13

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

DRUM ID#: 940116

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 and +/- 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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): 131-8

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: Kevin Betuscak Date 07/12/13

Verifier Print/Sign: Gerald Espano Date: 7-12-13

7-12-13 Continued from previous page. - JColeman
0210 Entered an FSR# 109014 for the leaking ceiling inside the Artic area, bldg 37.
0246 Bagging off 1 daughter, bagging on another daughter.
0253 Beginning outside rounds.
0258 Item #3 is unsat, Okay to proceed, FSR in place. Bag off/on complete.
0308 Beginning inside rounds.
0315 Outside rounds complete.
0342 Item #63 is 005, Okay to proceed, POD in place.
0345 Inside rounds complete.
0423 Bagging off 1 daughter, bagging on 94010 to reabsorb with Kitty Litter.
0450 Bag off/on complete.
0512 Bagging off final drum.
0525 Bag off complete.
0558 Initiating a drum movement from 5069 to a transportainer.
0610 Both rounds reviewed by SCO.
0615 Drum movement complete. All inventory has now been removed from the facility.
0626 Mode change complete. We are now in warm in WRRF yard and cold in 5069.
7-12-13 0630 End of day. CCO position secure - JColeman
HR

No further entries this page

271 PROJECT NAME 7/11/13 Night Shift NOTEBOOK NO.

1825 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

1845 Attended pre job brief conducted by SOS. Discussed current condition of facility and path forward to resume operations. Shift Order WCRR-SH-13-003 R2 Manual Drum Movements still in effect. At end of shift facility needs to be in Cold for maintenance.

1850 Completed closeout of LCO entry paperwork

2008 Completed movement of drums into 50-69 for denesting/processing

2130 Drum movement out of 50-69 to transportainers complete.

2145 Notified of operator walking down hallway 50-69 hit his right arm on BBS mail box resulting in a 2 inch scratch barely producing blood. Entered into EP-WCRR-RM-EOP-0309 for minor injury. Notified OM and ES-TH. Placed padding on sharp corners of metal box.

2225 Left message on DOE Hotline of minor injury.

2230 Notified by SOS that drum being processed is a nitrate salt drum

2253 Entering EP-WCRR-RM-AOP-0207 Severe Weather due to lightning. Implementing 30/30 rule.

2300 OCO instructed on FSR to have the BBS box relocated.

2305 Restarting 30 minute clock for lightning.

1/x/130036 Exited EP-WCRR-RM-AOP-0207. Resuming outside operations.

0210 SOS identified leakage of water into Arctic building from roof caused by rain. FSR submitted.

0450 Completed all bag offs related to parent drum 5816342. Bagged on 94010 to reprocess using Kitty Litter. Drum had initially been processed of WasteLock absorbent instead of Kitty Litter.

0525 Completed all bag offs. Production for this shift is 1 parent, 3 daughters and 2 POC's on the 7/12/13 2330-0600 shift. Weekly totals are 15 parents processed resulting in 24 daughters and 6 POC's.

0611 Review of inside rounds had item #37 WCC vacuum reading -0.52 inches we Per directions in Section 6.14 Filter change is scheduled for Monday 7/15/13.

0624 Completed Mode change: WCRR Yard - Warm 50-69 is Cold.

0632 Secured night shift SOM position - turned over to day shift SOM.

7-12-13

No further entries this page

SIGNATURE [signature] DATE 7/12 20 13

READ AND UNDERSTOOD DATE 20

7/12/13	Continued from previous page. CMullins
0423	Bagging off 1 daughter, bagging on 94010 to add kitty liter.
0450	Bag off/on complete.
0512	Bagging off final drum.
0525	Bag off complete.
0558	Starting movement out of 50-69.
0610	Signed off on the rounds.
0622	Move out complete.
0625	Securing SOS position. CM

RLH

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-HERTR-13-0085
Examination Date:	7/17/2013
Waste Container ID:	94016
Video/Audio Recorded Media Number:	LA-HERTR-13-0085 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 59.5 kg Tare Wt.: 33.4 kg Net Wt.: 26.1 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: 94016

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Scrap metal, wire mesh, metal hardware
AM:	
OM:	
OI:	
C:	Tape roll
R:	
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):	0.8
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	0.1
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	22.2
Soils (S):	
Total WMP Weight:	26.1

CCP Radiography Data Sheet

Waste Container ID: 94016

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

RTR Operator:

Michael Simmons		7/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94016		Count Sequence Number:	16188	
Operator:	DCLTD231\Operator				
Assay Start:	7/17/2013 1:47:40 PM				
Description 1:	2LANDA1195				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	26.1 kg	Net:	26.1 kg	
Container:	Volume:	208.0 l	Full:	45.0 %	
Density:		0.280 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:	16188	Batch Number:	2LANDA1195
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94016	Analysis Date:	7/17/2013

Net Weight	26100.0 g	
Pu mass	3.98E+000 +-	6.85E-001 g
TRU Alpha Activity	2.59E+000 +-	1.20E+000 Ci
TRU Activity Concentration	9.93E+004 +-	4.59E+004 nCi/g
Pu-239 Equivalent Activity	2.60E+000 +-	1.20E+000 Ci
Pu-239 FGE	3.69E+000 +-	6.28E-001 g
Decay heat	8.59E-002 +-	4.00E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.83E-002	2.74E-005	3.11E-006	1.21E-006
PU238	9.49E-004	1.64E-002	2.82E-003	5.99E-005
PU239	3.66E+000	2.30E-001	3.95E-002	8.39E-004
PU240	2.39E-001	5.50E-002	9.45E-003	2.01E-004
AM241	6.59E-001	2.29E+000	1.20E+000	1.87E-002
PU241	5.57E-003	5.79E-001	9.95E-002	2.11E-003
PU242	8.20E-002	3.25E-004	5.59E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.65E-007
U233	<LLD	<LLD	0.00E+000	2.33E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.93E-007
U238	<LLD	<LLD	0.00E+000	6.69E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-19-13

ITR: _____ Date: 7-22-13

Automated Independent Technical Review

Count Sequence Number: 16188 Batch Number: 2LANDA1195
Counter ID: HENC #2
Container ID: 94016
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,42.
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 7-18-13

U26

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94016**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	47.99	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130718c\
Data File : 94016.D
Acq On : 18 Jul 2013 3:29 pm (#1); 18 Jul 2013 3:28 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 18 15:33:52 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	13688m	47.99	ppmv	

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

S816394

Container Profile 759559

File Options Reports Help

S816394

759559	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

S816394 → S816394
- 94004 – EMPTY
- 94003

Task History

Transfer Details

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

ATTACHMENT 1
Page 1 of 4

Working Copy
Date 07/11/13 KB

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816394

6.2[4] Date Processed: 7-11-13

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: D003, D008, D018

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] 094782 / 7-11-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 5816391	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	426.6 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)	426.6 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
[illegible]	[illegible]		/ /

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S816394

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	94003			
10.1[4]	Daughter Drum Filter No.	KL-490		N	
10.1[4]	Daughter Drum Bag Filter No.	L-8003			
10.1[4]	Daughter Drum Purchase Order No.	501103		A	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.			N	
	Date of Manufacture				
10.2[5]	POC ID No				
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				
10.3[5][A]	Free Liquid Volume/Units	2 gal		A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.			N	
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S816394

Comments: Nitrate salts, Kitty litter, Lead, ph-2

11.1[1] Performed By: Brandon Chavez / [signature] 204782 / 7-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Clayton Mullins CA 124092 / 11/8/13 0007
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 7-8-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	501323
Lot No.: (B2)	9/23/2014 0238025
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:	±1%cw ±6%ccw	±3%cw ±6%ccw

Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	Q3
Serial No.:	JL-1975
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: Brandon Chavez / [signature] Z# 7-8-13
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: Brandon Chavez / [signature] Z# 7-8-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: GMK / DMJ 14825 7/16/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 7-11-13a

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413984
Lot No.: 211429
Manufacture Date:

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

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 1K-195
Manufacture Date: 9-10

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

5. [11] Performed By: [illegible] / [signature] 127621 7-11-13
Waste Handling Technician (print) Signature Z # Date

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

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

Comments: N/A

8.1[1] Performed By: [illegible] / [signature] 127621 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: G Mk / [signature] 127575 7/16/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 07/11/13 KB

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94003 9400 (9234 B2)

7.[24] Overpack drum closure ring torque wrench information:

M&TE No.: 038373
Cal. Expiration Date: 8-11-13
Range in ft-lb: 10-80
Tolerance: ±3% ccw ±6% cw

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

Performed By: Brandon Chavez / [signature] BOY7421 7-11-13
Waste Handling Technician (print) Signature Z # Date

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

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

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

7.[35][D] 85-gal overpack drum gross weight (lb): 179.8 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] BOY7421 7-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Wk / [signature] 1149275 7/16/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 94003

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 #: 501103
- Lot #: 0234746
- 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: BOP
- Model #: 3CRYCL-S-2 SAVC
- Serial #: L 1003
- Date of Manufacture: 7/13

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 #: 99DS
- Serial #: KL 440
- Date of Manufacture: 11-12

RECORD torque wrench information:

Filter torque wrench:
- M&TE ID #: 100216
- Cal Expiration Date: 12-18-13
- Range (ft-lbs or in-lbs): 40-200
- Tolerance: ±3% CW & CCW

Jam Nut / Bung torque wrench:
- M&TE ID #: 0383609
- Cal Expiration Date: 12-18-13
- Range (ft-lbs or in-lbs): 10-80
- Tolerance: ±3% CW & CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: [illegible] Signature [signature] Z#: Z7670Y

5. Weigh Drum Assembly
RECORD weight information
- Tare wight (lbs) 76.2
- 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: [illegible] Operator Sign: [signature] Z#: Z7670Y Date: 7-8-13

Verifier Print: Brandon Chase Verifier Sign: [signature] Z#: 204742 Date: 7-11-13

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

DRUM ID#: 94003

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

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

✓ Engage bolt and nut and torque per manufactures instructions

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

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 038373

Cal expiration date: 9-11-13

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

-- Tolerance ± 3% cw ± 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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

OR

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

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 484.6

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: Brandon Chacz Date 7-11-13

Verifier Print/Sign: Joe Quintana Date: 7/11/13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S816394 | Container Type: 55-GAL | Gross Weight (lbs): 414
Inner Seal #: 010091 | Filter Prefix: None | Filter Serial #: None
AK Waste Stream: LA-CIN01.001 | Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS
Total PE-Ci Activity: 1.12E+00 | Equivalent Combustible PE-Ci: 4.21E-01 | AM-241 PE-Ci: 1.70E-01
Total Fissile Gram Equivalents: 9.5 | Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D001 D009 ML 12/11/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 10/4/2012 | Comment: 10 Gal. of liquid from 22" to 32"
Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☑ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☑ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☐ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: None | Production Control Comments: Nitrate Salts apply mixture & EPA codes Material split package MT42 separately from MT3X

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

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 354# Generator info shows 5 items of nitrate salts; weights range from 7-110#. No RTR BDR available for review. Nitrate salts are typically packaged in plastic bags & can contain unpermitted liquids. RTR PS shows presence of liquids. Nitrate salts require repack w/ admixture. No chemicals identified; nitrate salts carry waste codes for chromium, lead, & mercury.

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

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use Hemostatic gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE. Use proper ratio of kitty litter to Nitrate Salts In accordance with the procedure

Performed By: G Mk (TRU Remediation Operations (Print)) | J M (Signature) | 149235 (Z Number) | 6.2.13 (Date)
Jose Jerez | Jose Jerez | 221452 | 6-9-13

IH Review: AB 206362 12.17.12

Discardable Waste Log Sheet

DrumID: 010091

Item	Material ID	Net (kg)	Matrix	H Code	NIN	HT	Assay	Remarks
1	IXFS 395 F1	21.59	NITRATE SALTS		4.89	52	5/11	
2	IXFS 396 F1	3.18	NITRATE SALTS		0	53	5/11	
3	IXFS 399 F1	25	NITRATE SALTS		3.14	52	5/11	
4	IXFS 398 F1	49.54	NITRATE SALTS		1.85	52	5/11	
5	IXFS 399 F1	21.14	NITRATE SALTS		1.39	42	5/11	
		120.45 kg						

1772-119-1

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Jan 29 2013

Container No. (5.[1])	S816394					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	N/A 130 ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	362.9 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: n/a

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

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

6.1[3] Performed By: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 176905 (Z#) 1-30-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130129c\
Data File : S816394.D
Acq On : 29 Jan 2013 1:28 pm (#1); 29 Jan 2013 1:26 pm (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL THROUGH UNOBSTRUCTED FILTER-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 13:31:57 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu Oct 04 08:07:46 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.933	GC1	102295m	362.19	ppmv	

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

H2-CH4.M Tue Jan 29 13:32:05 2013 UNIT12

7-11-13
0600 Assuming WCCF operations center. CDDaude
0612 Rounds have been signed off by SOS
0618 Pre-job being conducted by SOS
0800 Starting movement out of 50 69
0814 Bagging on 9814394.
0818 Bag on complete.
0819 Permission granted to lower vehicle arm(s) gates for movement to area 4
0854 Vehicle access gates have been restored movement to area 4 complete
0955 Operators exiting 50 69. He is feeling ~~nauseous~~ 07-11-13 nauseous. SOS has been notified and IH will be ~~alerted~~ 07-11-13 evaluating operator.
1025 Bagging off 9814394, Bagging on 9814305
1052 Bag on, Bag off complete
1124 Permission granted to lower vehicle access barriers for unloading of transport vehicle
1330 Bagging off, Bagging on 9814304
1355 Bag on Bag off complete
1510 Starting outside rounds.
1514 Item #3 is unsat FSR in place ok to proceed
1522 Bagging off, (daughter)
1523 Starting inside rounds
1537 Outside rounds complete
1550 At 1500 notified by Sim that he has bumped his outside in the parking lot entering EP-WCCF-FM-01 Brg Rats, SOS and DOE were notified and on has transported him to DCmed
1617 Bagging off, Bagging on 9814342
1631 Rounds have been signed off by SOS.
1650 notified by Operators of CCG high high pressure FE-002 block, and HCA-001
1652 Buzzer alarm acknowledged, Suspend operations operators following RCT instructions
1656 Another buzzer alarm acknowledged.
— Continued on next page — Chelander

Continued from previous page Orlando.
1658 SOS SITM, OM, ~~FED ACKNOWLEDGED~~ entering EP LOOP ARP-0411, 405, 408, 409. and entering LOD 3.31 and ~~3.3.6~~ 0411 3.3.2 and 3.0.1
1701 Ems contacted and asking about any power bumps.
1703 power dispatch contacted, no power outages.
1705 Generator did not kick on. OK has been notified OK to turn back on.
1740 Operators entering to restart ventilation.
1744 Ventilation has been restarted.
1746 Ventilation start up failure.
1751 Ventilation has been restarted.
1755 Ventilation readings are normal.
1815 performed shift turnover with OC (Terri Warner) Dave

Further Entries this page

7-11-13 Assuming WCRR operations center. - JColeman
1816 Pre-job being conducted by SOS.
1817 Contacted Engineering Manager designee oncall to come to
1820 WCRR to sign off on the LCO paperwork.
1842 Engineering Manager designee has arrived to sign off on the LCO paperwork. Exiting LCOs. Pre-job concluded.
1954 Initiating a drum movement from transportainer to 50-69.
1955 Late entry-at 1917, operators entering 50-69 to resume operations on drum # 581634 2. JC
2008 Drum movement into 50-69 complete.
2103 Initiating a drum movement from 50-69 to a tranportainer.
2130 Drum movement out of 50-69 complete JC 7-11-13
2203 Bagging off 1 daughter and 2 POC's, bagging on another ~~daughter~~ POC JC 7-11-13
JC 7-11-13
2220 Late entry-at 2145, and JC 7-11-13 an operator walking down the hallway hit his (R) shoulder on the corner of the BBS box on the wall. SOS, Som notified of a long bed scratch. Entered EP-WCRR-RM-EOP 0309. JH also notified. JC
2225 DOE hotline called and a message was left by Som.
2235 Bag off/on complete.
2253 Entering EP-WCRR-RM-AOP-0207 due to lightning.
2257 Beginning 30 minute wait time again due to another clap of thunder.
2300 Entered an FSR # 109073 for the BBS box to be relocated.
2305 Beginning 30 minute wait time again due to another clap of thunder.
2314 Beginning 30 minute wait time again due to another clap of thunder.
2316 Beginning 30 minute wait time again due to another clap of thunder.
2318 30 more for thunder.
2323 30 more for thunder.
2340 30 more for thunder.
2358 Bagging off 1 POC, bagging on a daughter.
0017 Bag off/on complete.
0036 Exiting EP-WCRR-RM-AOP-0207 Resuming outside operations.
Continued on next page JColeman

PROJECT NAME _____ 7-11-13 DAYSHIFT _____ NOTEBOOK NO. _____

0614 Reviewed the shift turnover checklist, reviewed approved and posted oncoming watchbill. Completed turnover with Nightshift SOM and assumed the WCRR SOM position. [illegible]

0640 Completed attending the pre-job brief conducted by (Gilbert) the SOS. Issues identified by the team include: Operators complained of heat in the bulk area especially when wearing lead vests. Requested the temperature to be lowered - even 1-2 degrees, the door late on the SF 57 Monk Suite are high, time, distance and shielding was discussed. ERD requirements discussed the team is to use flex-hose sleeves, it was suggested Tyvex sleeves be used over the gauntlets. Shift Order WCRR-SH-13-003 re "Manual Drum Movements is still in effect. One transfer out is scheduled to drum 61.

0710 Completed daily FOD walkdown each is

0745 DOE/FR and DOE Facility representative (SR) arrive to perform assessment of SOGs Readiness

0801 Upon performing a move out of 7 drums from inside the facility, operations logged on SB16 394

0845 DOE exited the operations center and their concern was in their opinion the drains require cleaning and the truck bay floor drain looks clogged.

Late Entry for 0846 0830 One operator reported nausea after opening plastic new bag on bags. Notification was made to the ES/IH, operator is sitting in fresh air and ES/IH is monitoring.

0836 The trans for out of 62 drums to ATLFEX is completed. No issues noted. Upon review of the transfer in, one SEDs document was missing for drum 93752 - Notification was made to Radiation Control, they are acquiring SEDs.

0922 Notification was made to the Operations Center by [illegible] that drum SB46 084 was being dropped.

0811 With Ewing support the SOM conducted walkdown of portable light on the parking lot at WCRR, the Diesel fuel was dripping onto the catch pan - Notification was made to Craft supervision to change out and replace the catch pan. The OCC was also notified.

1025 Operations initiated bagging off SB16 394 and bagging on SB16 395

1032 Bag on and off crew reported completed

1215 Completed the daily facility update to the PM/OM.

1305 The crafts repaired the diesel generator leak on the light power plant, they requested laborers to replace the catch pan and kitty litter.

1312 The nauseated operator was reported to be feeling better and the SOS am ES/IH declared him ready and fit for duty. He entered SCA to support operations

1450 SOM notified OM that the SOM bumped his forehead in the parking lot outside contaminated area, noted as BSAID notification made to OM.

1500 OCC entered EPWCRR-RA-ERP-0009, RCTs SOS and DOE were notified. SOM exiting to OCC noted with OM for First AID - bandage

1650 Notified by operator/SOS of WCR high high Pressure FE-002 flow and HVK-201

1652 Mixer Alarm acknowledged / SOM + OM suspend operations and [illegible] operators following RCT instructions.

1658 The SOS, SOM, OM, FOD + DOE were all notified, also entered EP-WCRR-ARP-0411, 405, 408, 409 and entering LCO 3.3.1 and 3.3.2 and 3.10.

(continued on Next Page)

no further entries this page

SIGNATURE _____ DATE _____

READ AND UNDERSTOOD _____

1701 EMER Contacted and did not know of any power bumps
1703 Power dispatch contacted and did not know of any power bumps
1705 Generator did not kick on, and CSE was contacted.
1745 Operators entered to restart ventilation.
1749 Ventilation was restarted
1745 Inside Operator indicates ventilation start up failure
1751 Ventilation has been restarted.
1803 All Ventilation readings are normal, Emmy LLOg.
1815 Conducted shift briefforder with oncoming SOM Nightshift
1818 the nightshift-SOM completed signing off the watchbill.
1822 It was discussed by OM, RP-1, SOM, and CSE, that potentially the filters require changing in the WCA glovebox, this will be scheduled Monday AM.
1825 Secured the SOM position for Day shift [illegible]

7-12-13

No further Entries this Page

7/12/13

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PROJECT NAME 7/11/13 Night Shift NOTEBOOK NO.

1825 Reviewed Shift Turnover Checklist and assumed WCRR SOM position.

1845 Attended pre job brief conducted by SOS. Discussed current condition of facility and path forward to resume operations. Shift order WCRR-SH-13-003 R2 Manual Drum Movements still in effect. At end of shift facility needs to be in Cold for maintenance.

1850 Completed close out of LCO entry paperwork

2008 Completed movement of drums into 50-69 for denesting/processing

2130 Drum movement out of 50-69 to transporters complete.

2145 Notified of operator walking down hallway 50-69 hit his right arm on BBS mail box resulting in a 2 inch scratch barely producing blood. Entered into EP-WCRR-RM-EOP-0309 for minor injury. Notified OM and ES-IH. Placed padding on sharp corners of metal box.

2225 Left message on DOE Hotline of minor injury.

2230 Notified by SOS that drum being processed is a nitrate salt drum

2253 Entering EP-WCRR-RM-AOP-0207 Severe Weather due to lightning. Implementing 30/30 rule

2300 OCO instructed an FSR to have the BBS box relocated.

2305 Restarting 30 minute clock for lightning.

7/12/13 0036 Exited EP-WCRR-RM-AOP-0207. Resuming outside operations

0210 SOS identified leakage of water into Arctic building from roof caused by rain. FSR submitted.

0450 Completed all bag offs related to parent drum 5816342. Bagged on 94010 to reprocess using Kitty Litter. Drum had initially been processed w/ WasteLock absorbant instead of Kitty Litter.

0525 Completed all bag offs. Production for this shift is 1 parent, 3 daughters and 2 POC's on the 7/12/13 2330-0600 shift. Weekly totals are 15 parents processed resulting in 24 daughters and 6 POC's

0611 Review of inside rounds had item #37 WCC vacuum reading -0.52 inches WC Per directions in Section 6.14 Filter change is scheduled for Monday 7/15/13

0624 Completed Mode change: WCRR Yard - Warm 50-69 is Cold.

0632 Secured night shift SOM position - turned over to day shift SOM.

rb 7-12-13

No further entries this page

SIGNATURE [signature] DATE 7/12 20 13

READ AND UNDERSTOOD DATE 20

7/11/13 WCRR SOS LOG BOOK

0600 Assuming SOS position.
0615 Conducting shift brief talked about heat Inside 17and staying Hydrated
0635 Shift brief Complete
0645 Operators entering Facility.
0800 starting movement out of 50-69
0801 Bagging on S816394
0813 Bag off/on complete
0819 Operators Lowering Access gates
0854 movement Complete
0855 Operator exiting 50-69 He is feeling ill IH will evaluate operator.
1025 Bagging off S816394 Bagging on S816305
1052 Bag on/off Complete.
1125 Lowering access gates For unloading transport vehicale
1530 Bagging off bagging on S816304
1533 Bag off/on Complete
1550 starting Rounds.
1552 bagging off daughter.
1550 Late entry At 1550 notified swm bumped his head entered EP WCRR EOP 209 swm transported to dr ward
1607 Bagging off bagging on S816342
1631 Reviewed Inside And outside Rounds.
1650 ~~Operators~~ operators Inside notified of WCG high high pressure FE 7002 low and H69-001
1652 mixer Alarm acknowledged Suspended operations, operators following PIT Instruction.
1656 Breathe mixer acknowledged
1658 entering EP-WCRR-RKP-041, 405, 407, 409 and entering LCO 3.3.(A) 3.3.2 And 3.3.6
1740 Operators Monitoring to restard ventilation
1744 Ventilation Restarted.
1746 Ventilation Shut off failure
1751 Ventilation restarted.
1803 Ventilation numbers normal
HS 1920 Sos turns over with clayton Mullins

7/11/13 WCRR SOS Log Book
1815 Assuming SOS position. CM
1820 Starting Pre-Job, discussed alarms and potential for alarms overnight due to low flow rate on the outlet HEPA's of the WCC. Also having to go to cold at end of shift
1851 Pre-Job cm 7-11-13 Job complete.
1855 Late entry @ 1842 Exiting LCO's. CM
1954 Starting movement into 50-69.
2008 Movement into 50-69 complete.
2020 Operators inside state that suction in WCC feels ~~from~~ cm 7-11-13 weak almost like there is no suction. Will continue to keep an ~~ego~~ cm 7-11-13 eye on that. Also told by day shift operator that drum lift making grinding sound, will perform inspection at most convient time. Inner roll up door in high bay when closing ended up stuck on one side about 5ft off the ground, after raising it up a foot it closed properly.
2103 Starting movement out of 50-69.
2130 Move out complete.
2203 Bagging off 1 daughter and 1 POC, bagging on a POC.
2220 Late entry @ 2145 an operator bumped into the BBS box in the hallway, causing his ® shoulder to scratch. SOM and IH notified, entering EP-WCRR-RM-EOP-0309
2225 SOM left message on DOE hotline.
2235 Bag off/on complete
2253 Entering EP-WCRR-RM-AOP-0207 because of lightning.
2300 FSR submitted #109073 to have BBS box relocated.
2358 Bagging off 1 POC, bagging a daughter on.
0017 Bag off/on complete.
0036 Exiting EP-WCRR-RM-AOP-0207.
0210 FSR submitted #109074 for leaks in artic roof.
0243 Bagging off 1 daughter and bagging on another daughter
0258 Bag off/on complete.
Continued on ~~Next~~ cm 7-11-13 Next Page CMullis

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0084
Examination Date:	7/16/2013
Waste Container ID:	94003
Video/Audio Recorded Media Number:	LA-HERTR-13-0084 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 219.5 kg Tare Wt.: 33.4 kg Net Wt.: 186.1 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

CCP-TP-053 Attachment 2 (continued)

Waste Container ID: 94003

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Scrap metal, metal can
AM:	
OM:	Scrap lead
OI:	
C:	Wire brush
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):	2.7
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.3
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	169.1
Soils (S):	
Total WMP Weight:	186.1

CCP Radiography Data Sheet

Waste Container ID: 94003

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

RTR Operator:

Benito Maestas		7/16/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94003		Count Sequence Number:	23239	
Operator:	D3PW2DK1\operator				
Assay Start:	7/17/2013 10:09:06 AM				
Description 1:	1LANDA1810				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	186.0 kg	Net:	186.0 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
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:	23239	Batch Number:	1LANDA1810
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:	94003	Analysis Date:	7/17/2013

Net Weight	186000.0 g		
Pu mass	1.22E+001	+- 2.99E+000	g
TRU Alpha Activity	5.74E+000	+- 2.65E+000	Ci
TRU Activity Concentration	3.09E+004	+- 1.42E+004	nCi/g
Pu-239 Equivalent Activity	5.79E+000	+- 2.65E+000	Ci
Pu-239 FGE	1.02E+001	+- 2.47E+000	g
Decay heat	1.90E-001	+- 8.84E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.97E-002	5.69E-005	1.26E-005	3.23E-006
PU238	1.09E-002	1.89E-001	4.66E-002	7.76E-005
PU239	1.00E+001	6.32E-001	1.55E-001	2.59E-004
PU240	7.38E-001	1.70E-001	4.17E-002	6.95E-005
AM241	1.37E+000	4.75E+000	2.64E+000	6.34E-002
PU241	2.98E-002	3.10E+000	7.62E-001	1.27E-003
PU242	1.35E+000	5.37E-003	1.32E-003	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.35E-007
U233	<LLD	<LLD	0.00E+000	6.13E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.78E-006
U238	<LLD	<LLD	0.00E+000	3.40E-005

Errors quoted at 1.000 sigma

Operator: Brittphth Date: 7-22-13

ITR: [signature] Date: 7-23-13

Automated Independent Technical Review

Count Sequence Number: 23239 Batch Number: 1LANDA1810
Counter ID: MCS HENC #1
Container ID: 94003
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/17/2013

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-52,42,53
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: 7-18-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94003**

BDR Number: **LA13FG12064**

Sampling Date: **7/18/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	212.88	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	U

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

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130718c\
Data File : 94003.D
Acq On : 18 Jul 2013 4:19 pm (#1); 18 Jul 2013 4:17 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

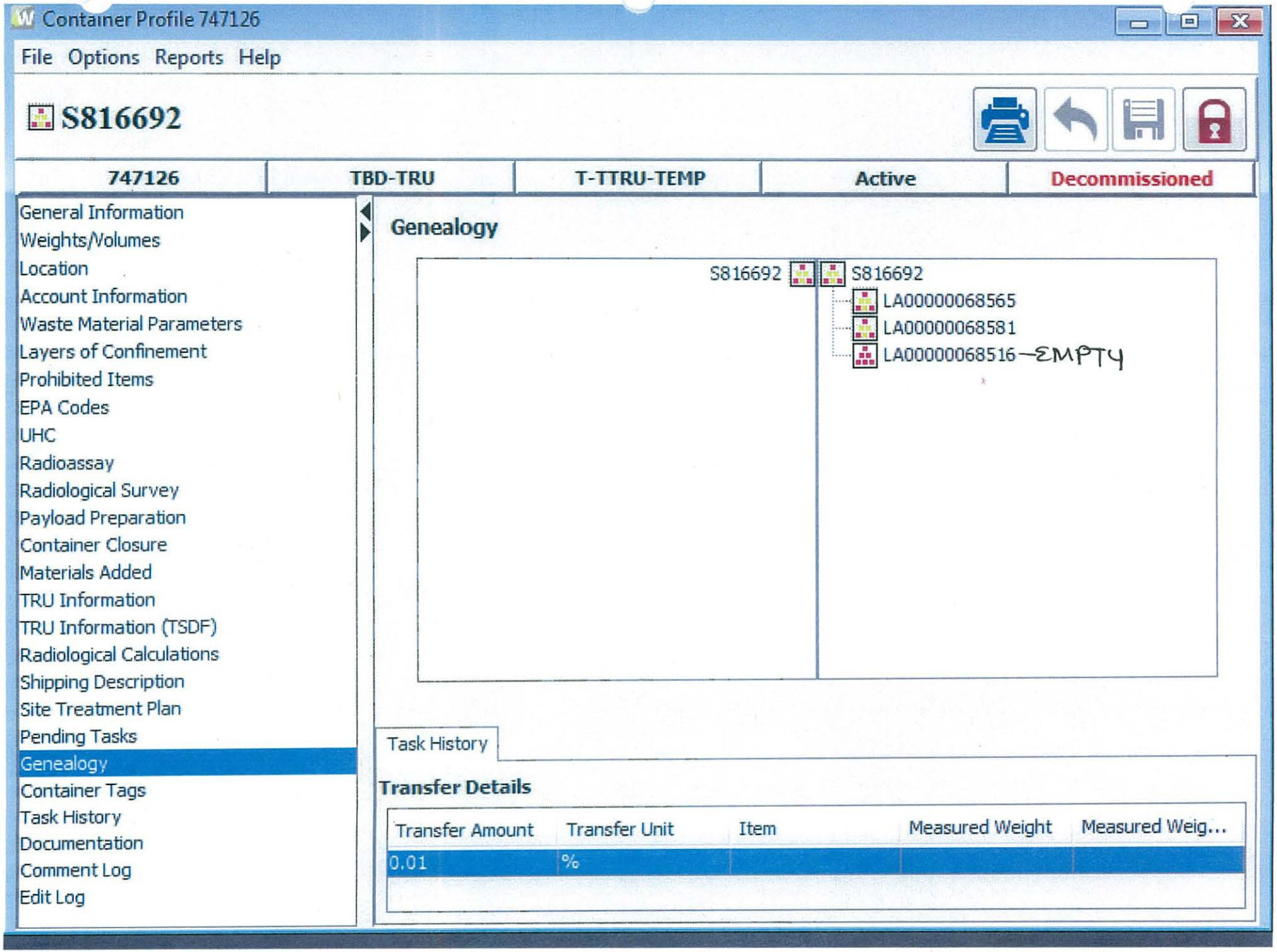
Quant Time: Jul 18 16:23:19 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.900	GC1	60725m	212.88	ppmv	

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

S816692

S816692


Container Profile 747126
File Options Reports Help
S816692
747126
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
S816692
S816692
LA00000068565
LA00000068581
LA00000068516 – EMPTY
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
0.01
%

Working Copy

Date: 10-30-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816692

6.2[4] Date Processed: 10-30-13

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

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

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

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

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

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

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

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

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

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

Performed By: Adam Escovia [signature] Z#270701 10-30-13
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5816692

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 413.2 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) 413.2 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.: 816692

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68581	68565		
10.1[4]	Daughter Drum Filter No.	LM-313	LM-765	N	
10.1[4]	Daughter Drum Bag Filter No.	L-11516	L-6734	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	
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	1 GALLON			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead shield. Ng	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	N	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	75%		A
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter Stuffed Bags	Kitty Litter		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5816692

Comments: Nitrate Salts, Plastic, Kitty Litter, Lead Shielding, One poly Liner Lid, Stuff out Bags,

11.1[1] Performed By: Adam Segovia | [signature] | D76702 | 10/31/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins | [signature] | 240092 | 10/31/13 0604
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-2-13

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.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Tolerance:	+/- 4% CW +/- 6% CCW	+/- 3% CW +/- 6% CCW

Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	JL 1884
Manufacture Date:	10/11

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

5. [11] Performed By: JOE QUINTANA / Joe Q — 239987 — 10/2/13
Waste Handling Technician (print) / Signature / Z # / Date

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

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

Comments: N/C

8.1[1] Performed By: JOE QUINTANA / Joe Q — 239987 — 10/2/13
Waste Handling Technician (print) / Signature / Z # / Date

8.1[6] Reviewed By: Clayton Mullis / CM — 240092 — 10/31/13
Supervisor or designee (print) / Signature / Z # / Date

Date: 10-30-13a

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68516

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: Adam Segovia / [signature] 376222 / 10-31-13
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: 019069
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 177.6 lb

Comments: N/C

8.1[1] Performed By: Adam Segovia / [signature] 376222 / 10-31-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / CM 240091 / 10/31/13
Supervisor or designee (print) Signature Z # Date

10-24-13 JL

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 685605

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 3cPVC1.5-2SPVC
Serial No.: L-6734
Manufacture Date: 1/13

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

	Filtered Vent	2 in. Bung
M&TE No.:	190216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-120	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: BRIAN GALLEGOS / [signature] / 267129 / 10-24-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: BG 10-24-13 ~~KM-765~~ C19DS
Serial No.: KM-765
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: 019665

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.: 68565

Comments: N/C

5.[35] Performed By: Adam Segovia / [signature] 276702 / 10-31-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 240092 / 10/31/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: ~~10-24-13~~ 10-24-13 10-31-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68565

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

M&TE No.:	038369
Cal. Expiration Date:	12-18-13
Range in ft-lb:	16-90
Tolerance:	+/- 3% CW +/- 6% CCW

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

Performed By: Adam Segovia (Operator (print)) (Signature) 276200 (Z #) 10-31-13 (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: _____ (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.: 68565

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 289.0 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: Adam Scicovia (Operator (print)) Adam Scicovia (Signature) 276702 (Z #) 10-31-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) CA (Signature) 240092 (Z #) 10/31/13 (Date)

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68581

5.[3] Drum information:
- Purchase Order No.: 501578
- Lot No.: 0240119
- Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
- Manufacturer: DOP
- Model No.: 6 CPVC 1.5 - 2SPVC
- Serial No.: L- 11516
- Manufacture Date: 2013

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:	±40/cw ± 60/ccw	±30/cw ± 60/ccw

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

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

5.[23] Filtered vent information:
- Manufacturer: NUCFIL
- Model No.: 019 QS
- Serial No.: LM-313
- 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.: 68581

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA (Operator (print)) (Signature) 191352 (Z #) 10/29/13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) (Signature) 240092 (Z #) 10/31/13 (Date)

Working Copy Date: ~~10-24-13~~ 10-30-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68581

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

M&TE No.: 038369
Cal. Expiration Date: ~~10-30-13~~ 12-18-13
Range in ft-lb: 16-80
Tolerance: +/-3% cw +/-6% ccw

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

Performed By: Adam Segovia (Operator (print)) (Signature) Z# 2176021 (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: (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.: 68581 / 5816692 (R9) 9/23/14

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 415.0 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: Adam Segovia (Operator (print)) (Signature) 276202 (Z #) 10-31-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) CM (Signature) 240092 (Z #) 10/31/13 (Date)

Imported SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S816692 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 403.515
Total PE-Ci Activity: 2.85E+00 Equivalent Combustible PE-Ci: 1.07E+00
Total Fissile Gram Equivalents: 3.05E+01 Total Surface Dose Rate (mrem/hr): 0
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

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

RTR pre-screen indicates ~ 6 gallon of free liquid throughout drum and at the bottom.
Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 279 lbs. and generator data shows 6 items of nitrate salts with weights ranging from ~17 – 145 lbs.

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

IHS Representative

Potential IHS Safety Risks: Many contain liquid, Chromium, Mercury. Eggs. from liquids

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

LTP Engineering

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

Performed By: Valerie Rhodes (LTP Engineering (Print)) Valerie Rhodes Signature 112609 (Z#) 8/6/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And Kitty Litter Ratio

Performed By: G ML (TRU Operations (Print)) Signature 149235 (Z#) 8/12/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject
OM or designee Comments: Do not push or press on waste with hands. Use heavy glove during processing. Use tools when possible to handle waste.

Approved By: Jose Perez (OM or designee (Print)) Signature 122452 (Z#) 8-12-13 (Date)

Discardable Waste Log Sheet

DrumID: 010966

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS412FB	15.45	NITRATE SALTS		1.12	52	5/11	
2	IXFS413F1	13.41	NITRATE SALTS		1.12	52	5/11	
3	IXFS414F1		NITRATE SALTS		1.84	54	5/11	
4	IXSF415F1	21.59	NITRATE SALTS		11.56	52	5/11	
5	IXFS416F1	65.9	NITRATE SALTS		10.09	52	5/11	
6	IXFS417F1	7.73	NITRATE SALTS		5.97	52	5/11	
		124.08 kg						

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])	S816692					
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])	594.18 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:

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#), 5/20/13 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130411c\
Data File : S816692.D
Acq On : 11 Apr 2013 12:11 pm (#1); 11 Apr 2013 12:10 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 12:23:12 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	2076291	206.00	ppm	0.00
15) Chlorobenzene-d5	5.939	117	1801458	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.220	GC1	146812m	594.18	ppm	

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

Vocgas.m Thu Apr 11 12:23:21 2013

10-30-13

1803 Assuming WCRR operations center. - KCarman
1815 Pre-job and turnover with morning shift being conducted. Safety topic - Don't wear dark safety glasses in the dark performing duties or even walking around outside.
1858 Pre-job concluded.
1918 Operators entering 5069 to resume operations.
1945 RCRA inspections have been completed for today.
~~2030~~ JC 10-30-13
2012 Operators notifying ops center of an ~~unidentified~~ JC 10-30-13
unidentified liquid found on the mat of the work station at station 2. SOS, SOM and IH notified. Operator 54 states that he was getting ready to get onto the WCG to begin to sweep the floor of the WCG when he noticed the drop of liquid about the size of a quarter. He states that he took a hold of the glove and pulled out slightly and another drop of liquid fell onto the mat on the work station. Per RCT's, all are performing a controlled exit.
2030 SOM notified OM.
2032 Discussion being held regarding path forward. There are currently no elevated CAMS or alarming CAMS. IH will be entering with an RCT to determine if there are any VOC's associated with the liquid. RCT's will mask on the floor for contamination.
2109 RCT and IH entering 5069 to see if IH can identify any VOC's.
2140 IH states that the liquid had already evaporated and he was not able to evaluate it. The RCT's will take smears for precautionary measures.
2231 Per RCT, all smears showed no activity.
2234 Operators entering 5069 to resume operations.
2324 Bagging off 1 daughter, bagging on 58166892
2347 Bag off IOR complete.
~~+20~~ JC 10-31-13 Operators out for lunch.
0111 Operators back from lunch.
0305 Bagging off 1 daughter, bagging on another daughter.
0310 Beginning outside rounds.
Continued on next page. KCarman

10-31-13 Continued from previous page Koleman
0321 to 0338 JC 10-31-13 Bag off/on complete.
0338 Outside rounds complete.
0423 Beginning inside rounds.
0440 Item #43 is OOS, okay to proceed per CSE documentation
0443 Inside rounds complete.
0503 Both rounds reviewed by SOS.
0505 Bagging off 1 daughter, bagging on S824208.
0539 Bag off/on complete.
0558 Air Quality has arrived to perform weekly stack monitoring.
1031-13 0605 Being relieved by CCO, Clarissa Velarde, Koleman
114
JJ

No further entries this page

10/30/13 Night Shift continued

2347 Completed all bag offs for parent # 5832320 (2 daughters and 1 POC total). Bagged on 5816692.

10/31/13 0000 Operators breaking for lunch.

0111 Resuming operations.

0321 Completed bag off of 1 daughter - continuing to process

0539 Completed bag offs for parent # 5816692 (2 daughters total) Bagged on 5824208.

10/31/13 0610 Relieved by S. Gundagnol. as WCRR SOM.

No further entries this page

PAGE	ENTRY	DATE
88	10/30/13 WCRRF SOS Log Book	
89	1803 Assumed SOS position. CA	
90	1816 Starting Pre-Job with brief from day shift, also discussed	
91	wearing proper PPE. Discussed the shift orders.	
92	1848 Pre-Job complete.	
93	2012 Operators notify that an unidentified liquid has been found	
94	on the work platform a station 2. SOM and IH have also been	
95	notified. Tech. S4 states ~~to me~~ cm 10-30-13 that he was attempting to clean	
96	station 2 gloves, prior to use, when he noticed the drop of liquid,	
97	about the size of a quarter, on the work platform. He states that	
98	he took ahold of the glove, right hand station 2, and pulled it out	
99	slightly he noticed another drop of liquid fell onto the platform.	
100	All operators and RCT's performing a controlled exit.	
101	2030 SOM notified, OM.	
102	2032 Discussion with all personnel regarding path forward. Currently	
103	there are no elevated CAM's or alarming CAM's. Personnel to	
104	re-enter 50-69 after RWP brief will be 2 RCT's, IH and 1	
105	operator.	
106	2109 RCT's, operator, and IH entering 50-69.	
107	2140 IH states that the liquid has evaporated, therefore, he was	
108	unable to evaluate it. RCT's taking smears as a precaution.	
109	2231 RCT's state that all smears NDA.	
110	2234 Operators resuming operations.	
111	2324 Bagging off daughter, bagging on 5816692.	
112	2347 Bag off/on complete.	
113	0304 Bagging off 1st daughter, bagging on a 2nd.	
114	0310 Bag off/on complete.	
115	0503 Signed off on the rounds.	
116	0505 Bagging off 2nd daughter, bagging on 5824208.	
117	0536 Bag off/on complete.	
118	0607 Turning over SOS position to Gilbert Martinez. CA 10/31/13	
119		
120		
121		
122	No Further Entries on this Page	
123		
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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0123
Examination Date:	11/5/2013
Waste Container ID:	68565
Video/Audio Recorded Media Number:	LA-RTR2-13-0123 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 131.5 kg Tare Wt.: 33.4 kg Net Wt.: 98.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	65 %

CCP Radiography Data Sheet

Waste Container ID: 68565

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	Leather Gloves
R:	
XPM:	Plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.5
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	82.6
Soils (S):	
Total WMP Weight:	98.1

CCP Radiography Data Sheet

Waste Container ID: 68565

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

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	11/5/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68565	Count Sequence Number:	16675		
Operator:	DCLTD231\Operator				
Assay Start:	11/5/2013 2:27:57 PM				
Description 1:	2LANDA1237				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	98.1	kg	Net:	98.1 kg
Container:	Volume:	208.0	l	Full:	65.0 %
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:	16675	Batch Number:	2LANDA1237
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68565	Analysis Date:	11/5/2013

Net Weight	98100.0 g		
Pu mass	4.43E+000	+- 9.20E-001	g
TRU Alpha Activity	4.10E+000	+- 2.06E+000	Ci
TRU Activity Concentration	4.18E+004	+- 2.10E+004	nCi/g
Pu-239 Equivalent Activity	4.11E+000	+- 2.06E+000	Ci
Pu-239 FGE	4.20E+000	+- 9.18E-001	g
Decay heat	1.36E-001	+- 6.84E-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	4.56E-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	1.32E-006
NP237	5.48E-002	3.86E-005	7.35E-006	2.29E-006
PU238	4.05E-004	6.93E-003	1.81E-003	4.96E-004
U238	<LLD	<LLD	0.00E+000	1.13E-005
PU239	4.16E+000	2.58E-001	5.69E-002	1.85E-002
PU240	2.66E-001	6.04E-002	1.58E-002	4.33E-003
AM241	1.10E+000	3.78E+000	2.06E+000	3.29E-002
PU241	5.09E-003	5.24E-001	1.37E-001	3.76E-002
PU242	8.87E-004	3.51E-006	9.19E-007	0.00E+000
AM243	3.66E-005	7.31E-006	1.53E-006	2.94E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/7/13

ITR: _____ Date: 11/11/13

Automated Independent Technical Review

Count Sequence Number: 16675 Batch Number: 2LANDA1237
Counter ID: HENC #2
Container ID: 68565
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/5/2013

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

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

Expert Review by: _____ Date: 11/7/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68565**

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 : 68565.D
Acq On : 15 Nov 2013 1:06 pm (#1); 15-Nov-13, 13:06:02 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 13:14:25 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	3.545	96	4288259	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.851	117	3373303	177.50	ppmv	0.00
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-RTR2-13-0125
Examination Date:	11/7/2013
Waste Container ID:	68581*
Video/Audio Recorded Media Number:	LA-RTR2-13-0125 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.: 188.5 kg Tare Wt.: 33.4 kg Net Wt.: 155.1 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: 68581

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	0.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	147.6
Soils (S):	
Total WMP Weight:	155.1

CCP Radiography Data Sheet

Waste Container ID: 68581

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		11/7/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68581		Count Sequence Number:	16700	
Operator:	DCLTD231\Operator				
Assay Start:	11/13/2013 2:04:18 PM				
Description 1:	2LANDA1239				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	155.0 kg	Net:	155.0 kg	
Container:	Volume:	208.0 l	Full:	100.0 %	
Density:		0.750 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:	16700	Batch Number:	2LANDA1239
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68581	Analysis Date:	11/13/2013

Net Weight	155000.0 g	
Pu mass	1.43E+001 +-	2.90E+000 g
TRU Alpha Activity	6.29E+000 +-	2.84E+000 Ci
TRU Activity Concentration	4.06E+004 +-	1.83E+004 nCi/g
Pu-239 Equivalent Activity	6.31E+000 +-	2.84E+000 Ci
Pu-239 FGE	1.34E+001 +-	2.89E+000 g
Decay heat	2.07E-001 +-	9.44E-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	5.59E-007
U233	<LLD	<LLD	0.00E+000	6.25E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.11E-006
NP237	9.04E-002	6.37E-005	1.23E-005	3.24E-006
PU238	3.23E-003	5.52E-002	4.89E-002	1.82E-003
U238	<LLD	<LLD	0.00E+000	1.47E-005
PU239	1.33E+001	8.25E-001	1.79E-001	2.72E-002
PU240	9.38E-001	2.13E-001	5.02E-002	7.02E-003
AM241	1.52E+000	5.20E+000	2.84E+000	5.52E-002
PU241	1.20E-002	1.24E+000	2.82E-001	4.09E-002
PU242	1.96E-002	7.74E-005	3.78E-005	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 11-15-13

ITR: _____ Date: 11/18/13

Automated Independent Technical Review

Count Sequence Number: 16700 Batch Number: 2LANDA1239
Counter ID: HENC #2
Container ID: 68581
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/13/2013

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 comparison test passed.	Results taken from quantitative gamma data.

Comments	Disposition
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: _____ Date: 11/15/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68581**

BDR Number: **LA13FG2118**

Sampling Date: **11/21/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	102.67	
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)

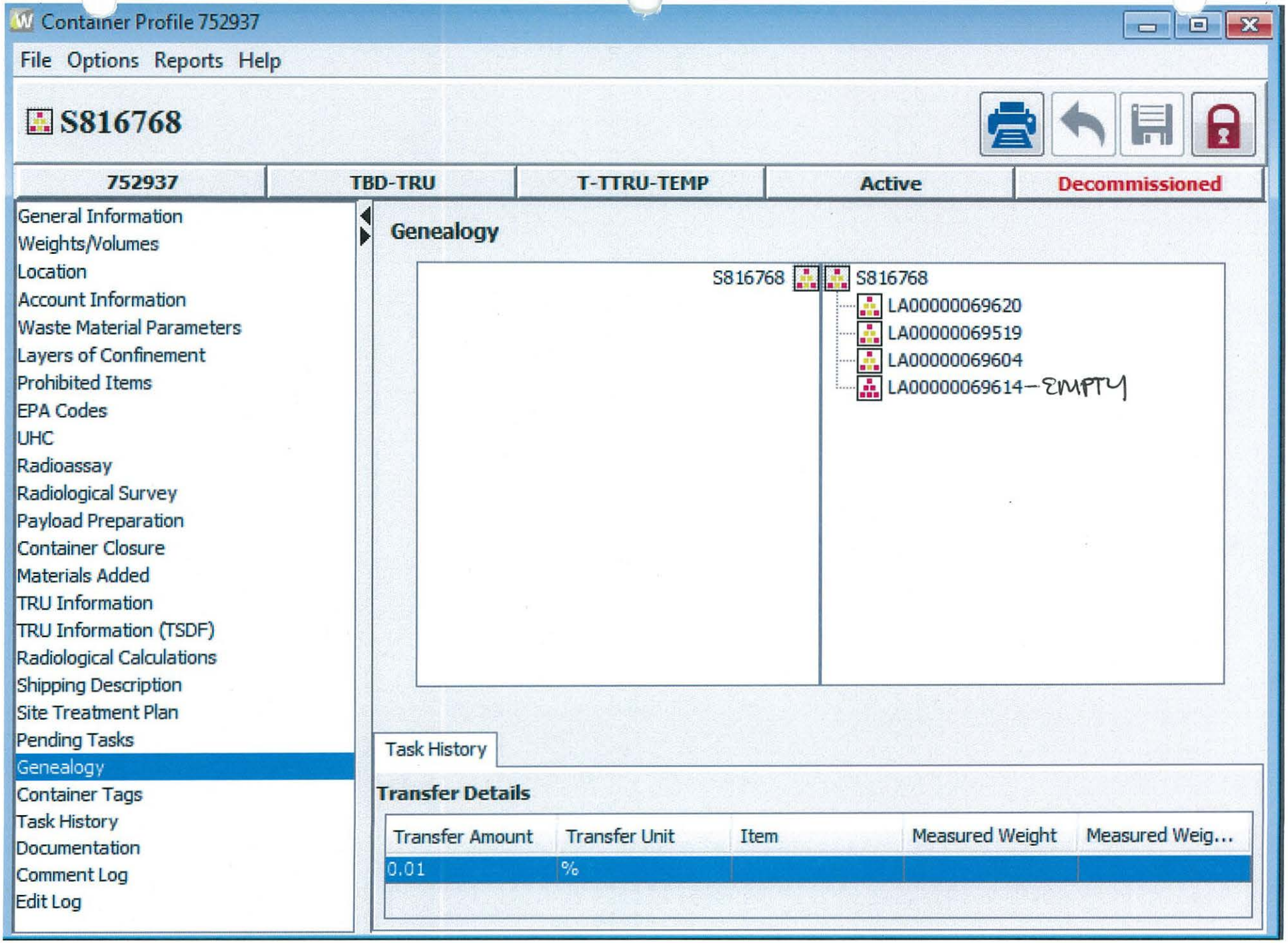
Data Path : C:\msdchem\1\DATA\131121c\
Data File : 68581.D
Acq On : 21 Nov 2013 10:35 am (#1); 21-Nov-13, 10:35:12 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 21 10:44:04 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	4564836	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.881	117	3550665	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.618	GC1	772m	102.67	ppmv	

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

S816768


Container Profile 752937
File Options Reports Help
S816768
752937
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
S816768
S816768
LA00000069620
LA00000069519
LA00000069604
LA00000069614-EMPTY
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
0.01
%

Working Copy
Date: 4-22-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5816768

6.2[4] Date Processed: 4-22-14

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

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

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

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

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) BG 4-
(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: Brian Gallegos / Bri Hallegos 268129 4-22-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	S816768
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	439.6 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	105.0 lb ☐ N/A
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	544.6 lb
6.2[7]	($) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[16]	Retaining clips in place	☑ SAT ☐ UNSAT
6.2[18][D]	Drum lift hinge pin retaining clip replaced. ____ / ____ / ____ (Initials / Z# / Date)	☑ N/A

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.: 5816768

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69620			
10.1[4]	Daughter Drum Filter No.	KM-322			
10.1[4]	Daughter Drum Bag Filter No.	L-10218			
10.1[4]	Daughter Drum Purchase Order No.	501578			
10.1[19][C]	WCG Fire Watch Stationed	☐ YES		☐ NO	☑ N/A
10.1[20][C][d]3/11.1[3]	WCG Fire Watch Secured	☐ YES		☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP		
	Model No.	3CPAC1.5-2SPVC	3CPAC1.5-2SPVC		
	Serial No.	L-10180	L-10220		
	Date of Manufacture	5/13	5/13		
10.2[5]	POC ID No	69519	69604		
10.2[6]/10.2[7][B]	POC Item Description	NITRATE SALTS	NITRATE SALTS		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BG 267129	BG 267129	N/A	
10.2[14]	POC Assembly Gross Weight (lb)	416.6	412.8		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000	1400		
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A		
10.3[5][A]	Free Liquid Volume/Units	5 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			
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	BAGLOFF STUBS, KITTY LITTER			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 816768

Comments: ROOM TRASH, PLASTICS, NEUTRALIZED 6 GALLONS OF LIQUID THAT WAS SOLIDIFIED, NITRATE SALTS, LEAD SHIELDING, HEX ARMOUR GLOVES.

11.1[1] Performed By: BRIAN GALLEGOS/ [signature] 126129 4-22-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins/ [signature] 124092 4/25/14 1439
SOS or designee (print) Signature Z # Date/Time

Imported Non-GG

1961
SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S816768 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 446.9535
Total PE-Ci Activity: 3.56E+00 Equivalent Combustible PE-Ci: 1.33E+00
Total Fissile Gram Equivalents: 3.50E+01 Total Surface Dose Rate (mrem/hr): 6
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

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

RTR pre-screen indicates impenetrable object most likely lead liner and liquids in the drum

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~298 lbs. and generator data shows 8 items of nitrate salts with weights ranging from ~13-77 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) Susan S. Ramsey (Signature) r00681 (Z#) 8/15/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain D007, D008 and D009 contain free liquids, no other hazards noted

Performed By: Tiffany Smallwood (IHS Representative (Print)) (Signature) 124658 (Z#) 8-21-13 (Date)

LTP Engineering

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

Performed By: Valerie Rhodes (LTP Engineering (Print)) Valerie Rhodes (Signature) 112609 (Z#) 9/30/13 (Date)

TRU Remediation Operations

Potential Safety Risks: Use proper tools and PPE when processing, as well as correct amount of kitty liter, 3 to 1.

Performed By: Clayton Mullins (TRU Operations (Print)) (Signature) 240098 (Z#) 3/12/14 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject
OM or designee Comments: Do not push or press on waste with hands. Use hexamaxx gloves when processing. Ensure all liquids are remediated.

Approved By: Jose Jerez (OM or designee (Print)) (Signature) 122452 (Z#) 3/13/14 (Date)

Discardable Waste Log Sheet

DrumID: 010977

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS-418-F1	11.36	NITRATE SALTS		5.52	52	5/11	
2	IXFS-419-F1	6.82	NITRATE SALTS		1.34	52	5/11	
3	IXFS-420-F1	7.04	NITRATE SALTS		3.99	52	5/11	
4	IXFS-421-F1	31.8	NITRATE SALTS		8.09	54	5/11	
5	IXFS-422-F1	18.86	NITRATE SALTS		5.52	52	5/11	
6	IXFS-423-F1	18.64	NITRATE SALTS		4.22	52	5/11	
7	IXFS-425-F1	35.22	NITRATE SALTS		7.12	52	5/11	
8	IXFS-426-F1	5.9	NITRATE SALTS		1.79	52	5/11	
		135.64 kg						

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 5/23/13

Container No. (5.[1])	553167GB					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	C77					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	6.87 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	377.63 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	6 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

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

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

Comments: N/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, Susan Ramsey (Waste Handling Operator (print) / Signature), 100681 (Z#), 5/28/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S816768.D
Acq On : 28 May 2013 2:11 pm (#1); 28-May-13, 14:10:36 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NucFil-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 28 14:21:31 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	3.522	96	3804367	201.25	ppmv	-0.05
15) Chlorobenzene-d5	5.864	117	3253361	177.00	ppmv	-0.04
Target Compounds						Qvalue
1) Hydrogen	1.605	GC1	2684	377.63	ppmv	100
12) Benzene	3.209	78	93497	6.87	ppmv	99

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

vocgas.m Tue May 28 14:21:59 2013

4-22-14

0540 Assuming UCRR operation center. McCraw
0557 Beginning outside rounds.
0615 Pre-job being conducted by SOS. Beginning inside rounds. Outside rounds complete. Brief to Shift Order UCRR-SH-14-004.
0637 Inside rounds complete. Pre-job completed.
0653 Both rounds reviewed by SOS.
0659 Mode changed to operations in UCRRF yard and 5069.
0812 Bagging on S816768. PPE check is Sat.
0825 Permission granted to lower the vehicle access gates to load the transfer vehicle for a shipment to Area G. Bag on complete
0911 Initiating a drum movement from transportainer to 5069.
0916 Test execute complete. Surveillance 4.1.1 performed. Moving 1 drum into 50-69.
0929 Drum movement into 5069 complete. Vehicle access gates restored. Transportainers secured. Shipment out complete.
0945 Initiating a drum movement of 6 drums from 5069 to a transportainer.
1003 Denesting S870175 and bagging it on. Bagging off 2 POC's and 1 daughter.
1005 Drum movement out of 5069 complete.
1030 Permission granted to lower the vehicle access to begin receipt of drums from Area G.
1058 Test execution complete. Surveillance 4.1.1 complete.
1110 Denesting and bag off/on complete.
1244 PPE check is Sat. 2nd crew continuing to process S870175. Per RCT, one item encountered is 27 R on contact gamma, 5 mR neutron, 60 second time limit per operator at this dose rate.
1256 Bagging off 1 daughter, 1 POC, continuing to process.
1334 Bag off/on complete. Vehicle access gates restored. Transportainers secured.
1413 JC 4-22-14. Bagging off 1 daughter and bagging on S 843672.
1432 Bag off/on complete
1433 Moving in 2 LLW drums into 5069 (65211 and 65216)
1448 Movement in complete
Continued on next page. McCraw

Int. Daughter 68998

4-22-14 Continued from previous page. Coleman
1449 Test execute complete. Surveillance 4.1.1 Complete
1450 Begining inside rounds.
1512 Inside rounds complete.
1543 Beginning outside rounds.
1550 Bagging off 2 daughters, empty, and placing pat covers
1600 Outside rounds complete.
1631 Bag off complete. Everything is in a safe configuration.
1640 Both Rounds reviewed by SOS.
1642 Mode change complete. Warm standby in WCRR yard and 50-69.
4-22-14 1645 End of day. CCO position secured. Coleman

No further entries this page

4-22-14 WCRR SOS LOG BOOK

0600 Assuming SOS Position [signature] [signature]

0615 Conducted shift brief discussed drum to process w/ V
50-69 be high PE-Cs may need to rotate operators. starting
the Rounds Briefed to shift order

0632 Concluded shift Brief

0653 Reviewed Inside And outside Rounds

0654 Mode Change Complete WCRRF In operations

0812 Bagging on S816760

0825 Starting shipment to Area G. Bag on Complete.

0911 Initiating drum movement from Transportainer

0929 drum movement Complete shipment complete

0945 starting movement out of 50-69 6 drums

1003 Downsting S870175 Had bagging It on Bagging off

at work 1005 Move out complete

1030 starting movement In from Area G

1110 Downsting bag off /ou complete

1244 Per RCT on Item is 27 R on contact will be rotating
operators out every 60 sec.

1256 Bagging off 1 daughter bagging on Poc

1334 Bag on/off complete shipment complete.
1 daily

1413 Bagging off 1 daughter bagging on S843672

1432 Bag on/off complete

1437 Moving In 2 LLW Drums 65211 And 65216 will need to
open and see what It consist of

1448 Movem In complete

1450 starting Rounds

1508 Turning over Position to Clayton Mullins [signature] [signature]

1509 Assuming SOS position. [signature]

1550 Bagging off 2 daughters, placing port cover on.

1631 Bag off complete.

1640 Signed off on the rounds

1642 Mode change complete, WCRRF yard and 50-69
are now in Warm Standby.

4-22-14/1644 Securing SOS position. [signature]

No Further Entries
on this Page

4-22-14 WCRR 50M

0600 Reviewed logs and assumed the WCRR 50m position John Lundgard

0640 Completed attending the pre-job brief conducted by the SOS (Colbert). The safety message was Stress and methods to control stress. There is a transfer in and a transfer out scheduled today. The shift order in effect was briefed and personnel signed the roster. RP-1- discussed ALARA principals, the next drum bagged out is the Hi PEC drum SP-36- 58701175. Operators were reminded to ensure LLW generated contains container ID, and weights and is called out to the OCC and production control.

0659 Mode Changes 50/69 and spud transition from warm/unmm to Operations/Operations

0715 Completed the daily phone call to AREA 6 50M updating POD status.

0716 Per OM all personnel are to complete required reading course #55769 Operators are to log on to D-Train, also the OCC will have a copy and roster at the Operations Center for those entering the yard to read and sign.

0812 Inside Operations initiate bag on of 58167168.

0825 Outside operations initiate transfer for inspection to be performed by P&T for the drums going to AREA 6

0916 Outside Operations initiate a movement in of 1 drum 58701175 SP-36.

0929 The movement into 50/69 is completed, and the transfer to AREA 6/ transfer vehicle is complete - 19 drums total.

0932 Outside Operations initiate a transfer from 50/69 to the transfortainers 6 drums total

1003 Inside Operations initiate bag off of 2- POCs and 1 daughter and de-nesting of 58701175- Hi Pe- drum.

1005 Outside Operations complete the movement of 6 drums to the transportainer.

1014 Reviewed and approved WO #00468361-04 - Grounds Maintenance to allow cutting of weeds in the parking lot and outside the fence - Not in yard.

1030 Outside operators request and obtain permission to lower the vehicle access gates to receive the transfer of 6 drums from AREA 6

1110 Inside Operators report bag off on completed.

1125 Inside Operators report they have a POC item.

1139 Late Entry for 1048 hours, operators indicate the Forklift charging station (only 1) is noted to not be charging. The breaker may not be set, Notification was made to crafts.

1240 Completed the noon phone call with 50M, OM, PM and others.

1241 The second crew enters 50/69 to continue processing Hi MAR drum. One item is 27R on contact and gamma was 5MR. Time limitations are set for Operators per RWP

CCP Radiography Data Sheet

Section 1: General Information		
[X] RTR Examination	[ ] RTR Replicate Scan	[ ] RTR Independent Observation
Site ID:	LANL	
Batch Number:	LA-RTR2-14-0041	
Examination Date:	4/28/2014	
Waste Container ID:	69519	
Video/Audio Recorded Media Number:	LA-RTR2-14-0041	A&B
Procedure and Revision No.:	CCP-TP-053	Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	~~[X] No~~ E.R. 5-7-14 [X] Yes E.R. 5-7-14 E.R. 5-7-14 NCR No.: ~~N/A~~ NCR-LANL-0605-14 NCR No.: ~~N/A~~ N/A 5-7-14	

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.: 189.0 kg Tare Wt.: 145.1 kg Net Wt.: 43.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes E.R. 5-7-14 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:	75 %

CCP Radiography Data Sheet

Waste Container ID: 69519

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid, Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	7.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	36.9
Soils (S):	
Total WMP Weight:	43.9

CCP Radiography Data Sheet

Waste Container ID: 69519

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.

NCR-LANL-0605-14 E.R. 5-7-14

RTR Operator:

Eddie Rios	Eddie Rios	5-7-14
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69519	Count Sequence Number:	17135		
Operator:	DCLTD231\Operator				
Assay Start:	4/28/2014 1:35:58 PM				
Description 1:	2LANDA1284				
Description 2:	POC 189.0				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	43.9	kg	Net:	43.9 kg
Container:	Volume:	208.0	l	Full:	95.0 %
Density:		0.816 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:	17135	Batch Number:	2LANDA1284
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69519	Analysis Date:	4/28/2014

Net Weight	43900.0 g
Pu mass	1.98E+001 +- 1.47E+001 g
TRU Alpha Activity	1.69E+001 +- 1.07E+001 Ci
TRU Activity Concentration	3.85E+005 +- 2.45E+005 nCi/g
Pu-239 Equivalent Activity	1.69E+001 +- 1.07E+001 Ci
Pu-239 FGE	1.87E+001 +- 1.46E+001 g
Decay heat	5.58E-001 +- 3.57E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.79E-007
U233	<LLD	<LLD	0.00E+000	9.19E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.80E-006
NP237	1.60E-001	1.13E-004	2.29E-005	5.02E-006
PU238	1.80E-003	3.08E-002	2.46E-002	9.58E-004
U238	<LLD	<LLD	0.00E+000	2.48E-005
PU239	1.86E+001	1.15E+000	9.07E-001	3.58E-002
PU240	1.19E+000	2.69E-001	2.16E-001	8.38E-003
AM241	4.50E+000	1.54E+001	1.07E+001	2.32E-001
PU241	2.22E-002	2.28E+000	1.83E+000	7.11E-002
PU242	3.96E-003	1.56E-005	1.25E-005	0.00E+000
AM243	4.19E-004	8.37E-005	1.73E-005	6.86E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 4.30.14

ITR: _____ Date: 4.30.14

Automated Independent Technical Review

Count Sequence Number: 17135 Batch Number: 2LANDA1284
Counter ID: HENC #2
Container ID: 69519
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
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.
Curium/Californium Neutron Analysis complete with warnings.	
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. 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-52,54.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chamberlain Date: 4-29-14

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0040
Examination Date:	4/25/2014
Waste Container ID:	69604
Video/Audio Recorded Media Number:	LA-RTR2-14-0040 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 187.5 kg Tare Wt.: 145.1 kg Net Wt.: 42.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 69604

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid, 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):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	42.4
Soils (S):	
Total WMP Weight:	42.4

CCP Radiography Data Sheet

Waste Container ID: 69604

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		4/25/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69604	Count Sequence Number:	17131		
Operator:	DCLTD231\Operator				
Assay Start:	4/28/2014 10:42:29 AM				
Description 1:	2LANDA1284				
Description 2:	POC 187.5				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	42.4	kg	Net:	42.4 kg
Container:	Volume:	208.0	l	Full:	95.0 %
Density:		0.809 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

06

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	17131	Batch Number:	2LANDA1284
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69604	Analysis Date:	4/28/2014

Net Weight	42400.0 g
Pu mass	4.57E+000 +- 3.29E+000 g
TRU Alpha Activity	1.13E+001 +- 7.60E+000 Ci
TRU Activity Concentration	2.67E+005 +- 1.79E+005 nCi/g
Pu-239 Equivalent Activity	1.13E+001 +- 7.60E+000 Ci
Pu-239 FGE	4.34E+000 +- 3.28E+000 g
Decay heat	3.75E-001 +- 2.53E-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	8.43E-007
U233	<LLD	<LLD	0.00E+000	7.82E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.39E-006
NP237	1.17E-001	8.22E-005	1.66E-005	2.12E-006
PU238	5.82E-004	9.96E-003	7.80E-003	1.10E-003
U238	<LLD	<LLD	0.00E+000	2.13E-005
PU239	4.26E+000	2.64E-001	2.04E-001	2.91E-002
PU240	2.98E-001	6.77E-002	5.31E-002	7.46E-003
AM241	3.20E+000	1.10E+001	7.60E+000	1.99E-001
PU241	5.89E-003	6.07E-001	4.76E-001	6.68E-002
PU242	1.37E-003	5.42E-006	4.25E-006	0.00E+000
AM243	7.79E-004	1.56E-004	3.18E-005	5.81E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 4.30.14

ITR: _____ Date: 4.30.14

Automated Independent Technical Review

Count Sequence Number: 17131 Batch Number: 2LANDA1284
Counter ID: HENC #2
Container ID: 69604
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than 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	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54.
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 4-29-14

08

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-RTR2-14-0041
Examination Date:	4/28/2014
Waste Container ID:	69620
Video/Audio Recorded Media Number:	LA-RTR2-14-0041 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.: 170.5 kg Tare Wt.: 33.4 kg Net Wt.: 137.1 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: 69620

Section 3: Container Inventory and Comments (Detailed descriptions)
IM:
AM:
OM: Scrap lead
OI:
C:
R:
XPM: Plastic liner lid, 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):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	112.1
Soils (S):	
Total WMP Weight:	137.1

CCP Radiography Data Sheet

Waste Container ID: 69620

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:

Eddie Rios	Eddie Rios	4/28/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69620		Count Sequence Number:	17136	
Operator:	DCLTD231\Operator				
Assay Start:	4/28/2014 2:17:52 PM				
Description 1:	2LANDA1284				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	137.0 kg	Net:	137.0 kg	
Container:	Volume:	208.0 l	Full:	90.0 %	
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:	17136	Batch Number:	2LANDA1284
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69620	Analysis Date:	4/28/2014

Net Weight	137000.0 g
Pu mass	9.60E+000 +- 1.92E+000 g
TRU Alpha Activity	2.00E+001 +- 1.05E+001 Ci
TRU Activity Concentration	1.46E+005 +- 7.67E+004 nCi/g
Pu-239 Equivalent Activity	2.00E+001 +- 1.05E+001 Ci
Pu-239 FGE	9.11E+000 +- 1.91E+000 g
Decay heat	6.64E-001 +- 3.49E-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	1.23E-006
U233	<LLD	<LLD	0.00E+000	1.17E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.69E-006
NP237	2.85E-001	2.01E-004	3.80E-005	6.36E-006
PU238	1.22E-003	2.09E-002	5.35E-003	1.80E-003
U238	<LLD	<LLD	0.00E+000	2.63E-005
PU239	8.95E+000	5.55E-001	1.18E-001	4.79E-002
PU240	6.27E-001	1.42E-001	3.64E-002	1.23E-002
AM241	5.63E+000	1.93E+001	1.05E+001	9.59E-002
PU241	1.24E-002	1.28E+000	3.26E-001	1.10E-001
PU242	2.98E-003	1.18E-005	3.01E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 4.30.14

ITR: _____ Date: 4.30.14

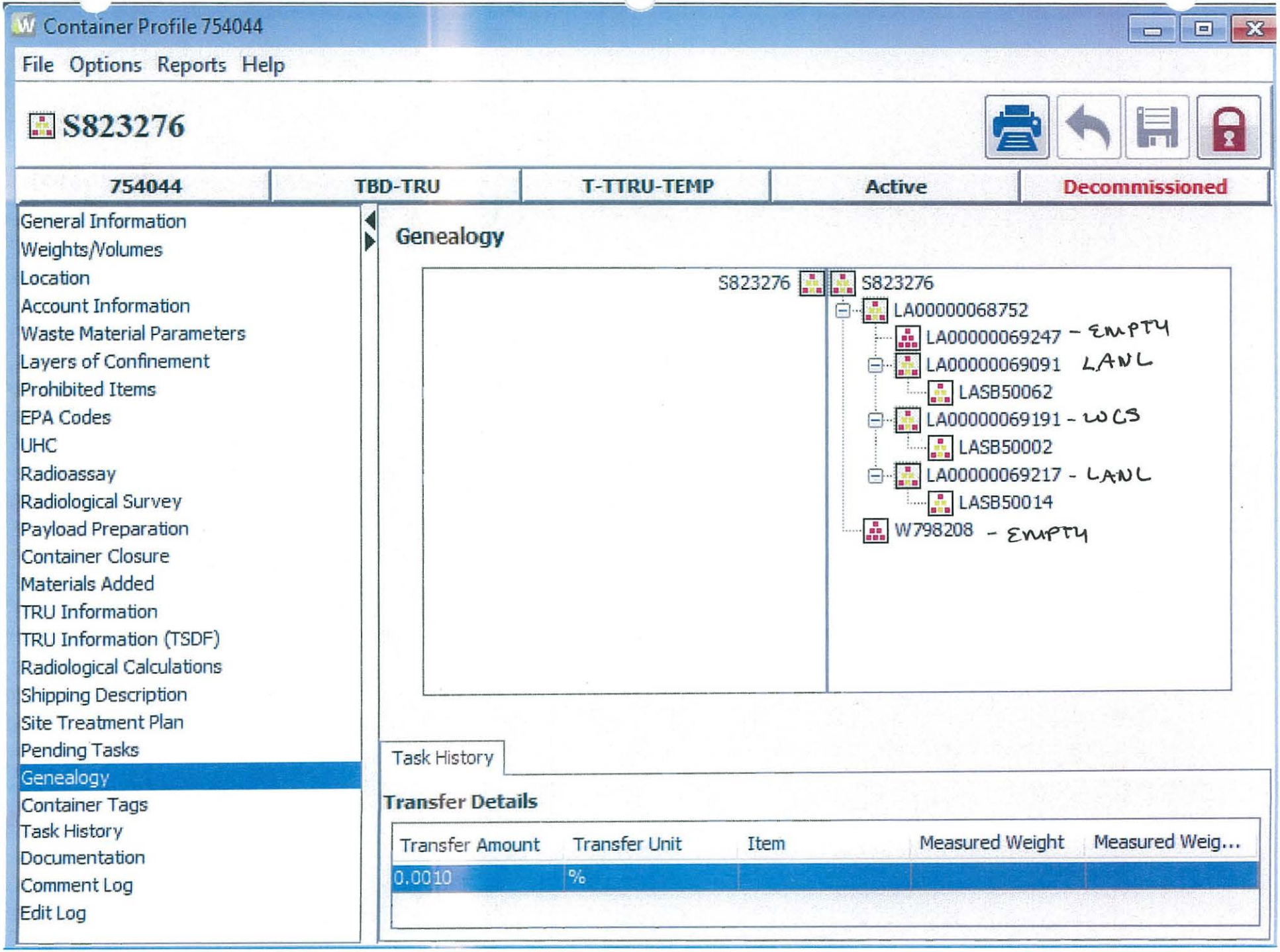
Automated Independent Technical Review

Count Sequence Number: 17136 Batch Number: 2LANDA1284
Counter ID: HENC #2
Container ID: 69620
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 4-29-14

S823276


Container Profile 754044
File Options Reports Help
S823276
754044
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
S823276
S823276
LA00000068752
LA00000069247 - EMPTY
LA00000069091 LANL
LASB50062
LA00000069191 - WCS
LASB50002
LA00000069217 - LANL
LASB50014
W798208 - EMPTY
Task History
Transfer Details
Transfer Amount
Transfer Unit
Item
Measured Weight
Measured Weig...
0.0010
%

UET Working Copy Date: 1-14-14 ar

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68752

6.2[4] Date Processed: 1-16-14

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: 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 METOX 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: Brandon Chacez / [signature] 120772 / 1-16-14
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68752

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 432.2 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) 531.2 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.: 68752

		Daughter Drums	69217		
10.1[4]/10.2[4]	Daughter Drum No.	69091	~~69191~~ 69111-16TH ISE		
10.1[4]	Daughter Drum Filter No.	JL-805	LM354	N	
10.1[4]	Daughter Drum Bag Filter No.	L-10098	L-12753	A	
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	BOP			
	Model No.	6CPVC1525PK			
	Serial No.	L-10086			
	Date of Manufacture	5/13			
10.2[5]	POC ID No	69191			
10.2[7][B]/10.2[6]	POC Item Description	NITRATE SALTS			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BG 267129	N	A	
10.2[14]	POC Assembly Gross Weight (lb)	393.4			
10.2[15]	POC Rad. Survey Results (mrem/hr)	800			
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	2 GALLONS	1 LITER		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A		
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%	90%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER AND BAG OUT STUFF	KITTY LITTER AND BAG OUT STUFF		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68752

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

11.1[1] Performed By: BRIAN GALLEGOS Bri Gallegos 126729 1-16-14 BG 1-21-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clarissa Vilarde CV 234072 1/21/14
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.: 54563
Lot No.: 0238360
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 AREA G

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 / Brian Gallegos / 267129 1-16-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Marissa Velarde / [signature] / 23479 / 1-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69247

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 / Bi Gallegos / 267129 1-16-14
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): 169.2 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / Bi Gallegos / 267129 1-16-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Marissa Velarde / [signature] / 23409 1/21/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 1/4/14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69091

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: 1/4/14 JR ~~BOP~~ BOP
Model No.: 60PVC 1.5-2 SPVC
Serial No.: L 10098
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 (+/-):	±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 Romero / [signature] 1109704 1/4/14
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: JL-865
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.: 69091

Comments: n/c

5.[35] Performed By: Ja Romero / [signature] 1109204 1/4/14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: missing signature. 9/23/14 Barbara Trujillo /
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69091

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] / 266719 / 1-16-14
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: / / / /
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.: 69091

6.[26] Scale File ID number: 019065

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

6.[28] Drum gross weight: 26820 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 / Bri Gallegos 267124 1-16-14
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Clarissa Kilcrease / CK 234079 1/21/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69217

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 / 261129 1-16-14 1-21-14
Operator (print) Signature Z # Date

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

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

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

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

n/a

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

Performed By: Clarissa Velarde / [illegible] 23404 1/21/14 ed 1-21-14
Operator (print) Signature Z # Date

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

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

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 109217

6.[26] Scale File ID number: 0190618

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

6.[28] Drum gross weight: 305.0 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 / Brian Gallegos 24129 1-16-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clarissa Velarde / Clarissa Velarde 23479 1/21/14
Supervisor or designee (print) Signature Z # Date

UET Working Copy
Date: 1-16-14 cr

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68752

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): ~~603.8~~ 632.2 (SC 1-16-14)

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: Brandon Chavez / _____ 120[illegible] 1-21-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clarissa Velarde / _____ 234679 1/21/14
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Clarissa Velarde / _____ 234679 1/21/14
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum SPD 72 HC 6.10.12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control Container re-labeled & given new number in WCATS B Trujillo 12/2/13

Container ID: S823276 / 68752 Container Type: 85-GAL / Gross Weight (lbs): 439

Inner Seal #: 009966 / Filter Prefix: LAVC Filter Serial #: 01181; 04288 /

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

TWSR Comments: LEACHED SOLIDS NITRATE SALTS

Total PE-Ci Activity: 9.46E+00 / Equivalent Combustible PE-Ci: 3.55E+00 / AM-241 PE-Ci: 7.68E-01

Total Fissile Gram Equivalents: 104.5 / Total Surface Dose Rate (mrem/hr): 20 /

EPA Code(s): None /

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: 1/8/2007 / Comment: Impenetrable Obj, /

Certified RTR Comment: None

Prohibited Items: ☒ Sealed > 4 Liters ☒ Liquid ☒ Pressurized Container ☑ Impenetrable Item ☒ Other /

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: [redacted] ☐ 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 10 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts. S. Jones

Performed By: R. W. Jones Production Control (Print) Signature 117434 Z Number 1.30.11 Date

WDP Engineering SUSAN S. RAMSEY Susan S. Ramsey 100181 11/28/12

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: 380 lb. One item weighing ~283 lb. w/ SNM mass @ 111g
55 gal drum overpacked into 85 gal drum

May require RWP for >1000 and <10000 mrem/hr @ 30 cm

Nitrate salts may contain undocumented liquids

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 12/4/13
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 Rabbit
Gilbert Martinez 14035 12/6/13

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Do not push or press on waste with hands. Use leather gloves when processing waste.

Performed By: Vanessa Velarde 23407 12/12/11
TRU Remediation Operations (Print) Signature Z Number Date

Jose Jerez Jose Jerez 221452 12/6/13

IHS Review Julian Arnold CSP, No H concerns. 12/4/12

Discardable Waste Log Sheet

DrumID: 009966

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Aug	Remarks
1	DFS 564 F1	128.2	NITRATE SALTS		110.65	52	5/11	
		128.2 kg						

1 2 7 2 0 3 3 7 2

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	[signature]	1286778	1-12-11
/	/	/	/

Container No. (7.[1]):	S825908	S873554	S823276
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			5.98
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	5.98

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):		S825908	S873554	S823276
	Hydrogen Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	1217.00 ppm
	Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
	Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø ppm	598 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 / 1.12.10
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 111782 / 1.13.11
Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110111c\
Data File : S823276.D
Acq On : 11 Jan 2011 3:43 pm (#1); 11-Jan-11, 15:42:15 (#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 15:59:32 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	3.629	96	8167905	205.50	ppmv	0.00
15) Chlorobenzene-d5	5.958	117	6896702	182.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.657	GC1	9522m	1217.00	ppmv	
12) Benzene	3.306	78	264010	5.98	ppmv	99

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

vocgas.m Tue Jan 11 15:59:53 2011

1-14-14
0600 Incoming WCRRF Operations center - Orlando
0612 Starting outside rounds
0615 Pre job being performed by SOS
0625 Starting inside rounds
0637 Outside rounds completed
0658 Pre job concluded
0656 Item #3 is OOS, PCO in place okay to proceed per CSE documentation
0659 Inside rounds complete
0711 Rounds signed off by SOS
0720 Forklift has been released by RCTs.
0739 mode change performed TASC-49 and WCRRF yard are now in Operations
0744 Starting movement into SC-49.
0815 Movement into SC-49 is complete.
0830 Dropping vehicle access gates for movement out of WCRRF
0848 Starting to divest 4 drums.
0901 Vehicle access gates have been restored. Movement of drums out of WCRRF complete
0950 Divesting is complete, Bagging on 9855186
1007 Bag on complete
1158 Bagging off, Bagging on ~~9851750~~ 9851723 01-14-14
1229 Bag on, Bag off complete
1236 Bagging off, Bagging on 8752
1251 Bag on, Bag off complete
1402 Bagging off Idaughter 1 PCO and continuing to proceed
1433 1433 Bag off, Bag on complete
1513 Bagging off Idaughter, Bagging on 9845028
1537 Bag on, Bag off complete
1600 Starting inside rounds
1604 Item #3 is OOS, PCO in place okay to proceed per CSE documentation
1609 Inside rounds complete
1626 Starting movement out of SC-49.
1628 Bagging off Idaughter, Bagging on Idaughter.
1643 Bag on, Bag off complete
1645 Movement out of SC 49 complete
Continued on next page - CC

48

1-14-14 Continued from previous page - Delaida

1735 ~~1555~~ Starting bag 9th of last drum of the ~~day~~ 1-14-14 day.

1739 ~~1597~~ Deficient rounds complete

1757 ~~1557~~ Bag 9th complete

1804 mode change to Perm, TAS-69 and WCRRF yard.

1815 End of day WCRRF operations center secured

Flg

No further entries this page

1-16-14 WCRR-SOM

0600 Reviewed shift turnover checklist and assumed WCRR SOM position.

0635 Completed pre job brief conducted by SOS - G. Martinez. ES/IH safety topic was attention to detail given last work day prior to weekend. Discussed work items for today - reinventory, outgoing shipment, characterization on site today + processing of SP 72's and 57's. Ensuring to determine weights of SP-57 drums prior to placing on drum lift. Maintenance day scheduled for tomorrow will not take place due to items completed yesterday - other items to be completed 1/31/14.

0710 Completed daily call in to TA-54 SOM to status todays activities.

0715 Reviewed rounds - noted on inside rounds that Item #51 - Combustible Loading packages inside 50-69 > 50 lbs had been marked Unsat due to forklift both the AM and yesterday PM. Forklift is excluded from requirements per note for that item in round sheets.

0720 RP1 reported that forklift is released - all surveys both removable and direct < MDA.

0739 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Cold to Operations / Operations.

0745 Operators directed to lower 50-69 thermostat to 68°F. Inside temp @ 68°F.

0815 Completed move in of 7 drums into 50-69

0901 Transfer of 6 drums out of WCRR to TA-54 is loaded and leaving TA-50.

0950 Completed degassing of 4 drums

1002 Completed bag on of 5855186.

1110 Submitted FSR #116542 for TSTR of the High Bay overhead electric heater. RP-1 reported it was not operating.

1126 Notified by OM that POD permission was granted for the 7 ES and RP personnel that stayed late last night to exceed the ~~for from~~ 1/16/14 24 hour work limit in a 48 hour period.

1129 Completed all bag offs for parent # 5855186 (1 daughter total), bagged on drum # 5851723.

1251 Completed all bag offs for parent # 5851723 (1 daughter total), bagged on parent # 68752.

Continued on next page →

1/16/14 WCRR SOM continued

1300 Completed attending weekly team meeting and daily PM update of OM and SOMs.

1417 Extended the following RWP's 2011-0018 Tours and Walkthroughs, 2012-0029 General Maintenance Activities, 2012-0231 ISI of WCG, 2012-0241 Maintenance of Equipment w/ Fixed Contamination.

1433 Operators bagged off 1 daughter and 1 POC, continuing to process.

1537 Completed all bag offs for parent # 68752 (2 daughters, 1 POC total). Bagged on drum #5845028

1615 Completed MOV of drum prepping in Area 1 fg. Observed all operators wearing proper PPE and utilizing procedures. Did observe an operator while raising the roll up door with a drum too close that it was caught on the bottom of the door flange and drum ring. Drum tipped up ≈ 1" on corner when operator caught it, and stopped door operation. Drum was disengaged from door and pathway was cleared No other issues noted.

1643 Completed bag off of 1 daughter, continuing to process.

1645 Completed move out of 8 drums from 50-69 to transportainers.

1757 Completed all bag offs for parent # 5845028 (2 daughters total). Port Cover in place.

1804 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / operations to Warm / Warm

1805 Bldg 50-69 thermostat reset to 72 °F.

1810 SOS reported that WCG wipe down was completed. Glove inspection completed w/ none identified requiring changing.

1835 Secured the SOM position.

No further entries this page
KAG

PROJECT NAME Wrkst 505 Lwr Back NOTEBOOK NO.

1/16/14

0666 Assuming 505 Position 1160 hrs

0615 Conducted Shop Issues Discussed FE-003 Configuration ok to Continue All work was Recheck Also discussed Diverse to Close Out Process.

0635 Concluded Shift Brief

0711 Re-secured Outside and outside Panels

0726 Fork Lift was Secured ok to use for CC-1

0739 Crew change Complete WORKF On operations.

0744 Starting Move Into 50-69

0815 Movement Complete.

0830 Starting Shipment out to Area 6

0846 Starting to Derad 4 Drums

0911 Shipment out Complete 6 on 1/16/14

0956 Derrading Complete. Bagging on 5855727 5855186

1002 Bag on Complete

1028 Bagging off of 5855727

1125 Bag on left complete.

1226 Bagging off on 68752

1251 Bag on left Complete

1427 Bagging off Laughter 1800 And Continuing to Process

1453 Bagg / off for Complete.

1519 Bagging off Laughter Bagging on 5845028

1532 Bag on left Complete

1606 Starting Rounds.

1626 Starting movement out of 50-69

1630 Bagging off Laughter Bagging on Brother

1643 Bag on left complete.

1645 Movement out Complete

1733 Bagging off last Drum of Day

1757 Bag off complete Late entry Personnel tested And outside towed

1743 (-310)

1824 Work Area Complete except for Sample Bag

1825 End of Day Securing Station

To Folder

ONTES

Best Available Copy

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-RTR2-14-0009
Examination Date:	1/23/2014
Waste Container ID:	69091
Video/Audio Recorded Media Number:	LA-RTR2-14-0009 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.: 121.0 kg Tare Wt.: 33.4 kg Net Wt.: 87.6 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:	65 %

CCP Radiography Data Sheet

Waste Container ID: 69091

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM:

OI:

C:

R:

XPM: Plastic sheeting, 90 mil liner lids

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	84.6
Soils (S):	
Total WMP Weight:	87.6

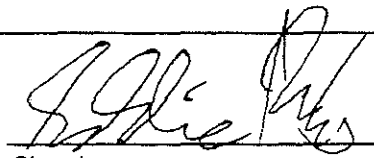
CCP Radiography Data Sheet

Waste Container ID: 69091

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:

Eddie Rios		1/23/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69091	Count Sequence Number:	16878		
Operator:	DCLTD231\Operator				
Assay Start:	1/24/2014 2:21:13 PM				
Description 1:	2LANDA1256				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	87.6	kg	Net:	87.6 kg
Container:	Volume:	208.0	l	Full:	65.0 %
Density:		0.650	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:	16878	Batch Number:	2LANDA1256
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69091	Analysis Date:	1/24/2014

Net Weight	87600.0 g		
Pu mass	3.41E+001 +-	5.66E+000	g
TRU Alpha Activity	9.04E+000 +-	3.55E+000	Ci
TRU Activity Concentration	1.03E+005 +-	4.05E+004	nCi/g
Pu-239 Equivalent Activity	9.11E+000 +-	3.55E+000	Ci
Pu-239 FGE	3.22E+001 +-	5.64E+000	g
Decay heat	2.95E-001 +-	1.18E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
CO60	2.19E-010	2.47E-007	5.07E-008	7.39E-008
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.01E-007
U233	<LLD	<LLD	0.00E+000	8.24E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.74E-006
NP237	1.33E-001	9.35E-005	1.65E-005	4.40E-006
PU238	3.11E-003	5.32E-002	1.20E-002	9.30E-004
U238	<LLD	<LLD	0.00E+000	1.84E-005
PU239	3.20E+001	1.98E+000	3.50E-001	3.47E-002
PU240	2.05E+000	4.64E-001	1.05E-001	8.12E-003
AM241	1.90E+000	6.53E+000	3.53E+000	7.53E-002
PU241	3.87E-002	3.99E+000	9.02E-001	6.98E-002
PU242	6.83E-003	2.70E-005	6.10E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1.28.14

ITR: _____ Date: 1.30.14

Automated Independent Technical Review

Count Sequence Number: 16878
Counter ID: HENC #2
Container ID: 69091
Waste Matrix Code: Homo Sol. S3000
Sequence Type:

Batch Number: 2LANDA1256
Count Type:
Assay Date: 1/24/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. 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. 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 Chamberlain Date: 1-28-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69091**

BDR Number: **LA14FG2015**

Sampling Date: **2/5/2014**

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\140205c\
Data File : 69091.D
Acq On : 5 Feb 2014 12:10 pm (#1); 05-Feb-14, 12:09:45 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 05 12:18:14 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	3.545	96	3525789	205.75	ppmv	0.03
15) Chlorobenzene-d5	5.858	117	2721165	177.50	ppmv	0.00
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-14-0009
Examination Date:	1/22/2014
Waste Container ID:	69191
Video/Audio Recorded Media Number:	LA-HERTR-14-0009 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.: 178.0 kg Tare Wt.: 145.1 kg Net Wt.: 32.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 69191

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):	30.9
Soils (S):	
Total WMP Weight:	32.9

CCP Radiography Data Sheet

Waste Container ID: 69191

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 (Print Name) — Thad Hasselstrom (Signature) — 1/22/2014 (Date)	

NDA 2000 Assay Report

Item Information

Item ID:	69191	Count Sequence Number:	24180
Operator:	D3PW2DK1\operator		
Assay Start:	1/23/2014 10:31:29 AM		
Description 1:	1LANDA1896		
Description 2:	POC 178.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 32.9 kg	Net:	32.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.761 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

CS 6/13/14 009

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24180	Batch Number:	1LANDA1896
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:	69191	Analysis Date:	1/23/2014

Net Weight	32900.0 g		
Pu mass	9.26E+000	+- 1.95E+000	g
TRU Alpha Activity	6.27E+000	+- 3.06E+000	Ci
TRU Activity Concentration	1.91E+005	+- 9.30E+004	nCi/g
Pu-239 Equivalent Activity	6.29E+000	+- 3.06E+000	Ci
Pu-239 FGE	8.76E+000	+- 1.95E+000	g
Decay heat	2.07E-001	+- 1.02E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.29E-007
U233	<LLD	<LLD	0.00E+000	5.71E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.74E-006
NP237	7.91E-002	5.58E-005	1.09E-005	2.94E-006
PU238	8.45E-004	1.44E-002	3.73E-003	7.14E-004
U238	<LLD	<LLD	0.00E+000	1.63E-005
PU239	8.69E+000	5.39E-001	1.21E-001	2.66E-002
PU240	5.56E-001	1.26E-001	3.34E-002	6.23E-003
AM241	1.63E+000	5.59E+000	3.06E+000	6.20E-002
PU241	1.05E-002	1.08E+000	2.87E-001	5.36E-002
PU242	1.85E-003	7.33E-006	1.94E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 6.6.14

ITR: _____ Date: 6-10-14

DD 6/17/14

Automated Independent Technical Review

Count Sequence Number: 24180 Batch Number: 1LANDA1896
Counter ID: MCS HENC #1
Container ID: 69191
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/23/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	OK Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test failed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma results.

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

011
CJ 6/17/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69191**

BDR Number: **LA14FG12018**

Sampling Date: **2/4/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	173.12	
74-82-8	Methane	6.56	U
67-56-1	Methanol	1.24	U
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.42	U
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	1.31	
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\140204c\
Data File : 69191.D
Acq On : 4 Feb 2014 2:32 pm (#1); 4 Feb 2014 2:31 pm (#2)
Operator : DE
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 04 14:42:18 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	4.060	96	9565445	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	7362942	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.917	GC1	49384m	173.12	ppmv	
17) Toluene	5.577	92	38876	1.31	ppmv	94

(#) = 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-14-0009
Examination Date:	1/22/2014
Waste Container ID:	69217
Video/Audio Recorded Media Number:	LA-HERTR-14-0009 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.: 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:	75 %

CCP Radiography Data Sheet

Waste Container ID: 69217

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Hardware, scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	Tape roll
R:	
XPM:	Plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.3
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.2
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	77.6
Soils (S):	
Total WMP Weight:	105.1

CCP Radiography Data Sheet

Waste Container ID: 69217

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	1/22/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69217		Count Sequence Number:	24183	
Operator:	D3PW2DK1\operator				
Assay Start:	1/23/2014 12:45:26 PM				
Description 1:	1LANDA1896				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
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:	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:	24183	Batch Number:	1LANDA1896
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:	69217	Analysis Date:	1/23/2014

Net Weight	105000.0 g	
Pu mass	1.88E+001 +-	3.56E+000 g
TRU Alpha Activity	9.82E+000 +-	4.48E+000 Ci
TRU Activity Concentration	9.36E+004 +-	4.27E+004 nCi/g
Pu-239 Equivalent Activity	9.83E+000 +-	4.48E+000 Ci
Pu-239 FGE	1.70E+001 +-	3.53E+000 g
Decay heat	3.23E-001 +-	1.49E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	9.61E-007
U233	<LLD	<LLD	0.00E+000	6.60E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.84E-006
NP237	1.18E-001	8.33E-005	1.50E-005	3.43E-006
PU238	4.73E-003	8.09E-002	6.57E-002	2.73E-003
U238	<LLD	<LLD	0.00E+000	2.01E-005
PU239	1.69E+001	1.05E+000	2.19E-001	3.54E-002
PU240	1.87E+000	4.24E-001	9.97E-002	1.43E-002
AM241	2.41E+000	8.27E+000	4.48E+000	6.52E-002
PU241	8.01E-003	8.25E-001	1.95E-001	2.78E-002
PU242	4.17E-002	1.65E-004	7.51E-005	0.00E+000

Errors quoted at 1.000 sigma

Operator: Sam Barton Date: 1/28/14

ITR: Date: 1-28-14

Automated Independent Technical Review

Count Sequence Number: 24183 Batch Number: 1LANDA1896
Counter ID: MCS HENC #1
Container ID: 69217
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/23/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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: _____ Date: 1/28/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69217**

BDR Number: **LA14FG2010**

Sampling Date: **1/29/2014**

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\140129C\
Data File : 69217.D
Acq On : 29 Jan 2014 1:28 pm (#1); 29-Jan-14, 13:28:17 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 30 08:34:08 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	3.594	96	3230298	205.75	ppmv	0.08
15) Chlorobenzene-d5	5.884	117	2569744	177.50	ppmv	0.02
Target Compounds						Qvalue

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

S824551

Profile 763

Reports Help

S824551

763593	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

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Plan

Genealogy

S824551

- S824551
  - 90726 - EMPTY
  - 90725
    - 92493 - EMPTY
    - 92492
  - 90724
    - 92497 - EMPTY
    - 92496
    - 92495
    - 92494
  - 90723
    - 92490 - EMPTY
    - 92489
    - 92488
      - SB01977
  - 90722
    - 92485 - EMPTY
    - 92484
      - SB01967
  - 90721
    - 92480 - EMPTY
    - 92479
  - 90720
    - 92477
    - 92478 - EMPTY
    - 92476
  - 90719
    - 92483 - EMPTY
    - 92482
    - 92481
      - SB01933
  - 90718
    - 92471 - EMPTY
    - 92470
    - 92469
    - 92468
      - SB01937
  - 90715

Working Copy
Date: 1-5-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S824551

6.2[4] Date Processed: 1-5-12

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] 3 Liters carbon spheroids or MET-L-X in WCG: ☑ YES ☐ NO

4.3[6] **($)** WCG Fire Watch stationed: (> 56 PE-Ci) (AC 5.2.3)
☐ YES ☐ NO ☑ N/A

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: BRIAN FORDHAM Brian Fordham 235835 1-5-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 438.8 lb

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

ATTACHMENT 1

Page 2 of 3

4.1[6][B] Parent Waste Container No.: ~~S832340~~ S824551 (9/23/2014)

6.2[5][B]/6.2[6] Total Parent Drum Weight (lb) 438.8 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.	90715	POC 1B	POC 1C	ADDITIONAL POC'S ON NEXT PAGE
10.1[4]	Daughter Drum Filter No.	FK-1248	N	N	
10.1[4]	Daughter Drum Bag Filter No.	FK-637	A	A	
10.1[4]	Daughter Drum Purchase Order No.	413660			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BoP	BoP	BoP	
	Model No.	3cpv1.5-2spvc	3cpv1.5-2spvc	3cpv1.5-2spvc	
	Serial No.	W.O.1490	W.O.1442	W.O.1620	
	Date of Manufacture	6/11	6/11	6/11	N
10.2[5]	POC ID No	90718	90719	90720	
10.2[7][B]/10.2[6]	POC Item Description	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	A
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635	B.F. 235635	B.F. 235635	
10.2[14]	POC Assembly Gross Weight (lb)	349.8lbs	359.4lbs	352.0lbs	N
10.2[15]	POC Rad. Survey Results (mrem/hr)	1301.0mR	1,000.2mR	450.5mR	
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	A
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	N	N	
10.3[5][A]	Free Liquid Volume/Units	2-3 GAL			N
10.3[9][A]	PCB-contaminated Waste Description	N/A	N	N	N
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	N	N	
10.3[13]/10.4[12]/10.5[5]	Daughter Drum % Full (%)	60%		N	N
10.5[4]	Description Waste Added During Processing	PLASTIC	A		N

ATTACHMENT 1
Page 2 of 3

9/23/14

4.1[6][B] Parent Waste Container No.: ~~S832340~~ S824551

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 438.8 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.	POC ID	POC E	POC F	POC G
10.1[4]	Daughter Drum Filter No.				
10.1[4]	Daughter Drum Bag Filter No.				
10.1[4]	Daughter Drum Purchase Order No.				
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BoP	BoP	BoP	BoP
	Model No.	3cpv1.5-25pvc	3cpv1.5-25pvc	3cpv1.5-25pvc	3cpv1.5-25pvc
	Serial No.	WO1119	WO1148	WO1485	WO1108
	Date of Manufacture	5/11	5/11	6/11	5/11
10.2[5]	POC ID No	90721	90722	90723	90724
10.2[7][B]/10.2[6]	POC Item Description	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED	SALTS LIQUID ABSORBED
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	N/A
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635	B.F. 235635	B.F. 235635	B.F. 235635
10.2[14]	POC Assembly Gross Weight (lb)	343.2lbs	343.3 lbs	357.6 lbs	372.0 lbs
10.2[15]	POC Rad. Survey Results (mrem/hr)	300.25 mR	1,000.25 mR	450.5 mR	300.25
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[5][A]	Free Liquid Volume/Units				
10.3[9][A]	PCB-contaminated Waste Description		N		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description		A		
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)				
10.5[4]	Description Waste Added During Processing				

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S824551

Comments: LEAD SHIELDING, PLASTIC, LIQUID ABSORBED, SALTS

11.1[1] Performed By: BRIAN FORNHAM (Waste Handling Tech (print)) Brian Fornham (Signature) 235635 (Z #) 1-5-12 (Date)

11.1[7] Reviewed By: Gilbert Martinez (SOS/SOM (print)) (Signature) 149235 (Z #) 1-5-12 (Date)

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

85-Gallon Overpack ID Number 90726

RECORD Drum Filter information: NucFil-013

Filter ID Number: FS-404

Date of Manufacture: 6/09

TORQUE WRENCH INFORMATION

Filter Torque Wrench		Drum Lid Ring Bolt	
M&TE ID#	040695	M&TE ID#	032122
Cal Expiration Date	9-12-12	Cal Expiration Date	9-18-12
	+/-3% cw		
Tolerance	+/-6% ccw	Tolerance +/-3% cw +/-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#	040691
Cal Expiration Date	8-2-12
Tolerance +/-3% cw	+/-6% ccw
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) 120 in-lb ☐ N/A

Drum lid 2-inch bung torque value: (If applicable) 30 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
Brian Fordham	Brian Fordham	B.F.	235655	1-5-12
Alonzo Guerrero	Alonzo Guerrero	[illegible]	238782	1-5-12

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

Drum ID#: 90715

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 #: 413660
- Lot #: 208854
- Date of Manufacture: 2010

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: Nuc-Fil
- Model #: 036-DA
- Serial #: FK-637
- Date of Manufacture: 12-10

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: Nuc-Fil
- Model #: 019-DS
- Serial #: FK-1248
- Date of Manufacture: 6-10

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	031063	M&TE ID #:	038570
Cal Expiration Date:	7-9-11	Cal Expiration Date:	5-10-11
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.

☑ Yes ☐ No

Print Name: Brian Fordham Signature: Brian Fordham Z#: 235635

5. Weigh Drum Assembly

RECORD weight information
- Tare wtght (lbs) 75.8 lbs
- File ID #: 09065
- ☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly
- ☑ Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- ☑ Place 1 barcode drum ID label in the center of the drum lid

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

Operator Print: Brian Fordham Operator Sign: Brian Fordham Z#: 235635 Date: 1-5-12

Verifier Print: Alonso Guerrero Verifier Sign: [signature] Z#: 238782 Date: 1-5-12

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

DRUM ID#: 90715

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 #: 032122

Cal expiration date: 20-80 ft lbs

Range/ Value (ft-lbs): 9-18-12

--- 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.): 175.4lbs

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: Brian Fordham Date: 1-5-12

Verifier Print/Sign: Alonzo Guerrero Date: 1-5-12

SPL

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S824551 | Container Type: 55-GAL | Gross Weight (lbs): 451
Inner Seal #: 009466 | Filter Prefix: LAVC | Filter Serial #: 03543
AK Waste Stream: LA-MHD01.001 | Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS
Total PE-Ci Activity: 6.56E+00 | Equivalent Combustible PE-Ci: 2.46E+00 | AM-241 PE-Ci: 5.33E-01
Total Fissile Gram Equivalents: 72.5 | Total Surface Dose Rate (mrem/hr): 5
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/11/2007 | 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: PEC

Performed By: R. W. Jones (Production Control (Print)) / R. W. Jones (Signature) / 117434 (Z Number) / 1.18.11 (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: Leached solids- nitrate salts
Net Wt: 391lb. Four items w/ weights ranging from 33lb to 146 lb.

May require RWP for >1,000 and <10,000 mrem/hr at 30cm

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 11/13/11 (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: per Ops Manager

Performed By: Marissa Valverde (TRU Remediation Operations (Print)) / (Signature) / 234079 (Z Number) / 12-1-11 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 009466

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-627FA		29.550	NITRATE SALTS		48.5	52	5/11	G468
2	IXFS-628FA		29.780	NITRATE SALTS		6.8	52	5/11	G468
3	IXFS-629F1		14.770	NITRATE SALTS		5.6	52	5/11	G468
4	IXFS-630FA		66.180	NITRATE SALTS		15.8	52	5/11	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 204.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	76.7	140.28
Totals	76.7	140.28

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 2/1/11

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Sara Aragon	/Sara Aragon	237975	2-15-11
	/	/	/

Container No. (7.[1]):	S824551 LS	S855909	S862884
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]):		S824551	S855909	S862884
	Hydrogen Reading (ppm) (7.[10]):	2040.12 ppm	Ø 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:
N/C

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 2/8/11
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 117886 / 2.15.11
Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110201c\
Data File : S824551.D
Acq On : 1 Feb 2011 11:55 am (#1); 1 Feb 2011 11:54 am (#2)
Operator : GR
Sample :
SampleName : Unit 8
Misc : 55 GALLON DRUM FROM UNDER DRUM LID. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 12:03:24 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	4410469	209.00	ppm	0.00
15) Chlorobenzene-d5	5.933	117	3608569	184.00	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.359	GC1	567236	2240.12	ppm	100

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

Vocgas.m Tue Feb 01 12:03:33 2011

7-5-12

0000 Resuming WCRF Operations center Outside
0019 late entry at 0541 started outside rounds - Ekel
0100 late entry at 0108 completed ~~outside~~ rounds O
0105 Starting inside rounds
0130 Item left on rounds to 005 per accumulation ot to pick
0713 Inside and Outside rounds signed off by 005
0716 Mode Change performed as one now in Operations
0810 Banging on 9832551
0812 Pir 95D noticed Dpc Center transportation doors were opened and not latched.
0824 Operator returned equipment Center of File during shift Request Control Number and it is on his log at Operations
0101 Duplicate Pir Number has been updated.
0955 Starting movement out of 5D-09 to transportation.
1007 Completed movement out 5D 09
1010 Starting movement to transport Vehicle from transportation Permission granted to break Vehicle access gates.
1041 Completed movement from transportation to transport Vehicle Vehicle access gates have been restored.
1107 Banging off 9832551 and 5 Pins. Banging on 9832147.
1400 Operator inside 5D 09 introducing glass into Glovebox
1401 Starting off loading of transport Vehicle permission granted to open Vehicle access gate
1424 Introduction of glass into glovebox completed
1455 Completed off loading of transport Vehicle ~~to~~ 1510 Vehicle access gates have been restored
1504 Starting movement out of 5D-09 to transportation
1521 Completed movement out of 5D-09
1550 Starting bag off 9832147 and starting to dense
1612 Completed densifying of drum.
1614 Started outside rounds
1629 Starting Movement out of 5D 09
1655 Completed movement out of 5D-09.
1658 Mode Change completed we are now held in bldg and roam on yard.
1700 End of day. WCRF operations center secure Outside

no further entries this page

1-5-12

0555 Reviewed shift turnover from previous shift and assumed the WCRR SOM position. Dominique D'Ambrosio
0618 Attended pre-job briefing conducted by Shift Operations Supervisor. Discussed using the right tool for the job when trying to break apart packages that may be frozen. Discussed Stop work authority with all operators. All operators will be attending ISR page change training today. Five persons scheduled at TA 50-1916 0900 hrs and 1330 hrs.
0711 Mode change complete. WCRR YARD and 50-L9 from WARM to OPERATIONS mode.
0800 Notified by Shift Operations Supervisor that RCTs just entered the facility to support operations.
0810 Notified by the Senior Supervisory Watch that while observing outside operations he noticed that transportation personnel exiting the transportation doors down. E&I personnel will be notified and instructed to place transportation doors in a safe configuration.
0825 Notified by Operation Center that operations are in a standstill outside due to the forklift fire extinguisher being expired since the end of the month of December.
0826 SOM notified Jim Gallegos about fire extinguisher. Jim is on his way.
0900 Inspector arrived for fire extinguisher.
0905 ~~0845~~ 0845 Rate entry - Spoke to SSW about safety observations observed during walk down of outside operations. He notified SOM of some areas of concern. 1) no decon in pits. One iceyard in yard. 2) individual walking in back of a forklift during inspection. 3) fire extinguisher on forklift expired.
0850 Rate entry - SOM called a safety pause with all outside operators to discuss observations. SOM called PIC inside and had him call a safety pause inside to discuss observations
0906 Attended WCRR Basis for Centering Operations and Technical Safety Requirements R.2.0 Annual Update and Page Change R.2.1 for TA 50 L9 Operation Personnel.
1045 Training complete for first half of the crew. Next session will be conducted at 1330 hrs.
1411 Notified by E-mail that drums from solution package #1 and #15 will be shipped to WCRR next week.
1556 Confirmed with Operations Manager and Energy Solutions Manager that WCRR will have enough fuel stored for next week to keep operations going for early next week. Therefore 50-L9 may go into cold mode through the weekend to support maintenance.
1600 Confirmed with Energy Solutions Manager and Shift Operations Supervisor that the channel calibration test will be

PRINT NAME SIGNATURE DATE
READ AND UNDERSTOOD DATE

1.5.12

conducted on 1.9.12 in order to meet 4.3.1.7 and 4.3.2.6. Operators will come in at 0500 hrs. including TCTs to perform S.R. daily.

1700 Meal change, complete WORKYARD from OPERATIONS to WARM.

1710 Meal and 50-49 from OPERATIONS to COLD mode.

Securing the watch. Gonzalez

NO Deficiencies Noted

0600 REVIEWED SOS TURNOVER AND ASSUMING WCRR SOS POSITION
0615 STARTING PRE-JOB BRIEFING
0705 PRE-JOB BRIEFING CONCLUDED
0800 Notified BY Inside Personal TLCT's were Just now entering facility
0825 notified by outside Personal Fire extinguisure not up to date staping All forklift operations
0830 Notified Inspector to come And check Fire extinguesiure
0845 Inspector Arrived And Inspected fire extinguisure
1623 ~~End of shift~~ 1-5-12 6m ~~Turn~~ 1-5-12 6m Turning over SOS position
1626 late entries Energy Silutions OM Conducted brief on Conduct of ops At 1245
1630 TURNING SOS POSITION OVER
1631 Reviewed SOS TURNOVER AND ASSUMING OF WCRR SOS POSITION
1700 Movement Complete
1700 MODE CHANGE COMPLETE
1710 SECURING WCRR SOS POSITION

CAO 2/01/12

No Further Entries ON THIS PAGE

S824551

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-RTR2-12-0123	
Examination Date:	10/25/2012	
Waste Container ID:	90715	
Video/Audio Recorded Media Number:	LA-RTR2-12-0123	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.: 80.0 kg Tare Wt.: 33.4 kg Net Wt.: 46.6 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: 90715

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	Tape rolls
R:	
XPM:	Plastic bags, plastic lids
OR:	
IN:	Homogeneous solids, absorbent
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	25.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.5
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	16.0
Soils (S):	
Total WMP Weight:	46.6

CCP Radiography Data Sheet

Waste Container ID: 90715

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		10/25/2012
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	90715	Count Sequence Number:	21480		
Operator:	D3PW2DK1\operator				
Assay Start:	10/26/2012 9:33:45 AM				
Description 1:	1LANDA1662				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6, Not Precision				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	46.6	kg	Net:	46.6 kg
Container:	Volume:	208.0	l	Full:	60.0 %
Density:		0.370 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:	21480	Batch Number:	1LANDA1662
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:	90715	Analysis Date:	10/26/2012

Net Weight	46600.0 g	
Pu mass	6.02E+000 +-	1.51E+000 g
TRU Alpha Activity	2.31E+000 +-	2.63E-001 Ci
TRU Activity Concentration	4.96E+004 +-	5.64E+003 nCi/g
Pu-239 Equivalent Activity	2.32E+000 +-	2.63E-001 Ci
Pu-239 FGE	5.69E+000 +-	1.41E+000 g
Decay heat	7.62E-002 +-	8.71E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.06E-002	2.19E-005	2.85E-006	1.12E-006
PU238	5.55E-004	9.60E-003	2.40E-003	3.41E-005
PU239	5.65E+000	3.55E-001	8.90E-002	1.26E-003
PU240	3.61E-001	8.31E-002	2.08E-002	2.95E-004
AM241	5.37E-001	1.86E+000	2.46E-001	1.94E-002
PU241	7.26E-003	7.55E-001	1.89E-001	2.68E-003
PU242	1.21E-003	4.78E-006	1.20E-006	0.00E+000
SR90	7.57E-009	1.04E-006	3.89E-007	0.00E+000
CS137	1.19E-008	1.04E-006	3.89E-007	3.71E-007
U233	<LLD	<LLD	0.00E+000	2.09E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.57E-007
U238	<LLD	<LLD	0.00E+000	7.81E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 10-30-12

ITR: Beverly Bowman Date: 10/31/12

Automated Independent Technical Review

Count Sequence Number: 21480 Batch Number: 1LANDA1662
Counter ID: MCS HENC #1
Container ID: 90715
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 10/26/2012

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; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	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
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chamberlain Date: 10-29-12

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **90715**

BDR Number: **LA12FG12048**

Sampling Date: **10/31/2012**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	66.54	
74-82-8	Methane	9.63	U
67-56-1	Methanol	77.26	
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	10.84	
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\121031C\
Data File : 90715.D
Acq On : 31 Oct 2012 2:12 pm (#1); 31 Oct 2012 2:11 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 31 14:20:29 2012
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Oct 03 14:43:18 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.057	96	5987300	204.00	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6306415	179.25	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.923	GC1	18792	66.54	ppmv	100
4) Methanol	0.824	31	53897	77.26	ppmv	100
17) Toluene	5.573	92	253847	10.84	ppmv	91

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

~~WET~~ Copy
Working Copy
12-17-12 w

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90718

6.2[4] Date Processed: 12/17/12

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

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: B. Forquam / B. Forquam 235855 / 12/17/12
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90718

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 355.6 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 355.6 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.: 90718

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92468			
10.1[4]	Daughter Drum Filter No.	AM-1027			
10.1[4]	Daughter Drum Bag Filter No.	L-4374			
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	BOP		
	Model No.	6x PVC1.2-2ply	6x PVC1.5-3ply		
	Serial No.	L-4410	L-4373		
	Date of Manufacture	7/12	7-12		
10.2[5]	POC ID No	92469	92470		
10.2[7][B]/10.2[6]	POC Item Description	Kitty Litter Salt Plastic	Kitty litter salt		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	MR 182723	MR 182723		
10.2[14]	POC Assembly Gross Weight (lb)	372.2	354.4		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000	1000		
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	2 oz			
10.3[7][A]	Opaque/Non-penetrable Item Description:	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	N/A		
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty Litter Cardboard			

ATTACHMENT 1
Page 4 of 4

4.1|6||B| Parent Waste Container No.: 90718

Comments: POC LID, FIBERBOARD, WOOD, PLASTIC, CARDBOARD, KITTY LITTER, POLY LID.

11.1|1| Performed By: B. FORDHAM B-Fah 235835 12/17/12
Waste Handling Tech (print) Signature Z # Date

11.1|7| Reviewed By: [illegible] [illegible] [illegible] [illegible]
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:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	0-13
Serial No.:	1L-296
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	4-11-13
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: BRIAN GALLEGOS / Bi Gallegos 126729 11-19-12
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: BRIAN GALLEGOS / Bi Gallegos 126729 11-19-12
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: GMH / GMH 14585 1-3-13 GM
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.: 92471

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 021151
- Cal. Expiration Date: 6/11/13
- 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 (R6723) 12/17/12
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): _____ lb

Comments: N/C

8.1[1] Performed By: Michael Romero (R6723) 12/17/12
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: G Martinez (14935) 1-3-13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92468

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 #: 022924
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BDP
Model #: 6 CPVC-1.5-2-SPVC
Serial #: AM-1027 11-28-12 L-4374
Date of Manufacture: 7/12 11-28-12 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 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: Nafi
Model #: 019015
Serial #: AM-1027
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	9/26/13	Cal Expiration Date:	6/11/13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% 11-28-12 ±4%-cw/-3%-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: Clayton Mullins Signature: [signature] Z#: 240092

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 75-8
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: Clayton Mullins Operator Sign: [signature] Z#: 240092 Date: 11/28/12

Verifier Print: B. Fordham Verifier Sign: B. Fordham Z#: 235235 Date: 12/17/12

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

DRUM ID#: 92468

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 ft lbs

Tolerance +/- 3% CW +/- 6% CW

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.): 172.2

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. Fosdahl Date: 12/17/12

Verifier Print/Sign: Michael Romero Date: 12/18/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90718 | Container Type: POC | Gross Weight (lbs): 350

Liner Seal #: None | Filter Prefix: None | Filter Serial #: EL-247; EL-579

WCR Waste Stream: LA-MIN04-S.001 | Certified RTR BDR: LA-RTR2-12-0008

TWSR Comments: PARENT #S824551 WTS-12STD-712

Total PE-Ci Activity: 7.29E-01 | Equivalent Combustible PE-Ci: 2.73E-01 | AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 | Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None | Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solids

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 ~~D008~~ D009

Nitrate salts mixed with Waste Lock 770® for previous repack campaign. A minimum of 1.2 pounds of kitty litter / waste must be mixed into 1 pound of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) | Signature: Susan B. 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 – POC

Net Wt: 40 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.

RTR BDR inventory shows homogeneous solid material and cloth material

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Signature: Valerie Rhodes | Z Number: 112609 | Date: 10/3/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Kevlar 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 (TRU Remediation Operations (Print)) | Signature: Jose Perez | Z Number: 221452 | Date: 10-15-12

LL Z# 249750 10/19/12

IHS REVIEW: AS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0008
Examination Date:	01/18/2012
Waste Container ID:	90718
Video/Audio Recorded Media Number:	LA-RTR2-12-0008 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-0282-12 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: 159.0 kg. Tare Wt: 145.1 kg. Net Wt: 13.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90718

Section 3: Container Inventory and Comments (Detailed descriptions)
Cloth material
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	5.9
Soils (S):	
Total WMP Weight:	13.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90718

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: Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-0282-12

RTR Operator:

Philip Dillard		1/18/12
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

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

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

Container No. (5.[1])	96718					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PIC					
Filtered Vent Type (5.[1])	HDS					
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)) 238866 (Z #)

Comments: Per attached email, container has been verified as PDC

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 100681 (Z #) 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90718.D
Acq On : 5 Oct 2012 1:21 pm (#1); 5 Oct 2012 1:20 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 13:28:33 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	2443755	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2146316	179.50	ppm	0.00
Target Compounds						Qvalue

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

Vocgas.m Fri Oct 05 13:28:46 2012

Orville
~~12-17-12~~ 12-17-12
0000 Assuming WCERF operations center - Melanie
0005 Starting outside rounds, operator notifying ops. center
0010 Starting inside rounds
0035 ~~0035~~ Item is in OOS. CSE documentation OK to proceed.
outside rounds complete.
0710 Inside and outside rounds signed off by SOS
0745 Mode change performed TA50-69 and WCERF yard in operation
0747 Operators notifying operations center small pond is frozen.
0949 Starting movement into TA50-69.
1003 Completed movement 50-69.
1012 bagging on 90324
1017 PPE Check is SAT.
1043 PPE Check is Sat.
1124 PPE Check is Sat.
1133 bagging off 90324, bagging on 90718
1209 bag on, bag off complete and PPE check is sat.
1205 Late entry 1023 bag on is complete - Melanie
1303 bagging off 90718 and 29005, bagging on 90317, PPE Check is Sat.
1345 bag on, bag off complete.
1412 PPE check is Sat
1415 Starting movement out of TA50-69
1420 bagging off 90317, bagging on 85272
1428 movement out of 50-69 complete.
1431 Starting movement into 50-69.
1437 Bag on, bag off complete. PPE Check is sat
1445 Starting outside rounds.
1502 Outside rounds complete.
1503 Starting inside rounds, PPE Check is Sat
1515 Item 4 is OOS per CSE documentation OK to proceed.
1529 Inside and outside rounds signed off by SOS
1604 Bag off is complete.
1622 mode change performed TA50-69 and WCERF yard now in warm standby.
12-17-12 1630 end of day WCERF operations center secure - Melanie

no further entries page

12/17/12

0600 Reviewed shift turnover and assumed WCRR SOM
0700 Called into TA-54 Daily Brief conducted by TA-54 SOM and status WCRR work for today.
0705 Late Entry - 0615 Attended pre job brief conducted by SOS - discussed lessons learned from last week including twice daily roundsheet requirements while in warm mode. Clearing of areas of snow and ice
0720 Met w/ OSPAT supervisor regarding transportation schedule for this week and first week back from break. Agreed to an In/Out tomorrow followed by Out only on Thurs 12/20. After the break will have an outgoing on Thurs 1/3/13 w/ poss. 66 incoming if needed - will assess this week based on production.
0745 Completed Mode Change: WCRR Yard/Bldg. 50-69 from Warm/Cold to Operations/Operations.
0746 Notified by operators that both forklifts were not working due to cold weather (hydraulics froze up => can't operate mast controls / up & down or tines, etc). Both forklifts in sunny area of yard to allow for warm up.
0949 Forklifts determined to be operable. Moving inventory into Bldg 50-69.
1012 Bagging on 1st drum onto WCG
1030 Discussed maintenance schedule w/ MSS, OM and RP-1 supervisor. Goal is to complete all of last weeks PM's, this weeks and ISI 6.32 this Friday. Will require more than 2 RCT's and 3 operators currently scheduled.
1200 Daily call in with PM and OM to status WCRR operation for the day.
1442 Notified by RP-1 supervisor that detector on PCM in Bldg 50-69 requires replacement. RP-2 onsite to repair and calibrate.
1458 PCM repairs complete.
1510 CCP Operator reported that one of the drums moved into 50-69 for processing #91805 should have went to Flam Gas instead of WCRR - Noticed by NCR tag on drum and reading notes in SED's packet on NCR documentation.
1600 Verified path forward of drum 91805 w/ CCP management. Will make arrangements to ship back to TA-54 for Flam Gas.
1622 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.
1645 Secured SOM position

1-9-13

No further entries this page

12/17 12

12-17-12 WCRR SOS LOG BOOK

0600 Assuming SOS Position

0605 SHIFT brief started did Post Job Prior to Discussed window change that took place 12-13-12 reviewed new BWP

0655 Shift brief Concluded.

0700 reviewed Inside and outside Rounds

0745 Mode change Complete WCRRF IN operations.

0750 Late entry Unable to move drums out of transportainer due Ice And snow operator's Spreading Ice melt needs to thaw or Forklift will stay stock 0715 GM.

0936 Ice has Melted at moving In drums FRom transportainer to SO

1012 bag off First drum for Day 90324

1017 PPE Check sat

1043 PPE Check Sat

1124 PPE Check SAt

1133 bagging off And bagging on 90718

1204 bag off complete PPE chack sat

1303 bagging off And bagging on 90317 PPE Check sat

1412 PPE Check sat

1420 bagging off and bagging on SS272

1526 Reviewed Inside And SE outside Rounds

1622 Mode change Complete WCRRF IN Warm

12-17-12 1630 end of shift securing SOS Position

HA

No further entries on this Page

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

5824551

Section 1: General Information		
[X] RTR Examination	[ ] RTR Replicate Scan	[ ] RTR Independent Observation
Site ID:	LANL	
Batch Number:	LA-RTR2-13-0005	
Examination Date:	1/15/2013	
Waste Container ID:	92468	
Video/Audio Recorded Media Number:	LA-RTR2-13-0005	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.: 78.0 kg Tare Wt.: 33.4 kg Net Wt.: 44.6 kg	
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes	
Number of Layers of Confinement:	Appears to be 2 layers	
Volume Utilization Percentage:	90 %	

CCP Radiography Data Sheet

Waste Container ID: 92468

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Metal hardware, metal lid
AM:	
OM:	
OI:	
C:	Fiberboard insert sleeve, fiberboard material
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):	10.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	20.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	4.6
Soils (S):	
Total WMP Weight:	44.6

CCP Radiography Data Sheet

Waste Container ID: 92468

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 Eric Lyles		1-15-13 1/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92468	Count Sequence Number:	21857		
Operator:	D3PW2DK1\operator				
Assay Start:	1/16/2013 4:15:12 PM				
Description 1:	1LANDA1697				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	44.6	kg	Net:	44.6 kg
Container:	Volume:	208.0	l	Full:	90.0 %
Density:		0.240 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:	21857	Batch Number:	1LANDA1697
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:	92468	Analysis Date:	1/16/2013

Net Weight	44600.0 g	
Pu mass	9.24E-002 +- 1.45E-002	g
TRU Alpha Activity	4.36E-002 +- 1.06E-002	Ci
TRU Activity Concentration	9.78E+002 +- 2.38E+002	nCi/g
Pu-239 Equivalent Activity	4.38E-002 +- 1.06E-002	Ci
Pu-239 FGE	8.74E-002 +- 1.44E-002	g
Decay heat	1.44E-003 +- 3.55E-004	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	2.78E-009	3.83E-007	7.00E-008	0.00E+000
CS137	4.37E-009	3.83E-007	7.00E-008	1.08E-007
U233	<LLD	<LLD	0.00E+000	5.74E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.52E-007
NP237	2.78E-003	1.98E-006	2.29E-007	2.69E-007
PU238	8.50E-006	1.47E-004	3.09E-005	9.95E-005
U238	<LLD	<LLD	0.00E+000	2.25E-006
PU239	8.68E-002	5.46E-003	9.07E-004	3.69E-003
PU240	5.55E-003	1.28E-003	2.78E-004	8.63E-004
AM241	1.06E-002	3.68E-002	1.06E-002	5.52E-003
PU241	1.10E-004	1.15E-002	2.50E-003	7.76E-003
PU242	1.85E-005	7.34E-008	1.60E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-21-2013

ITR: _____ Date: 1.24.13

Automated Independent Technical Review

Count Sequence Number: 21857 Batch Number: 1LANDA1697
Counter ID: MCS HENC #1
Container ID: 92468
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/16/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
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	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	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: 1-21-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92468**

BDR Number: **LA13FG12007**

Sampling Date: **1/24/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	8.15	U
74-82-8	Methane	9.63	U
67-56-1	Methanol	30.57	U
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	11.55	U
75-34-3	1,1-Dichloroethane	2.29	U
156-59-2	cis-1,2-Dichloroethene	0.36	U
78-93-3	Methyl ethyl ketone	2.55	U
110-82-7	Cyclohexane	2.09	U
71-43-2	Benzene	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\130124c\
Data File : 92468.D
Acq On : 24 Jan 2013 1:00 pm
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 24 13:08:57 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Oct 03 14:43:18 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.060	96	9169894	204.00	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	8128892	179.25	ppmv	0.00
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0002
Examination Date:	1/8/2013
Waste Container ID:	92469
Video/Audio Recorded Media Number:	LA-HERTR-13-0002 C&D
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.: 168.5 kg Tare Wt.: 145.1 kg Net Wt.: 23.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92469

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid 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):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	23.4
Soils (S):	
Total WMP Weight:	23.4

CCP Radiography Data Sheet

Waste Container ID: 92469

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	[signature]	1/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92469	Count Sequence Number:	21819		
Operator:	D3PW2DK1\operator				
Assay Start:	1/10/2013 2:24:07 PM				
Description 1:	1LANDA1695				
Description 2:	POC - Gross Wt. = 168.5 Kg.				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	23.4	kg	Net:	23.4 kg
Container:	Volume:	208.0	l	Full:	95.0 %
Density:		0.713 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:	21819	Batch Number:	1LANDA1695
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:	92469	Analysis Date:	1/10/2013

Net Weight	23400.0 g		
Pu mass	3.96E+001	+- 6.43E+000	g
TRU Alpha Activity	6.01E+000	+- 1.71E+000	Ci
TRU Activity Concentration	2.57E+005	+- 7.31E+004	nCi/g
Pu-239 Equivalent Activity	6.10E+000	+- 1.71E+000	Ci
Pu-239 FGE	3.74E+001	+- 6.04E+000	g
Decay heat	1.94E-001	+- 5.70E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.16E-002	3.68E-005	6.92E-006	2.46E-006
PU238	3.65E-003	6.31E-002	1.02E-002	3.50E-005
PU239	3.72E+001	2.34E+000	3.80E-001	1.30E-003
PU240	2.38E+000	5.47E-001	8.87E-002	3.03E-004
AM241	8.82E-001	3.06E+000	1.67E+000	5.26E-002
PU241	4.73E-002	4.92E+000	7.98E-001	2.73E-003
PU242	7.94E-003	3.15E-005	5.11E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.54E-007
U233	<LLD	<LLD	0.00E+000	4.83E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.44E-006
U238	<LLD	<LLD	0.00E+000	1.17E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-14-13

ITR: _____ Date: 1-16-2013

Automated Independent Technical Review

Count Sequence Number: 21819 Batch Number: 1LANDA1695
Counter ID: MCS HENC #1
Container ID: 92469
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2013

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 Chamberlain Date: 1-14-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92469**

BDR Number: **LA13FG2080**

Sampling Date: **7/10/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1039.34	
74-82-8	Methane	142.14	U
67-56-1	Methanol	92.24	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	32.90	
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	6.30	
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\130710C\
Data File : 92469.D
Acq On : 10 Jul 2013 12:32 pm (#1); 10-Jul-13, 12:31:22 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 12:41:48 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.522	96	4323911	205.75	ppmv	0.00
15) Chlorobenzene-d5	5.861	117	3516134	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.610	GC1	7815	1039.34	ppmv	100
4) Methanol	0.834	31	31868	92.24	ppmv	100
7) Acetone	1.373	58	42204	32.90	ppmv	89
12) Benzene	3.212	78	96382	6.30	ppmv	100

(#) = 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-RTR2-13-0004
Examination Date:	1/10/2013
Waste Container ID:	92470
Video/Audio Recorded Media Number:	LA-RTR2-13-0004 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.: 161.0 kg Tare Wt.: 145.1 kg Net Wt.: 15.9 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 %

EC 1/14/13

25

EC 1/14/13

CCP Radiography Data Sheet

Waste Container ID: 92470

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, scrap metal

AM:

OM:

OI:

C:

R:

XPM: Plastic sheeting

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	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):	0.2
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	13.2
Soils (S):	
Total WMP Weight:	15.9

CCP Radiography Data Sheet

Waste Container ID: 92470

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:SME/OJT Kenneth Simpson monitoring operator Benito Maestas at the controls to evaluate proficiency and provide training/ mentoring as required. Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid; therefore, the liner is vented.

RTR Operator:

Benito Maestas — 1/10/2013

Print Name Kenneth Simpson — Signature — Date 1/10/13

NDA 2000 Assay Report

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

Item ID:	92470		Count Sequence Number:	14828	
Operator:	DCLTD231\Operator				
Assay Start:	1/14/2013 10:20:43 AM				
Description 1:	2LANDA1077				
Description 2:	POC - Gross Wt. = 161.0				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	15.9 kg	Net:	15.9 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:		0.675 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

D10
CS6/17/14

NDA 2000 Assay Report

Item Information

Item ID:	92470		Count Sequence Number:	14828	
Operator:	DCLTD231\Operator				
Assay Start:	1/14/2013 10:20:43 AM				
Description 1:	2LANDA1077				
Description 2:	POC - Gross Wt. = 161.0				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	15.9 kg	Net:	15.9 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:		0.675 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

SUPERCEDED

CS 6/17/14

CS 6/17/14 U10A

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	14828	Batch Number:	2LANDA1077
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	92470	Analysis Date:	1/14/2013

Net Weight	15900.0 g	
Pu mass	9.80E+000 +-	1.86E+000 g
TRU Alpha Activity	2.42E+000 +-	3.42E-001 Ci
TRU Activity Concentration	1.52E+005 +-	2.15E+004 nCi/g
Pu-239 Equivalent Activity	2.44E+000 +-	3.42E-001 Ci
Pu-239 FGE	9.25E+000 +-	1.75E+000 g
Decay heat	7.90E-002 +-	1.13E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.71E-002	1.93E-005	3.53E-006	1.71E-006
PU238	9.02E-004	1.54E-002	2.93E-003	3.70E-005
PU239	9.20E+000	5.70E-001	1.08E-001	1.37E-003
PU240	5.88E-001	1.34E-001	2.54E-002	3.20E-004
AM241	4.96E-001	1.70E+000	3.23E-001	4.08E-003
PU241	1.17E-002	1.21E+000	2.29E-001	2.89E-003
PU242	1.96E-003	7.75E-006	1.47E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.50E-007
U233	<LLD	<LLD	0.00E+000	3.20E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.05E-006
U238	<LLD	<LLD	0.00E+000	7.57E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 6.5.14

ITR: _____ Date: 6-6-14

011
03/17/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	14828	Batch Number:	2LANDA1077
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92470	Analysis Date:	1/14/2013

Net Weight	15900.0 g	
Pu mass	9.80E+000 +-	1.86E+000 g
TRU Alpha Activity	8.24E-001 +-	1.14E-001 Ci
TRU Activity Concentration	5.18E+004 +-	7.19E+003 nCi/g
Pu-239 Equivalent Activity	8.46E-001 +-	1.14E-001 Ci
Pu-239 FGE	9.24E+000 +-	1.75E+000 g
Decay heat	2.59E-002 +-	3.55E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.72E-002	1.94E-005	3.55E-006	1.71E-006
PU238	9.02E-004	1.56E-002	2.96E-003	3.74E-005
PU239	9.20E+000	5.79E-001	1.10E-001	1.39E-003
PU240	5.88E-001	1.35E-001	2.57E-002	3.24E-004
AM241	2.72E-002	9.43E-002	1.79E-002	2.26E-004
PU241	1.17E-002	1.22E+000	2.31E-001	2.92E-003
PU242	1.96E-003	7.79E-006	1.48E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.50E-007
U233	<LLD	<LLD	0.00E+000	3.20E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.05E-006
U238	<LLD	<LLD	0.00E+000	7.57E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-15-13

ITR: _____ Date: 1-21-13

CS 6/18/14

SUPERSEDED

CS6/17/14 U11A

Automated Independent Technical Review

Count Sequence Number: 14828 Batch Number: 2LANDA1077
Counter ID: HENC #2
Container ID: 92470
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/14/2013

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; 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. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

012
CD 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. Marsh Date: 6/5/14

012A
CSC 6/12/14

Automated Independent Technical Review

Count Sequence Number: 14828 Batch Number: 2LANDA1077
Counter ID: HENC #2
Container ID: 92470
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/14/2013

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; 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.	Pu results taken from Passive Neutron data, U from Quantitative Gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors. 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.

SUPERCEDED CJ 6/17/14

Expert Review by: _____ Date: 1/15/13 F 1/15/13

U12B 06/17/14

****
**** GENIE QUALITY ASSURANCE *****
****

Last Results Report
1/14/13 9:02:00 AM

QA File: C:\CANBERRA\NDA2K\QA\CNTR0001_DC
Sample ID: Background
Sample Quantity: 1.0000E+000
Sample Date: 1/14/13 8:28:12 AM
Measurement Date: 1/14/13 8:28:12 AM
Elapsed Live Time: 0.0 seconds
Elapsed Real Time: 0.0 seconds

Parameter Description [Mean +/- Std. Dev.]	Value	Deviation/Flags < LU : SD : UD : BS >
Reals QC Bkgd #2 [0.00+/-0.00]	3.7385E+000	0.00 < : : : >
Totals QC Bkgd #2 [0.00+/-0.00]	3.9894E+001	0.00 < : : : >

Flags Key:
LU = Lower/Upper Bounds Test (Ab = Above, Be = Below)
SD = Sample Driven N-Sigma Test (In = Investigate, Ac = Action)
UD = User Driven N-Sigma Test (In = Investigate, Ac = Action)
BS = Measurement Bias Test (In = Investigate, Ac = Action)

Operator Name: _____ Date: 1-14-13

ITR Name: _____ Date: 1-21-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92470**

BDR Number: **LA13FG2080**

Sampling Date: **7/10/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	412.81	
74-82-8	Methane	142.14	U
67-56-1	Methanol	47.24	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.14	
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\130710C\
Data File : 92470.D
Acq On : 10 Jul 2013 12:43 pm (#1); 10-Jul-13, 12:43:06 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 12:53:51 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.542	96	4336999	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.881	117	3520895	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.606	GC1	3104m	412.81	ppmv	
4) Methanol	0.834	31	16371	47.24	ppmv	100
7) Acetone	1.376	58	23340	18.14	ppmv	84

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

UET

Working Copy
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90719

6.2[4] Date Processed: 12/18/12

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: B. Fordham / B. Zamora 235835 / 12/18/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90719

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 365.2 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 365.2 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.: 90719

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92481		N	
10.1[4]	Daughter Drum Filter No. AM-103	AM-103			
10.1[4]	Daughter Drum Bag Filter No. L-4395	L-4395		P	
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	BAP			
	Model No.	65pvc1.5			
	Serial No.	L-4371			
	Date of Manufacture	7/12			
10.2[5]	POC ID No	92482			
10.2[7][B]/10.2[6]	POC Item Description	Kitty litter SALTS. Plastic			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635			
10.2[14]	POC Assembly Gross Weight (lb)	372.01lbs			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1,007 mR			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N		W	
10.3[5][A]	Free Liquid Volume/Units	N			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N P		N	
10.3[9][A]	PCB-contaminated Waste Description	N 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 (%)	50%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty Litter Tape			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90719

Comments: POC STEEL LID, Poly Liner LID, WOOD LID, FIBERBOARD LID, Bolts, TAPE, PLASTIC, SALTS, KITTY LITTER,

11.1[1] Performed By: B. Forman / B. Forman 253235 12/19/12
Waste Handling Tech (print) Signature Z# Date

11.1[7] Reviewed By: G Mth / [signature] 1149235 1.3.13 0915
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.:	413724
Lot No.:	20114
Manufacture Date:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	IL-231
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: BRIAN GALLEGOS / Brian Gallegos 126729 12-11-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Brian Gallegos 126729 12-11-12
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: G Wik / [signature] 142255 1-3-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 12-18-12 jz

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92483

7.[25] Overpack drum closure ring torque wrench information: B.F. 12/17/12

M&TE No.: 038867 021151

Cal. Expiration Date: 3/15/13 6/11/13

Range in ft-lb: 16-80 ft lbs

Tolerance: +/- 3% cw +/-

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

Performed By: B. Fordham / B. Ford 23535 / 12/18/12
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): 318.0 lbs lb

Comments: N/C

8.1[1] Performed By: B. FORDHAM / B. Ford 23535 / 12/18/12
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] 14955 1.3.13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92481

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 #: 02298224
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:
Manufacturer: BOP
Model #: 6CPVC 1.5-2.5 P/C
Serial #: L4395
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
- [ ] 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 #: AM-1013
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
Cal Expiration Date: 9-26-13
Range (ft-lbs or (in-lbs)): 40-200
Tolerance: +/- 4% CW and +/- 6% CCW

Jam Nut / Bung torque wrench:
M&TE ID #: 021151
Cal Expiration Date: 6-11-13
Range (ft-lbs or in-lbs): 16-30
Tolerance: +/- 3% CW and +/- 6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: BRIAN GALLEGOS Signature: B. Gallegos Z#: 26712 9

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 77.0 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: BRIAN GALLEGOS Operator Sign: B. Gallegos Z#: 26712 9 Date: 12-11-12

Verifier Print: B. FORDHAM Verifier Sign: B. Ford Z#: 23563 5 Date: 12/18/12

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

DRUM ID#: 92481

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: B.F. 12/18/12

MT&E #: ~~035367~~ 021151

Cal expiration date: ~~3/16/13~~ 6/11/13

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

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.): 168.4

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: B Fordham Date: 12/18/12

Verifier Print/Sign: Dan Pacheco Date: 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 90719 | Container Type: POC | Gross Weight (lbs): 359

Container Seal #: None | Filter Prefix: None | Filter Serial #: EL-255; EL-69

RTR Waste Stream: LA-MIN04-S.001 | Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-801

Total PE-Ci Activity: 7.29E-01 | Equivalent Combustible PE-Ci: 2.73E-01 | AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 | Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 NR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None | Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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, D008 & D009.

Nitrate salts mixed with Waste Loc 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 | 100681 (Z Number) | 9/4/12 (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 – POC

Net Wt: 49 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. RTR BDR inventory shows homogeneous solid material & plastic bag.

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Signature: Valerie Rhodes | 102609 (Z Number) | 10/3/12 (Date)

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 (TRU Remediation Operations (Print)) | Signature: Jose Perez | 221452 (Z Number) | 10-15-12 (Date)

OL Z# 249750 10/19/12

IHS REVIEW: AS 206302 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90719
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 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-0283-12 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: 163.5 kg. Tare Wt: 145.1 kg. Net Wt: 18.4 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90719

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.1
Organic Matrix (OR):	
Inorganic Matrix (IN):	18.3
Soils (S):	
Total WMP Weight:	18.4

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90719

Section 6: RTR Summary (Questions answered "Yes" will be explained in the Comments block except for Question 13)	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: Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/20/12

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])	96719					
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

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)) Susan S Ramsey (Signature) 100681 (Z #) 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90719.D
Acq On : 5 Oct 2012 1:06 pm (#1); 05-Oct-12, 13:05:29 (#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 13:14:01 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	3.601	96	6719559	201.25	ppmv	0.06
15) Chlorobenzene-d5	5.920	117	5863320	177.00	ppmv	0.04
Target Compounds						Qvalue

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

03
2-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - Eveland
0001 Starting inside and outside rounds
0017 Item #1 is OOS, per OSE documentation OK to proceed.
0021 completed inside rounds
0026 Completed outside rounds.
0705 Pit reduction of ~~2m~~ 2-18-12. Some contamination on catch pan 500dpm alpha, Rcts will clean + survey
0710 SOS has been notified.
0757 late entry 1055 Inside and outside rounds signed off by SOS
0815 mode change performed TASD-69 and WCRRF yard now in operations. Starting movement out of 50-69.
0825 Completed movement out of 50-69. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transport vehicle. permission granted to lower vehicle access barriers.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle
0906 vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on floor by the drumlift. SOS has been notified and Operations will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift. Notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69.
1009 Completed movement out of 50-69.
1010 OK to continue operations, per OSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~turnover~~ 2-18-12 turnover with Team Coleman - Eveland.
1051 Assuming WCRR operations center - JColeman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - JColeman

SIGNATURE _____ DATE _____ 20

304

PROJECT NAME _____ NOTEBOOK NO. _

12-18-12 Continued from previous page
1155 PPE check SAT.
1159 Bagging off 90719 to IC 12-18-12 and 1 POC bagging on 90
1207 Shift turnover with CCO Clarissa Ulbride to Coleman
1208 Resuming WCRF operations under -Ulbride
1210 Starting movement into SD-109
1235 Bag on / bag off complete.
1343 Starting movement out of SD-109, PPE check is Sat
1400 Completed movement out of SD-109
1409 bagging on 90728, bagging off 90722
1413 PPE check is Sat.
1440 bagging off 90728, bagging on 90723
1445 Starting outside rounds
1458 Bagging bag off complete. PPE check is Sat.
1500 Item #1 is DOS per COE OK to proceed.
1506 Inside rounds complete.
1509 Outside rounds complete.
1551 bagging off 90723 and POC. PPE check is sat
1605 bag off is complete
1615 mode change performed TASD-109 and WCRF yard
in warm standby
12-18-12 1643 end of day WCRF operations as directed -Ulbride

JW

Expenditures this Page

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

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position M.M.M.

0605 Conducted shift brief discussed staying focused and that pics coming word on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed at 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position Jm

0815 Mode Change Complete in Operations Mode in WCRR Yard and 50-69.

0830 Late Entry (JJ) At 0705 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by Scott that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag on another drum. Finish the bag off's and call over for further instruction.

1015 Resuming Operations. Pictures taken of the spring. Operators are unable to identify where it may have come from. ~~Per CE~~ Per CSE only spring on the drum lift would be the tensioner for the cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. Jm

1101 Assuming Position M.M.M.

1108 Bags at Bagging on 40719 RE Chuck

1155 RE Chuck

1159 Bagging off and Bagging on 40722

Continued from next Page

1404	Logging off and logging on 90728
1413	PPE Check
1440	Logging on and logging off G10723
1530	Reviewed Inside and outside Rounds
1605	Logged off Final drum of day
1615	Mode change complete INCERF En warm
12.18.12/1630	End of shift Securing SOS Position
LMG	

No Further Entries on this Page

21 PROJECT NAME 12/18/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position. L. C
0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.
0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.
0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.
0812 RP-1 Supervisor reported that decon and post surveys were complete.
0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.
0822 Bagging on first drum.
0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRR up to Rm 102 door without stepping thru - entry under F
0832 Released exp. dl. feat W.O # 427964-01 to paint stairs on east end of Bldg 50-84.
0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.
0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.
1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment / processes. Work pause lifted.
1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.
1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. W/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFC's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on list.
1400 Went to TA-44 to sign off / review Jan 13 work packages.
1530 Completed procedure validation for Monthly FSS Valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

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

22

PROJECT NAME 12/18/12 NOTEBOOK NC

1615 Completed mode change! WCER yard / Bldg 50-69 from Operations / Operations to Warn / Warn.

1630 Secures SOM position



No further Entries this Page

SIGNATURE

DATE 12/18

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0005
Examination Date:	1/15/2013
Waste Container ID:	92481
Video/Audio Recorded Media Number:	LA-RTR2-13-0005 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.: 76.5 kg Tare Wt.: 33.4 kg Net Wt.: 43.1 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: 92481

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, scrap metal, metal lid

AM:

OM:

OI:

C: Fiberboard insert sleeve, fiberboard material, tape roll

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):	16.6
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	10.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	8.5
Soils (S):	
Total WMP Weight:	43.1

CCP Radiography Data Sheet

Waste Container ID: 92481

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	1-15-13
Eric Lyles		1/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92481		Count Sequence Number:	14857	
Operator:	DCLTD231\Operator				
Assay Start:	1/17/2013 3:47:43 PM				
Description 1:	2LANDA1080				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gal Drum				
Weight:	Net:	43.1 kg	Net:	43.1 kg	
Container:	Volume:	208.0 l	Full:	90.0 %	
Density:		0.230 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:	14857	Batch Number:	2LANDA1080
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92481	Analysis Date:	1/17/2013

Net Weight	43100.0 g		
Pu mass	2.27E-001	+-	3.61E-002 g
TRU Alpha Activity	3.76E-001	+-	1.88E-001 Ci
TRU Activity Concentration	8.73E+003	+-	4.35E+003 nCi/g
Pu-239 Equivalent Activity	3.77E-001	+-	1.88E-001 Ci
Pu-239 FGE	2.16E-001	+-	3.60E-002 g
Decay heat	1.25E-002	+-	6.27E-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	1.00E-007
U233	<LLD	<LLD	0.00E+000	7.69E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.21E-007
NP237	5.62E-003	4.02E-006	4.35E-007	3.83E-007
PU238	2.08E-005	3.61E-004	7.95E-005	7.81E-005
U238	<LLD	<LLD	0.00E+000	2.45E-006
PU239	2.13E-001	1.34E-002	2.26E-003	2.90E-003
PU240	1.36E-002	3.13E-003	6.89E-004	6.77E-004
AM241	1.04E-001	3.59E-001	1.88E-001	6.60E-003
PU241	2.70E-004	2.81E-002	6.20E-003	6.09E-003
PU242	4.54E-005	1.80E-007	3.97E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-22-13

ITR: _____ Date: 1-28-13

Automated Independent Technical Review

Count Sequence Number: 14857 Batch Number: 2LANDA1080
Counter ID: HENC #2
Container ID: 92481
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/17/2013

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
No Warnings Reported.	
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.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: _____ Date: 1/22/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92481**

BDR Number: **LA13FG2004**

Sampling Date: **1/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	2541.15	
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\130122c\
Data File : 92481.D
Acq On : 22 Jan 2013 3:40 pm (#1); 22-Jan-13, 15:39:19 (#2)
Operator : GR
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 22 15:48:14 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Oct 10 14:26:44 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.584	96	4332390	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.914	117	3859497	177.00	ppmv	0.01
Target Compounds						Qvalue
1) Hydrogen	1.552	GC1	18061	2541.15	ppmv	100

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

tune.m Thu Jan 24 09:13:06 2013

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0002
Examination Date:	1/8/2013
Waste Container ID:	92482
Video/Audio Recorded Media Number:	LA-HERTR-13-0002 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.: 168.5 kg Tare Wt.: 145.1 kg Net Wt.: 23.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92482

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):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	22.4
Soils (S):	
Total WMP Weight:	23.4

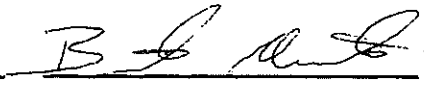
CCP Radiography Data Sheet

Waste Container ID: 92482

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		1/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92482		Count Sequence Number:	21821	
Operator:	D3PW2DK1\operator				
Assay Start:	1/10/2013 3:49:44 PM				
Description 1:	1LANDA1695				
Description 2:	POC - Gross Wt. = 168.5 Kg				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	23.4	kg	Net:	23.4 kg
Container:	Volume:	208.0	l	Full:	95.0 %
Density:		0.713	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:	21821	Batch Number:	1LANDA1695
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:	92482	Analysis Date:	1/10/2013

Net Weight	23400.0 g	
Pu mass	4.37E+000 +-	2.17E+000 g
TRU Alpha Activity	4.08E+000 +-	7.20E-001 Ci
TRU Activity Concentration	1.75E+005 +-	3.08E+004 nCi/g
Pu-239 Equivalent Activity	4.09E+000 +-	7.20E-001 Ci
Pu-239 FGE	4.14E+000 +-	2.04E+000 g
Decay heat	1.36E-001 +-	2.40E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.15E-002	4.39E-005	8.24E-006	2.35E-006
PU238	4.02E-004	6.95E-003	3.45E-003	3.47E-005
PU239	4.10E+000	2.58E-001	1.28E-001	1.29E-003
PU240	2.62E-001	6.02E-002	2.99E-002	3.01E-004
AM241	1.08E+000	3.76E+000	7.08E-001	4.99E-002
PU241	5.21E-003	5.42E-001	2.69E-001	2.70E-003
PU242	8.74E-004	3.47E-006	1.72E-006	0.00E+000
SR90	1.57E-008	2.17E-006	8.12E-007	0.00E+000
CS137	2.47E-008	2.17E-006	8.12E-007	5.77E-007
U233	<LLD	<LLD	0.00E+000	4.55E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.37E-006
U238	<LLD	<LLD	0.00E+000	1.29E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-14-13

ITR: _____ Date: 1-16-2013

Automated Independent Technical Review

Count Sequence Number: 21821 Batch Number: 1LANDA1695
Counter ID: MCS HENC #1
Container ID: 92482
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2013

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 Chamberlain Date: 1-14-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92482**

BDR Number: **LA13FG2080**

Sampling Date: **7/10/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	426.78	
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	19.69	
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	11.24	
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\130710C\
Data File : 92482.D
Acq On : 10 Jul 2013 1:10 pm (#1); 10-Jul-13, 13:09:47 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 13:18:15 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.490	96	4108787	205.75	ppmv	-0.03
15) Chlorobenzene-d5	5.842	117	3359060	177.50	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.611	GC1	3209	426.78	ppmv	100
7) Acetone	1.372	58	23999	19.69	ppmv	67
17) Toluene	4.801	92	135080	11.24	ppmv	97

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

Working Copy
Date: 12-18-12 JL

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90720

6.2[4] Date Processed: 12/18/12

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] (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 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: B. Foosham / B. Foosham 123783 12/18/12
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90720

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 357.4 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 357.4 ~~0~~ B.S. 12/8/17 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.: 90720

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92476			
10.1[4]	Daughter Drum Filter No.	AM-1041			
10.1[4]	Daughter Drum Bag Filter No.	L-4394			
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.	63WC152CDK			
	Serial No.	L-4372			
	Date of Manufacture	7/12			
10.2[5]	POC ID No	92477			
10.2[7][B]/10.2[6]	POC Item Description	KITTY LITTER PLASTIC SALTS			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635			
10.2[14]	POC Assembly Gross Weight (lb)	375.2 lbs			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1,900.5 mR			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N			
10.3[5][A]	Free Liquid Volume/Units	A			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N A			
10.3[9][A]	PCB-contaminated Waste Description	N			
10.3[9][B]	PCB Item ID No.	A			
10.3[10]	Remaining Waste Description	SEE Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Paper Towels KITTY LITTER			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90720

Comments: POC STEEL LID, WOOD, POLY LID, KITTY LITTER, PLASTIC, SALTS, FIBERBOARD LID, 1 FANTASTIK CONTAINER EMPTIED AND CUT INTO HALF.

11.1[1] Performed By: B. FORSWAM, B. Forswam, 783235, 12/18/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible], [illegible], [illegible], 13/1605
SOS or designee (print) Signature Z # Date Time

Working Copy
Date: 12-11-12 BL

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413724
Lot No.:	210114
Manufacture Date:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NucFil
Model No.:	013
Serial No.:	IL-226
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: BRIAN GALLEGOS / Bri Gallegos / 267129 / 12-11-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Bri Gallegos / 267129 / 12-11-12
Waste Handling Technician (print) Signature Z# Date

GM 1.3.13

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

8.1[7] Reviewed By: GMH / GM Hop / 14925 / 1.3.13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 12-18-12 JC

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92478

7.[25] Overpack drum closure ring torque wrench information: B.R 12/18/12

M&TE No.: 058367 02151
Cal. Expiration Date: 2/14/12 3/13/13 6/11/13
Range in ft-lb: 16-80 ft-lbs
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: B. Forshaw / B. Forshaw 43535 12/18/12
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): 318.0 lb

Comments: N/C

8.1[1] Performed By: B. Forshaw / B. Forshaw 43535 12/18/12
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: G Mh / G Mh 14925 1-2-13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92476

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 #: 0229224
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

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

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPVC 1.5-2.5 PVC
Serial #: L4394
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 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 #: AM-1041
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	02115
Cal Expiration Date:	9-26-13	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 and +/- 6% CCW	Tolerance:	+/- 3% CW and +/- 6% CCW

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

- [x] Yes
- [ ] No

Print Name: BRIAN GALLEGOS Signature: B. Gallegos ZI#: 260729

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 77.0
File ID #: 019065

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

6. Label Drum Assembly

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

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

Operator Print: BRIAN GALLEGOS Operator Sign: B. Gallegos ZI#: 260729 Date: 12-11-12

Verifier Print: B FORSHAM Verifier Sign: B. Forsham ZI#: 235635 Date: 12/18/12

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

DRUM ID#: 92476

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: BF 12/18/12

MT&E #: ~~038567~~ 021151

Cal expiration date: ~~5/16/13~~ 6/11/13

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

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) 164.8

Scale ID#: 09065

✓ 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. FORDHAM B. F Date 12/18/12

Verifier Print/Sign: [illegible] Date: 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 90720 | Container Type: POC | Gross Weight (lbs): 352

Liner Seal #: None | Filter Prefix: None | Filter Serial #: EL-514; EL-563

RTR Waste Stream: LA-MIN04-S.001 | Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-787

Total PE-Ci Activity: 7.29E-01 | Equivalent Combustible PE-Ci: 2.73E-01 | AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 ✓ | Total Surface Dose Rate (mrem/hr): 1 ✓

EPA Code(s): D008 D007 D009 LR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None | Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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, ~~D008~~, & D009

Nitrate salts mixed with Waste Loc 770® from previous repack campaign. A minimum of 1:2 volumes of kitty litter to waste must be mixed with 1.0 volume of nitrate salts.

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

Net Wt: 42 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

RTR BOR inventory shows homogeneous material, plastic bag, & cloth material

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Signature: Valerie Rhodes | 112609 (Z Number) | 10/3/12 (Date)

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Kevlar 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 Jeroz (TRU Remediation Operations (Print)) | Signature: Jose Jeroz | 221452 (Z Number) | 10-15-12 (Date)

OR Z# 249750 10/19/12

HS REVIEW RB 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90720
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 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-0283-12 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: 160.0 kg. Tare Wt: 145.1 kg. Net Wt: 14.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90720

Section 3: Container Inventory and Comments (Detailed descriptions)
Cloth material
Plastic bag
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	2.0
Rubber (R):	
Plastics (waste materials) (XPM):	0.2
Organic Matrix (OR):	
Inorganic Matrix (IN):	12.7
Soils (S):	
Total WMP Weight:	14.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90720

Section 5: RTR Summary (Questions answered "YES" will be explained in the Comments block except for Question 4.)	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?	☐	☑

Standard Pipe Overpack Container (P.O.C.)

Comments:
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/20/12

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])	90726					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PIC					
Filtered Vent Type (5.[1])	190s					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT N/A	☐ 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)), 238866 (Z #)

Comments: Per attached email, container has been verified as PIC

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 : 90720.D
Acq On : 5 Oct 2012 2:25 pm (#1); 05-Oct-12, 14:24:38 (#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 14:32:57 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	3.545	96	5964693	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.871	117	5268986	177.00	ppmv	0.00
Target Compounds						Qvalue

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

03
1-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Handling WCRRF operations center - Eveland
0001 Starting inside and outside rounds
0017 Item #1 is OOS, per CSE documentation OK to proceed.
0021 Completed inside rounds
0026 Completed outside rounds.
0705 Pit recycled scrn of ~~1-17-12~~ 1-18-12 some contamination on catch pan 50 dpm alpha, RCTs will clean resurvey
0710 SOS has been notified.
0759 late entry 1055 Inside and Outside rounds signed off by SOS (V)
0815 Mode change performed TASD-69 and WCRRF yard now in operations. Starting movement out of 50-69.
0825 Completed movement out of 50-69. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transfer vehicle. permission granted to lower vehicle access barriers.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle.
0906 vehicle across gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on floor by the drumlift SOS has been notified and Operators will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift. Notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69.
1009 Completed movement out of 50-69.
1010 OK to continue operations, per CSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~turnover~~ 1-18-12 is turnover with Terri Coleman - Eveland
1051 Assuming WCRR operations center - Coleman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - Coleman

SIGNATURE _____ DATE _____

304

PROJECT NAME _____ NOTEBOOK NO. _

1248-12	continued from previous page
1155	PPE check SAT.
1159	Bagging off 90719 by JC 1248-12 and 1 POC, bagging on 90
1207	Shift turnover with CCO Clarissa Ulloa de Gutierrez
1208	Resuming WCREF operations under CCO Clarissa Ulloa de Gutierrez
1210	Starting movement into 50-109
1235	Bag on, bag off complete.
1343	Starting movement out of 50-109, PPE check is Sat
1400	Completed movement out of 50-109
1409	bagging on 90728, bagging off 90722
1413	PPE check is Sat.
1440	bagging off 90728, bagging on 90723
1445	Starting outside rounds
1458	Bag in, bag off complete. PPE check is sat.
1500	Item 1(a) is DOE per CSE OK to proceed.
1506	Inside rounds complete.
1509	outside rounds complete.
1551	bagging off 90723 and POC. PPE check is sat
1605	bag off is complete
1615	mode change performed TRSD-109 and WCREF yard mo
	on warm ~~Standby~~ Standby.
12-18-12, 1643	end of day WCREF operations decline Gutierrez

Continued on next page

SIGNATURE _____ DATE _____ 20--

READ AND UNDERSTOOD _____ DATE _____ 20--

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0605 Conducted shift brief discussed staying focused and that pics can be used on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed at 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position [illegible]

0815 Mode Change Complete in Operations Mode in WCRR Yard and SD-69.

0830 Late Entry (JJ) At 0205 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by Scott that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag on another drum. Finish the bag off's and call out for further instructions.

1015 Resuming Operations. Pictures taken of the Spring. Operators are unable to identify where it may have come from. Per CSE only spring on the drum lift would be the tensioner for the Cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. [illegible]

1101 Assuming Position [illegible]

1108 Bags at Bagging in 90719 RT Chute

1155 RPE Check

1159 Rounds off and Bagging by 90722

Continued from next page

1404	Logging off and logging on 90728
1413	RPE Check
1440	Logging on and logging off G10723
1530	Reviewed inside and outside rounds.
1605	Logged off final drum of day.
1615	Shift change complete INCERF En warm
12.18.12/1630	End of shift securing SOS Position
LMG	

To Further Entries on this Page

PROJECT NAME 12/18/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position. L.C →

0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.

0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.

0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.

0812 RP-1 Supervisor reported that decon and post surveys were complete.

0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0822 Bagging on first drum.

0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRR up to Rm 102 door without stepping thru - entry under F

0832 Released exp. lead W.O # 427964-01 to paint stairs on east end of Bldg 50-84.

0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.

0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.

1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment / processes. Work pause lifted.

1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.

1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. W/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFC's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on list.

1400 Went to TA-44 to sign off / review Jan 13 work packages.

1530 Completed procedure initiation for Monthly FSS valve alignment check EP-WCRR-FP-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

22 | PROJECT NAME 12/18/12 | NOTEBOOK NO

1615 Completed mode change! WCRR Yard / Bldg 50-69 from Operations/Operations to Warn/Warn.

1630 Secures SOM position

No further entries on this page

SIGNATURE

DATE 12/18

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0013
Examination Date:	1/28/2013
Waste Container ID:	92476
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 [ ] 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.: 74.5 kg Tare Wt.: 33.4 kg Net Wt.: 41.1 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: 92476

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Wire, metal lids, hardware
AM:	
OM:	
OI:	
C:	Fiberboard packing material, fiberboard insert sleeve
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):	18.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	9.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	2.0
Soils (S):	
Total WMP Weight:	41.1

CCP Radiography Data Sheet

Waste Container ID: 92476

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		1/28/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92476	Count Sequence Number:	14939		
Operator:	DCLTD231\Operator				
Assay Start:	1/30/2013 12:13:13 PM				
Description 1:	2LANDA1088				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gal Drum				
Weight:	Net:	41.1	kg	Net:	41.1 kg
Container:	Volume:	208.0	l	Full:	80.0 %
Density:		0.250	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:	14939	Batch Number:	2LANDA1088
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92476	Analysis Date:	1/30/2013

Net Weight	41100.0 g
Pu mass	3.81E-001 +- 4.03E-002 g
TRU Alpha Activity	2.10E-001 +- 2.28E-002 Ci
TRU Activity Concentration	5.10E+003 +- 5.55E+002 nCi/g
Pu-239 Equivalent Activity	2.10E-001 +- 2.28E-002 Ci
Pu-239 FGE	3.60E-001 +- 4.01E-002 g
Decay heat	6.94E-003 +- 7.61E-004 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	9.20E-010	1.27E-007	6.21E-008	0.00E+000
CS137	1.45E-009	1.27E-007	6.21E-008	6.96E-008
U233	<LLD	<LLD	0.00E+000	6.61E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.91E-007
NP237	4.93E-003	3.52E-006	3.93E-007	3.17E-007
PU238	3.50E-005	6.06E-004	1.09E-004	7.33E-005
U238	<LLD	<LLD	0.00E+000	3.04E-006
PU239	3.58E-001	2.25E-002	2.52E-003	2.72E-003
PU240	2.29E-002	5.26E-003	9.48E-004	6.36E-004
AM241	5.22E-002	1.81E-001	2.27E-002	5.78E-003
PU241	4.54E-004	4.72E-002	8.51E-003	5.71E-003
PU242	7.63E-005	3.03E-007	5.46E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 2-1-2013

ITR: _____ Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 14939 Batch Number: 2LANDA1088
Counter ID: HENC #2
Container ID: 92476
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/30/2013

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
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
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	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	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: **92476**

BDR Number: **LA13FG8009**

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

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\130206C\
Data File : 92476.D
Acq On : 6 Feb 2013 2:34 pm (#1); 6 Feb 2013 2:33 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 14:41:40 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	2604668	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2348135	179.50	ppm	0.00
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0002
Examination Date:	1/8/2013
Waste Container ID:	92477
Video/Audio Recorded Media Number:	LA-HERTR-13-0002 C&D
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.: 170.0 kg Tare Wt.: 145.1 kg Net Wt.: 24.9 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: 92477

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

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid 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):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	24.9
Soils (S):	
Total WMP Weight:	24.9

CCP Radiography Data Sheet

Waste Container ID: 92477

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	[signature]	1/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92477	Count Sequence Number:	21820		
Operator:	D3PW2DK1\operator				
Assay Start:	1/10/2013 3:05:27 PM				
Description 1:	1LANDA1695				
Description 2:	POC - Gross Wt. = 170.0 KG.				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	24.9	kg	Net:	24.9 kg
Container:	Volume:	208.0	l	Full:	95.0 %
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:	21820	Batch Number:	1LANDA1695
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:	92477	Analysis Date:	1/10/2013

Net Weight	24900.0 g	
Pu mass	9.70E+000 +-	2.16E+000 g
TRU Alpha Activity	3.74E+000 +-	5.87E-001 Ci
TRU Activity Concentration	1.50E+005 +-	2.36E+004 nCi/g
Pu-239 Equivalent Activity	3.76E+000 +-	5.87E-001 Ci
Pu-239 FGE	9.16E+000 +-	2.03E+000 g
Decay heat	1.23E-001 +-	1.95E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.66E-002	3.33E-005	6.30E-006	2.15E-006
PU238	8.92E-004	1.54E-002	3.44E-003	3.50E-005
PU239	9.11E+000	5.73E-001	1.28E-001	1.30E-003
PU240	5.82E-001	1.34E-001	2.98E-002	3.03E-004
AM241	8.68E-001	3.01E+000	5.72E-001	4.47E-002
PU241	1.16E-002	1.20E+000	2.68E-001	2.73E-003
PU242	1.94E-003	7.71E-006	1.72E-006	0.00E+000
SR90	1.03E-008	1.43E-006	6.43E-007	0.00E+000
CS137	1.63E-008	1.43E-006	6.43E-007	5.45E-007
U233	<LLD	<LLD	0.00E+000	4.10E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.23E-006
U238	<LLD	<LLD	0.00E+000	1.28E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-14-13

ITR: _____ Date: 1-16-2013

Automated Independent Technical Review

Count Sequence Number: 21820 Batch Number: 1LANDA1695
Counter ID: MCS HENC #1
Container ID: 92477
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/10/2013

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 Chamberlain Date: 1-14-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92477**

BDR Number: **LA13FG2080**

Sampling Date: **7/10/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	742.77	
74-82-8	Methane	142.14	U
67-56-1	Methanol	77.92	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	29.32	
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	20.81	
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\130710C\
Data File : 92477.D
Acq On : 10 Jul 2013 12:55 pm (#1); 10-Jul-13, 12:55:09 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 13:07:45 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.565	96	4434529	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.897	117	3634651	177.50	ppmv	0.04
Target Compounds						Qvalue
1) Hydrogen	1.608	GC1	5585m	742.77	ppmv	
4) Methanol	0.834	31	27610	77.92	ppmv	100
7) Acetone	1.379	58	38573	29.32	ppmv	81
17) Toluene	4.860	92	270718	20.81	ppmv	97

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

Working Copy
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90721

6.2[4] Date Processed: 12/18/12

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: 7/31/12

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ 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: B. FORDHAM B. Fordham 235635 12/18/12
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90721

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 343.2 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 343.2 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	7/1 Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90721

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92479		N	
10.1[4]	Daughter Drum Filter No.	AM-1032		A	
10.1[4]	Daughter Drum Bag Filter No.	L-4344			
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.	N			
	Date of Manufacture				
10.2[5]	POC ID No				
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				
10.3[5][A]	Free Liquid Volume/Units			N	
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A		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 (%)	70%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty Litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90721

Comments: POC STEEL LID, WOOD LID, POLY LID, FIBERBOARD LID, KITTY LITER, SALTS, BOLTS, PLASTIC

11.1[1] Performed By: B. Fordham / B. Fordham 235635 12/18/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible] 14355 13:12 12
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.: 413724
Lot No.: 2401M
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 14-227
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: BRIAN GALLEGOS / B. Donny 216729 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / B. Donny 216729 12-11-12
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: G. Mik / G. Mik 149755 12.17
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-18-12 JR

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92480

7.[25] Overpack drum closure ring torque wrench information: R.F. 12/4/12

M&TE No.: ~~038567~~ 02115
Cal. Expiration Date: 3/16/13 6/11/13
Range in ft-lb: 10-80 Ft lbs
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: B. Fordham / B. Fordham 23535 12/18/12
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): 318 lbs lb

Comments: N/C

8.1[1] Performed By: B. Fordham / B. Fordham 23535 12/18/12
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: Gulk / J Mf 14925 1.3.13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92479

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 #: 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 #: 6CPVC 1-3-2 SPVC
Serial #: L-4344
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 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 #: AM-10.32
Date of Manufacture: 1-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038367
Cal Expiration Date:	7-26-13	Cal Expiration Date:	3-16-13
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: Eddie Rios Signature: Eddie Rios Z#: 197822

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 77.0 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
- [ ] 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: Eddie Rios Z#: 197822 Date: 7-7-12

Verifier Print: B Fordham Verifier Sign: B. Fordham Z#: 235635 Date: 12/18/12

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

DRUM ID#: 92479

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: B.F. 12/18/12

MT&E #: 038967 02/151

Cal expiration date: 3/14/2013 5/11/13

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

--- 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) 209.8

Scale ID#: 019065

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

4. FINALIZE DOCUMENTATION

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

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

✓ Complete TWSR.

Operator Print/Sign: B. Fordham B F Date 12/18/12

Verifier Print/Sign: Steven Mandrus Steven Mandrus Date: 12-18-12 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90721 | Container Type: POC | Gross Weight (lbs): 343

Liner Seal #: None | Filter Prefix: None | Filter Serial #: BL-1383; BL-1697

WTK Waste Stream: LA-MIN04-S.001 | Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-301

Total PE-Ci Activity: 7.29E-01 ✓ | Equivalent Combustible PE-Ci: 2.73E-01 ✓ | AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 | Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None | Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 Loc 770© from previous repack campaign. A minimum of 1.2 cubic feet of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey (Production Control (Print)) | Signature: Susan E 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 – POC

Net Wt: 33 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.

RTR BDR inventory shows homogeneous material and plastic bags/barrels & lids

Performed By: Valerie Rhodes (WDP Engineering (Print)) | Signature: Valerie Rhodes | Z Number: 1[illegible]2009 | Date: 10/3/12

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 Kevlar 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: Jose Perez (TRU Remediation Operations (Print)) | Signature: Jose Perez | Z Number: 22452 | Date: 10-15-12

LL ~~Z# 20~~ Updated Z# 249750 10/19/12

IHS REVIEW: AS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90721
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 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-0283-12 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: 156.0 kg. Tare Wt: 145.1 kg. Net Wt: 10.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90721

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bags, horsetails, plastic lids Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (Inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	9.9
Soils (S):	
Total WMP Weight:	10.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90721

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comments Block, except for Question 4.)	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:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/20/12

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])	90721					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	1910S					
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 (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, Susan Ramsey 100681 10/10/12
Waste Handling Operator (print) Signature Z # Date

InstName : Unit-2

Quantitation Report OT Reviewed

Data Path : C:\msdchem\1\DATA\12005c\
Data File : 90721.D
Acq On : 5 Oct 2012 3:10 pm (#1); 05-Oct-12, 15:10:10 #2
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 01905,unobstructed (Sta #1); (Sta #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 15:18:51 2012
Quant Method : C:\msdchem\1\METHODS\voagas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	Qion	Response	% or Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.607	96	6223456	201.25 ppmv	0.0%
15) Chlorobenzene-d5	5.923	117	5536109	197.0% ppmv	0.0%

Target Compounds						Qvalue

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

03
2-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - Cleland.
0001 Starting inside and outside rounds
0017 Item #1 is OOS, per CSE documentation OK to proceed.
0021 Completed inside rounds
0026 Completed outside rounds.
0705 Post reduction of ~~contamination~~ 12-17-12 ~~0~~ one contamination on catch pan 50 dpm alpha, RCTs will clean resurvey
0710 SOS has been notified.
0759 Late entry 1655 Inside and Outside rounds signed off by SOS
0815 Mode change performed TASD-69 and WCRRF yard now in operations. Starting movement out of SD-69.
0825 Completed movement out of SD-69. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transport vehicle. permission granted to lower vehicle access barriers.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle
0906 vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on floor by the drumlift. SOS has been notified and Operations will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift. Notifying operations center.
1000 Completed bag off.
1003 Starting movement out of SD-69.
1009 Completed movement out of SD-69.
1010 OK to continue operations, per CSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE Check is SAT
1036 bag on is complete
1050 performed shift ~~turnover~~ 12-18-12 turnover with Terri Coleman - Cleland
1051 Assuming WCRR operations center - Coleman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - Coleman

SIGNATURE _____ DATE _____ 20

304

PROJECT NAME _____ NOTEBOOK NO. _

1248-12	continued from previous page
1155	PPE check SAT.
1159	Bagging off 90719 to DC 12-18-12 and 1 POC bagging on 90
1207	Shift turnover with CCO Clarissa Ulbride. SCO Leman
1208	Beginning LOCKREP operations water - Ulbride
1210	Starting movement into SD-109
1235	Bag on / bag off complete.
1343	Starting movement out of SD-109, PPE check is Sat
1400	Completed movement out of SD-109
1409	bagging on 90728, bagging off 90722
1413	PPE check is Sat.
1440	bagging off 90728, bagging on 90723
1445	Starting outside rounds
1458	Bag on / bag off complete. PPE check is sat.
1500	Item 6.1 is DOS per CSE OK to proceed.
1506	Inside rounds complete.
1509	Outside rounds complete.
1551	bagging off 90723 and POC. PPE check is sat
1605	bag off is complete
1615	mode change performed TRSD-109 and LOCREF yard mo
	in warm ~~Standby~~ Hybrid Standby.
12-19-12 1043	end of day LOCREF operations declare Ulbride

JW

Corrections initialed by Ops

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position M.M M.P

0605 Conducted Shift brief discussed staying focused and that pics can be viewed on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed At 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position Jan Jay

0815 Mode Change Completed in Operations Mode in WCRR Yard and SD-69.

0830 Late Entry (JJ) At 0205 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by SOM that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag on another drum. Finish the bag off's and call over for further instruction.

1015 Resuming Operations. Pictures taken of the spring. Operators are unable to identify where it may have come from. ~~Per CE~~ Per CSE only spring on the drum lift would be the tensioner for the cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. Jan Jay

1101 Assuming Position M.M M.P

1108 Bags at Bagging on 90719 RE Chuck

1155 RE Chuck

1159 Bagging off and Bagging on 90722

Continued from next Page

1406	Logging off and logging on 90728
1413	PPE Check
1440	Logging on and logging off G10723
1530	Reviewed Inside and outside Rounds.
1605	Logged at Final drum of day.
1615 12.18.12	Mask change complete LVCARF En warm
12.18.12 1630	End of shift securing SOS Position
LMG	

To Further Entries on His Page

PROJECT NAME 12/18/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position. L. Moore

0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.

0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G: FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.

0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.

0812 RP-1 Supervisor reported that decon and post surveys were complete.

0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0822 Begging on first drum.

0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during water closure. Operator will be entering WCRR up to Rm 102 door without stepping thru - entry under F

0832 Released expedited W.O # 427964-01 to paint stairs on east end of Bldg 50-54.

0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.

0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.

1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment/processes. Work pause lifted.

1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.

1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFL's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on 1.54.

1400 Went to TA-44 to sign off/review Jan 13 work packages.

1530 Completed procedure validation for Monthly FSS valve alignment check EP-WCRR-FD-DOP-0303 and sent * to procedure writer for USQ.

Continued on next page →

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

22 PROJECT NAME 12/18/12 NOTEBOOK NO

1615 Completed mode change! WCER Yard / Bldg 50.69 from Operators / Operations to Warn / Warn.

1630 Secures SOM position

No Further Entries this Page

SIGNATURE

DATE 12/18/12

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-RTR2-13-0008
Examination Date:	1/18/2013
Waste Container ID:	92479
Video/Audio Recorded Media Number:	LA-RTR2-13-0008 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.: 94.5 kg Tare Wt.: 33.4 kg Net Wt.: 61.1 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: 92479

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Pipe component lid, metal hardware

AM:

OM:

OI:

C: Fiberboard liner sleeve (POC), cloth, fiberboard packaging material (POC)

R:

XPM: 90 mil plastic liner lid, plastic bags

OR:

IN: Absorbent

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):	
Other Inorganic Materials (OI)	
Cellulosics (C):	16.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	21.1
Soils (S):	
Total WMP Weight:	61.1

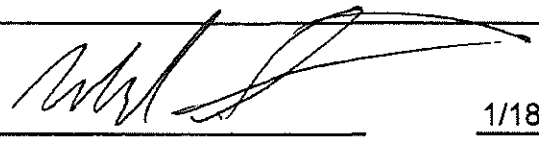
CCP Radiography Data Sheet

Waste Container ID: 92479

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		1/18/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92479		Count Sequence Number:	21989	
Operator:	D3PW2DK1\operator				
Assay Start:	2/5/2013 11:56:13 AM				
Description 1:	1LANDA1708				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	61.1 kg	Net:	61.1 kg	
Container:	Volume:	208.0 l	Full:	90.0 %	
Density:		0.330 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:	21989	Batch Number:	1LANDA1708
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:	92479	Analysis Date:	2/5/2013

Net Weight	61100.0 g	
Pu mass	4.82E+000 +-	9.98E-001 g
TRU Alpha Activity	1.77E+000 +-	1.89E-001 Ci
TRU Activity Concentration	2.90E+004 +-	3.09E+003 nCi/g
Pu-239 Equivalent Activity	1.78E+000 +-	1.89E-001 Ci
Pu-239 FGE	4.55E+000 +-	9.37E-001 g
Decay heat	5.84E-002 +-	6.26E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.48E-002	2.49E-005	3.06E-006	1.13E-006
PU238	4.43E-004	7.66E-003	1.59E-003	3.43E-005
PU239	4.52E+000	2.84E-001	5.89E-002	1.27E-003
PU240	2.89E-001	6.64E-002	1.38E-002	2.98E-004
AM241	4.07E-001	1.41E+000	1.79E-001	2.55E-002
PU241	5.73E-003	5.96E-001	1.23E-001	2.67E-003
PU242	9.64E-004	3.83E-006	7.93E-007	0.00E+000
SR90	4.37E-009	6.03E-007	3.12E-007	0.00E+000
CS137	6.87E-009	6.03E-007	3.12E-007	3.47E-007
U233	<LLD	<LLD	0.00E+000	2.19E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.40E-007
U238	<LLD	<LLD	0.00E+000	7.11E-006

Errors quoted at 1.000 sigma

Operator: Dan Race Date: 2-6-13

ITR: [signature] Date: 2-7-13 A.G. 2-7-13 ~~2-6-13~~

Automated Independent Technical Review

Count Sequence Number: 21989 Batch Number: 1LANDA1708
Counter ID: MCS HENC #1
Container ID: 92479
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 2/5/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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 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 Chambers Date: 2-6-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92479**

BDR Number: **LA13FG2013**

Sampling Date: **2/8/2013**

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

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

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130208C\
Data File : 92479.D
Acq On : 8 Feb 2013 12:26 pm (#1); 08-Feb-13, 12:25:40 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 08 12:35:10 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	3.548	96	5032427	201.25	ppmv	-0.02
15) Chlorobenzene-d5	5.887	117	4419438	177.00	ppmv	-0.01
Target Compounds						Qvalue

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

Working Copy
Date: 12-18-12 JL

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90722

6.2[4] Date Processed: 12/18/12

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 Ramos Michael Ramos 182723 12/18/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90722

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 343.3 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 343.3 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.: 90722

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92484 MR 12/8/12			
10.1[4]	Daughter Drum Filter No.	AM-~~1013~~ 1031		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4390			
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)	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 (%)	100%			
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.: 90722

Comments: plastic, bolts, metal pec lid, cardboard scliss

11.1[1] Performed By: Michael Ramirez Michael Ramirez 182723 / 12/18/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: G Mc , [signature] 149351 / 1-3-13 0900
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-11-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413724
Lot No.:	210114
Manufacture Date:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NUCFIL
Model No.:	013
Serial No.:	IL-235
Manufacture Date:	9-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021181
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±4% ccw	±3% cw ±6% ccw

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

Performed By: BRIAN GALLEGOS / Bri Gallegos 126729 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Bri Gallegos 126729 12-11-12
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: [illegible] / [illegible] [illegible] 12-11-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 12-18-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92485

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 02151
- Cal. Expiration Date: 6-11-13
- 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] 182723 12/18/12
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): 323.6 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182723 12/18/12
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: [signature] [signature] 14085 1-3-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92484 / 92485 B.F. 12/15/12

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 #: 4160184
- Lot #: 0229224
- 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: BOP
- Model #: 6CPVC 1.5-2.5 PVC
- Serial #: 2-4390
- Date of Manufacture: 7/12

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 #: 0190S B.F 12/14/12
- Serial #: AM-1031 lot 3 1031
- Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:
- M&TE ID #: 040694
- Cal Expiration Date: 9-26-13
- Range (ft-lbs or in-lbs): 40-200
- Tolerance: +/- 4% CW and +/- 6% CCW

Jam Nut / Bung torque wrench:
- M&TE ID #: 021151
- Cal Expiration Date: 6-11-13
- Range (ft-lbs or in-lbs): 16-80
- Tolerance: +/- 3% CW and +/- 6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: BRIAN GALLEGOS Signature: [signature] Z#: 267129

5. Weigh Drum Assembly
RECORD weight information
- Tare wtight (lbs) 77.0 lbs
- 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: BRIAN GALLEGOS Operator Sign: [signature] Z#: 267129 Date: 12-11-12

Verifier Print: B. FORDHAM Verifier Sign: B. Fordham Z#: 235655 Date: 12/18/12

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

B.F. 12/18/12 92489

DRUM ID#: ~~907~~ ~~92485~~ B.F. 12/18/12

1. LID INSTALLATION	3. WEIGH DRUM ASSEMBLY
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: 02115 MT&E #: ~~088367~~ B.F 12/18/12 Cal expiration date: ~~3/16/13~~ 6-11-13 Range/ Value (ft-lbs): ~~10-50 ft lbs~~ 16.80 Tolerance +/- 5% CW +/- 6% CCW	Record weight information: Gross Weight(lbs) 214.8 Scale ID#: 01906.5 ✓ Using a permanent marker, write the gross weight on the drum lid.
2. DRUM LABELING	**4. FINALIZE DOCUMENTATION**
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.	✓ 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. FORDHAM Date 12/18/12

Verifier Print/Sign: Michael Romero Date: 12/18/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 90722 Container Type: POC Gross Weight (lbs): 343

[redacted] Seal #: None Filter Prefix: None Filter Serial #: EL-502; EL-582

[redacted] Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-727

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 NE 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 100681 Z Number 9/4/12 Date

WDP Engineering

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

Processing Determination: X Accept Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 33 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

RTR BDR inventory shows homogeneous material & plastic bag.

Performed By: Valerie Rhodes WDP Engineering (Print) Valerie Rhodes Signature 112609 Z Number 10/3/12 Date

TRU Remediation Operations

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

Other Specific Safety Concerns: Use proper PPE when processing. Do not push or press on waste with hands; Utilize heavy gloves & tools 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 Perez TRU Remediation Operations (Print) Jose Perez Signature 122452 Z Number 10-15-12 Date

OK Z# 249750 10/19/12

IHS REVIEW. RA 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90722
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 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-0283-12 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: 156.0 kg. Tare Wt: 145.1 kg. Net Wt: 10.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90722

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (Inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.1
Organic Matrix (OR):	
Inorganic Matrix (IN):	10.8
Soils (S):	
Total WMP Weight:	10.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90722

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:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/20/12

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])	96722					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PDC					
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])	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)) 237975 (Z #)

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

Comments: Per attached email, container has been verified as PDC

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 #) 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90722.D
Acq On : 5 Oct 2012 1:17 pm (#1); 05-Oct-12, 13:16:43 (#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 13:25:02 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	3.561	96	6348066	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.884	117	5583273	177.00	ppmv	0.00
Target Compounds						Qvalue

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

103
12-18-12 PROJECT NAME _____ NOTEBOOK NO _____

0000 Assuming WCRF operations center - Eveland.
0001 Starting inside and outside rounds.
0017 Item #1 is OOS, per OSE documentation OK to proceed.
0021 Completed inside rounds.
0026 Completed outside rounds.
0705 Pot reflux son of ~~gun~~ 5K-1212 done contamination on catch pan 500 dpm alpha, Rcts will down resurvey
0710 SOS has been notified.
0759 late entry 1655 inside and outside rounds signed off by SOS
0815 mode change performed TASD 69 and WCRF yard now in operations. Starting movement out of 50-69.
0825 Completed movement out of 9. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transport check permission granted to lower vehicle access barriers.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle
0916 vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small spring on piece by the drumlift. SOS has been notified and operations will not be bagging on another drum. SOS has requested another pre-operational check be done on drumlift notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69
1009 Completed movement out of ST 69
1010 OK to continue operations, per OSE spring is not from drum lift
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift ~~turnover~~ with 18 is turnover with Tenn Coleman - Eveland.
1051 Assuming WCRF operations center - Coleman
1059 Shipment into WCRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next pag - Coleman

SIGNATURE _____ DATE _____ 20 _____

304

PROJECT NAME _____ NOTEBOOK NO. _____

12-8-12 Continued from previous page

1155 PPE check SAT.

1159 Bagging at 90719 b/c 12-8-12 and 1 POC bagging on 90

1207 Shuffleboard with CCO Clarissa Ulbride, PCO Coleman

1208 Testing IOCREF operations after CKelarade

1210 Starting movement into SD-09

1235 Bag on, bag off complete.

1313 Starting movement out of SD-09, PPE check is Sat

1400 Completed movement out of SD-09

1409 bagging on 90728, bagging off 90722

1413 PPE check is sat.

1440 bagging off 90728, bagging on 90723

1445 Starting outside rounds

1458 Bag on, bag off complete. PPE check is sat.

1500 Item #1 is BDS per CSE OK to proceed.

1506 Inside rounds complete.

1509 Outside rounds complete.

1551 bagging off 90723 and POC. PPE check is sat

1605 bag off is complete

1615 mode change performed TASD-09 and IOCREF yard ma
on watch Standby, was Standby.

12-9-12 1043 end of day IOCREF operations declare CKelarade

pw

Shuffleboard was this day

SIGNATURE _____ DATE _____ 20__

READ AND UNDERSTOOD _____ DATE _____ 20__

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position M.H.M.P

0605 Conducted Shift brief discussed staying focused and that pacs cannot work on box

0705 Shift brief Concluded.

0706 Late entry Rounds Reviewed At 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position Jaime J.

0805 Mode Change Completed in Operations Mode in WCRR Yard and 50-69.

0830 Late Entry (JJ) At 0205 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by Scott that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift Instructed Operator not to bag on another drum. Finish the bag off's and call over for further instruction.

1015 Resuming Operations. Pictures taken of the Spring. Operators are unable to identify where it may have come from. Per CE Per CSE only Spring on the drum lift would be the tensioner to the Cable Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. Jaime J.

1101 Assuming Position M.H.M.P

1108 Bags of Bagging on 40714 RFE Check

1155 RFE Check

1159 Bagging off and Bagging on 40722

Continued from next page

1406	bagging off and bagging on 90728
1413	RFE Check
1440	bagging on and bagging off 90723
1530	Reviewed inside and outside Counds.
1605	Bagged off final drum of day.
1615 12.18.12	Mask change complete IVCERF En warm
12.18.12 1630	End of shift Securing SOS Position
LMG	

To Further entries on this Page

21 | PROJECT NAME 12/18/12 | NOTEBOOK NO. L.C.

0600 Assumed WCRR SOM position.
0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.
0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.
0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100 cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey OM notified.
0812 RP-1 Supervisor reported that decon and post surveys were complete.
0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.
0822 Begging on first drum.
0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRRF up to Rm 102 door without stepping thru - entry under F
0832 Released exp. dated W.O # 427964-01 to paint stairs on east end of Bldg 50-54.
0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.
0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.
1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment/processes. Work pause lifted.
1100 Notified that OSPAT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.
1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow. w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFL's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on line.
1400 Went to TA-44 to sign off/review Jan 13 work packages.
1530 Completed procedure validation for Monthly FSS valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

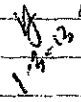
Continued on next page →

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

22 PROJECT NAME 12/18/12 NOTEBOOK NO.

1615 Completed mode change! WCKR yard / Bldg 50-69 from Operations/Operations to Warn/Warn.

1630 Secures SOM position



No further Events x4 Days

SIGNATURE READ AND UNDERSTOOD

DATE 12/18 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0010
Examination Date:	1/23/2013
Waste Container ID:	92484
Video/Audio Recorded Media Number:	LA-RTR2-13-0010 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.: 97.5 kg Tare Wt.: 33.4 kg Net Wt.: 64.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92484

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Hardware, 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):	22.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	28.1
Soils (S):	
Total WMP Weight:	64.1

CCP Radiography Data Sheet

Waste Container ID: 92484

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	[signature]	1/23/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92484		Count Sequence Number:	14918	
Operator:	DCLTD231\Operator				
Assay Start:	1/28/2013 1:36:51 PM				
Description 1:	2LANDA1086				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gal Drum				
Weight:	Net:	64.1 kg	Net:	64.1 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:		0.320 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:	14918	Batch Number:	2LANDA1086
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92484	Analysis Date:	1/28/2013

Net Weight	64100.0 g	
Pu mass	2.35E+000 +-	3.44E-001 g
TRU Alpha Activity	1.18E+000 +-	1.25E-001 Ci
TRU Activity Concentration	1.85E+004 +-	1.96E+003 nCi/g
Pu-239 Equivalent Activity	1.19E+000 +-	1.25E-001 Ci
Pu-239 FGE	2.22E+000 +-	3.43E-001 g
Decay heat	3.91E-002 +-	4.18E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.93E-009	2.67E-007	1.62E-007	0.00E+000
CS137	3.04E-009	2.67E-007	1.62E-007	1.77E-007
U233	<LLD	<LLD	0.00E+000	1.74E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.24E-007
NP237	2.42E-002	1.73E-005	2.09E-006	9.21E-007
PU238	2.16E-004	3.73E-003	7.85E-004	1.94E-004
U238	<LLD	<LLD	0.00E+000	5.41E-006
PU239	2.20E+000	1.39E-001	2.16E-002	7.19E-003
PU240	1.41E-001	3.24E-002	6.81E-003	1.68E-003
AM241	2.90E-001	1.01E+000	1.23E-001	1.56E-002
PU241	2.80E-003	2.91E-001	6.11E-002	1.51E-002
PU242	4.70E-004	1.86E-006	3.92E-007	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 1/31/13

ITR: _____ Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 14918 Batch Number: 2LANDA1086
Counter ID: HENC #2
Container ID: 92484
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/28/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
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.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	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: 1-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92484**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

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\130201c\
Data File : 92484.D
Acq On : 1 Feb 2013 11:21 am (#1); 01-Feb-13, 11:20:42 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 11:29:24 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	3.610	96	4748253	201.25	ppmv	0.04
15) Chlorobenzene-d5	5.930	117	4321557	177.00	ppmv	0.03
Target Compounds						Qvalue

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

UET Copy
Working Copy
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90723

6.2[4] Date Processed: 12/18/12

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, 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 [signature] 182723 12/18/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90723

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 362.2 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 362.2 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.: 90723

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92488			
10.1[4]	Daughter Drum Filter No.	AM-1015		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4384			
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.	6CPUC1.5-25DC			
	Serial No.	L-4407			
	Date of Manufacture	7/12			
10.2[5]	POC ID No	92489			
10.2[7][B]/10.2[6]	POC Item Description	Subs Kitty Liner			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	MR Z27223			
10.2[14]	POC Assembly Gross Weight (lb)	372.8			
10.2[15]	POC Rad. Survey Results (mrem/hr)	800.5			
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		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 (%)	80%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Slub outs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90723

Comments: Salts, plastic, metal pvc lid, bolts, card board

11.1[1] Performed By: [signature] [signature] 180723 12-18-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert M. [signature] 14935 1-7-13 0840
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-11-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	413724
Lot No.:	210114
Manufacture Date:	2010

5.[8] Overpack filtered vent information:

Manufacturer:	NucFil
Model No.:	013
Serial No.:	ZL-229
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: Brian Gallegos / Bri Dawn / 124729 / 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / Bri Dawn / / 12-11-12
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] 149351 12-13-12
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.: 92490

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 02151
Cal. Expiration Date: 6-11-13
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] 182723 12/18/12
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): 323.2 lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] 182723 12/18/12
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] 149259 1.3.13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92488

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 #: 022922-S
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: BDP
Model #: 66PVC 1-5-2SRVC
Serial #: L-4384
Date of Manufacture: 7/12

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 #: 01905
Serial #: AM-1615
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
Cal Expiration Date: 9-26-13
Range (ft-lbs or (in-lbs)): 40-200
Tolerance: +/- 4% cw and +/- 6% ccw

Jam Nut / Bung torque wrench:
M&TE ID #: 021151
Cal Expiration Date: 6-11-13
Range ((ft-lbs) or in-lbs): 16-80
Tolerance: +/- 9% cw and +/- 6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Steven Mondragon Signature: Steven Mondragon Z#: 104741

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 77.0
File ID #: 01065

- ☑ 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: Steven Mondragon Operator Sign: Steven Mondragon Z#: 104741 Date: 12-11-12
Verifier Print: Michael Romero Verifier Sign: Michael Romero Z#: 182763 Date: 12-18-12

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

DRUM ID#: 92488

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 #: 021151

Cal expiration date: 6-11-13

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

--- Tolerance ±3% ow ±6% cw

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): 164.8

Scale ID#: 015065

✓ 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. Dally Date 12.18.12

Verifier Print/Sign: Mitch Pence Date: 12-18-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 90723 Container Type: POC Gross Weight (lbs): 358

[redacted] Seal #: None Filter Prefix: None Filter Serial #: EL-544; EL-592

[redacted] Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-724

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VE 10/1/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 calibrated with Waste Lock 770 from previous repack campaign. A minimum of 1.2 volume of kitty litter/absorbent must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan L. 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 – POC

Net Wt: 18 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 & <1,000 mrem/hr.

RTR BDR inventory shows homogeneous material + plastic bag/Aquastat

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112109 Date: 10/9/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands; Utilize heavy gloves & tools 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: 10-15-12

LL Z# 249750 10/19/12

IHS REVIEW: RS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/23/2012
Waste Container ID:	90723
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 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-0283-12 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: 162.5 kg. Tare Wt: 145.1 kg. Net Wt: 17.4 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90723

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag, horsetail Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.2
Organic Matrix (OR):	
Inorganic Matrix (IN):	17.2
Soils (S):	
Total WMP Weight:	17.4

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90723

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?	☑	☐
RH or for TRUPACT		
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: Standard Pipe Overpack Container (P.O.C.)

NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/23/12

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])	90723					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PG					
Filtered Vent Type (5.[1])	14 DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT N/A	☐ 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])	157.5 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: 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) 100684 (Z #) 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90723.D
Acq On : 5 Oct 2012 3:00 pm (#1); 5 Oct 2012 2:59 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 15:08:13 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

	Compound	R.T.	Qlon	Response	Conc	Units	Dev(Min)
	Internal Standards						
3)	Fluorobenzene	3.263	96	2314920	206.00	ppm	0.0(
15)	Chlorobenzene-d5	5.936	117	2072070	179.50	ppm	0.0(
	Target Compounds						Qvalue
1)	Hydrogen	5.304	GC1	38918m	157.51	ppm	

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

Vocgas.m Fri Oct 05 15:08:20 2012

03
9-18-12 PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - Eveland.
0001 Starting inside and outside rounds
0017 Item #1 is OOS, per OSE documentation OK to proceed.
0021 Completed inside rounds
0026 Completed outside rounds.
0705 Pkt received sort of 9-18-12. Some contamination on catch pan 50 dpm alpha, Pkts will clean + survey
0710 SOS has been notified.
0759 Late entry 1155 Inside and outside rounds signed off by SOS (V)
0815 Mode change performed TASD 69 and WCRRF yard now in operations. Starting movement out of 50-69.
0825 Completed movement out of 69. PPE check is SAT.
0826 bagging on 90720
0828 Starting movement to transfer vehicle. Permission granted to proceed to lower vehicle access barriers.
0837 Bag on complete, PPE check is SAT.
0851 PPE check is SAT.
0852 Starting the movement to transport vehicle.
0916 Vehicle access gates have restored, movement complete to transport vehicle.
0911 Starting bag off of 90720 and POC, bagging on 90721.
0913 Operator notifying operations center that while performing the bag off task 59 noticed a small opening on floor by the drum lift SOS has been notified and operations will not be bagging on another drum. SOS has requested another pre-operational check be done on drum lift. Notifying operations center.
1000 Completed bag off.
1003 Starting movement out of 50-69
1009 Completed movement out of 50-69
1010 OK to continue operations, per OSE spring is not from drum lift.
1023 bagging on 90721.
1030 PPE check is SAT
1036 bag on is complete
1050 performed shift turnover 9-18-12 turnover with Terri Coleman - Eveland
1051 Assuming WCRR operations center - Coleman
1059 Shipment into WCRRF cancelled for today. Will be emerged for tomorrow.
1108 Bagging off 90721, bagging on 90719.
1132 Bag on complete. PPE SAT.
continued on next page - Coleman

SIGNATURE _____ DATE _____ 20

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PROJECT NAME _____ NOTEBOOK NO. _

12-18-12 | Continued from previous page
1155 | PPE check SAT.
1159 | Bagging off 90719 to IC 12-18-12 and 1 POC. bagging on 90
1207 | Shift turnover with CCO Clarissa Ulbride. SCO Clemen
1208 | Resuming WCRREF operations. water - Chilarde
1210 | Starting manual into SD-109
1235 | Bag on / bag off complete.
1343 | Starting mobilization out of SD-109, PPE check is Sat
1400 | Completed movement out of SD-109
1409 | bagging on 90728, bagging off 90722
1413 | PPE check is sat.
1440 | bagging off 90728, bagging on 90723
1445 | Starting outside manual
1456 | Bag in - bag off complete. PPE check is sat.
1500 | Item in is 205 per CSE OK to proceed.
1506 | Inside manual complete.
1509 | Outside manual complete.
1551 | bagging off 90723 and POC. PPE check is sat
1605 | bag off is complete
1615 | mode change performed TRSD-109 and WCRREF yard ma
on warm Standby Unit in Standby.
12-18-12 1643 | end of day WCRREF Operations declare - Chilarde

pw

Continued on this Page

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

12.18.12 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0605 Conducted shift brief discussed staying focused and that pics can be used on box

0705 Shift brief concluded.

0708 Late entry Rounds Reviewed at 0655 GM 12.18.12

0800 Performed SOS turnover with Gilbert Martinez. Assuming SOS position Jan J

0815 Mode Change Complete in Operations Mode in WCRR Yard and D-69.

0830 Late Entry (JJ) At 0705 RCT's notifying of Contamination on Catch Pan. 50 DPM alpha. Will need to Decon and Re Survey.

0835 Notified by Scott that Contamination has been all Decontaminated

0836 Late Entry (JJ) At 0826 Bagging on first drum for the day.

0915 Operator notifying Operations Center that they found a Spring on the floor. Operators believe that it may have come from the Drum lift. Instructed Operator not to bag on another drum. Finish the bag off's and call out for further instruction.

1015 Resuming Operations. Pictures taken of the Spring. Operators are unable to identify where it may have come from. Per CSE only spring on the drum lift would be the tensioner for the cable. Operators inspected drum lift and ran it a couple of times without a drum on it and seems to be working. Ok to resume, instructed operators to keep a close eye on the drum lift and keep an eye out for where it may have come from.

1100 Turning Over SOS duties to Gilbert Martinez. Jan J

1101 Assuming Position [illegible]

1108 Bags at Bagging on 40719 RE Chuck

1155 RE Chuck

1159 Bagging off and Bagging on 40722

Continued from next Page

1406	Logging off and logging on 90728
1413	PPE Check
1440	Logging on and logging off G10723
1530	Reviewed Inside and outside Rounds
1605	Logged off final drum of day
1615	Mask change complete INCERT In warm
12.18.12 1630	End of shift scanning SOS Position
LMG	

No Further Changes on this Page

0600 Assumed WCRR SOM position. L. C
0615 Attended pre job brief conducted by SOS. Discussed roles/responsibilities of PIC while processing waste. w/ ES Ops Manager expectations. Workers disagreed in that they say PIC is integral to helping in all areas. P300 and DOP's will be looked at to better define. Crew briefed to move out drum #91805 to ship back to TA-54.
0700 Called into daily brief conducted by TA-54 SOM to status WCRR - requested emerge of shipment to Area G. FSS measurements will not take place today - no show by engineers - will reschedule per L. Moore CSE for Jan 13.
0705 Notified by RP-1 supervisor that RMI's showed 50 dpm/100cm² alpha contamination on catch pan under drum lift. Operators being sent in to perform decon and RP-1 will resurvey. OM notified.
0812 RP-1 Supervisor reported that decon and post surveys were complete.
0815 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.
0822 Bagging on first drum.
0855 Verified w/ RP-1 and MSS concerning temperature readings to be obtained during winter closure. Operator will be entering WCRRF up to Rm 102 door without stepping thru - entry under F
0832 Released exp. dated W.O # 427964-01 to paint stairs on east end of Bldg 50-84.
0930 ~~1030~~ 12/18/12 Notified by OCO that a spring was found laying on ground underneath the drum lift. SOS paused work until verified that spring is not part of drum lift.
0955 Per CSE of drum lift the only springs associated w/ drum lift are used on the tensioner and are large in size. Spring on floor did not come from drum lift. SOS had operators cycle drum lift w/ drum and identified no issues. Notified OM.
1010 Upon further investigation of source of spring on the ground none could be identified. Operators briefed to keep their eyes open and be aware of other equipment/processes. Work pause lifted.
1100 Notified that OSPRT cannot ship from TA-54 today - issues with jump starting tractors. Need to reschedule for tomorrow.
1200 Called in to weekly LFC meeting. Discussed current inventory @ WCRR and what is scheduled to come in tomorrow w/ inventory control and SOS concurrence looks like that will be sufficient inventory w/ scheduled next incoming to 1/8/13. J. Gallegos provided info that LFC's will be run tomorrow @ TA-54 which will allow for additional 15-18 SP 57 drums to be put on list.
1400 Went to TA-44 to sign off/review Jan 13 work packages.
1530 Completed procedure validation for Monthly FSS Valve alignment check EP-WCRR-FD-DOP-0303 and sent to procedure writer for USQ.

Continued on next page →

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

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PROJECT NAME 12/18/12 NOTEBOOK NC

1615 Completed mode change! WCRR Yard / Bldg 50-69 from Operations/Operations to Warn/Warn.

1630 Secures SOM position

1 1/4" = 1'

No further entries this page

SIGNATURE

DATE 12/18

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-RTR2-13-0008
Examination Date:	1/18/2013
Waste Container ID:	92488
Video/Audio Recorded Media Number:	LA-RTR2-13-0008 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.: 75.0 kg Tare Wt.: 33.4 kg Net Wt.: 41.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92488

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Nucfil-19DS filter, pipe component lid, metal hardware

AM:

OM:

OI:

C: Fiberboard liner sleeve (POC), cloth, fiberboard packaging material (POC)

R:

XPM: 90 mil plastic liner lid, plastic bags

OR:

IN: Absorbent

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):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	15.1
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	0.5
Soils (S):	
Total WMP Weight:	41.6

CCP Radiography Data Sheet

Waste Container ID: 92488

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		1/18/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92488	Count Sequence Number:	21982		
Operator:	D3PW2DK1\operator				
Assay Start:	2/4/2013 3:48:05 PM				
Description 1:	1LANDA1707				
Description 2:	N/A				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Debris S5000				
Container Type:	55 gallon drum				
Weight:	Net:	41.6	kg	Net:	41.6 kg
Container:	Volume:	208.0	l	Full:	90.0 %
Density:		0.220	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:	21982	Batch Number:	1LANDA1707
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:	92488	Analysis Date:	2/4/2013

Net Weight	41600.0 g		
Pu mass	1.70E+000	+- 2.96E-001	g
TRU Alpha Activity	4.14E-001	+- 3.94E-002	Ci
TRU Activity Concentration	9.94E+003	+- 9.48E+002	nCi/g
Pu-239 Equivalent Activity	4.17E-001	+- 3.94E-002	Ci
Pu-239 FGE	1.60E+000	+- 2.77E-001	g
Decay heat	1.35E-002	+- 1.30E-003	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.59E-003	5.42E-006	5.77E-007	4.85E-007
PU238	1.56E-004	2.70E-003	4.70E-004	3.66E-005
PU239	1.60E+000	1.00E-001	1.74E-002	1.36E-003
PU240	1.02E-001	2.35E-002	4.08E-003	3.17E-004
AM241	8.27E-002	2.87E-001	3.51E-002	9.51E-003
PU241	2.02E-003	2.10E-001	3.66E-002	2.85E-003
PU242	3.41E-004	1.35E-006	2.35E-007	0.00E+000
CO60	3.84E-011	4.38E-008	1.38E-008	4.04E-008
SR90	2.66E-009	3.67E-007	1.12E-007	0.00E+000
CS137	4.19E-009	3.67E-007	1.12E-007	1.47E-007
U233	<LLD	<LLD	0.00E+000	9.16E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.52E-007
U238	<LLD	<LLD	0.00E+000	3.59E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 2-5-13

ITR: _____ Date: 2-6-13

Automated Independent Technical Review

Count Sequence Number: 21982 Batch Number: 1LANDA1707
Counter ID: MCS HENC #1
Container ID: 92488
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 2/4/2013

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
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	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

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

Expert Review by: Sherri Chambers Date: 2-5-13

Attachment 4 – Flammable Gas Analysis Form

S824551

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

Waste Container ID: **92488**

BDR Number: **LA13FG8009**

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

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\130206C\
Data File : 92488.D
Acq On : 6 Feb 2013 2:56 pm (#1); 6 Feb 2013 2:55 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 15:05:26 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	2609850	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2355002	179.50	ppm	0.00
Target Compounds						Qvalue

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

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0002
Examination Date:	1/8/2013
Waste Container ID:	92489
Video/Audio Recorded Media Number:	LA-HERTR-13-0002 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.: 171.5 kg Tare Wt.: 145.1 kg Net Wt.: 26.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92489

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, scrap metal

AM:

OM:

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP):Rigid Liner/Lid 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):	0.4
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	26.0
Soils (S):	
Total WMP Weight:	26.4

CCP Radiography Data Sheet

Waste Container ID: 92489

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	[signature]	1/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92489		Count Sequence Number:	21850	
Operator:	D3PW2DK1\operator				
Assay Start:	1/16/2013 10:34:36 AM				
Description 1:	1LANDA1697				
Description 2:	POC - GROSS WT. = 171.5 KG				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gallon drum				
Weight:	Net:	26.4 kg	Net:	26.4 kg	
Container:	Volume:	208.0 l	Full:	95.0 %	
Density:		0.728 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:	21850	Batch Number:	1LANDA1697
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:	92489	Analysis Date:	1/16/2013

Net Weight	26400.0 g	
Pu mass	5.66E+001 +-	1.74E+001 g
TRU Alpha Activity	1.75E+001 +-	4.02E+000 Ci
TRU Activity Concentration	6.65E+005 +-	1.52E+005 nCi/g
Pu-239 Equivalent Activity	1.78E+001 +-	4.02E+000 Ci
Pu-239 FGE	5.32E+001 +-	1.63E+001 g
Decay heat	5.77E-001 +-	1.34E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.77E-002	4.84E-005	9.20E-006	2.90E-006
PU238	4.84E-002	8.37E-001	2.58E-001	2.75E-004
PU239	5.28E+001	3.32E+000	1.02E+000	1.09E-003
PU240	3.54E+000	8.13E-001	2.51E-001	2.68E-004
AM241	3.62E+000	1.26E+001	3.87E+000	4.14E-003
PU241	1.42E-001	1.47E+001	4.54E+000	4.85E-003
PU242	1.47E-001	5.84E-004	1.80E-004	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.50E-007
U233	<LLD	<LLD	0.00E+000	5.70E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.70E-006
U238	<LLD	<LLD	0.00E+000	1.38E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-21-2013

ITR: _____ Date: 1.24.13

Automated Independent Technical Review

Count Sequence Number: 21850 Batch Number: 1LANDA1697
Counter ID: MCS HENC #1
Container ID: 92489
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/16/2013

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 Expert review is recommended; the following validity tests failed: Uncertainty in Pu240 effective (28.0%) is greater than allowed (20.0%).	MGA valid. After EA review, uncertainty value acceptable.
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: 1-17-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92489**

BDR Number: **LA13FG2080**

Sampling Date: **7/10/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1346.69	
74-82-8	Methane	142.14	U
67-56-1	Methanol	96.10	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	36.13	
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	4.85	
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	9.11	
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\130710C\
Data File : 92489.D
Acq On : 10 Jul 2013 1:21 pm (#1); 10-Jul-13, 13:20:50 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 13:29:22 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.525	96	4288738	205.75	ppmv	0.00
15) Chlorobenzene-d5	5.865	117	3490921	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.614	GC1	10126	1346.69	ppmv	100
4) Methanol	0.841	31	32933	96.10	ppmv	100
7) Acetone	1.369	58	45964	36.13	ppmv	82
12) Benzene	3.203	78	73469	4.85	ppmv	96
17) Toluene	4.830	92	113878	9.11	ppmv	94

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

Working Copy
Date: 12-18-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90724

6.2[4] Date Processed: 12-19-12

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: 07-31-13

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: Kevin Belusca / Kevin Belusca / 223444 / 12-19-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90724
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	377.0 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	N/A lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	377.0 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.: 90704

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92494		N	
10.1[4]	Daughter Drum Filter No.	AM-1003		A	
10.1[4]	Daughter Drum Bag Filter No.	L4332			
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	BOP		
	Model No.	DEPW 1.5-2.5MR	DEPW 1.5-2.5 PSC		
	Serial No.	L4403	L4343		
	Date of Manufacture	7/12	7/12		
10.2[5]	POC ID No 12-14-12	364.6	368.4 92496		
10.2[7][B]/10.2[6]	POC Item Description	Salt 92496 plastic kitty liter	Salt plastic kitty liter	N	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	CM 240092	CM 240092		A
10.2[14]	POC Assembly Gross Weight (lb)	364.6	368.4		
10.2[15]	POC Rad. Survey Results (mrem/hr)	1100.5	1200.5		
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		N	
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100 %			A
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic stab-out			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90724

Comments: salts, cardboard liner, plastic

11.1[1] Performed By: Kevin Bewsak / Kevin Bewsak / 123109 / 12-19-12 (or 12/19/12)
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez / [signature] / 149235 / 1-3-12 0830
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.: 413724
Lot No.: 210114
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL-236
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: Brian Gallegos / B. Gallegos / 12-11-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / B. Gallegos 267129 12-11-12
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 / G. Martinez 149235 12-13
Supervisor or designee (print) Signature Z # Date

UET Working Copy
Date: 12-17-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92497

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 021151
- Cal. Expiration Date: 6-11-13
- Range in ft-lb: 16-80
- Tolerance: +/- 3% CW and +/- 6% CCW

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

Performed By: Kevin Belusrak / Kevin Belusrak 123198 / 12-14-12
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: 019065
Platform scale calibration expiration date: 07-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 324.8 lb

Comments: _____

8.1[1] Performed By: Kevin Belusrak / Kevin Belusrak 123198 / 12-19-12 12/19/12
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] 149335 1.3.13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92494

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 #: 0222324
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 #: 6CPVC1.52SPVC
Serial #: L4382
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 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: NUC Fil
Model #: 0190S
Serial #: AM-7003
Date of Manufacture: 1-12

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
Cal Expiration Date: 9-26-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: +/- 4% cw and +/- 6% ccw

Jam Nut / Bung torque wrench:
M&TE ID #: 021151
Cal Expiration Date: 6-11-13
Range (ft-lbs or in-lbs): 16-80
Tolerance: +/- 3% cw and +6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Steven Mondragon Signature: Steven Mondragon Z#: 104741

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 77.2
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
- [ ] 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: Steven Mondragon Operator Sign: Steven Mondragon Z#: 104741 Date: 12-11-12

Verifier Print: Kevin Belusak Verifier Sign: Kevin Belusak Z#: 239199 Date: 12-19-12 CM 12/19/12

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

DRUM ID#: 92494

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 #: 021151

Cal expiration date: 06-11-13

Range/ Value (ft-lbs): 16-20

Tolerance +/- 3% CW and +/- 6% CCW

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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): 162.0

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 12-19-12

Verifier Print/Sign: Chris M. [illegible] Date: 12/19/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 90724 Container Type: POC Gross Weight (lbs): 372

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-264; EL-62

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-779

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VE 9/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 Loc 770® from previous repack campaign. A minimum of 1.2 volume of Kitty Litter® Equate must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Production Control (Print) / Signature: Susan S. Ramsey / 100681 / Z Number / 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 – POC

Net Wt: 62 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.

RTR BDR inventory shows homogeneous material + plastic bag.

Performed By: Valerie Rhodes / WDP Engineering (Print) / Signature: Valerie Rhodes / 112601 / Z Number / Date: 10/5/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use Kevlarmour 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 Sereo / TRU Remediation Operations (Print) / Signature: Jose Sereo / 221452 / Z Number / Date: 10-15-12

Jose Sereo Z# 249750 10/19/12

HS Review RS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90724
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 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-0283-12 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: 169.0 kg. Tare Wt: 145.1 kg. Net Wt: 23.9 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90724

Section 3: Container Inventory and Comments (Detailed descriptions)
Plastic bag Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.1
Organic Matrix (OR):	
Inorganic Matrix (IN):	23.8
Soils (S):	
Total WMP Weight:	23.9

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90724

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: Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Philip Dillard		1/20/12
Print Name	Signature	Date

ATTACHMENT 1
Page 1 of 1

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

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

Container No. (5.[1])	90774					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	PUC					
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])	133.16 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 vented in PTC

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

- 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) 100681 (Z #) 10/10/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90724.D
Acq On : 5 Oct 2012 2:38 pm (#1); 5 Oct 2012 2:37 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 14:46:14 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	3.262	96	2350178	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2114857	179.50	ppm	0.00
Target Compounds						Qvalue
1) Hydrogen	5.304	GC1	32901m	133.16	ppm	

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

Vocgas.m Fri Oct 05 14:46:21 2012

05
19-12 PROJECT NAME _____ NOTEBOOK NO. _____

0530 Assuming WCRR operations center - Coleman
0540 Beginning inside and outside rounds.
0558 JHA Mtg for POS. POD in place. OIC to proceed.
0600 Inside rounds complete.
0606 Outside rounds complete.
0615 Pre-job being conducted by SOS.
0630 Pre-job concluded.
0648 Both rounds reviewed by SOS.
0722 Mode change completed. We are now in operations.
0800 Bagging on Crew # 90725. PPE check Sat.
0810 Bag on complete.
0835 PPE check Sat.
0856 Shift turnover with OCD Clarissa Delaude-Coleman
0856 Assuming WCRRF Operations center - Malcolm
0859 Starting movement out of ST-69
0911 Bagging off 90725, bagging on 90724 PPE Check is Sat
0913 ~~Starting~~ Bagging is Completed movement out of ST-69
0921 Completed movement into ST-69
0936 bag on, ~~bag~~ Bagging bag off Complete.
1014 Todd notifying operating center that WCRRF yard is starting to tie up and get slippery.
1020 ~~bagging off 90724 and 2 pcs~~ and 2 pcs, bagging on 90047 and will be bagging off 90724 and 2 PCC, PPE check is SAT
1114 bag on is complete, PPE check is SAT.
1330 notified by SOM that an individual may have received a classified e-mail. SOM has ordered computer Accounts
1335 Computer security arrived.
1351 bagging off 90647 and PCC, bagging on 87121, PPE check is SAT
1424 bag on, bag off is complete. PPE check is sat
1504 Outside rounds being started
1540 Completed outside rounds
1511 Ethan Li is EOS per CE accumulation or to proceed.
1518 Completed inside rounds
1521 Starting movement out of ST-69.
1536 movement out of ST-69 complete
1551 bagging off 87121
1559 Inside and outside rounds signed off by SOS
1606 bag off is complete.
1618 TASF-69 and WCRRF mode change complete now in warm standby
1637 End of day WCRRF Operations center departs - Malcolm.

No further entries this page

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

12-19-16 WCRR SOS LOG Book

0606 Assuming SOS Position [redacted]

0615 Conducted shift brief Discussed weather conditions calculated and bagging.

0640 Concluded shift brief

0648 Reviewed Inside and outside Rounds

0806 Bagging on Fire drum of day 90725 PIE check

0835 PIE Check Late entry Mode change Complete WCRRF In Operations

0911 Bagging OFF and bagging on 90724 PIE Checked OK

1122 bagging off and bagging on 9447 PIE check

1351 bagging off and bagging on 57121 PIE check

1537 bagging off Final drum

1539 Reviewed Inside And outside Rounds

1618 Mode Change Complete WCRRF in warm mode

19-121630 end of shift securing SOS Position [redacted]

1119

No further entries on this page

23 PROJECT NAME 12/19/12 NOTEBOOK NO.

0600 Assumed WCRR SOM position
0605 Attended pre job meeting conducted by SOS. Discussed weather and its impacts on today's operations - currently snowing and expected to for most of day w/ dropping temps.
0700 Called into daily brief conducted by TA-54 SOM. Updated WCRR status to include rollover of yesterdays receipt from TA-54 and cancel the outgoing shipment.
0722 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.
0725 Notified by OSPAT they are delaying TRU shipment to WCRR due to weather.
0740 Released WO # 448179-01 50-54 Crane Repairs in Machine Shop - Final Inspections are to be completed prior to turnover back to FOD 5.
0800 Bagging On first drum.
0900 Verified w/ OM and deputy FOD that the only crane/lifting device identified to be controlled w/ administrative locks is the A-frame/Gantry crane w/ electric Hoist CTB-004/HE-004 located outside Bldg 50-54. Crane is identified as Out of Service due to no legible inspection tag on A-Frame. Deputy FOD requested a red LO/TO be installed to comply w/ FOD instructions.
0945 SOS installed red LO/TO on HE-004 plug. Per P-103 policy simple LO/TO was applied w/ no IV required. Verified w/ Division LO/TO procedure which stated does not apply to plug control LO/TO.
1003 Notified by OSPAT that todays shipment is cancelled due to road conditions.
1200 Daily call in w/ Project Manager to status WCRR operations.
1315 Notified by RP-1 supervisor one of his technicians received a questionable e-mail, possible security violation, contacted OCSR/Security.
1335 Computer Security Representative on site, Reviewed EP-WCRR-RPM-EOP-0304 Notified OM.
1458 After reviewing computer attachment w/ SIT, Computer Security determined no issue on questionable e-mail. For future emails from unknown senders w/ attachments computer security recommends deleting such e-mails prior to opening.
1618 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.
1630 Secured SOM position.

No further entries this page

SIGNATURE DATE 12/19 20 12

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:	92494
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.: 73.5 kg Tare Wt.: 33.4 kg Net Wt.: 40.1 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: 92494

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Metal hardware, pipe component lid
AM:	
OM:	
OI:	
C:	Fiberboard liner sleeve, fiberboard
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):	
Other Inorganic Materials (OI)	
Cellulosics (C):	16.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	2.1
Soils (S):	
Total WMP Weight:	40.1

CCP Radiography Data Sheet

Waste Container ID: 92494

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:	92494		Count Sequence Number:	21926	
Operator:	D3PW2DK1\operator				
Assay Start:	1/29/2013 9:17:20 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:	40.1 kg	Net:	40.1 kg	
Container:	Volume:	208.0 l	Full:	90.0 %	
Density:		0.210 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:	21926	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:	92494	Analysis Date:	1/29/2013

Net Weight	40100.0 g		
Pu mass	2.08E-001 +-	2.34E-002	g
TRU Alpha Activity	1.87E-001 +-	2.33E-002	Ci
TRU Activity Concentration	4.67E+003 +-	5.81E+002	nCi/g
Pu-239 Equivalent Activity	1.88E-001 +-	2.33E-002	Ci
Pu-239 FGE	1.97E-001 +-	2.32E-002	g
Decay heat	6.22E-003 +-	7.78E-004	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	2.53E-009	3.50E-007	9.04E-008	0.00E+000
CS137	3.99E-009	3.50E-007	9.04E-008	1.14E-007
U233	<LLD	<LLD	0.00E+000	6.41E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.78E-007
NP237	4.32E-003	3.09E-006	3.31E-007	3.44E-007
PU238	1.91E-005	3.31E-004	5.78E-005	9.99E-005
U238	<LLD	<LLD	0.00E+000	3.42E-006
PU239	1.95E-001	1.23E-002	1.46E-003	3.71E-003
PU240	1.25E-002	2.87E-003	5.30E-004	8.67E-004
AM241	4.95E-002	1.72E-001	2.32E-002	6.55E-003
PU241	2.48E-004	2.57E-002	4.76E-003	7.78E-003
PU242	4.16E-005	1.65E-007	3.05E-008	0.00E+000

Errors quoted at 1.000 sigma

Operator: [signature] Date: 2/1/13

ITR: [signature] Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 21926 Batch Number: 1LANDA1703
Counter ID: MCS HENC #1
Container ID: 92494
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 1/29/2013

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
No Warnings Reported.	
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	MGA analysis failed. AK isotopics applied. The AK information
Results are marked as invalid.	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

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

Expert Review by: Sherri Chambers 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: **92494**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1043.56	
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\130201c\
Data File : 92494.D
Acq On : 1 Feb 2013 10:45 am (#1); 01-Feb-13, 10:44:58 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 10:55:51 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	3.532	96	5171313	201.25	ppmv	-0.04
15) Chlorobenzene-d5	5.871	117	4510792	177.00	ppmv	-0.03
Target Compounds						Qvalue
1) Hydrogen	1.550	GC1	7417m	1043.56	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-RTR2-13-0003
Examination Date:	1/9/2013
Waste Container ID:	92495
Video/Audio Recorded Media Number:	LA-RTR2-13-0003 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.: 165.0 kg Tare Wt.: 145.1 kg Net Wt.: 19.9 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: 92495

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM:

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner w/ Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	1.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	18.4
Soils (S):	
Total WMP Weight:	19.9

CCP Radiography Data Sheet

Waste Container ID: 92495

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

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

RTR Operator:

Michael Simmons		1/9/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92495	Count Sequence Number:	14845		
Operator:	DCLTD231\Operator				
Assay Start:	1/16/2013 2:19:37 PM				
Description 1:	2LANDA1079				
Description 2:	POC- 165.0				
Location:	LANL TA-54				
Comment:	AK-6				
Matrix Type:	Homo Sol. S3000				
Container Type:	55 gal Drum				
Weight:	Net:	19.9	kg	Net:	19.9 kg
Container:	Volume:	208.0	l	Full:	95.0 %
Density:		0.695	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:	14845	Batch Number:	2LANDA1079
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92495	Analysis Date:	1/16/2013

Net Weight	19900.0 g
Pu mass	5.97E+000 +- 1.68E+000 g
TRU Alpha Activity	3.50E+000 +- 1.66E+000 Ci
TRU Activity Concentration	1.76E+005 +- 8.34E+004 nCi/g
Pu-239 Equivalent Activity	3.51E+000 +- 1.66E+000 Ci
Pu-239 FGE	5.64E+000 +- 1.57E+000 g
Decay heat	1.16E-001 +- 5.54E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.00E-002	2.86E-005	5.29E-006	2.18E-006
PU238	5.49E-004	9.49E-003	2.67E-003	3.61E-005
PU239	5.60E+000	3.52E-001	9.89E-002	1.34E-003
PU240	3.58E-001	8.23E-002	2.31E-002	3.13E-004
AM241	8.79E-001	3.05E+000	1.66E+000	3.47E-002
PU241	7.12E-003	7.40E-001	2.08E-001	2.81E-003
PU242	1.19E-003	4.74E-006	1.33E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.64E-007
U233	<LLD	<LLD	0.00E+000	3.90E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.29E-006
U238	<LLD	<LLD	0.00E+000	1.01E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-21-13

ITR: _____ Date: 1-28-13

Automated Independent Technical Review

Count Sequence Number: 14845 Batch Number: 2LANDA1079
Counter ID: HENC #2
Container ID: 92495
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/16/2013

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

Expert Review by: Sheri Chambers Date: 1-17-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92495**

BDR Number: **LA13FG2076**

Sampling Date: **7/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	276.36	
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	9.13	
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\130701c\
Data File : 92495.D
Acq On : 1 Jul 2013 2:55 pm (#1); 01-Jul-13, 14:54:54 (#2)
Operator : GR
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 01 15:04:39 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.591	96	4131033	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.920	117	3380389	177.50	ppmv	0.06
Target Compounds						Qvalue
1) Hydrogen	1.611	GC1	2078m	276.36	ppmv	
17) Toluene	4.883	92	110482	9.13	ppmv	97

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

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0007
Examination Date:	1/17/2013
Waste Container ID:	92496
Video/Audio Recorded Media Number:	LA-RTR2-13-0007 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.: 167.0 kg Tare Wt.: 145.1 kg Net Wt.: 21.9 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: 92496

Section 3: Container Inventory and Comments (Detailed descriptions)
IM:
AM:
OM:
OI:
C:
R:
XPM: Plastic bag EL 1/21/13
OR: ~~Homogeneous solids~~
IN: Homogeneous solids EL 1/21/13
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):	0.5
Organic Matrix (OR):	~~21.4~~ EL 1/21/13
Inorganic Matrix (IN):	21.4 EL 1/21/13
Soils (S):	
Total WMP Weight:	21.9

CCP Radiography Data Sheet

Waste Container ID: 92496

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

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

RTR Operator:

Eric Lyles / Michael Simmons — 1/17/2013

Print Name Eric Lyles / Michael Simmons — Signature — Date 1/21/13 1/21/13

NDA 2000 Assay Report

Item Information

Item ID:	92496	Count Sequence Number:	21880
Operator:	D3PW2DK1\operator		
Assay Start:	1/18/2013 4:09:38 PM		
Description 1:	1LANDA1699		
Description 2:	POC, 167.0		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 21.9 kg	Net:	21.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.705 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:	21880	Batch Number:	1LANDA1699
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:	92496	Analysis Date:	1/18/2013

Net Weight	21900.0 g
Pu mass	5.15E+000 +- 1.32E+000 g
TRU Alpha Activity	3.21E+000 +- 5.35E-001 Ci
TRU Activity Concentration	1.46E+005 +- 2.44E+004 nCi/g
Pu-239 Equivalent Activity	3.22E+000 +- 5.35E-001 Ci
Pu-239 FGE	4.87E+000 +- 1.24E+000 g
Decay heat	1.06E-001 +- 1.79E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.37E-002	3.12E-005	5.88E-006	3.46E-006
PU238	4.74E-004	8.20E-003	2.10E-003	3.47E-005
PU239	4.84E+000	3.04E-001	7.79E-002	1.29E-003
PU240	3.09E-001	7.11E-002	1.82E-002	3.00E-004
AM241	8.13E-001	2.82E+000	5.29E-001	4.14E-002
PU241	6.14E-003	6.39E-001	1.64E-001	2.70E-003
PU242	1.03E-003	4.09E-006	1.05E-006	0.00E+000
SR90	7.60E-009	1.05E-006	5.74E-007	0.00E+000
CS137	1.20E-008	1.05E-006	5.74E-007	5.03E-007
U233	<LLD	<LLD	0.00E+000	3.86E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.16E-006
U238	<LLD	<LLD	0.00E+000	1.03E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-29-13

ITR: _____ Date: 1/29/13

Automated Independent Technical Review

Count Sequence Number: 21880 Batch Number: 1LANDA1699
Counter ID: MCS HENC #1
Container ID: 92496
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/18/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. 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 Chamberlain Date: 1-22-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92496**

BDR Number: **LA13FG2076**

Sampling Date: **7/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	220.24	
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\130701c\
Data File : 92496.D
Acq On : 1 Jul 2013 3:08 pm (#1); 01-Jul-13, 15:07:27 (#2)
Operator : GR
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 01 15:17:49 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.542	96	3959709	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.881	117	3188842	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.607	GC1	1656m	220.24	ppmv	

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

Working Copy
Date: 12-19-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90725

6.2[4] Date Processed: 12-19-12

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: 07-31-13

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: Kevin Bloscak / Kevin Bloscak 123199 / 12-19-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 90725	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	392.6 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	N/A lb
6.2[5][B] 6.2[6]	Total Parent Drum Weight (lb)	392.6 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.: 90725

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92492		N	
10.1[4]	Daughter Drum Filter No.	Am-1010			A
10.1[4]	Daughter Drum Bag Filter No.	L-4383			
10.1[4]	Daughter Drum Purchase Order No.	4116184			
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:				
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	
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%		A	
10.5[3]/10.6[2]	Description Waste Added During Processing	Stab outs Kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90726

Comments: Cardboard liner, salts, Hex armor gloves, plastic

11.1[1] Performed By: Kevin Bobcat / Kevin Bobcat 123456 / 12-11-12
Waste Handling Tech (print) Signature Z# Date

11.1[7] Reviewed By: Gilbert Martz / Gilbert Martz 14933 / 1-3-13 0835
SOS or designee (print) Signature Z# Date/Time

Working Copy
Date: 12-11-12 jr

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 43724
Lot No.: 210114
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL-242
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:	9-24-13	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: BRIAN GALLEGOS / Brian Gallegos 267129 12-11-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 30 in-lb

5.[15] 2 in. bung plug torque value: 120 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Brian Gallegos 267129 12-11-12
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] 149351 1-3-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 12-19-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92493

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 021151
- Cal. Expiration Date: 6-11-13
- Range in ft-lb: 16-80
- Tolerance: +/- 3% CW and +/- 6% CCW

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

Performed By: Kevin Belusak / Kevin Belusak [illegible] / 12-11-12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 CW 12-11-12 / 16 80 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): 324.2 lb

Comments: N/C

8.1[1] Performed By: Kevin Belusak / Kevin Belusak [illegible] / 12-11-12 CT 12/19/12
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] 14051 / 12-13-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92492

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 #: 4116184
Lot #: 02229224
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: BOP
Model #: 6cPVC 1.5-2 STC
Serial #: L-4355
Date of Manufacture: 7-12

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: NUC Fil
Model #: D19DS
Serial #: AM-1010
Date of Manufacture: 1112

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
Cal Expiration Date: 9-26-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: +/- 4% cw and +/- 6% ccw

Jam Nut / Bung torque wrench:
M&TE ID #: 021151
Cal Expiration Date: 6-11-13
Range (ft-lbs or in-lbs): 16-80
Tolerance: +/- 3% cw and +/- 6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
☑ Yes ☐ No
Print Name: Steven Mandragon Signature: Steven Mandragon ZH: 104741

5. Weigh Drum Assembly

RECORD weight information
Tare wtght (lbs) 77.0
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: Steven Mandragon Operator Sign: Steven Mandragon ZH: 104741 Date: 12-11-12

Verifier Print: Kevin Belusrak Verifier Sign: Kevin Belusrak ZH: 238194 Date: 12-19-12

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

DRUM ID#: 92492

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 #: 021151

Cal expiration date: 06/11/13

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

– Tolerance +/- 3% cw and +/- 6% ccw

2. DRUM LABELING

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

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

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

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

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

RCRA Label:

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): 270.8

Scale ID#: 014065

✓ 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: Kevin Bell on 12/19/17 Date 12-19-17

Verifier Print/Sign: Brandon Chavez Date: 12-19-17

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 90725 Container Type: POC Gross Weight (lbs): 388

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-269; EL-58

RTR Waste Stream: LA-MIN04-S.001 Certified RTR BDR: LA-RTR2-12-0009

TWSR Comments: PARENT #S824551 WTS-12STD-794

Total PE-Ci Activity: 7.29E-01 Equivalent Combustible PE-Ci: 2.73E-01 AM-241 PE-Ci: 5.92E-02

Total Fissile Gram Equivalents: 8.1 Total Surface Dose Rate (mrem/hr): 6

EPA Code(s): D008 D007 D009 VR 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: Greater than 50% Homogeneous solid

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 Loc 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 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 – POC

Net Wt: 78 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

RTR BDR inventory shows homogeneous material, plastic bag, + broken glass

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112601 Date: 10/9/12

TRU Remediation Operations

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

Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands. Utilize Kevlar gloves & tools 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 Perez (TRU Remediation Operations (Print)) Signature: Jose Perez Z Number: 221452 Date: 10-11-12

OK Zach 249750 10/19/12 * Sharps - Broken Glass *

IHS Review: RS 206362 10.4.12

Attachment 2 – CCP Radiography Data Sheet

Section 1: General Information	
☑ RTR Examination ☐ RTR Replicate Scan ☐ RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0009
Examination Date:	01/20/2012
Waste Container ID:	90725
Video/Audio Recorded Media Number:	LA-RTR2-12-0009 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-0283-12 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: 176.5 kg. Tare Wt: 145.1 kg. Net Wt: 31.4 kg.
Rigid Liner and Liner Vent Description: (e.g., "90 mil liner – NO Lid" or "NO Liner")	90mil Liner - Vented
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90725

Section 3: Container Inventory and Comments (Detailed descriptions)
Broken glass
Plastic bag
Homogeneous solid material

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	109.0
Plastics (PP): Rigid Liner, Liner Bag (Inside POC)	8.1
Others: Fiberboard (C), Fiberboard Liner\Sleeve (inside POC)	28.0
Total Packaging Weight:	145.1
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	3.0
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.3
Organic Matrix (OR):	
Inorganic Matrix (IN):	28.1
Soils (S):	
Total WMP Weight:	31.4

Attachment 2 – CCP Radiography Data Sheet (Continued)

Waste Container ID: 90725

Section 3: 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:
Standard Pipe Overpack Container (P.O.C.)
NCR-LANL-0283-12

RTR Operator:

Print Name	Signature	Date
Philip Dillard		1/26/12

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])	90735					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	1910S					
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)) 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) 100684 (Z #) 10/10/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90725.D
Acq On : 5 Oct 2012 1:28 pm (#1); 05-Oct-12, 13:27:57 (#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 13:36:13 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	3.561	96	6268624	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.884	117	5505989	177.00	ppmv	0.00
Target Compounds						Qvalue

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

4-9-12
0530 Assuming WCRF operations entire - Hoerner
0540 Beginning inside and outside rounds.
0558 Turn #1 of 005 PDU in place OK to proceed.
0600 Inside rounds complete.
0606 Outside rounds complete.
0616 Purge being conducted by 005.
0630 Pre-KO conducted.
0648 Both rounds reviewed by 005.
0722 Mode change completed. Sequence now in operations.
0800 Begging on Crew # 90725. PPE Check Sat.
0810 Begin complete.
0835 PPE check Sat.
0856 Shift turnover with OCO, Clarissa Delaude-Hoerner
0857 Assuming WCRF Operations, entire crew
0859 Starting pressure into SC-64
0911 Napping off 90725, bagging on 90724, PPE Check is Sat
0913 ~~Starting~~ Bags complete, pressure out of SC-64
0921 Completed pressure into SC-64
0932 Begin, ~~being~~ Bags complete.
1004 Talk reporting operating status that WCRF grid is operating at facility and out of vapors
1020 ~~Begging off 90724 bags~~ Pass, bagging on 90727 will be bagging off 90724 and 2 Pers, PPE check is SAT
1114 bags on is complete, PPE check is SAT.
1332 Notified by Scott that an individual may likely not a Clearance email sent. Info Entered Computer Entry Complete currently pending
1355 Napping off 90727 data for, bagging on 90721, PPE check is sat.
1414 ~~DOO~~ 52, bag off is complete PPE check is sat
1504 Outside rounds being started
1506 Purge is complete
1511 Return to use per OE recommendation OK to proceed
1518 Completed rounds manual
1521 Starting pressure out of SC-64
1536 Pressure out of SC-64 complete
1557 napping off 87121
1558 Ingress and Return hoses depart off bay 005
1616 DOO C/O is complete.
1618 Test 64 and WCREF mode change complete now in warm standby
1637 End of day WCERF operations onsite Oscar Charlie

No further entries this page

12-19-16 WCRR SOS LOG Book

0600 Assuming SOS Position

0615 Conducted shift brief Discussed weather conditions cold weather and packing

0640 Concluded shift brief

0648 Reviewed Inside and outside Rounds

0800 Logging on Final drum clean 90725 P/E check

0835 P/E Check Late entry Mode change Complete WCRR In Operations

0911 Logging off and logging on 15724 P/E Check OK

1022 Logging off and logging on 9047 P/E check

1351 Logging off and logging on 57021 P/E check

1537 Logging off Final drum

1539 Reviewed Inside and outside Rounds

1618 Mode change Complete WCRR in warm mode

1630 end of shift securing SOS Position

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no further entries on this page

12/19/12

0600 Assumed WCRR SOM position
0615 Attended pre-job meeting conducted by SOS. Discussed weather and its impacts on today's operations - currently snowing and expected to for most of day w/ dropping temps.
0700 Called into daily brief conducted by TA-54 SOM. Updated WCRR status to include rollover of yesterdays receipt from TA-54 and cancel the outgoing shipment.
0722 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warn/Warn to Operations/Operations.
0725 Notified by OSPAT they are delaying TRU shipment to WCRR due to weather.
0740 Released WO # 448179-01 50-54 Crane Repairs in Machine Shop - Final Inspections are to be completed prior to turnover back to FOD 5.
0800 Bragging On first drum.
0900 Verified w/ OM and deputy FOD that the only crane/lifting device identified to be controlled w/ administrative locks is the A-frame/Gantry crane w/ electric Hoist CTG-004/HE-004 located outside Bldg 50-54. Crane is identified as Out of Service due to no legible inspection tag on A-Frame. Deputy FOD requested a red LO/TO be installed to comply w/ FOD instructions.
0945 SOS installed red LO/TO on HE-004 plug. Per P-103 policy simple LO/TO was applied w/ no IV required. Verified w/ Division LO/TO procedure which stated does not apply to plug control LO/TO.
1003 Notified by OSPAT that todays shipment is cancelled due to road conditions.
1200 Daily call in w/ Project Manager to status WCRR operations.
1315 Notified by RP-1 supervisor one of his technicians received a questionable e-mail, possible security violation, contacted OCSR/Security.
1335 Computer Security Representative on site, Reviewed EP-WCRR-RM-LOP-0304 Notified OM.
1458 After reviewing computer attachment w/ SIT, Computer Security determined no issue on questionable e-mail. For future emails from unknown senders w/ attachments computer security recommends deleting such e-mails prior to opening.
1618 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warn/Warn.
1630 Secured SOM position.

No further entries this page

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0012
Examination Date:	1/25/2013
Waste Container ID:	92492
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.: 123.0 kg Tare Wt.: 33.4 kg Net Wt.: 89.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92492

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	Metal hadware, pipe component lid, hand tool
AM:	
OM:	Scrap lead
OI:	
C:	Fiberboard liner sleeve, cloth material, fiberboard
R:	Leaded rubber glove, rubber gloves
XPM:	90 mil plastic liner lid, plastic bags
OR:	
IN:	Homogeneous solids
S:	

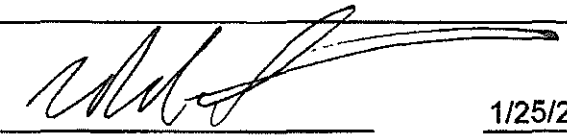
Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	13.0
Other Inorganic Materials (OI)	
Cellulosics (C):	18.0
Rubber (R):	8.0
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	24.6
Soils (S):	
Total WMP Weight:	89.6

CCP Radiography Data Sheet

Waste Container ID: 92492

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:	92492	Count Sequence Number:	21915
Operator:	D3PW2DK1\operator		
Assay Start:	1/28/2013 10:23:12 AM		
Description 1:	1LANDA1702		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 89.6 kg	Net:	89.6 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.480 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:	21915	Batch Number:	1LANDA1702
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:	92492	Analysis Date:	1/28/2013

Net Weight	89600.0 g	
Pu mass	6.41E+001 +-	1.35E+001 g
TRU Alpha Activity	5.39E+000 +-	8.29E-001 Ci
TRU Activity Concentration	6.01E+004 +-	9.26E+003 nCi/g
Pu-239 Equivalent Activity	5.53E+000 +-	8.30E-001 Ci
Pu-239 FGE	6.04E+001 +-	1.27E+001 g
Decay heat	1.69E-001 +-	2.58E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.54E-001	1.10E-004	1.64E-005	3.89E-006
PU238	5.89E-003	1.02E-001	2.15E-002	3.60E-005
PU239	6.01E+001	3.78E+000	7.97E-001	1.34E-003
PU240	3.85E+000	8.84E-001	1.86E-001	3.13E-004
AM241	1.78E-001	6.17E-001	1.30E-001	2.18E-004
PU241	7.63E-002	7.93E+000	1.67E+000	2.81E-003
PU242	1.28E-002	5.09E-005	1.07E-005	0.00E+000
SR90	1.83E-008	2.53E-006	1.51E-006	0.00E+000
CS137	2.88E-008	2.53E-006	1.51E-006	1.07E-006
U233	<LLD	<LLD	0.00E+000	7.58E-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	2.02E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1/30/13

ITR: _____ Date: 1.31.13

Automated Independent Technical Review

Count Sequence Number: 21915
Counter ID: MCS HENC #1
Container ID: 92492
Waste Matrix Code: Debris S5000
Sequence Type:

Batch Number: 1LANDA1702
Count Type:
Assay Date: 1/28/2013

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

Expert Review by: Sheri Chandler Date: 1-30-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92492**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

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\130201c\
Data File : 92492.D
Acq On : 1 Feb 2013 10:34 am (#1); 01-Feb-13, 10:33:57 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 10:42:09 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	3.591	96	5997865	201.25	ppmv	0.02
15) Chlorobenzene-d5	5.923	117	5185421	177.00	ppmv	0.02
Target Compounds						Qvalue

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