Los Alamos NATIONAL LABORATORY

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Environmental Protection & Compliance Division
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National Nuclear Security Administration
Los Alamos Field Office
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Los Alamos, New Mexico, 87544
(505) 667-5105/Fax (505) 667-5948

Date: MAR 0 4 2021
Symbol: EPC-DO: 21-064
LA-UR: 21-21693
Locates Action No.:

Mr. Don Meyer
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Response to Request for Information 2020 Hazardous Waste Minimization Report, Los Alamos National Laboratory, EPA ID#0890010515

Dear Mr. Meyer:

This correspondence transmits a response to a letter dated December 18, 2020 from the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) to the U.S. Department of Energy (DOE) National Nuclear Security Administration and Environmental Management, Los Alamos Field Offices (NA-LA and EM-LA, respectively). The letter requests further information regarding the most recent Waste Minimization Report (EPC-DO-20-329, LA-UR-20-28226) drafted in accordance with the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The Permit authorizes the DOE, Triad National Security, LLC (Triad), and Newport News Nuclear BWXT-Los Alamos, LLC (N3B), to manage, store, and treat hazardous waste at LANL.

The letter requests information associated with six waste generating processes and the associated waste management information for those processes. While both the Triad and the N3B portions of the report are referenced in the letter, the Permittees determined that the listing of processes in the letter were all included within the Triad portion of the report. Enclosure 1 to the letter consists of the Triad and DOE prepared response to include information requested by the NMED-HWB.

If you have questions, comments, or would like to discuss the information in this response further, please contact Karen E. Armijo, NA-LA, at (505) 221-3664, or Patrick L. Padilla, Triad, at (505) 412-0462.

Sincerely,

JENNIFER PAYNE (Affiliate)
Digitally signed by JENNIFER PAYNE (Affiliate)
Date: 2021.02.24 18:37:08 -07'00'

Jennifer E. Payne
Division Leader
Environmental Protection and Compliance Division
Triad National Security, LLC
Los Alamos National Laboratory

Sincerely,

Karen E. Armijo
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Date: 2021.02.26 09:27:23 -07'00'

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
U.S. Department of Energy

JEP/KEA/PLP:lvh

Enclosures (s): 1) Response to Request for Information 2020 Hazardous Waste Minimization Report

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Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
U.S. Department of Energy

ENCLOSURE 1

Response to Request for Information 2020 Hazardous Waste Minimization Report

EPC-DO-21-064

LA-UR-21-21693
Unclassified

Date: MAR 0 4 2021

Response to Request for Information 2020 Hazardous Waste Minimization Report

Introduction

This document responds to a letter dated December 18, 2020, from the New Mexico Environment Department- Hazardous Waste Bureau (NMED-HWB) to the U.S. Department of Energy (DOE) National Nuclear Security Administration and Environmental Management, Los Alamos Field Offices (NA-LA and EM-LA, respectively). The letter requests further information regarding the most recent Waste Minimization Report (Report). The Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit) which authorizes the U.S. Department of Energy (DOE), Triad National Security, LLC (Triad), and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) (Collectively the Permittees), to manage, store, and treat hazardous waste at LANL. The annual Waste Minimization Report that is drafted in accordance with Permit Section 2.9 contains information associated with the Permittees waste minimization efforts as well as information on the waste types and quantities of waste generated at the site in the previous fiscal year (FY). The NMED-HWB requests additional information concerning processes generating wastes; management of wastes including storage and/or treatment; and any disposal documentation associated with the waste streams listed in the NMED-HWB's December 18th correspondence.

While both the Triad and N3B portions of the Report were mentioned in the letter, it was determined that all processes cited in the letter are processes included within the Triad portion of the Report.

The processes for the following activities are included herein:

- Planetary ball milling for waste reduction in explosives processes
- Copper bioleaching for target development in plasma physics research
- Resonant Acoustic Mixing (RAM) in explosive processing
- Ammonium bifluoride (ABF) used to dissolve post detonation debris
- Solvent recovery system for acetonitrile in High-performance liquid chromatography (HPLC) wastes
- Solvent evaporator system for hexane recovered from wastewater samples

A seventh process was listed within the NMED-HWB request for information; however, it appears to be a duplication of the request for information on the planetary ball milling activity listed above.

Planetary Ball Milling

This activity consists of scientists experimenting with solid-state chemistry using planetary ball milling to address the hazardous waste generated by traditional concentrated acid wet chemistry for high explosive processes. Ball milling is a mechanical technique widely used to grind powders into fine particles and blend materials, but planetary milling is a relatively recent innovation that deposits significantly more energy in an efficient manner, enabling chemical reactions previously inaccessible through traditional colloidal milling techniques. Planetary milling is emerging as an environmentally-friendly, cost-effective technique for world-wide industry. Research into this method will continue in FY 2021 as scale-up can lead to reduced disposal and purchase costs associated with the concentrated acids used in the more traditional process. In addition, workers in high explosives will benefit from being exposed to less hazardous chemicals. As a discovery process, this project has generated

hazardous waste in the form of failed catalyst attempts in waste stream profile (WSP) 48203, included in Attachment 1 of this response.

Additionally included in Attachment 1 are WSPs 20759, 24245, 39696, 44239, 44612, 45248, and 45710. These profiles document hazardous and nonhazardous waste acids and organic compounds that are generated as part of explosives research, development, and chemical synthesis. The WSPs provide information as to the location and site identification number where hazardous waste is accumulated, which are inspected each year by NMED-HWB personnel. The planetary ball milling activity has eliminated concentrated acid wastes and organic synthesis solvent wastes, similar to the WSPs included in Attachment 1, and the final refined process will not generate catalyst waste (catalysts being reusable).

Lastly, waste container profile W847745 is included in Attachment 1, and includes documentation for nonhazardous wastewater in storage on-site. The wastewater is difficult to ship, as the trace explosives within the waste stream require further approval from the DOE and the U.S. Department of Transportation prior to shipment off-site for disposal.

Copper Bioleaching

Copper leaching for target component preparation using 35% to 50% nitric acid is the primary chemical operation performed by the Materials Science Target Engineering Team for target component preparation. This pollution prevention proposed activity is designed to decrease, or eliminate the quantity of acid utilized for copper leaching.

Target components, specifically, gold hohlraums and epon fabricated spools housing internal aluminum bands machined on copper mandrels are standard components for targets built most recently for plasma physics experiments. Batches of millimeter-sized hohlraums and spools are machined yearly using copper mandrels to support the components during machining. Thus, the deposited copper material becomes integral to the part being fabricated and must ultimately be removed in order to make these components viable and usable for targets.

Over the years, the leaching process to remove the deposited copper has been streamlined towards lower concentrations and shorter leaching times of nitric acid being used. Currently, 35% nitric acid is used to leach the copper from the epon spools and 50% nitric acid is used to leach the copper from the hohlraums. The hohlraum leaching process is extremely effective; however, the epon spool leaching process has its drawbacks.

This activity is using Acidithiobacillus ferrooxidans (an acidophilic iron-oxidizing bacterium), a natural bioleaching microorganism. The bacterium will replace or, at minimum, work in combination with the current nitric acid leaching process for target component preparation. Initially, the focus has been on mitigating the nitric acid leaching of the epon spools. For those spools that still contain small amounts of copper contamination, studies involve exposing the spools to a culture of Acidithiobacillus ferrooxidans and monitoring the effectiveness of leaching the remaining copper from the spools. Computed tomography and scanning electron microscopy techniques will be used to characterize the effectiveness of the microorganism's bioleaching capability. Depending on the success of leaching small amounts of copper, the primary goal is to transition the bioleaching methodology to leach copper from the entire spool and ideally, with no effect on the plastic epon. Finding a more natural, less-hazardous and possibly more effective substitute for nitric acid leaching of copper for target

components is advantageous for user health and safety in addition to improving the quality of the targets.

WSPs 49344 and 44204 are included in Attachment 2 of this response. WSP 49344 provides documentation as to how the waste generated from the activity will be managed when generated. WSP 44204 provides documentation for the waste that will be reduced or eliminated by the project. The WSPs also provide information as to the location and site identification number where hazardous waste accumulation occurs. Attachment 2 also includes container profiles W849416, W850678, W853362, W858199, and W858200 that document recent shipments of the nitric acid waste off-site for disposal.

Resonant Acoustic Mixing (RAM)

A wet slurry method is utilized to formulate explosives to meet the national security mission. This process generates wastes consisting of hazardous solvents and water. To address the issue, scientists at LANL are working to use resonant acoustic mixing (RAM) technology to eliminate aqueous waste and capture solvents, essentially creating a zero-waste process. Once the RAM method is online, LANL will benefit from reduced disposal and purchase costs associated with the concentrated acids. Also, due to RAM being a sealed system, workers will be exposed to less hazardous chemicals.

WSPs 42360 and 46444 are included in Attachment 3 to this response to document hazardous and nonhazardous wastes currently generated as part of formulating explosives containing solvents. WSP 42360 provides information as to the location and site identification number where hazardous waste accumulated prior to shipment off-site for disposal. Also included in Attachment 3 are waste container profiles W824418, W824459, W847940, W847943, W850988, and W855901. The profiles document movement and off-site shipment of hazardous waste, or movement and the current location of the nonhazardous wastewater that this project will work to reduce. The wastewater is difficult to ship, as the trace explosives within the waste stream require further approval from the DOE and the U.S. Department of Transportation prior to shipment off-site for disposal. Treatment of the wastewater on-site is currently being evaluated as a parallel path.

Dissolving Post-Detonation Debris with Ammonium Bifluoride (ABF)

In the field of nuclear forensic study, one of the biggest challenges is post-detonation debris solubulization. Debris generated after the nuclear detonation is a glassy material that is difficult to dissolve with chemicals. Traditionally, corrosive acids such as nitric acid, hydrofluoric acid, and sulfuric acid, in the most concentrated form, are employed during the dissolution. Often times, the complete dissolution is not warranting. These acids, due to their corrosive nature, are not suitable for in-field/on-site sample preparation operations. Even in the fix-based laboratory, the high concentration of the acids can sometimes exceed the waste acceptance criteria for discharge to the Radiological Liquid Wastewater Treatment Facility for treatment. Waste from excess sample digestion, rinsing glassware and analytical instruments are documented by WSPs 45884, 46089, and 46579, included in Attachment 4. These are aqueous waste streams that are treated at the Radiological Liquid Wastewater Treatment Facility. Any waste exceptions to the waste acceptance criteria must be approved by the treatment facility prior to generation of the waste.

Since FY17, chemists at LANL have been testing a chemical called ammonium bifluoride (ABF, NH4HF2) for its potential application in debris sample preparation. ABF is the active ingredient in car

wheel cleaner and can be obtained from ordinary hardware stores (although a higher grade/purity is utilized for the trace element analysis described here). Due to its less hazardous chemical properties, ABF has been used as a replacement for hydrofluoric acid, an extremely hazardous chemical, in industry. Scientists have already demonstrated that glass materials/fly ash can be digested when mixed with ABF solid powder and heated at 125 degrees Celsius for a couple of hours. The pellet formed can be completely dissolved in 2M (~10% nitric acid). They have also shown that uranium isotopes and two to three trace elements can be quantified by the inductively coupled plasma-mass spectrometry method. Identification and quantification of actinide isotopes and trace metals provide valuable nuclear forensic signatures in the post-detonation debris. Additional trace elements and more isotopes were evaluated in FY18 and 19, and use of ABF continues to improve procedural safety by decreasing the utilization of large quantities of concentrated, hazardous mineral acid fluxes. More importantly, ABF digestion is safer and faster than using concentrated mineral acids. As referenced in the FY20 Waste Minimization Report, funding did not continue for FY20 or FY21.

Acetonitrile Solvent Recovery System

The process of solvent recovery of acetonitrile in High-performance liquid chromatography (HPLC) equipment has been in use at Technical Area (TA) 35, Building 85 and TA-3, Building 1698 for quite some time. The Solvent Recovery Unit at Technical Area 35, received a Pollution Prevention Award for recovering solvents previously managed and disposed of as hazardous waste. The example WSP (43228) in Attachment 5 of this response was used to document a drum utilized for collection of solvent in the process, the contents of which is recycled by distillation for reuse. In 2019, the WSP was allowed to expire, as it was no longer necessary to hold the solvent for recovery as a hazardous waste prior to recovery. Upon the approval of a Class 1 permit modification to the LANL Hazardous Waste Facility Permit in August 2019, the Permittees were approved for claiming the Resource Conservation and Recovery Act (RCRA) Generator Controlled Exclusion for management of Hazardous Secondary Materials. This excludes Hazardous Secondary Materials that are reclaimed under the control of the generator from the definition of "hazardous waste".

Solvent Evaporator System for Hexane Recovered from Wastewater Samples

The Polychlorinated biphenyl (PCB) screening project has developed "in-house" capabilities to understand concentrations and compositions of PCBs in LANL wastewater flows. During the extraction concentration step in PCB sample processing, Laboratory chemists noticed high amounts of hazardous hexane solvent evaporation and waste generation. In FY18 pollution prevention funding was utilized to purchase a solvent evaporator to reduce hazardous hexane exhaust. After using the Solvent Evaporator, there was a reduced consumption of hexane solvent in addition to a reduction in solvent exhaust. Over a 3 week period of PCB chemical analysis, 2 Liters of hexane was recovered for one reuse as opposed to immediately being disposed of as a hazardous waste. After the second reuse, the hexane solvent is characterized as a hazardous waste.

Because the sample analysis process is not experimental in nature, the standard operating procedure has been included in Attachment 6 along with WSPs 45282, 45283, 45286, and 47579 along with container disposition profiles W854060, W854059, and W859264 that document recent off-site shipments of the wastes generated.

Attachment 1

Planetary Ball Milling

Waste Stream Profiles 48203, 20759, 24245, 39696, 44239, 44612, 45248, and 45710 and Container Profile W847745

LA-UR-21-21693

WASTE PROFILE FORM COVER SHEET

48203
PENDING APPROVAL

Waste Characterization Information

Waste Stream ID:	48203
WPF ID (Legacy):	
Waste Stream Name:	METAL OXIDES USED AS CATALYST
Expiration Date:	
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	
Composition (other):	
EPA Codes:	
Waste Acceptance:	
EPA Form Code:	
EPA Source Code:	

Waste Generation Estimates

YEAR	VOLUME
2022	14.00 gal
2021	14.00 gal
2020	14.00 gal

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
48203	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
233921	WINDLER, GARY	324836	BRINER, PATRICK		5056061842
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C926	M-7	40	000012	105	5056651354

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 6480
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:

ER Use Only

- ☐ ER Site — SWMU/AOC No.

- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

Method of Characterization *(check as many as apply)*

☑ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☐ Attached	Documentation No:
☐ Material Safety Data Sheet (MSDS)	☐ Attached	

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☑ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

0.0530

Section 3 - Process and Waste Description

Process Description:
Various metal oxides used in synthesis processes.

• Materials are synthesized using solid chemicals
• Materials are extracted using liquid chemicals
• Materials are formulated using solid and liquid chemicals
• Residual solid and liquid chemicals are captured on Kimwipes, gloves, etc. when cleaning out the glassware, etc.

Waste Description:

Section 4 - Characteristics

Ignitability *(check only one)*	**Corrosivity** *(check only one)* (pH)	**Reactivity** *(check as many as apply)*	**Boiling Point** *(check only one)*
☐ < 73 F (< 22.8 C)	☐ <= 2.0	☐ RCRA Unstable	☐ <= 95 F (<= 35 C)
☐ 73 - 99 F (22.8 - 37.2 C)	☐ 2.1 - 4.0	☐ Water Reactive	☐ >95 F (> 35 C)
☐ 100 - 139 F (37.8 - 59.4 C)	☐ 4.1 - 6.0	☐ Cyanide Bearing	☑ Not Applicable
☐ 140 - 200 F (60.0 - 99.3 C)	☐ 6.1 - 9.0	☐ Sulfide Bearing	
☐ > 200 (> 99.3 C)	☐ 9.1 - 12.4	☐ Pyrophoric	
☐ EPA Ignitable - Non-liquid	☐ >= 12.5	☐ Shock Sensitive	
☐ DOT Flammable Gas	☐ Liquid Corrosive to Steel	☐ Explosive [Specify DOT Div.]	
☑ DOT Oxidizer	☑ Non-aqueous	☑ Non-Reactive	
☐ Not Ignitable			

	Characterization Method				Concentration of Contaminants		
				None or	Contaminant present at		
Identify for all contaminants listed	**AK**	**TCLP**	**Total**	**Non-detect**	**Minimum**	**Maxiumum**	**Regulatory Limit**
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☐	☐	☐	☐	to	ppm	5.0 ppm
Barium	☐	☐	☐	☐	to	ppm	100.0 ppm
Cadmium	☐	☐	☐	☐	to	ppm	1.0 ppm
Chromium	☐	☐	☐	☐	to	ppm	5.0 ppm
Lead	☐	☐	☐	☐	to	ppm	5.0 ppm
Mercury	☐	☐	☐	☐	to	ppm	0.2 ppm
Selenium	☐	☐	☐	☐	to	ppm	1.0 ppm
Silver	☐	☐	☐	☐	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☐	☐	☐	☐	to	ppm	0.5 ppm
Carbon tetrachloride	☐	☐	☐	☐	to	ppm	0.5 ppm
Chlorobenzene	☐	☐	☐	☐	to	ppm	100.0 ppm
Chloroform	☐	☐	☐	☐	to	ppm	6.0 ppm
Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
p-Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
m-Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
o-Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☐	☐	☐	☐	to	ppm	7.5 ppm
1,2-Dichloroethane	☐	☐	☐	☐	to	ppm	0.5 ppm
1,1-Dichloroethylene	☐	☐	☐	☐	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☐	☐	☐	☐	to	ppm	0.13 ppm
Hexachlorobenzene	☐	☐	☐	☐	to	ppm	0.13 ppm
Hexachlorobutadiene	☐	☐	☐	☐	to	ppm	0.5 ppm
Hexachloroethane	☐	☐	☐	☐	to	ppm	3.0 ppm
Methyl ethyl ketone	☐	☐	☐	☐	to	ppm	200.0 ppm
Nitrobenzene	☐	☐	☐	☐	to	ppm	2.0 ppm
Pentachlorophenol	☐	☐	☐	☐	to	ppm	100.0 ppm
Pyridine	☐	☐	☐	☐	to	ppm	5.0 ppm
Tetrachloroethylene	☐	☐	☐	☐	to	ppm	0.7 ppm
Trichloroethylene	☐	☐	☐	☐	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☐	☐	☐	☐	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☐	☐	☐	☐	to	ppm	400.0 ppm
Vinyl chloride	☐	☐	☐	☐	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☐	☐	☐	☐	to	ppm	0.03 ppm
2,4-D	☐	☐	☐	☐	to	ppm	10.0 ppm
Endrin	☐	☐	☐	☐	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☐	☐	☐	☐	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☐	☐	☐	☐	to	ppm	0.4 ppm
Methoxychlor	☐	☐	☐	☐	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☐	☐	☐	☐	to	ppm	1.0 ppm
Toxaphene	☐	☐	☐	☐	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)	Maximum (ppm)
7631-86-9	Silica, amorphous hydrated	to	
1344-28-1	Aluminum oxide	to	
-----	Zeolite (ZSM-5)	to	
-----	Bismuth (III) Oxide	to	
13463-67-7	Titanium dioxide	to	
1309-48-4	Magnesium oxide	to	
-----	Molybdenum Trioxide	to	
1314-62-1	Vanadium pentoxide	to	
-----	Zinc Peroxide	to	
-----	Nickel (II) Oxide	to	
1309-37-1	Red Iron Oxide	to	
-----	Cobalt (II) Oxide	to	
-----	Cobalt (II III) Oxide	to	
1313-13-9	Manganese dioxide	to	
-----	Chromium (III) Oxide	to	
1314-23-4	Zirconium oxide	to	
-----	Tungsten Trioxide	to	
-----	Tin Oxide	to	
-----	Yttrium Oxide	to	
-----	Gadolinium (III) Oxide	to	
1313-97-9	Neodymium oxide	to	
-----	Samarium (III) Oxide	to	
1317-38-0	Cupric oxide	to	
-----	Tellurium Oxide	to	
-----	Celite	to	
-----	Phosphorus Pentoxide	to	
-----	Potassium Phosphite	to	
7757-79-1	Potassium nitrate	to	
7631-99-4	Sodium nitrate	to	
-----	Ammonium Nitrate	to	
-----	Calcium nitrate tetrahydrate	to	
13446-18-9	Magnesium nitrate hexahydrate	to	
7632-00-0	Sodium nitrite	to	
-----	Potassium Nitrite	to	
7727-43-7	Barium sulfate	to	
-----	Kraton G 1650	to	
64741-88-4	Distillates, (petroleum), solvent-refined heavy paraffinic	to	
-----	Estane 5703	to	
-----	BDNPA/F	to	
-----	Irganox 1010	to	
-----	Sodium hexafluoroaluminate	to	
-----	1,5 Dihydroxynaphthalene	to	
-----	Theobromine	to	
-----	Dinitronaphthalene	to	
-----	Cabanilide	to	
-----	4,4'- Sulfonyldiphenol	to	
-----	Glycouril	to	
-----	cellulosics (Kimwipes, nitrile gloves)	to	
	Total of max. ranges of this section and page 2	0.00 in %	

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.
Identify the storage management controls that will be used for this waste stream: *(check all that apply)* ☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☐ Waste appears to meet WAC attachment for: HAZ
☐ Waste stream needs exception/exemption for treatment, storage, or disposal.
☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)
Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. Signature: _____ Date: _____
Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC. Signature: _____ Date: _____
RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC. Signature: _____ Date: _____

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	WCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

20759
APPROVED

Waste Characterization Information

Waste Stream ID:	20759
WPF ID (Legacy):	39634
Waste Stream Name:	RESEARCH AND DEVELOPMENT CHEMICAL SYNTHESIS IN SUPPORT OF THE WEAPONS PROGRAM.
Expiration Date:	09/29/2008
Waste Type:	Solid Waste - Other
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Non-hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	WATER
EPA Codes:	
Waste Acceptance:	
EPA Form Code:	W219 Organic Liquids: Other organic liquid (specify in comments)
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2006	0.10 CM

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
20759	**39634**

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
113513	CHAVEZ, DAVID	093700	JIO, GORDON		5056652742
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C920	DE-2	09	000021	135	

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 428
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:

ER Use Only

- ☐ ER Site — SWMU/AOC No.

- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above — Site No:
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No: WASTE LOG
☐ Material Safety Data Sheet (MSDS)	☐ Attached	

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☐ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☐ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☐ Inorganic
- ☑ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

0.1000

Section 3 - Process and Waste Description

Process Description:
RESEARCH AND DEVELOPMENT CHEMICAL SYNTHESIS IN SUPPORT OF THE WEAPONS PROGRAM.

Waste Description:
NON-HAZARDOUS WASTE WHICH INCLUDES WATER AND 3,5-DIMETHYLPYRAZOLE HYDROCHLORIDE.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☑ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☐	☐	☐	☐	to	ppm	5.0 ppm
Barium	☐	☐	☐	☐	to	ppm	100.0 ppm
Cadmium	☐	☐	☐	☐	to	ppm	1.0 ppm
Chromium	☐	☐	☐	☐	to	ppm	5.0 ppm
Lead	☐	☐	☐	☐	to	ppm	5.0 ppm
Mercury	☐	☐	☐	☐	to	ppm	0.2 ppm
Selenium	☐	☐	☐	☐	to	ppm	1.0 ppm
Silver	☐	☐	☐	☐	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☐	☐	☐	☐	to	ppm	0.5 ppm
Carbon tetrachloride	☐	☐	☐	☐	to	ppm	0.5 ppm
Chlorobenzene	☐	☐	☐	☐	to	ppm	100.0 ppm
Chloroform	☐	☐	☐	☐	to	ppm	6.0 ppm
Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
p-Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
m-Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
o-Cresol	☐	☐	☐	☐	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☐	☐	☐	☐	to	ppm	7.5 ppm
1,2-Dichloroethane	☐	☐	☐	☐	to	ppm	0.5 ppm
1,1-Dichloroethylene	☐	☐	☐	☐	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☐	☐	☐	☐	to	ppm	0.13 ppm
Hexachlorobenzene	☐	☐	☐	☐	to	ppm	0.13 ppm
Hexachlorobutadiene	☐	☐	☐	☐	to	ppm	0.5 ppm
Hexachloroethane	☐	☐	☐	☐	to	ppm	3.0 ppm
Methyl ethyl ketone	☐	☐	☐	☐	to	ppm	200.0 ppm
Nitrobenzene	☐	☐	☐	☐	to	ppm	2.0 ppm
Pentachlorophenol	☐	☐	☐	☐	to	ppm	100.0 ppm
Pyridine	☐	☐	☐	☐	to	ppm	5.0 ppm
Tetrachloroethylene	☐	☐	☐	☐	to	ppm	0.7 ppm
Trichloroethylene	☐	☐	☐	☐	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☐	☐	☐	☐	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☐	☐	☐	☐	to	ppm	400.0 ppm
Vinyl chloride	☐	☐	☐	☐	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☐	☐	☐	☐	to	ppm	0.03 ppm
2,4-D	☐	☐	☐	☐	to	ppm	10.0 ppm
Endrin	☐	☐	☐	☐	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☐	☐	☐	☐	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☐	☐	☐	☐	to	ppm	0.4 ppm
Methoxychlor	☐	☐	☐	☐	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☐	☐	☐	☐	to	ppm	1.0 ppm
Toxaphene	☐	☐	☐	☐	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
7732-18-5	WATER	880000	to	940000
-----	3,5-DIMETHYLPYRAZOLE HYDROCHLORIDE [31705-88-1]	80000	to	120000
	Total of max. ranges of this section and page 2			106.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

PLASTIC DRUM

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: SW-OTHER

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *WCATS APPLICATION (000000)* Date: *09/07/06 12:00 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *WCATS APPLICATION (000000)* Date: *09/07/06 12:00 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *TAMMY WINTERS (120424)* Date: *09/29/06 05:14 PM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

24245
APPROVED

Waste Characterization Information

Waste Stream ID:	24245
WPF ID (Legacy):	51725
Waste Stream Name:	ACID WASTE
Expiration Date:	08/17/2017
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	Sulfuric/Nitric Acid;Water
EPA Codes:	D002
Waste Acceptance:	
EPA Form Code:	W103 Inorganic Liquids: Spent concentrated acid (5% or more)
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2019	5.00 gal
2018	5.00 gal
2017	5.00 gal
2016	5.00 gal
2015	5.00 gal

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
24245	**51725**

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
233159	MANNER, VIRGINIA	217511	LEE, JEFFREY		5056060045
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C920	WX-6	09	000021	137	5052577330

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 424
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:

ER Use Only

- ☐ ER Site — SWMU/AOC No.

- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above — Site No:
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No: TP/IWD-TA-9-186(U), Rev. A, DC´
☑ Material Safety Data Sheet (MSDS)	☑ Attached	See Documentation for all MSDS

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☐ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
Acid waste will be generated from the synthesis of specific molecular hydrogen peroxide-based home made explosives (HMEs). The syntheses are for the purpose of further preliminary explosives testing.

Waste Description:
The waste stream consists of acid waste containing sulfuric acid, 30% hydrogen peroxide, nitric acid and water. This waste can also contain formic acid, acetic acid, hydrochloric acid, triflic acid, and citric acid. Because of the steps used during the various HME processes, the acid formulations are considerd spent products that could potentialy contain contaminants (Non-RCRA).

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☑ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☐ >95 F (> 35 C)
- ☑ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
7664-93-9	Sulfuric acid	100000	to	400000
7697-37-2	Nitric acid	100000	to	200000
7732-18-5	Water	200000	to	300000
64-18-6	Formic acid	10000	to	50000
64-19-7	Acetic acid	10000	to	50000
7647-01-0	Hydrochloric acid	10000	to	100000
77-92-9	Citric acid	10000	to	30000
-----	Triflic acid	10000	to	20000
7722-84-1	Hydrogen peroxide	10000	to	20000
	Total of max. ranges of this section and page 2			117.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Per the generator, section 4.1 thru 4.4 of TP/IWD-TA9-186 is a general procedure that is typically followed to prepare explosives that generates the acid waste. Waste non-explosive, therefor non-reactive.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

DOT spec. containier

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *VIRGINIA MANNER (233159)* Date: *08/18/15 03:12 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JEFFREY LEE (217511)* Date: *08/18/15 03:38 PM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *08/18/15 06:04 PM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

39696
APPROVED

Waste Characterization Information

Waste Stream ID:	39696
WPF ID (Legacy):	56432
Waste Stream Name:	DEVELOPMENTAL ENERGETIC MATERIALS
Expiration Date:	02/09/2018
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Chemical
Composition (other):	organic solvents, water
EPA Codes:	D001 F003 F005
Waste Acceptance:	
EPA Form Code:	W119 Inorganic Liquids: Other inorganic liquid (specify in comments)
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2019	20.00 L
2018	20.00 L
2017	20.00 L

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
39696	**56432**

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
233159	MANNER, VIRGINIA	217511	LEE, JEFFREY		5056060045
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C920	M-7	09	000021	137	5052577330

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 424
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:

ER Use Only

- ☐ ER Site — SWMU/AOC No.

- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above — Site No:
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No: M-7 Chemical operations IWD-TA
☑ Material Safety Data Sheet (MSDS)	☑ Attached	See Documentation

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
Synthesis of new energetic materials, disposed of as a solution of organic solvent containing <1% energetic materials.

Waste Description:
Organic solvents include: acetone, hexanes, diethyl ether, THF, water, dichloromethane, acetonitrile, methanol, ethanol, toluene and methyl ethyl ketone.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☑ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☐ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☐ 2.1 - 4.0
- ☑ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☐	20000 to	30000 ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
67-64-1	Acetone	300000	to	400000
73513-42-5	Hexanes	40000	to	50000
109-99-9	Tetrahydrofuran	40000	to	50000
7732-18-5	Water	100000	to	150000
75-05-8	Acetonitrile	50000	to	100000
67-56-1	Methanol	40000	to	50000
64-17-5	Ethanol	40000	to	50000
108-88-3	Toluene	10000	to	20000
60-29-7	Ethyl ether	40000	to	50000
75-09-2	Methylene chloride	40000	to	50000
	Total of max. ranges of this section and page 2			100.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

No compatibiliy issues. Waste is compatible with High Density Polythylene (HDPE) containers.

Waste as disposed is non-explosive, therefore non-reactive, non D003.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.
DOT approved containers

No compatibiliy issues. Waste is compatible with High Density Polythylene (HDPE) containers.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *ANNA GIAMBRA (191744)* Date: *02/09/17 11:48 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JEFFREY LEE (217511)* Date: *02/09/17 11:49 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *02/13/17 06:26 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☑	Acetone	67-64-1	0.28	160.0	1600.0
☑	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☑	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☑	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☑	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☑	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☑	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

44239
APPROVED

Waste Characterization Information

Waste Stream ID:	44239
WPF ID (Legacy):	
Waste Stream Name:	GENERAL ORGANIC SYNTHESIS OF HIGH EXPLOSIVES
Expiration Date:	06/22/2020
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Chemical
Composition (other):	acetone, organic solvents
EPA Codes:	D001 D035 F003 F005
Waste Acceptance:	
EPA Form Code:	W204 Organic Liquids: Concentrated halogenated/ non-halogenated solvent mixture
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2021	1.00 gal
2020	1.00 gal
2019	1.00 gal
2018	1.00 gal
2017	1.00 gal

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
44239	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
231206	LEONARD, PHILIP	169004	GONZALES, PAUL		5056653637
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C920	M-7	09	000021	134	5056658812

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 6372
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:

ER Use Only

- ☐ ER Site — SWMU/AOC No.

- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above — Site No:
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☐ Acceptable Knowledge Documentation	☐ Attached	Documentation No:
☑ Material Safety Data Sheet (MSDS)	☑ Attached	See Documentation for list of MSD

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☐ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☑ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

0.0038

Section 3 - Process and Waste Description

Process Description:
The waste process is derived from general organic synthesis of high explosives which involves stirring various reagents in organic solvents, filtering off the precipitates, extracting with organic solvents and then rotovapping off solvent for reuse. Most of the waste from this process will come from washing glassware, hence the main component is acetone.

Waste Description:
Waste will consist of Acetone, DMSO, Acetonitrile, DMF, Ethyl Acetate, Hexanes, THF, Methanol, Toluene, 2-propanol, Ethanol, MEK, High Explosive (HMX) and Dissolved Organics.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☑ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☐ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☑ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maximum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☐	20000 to	50000 ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
67-64-1	Acetone	350000	to	400000
67-68-5	Dimethyl Sulfoxide	20000	to	50000
75-05-8	Acetonitrile	20000	to	50000
68-12-2	N,N-Dimethylformamide	20000	to	50000
141-78-6	Ethyl acetate	20000	to	50000
73513-42-5	Hexanes	20000	to	50000
109-99-9	Tetrahydrofuran	20000	to	50000
67-56-1	Methanol	20000	to	50000
108-88-3	Toluene	20000	to	50000
-----	Isopropyl alcohol	20000	to	50000
64-17-5	Ethanol	20000	to	50000
-----	Dissolved Organics	60000	to	90000
-----	High Explosive (HMX)	100	to	9000
	Total of max. ranges of this section and page 2			104.90 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

This waste is non-explosive, therefore non-reactive, non D003

No compatibility issues. Waste is compatible with High Density Polythylene (HDPE) containers.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.
DOT compliant container(s)

No compatibility issues. Waste is compatible with High Density Polythylene (HDPE) containers

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *PHILIP LEONARD (231206)* Date: *06/22/17 10:41 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JEFFREY LEE (217511)* Date: *06/22/17 12:11 PM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *06/27/17 07:37 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☑	Acetone	67-64-1	0.28	160.0	1600.0
☑	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	/VCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☑	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☑	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☑	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☑	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

44612
APPROVED

Waste Characterization Information

Waste Stream ID:	44612
WPF ID (Legacy):	
Waste Stream Name:	ACID WASTE
Expiration Date:	08/31/2019
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	Sulfuric/Nitric Acid;Water
EPA Codes:	D002
Waste Acceptance:	
EPA Form Code:	W103 Inorganic Liquids: Spent concentrated acid (5% or more)
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2020	5.00 gal
2019	5.00 gal
2018	5.00 gal
2017	5.00 gal
2016	5.00 gal
2015	5.00 gal

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
44612	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
233159	MANNER, VIRGINIA	169004	GONZALES, PAUL		5056060045
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C920	M-7	09	000021	137	5056658812

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 424
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____

ER Use Only

- ☐ ER Site — SWMU/AOC No. _____

- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	IWDs (see documentation)
☑ Material Safety Data Sheet (MSDS)	☑ Attached		See Documentation for all MSDS

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description: Acid waste will be generated from the synthesis of a variety of high explosives, which will sometimes include (but are not limited to) specific molecular hydrogen peroxide-based home made explosives (HMEs). The syntheses are for the purpose of basic research, and further preliminary explosives testing.
Waste Description: The waste stream consists of acid waste containing High Explosives incuded but not limited to (TATP (triacetone triperoxide), HMTD (hexamethylene triperoxide diamine), MEKP (methyl ethyl ketone peroxide), and ETN (erythritol tetranitrate)). Waste will also include sulfuric acid, 30% hydrogen peroxide, nitric acid and water. This waste can also contain formic acid, acetic acid, hydrochloric acid, triflic acid, and citric acid.

Section 4 - Characteristics

Ignitability *(check only one)*	**Corrosivity** *(check only one)* (pH)	**Reactivity** *(check as many as apply)*	**Boiling Point** *(check only one)*
☐ < 73 F (< 22.8 C)	☑ <= 2.0	☐ RCRA Unstable	☐ <= 95 F (<= 35 C)
☐ 73 - 99 F (22.8 - 37.2 C)	☐ 2.1 - 4.0	☐ Water Reactive	☐ >95 F (> 35 C)
☐ 100 - 139 F (37.8 - 59.4 C)	☐ 4.1 - 6.0	☐ Cyanide Bearing	☑ Not Applicable
☐ 140 - 200 F (60.0 - 99.3 C)	☐ 6.1 - 9.0	☐ Sulfide Bearing	
☐ > 200 (> 99.3 C)	☐ 9.1 - 12.4	☐ Pyrophoric	
☐ EPA Ignitable - Non-liquid	☐ >= 12.5	☐ Shock Sensitive	
☐ DOT Flammable Gas	☐ Liquid Corrosive to Steel	☐ Explosive [Specify DOT Div.]	
☐ DOT Oxidizer	☐ Non-aqueous	☑ Non-Reactive	
☑ Not Ignitable			

	Characterization Method				Concentration of Contaminants		
Identify for all contaminants listed	**AK**	**TCLP**	**Total**	**None or Non-detect**	**Contaminant present at Minimum**	**Maxiumum**	**Regulatory Limit**
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
7664-93-9	Sulfuric acid	100000	to	400000
7697-37-2	Nitric acid	100000	to	200000
7732-18-5	Water	200000	to	300000
64-18-6	Formic acid	10000	to	50000
64-19-7	Acetic acid	10000	to	50000
7647-01-0	Hydrochloric acid	10000	to	100000
77-92-9	Citric acid	10000	to	30000
-----	Triflic acid	10000	to	20000
7722-84-1	Hydrogen peroxide	10000	to	20000
-----	High Explosive (TATP (triacetone triperoxide), HMTD (hexamethylene triperoxi	1000	to	9000
	Total of max. ranges of this section and page 2			117.90 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Per the Generator, the Inorganic and Organic Acids are used to create a reaction during the process. No further reactions should occur. Refer to the page and section of the IWDs listed below that outline the generating process and waste management.

The High Explosives (TATP (triacetone triperoxide), HMTD (hexamethylene triperoxide diamine), MEKP (methyl ethyl ketone peroxide), and ETN (erythritol tetranitrate) are examples of materials that are not part of the Allowed Explosives list but are covered by High Explosive Development process (HED) documentation for development at Phase I and is well documented. This waste profile also covers other high explosives that are not covered by the HED process, but are covered in the IWDs listed below.

The waste is non-explosive, therefore non-RCRA-D003 reactive and non-DOT Hazard Class 1 explosive.

No compatibility issues. Waste is compatible with High Density Polyethylene (HDPE) containers.

IWD-TA9-187: acid waste is needed for:

page 26, section 4.8.13, step 2

IWD-TA9-186: acid waste is needed for:

page 12, section 4.1.8, step 1
Page 15, section 4.2.8, step 1
Page 18, section 4.3.8, step 1
Page 21, section 4.4.11, step 1

IWD-TA9-2309: acid waste is discussed in:

Page 13 - 16, steps 1 - 2
Page 29, section 7.9

IWD-TA9-022: general waste is discussed in:

Page 13, section 5.0

(this one will be used to generate acid waste, but it references IWD-TA9-2309 for specific acid waste generation and handling)

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.
DOT compliant containier

No compatibility issues. Waste is compatible with High Density Polyethylene (HDPE) containers

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *VIRGINIA MANNER (233159)* Date: *08/31/17 03:10 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JEFFREY LEE (217511)* Date: *08/31/17 03:19 PM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *09/11/17 03:27 PM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

45248
APPROVED

Waste Characterization Information

Waste Stream ID:	45248
WPF ID (Legacy):	
Waste Stream Name:	DEVELOPMENTAL ENERGETIC MATERIALS
Expiration Date:	05/13/2021
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Chemical
Composition (other):	organic solvents, water
EPA Codes:	D001 F002 F003 F005
Waste Acceptance:	
EPA Form Code:	W119 Inorganic Liquids: Other inorganic liquid (specify in comments)
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2022	20.00 L
2021	20.00 L
2020	20.00 L

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
45248	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
114183	RODRIGUEZ, JOSEPH	169004	GONZALES, PAUL		5056653009
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
H834	M-7	09	000021	137	5056658812

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 424
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:

ER Use Only

- ☐ ER Site — SWMU/AOC No.

- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above — Site No:
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No: IWD-TA9-2309/Page 13-16, steps
☑ Material Safety Data Sheet (MSDS)	☑ Attached	See Documentation

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☑ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
Synthesis of new energetic materials, disposed of as a solution of organic solvent containing <1% energetic materials.

Waste Description:
Organic solvents include: acetone, hexanes, diethyl ether, THF, water, dichloromethane, acetonitrile, methanol, ethanol, toluene and methyl ethyl ketone.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☑ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☐ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☐ 2.1 - 4.0
- ☑ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maximum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☐	20000 to	30000 ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
67-64-1	Acetone	300000	to	400000
73513-42-5	Hexanes	40000	to	50000
109-99-9	Tetrahydrofuran	40000	to	50000
7732-18-5	Water	100000	to	150000
75-05-8	Acetonitrile	50000	to	100000
67-56-1	Methanol	40000	to	50000
64-17-5	Ethanol	40000	to	50000
108-88-3	Toluene	10000	to	20000
60-29-7	Ethyl ether	40000	to	50000
75-09-2	Methylene chloride	40000	to	50000
	Total of max. ranges of this section and page 2			100.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

No compatibiliy issues. Waste is compatible with High Density Polythylene (HDPE) containers.

Waste is non-explosive, therefore non-reactive, non-RCRA-D003 reactive and non-DOT Hazard Class 1 explosive.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.
DOT compliant container(s)

No compatibiliy issues. Waste is compatible with High Density Polythylene (HDPE) containers.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *JOSEPH RODRIGUEZ (114183)* Date: *05/13/20 08:37 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *PAUL GONZALES (169004)* Date: *05/18/20 09:41 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *05/18/20 10:28 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☑	Acetone	67-64-1	0.28	160.0	1600.0
☑	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	WCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☑	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☑	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☑	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☑	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☑	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

45710
APPROVED

Waste Characterization Information

Waste Stream ID:	45710
WPF ID (Legacy):	
Waste Stream Name:	ORGANIC SYNTHESIS OF HIGH EXPLOSIVES
Expiration Date:	11/26/2021
Waste Type:	Solid Waste - Other
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Non-hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	
EPA Codes:	
Waste Acceptance:	
EPA Form Code:	NA Not Applicable: Not Applicable
EPA Source Code:	NA Not Applicable: Not Applicable

Waste Generation Estimates

YEAR	VOLUME
2021	10.00 gal
2020	10.00 gal
2019	10.00 gal

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
45710	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*	Generator's Phone
233921	WINDLER, GARY	324836	BRINER, PATRICK	5056061842

Generator's Mail Stop	Waste Generating Group	Waste Stream Technical Area	Building	Room	WMC Phone
C926	M-7	40	000012	105	5056651354

Waste Accumulation *(check only one)*

- ☐ Satellite Accumulation Area — Site No: _____
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____

ER Use Only

- ☐ ER Site — SWMU/AOC No. _____

- ☑ Central Accumulation Area — Site No: 3916
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

Method of Characterization *(check as many as apply)*

☑ Chemical/Physical Analysis	☑ Attached	Sample No:	RFA 4282 for WSP 45710
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	Chemical Inventory for WSP 4571(
☑ Material Safety Data Sheet (MSDS)	☑ Attached		See attached in Documentation pa

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☐ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☐ Non-Aqueous
- ☑ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
The waste process is derived from general organic synthesis of high explosives which involves stirring various reagents in organic solvents, filtering off the precipitates, extracting with organic solvents and then rotovapping off solvent for reuse. Most of the waste from this process will come from washing glassware, hence the main component is water, with trace acetone.

Waste Description:
Waste will consist of Water, Acetone, Diethyl Ether, Hexanes, Ethanol, High Explosives and Dissolved Organics.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☑ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☐	☐	☑	☑	to	ppm	5.0 ppm
Barium	☐	☐	☑	☐	0.01 to	0.254 ppm	100.0 ppm
Cadmium	☐	☐	☑	☑	to	ppm	1.0 ppm
Chromium	☐	☐	☑	☑	to	ppm	5.0 ppm
Lead	☐	☐	☑	☑	to	ppm	5.0 ppm
Mercury	☐	☐	☑	☑	to	ppm	0.2 ppm
Selenium	☐	☐	☑	☑	to	ppm	1.0 ppm
Silver	☐	☐	☑	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☐	☐	☑	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☐	☐	☑	☑	to	ppm	0.5 ppm
Chlorobenzene	☐	☐	☑	☑	to	ppm	100.0 ppm
Chloroform	☐	☐	☑	☑	to	ppm	6.0 ppm
Cresol	☐	☐	☑	☑	to	ppm	200.0 ppm
p-Cresol	☐	☐	☑	☑	to	ppm	200.0 ppm
m-Cresol	☐	☐	☑	☑	to	ppm	200.0 ppm
o-Cresol	☐	☐	☑	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☐	☐	☑	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☐	☐	☑	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☐	☐	☑	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☐	☐	☑	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☐	☐	☑	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☐	☐	☑	☑	to	ppm	0.5 ppm
Hexachloroethane	☐	☐	☑	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☐	☐	☑	☑	to	ppm	200.0 ppm
Nitrobenzene	☐	☐	☑	☑	to	ppm	2.0 ppm
Pentachlorophenol	☐	☐	☑	☑	to	ppm	100.0 ppm
Pyridine	☐	☐	☑	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☐	☐	☑	☑	to	ppm	0.7 ppm
Trichloroethylene	☐	☐	☑	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☐	☐	☑	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☐	☐	☑	☑	to	ppm	400.0 ppm
Vinyl chloride	☐	☐	☑	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
7732-18-5	Water	940000	to	950000
60-29-7	Ethyl ether	4000	to	5000
67-64-1	Acetone	9500	to	10000
110-54-3	Hexane	4500	to	5000
64-17-5	Ethanol	3000	to	5000
141-78-6	Ethyl acetate	30000	to	50000
-----	2-nitropyrrole	3000	to	5000
-----	4-nitropyrrole	1500	to	2000
-----	TATB	140	to	200
118-96-7	Trinitrotoluene[2,4,6-]	16	to	20
2691-41-0	HMX	300	to	500
	Total of max. ranges of this section and page 2			103.27 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

There are no compatibiity issues associated with this waste stream. Waste is not reactive with itself or polyethylene containers it is packaged in.

Waste is non-explosive, therefore non-RCRA-D003 reactive and non-DOT Hazard Class 1 explosive.

Form 2038, documenting the waste as “Material Documented as Safe (MDAS)”, must be attached (uploaded) to the container record in WCATS, when preparing and submitting a WDR for a container associated with this WSP.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Waste will be packaged in DOT compliant polyethylene containers.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: SW-OTHER

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *GARY WINDLER (233921)* Date: *11/26/18 05:18 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JOHN PIENIAZEK (106155)* Date: *11/27/18 07:54 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *11/27/18 09:28 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	WCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

CONTAINER PROFILE
W847745
CON-SW-OTHER

WS ID: 45710
C ID: 847745
Opt ID: PO 525 WR007
ACTIVE

GENERAL INFORMATION

Container ID:	847745		
Labeled ID:	W847745		
Optional ID:	PO 525 WR007	**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	NO
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	45710	**Container Subtype:**	14-gallon poly
Work Path:	CON-SW-OTHER	**Origin Date:**	27-Nov-2018 10:00 am
Quantity (Univ):	1	**Accum Start Date:**	
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: GARY WINDLER (233921)

Insert By: JOHN PIENIAZEK (106155)

Waste Desc: ORGANIC SYNTHESIS OF HIGH EXPLOSIVES

WEIGHTS AND VOLUMES

Container Volume:	15.00 gal	**Gross Weight:**	86.10 lb
Waste Volume:	10.00 gal	**Tare Weight:**	9.00 lb
		Net Weight:	77.10 lb

LOCATION

Pickup (Origin): LANL: 40: 000012

Current: LANL: 36: 000048

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
5K070A	JWB2	6418	0101	100.00	INACTIVE	ACTIVE	*SELECTION LIST*

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE	NON-REGULATED WASTE (WATER WITH TRACE HE)

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
01/24/2019 3:11 PM	1879058 CANCELLED	LANL:40 - WDR-NRAD	NO
01/24/2019 3:15 PM	1881743 EXECUTED	LANL:40 » 36:000048	NO

CONTAINER PROFILE
W847745
CON-SW-OTHER

WS ID: 45710
C ID: 847745
Opt ID: PO 525 WR007
ACTIVE

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
10/01/2019 7:41 AM	1824444 EXECUTED	LANL:36: » 36:000048	NO
10/01/2019 7:41 AM	1855777 EXECUTED	LANL:36: » 36:000048	NO
10/08/2019 11:31 AM	1889710 PENDING	LANL:36 » 60:000017	NO
10/22/2019 2:46 PM	1890318 CANCELLED	LANL:36 » 60:000017	NO
11/07/2019 11:32 AM	1890827 PENDING	LANL:36 » 60:000017	NO
02/04/2020 7:26 AM	1889349 EXECUTED	LANL:36 - WDR-NRAD	NO
02/20/2020 10:57 AM	1894184 CANCELLED	LANL:36 » 60:000017	NO

Note: Highlighted row indicates container was output or receiving container for the indicated task

DOCUMENTATION

Doc. Number	Title	Uploaded By
1	C of C W847745	JOHN PIENIAZEK (106155)
2	Closure Checklist W847745	JOHN PIENIAZEK (106155)

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
03/28/2019 10:44 AM JOHN PIENIAZEK (106155)	NO	Edit Container Authorization; Locked Container. Looking for [P=18861, C=847745]; Error: Permission Not Found; Reason for Edit: Change location
12/20/2018 9:52 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=847745]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
11/27/2018 10:25 AM JOHN PIENIAZEK (106155)	YES	C_MASTER.VOL_CONTAINER [847745] changed from 14.0 to 15.0
11/27/2018 10:24 AM JOHN PIENIAZEK (106155)	YES	C_MASTER.WEIGHT_WASTE [847745] changed from 78.1 to 77.1
11/27/2018 10:24 AM JOHN PIENIAZEK (106155)	YES	C_MASTER.WEIGHT_TARE [847745] changed from 8.0 to 9.0
11/27/2018 10:09 AM JOHN PIENIAZEK (106155)	NO	Create Container Authorization; Looking for [P=18861, WS=45710, WP=221, U=1439]; Found [P=18861, W=47, F=55, U=ALL, B=1, G=40-GEN];
11/27/2018 10:09 AM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=847745/PATH_ID=221): PASSED

Attachment 2

Copper Bioleaching

Waste Stream Profiles 49344 and 44204 and Container Profiles W849416, W850678, W853362, W858199, and W858200

LA-UR-21-21693

WASTE PROFILE FORM COVER SHEET

49344
PENDING APPROVAL

Waste Characterization Information

Waste Stream ID:	49344
WPF ID (Legacy):	
Waste Stream Name:	BIOLEACHING WITH BACTERIA
Expiration Date:	
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	
Composition (other):	
EPA Codes:	
Waste Acceptance:	
EPA Form Code:	
EPA Source Code:	

Waste Generation Estimates

YEAR	VOLUME
2021	1.00 L

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
49344	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
108963	GOODWIN, LYNNE	208498	MARTINEZ, PHILIP		5056653763
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
E549	MST-7	43	000001	222	5056060818

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 6029
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:
- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above — Site No:
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

ER Use Only

☑ ER Site — SWMU/AOC No. NA

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	DOC1
☑ Material Safety Data Sheet (MSDS)	☑ Attached		DOC2-7

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

0.0010

Section 3 - Process and Waste Description

Process Description:
I will prepare solutions A using dry chemicals as listed on DOC1. I will purchase Wolfe's mineral solution from ATCC and add that into my solution A.

I will prepare solution B as written in DOC1.

Both solutions will be filter sterilized and then combined. Shelf life of the combined solutions A and B is 3 weeks.

Waste Description:
The waste will be in liquid form and is a combination of solutions A and B plus a bacteria called Acidithiobacillus ferrooxidans ATCC 23270. The waste will be contained in a 2 gallon polycarbonate container.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☑ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☐ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☑ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
-----	Ammonium sulfate	8000	to	50000
-----	Iron sulfate heptahydrate	10000	to	100000
-----	Potassium phosphate monobasic	4000	to	50000
-----	Magnesium sulfate heptahydrate	30000	to	60000
-----	Water	10000	to	500000
-----	Manganese sulfate	5000	to	25000
-----	Sodium chloride	10000	to	50000
-----	Calcium chloride	1000	to	50000
-----	Zinc sulfate	1000	to	50000
-----	Copper sulfate	100	to	10000
-----	Aluminum potassium sulfate	100	to	10000
-----	Boric acid	100	to	10000
-----	Sodium molybdate	100	to	10000
-----	EDTA	5000	to	50000
-----	Nickel chloride	200	to	10000
-----	Sodium selenide	10	to	5000
-----	Sodium tungstate	100	to	10000
	Total of max. ranges of this section and page 2			105.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

All constituents in the waste are compatible and no hazardous reaction is expected to occur.

Flashpoint was determined by referencing MSDS's of constituents.

Check pH before requesting a pick up.
- pH was verified by the generator and will be verified again prior to disposal.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

WASTE WILL BE PACKAGED or ACCOUMULATED IN POLY or METAL CONTAINERS OR NALGENE BOTTLES WHICH ARE COMPATIBLE WITH THE WASTE.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☐ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: _____ Date: _____

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: _____ Date: _____

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: _____ Date: _____

ER Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: _____ Date: _____

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

44204
APPROVED

Waste Characterization Information

Waste Stream ID:	44204
WPF ID (Legacy):	
Waste Stream Name:	NITRIC ACID SOLUTION USED IN TARGET FABRICATION OPERATIONS
Expiration Date:	05/02/2021
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	Nitric Acid
EPA Codes:	D002
Waste Acceptance:	
EPA Form Code:	W103 Inorganic Liquids: Spent concentrated acid (5% or more)
EPA Source Code:	G02 Wastes from Ongoing Production and Service Processes: Stripping and acid or caustic cleaning (using caustics to remove coatings or layers from parts or assemblies)

Waste Generation Estimates

YEAR	VOLUME
2020	0.50 L
2019	0.50 L
2018	8.00 L
2015	0.50 L
2014	0.50 L
2013	8.00 L

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
44204	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
108963	GOODWIN, LYNNE	303896	BEGAY, RODGER		5056653763
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
E549	MST-7	35	000213	B3	

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 2117
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____

ER Use Only

- ☐ ER Site — SWMU/AOC No. _____

- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No: 7-35-213-B3-1
☑ Material Safety Data Sheet (MSDS)	☑ Attached	Nitric acid SDS

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☐ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☑ Materials Processing/Production
- ☐ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

0.0080

Section 3 - Process and Waste Description

Process Description:
NITRIC ACID SOLUTION USED IN TARGET FABRICATION OPERATIONS.

Waste Description:
NITRIC ACID AND WATER MIXTURE USED FOR DISSOLVING COPPER.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☑ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
7732-18-5	Water	450000	to	550000
7697-37-2	Nitric acid	450000	to	550000
7440-50-8	Copper	0	to	50000
	Total of max. ranges of this section and page 2			115.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

All constituents within the waste are in a compatible container and no hazardous reaction is expected to occur.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Waste will be stored in poly containers that are compatible with waste.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☐ Locked cabinet or building ☑ Other (describe) ADMINISTRATIVE CONT

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *LYNNE GOODWIN (108963)* Date: *05/02/18 03:06 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *CANDIE ARELLANO (215926)* Date: *05/02/18 03:12 PM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *05/02/18 03:37 PM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☑ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

CONTAINER PROFILE
W849416
CON-HAZ

WS ID: 44204
C ID: 849416
ACTIVE

GENERAL INFORMATION

Container ID:	849416		
Labeled ID:	W849416		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	CF: Fiber or plastic boxes, cartons, cases
Waste Stream ID:	44204	**Container Subtype:**	Cardboard Box
Work Path:	CON-HAZ	**Origin Date:**	05-Mar-2019 11:07 am
Quantity (Univ):	1	**Accum Start Date:**	05-Mar-2019
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: LYNNE GOODWIN (108963)

Insert By: CANDIE ARELLANO (215926)

Waste Desc: NITRIC ACID SOLUTION USED IN TARGET FABRICATION OPERATIONS

WEIGHTS AND VOLUMES

Container Volume:	NOT SPECIFIED	**Gross Weight:**	12.10 lb
Waste Volume:	2.00 L	**Tare Weight:**	3.40 lb
		Net Weight:	8.70 lb

LOCATION

Pickup (Origin): LANL: 35: 000213

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
3P030A	J4WM	0000	0000	100.00	ACTIVE	ACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D002A	D002	Corrosive: Corrosive Characteristic Wastes

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE 107553 107769	UN2031, WASTE NITRIC ACID SOLUTION, 8, II, (LABPACK)
INACTIVE	UN1826, WASTE NITRATING ACID MIXTURES SPENT, 8, II

CONTAINER PROFILE
W849416
CON-HAZ

WS ID: 44204
C ID: 849416
ACTIVE

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
03/06/2019 10:20 AM	1881036 EXECUTED	LANL:35 - WDR-NRAD	NO
03/27/2019 1:56 PM	1881686 PENDING	LANL:35 - WALL2W	NO
04/03/2019 2:54 PM	1881788 EXECUTED	LANL:35 » 60:000017 (MANIF ID: 107553)	NO
05/28/2019 12:12 PM	1883676 EXECUTED	LANL:60 » VEOLIA-CO:OPER:RECV (MANIF ID: 107769)	NO

Note: Highlighted row indicates container was output or receiving container for the indicated task

DOCUMENTATION

Doc. Number	Title	Uploaded By
N/A	05G-HDPE-Pail-PO-2017-202-WR1	CANDIE ARELLANO (215926)
N/A	W849416	CANDIE ARELLANO (215926)

COMMENTS

Date Time/ User Name	Comment
05/21/2019 9:00 AM PAUL NEWBERRY (112056)	1 x 1L bottle in 4G box
03/05/2019 11:11 AM CANDIE ARELLANO (215926)	5 gallon OH pail contains: 2 - 1 Liter plastic bottles of waste, full.

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
05/21/2019 9:00 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=849416]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: comment
05/21/2019 6:41 AM PAUL NEWBERRY (112056)	YES	C_MASTER.VOL_CONTAINER_UNIT [849416] changed from gal to L
05/21/2019 6:41 AM PAUL NEWBERRY (112056)	YES	C_MASTER.VOL_CONTAINER [849416] changed from 5.0 to 0.0
05/21/2019 6:41 AM PAUL NEWBERRY (112056)	YES	C_MASTER.CONTAINER_SUBTYPE_ID [849416] changed from 31 to 85
05/21/2019 6:40 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=849416]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: packaging
03/06/2019 9:06 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=849416]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
03/05/2019 11:12 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_WASTE [849416] changed from 4.096 to 8.7
03/05/2019 11:12 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_GROSS [849416] changed from 7.496 to 12.1
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.VOL_WASTE [849416] changed from null to 2.0

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_WASTE [849416] changed from 1.858 to 4.096
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_WASTE_UNIT [849416] changed from kg to lb
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_WASTE [849416] changed from 0.0 to 1.858
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_TARE_UNIT [849416] changed from kg to lb
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_GROSS [849416] changed from 3.4 to 7.496
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_GROSS [849416] changed from 0.0 to 3.4
03/05/2019 11:10 AM CANDIE ARELLANO (215926)	YES	C_MASTER.WEIGHT_TARE [849416] changed from 0.0 to 3.4
03/05/2019 11:08 AM CANDIE ARELLANO (215926)	NO	Create Container Authorization; Looking for [P=448452, WS=44204, WP=233, U=462]; Found [P=448452, W=1, F=50, U=ALL, B=2, G=35-WMC];
03/05/2019 11:08 AM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=849416/PATH_ID=233): PASSED

CONTAINER PROFILE
W850678
CON-HAZ

WS ID: 44204
C ID: 850678
Opt ID: rpk of W849416
ACTIVE

GENERAL INFORMATION

Container ID:	850678		
Labeled ID:	W850678		
Optional ID:	rpk of W849416	**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	CF: Fiber or plastic boxes, cartons, cases
Waste Stream ID:	44204	**Container Subtype:**	Cardboard Box
Work Path:	CON-HAZ	**Origin Date:**	21-May-2019 8:54 am
Quantity (Univ):	1	**Accum Start Date:**	05-Mar-2019
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: PAUL NEWBERRY (112056)

Insert By: PAUL NEWBERRY (112056)

Waste Desc: NITRIC ACID SOLUTION USED IN TARGET FABRICATION OPERATIONS

WEIGHTS AND VOLUMES

Container Volume:	NOT SPECIFIED	**Gross Weight:**	6.00 lb
Waste Volume:	1.00 L	**Tare Weight:**	2.50 lb
		Net Weight:	3.50 lb

LOCATION

Pickup (Origin): LANL: 60: 000017

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
							SELECTION LIST

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D002A	D002	Corrosive: Corrosive Characteristic Wastes

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE 107789	UN2031, WASTE NITRIC ACID SOLUTION, 8, II, (LABPACK)

CONTAINER PROFILE
W850678
CON-HAZ

WS ID: 44204
C ID: 850678
Opt ID: rpk of W849416
ACTIVE

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
05/28/2019 7:02 AM	1883699 EXECUTED	LANL:60 » VEOLIA-CO:OPER:RECV (MANIF ID: 107789)	NO

Note: Highlighted row indicates container was output or receiving container for the indicated task

COMMENTS

Date Time/ User Name	Comment
05/21/2019 8:59 AM PAUL NEWBERRY (112056)	1 x 1 liter bottle in 4G box

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
05/21/2019 8:57 AM PAUL NEWBERRY (112056)	NO	Create Container Authorization; Looking for [P=42805, WS=44204, WP=233, U=2467]; Found [P=42805, W=1, F=70, U=ALL, B=3, G=TSD-WDR-NR];
05/21/2019 8:57 AM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=850678/PATH_ID=233): PASSED

CONTAINER PROFILE
W853362
CON-HAZ

WS ID: 44204
C ID: 853362
ACTIVE

GENERAL INFORMATION

Container ID:	853362		
Labeled ID:	W853362		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	44204	**Container Subtype:**	5-gallon poly
Work Path:	CON-HAZ	**Origin Date:**	16-Sep-2019 1:40 pm
Quantity (Univ):	1	**Accum Start Date:**	16-Sep-2019
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: LYNNE GOODWIN (108963)

Insert By: RODGER BEGAY (303896)

Waste Desc: NITRIC ACID SOLUTION USED IN TARGET FABRICATION OPERATIONS

WEIGHTS AND VOLUMES

Container Volume:	5.00 gal	**Gross Weight:**	15.50 lb
Waste Volume:	3.00 L	**Tare Weight:**	3.40 lb
		Net Weight:	12.10 lb

LOCATION

Pickup (Origin): LANL: 35: 000213: C107

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
3P030A	J4WM	0000	0000	100.00	ACTIVE	ACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D002A	D002	Corrosive: Corrosive Characteristic Wastes

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE 108322 108493	UN2031, WASTE NITRIC ACID, 8, II, (LABPACK)

CONTAINER PROFILE
W853362
CON-HAZ

WS ID: 44204
C ID: 853362
ACTIVE

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
09/16/2019 4:10 PM	1888586 EXECUTED	LANL:35 - WDR-NRAD	NO
09/30/2019 3:43 PM	1889129 EXECUTED	LANL:35 » 60:000017 (MANIF ID: 108322)	NO
10/11/2019 11:23 AM	1875716 EXECUTED	LANL:60 - WALL2W - 000017	NO
10/15/2019 2:31 PM	1875823 EXECUTED	LANL:60 - WALL2W - 000017	NO
10/28/2019 1:14 PM	1875825 PENDING	LANL:60 - WALL2W - 000017	NO
11/05/2019 10:44 AM	1890527 EXECUTED	LANL:60 » VEOLIA-CO:OPER:RECV (MANIF ID: 108493)	NO

Note: Highlighted row indicates container was output or receiving container for the indicated task

DOCUMENTATION

Doc. Number	Title	Uploaded By
N/A	Container Use and Closure Checklist	RODGER BEGAY (303896)
N/A	Container Inventory	RODGER BEGAY (303896)
N/A	05G-HDPE-Pail-PO-2017-202-WR1	RODGER BEGAY (303896)

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
09/16/2019 4:11 PM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=853362]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
09/16/2019 1:42 PM RODGER BEGAY (303896)	NO	Create Container Authorization; Looking for [P=1715019, WS=44204, WP=233, U=462]; Found [P=1715019, W=1, F=50, U=ALL, B=2, G=35-WMC];
09/16/2019 1:42 PM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=853362/PATH_ID=233): PASSED

CONTAINER PROFILE
W858199
CON-HAZ

WS ID: 44204
C ID: 858199
ACTIVE

GENERAL INFORMATION

Container ID:	858199		
Labeled ID:	W858199		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	44204	**Container Subtype:**	5-gallon poly
Work Path:	CON-HAZ	**Origin Date:**	16-Jul-2020 11:55 am
Quantity (Univ):	1	**Accum Start Date:**	09-Jul-2020
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s): (#1) 884215

Gen Contact: RODGER BEGAY (303896)

Insert By: RODGER BEGAY (303896)

Waste Desc: NITRIC ACID SOLUTION USED IN TARGET FABRICATION OPERATIONS

WEIGHTS AND VOLUMES

Container Volume:	5.00 gal	**Gross Weight:**	24.60 lb
Waste Volume:	11.00 L	**Tare Weight:**	2.50 lb
		Net Weight:	22.10 lb

LOCATION

Pickup (Origin): LANL: 35: 000213: C107

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
3P030A	J4WM	0000	0000	100.00	ACTIVE	ACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D002A	D002	Corrosive: Corrosive Characteristic Wastes

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE 109438 109470	UN2031, WASTE NITRIC ACID SOLUTION, 8, II, (LABPACK)
INACTIVE	UN2031, NITRIC ACID, 8, II, (LABPACK)

CONTAINER PROFILE
W858199
CON-HAZ

WS ID: 44204
C ID: 858199
ACTIVE

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
07/21/2020 11:04 AM	1900321 EXECUTED	LANL:35 - WDR-NRAD	NO
07/27/2020 9:56 AM	1900335 EXECUTED	LANL:35 » 60:000017 (MANIF ID: 109438)	NO
07/27/2020 11:50 AM	1881173 PENDING	LANL:60 - WALL2W - 000017	NO
07/27/2020 12:21 PM	1881175 PENDING	LANL:60 - WALL2W - 000017	NO
08/18/2020 11:15 AM	1901006 EXECUTED	LANL:60 » VEOLIA-CO:OPER:RECV (MANIF ID: 109470)	NO

Note: Highlighted row indicates container was output or receiving container for the indicated task

DOCUMENTATION

Doc. Number	Title	Uploaded By
N/A	Container Use And Closure Checklist	RODGER BEGAY (303896)
N/A	Container inventory	RODGER BEGAY (303896)
N/A	05G-HDPE-Pail-PO-2017-202-WR1	RODGER BEGAY (303896)

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
07/21/2020 11:04 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=858199]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
07/21/2020 10:52 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=858199]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
07/21/2020 10:22 AM RODGER BEGAY (303896)	YES	C_MASTER.ACCUM_START_DATETIME [858199] changed from null to 07-09-2020 10:21 AM
07/21/2020 10:21 AM RODGER BEGAY (303896)	NO	Edit Container Authorization; Looking for [P=1715019, C=858199]; Found [P=1715019, W=1, F=50, U=ALL, B=1, G=35-GEN]; Reason for Edit: edit
07/16/2020 12:03 PM RODGER BEGAY (303896)	YES	C_MASTER.PADLOCK_1 [858199] changed from null to 884215
07/16/2020 11:57 AM RODGER BEGAY (303896)	NO	Create Container Authorization; Looking for [P=1715019, WS=44204, WP=233, U=462]; Found [P=1715019, W=1, F=50, U=ALL, B=1, G=35-GEN];
07/16/2020 11:57 AM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=858199/PATH_ID=233): PASSED

CONTAINER PROFILE
W858200
CON-HAZ

WS ID: 44204
C ID: 858200
ACTIVE

GENERAL INFORMATION

Container ID:	858200		
Labeled ID:	W858200		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	44204	**Container Subtype:**	5-gallon poly
Work Path:	CON-HAZ	**Origin Date:**	16-Jul-2020 11:57 am
Quantity (Univ):	1	**Accum Start Date:**	09-Jul-2020
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s): (#1) 884216

Gen Contact: RODGER BEGAY (303896)

Insert By: RODGER BEGAY (303896)

Waste Desc: NITRIC ACID SOLUTION USED IN TARGET FABRICATION OPERATIONS

WEIGHTS AND VOLUMES

Container Volume:	5.00 gal	**Gross Weight:**	16.40 lb
Waste Volume:	6.00 L	**Tare Weight:**	2.50 lb
		Net Weight:	13.90 lb

LOCATION

Pickup (Origin): LANL: 35: 000213: C107

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
3P030A	J4WM	0000	0000	100.00	ACTIVE	ACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D002A	D002	Corrosive: Corrosive Characteristic Wastes

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE 109438 109470	UN2031, WASTE NITRIC ACID SOLUTION, 8, II, (LABPACK)
INACTIVE	UN2031, WASTE NITRIC ACID, 8, II, (LABPACK)

CONTAINER PROFILE
W858200
CON-HAZ

WS ID: 44204
C ID: 858200
ACTIVE

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
07/21/2020 11:04 AM	1900321 EXECUTED	LANL:35 - WDR-NRAD	NO
07/27/2020 9:56 AM	1900335 EXECUTED	LANL:35 » 60:000017 (MANIF ID: 109438)	NO
07/27/2020 11:50 AM	1881173 PENDING	LANL:60 - WALL2W - 000017	NO
07/27/2020 12:21 PM	1881175 PENDING	LANL:60 - WALL2W - 000017	NO
08/18/2020 11:15 AM	1901006 EXECUTED	LANL:60 » VEOLIA-CO:OPER:RECV (MANIF ID: 109470)	NO

Note: Highlighted row indicates container was output or receiving container for the indicated task

DOCUMENTATION

Doc. Number	Title	Uploaded By
N/A	Container Use And Closure Checklist	RODGER BEGAY (303896)
N/A	Container Inventory	RODGER BEGAY (303896)
N/A	05G-HDPE-Pail-PO-2017-202-WR1	RODGER BEGAY (303896)

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
07/21/2020 11:03 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=858200]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
07/21/2020 10:22 AM RODGER BEGAY (303896)	YES	C_MASTER.ACCUM_START_DATETIME [858200] changed from null to 07-09-2020 10:22 AM
07/21/2020 10:22 AM RODGER BEGAY (303896)	NO	Edit Container Authorization; Looking for [P=1715019, C=858200]; Found [P=1715019, W=1, F=50, U=ALL, B=1, G=35-GEN]; Reason for Edit: edit
07/16/2020 12:03 PM RODGER BEGAY (303896)	YES	C_MASTER.PADLOCK_1 [858200] changed from null to 884216
07/16/2020 11:58 AM RODGER BEGAY (303896)	NO	Create Container Authorization; Looking for [P=1715019, WS=44204, WP=233, U=462]; Found [P=1715019, W=1, F=50, U=ALL, B=1, G=35-GEN];
07/16/2020 11:58 AM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=858200/PATH_ID=233): PASSED

Attachment 3

Resonant Acoustic Mixing (RAM)

Waste Stream Profiles 42360 and 46444 and Container Profiles W824418, W824459, W847940, W847943, W850988, and W855901

LA-UR-21-21693

WASTE PROFILE FORM COVER SHEET

42360
APPROVED

Waste Characterization Information

Waste Stream ID:	42360
WPF ID (Legacy):	
Waste Stream Name:	SOLVENT WATER MIXTURE FROM PBX SLURRY PROCESS (OTHER THAN PBX 9501) FILTRATE FROM PROCESS WITH TRACE ENERGETIC MATERI...
Expiration Date:	10/19/2019
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Chemical
Composition (other):	
EPA Codes:	D001 F003 F005
Waste Acceptance:	
EPA Form Code:	W203 Organic Liquids: Concentrated non-halogenated (e.g., non-chlorinated) solvent
EPA Source Code:	G19 Other Intermittent Events or Processes: Other one-time or intermittent processes (specify in comments)

Waste Generation Estimates

YEAR	VOLUME
2019	5.00 gal
2018	5.00 gal
2017	5.00 gal
2016	5.00 gal
2015	5.00 gal

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
42360	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
198732	FRANCOIS, ELIZABETH	169004	GONZALES, PAUL		5056678498
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C920	M-7	09	000037	101	5056658812

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 425
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____
- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

ER Use Only

☐ ER Site SWMU/AOC No. _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☐ Acceptable Knowledge Documentation	☐ Attached	Documentation No:
☑ Material Safety Data Sheet (MSDS)	☑ Attached	MSDS/See Documents

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☐ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☐ Non-Aqueous
- ☑ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
SOLVENT AND WATER MIXTURE FROM PBX SLURRY PROCESS (OTHER THAN PBX 9501) FILTRATE FROM PROCESS WITH TRACE HE SUSPENDED IN LIQUID MIXTURE.

Waste Description:
Waste will include PBX, organic solvents and water.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☑ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☐ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☑ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☑ <= 95 F (<= 35 C)
- ☐ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
67-64-1	Acetone	10000	to	50000
141-78-6	Ethyl acetate	100000	to	300000
-----	High Explosives (PBX, DAAF, TATB)	10	to	100
7732-18-5	Water	500000	to	800000
108-88-3	Toluene	1	to	10
108-10-1	Methyl isobutyl ketone	1	to	10
-----	Isopropyl Alcohol	1	to	10
	Total of max. ranges of this section and page 2			115.01 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

This waste is non-explosive, therefore non-reactive, non D003.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

DOT Compliant Container

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *ERNEST HARTLINE (188218)* Date: *10/20/15 03:25 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JEFFREY LEE (217511)* Date: *10/21/15 06:48 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *10/27/15 07:20 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

46444
APPROVED

Waste Characterization Information

Waste Stream ID:	46444
WPF ID (Legacy):	
Waste Stream Name:	WATER AND VACUUM PUMP OIL VEHICLE FROM CRYSTAL GROWTH & PROCESSING
Expiration Date:	06/04/2021
Waste Type:	Solid Waste - Other
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Non-hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	
EPA Codes:	
Waste Acceptance:	
EPA Form Code:	NA Not Applicable: Not Applicable
EPA Source Code:	NA Not Applicable: Not Applicable

Waste Generation Estimates

YEAR	VOLUME
2021	0.25 CM
2020	0.25 CM
2019	0.25 CM

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
46444	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
107408	ARMENTA, CLAUDINE	324836	BRINER, PATRICK		5056657358
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
C929	M-9	40	000012		5056651354

Waste Accumulation *(check only one)*

- ☐ Satellite Accumulation Area — Site No: _____
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____

ER Use Only

- ☐ ER Site — SWMU/AOC No. _____

- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☑ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

Method of Characterization *(check as many as apply)*

☑ Chemical/Physical Analysis	☑ Attached	Sample No:	ev 10641 rfa 3543
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	TP-IWD-TA40-2248
☑ Material Safety Data Sheet (MSDS)	☑ Attached		AlO2, silicone carbide

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☑ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
HE crystal growth and processing operations at TA-40-12 lab.

Waste Description:
VACUUM PUMP OIL, WATER, KEROSENE, GAMMA BUTYROLACTONE, DIMETHYL SULFOXIDE, ACETAMINOPHEN, ALUMINUM OXIDE, SILICONE CARBIDE, GLYCERINE, AND HE FROM CRYSTAL GROWING & PROCESSING OPERATIONS. HE INCLUDES TRACE AMOUNTS OF HMX, PETN, RDX, NTO AND TATB PRESENT IN NON-DETONABLE AMOUNTS AND INCLUDING OTHER HE FROM LANL ALLOWED ENERGETIC MATERIAL LIST. [SEE ATTACHED]

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☐ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☑ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maximum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☐	☑	☐	☐	0.001 to	0.00688 ppm	5.0 ppm
Barium	☐	☑	☐	☐	0.01 to	0.0763 ppm	100.0 ppm
Cadmium	☐	☑	☐	☐	0.00001 to	0.000467 ppm	1.0 ppm
Chromium	☐	☑	☐	☐	0.1 to	0.74 ppm	5.0 ppm
Lead	☐	☑	☐	☐	0.01 to	0.0115 ppm	5.0 ppm
Mercury	☐	☑	☐	☑	to	ppm	0.2 ppm
Selenium	☐	☑	☐	☑	to	ppm	1.0 ppm
Silver	☐	☑	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☐	☑	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☐	☑	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☐	☑	☐	☑	to	ppm	100.0 ppm
Chloroform	☐	☑	☐	☑	to	ppm	6.0 ppm
Cresol	☐	☑	☐	☑	to	ppm	200.0 ppm
p-Cresol	☐	☑	☐	☑	to	ppm	200.0 ppm
m-Cresol	☐	☑	☐	☑	to	ppm	200.0 ppm
o-Cresol	☐	☑	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☐	☑	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☐	☑	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☐	☑	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☐	☑	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☐	☑	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☐	☑	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☐	☑	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☐	☑	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☐	☑	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☐	☑	☐	☑	to	ppm	100.0 ppm
Pyridine	☐	☑	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☐	☑	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☐	☑	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☐	☑	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☐	☑	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☐	☑	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☐	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
-----	ACETAMINOPHEN	10000	to	50000
-----	SILICONE CARBIDE	1	to	10000
-----	allowed LANL energetic material list	1	to	10000
-----	glycerine	10	to	10000
-----	WATER	950000	to	980000
-----	DIMETHYL SULFOXIDE	1	to	10000
-----	KEROSENE	1	to	10000
-----	ALUMINUM OXIDE	10000	to	50000
7440-36-0	Antimony	0.0001	to	0.004
7429-90-5	Aluminum	0	to	30
2691-41-0	HMX	0.0001	to	1.5
7440-02-0	Nickel	0.0001	to	0.6
014797-73-0	Perchlorate	0.0001	to	0.0002
108-95-2	Phenol	0.0001	to	0.008
7440-09-7	Potassium	0.0001	to	2.5
121-82-4	RDX	0.0001	to	0.0004
7440-23-5	Sodium	0	to	460
7440-24-6	Strontium	0.0001	to	0.06
-----	TATB	0.0001	to	0.02
7440-31-5	Tin	0.0001	to	0.02
7440-61-1	Uranium	0.0001	to	0.0005
7440-62-2	Vanadium	0.0001	to	0.03
7440-66-6	Zinc	0.0001	to	0.3
7440-42-8	Boron	0.0001	to	0.07
7440-70-2	Calcium	0.0001	to	0.009
7440-48-4	Cobalt	0.0001	to	0.03
7439-89-6	Iron	0.1	to	10
7439-95-4	Magnesium	0.0001	to	0.003
7439-96-5	Manganese	0.1	to	0.3
7439-98-7	Molybdenum	0.001	to	0.04
-----	Vacuum Pump Oil	10000	to	50000
7440-50-8	Copper	0.01	to	0.2
	Total of max. ranges of this section and page 2			118.05 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Waste is compatible with itself and any DOT-compliant containers it is accumulated and stored in.

Waste is non-explosive, therefore non-RCRA-D003 reactive and non-DOT Hazard Class 1 explosive.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Waste is compatible with itself and any DOT-compliant containers it is accumulated and stored in.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: SW-OTHER

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *CLAUDINE ARMENTA (107408)* Date: *06/05/19 07:26 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JOHN PIENIAZEK (106155)* Date: *06/05/19 07:46 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *06/05/19 08:09 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

CONTAINER PROFILE
W824418
CON-HAZ

WS ID: 42360
C ID: 824418
ACTIVE

GENERAL INFORMATION

Container ID:	824418		
Labeled ID:	W824418		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	42360	**Container Subtype:**	20-gallon poly
Work Path:	CON-HAZ	**Origin Date:**	08-Dec-2015 9:55 am
Quantity (Univ):	1	**Accum Start Date:**	22-Dec-2015
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: ERNEST HARTLINE (188218)

Insert By: JEFFREY LEE (217511)

Waste Desc: 5 GALLON POLY CARBOY WITH APPROX. 4.8 GALLONS OF SOLVENT WATER MIXTURE FROM PBX SLURRY PROCESS. WASTE WILL BE PACKAGED IN A 20 GALLON POLY.

WEIGHTS AND VOLUMES

Container Volume:	20.00 gal	**Gross Weight:**	71.00 lb
Waste Volume:	4.80 gal	**Tare Weight:**	10.80 lb
		Net Weight:	60.20 lb

LOCATION

Pickup (Origin): LANL: 09: 000037

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
5K070A	JNEP	EXPL	0000	100.00	INACTIVE	INACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D001B	D001	Ignitable: High TOC Ignitable Characteristic Liquids- >= 10% total organic carbon.
F003A	F003	Spent non-halogenated solvents: Acetone
F003D	F003	Spent non-halogenated solvents: Ethyl acetate
F003H	F003	Spent non-halogenated solvents: Methyl isobutyl ketone
F005H	F005	Spent non-halogenated solvents: Toluene

CONTAINER PROFILE
W824459
CON-HAZ

WS ID: 42360
C ID: 824459
ACTIVE

GENERAL INFORMATION

Container ID:	824459		
Labeled ID:	W824459		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	42360	**Container Subtype:**	20-gallon poly
Work Path:	CON-HAZ	**Origin Date:**	08-Dec-2015 9:55 am
Quantity (Univ):	1	**Accum Start Date:**	22-Dec-2015
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: ERNEST HARTLINE (188218)

Insert By: JEFFREY LEE (217511)

Waste Desc: 5 GALLON POLY CARBOY WITH APPROX. 4 GALLONS OF SOLVENT WATER MIXTURE FROM PBX SLURRY PROCESS. WASTE WILL BE PACKAGED IN A 20 GALLON POLY.

WEIGHTS AND VOLUMES

Container Volume:	20.00 gal	**Gross Weight:**	62.00 lb
Waste Volume:	4.00 gal	**Tare Weight:**	10.80 lb
		Net Weight:	51.20 lb

LOCATION

Pickup (Origin): LANL: 09: 000037

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
5K070A	JNEP	EXPL	0000	100.00	INACTIVE	INACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D001B	D001	Ignitable: High TOC Ignitable Characteristic Liquids- >= 10% total organic carbon.
F003A	F003	Spent non-halogenated solvents: Acetone
F003D	F003	Spent non-halogenated solvents: Ethyl acetate
F003H	F003	Spent non-halogenated solvents: Methyl isobutyl ketone
F005H	F005	Spent non-halogenated solvents: Toluene

CONTAINER PROFILE
W847940
CON-SW-OTHER

WS ID: 46444
C ID: 847940
Opt ID: PO 525WR002
ACTIVE

GENERAL INFORMATION

Container ID:	847940		
Labeled ID:	W847940		
Optional ID:	PO 525WR002	**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	NO
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	46444	**Container Subtype:**	14-gallon poly
Work Path:	CON-SW-OTHER	**Origin Date:**	06-Dec-2018 3:53 pm
Quantity (Univ):	1	**Accum Start Date:**	
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: JOHN PIENIAZEK (106155)

Insert By: JOHN PIENIAZEK (106155)

Waste Desc: WATER & VEHICLE WASTE FROM CRYSTAL GROWTH & PROCESSING

WEIGHTS AND VOLUMES

Container Volume:	14.00 gal	**Gross Weight:**	70.00 lb
Waste Volume:	8.00 gal	**Tare Weight:**	8.00 lb
		Net Weight:	62.00 lb

LOCATION

Pickup (Origin): LANL: 40: 000012

Current: LANL: 36: 000048

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
5K070A	JWB2	6418	0101	100.00	INACTIVE	ACTIVE	*SELECTION LIST*

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE	NON-REGULATED WASTE (WATER WITH TRACE HE)

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
12/07/2018 11:30 AM	1879349 CANCELLED	LANL:40 - WDR-NRAD	NO
01/24/2019 3:15 PM	1881743 EXECUTED	LANL:40 » 36:000048	NO

CONTAINER PROFILE
W847943
CON-SW-OTHER

WS ID: 46444
C ID: 847943
ACTIVE

GENERAL INFORMATION

Container ID:	847943		
Labeled ID:	W847943		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	NO
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	46444	**Container Subtype:**	14-gallon poly
Work Path:	CON-SW-OTHER	**Origin Date:**	07-Dec-2018 11:24 am
Quantity (Univ):	1	**Accum Start Date:**	
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: JOHN PIENIAZEK (106155)

Insert By: JOHN PIENIAZEK (106155)

Waste Desc: WATER & VEHICLE WASTE FROM CRYSTAL GROWTH & PROCESSING

WEIGHTS AND VOLUMES

Container Volume:	15.00 gal	**Gross Weight:**	31.10 lb
Waste Volume:	4.00 gal	**Tare Weight:**	9.00 lb
		Net Weight:	22.10 lb

LOCATION

Pickup (Origin): LANL: 40: 000011

Current: LANL: 36: 000048

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
5K070A	JWB2	6418	0101	100.00	INACTIVE	ACTIVE	*SELECTION LIST*

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE	NON-REGULATED WASTE (WATER WITH TRACE HE)

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
12/07/2018 11:30 AM	1879349 CANCELLED	LANL:40 - WDR-NRAD	NO
01/24/2019 3:15 PM	1881743 EXECUTED	LANL:40 » 36:000048	NO

CONTAINER PROFILE
W850988
CON-SW-OTHER

WS ID: 46444
C ID: 850988
Opt ID: PO525WR007
ACTIVE

GENERAL INFORMATION

Container ID:	850988		
Labeled ID:	W850988		
Optional ID:	PO525WR007	**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	NO
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	46444	**Container Subtype:**	14-gallon poly
Work Path:	CON-SW-OTHER	**Origin Date:**	05-Jun-2019 8:16 am
Quantity (Univ):	1	**Accum Start Date:**	
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: JOHN PIENIAZEK (106155)

Insert By: JOHN PIENIAZEK (106155)

Waste Desc: WATER AND VACUUM PUMP OIL VEHICLE FROM CRYSTAL GROWTH & PROCESSING

WEIGHTS AND VOLUMES

Container Volume:	14.00 gal	**Gross Weight:**	129.30 lb
Waste Volume:	14.00 gal	**Tare Weight:**	8.00 lb
		Net Weight:	121.30 lb

LOCATION

Pickup (Origin): LANL: 40: 000012

Current: LANL: 60: 000017

TAGS

Container Tag	List Value	Date	Explanation	Insert By / Date & TIme
FREE LIQUIDS		06/05/2019		JOHN PIENIAZEK (106155) 06/05/2019 8:50 AM

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
5K070A	JWB2	6418	0101	100.00	INACTIVE	ACTIVE	*SELECTION LIST*

CONTAINER PROFILE
W855901
CON-SW-OTHER

WS ID: 46444
C ID: 855901
ACTIVE

GENERAL INFORMATION

Container ID:	855901		
Labeled ID:	W855901		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	NO
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	46444	**Container Subtype:**	14-gallon poly
Work Path:	CON-SW-OTHER	**Origin Date:**	21-Feb-2020 9:17 am
Quantity (Univ):	1	**Accum Start Date:**	
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: CLAUDINE ARMENTA (107408)

Insert By: PATRICK BRINER (324836)

Waste Desc: WATER AND VACUUM PUMP OIL VEHICLE FROM CRYSTAL GROWTH & PROCESSING

WEIGHTS AND VOLUMES

Container Volume:	14.00 gal	**Gross Weight:**	110.00 lb
Waste Volume:	14.00 gal	**Tare Weight:**	9.50 lb
		Net Weight:	100.50 lb

LOCATION

Pickup (Origin): LANL: 40: 000012

Current: LANL: 36: 000048

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
5K070A	JWB2	6418	0101	100.00	INACTIVE	ACTIVE	*SELECTION LIST*

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE	NON-REGULATED WASTE, LIQUID, (WATER WITH TRACE HE)

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
02/24/2020 8:58 AM	1894341 EXECUTED	LANL:40 » 36:000048	NO
02/24/2020 10:00 AM	1894342 EXECUTED	LANL:36 - WDR-NRAD	NO

CONTAINER PROFILE
W855901
CON-SW-OTHER

WS ID: 46444
C ID: 855901
ACTIVE

Note: Highlighted row indicates container was output or receiving container for the indicated task

DOCUMENTATION

Doc. Number	Title	Uploaded By
N/A	w855901 inventory.xlsx	PATRICK BRINER (324836)
N/A	w855901 C&C.pdf	PATRICK BRINER (324836)
N/A	15G-HPDE-Drum-PO-2017-202-WR1.pdf	PATRICK BRINER (324836)
N/A	W855901 Log Sheet.pdf	PATRICK BRINER (324836)

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
02/24/2020 9:58 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=855901]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
02/24/2020 9:00 AM PATRICK BRINER (324836)	YES	C_MASTER.WEIGHT_WASTE [855901] changed from 0.0 to 100.5
02/24/2020 9:00 AM PATRICK BRINER (324836)	YES	C_MASTER.WEIGHT_GROSS [855901] changed from 9.5 to 110.0
02/24/2020 9:00 AM PATRICK BRINER (324836)	YES	C_MASTER.WEIGHT_GROSS [855901] changed from 0.0 to 9.5
02/24/2020 9:00 AM PATRICK BRINER (324836)	YES	C_MASTER.WEIGHT_TARE [855901] changed from 0.0 to 9.5
02/24/2020 9:00 AM PATRICK BRINER (324836)	YES	C_MASTER.VOL_WASTE [855901] changed from null to 14.0
02/24/2020 9:00 AM PATRICK BRINER (324836)	YES	C_MASTER.VOL_WASTE_UNIT [855901] changed from L to gal
02/24/2020 8:59 AM PATRICK BRINER (324836)	YES	C_MASTER.WEIGHT_WASTE_UNIT [855901] changed from kg to lb
02/24/2020 8:59 AM PATRICK BRINER (324836)	YES	C_MASTER.WEIGHT_TARE_UNIT [855901] changed from kg to lb
02/24/2020 8:59 AM PATRICK BRINER (324836)	NO	Edit Container Authorization; Looking for [P=1995101, C=855901]; Found [P=1995101, W=47, F=51, U=ALL, B=1, G=36-GEN]; Reason for Edit: update container documentation
02/21/2020 12:18 PM PATRICK BRINER (324836)	YES	C_MASTER.VOL_CONTAINER [855901] changed from 5.0 to 14.0
02/21/2020 12:18 PM PATRICK BRINER (324836)	YES	C_MASTER.CONTAINER_SUBTYPE_ID [855901] changed from 31 to 32
02/21/2020 9:18 AM PATRICK BRINER (324836)	NO	Create Container Authorization; Looking for [P=1995101, WS=46444, WP=221, U=1439]; Found [P=1995101, W=47, F=55, U=ALL, B=1, G=40-GEN];
02/21/2020 9:18 AM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=855901/PATH_ID=221): PASSED

Attachment 4
Dissolving Post-Detonation Debris with Ammonium Bifluoride (ABF)
Waste Stream Profiles 45884, 46089, and 46579

LA-UR-21-21693

WASTE PROFILE FORM
COVER SHEET

45884
APPROVED

Waste Characterization Information

Waste Stream ID:	45884
WPF ID (Legacy):	
Waste Stream Name:	CLEANING LABWARE, PREPARAING AND CONDITIONING RESIN FOR CAAC ACTIVITIES.
Expiration Date:	02/05/2022
Waste Type:	Mixed Low Level Waste for the Radioactive Liquid Waste Treatment Facility (RLWTF)
Radiological Type:	Low Level Waste
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	
EPA Codes:	D002
Waste Acceptance:	
EPA Form Code:	W105 Inorganic Liquids: Acidic aqueous wastes less than 5% acid (diluted but pH <2)
EPA Source Code:	G09 Wastes from Ongoing Production and Service Processes: Other production or service-related processes from which the waste is a direct outflow or result (specify in comments)

Waste Generation Estimates

YEAR	VOLUME
2022	4,300.00 L
2021	4,300.00 L
2020	4,300.00 L
2019	4,300.00 L
2018	4,300.00 L
2017	4,300.00 L
2016	4,300.00 L
2015	4,300.00 L

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
45884	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
120416	COLLETTI, LISA	241267	MAHONEY, PATRICK		5056679621
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
G740	C-AAC	03	000029	wing 5, 7	5056675498

Waste Accumulation *(check only one)*

- ☐ Satellite Accumulation Area — Site No: _____
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____

ER Use Only

- ☐ ER Site — SWMU/AOC No. _____

- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☑ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☑ Radiological Analysis	☑ Attached	Sample No:	Final Assay Report Attached
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	QC-19, ANC132, NF-ANC369, AN
☐ Material Safety Data Sheet (MSDS)	☐ Attached		

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☑ No	☐ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☑ Yes ☐ No
- ☐ Non-radioactive
- ☑ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☑ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☐ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

4.3000

Section 3 - Process and Waste Description

Process Description:
All actinide samples and standards are transfered to residue bottles prior to rinsing or cleaning the containers.

1) This WSP covers all labware rinsing.
2) This WSP covers all labware acid cleaning.
3) This WSP covers some Resin preparation.

Waste Description:
1) Labware in any approved activity may require rinsing with DI. Rinse water is disposed of through the Radioactive Liquid Waste Collection System. This applies to all AP, ANC, or IWDs. This extensive list can be provide upon request, but is too large to include in this system.
2) Labware is cleaned by one of the following proceedures:CAAC-AP-201, ANC132, ANC130 and ANC369. Labware is generally soaked in an acid or an acid cocktail for a specified time. It is then removed from the acid and rinsed. Acid rinsate is discharged to the RLWCS.
3) Resin is prepared and conditoned using the following proceedures: ANC130, ANC369. Acids are used to condition the resins to a specific chemical state. Acid rinsate is discharged to the RLWCS.

All nitrogen is in the form if nitrate from nitric acid.
Concentration was estimated from volumes being used in the procedure including any rinsing with industrial or deionized water. Refer to supplemental AK document for calculation regarding nitrate content.

Perchloric acid is banned at CMR per DSA. So this waste stream cannot produce perchorates.
No organics are introduced in the processes associated with this waste stream and therefore COD and TTO is expected to be nondetect..
No salts therefore no TDS or TSS.

Section 4 - Characteristics

Ignitability *(check only one)*	**Corrosivity** *(check only one)* (pH)	**Reactivity** *(check as many as apply)*	**Boiling Point** *(check only one)*
☐ < 73 F (< 22.8 C)	☑ <= 2.0	☐ RCRA Unstable	☐ <= 95 F (<= 35 C)
☐ 73 - 99 F (22.8 - 37.2 C)	☐ 2.1 - 4.0	☐ Water Reactive	☑ >95 F (> 35 C)
☐ 100 - 139 F (37.8 - 59.4 C)	☐ 4.1 - 6.0	☐ Cyanide Bearing	☐ Not Applicable
☐ 140 - 200 F (60.0 - 99.3 C)	☐ 6.1 - 9.0	☐ Sulfide Bearing	
☐ > 200 (> 99.3 C)	☐ 9.1 - 12.4	☐ Pyrophoric	
☐ EPA Ignitable - Non-liquid	☐ >= 12.5	☐ Shock Sensitive	
☐ DOT Flammable Gas	☐ Liquid Corrosive to Steel	☐ Explosive [Specify DOT Div.]	
☐ DOT Oxidizer	☐ Non-aqueous	☑ Non-Reactive	
☑ Not Ignitable			

	Characterization Method				**Concentration of Contaminants**		
Identify for all contaminants listed	**AK**	**TCLP**	**Total**	**None or Non-detect**	**Contaminant present at Minimum**	**Maxiumum**	**Regulatory Limit**
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
-----	Hydroiodic Acid [10034-85-2]	0	to	1000
7664-39-3	Hydrofluoric acid	0	to	1
-----	Hydrobrominc acid	0	to	1000
7732-18-5	Water	950000	to	1000000
7664-93-9	Sulfuric acid	0	to	1
7697-37-2	Nitric acid	0	to	1
7647-01-0	Hydrochloric acid	0	to	1
-----	No Chromix by Godax Laboratories. Inorganic Persulfate (oxidizer)	0	to	2000
	Total of max. ranges of this section and page 2			100.40 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

All nitrogen is in the form if nitrate from nitric acid.
Concentration was estimated from volumes being used in the procedure including any rinsing with industrial or deionized water.

Perchloric acid is banned at CMR per DSA. So this waste stream cannot produce perchorates.
No organics are introduced in the processes associated with this waste stream and therefore COD and TTO is expected to be nondetect..
No salts therefore no TDS or TSS.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Discharged through the RLWCS. The chemicals that are combined in this waste stream are compatible with each other and the RLWCS. No adverse reactions are expected.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☐ Waste appears to meet WAC attachment for: MLLW-RLWTF

☑ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *FRANCES MARTIN (107515)* Date: *02/05/19 01:02 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *STEVE TORREZ (117028)* Date: *02/05/19 01:02 PM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *02/05/19 01:04 PM*

RLWTF Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JOHN DEL SIGNORE (113532)* Date: *02/05/19 01:14 PM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☑ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 2 - Wastewater Characteristics for RLWTF (TA-50 and TA-21)
For help in completing this section, call 7-4301.

Indicate if waste was: ☐ Accelerator produced ☐ Reactor Produced ☑ Other (describe in WPF Section 1 "Waste/Process Description")

Radionuclide Contaminants

Identify for the following	Present at or Below LOC (in Ci/l)	Range if above LOC in Ci/L Min.	Max.	Identify for the following	Present at or Below LOC (in Ci/l)	Range if above LOC in Ci/L Min.	Max.
As-74	☐ ≤ 1.0E-07			Rb-84	☐ ≤ 5.0E-08		
Be-7	☐ ≤ 1.0E-07			Sc-46	☐ ≤ 1.0E-07		
Ce-141	☐ ≤ 1.0E-07			Sc-48	☐ ≤ 1.0E-07		
Co-56	☐ ≤ 1.0E-08			Se-75	☐ ≤ 1.0E-07		
Co-57	☐ ≤ 1.0E-07			Sn-113	☐ ≤ 1.0E-07		
Co-58	☐ ≤ 1.0E-07			Sr-85	☐ ≤ 1.0E-07		
Co-60	☐ ≤ 2.0E-08			Sr-89	☐ ≤ 1.0E-07		
Cs-134	☐ ≤ 1.0E-08			Sr-90	☐ ≤ 5.0E-09		
Cs-137	☐ ≤ 1.0E-08			V-48	☐ ≤ 1.0E-07		
Eu-152	☐ ≤ 1.0E-07			Y-88	☐ ≤ 1.0E-07		
H-3	☐ ≤ 2.0E-08			Zn-65	☐ ≤ 4.0E-08		
I-133	☐ ≤ 5.0E-08			Am-241	☑ ≤ 1.0E-07		
Mn-52	☐ ≤ 1.0E-07			Pu-238	☑ ≤ 1.0E-07		
Mn-54	☐ ≤ 1.0E-07			Pu-239	☑ ≤ 1.0E-07		
Na-22	☐ ≤ 5.0E-08			U-234	☑ ≤ 1.0E-07		
Ra-226	☐ ≤ 2.5E-10			U-235	☑ ≤ 1.0E-09		
Ra-228	☐ ≤ 2.5E-10			U-238	☑ ≤ 1.0E-09		
Rb-83	☐ ≤ 1.0E-07			Th-232	☑ ≤ 1.0E-10		

Other Contaminants

Metal Contaminants	Present Below LOC (in ppm or mg/L)	Range if above LOC in ppm Min.	Max.	Additional Contaminants	Min.	Max.	
Aluminum	☐ ≤ 50.0			Chemical Oxygen Demand (COD)	0.	0.	mg/L
Boron	☐ ≤ 50.0			Total Suspended Solids (TSS)	0.	0.	mg/L
Cobalt	☐ ≤ 5.0			Total Dissolved Solids (TDS)	0.	0.	mg/L
Copper	☐ ≤ 10.0			Perchlorate	0.	0.	mg/L
Vanadium	☐ ≤ 1.0			Total Toxic Organics (TTO)	0.	0.	mg/L
Zinc	☐ ≤ 100			Nitrogen (Total)	0.	0.	mg/L
				Total Nitrates	0.	1.	mg/L

Radioactive Contaminant Totals

Total Alpha 0.00 Ci/L
Total Beta 0.00 Ci/L
Total Gamma 0.00 Ci/L

For TA-55 Use Only

Wastewater will be discharged through one of the following:
☐ Acid Line ☐ Caustic Line* ☐ Industrial Waste Line
* pH must be greater than 8.0

Chemical Treatment for Boilers/Water Chillers:	☐ Yes	☑ No	Type: _____	Volume: _____ _____
Industrial Cleaner:	☐ Yes	☑ No	Type: _____	Volume: _____ _____

Average daily volume when discharge occurs: *(include waste volume plus rinse water volume)*	17.00 L / day
Maximum daily volume when discharge occurs : *(include waste volume plus rinse water volume)*	50.00 L / day
Estimated number of days per year discharge will occur:	250 days
Estimated total volume per year discharged to the Radioactive Liquid Waste Collection System at TA-50/TA-21:	(see estimate on page 1)

WASTE PROFILE FORM
COVER SHEET

46089
APPROVED

Waste Characterization Information

Waste Stream ID:	46089
WPF ID (Legacy):	
Waste Stream Name:	RINSE WATER FROM ANALYTICAL INSTRUMENTS
Expiration Date:	12/11/2021
Waste Type:	Mixed Low Level Waste for the Radioactive Liquid Waste Treatment Facility (RLWTF)
Radiological Type:	Low Level Waste
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	ACIDIC
EPA Codes:	D002
Waste Acceptance:	
EPA Form Code:	W105 Inorganic Liquids: Acidic aqueous wastes less than 5% acid (diluted but pH <2)
EPA Source Code:	G09 Wastes from Ongoing Production and Service Processes: Other production or service-related processes from which the waste is a direct outflow or result (specify in comments)

Waste Generation Estimates

YEAR	VOLUME
2021	500.00 L
2020	500.00 L
2019	500.00 L
2018	750.00 L

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
46089	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
214187	REARICK, MICHAEL	120202	BISHOP, TONY		5056671224
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
G740	CAAC	55	000400		5056658669

Waste Accumulation *(check only one)*

- ☐ Satellite Accumulation Area — Site No: _____
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____

ER Use Only

- ☐ ER Site — SWMU/AOC No. _____

- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☑ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No: AK Comments WSP 46089. WEF
☐ Material Safety Data Sheet (MSDS)	☐ Attached	

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☑ No	☐ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☑ Yes ☐ No
- ☐ Non-radioactive
- ☑ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☑ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☐ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
AQUEOUS ACID WASTE GENERATED FROM ANALYTICAL INSTRUMENTS. CONSISTS OF INSTRUMENT RINSE AND EXCESS SAMPLE.

Waste Description:
Instrument rinse and excess sample from sample introduction system. Sample is diluted approximately 100 times by the rinse during the process. Waste is 0 - 2% nitric acid in deionized water. Waste will be disposed of directly to the RLWCS.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☑ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☐ >95 F (> 35 C)
- ☑ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maximum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Barium	☑	☐	☐	☐	0.01 to	10 ppm	100.0 ppm
Cadmium	☑	☐	☐	☐	0.01 to	0.1 ppm	1.0 ppm
Chromium	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Lead	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Mercury	☑	☐	☐	☐	0.01 to	0.02 ppm	0.2 ppm
Selenium	☑	☐	☐	☐	0.01 to	0.1 ppm	1.0 ppm
Silver	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
-----	WATER	950000	to	1000000
-----	HNO3[NITRIC ACID]	0	to	20000
	Total of max. ranges of this section and page 2			102.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

This Waste Stream Profile replaces WSP 42392. The process and waste stream remain the same, however additional documentation has been uploaded to improve and strengthen characterization.

WASTE STREAM IS GENERATED DURING THE ANALYSIS OF PU PROCESSING SAMPLES FROM TA55. ALL SAMPLES UNDERGO RIGOROUS DIGESTION WHICH DESTROYS ORGANICS. ALL WASTE IS IN SOLUTION, 0-2% HNO3. RCRA METALS CONCENTRATIONS ARE BELOW REGULATORY LIMITS DUE TO THE DILUTION INHERENT IN THE ANALYTICAL PROCESS. THE STREAM COMES FROM ICPAES and ICPMS INSTRUMENTS OPERATED UNDER C-AAC ANALYTICAL PROCEDURES.

This waste stream is being discharged to the RLWTF for treatment. RLWTF is a Waste Water Treatment Unit (WWTU) that is permitted by the NMED and has an NPDES permit through the CWA.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Radioactive Liquid Waste to be disposed of into the RLWCS. The waste stream is compatible with the line going to the RLWTF.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☑ Other (describe) RLUOB Controlled Acces

Section 8 - Waste Certification Statements

☐ Waste appears to meet WAC attachment for: MLLW-RLWTF

☑ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *MICHAEL REARICK (214187)* Date: *12/11/18 09:41 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *TONY BISHOP (120202)* Date: *12/11/18 09:54 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *12/11/18 12:26 PM*

RLWTF Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JOHN DEL SIGNORE (113532)* Date: *12/11/18 12:59 PM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☑ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☑	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☑	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 2 - Wastewater Characteristics for RLWTF (TA-50 and TA-21)
For help in completing this section, call 7-4301.

Indicate if waste was: ☐ Accelerator produced ☐ Reactor Produced ☑ Other (describe in WPF Section 1 "Waste/Process Description")

Radionuclide Contaminants

Identify for the following	Present at or Below LOC (in Ci/l)	Range if above LOC in Ci/L Min.	Max.	Identify for the following	Present at or Below LOC (in Ci/l)	Range if above LOC in Ci/L Min.	Max.
As-74	☐ ≤ 1.0E-07			Rb-84	☐ ≤ 5.0E-08		
Be-7	☐ ≤ 1.0E-07			Sc-46	☐ ≤ 1.0E-07		
Ce-141	☐ ≤ 1.0E-07			Sc-48	☐ ≤ 1.0E-07		
Co-56	☐ ≤ 1.0E-08			Se-75	☐ ≤ 1.0E-07		
Co-57	☐ ≤ 1.0E-07			Sn-113	☐ ≤ 1.0E-07		
Co-58	☐ ≤ 1.0E-07			Sr-85	☐ ≤ 1.0E-07		
Co-60	☐ ≤ 2.0E-08			Sr-89	☐ ≤ 1.0E-07		
Cs-134	☑ ≤ 1.0E-08			Sr-90	☐ ≤ 5.0E-09		
Cs-137	☑ ≤ 1.0E-08			V-48	☐ ≤ 1.0E-07		
Eu-152	☑ ≤ 1.0E-07			Y-88	☐ ≤ 1.0E-07		
H-3	☐ ≤ 2.0E-08			Zn-65	☐ ≤ 4.0E-08		
I-133	☐ ≤ 5.0E-08			Am-241	☑ ≤ 1.0E-07		
Mn-52	☐ ≤ 1.0E-07			Pu-238	☐ ≤ 1.0E-07		
Mn-54	☐ ≤ 1.0E-07			Pu-239	☑ ≤ 1.0E-07		
Na-22	☐ ≤ 5.0E-08			U-234	☑ ≤ 1.0E-07		
Ra-226	☐ ≤ 2.5E-10			U-235	☑ ≤ 1.0E-09		
Ra-228	☐ ≤ 2.5E-10			U-238	☑ ≤ 1.0E-09		
Rb-83	☐ ≤ 1.0E-07			Th-232	☑ ≤ 1.0E-10		

Others
Np-237

Other Contaminants

Metal Contaminants	Present Below LOC (in ppm or mg/L)	Range if above LOC in ppm Min.	Max.	Additional Contaminants	Min.	Max.	
Aluminum	☑ ≤ 50.0			Chemical Oxygen Demand (COD)	0.	0.	mg/L
Boron	☑ ≤ 50.0			Total Suspended Solids (TSS)	0.	0.	mg/L
Cobalt	☑ ≤ 5.0			Total Dissolved Solids (TDS)	0.	0.	mg/L
Copper	☑ ≤ 10.0			Perchlorate	0.	0.	mg/L
Vanadium	☑ ≤ 1.0			Total Toxic Organics (TTO)	0.	0.	mg/L
Zinc	☑ ≤ 100			Nitrogen (Total)	0.	20000.	mg/L
				Total Nitrates	0.	20000.	mg/L

Radioactive Contaminant Totals

Total Alpha 0.00 Ci/L
Total Beta 0.00 Ci/L
Total Gamma 0.00 Ci/L

For TA-55 Use Only

Wastewater will be discharged through one of the following:
☐ Acid Line ☐ Caustic Line* ☐ Industrial Waste Line
* pH must be greater than 8.0

Chemical Treatment for Boilers/Water Chillers:	☐ Yes	☑ No	Type: _____	Volume: _____ _____
Industrial Cleaner:	☐ Yes	☑ No	Type: _____	Volume: _____ _____

Average daily volume when discharge occurs: *(include waste volume plus rinse water volume)*	2.00 L / day
Maximum daily volume when discharge occurs : *(include waste volume plus rinse water volume)*	3.00 L / day
Estimated number of days per year discharge will occur:	300 days
Estimated total volume per year discharged to the Radioactive Liquid Waste Collection System at TA-50/TA-21:	(see estimate on page 1)

WASTE PROFILE FORM
COVER SHEET

46579
APPROVED

Waste Characterization Information

Waste Stream ID:	46579
WPF ID (Legacy):	
Waste Stream Name:	ANALYTICAL INSTRUMENTS, CONSISTS OF INSTRUMENT RINSE AND EXCESS SAMPLE
Expiration Date:	03/17/2022
Waste Type:	Mixed Low Level Waste for the Radioactive Liquid Waste Treatment Facility (RLWTF)
Radiological Type:	Low Level Waste
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	ACIDIC
EPA Codes:	D002
Waste Acceptance:	
EPA Form Code:	W105 Inorganic Liquids: Acidic aqueous wastes less than 5% acid (diluted but pH <2)
EPA Source Code:	G09 Wastes from Ongoing Production and Service Processes: Other production or service-related processes from which the waste is a direct outflow or result (specify in comments)

Waste Generation Estimates

YEAR	VOLUME
2021	750.00 L
2020	750.00 L
2019	750.00 L

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
46579	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*	Generator's Phone
214187	REARICK, MICHAEL	241267	MAHONEY, PATRICK	5056671224

Generator's Mail Stop	Waste Generating Group	Waste Stream Technical Area	Building	Room	WMC Phone
G740	CAAC	03	000029		5056675498

Waste Accumulation *(check only one)*

- ☐ Satellite Accumulation Area Site No: _____
- ☐ Less-than-90 Days Storage Area Site No: _____
- ☐ TSDF Site No: _____
- ☐ Universal Waste Storage Area Site No: _____
- ☐ Used Oil for Recycle Site No: _____

ER Use Only

- ☐ ER Site SWMU/AOC No. _____

- ☐ Central Accumulation Area Site No: _____
- ☐ NM Special Waste Site No: _____
- ☑ None of the Above Site No: _____
- ☐ PCBs Storage Area Site No: _____
- ☐ Rad Staging Area Site No: _____
- ☐ Rad Storage Area Site No: _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	ANC 132, ANC 191, ANC 211, AN
☐ Material Safety Data Sheet (MSDS)	☐ Attached		

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☑ No	☐ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☑ Yes ☐ No
- ☐ Non-radioactive
- ☑ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☑ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☐ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
AQUEOUS ACID WASTE GENERATED FROM ANALYTICAL INSTRUMENTS. CONSISTS OF INSTRUMENT RINSE AND EXCESS SAMPLE.

Waste Description:
This waste consists of laboratory glassware rinsate and excess samples resulting from operations conducted at CMR.

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☑ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☐ >95 F (> 35 C)
- ☑ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Barium	☑	☐	☐	☐	0.01 to	10 ppm	100.0 ppm
Cadmium	☑	☐	☐	☐	0.01 to	0.1 ppm	1.0 ppm
Chromium	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Lead	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Mercury	☑	☐	☐	☐	0.01 to	0.02 ppm	0.2 ppm
Selenium	☑	☐	☐	☐	0.01 to	0.1 ppm	1.0 ppm
Silver	☑	☐	☐	☐	0.01 to	0.5 ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
-----	WATER	950000	to	1000000
-----	HNO3[NITRIC ACID]	0	to	20000
	Total of max. ranges of this section and page 2			102.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

This Waste Stream Profile replaces WSP 38495. The process and waste stream remain the same, however additional documentation has been uploaded to improve and strengthen characterization. Metals concentrations in the Toxicity Chatracteristics panel are based on the known original concentrations of these metals used as instrument calibration standards.

This waste stream is chemically compatible with the RLWTF waste collection and treatment system.

WASTE STREAM IS GENERATED DURING THE ANALYSIS OF PU PROCESSING SAMPLES FROM TA55. ALL SAMPLES UNDERGO RIGOROUS DIGESTION WHICH DESTROYS ORGANICS. ALL WASTE IS IN SOLUTION, 0-2% HNO3. RCRA METALS CONCENTRATIONS ARE BELOW REGULATORY LIMITS DUE TO THE DILUTION INHERENT IN THE ANALYTICAL PROCESS. THE STREAM COMES FROM ICPAES, ICPMS, XRF AND CVAF INSTRUMENTS OPERATED UNDER C-AAC ANALYTICAL PROCEDURES.

Attached documents referencing WPF# 33593, is superceded by WSP# 46579.

The attached document "Comments on WPF 38495" and the is relevant to this profile as part of the AK regarding the determination for RCRA metals, the pH concentration, and the determination of COD, TSS, TDS Perchlorate and nitrogen concentration

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Solution disposed of into the RLWCS.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☑ Other (describe) CMR Controlled Access

Section 8 - Waste Certification Statements

☐ Waste appears to meet WAC attachment for: MLLW-RLWTF

☑ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *MICHAEL REARICK (214187)* Date: *03/18/19 02:46 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *STEVE TORREZ (117028)* Date: *03/19/19 06:55 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *03/19/19 07:50 AM*

RLWTF Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *JOHN DEL SIGNORE (113532)* Date: *03/19/19 08:59 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☑ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☑	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☑	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 2 - Wastewater Characteristics for RLWTF (TA-50 and TA-21)
For help in completing this section, call 7-4301.

Indicate if waste was: ☐ Accelerator produced ☐ Reactor Produced ☑ Other (describe in WPF Section 1 "Waste/Process Description")

Radionuclide Contaminants

Identify for the following	Present at or Below LOC (in Ci/l)	Range if above LOC in Ci/L Min.	Max.	Identify for the following	Present at or Below LOC (in Ci/l)	Range if above LOC in Ci/L Min.	Max.
As-74	☐ ≤ 1.0E-07			Rb-84	☐ ≤ 5.0E-08		
Be-7	☐ ≤ 1.0E-07			Sc-46	☐ ≤ 1.0E-07		
Ce-141	☐ ≤ 1.0E-07			Sc-48	☐ ≤ 1.0E-07		
Co-56	☐ ≤ 1.0E-08			Se-75	☐ ≤ 1.0E-07		
Co-57	☐ ≤ 1.0E-07			Sn-113	☐ ≤ 1.0E-07		
Co-58	☐ ≤ 1.0E-07			Sr-85	☐ ≤ 1.0E-07		
Co-60	☐ ≤ 2.0E-08			Sr-89	☐ ≤ 1.0E-07		
Cs-134	☑ ≤ 1.0E-08			Sr-90	☐ ≤ 5.0E-09		
Cs-137	☑ ≤ 1.0E-08			V-48	☐ ≤ 1.0E-07		
Eu-152	☑ ≤ 1.0E-07			Y-88	☐ ≤ 1.0E-07		
H-3	☐ ≤ 2.0E-08			Zn-65	☐ ≤ 4.0E-08		
I-133	☐ ≤ 5.0E-08			Am-241	☑ ≤ 1.0E-07		
Mn-52	☐ ≤ 1.0E-07			Pu-238	☐ ≤ 1.0E-07		
Mn-54	☐ ≤ 1.0E-07			Pu-239	☑ ≤ 1.0E-07		
Na-22	☐ ≤ 5.0E-08			U-234	☑ ≤ 1.0E-07		
Ra-226	☐ ≤ 2.5E-10			U-235	☑ ≤ 1.0E-09		
Ra-228	☐ ≤ 2.5E-10			U-238	☑ ≤ 1.0E-09		
Rb-83	☐ ≤ 1.0E-07			Th-232	☐ ≤ 1.0E-10		

Other Contaminants

Metal Contaminants	Present Below LOC (in ppm or mg/L)	Range if above LOC in ppm Min.	Max.	Additional Contaminants	Min.	Max.	
Aluminum	☐ ≤ 50.0			Chemical Oxygen Demand (COD)	0.	0.	mg/L
Boron	☐ ≤ 50.0			Total Suspended Solids (TSS)	0.	0.	mg/L
Cobalt	☐ ≤ 5.0			Total Dissolved Solids (TDS)	0.	100.	mg/L
Copper	☐ ≤ 10.0			Perchlorate	0.	0.	mg/L
Vanadium	☐ ≤ 1.0			Total Toxic Organics (TTO)	0.	0.	mg/L
Zinc	☐ ≤ 100			Nitrogen (Total)			mg/L
				Total Nitrates	0.	20000.	mg/L

Radioactive Contaminant Totals

Total Alpha 0.00 Ci/L
Total Beta 0.00 Ci/L
Total Gamma 0.00 Ci/L

For TA-55 Use Only

Wastewater will be discharged through one of the following:
☐ Acid Line ☐ Caustic Line* ☐ Industrial Waste Line
* pH must be greater than 8.0

Chemical Treatment for Boilers/Water Chillers:	☐ Yes	☑ No	Type:	Volume:
Industrial Cleaner:	☐ Yes	☑ No	Type:	Volume:

Average daily volume when discharge occurs: *(include waste volume plus rinse water volume)*	3.00 L / day
Maximum daily volume when discharge occurs : *(include waste volume plus rinse water volume)*	6.00 L / day
Estimated number of days per year discharge will occur:	250 days
Estimated total volume per year discharged to the Radioactive Liquid Waste Collection System at TA-50/TA-21:	(see estimate on page 1)

Attachment 5
Acetonitrile Solvent Recovery System
Waste Stream Profile 43228

LA-UR-21-21693

WASTE PROFILE FORM
COVER SHEET

43228
APPROVED

Waste Characterization Information

Waste Stream ID:	43228
WPF ID (Legacy):	
Waste Stream Name:	SOLVENT RECOVERY UNIT
Expiration Date:	06/22/2019
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	WATER/ACETONITRILE
EPA Codes:	D001 F003
Waste Acceptance:	
EPA Form Code:	W119 Inorganic Liquids: Other inorganic liquid (specify in comments)
EPA Source Code:	G19 Other Intermittent Events or Processes: Other one-time or intermittent processes (specify in comments)

Waste Generation Estimates

YEAR	VOLUME
2018	1.00 L
2017	1.00 L
2016	1.00 L

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
43228	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
120910	SCHMIDT, JURGEN	092978	TRUJILLO, ALICE		
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
E529	C-DO	35	000085	A119	5056658311

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 3795
- ☐ Less-than-90 Days Storage Area — Site No:
- ☐ TSDF — Site No:
- ☐ Universal Waste Storage Area — Site No:
- ☐ Used Oil for Recycle — Site No:

ER Use Only

- ☐ ER Site — SWMU/AOC No.

- ☐ Central Accumulation Area — Site No:
- ☐ NM Special Waste — Site No:
- ☐ None of the Above — Site No:
- ☐ PCBs Storage Area — Site No:
- ☐ Rad Staging Area — Site No:
- ☐ Rad Storage Area — Site No:

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:
☐ Radiological Analysis	☐ Attached	Sample No:
☐ PCB Analysis	☐ Attached	Sample No:
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No: WS ID #43228
☐ Material Safety Data Sheet (MSDS)	☐ Attached	

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☑ Yes *(provide comments)*	☐ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:
This is a Solvent Recovery Unit, receiving a P2 Award for recovering solvents previously managed/disposed of as Hazardous Waste. No waste leaves LANL as solvents are reclaimed. The WPF covers a drum used for collection in the process, the contents of which is recycled by distillation for reuse.

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
SOLVENT RECOVERY UNIT CLOSED LOOP PROCESS. RECOVERS:
- TRIFLUOROACETIC ACID
- METHANOL
- TETRAHYDROFURAN
- ACETONITRILE

Methanol is used in a small quantity to dissolve the sample before injection on to the chromotography. Therefore, the F003 RCRA Code does apply.

Waste Description:
PRIMARILY AQUEOUS WASTE COLLECTED IN CONTAINER. MAY CONTAIN RESIDUAL AMOUNTS OF TRIFLUOROACETIC ACID, METHANOL, THF. ACETONITRILE AND WATER ARE THE MAJOR CONSTITUENTS.

Section 4 - Characteristics

Ignitability *(check only one)*	**Corrosivity** *(check only one)* (pH)	**Reactivity** *(check as many as apply)*	**Boiling Point** *(check only one)*
☑ < 73 F (< 22.8 C)	☐ <= 2.0	☐ RCRA Unstable	☐ <= 95 F (<= 35 C)
☐ 73 - 99 F (22.8 - 37.2 C)	☑ 2.1 - 4.0	☐ Water Reactive	☑ >95 F (> 35 C)
☐ 100 - 139 F (37.8 - 59.4 C)	☐ 4.1 - 6.0	☐ Cyanide Bearing	☐ Not Applicable
☐ 140 - 200 F (60.0 - 99.3 C)	☐ 6.1 - 9.0	☐ Sulfide Bearing	
☐ > 200 (> 99.3 C)	☐ 9.1 - 12.4	☐ Pyrophoric	
☐ EPA Ignitable - Non-liquid	☐ >= 12.5	☐ Shock Sensitive	
☐ DOT Flammable Gas	☐ Liquid Corrosive to Steel	☐ Explosive [Specify DOT Div.]	
☐ DOT Oxidizer	☐ Non-aqueous	☑ Non-Reactive	
☐ Not Ignitable			

	Characterization Method				Concentration of Contaminants		
Identify for all contaminants listed	**AK**	**TCLP**	**Total**	**None or Non-detect**	**Contaminant present at Minimum**	**Maxiumum**	**Regulatory Limit**
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
75-05-8	ACETONITRILE	100000	to	300000
7732-18-5	WATER	700000	to	900000
67-56-1	METHANOL	100	to	500
109-99-9	TETRAHYDROFURAN	100	to	500
-----	TRIFLUOROACETIC ACID [76005-1]	500	to	1000
	Total of max. ranges of this section and page 2			120.20 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

NO WASTE HAS BEEN GENERATED SINCE THE IMPLEMENTATION OF THE SOLVENT RECOVERY UNIT.

IF WASTE IS GENERATED, THE RUN FILES WILL BE SUBMITTED AT TIME OF DISPOSAL.

ALL CONSTITUENTS ARE CHEMICALLY COMPATIBLE, NO ADVERSE REACTIONS OR HAZARDS EXPECTED.

METHANOL IS USED FOR ITS SOLVENT PURPOSES, THEREFORE F003 DOES APPLY.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.
Waste will be packaged in accordance with P930-1.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *ALICE TRUJILLO (092978)* Date: *06/22/16 03:32 PM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ALICE TRUJILLO (092978)* Date: *06/22/16 03:32 PM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *06/22/16 03:40 PM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

Attachment 6

Solvent Evaporator System for Hexane Recovered from Wastewater Samples

Standard Operating Procedure

Waste Stream Profiles 45282, 45283, 45286, and 47579

Container Profiles W854060, W854059, and W859264

LA-UR-21-21693

Sample processing for solid phase extraction of PCBs from wastewater

Overview

This standard operating procedure (SOP) provides background and instructions for the extraction of polychlorinated biphenyls (PCBs) from aqueous samples with minimal particulate content. This document details procedures based on EPA SW-846 methods, including 3535A, 3665A, 3620C, and 3660B and is intended to prepare samples suitable for PCB congener analysis by EPA 8082. This SOP specifies sample extraction and appropriate sample clean-up methods selected for the expected interferants in wastewater. Evaluation of the effectiveness of the extraction and clean-up methods detailed here should be performed regularly by analyzing method blanks and matrix spike replicates. This document provides instructions at a level appropriate for those with experience in sample preparation and the handling of hazardous solvents and other chemicals. The work described here must be performed in a suitable space having appropriate administrative and engineering controls to mitigate hazards. Users of this SOP are advised to fully review this document and appropriate documents within EPA SW-846 to become familiar with specific objectives and challenges in these methods.

Procedure summary

Analyte extraction and concentration

This procedure aims to extract and concentrate the PCB fraction from aqueous samples. Because PCB action limits in water very low, often less than 1000 pg/L, highly specialized sample preparation and analytical equipment are employed. The confident detection and quantification of PCB congeners at these very low levels requires the careful concentration of the PCB fraction, as well as removal of interferants that may be present in the sample. This SOP prescribes the use of disk solid phase extraction (SPE) allows for the extraction of the PCB fraction from relatively large volumes of water (~ 1 L) and subsequent elution and concentration in a suitable solvent. By concentrating the sample from 1 L to typically 1 mL, a concentration factor of ~1000× is possible, improving analyte detectability, particularly in low level samples. The concentration step is carried out by solvent evaporation, which aims to preferentially evaporate the solvent while leaving the analytes behind.

Extract clean-up

Interfering analytes also present in the sample may also be extracted and concentrated, posing a risk to the accurate measurement of the PCB fraction in the sample. While the use of electron capture detection (ECD) reduces the impact of many potential interferants, co-extracted compounds like sulfur, phthalates, and pesticides are detected by ECD and may lead to measurement errors. To reduce the impact of these and other interferants, sample extract clean-up may be undertaken as needed to preferentially remove interferants from the sample, while leaving the PCB fraction unaltered. Three methods for extract clean-up are detailed in this SOP: Florisil SPE for the removal of phthalates, some pesticides, and polar organics; sulfuric acid and permanganate clean-up for the removal of reactive organics, including common pesticides; and copper powder clean-up for the removal of elemental sulfur. PCB losses due to clean-up steps should be accounted for using the surrogate standard.

Waste disposal

This procedure generates several types of waste that must be handled appropriately.

The first category is biohazard: samples taken from the sanitary sewer may contain infectious agents at levels hazardous to the worker. To reduce the biohazard risk, all wastewater samples must be disinfected after extraction by adding sufficient sodium hypochlorite (chlorine bleach) to reach 0.5% concentration, then waiting 30 minutes before disposal in the sink. Further, all items that contact the wastewater samples must be disinfected by soaking in a 0.5% solution of sodium hypochlorite for 30 minutes; this includes the sample bottle, disposable and reusable extraction glassware, as well as the SPE disk. After disinfection, rinse the items and proceed with cleaning for reusable items or disposal for consumables.

The second category is solvents. During the extraction procedure, a number of solvents are used to prepare the apparatus. Collect these solvents and pour into a suitable solvent waste container, logging the approximate volumes and composition. During solvent evaporation, the solvent vapor will be exhausted to the fume hood; future method improvements will capture this solvent for reuse and/or proper disposal.

The third category is corrosives. If the sulfuric acid and permanganate clean-up is used, these reagents must be collected into separate waste containers, with the approximate volume and composition logged. If the copper clean-up is used, the nitric acid solution used to activate the copper must be transferred to an appropriate waste container; CAUTION: do not mix nitric acid waste with solvents!

The final category is solid wastes. The principal solid waste will be sodium sulfate used for drying the extract. After decanting the solvent from the sodium sulfate, allow to dry in the fume hood. Once the sodium sulfate is dry, transfer to an appropriate waste container and log the approximate amount and composition. If copper clean-up is used, allow the copper to dry in the fume hood then transfer to an appropriate waste container and log the approximate amount and composition.

Standards preparation

Prepare a surrogate spike mixture by diluting the surrogate spike stock solution with methanol in a clean volumetric flask. The final concentration of the surrogate spike solution should be 20 µg/L for each surrogate.

Prepare a matrix spike mixture by diluting the matrix spike stock solution with acetone in a clean volumetric flask. The final concentration of the surrogate spike solution should be 100 µg/L for each matrix recovery compound.

Sample preparation

1. Solid phase extraction of aqueous sample

1.1 Indicated use of this method

This method describes a procedure for isolating target organic analytes from aqueous samples using solid-phase extraction (SPE) media. The method describes conditions for extracting a variety of organic compounds from aqueous matrices that include: groundwater, wastewater, and TCLP leachates. The method describes the use of disk extraction media. The technique may also be applicable to other semivolatile or extractable compounds. It may also be used for the extraction of additional target analytes or may employ other solid-phase media, provided that the analyst demonstrates adequate performance (e.g., recovery of 70 -130%, or project-specific recovery criteria) using spiked sample matrices and an appropriate determinative method. The use of organic-free reagent water alone is not considered sufficient for conducting such performance studies, and must be supported by data from actual sample matrices.

This method also provides procedures for concentrating extracts and for solvent exchange. Solid-phase extraction is called liquid-solid extraction in some methods associated with the Safe Drinking Water Act.

1.2 Summary of the method

1.2.1 Sample preparation procedures vary by analyte group. Extraction of some groups requires that the pH of the sample be adjusted to a specified value prior to extraction. Correcting the pH may also be necessary to avoid damaging the solid phase extraction disk.

1.2.2 Following any necessary pH adjustment, a measured volume of sample is extracted by passing it through the solid-phase extraction medium (disks or cartridges), which is held in an extraction device designed for vacuum filtration of the sample.

1.2.3 Target analytes are eluted from the solid-phase media using an appropriate solvent which is collected in a receiving vessel. An initial elution with a water-miscible solvent, i.e., acetone or acetonitrile, improves the recovery of analytes trapped in water-filled pores of the sorbent. Use of a water-miscible solvent is particularly critical when dichloromethane is used as the second elution solvent. The resulting solvent extract is dried using sodium sulfate and concentrated.

1.2.4 As necessary, the concentrated extract may be exchanged into a solvent compatible extract with subsequent cleanup procedures or determinative procedures for the measurement of the target analytes.

1.3 Interferences

1.3.1 Bonded-phase silica (e.g., C18) will hydrolyze on prolonged exposure to aqueous samples with pH less than 2 or greater than 9. Hydrolysis will increase at the extremes of this pH range and with longer contact times. Hydrolysis may reduce extraction efficiency or cause baseline irregularities. Styrene divinylbenzene (SDB) extraction disks should be considered when hydrolysis is a problem.

1.3.2 Phthalates are a ubiquitous laboratory contaminant. All glass extraction apparatus should be used for this method because phthalates are used as release agents when molding rigid plastic (e.g., PVC) and as plasticizers for flexible tubing. A method blank should be analyzed, demonstrating that there is no phthalate contamination of the sodium sulfate or other reagents listed in this method.

1.3.3 Sample particulates may clog the solid-phase media and result in extremely slow sample extractions. Use of an appropriate filter aid will result in shorter extractions without loss of method performance if clogging is a problem. Even when a filter aid is employed, this method may not be appropriate for aqueous samples with high levels of suspended solids (>1%), as the extraction efficiency may not be sufficient, given the small volumes of solvents employed and the short contact time.

1.4 Apparatus

1.4.1 Solid-phase disk extraction system – Empore™ manifold that holds three 90-mm filter standard apparatus or six 47-mm standard filter apparatus, or equivalent. Other manual, automatic, or robotic sample preparation systems designed for solid-phase media may be utilized for this method if adequate performance is achieved and all quality control requirements are satisfied.

1.4.1.1 Manifold station – Supelco 6-position ENVI-DISK Holder Manifold

1.4.1.2 Standard filter apparatus – Supelco 47 mm ENVI-DISK Holder

1.4.1.3 Collection tube – Pyrex culture tube, rimless, diam. × L 25 mm × 200 mm

1.4.1.4 Filter flask – 1-L with a ground-glass receiver joint - VWR Flask Filter, 40/35, 1000 ml

1.4.1.5 Vacuum pump – KNF Laboport Mini Laboratory Pump, UN86KTP

1.4.1.6 Solid-phase extraction disks - ENVI, 47-mm, C-18 bonded.
C18 disks – Supelco ENVI-18 DSK SPE Disk (47mm, 24-pk)

C18 fast flow disks – Empore™ disks, 47-mm diameter (3M product number 98-0503-0138-5), or equivalent. These disks may be a better choice for samples that are difficult to filter even with the use of a filter aid.

1.4.2 Glassware: Pasteur pipettes, 50 mL beaker, 50 mL graduated cylinder

1.5 Reagents

Reagent grade inorganic chemicals shall be used in all tests. Reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. The use of other grades must be first demonstrated to not lessen the accuracy of the determination.

1.5.1 Surrogate spike – tetrachloroxylene and decaCB at 20 µg/L in methanol

1.5.2 Organic-free reagent water, as used in other sections of this document.

1.5.3 Methanol (CH_3OH), pesticide grade or equivalent – Supelco SupraSolv grade

1.5.4 Dichloromethane (CH_2Cl_2), pesticide grade or equivalent – Supelco SupraSolv grade

1.5.5 Acetone (C_3H_6O), pesticide grade or equivalent – Supelco SupraSolv grade

1.5.6 Hexane (C_6H_{14}), pesticide grade or equivalent – Supelco SupraSolv grade

1.5.7 Sodium sulfate (granular, anhydrous), Na2SO4 – Purify by heating at 400 °C for 4 hrs in a shallow tray, or by precleaning the sodium sulfate with methylene chloride. A method blank should be analyzed in order to demonstrate that there is no interference from the sodium sulfate.

1.6 Sample preparation

The extraction of aqueous samples presents several challenges that must be considered during sample preparation. First, PCBs have a tendency to associate with particulate matter in the sample; sample preparation procedures must ensure that any particulates in the original sample are included in the sample aliquot that is extracted. Second, PCBs are hydrophobic and may preferentially adhere to the surfaces of the sample container; once the sample has been transferred to the extraction apparatus, the sample container is rinsed with solvent which is added to the apparatus. It is generally not appropriate to extract only part of the sample from a sample container, e.g., 250 mL from a 1-L sample bottle.

The appropriate sample volume may vary with the intended use of the results and, in general, is the volume necessary to provide the analytical sensitivity necessary to meet the objectives of the project. Under ideal conditions, the sample should be collected by completely filling the container. The sample should generally be collected without additional volume and with little or no headspace. Thus, a 1-L sample is collected in a 1-L container, a 250-mL sample is collected in a 250-mL container, etc.

Surrogates and matrix spiking compounds (if applicable) are added to the sample in the original container. The container is then recapped and shaken to mix the spiked analytes into the sample. The extraction may also require that the pH of the sample be adjusted to a specified range. When pH adjustment is necessary, it should be performed after the surrogates and matrix spiking compounds (if applicable) have been added and mixed with the sample. Otherwise, the recoveries of these compounds will have little relevance to those of the target analytes in the sample.

NOTE: This method may not be appropriate for aqueous samples with greater than 1% solids, as such samples can be difficult to filter and the extraction efficiency may be reduced as a result of the small volumes of solvents employed and the short contact time. If the particulate load significantly slows or prevents filtration, it may be more appropriate to employ an alternative extraction procedure.

1.6.1 Mark the level of the sample on the outside of the sample container with a permanent marker for later determination of the sample volume used. Shake the container for several minutes, with the cap tightly sealed, to ensure that any particulate matter is evenly distributed throughout the sample.

1.6.2 Prepare a method blank from a 1-L volume of organic-free reagent water, or a volume similar to that of the samples (e.g., a 250-mL blank should be used when the sample size is 250 mL, etc.). Use a graduated cylinder to measure the water. The blank should be prepared in a fresh sample bottle of the same batch used for sample collection, if possible.

1.6.3 Add 5.00 mL of 20 µg/L surrogate standard in methanol to each sample and blank, using a 5 mL volumetric pipette. All samples, blanks, and QC samples should receive the same amount of methanol. Thoroughly shake the samples for several minutes to mix the surrogates and allow the sample to stand for at least several minutes. This will permit the surrogates to dissolve in the sample and will also allow the particulate matter to settle after spiking, which will speed the filtration process somewhat.

1.6.4 Prepare matrix spikes by adding listed matrix spike standards to representative sample replicates in their original containers. Mix the matrix spike samples as described above and allow to stand.

1.6.5 pH adjustment

1.6.5.1 Check the pH of the sample with wide-range (0-14) pH paper and record in the sample log. If necessary, adjust the pH to fall within the range of pH 5-9. Use 1 M HCl or NaOH solutions for adjustments. If pH adjustment is required, this step should be performed in the original sample container to ensure that analytes are not lost in precipitates or flocculated material. Any adjustment of the sample pH should take place after the surrogates and matrix spiking compounds are added, so that they are affected by the pH in the same manner as the target analytes. Measure the final pH of the adjusted sample using narrow-range (5.0-9.0) pH paper and record in the sample log.

1.7 Solid phase extraction

1.7.1 Assemble the manifold for multiple disk extractions using an ENVI 47-mm C-18 SPE disk.

1.7.2 If samples contain significant quantities of particulates, the use of a filter aid or prefilter is advisable for disk extractions. Empore™ Filter Aid 400 is recommended.

1.7.2.1 Pour about 40 g of Filter Aid 400 onto the surface of the disk after assembling the standard filter apparatus.

1.7.3 Preparing the extraction apparatus:
Prior to use, the extraction disks must undergo a washing and conditioning steps, detailed below. Collect the wash and conditioning solvents in the 1 L collection flask. The extraction disks are composed of hydrophobic materials which will not allow water to pass unless they are pre-wetted with a water-miscible solvent before being used for sample extraction. This step is referred to as conditioning. NOTE: Beginning with the conditioning step, it is CRITICAL that the disk NOT go dry until after the extraction steps are completed. Should a disk accidentally go dry during the conditioning steps, the conditioning steps for that disk must be repeated prior to adding the sample.

1.7.3.1 1st washing step: wash the extraction apparatus and disk with 20 mL of dichloromethane by rinsing the solvent down the sides of the glass reservoir. Pull a small amount of solvent through the disk with vacuum. Isolate the extraction apparatus from the vacuum and allow the disk to soak for about one minute. Then pull the remaining solvent through the disk and allow the disk to dry under vacuum.
NOTE: If using a filtration aid, increase the amount of all wash and conditioning solvents so that the entire filter bed is submerged during washing.

1.7.3.2 2nd washing step: repeat the above washing procedure using 10 mL of acetone.

1.7.3.3 Disk conditioning methanol rinse: add 20 mL of methanol to the extraction apparatus. Apply a vacuum until a few drops of solvent pass through the disk, ensuring that the disk is soaked with the solvent. Isolate the vacuum and allow the disk to soak in the solvent for one minute. Once the soaking time is over, apply the vacuum again, drawing down the solvent to 2-3 mm above the disk. Stop the vacuum just before the disk goes dry!
NOTE: When using a filtration aid, adjust the volume of conditioning solvents so that the entire filtration bed remains submerged until the extraction is completed.

1.7.3.4 Disk conditioning water rinse: add 20 mL of reagent water and apply vacuum to draw the water through the disk. Stop the vacuum just before the disk goes dry, leaving 2-3 mm of water above the surface of the disk or filter bed if a filtration aid is used.

1.7.3.5 Transfer the collected wash and conditioning solvents to the solvent waste container.

1.7.4 Sample extraction

1.7.4.1 Pour the sample into the reservoir and, under full vacuum, filter it as quickly as the vacuum will allow (at least 10 minutes). Transfer as much of the liquid sample as possible. Due to the long filtration time, this step may easily be performed in parallel with other samples.

NOTE: With high-particulate samples, allow the sediment in the sample to settle and decant into the reservoir. After most of the aqueous portion of the sample has passed through the disk, swirl the portion of the sample containing sediment and add it to the reservoir. Use additional portions of organic-free reagent water to transfer any remaining particulates to the reservoir. Particulates must be transferred to the reservoir before all of the aqueous sample has passed through the disk.

1.7.4.2 After the sample has passed through the solid-phase media, dry the disk by maintaining vacuum for about 3 minutes. Method blanks and matrix spike aliquots are handled in the same manner as the samples.

1.7.4.3 Remove the filter assembly (do not disassemble) from the collection flask and pour the water from the collection flask into the bleach disinfection container.

1.7.5 Elution of the PCBs from the SPE disk

1.7.5.1 After emptying the water from the collection flask, insert a 25 mm × 200 mm glass collection tube. The drip tip of the filtration apparatus should be seated sufficiently below the neck of the collection tube to prevent analyte loss due to splattering when vacuum is applied.

1.7.5.2 With the collection tube in place, add 5 mL of acetone to the extraction apparatus. Allow the solvent to spread out evenly across the disk (or inert filter) then quickly turn the vacuum on and off to pull the first drops of solvent through the disk. Allow the disk to soak for 15 to 20 seconds before proceeding to the next step.

1.7.5.3 Rinse the sample bottle with 20 mL of dichloromethane and transfer the solvent rinse to the extraction apparatus. As needed, use a disposable pipette to rinse the sides of the extraction apparatus with solvent from the bottle. If using a filtration aid, adjust the volume of elution solvent so that the entire filtration bed is initially submerged.

1.7.5.4 Draw about half of the solvent through the disk, then isolate the vacuum. Allow the remaining elution solvent to soak the disk and particulates for about one minute before drawing the remaining solvent through the disk under vacuum.

1.7.5.5 Repeat the bottle rinsing step as listed in the previous two steps, continuing to apply vacuum and collecting the solvent in the tube.

1.7.6 Sample concentration by solvent evaporation

1.7.6.1 Add 5.0 g of clean anhydrous sodium sulfate to the collection tube. Swirl the collection tube to dry the extract.

1.7.6.2 Transfer to a clean Labconco evaporation tube, decanting to eliminate any sodium sulfate during the process.

1.7.6.3 Rinse the collection tube with 20 mL of dichloromethane, decanting this rinsate into the Labconco evaporation tube

1.7.6.4 Set the Labconco evaporator block temperature to 35 °C, vortex speed to 70, and timer to 60 minutes. Place the evaporation tubes into the block, activate the appropriate gas positions, and start the run. Evaporate the solvent volume to 1 mL using a gentle stream of clean, dry nitrogen (filtered through a column of activated carbon, optional).

CAUTION: New plastic tubing must not be used between the carbon trap and the sample, since it may introduce phthalate interferences.

1.7.6.5 Monitor the evaporation of the solvent periodically, increasing the monitoring interval once the endpoint is approached. To improve recoveries, rinse down the internal wall of the concentrator tube several times with solvent during the concentration. The extract must not be allowed to become dry.

CAUTION: When the volume of solvent is reduced below 1 mL, some the more volatile PCB congeners may be lost.

1.7.6.6 Perform a solvent exchange to hexane by adding 10 mL of hexane to the concentrator tube, rinsing the solvent down the sides of the tube. Increase the block temperature to 60 °C and start the evaporator. Reduce the hexane extract to a final volume of 1 mL, being careful to avoid evaporating the extract beyond the endpoint.

1.7.6.7 Using a long stemmed Pasteur pipette, transfer the extract for cleanup, as described in the following sections. If further handling of the extract will not be performed immediately, transfer the extract to a vial with a PTFE-lined screw-cap, and label appropriately.

2. Sulfuric acid and permanganate clean-up to remove unsaturated hydrocarbons and reactive chlorinated pesticides

The following method is based on EPA SW-846 Method 3665A.

2.1 Indicated use of this method

This method is suitable for the rigorous cleanup of sample extracts prior to analysis for polychlorinated biphenyls. This method should be used whenever elevated baselines or overly complex chromatograms prevent accurate quantitation of PCBs. This method may also be indicated when a colored extract is presented. This method cannot be used to cleanup extracts for other target analytes, as it will destroy most organic chemicals including the pesticides Aldrin, Dieldrin, Endrin, Endosulfan (I and II), and Endosulfan sulfate.

2.2 Method summary

An extract is solvent exchanged to hexane, then the hexane is sequentially treated with (1) concentrated sulfuric acid and, if necessary, (2) 5% aqueous potassium permanganate. Appropriate caution must be taken with these corrosive reagents.

Blanks and replicate analysis samples must be subjected to the same cleanup as the samples associated with them. It is important that all the extracts be exchanged to hexane before initiating the following treatments.

2.3 Interferences

This technique will not destroy chlorinated benzenes, chlorinated naphthalenes (Halowaxes), and a number of chlorinated pesticides.

2.4 Apparatus

2.4.1 Pasteur pipettes.

2.4.2 Vials - 1, 2 and 10 mL, glass with polytetrafluoroethylene (PTFE)-lined screw caps.

2.4.3 Vortex mixer.

2.5 Reagents

Reagent grade inorganic chemicals shall be used in all tests. Reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. The use of other grades must be first demonstrated to not lessen the accuracy of the determination.

2.5.1 Organic-free reagent water, as used in other sections of this document.

2.5.2 Sulfuric acid/Water (H_2SO_4/H_2O), mixed 1:1 (v/v).

2.5.3 Hexane (C_6H_{14}), pesticide grade or equivalent.

2.5.4 Potassium permanganate ($KMnO_4$), 5% aqueous solution (w/v).

2.6 Sulfuric acid clean-up

2.6.1 Using a Pasteur pipet, transfer the hexane extract to a 10 mL vial and, in a fume hood, carefully add 5 mL of the 1:1 sulfuric acid/water solution.
CAUTION: Make sure that there is no exothermic reaction nor evolution of gas prior to proceeding.

2.6.2 Cap the vial tightly and vortex for one minute. A vortex must be visible in the vial.
CAUTION: Stop the vortexing immediately if the vial leaks. AVOID SKIN CONTACT, SULFURIC ACID BURNS.

2.6.3 Allow the phases to separate for at least 1 minute. Examine the top (hexane) layer; it should not be highly colored nor should it have a visible emulsion or cloudiness.

2.6.4 If a clean phase separation is achieved, proceed to Sec. 2.6.6.

2.6.5 If the hexane layer is colored or the emulsion persists for several minutes, remove the sulfuric acid layer from the vial and dispose of it properly. Add another 5-mL portion of the clean 1:1 sulfuric acid/water solution and perform another acid cleanup (2.6.1-2.6.3).
NOTE: Do not remove any hexane from the vial at this stage of the procedure.

2.6.6 Transfer the hexane layer to a clean 10-mL vial. Take care not to include any of the acid layer in this clean vial, as it can cause damage to the analytical instrumentation. Once the hexane layer is removed, perform a second extraction of the acid layer, described below:

2.6.6.1 Add an additional 1 mL of hexane to the sulfuric acid layer, cap and shake. This second extraction is done to ensure quantitative transfer of the PCBs.

2.6.7 If the extract is still colored, proceed with the permanganate cleanup (Sec. 2.7). If the extract is not colored, the analyst may proceed with the final preparation (Sec. 2.8).

2.7 Permanganate clean-up

The permanganate cleanup should be employed when the sulfuric acid cleanup has not removed all of the color from an extract.

2.7.1 Add 5 mL of the 5 percent aqueous potassium permanganate solution to the combined hexane fractions from 2.6.6.
CAUTION: Make sure that there is no exothermic reaction nor evolution of gas prior to proceeding.

2.7.2 Cap the vial tightly and vortex for 1 minute. A vortex must be visible in the vial.
CAUTION: Stop the vortexing immediately if the vial leaks. AVOID SKIN CONTACT, POTASSIUM PERMANGANATE BURNS.

2.7.3 Allow the phases to separate for at least 1 minute. Examine the top (hexane) layer, it should not be highly colored nor should it have a visible emulsion or cloudiness.

2.7.4 If a clean phase separation is achieved, proceed to Sec. 2.7.6.

2.7.5 If the hexane layer is colored or the emulsion persists for several minutes, remove the permanganate solution from the vial via a glass pipette and dispose of it properly. Add another 5 mL of the clean aqueous permanganate solution. Vortex the sample and allow the phases to separate.

NOTE: Do not remove any hexane at this stage of the procedure.

2.7.6 Transfer the hexane layer to a clean 10 mL vial.

2.7.7 Add an additional 1 mL of hexane to the permanganate layer, cap the vial securely and shake. This second extraction is done to ensure quantitative transfer of the PCBs.

2.7.8 Remove the second hexane layer and combine with the hexane from Sec. 7.2.7.

2.8 Final preparation

2.8.1 Reduce the volume of the combined hexane layers to the original volume (1 mL) using the VisiDry N_2 blowdown manifold.

2.8.2 Remove any remaining organochlorine pesticides from the extracts using Florisil Cleanup (Method 3620).

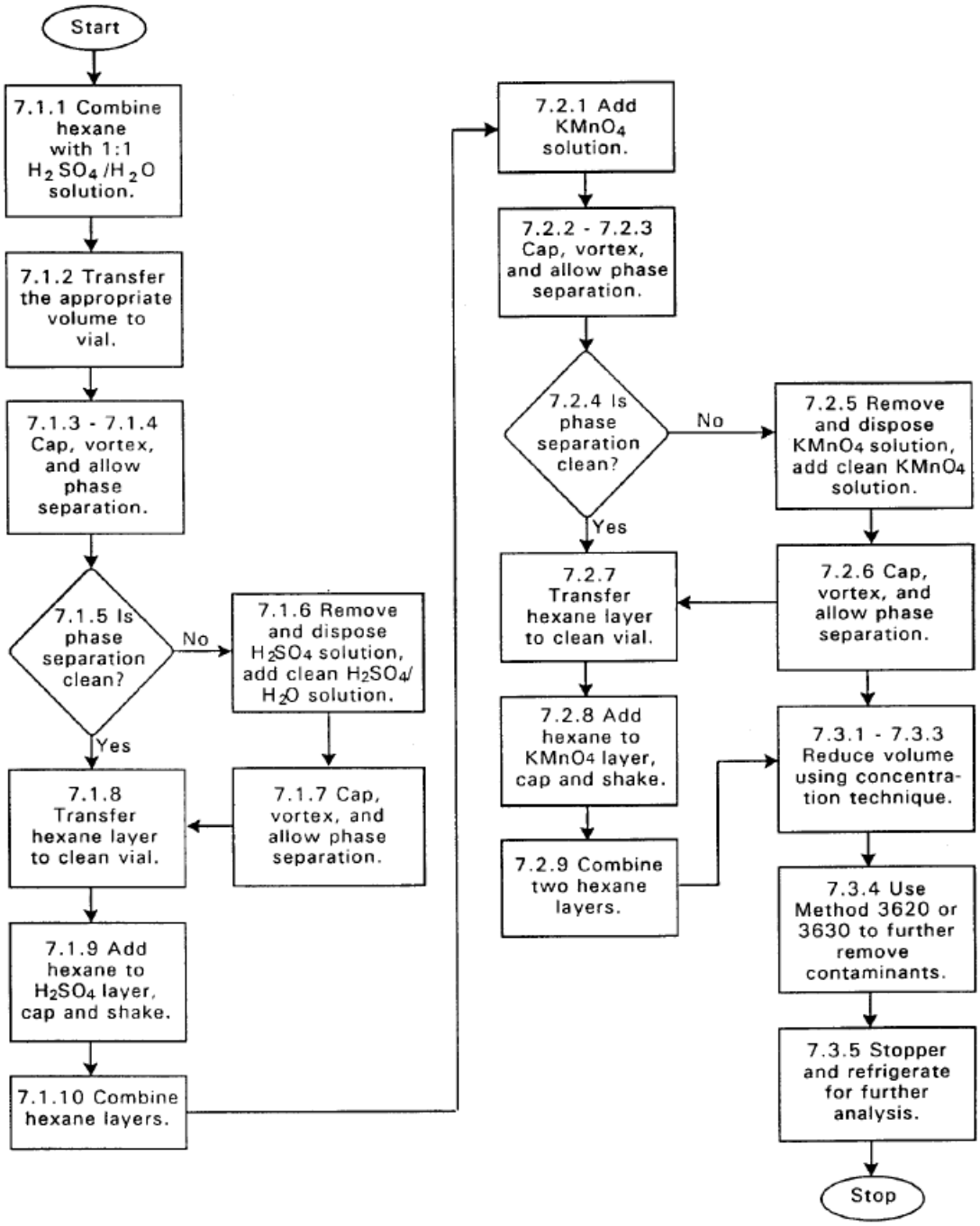


Figure 1 - Flowchart for sulfuric acid/permanganate clean-up

3. Florisil SPE clean-up to remove polar interferants and reduce phthalates and organochlorine pesticides

The following method is based on EPA SW-846 Method 3620C

3.1 Indicated use of this method

Florisil®, a registered trade name of U. S. Silica Co., is a magnesium silicate with basic properties. It is used to separate analytes from interfering compounds prior to sample analysis by a chromatographic method. Florisil® has been used for the cleanup of pesticide residues and other chlorinated hydrocarbons; the separation of nitrogen compounds from hydrocarbons; the separation of aromatic compounds from aliphatic-aromatic mixtures; and similar applications for use with fats, oils, and waxes. Additionally, Florisil® is considered good for separations with steroids, esters, ketones, glycerides, alkaloids, and some carbohydrates. Florisil® cleanup may be accomplished using solid-phase extraction cartridges containing Florisil®.

This method includes procedures for cleanup of sample extracts containing the following analyte groups: Phthalate esters, Chlorinated hydrocarbons, Nitrosamines, Organochlorine pesticides, Nitroaromatics, Organophosphates, Haloethers, Organophosphorus pesticides, Aniline and aniline derivatives, and PCBs. Other analytes may potentially be cleaned up using this method provided that adequate performance is demonstrated.

3.2 Summary of the method

This method describes procedures for Florisil® cleanup of solvent extracts of environmental samples. It provides the option of using either traditional column chromatography techniques or solid-phase extraction cartridges. Generally, the traditional column chromatography technique uses larger amounts of adsorbent and, therefore, has a greater cleanup capacity. This document has selected the solid-phase extraction cartridges for clean-up.

The cartridge cleanup protocol uses solid-phase extraction cartridges containing 40 µm particles of Florisil® (60 Å pores). Each cartridge is washed with solvent immediately prior to use. The sample extract is loaded onto the cartridge which is then eluted with suitable solvent(s). A vacuum manifold is necessary to obtain reproducible results. The eluate may be further concentrated prior to gas chromatographic analysis.

3.3 Interferences

Solvents, reagents, glassware, and other sample processing hardware may yield artifacts and/or interferences to sample analysis. All of these materials must be demonstrated to be free from interferences under the conditions of the analysis by analyzing method blanks. Specific selection of reagents and purification of solvents by distillation in all glass systems may be necessary.

A reagent blank should be prepared and analyzed for the compounds of interest prior to the use of this method. The level of interferences must meet the QC acceptance criteria for blanks that are specified in a project planning document, e.g. QAPP, SAP, or in a laboratory SOP.

The procedures for reagent purification outlined here should be considered to be the minimum needed for successful use of this method. More extensive procedures may be necessary to achieve acceptable levels of interferences for some analytes. However, during the evaluation of the cartridge cleanup procedure, phthalate esters were detected in the Florisil® cartridge method blanks at concentrations of up to 400 ng per cartridge. Therefore, complete removal of the phthalate esters from Florisil® cartridges may not be possible. Phthalate ester contamination may be a problem with certain cartridges. The more inert the column and/or cartridge material (i.e., glass or polytetrafluoroethylene (PTFE)), the fewer

problems with phthalates contamination will occur. Phthalates create interference problems for all method analytes, not just the phthalate esters themselves.

3.4 Apparatus and consumables

This section does not list common laboratory glassware (e.g., beakers and flasks).

3.4.1 Vials -- Glass, 10-mL and 25-mL capacity, fitted with polytetrafluoroethylene (PTFE)-lined screw caps or crimp tops.

3.4.2 Vacuum manifold – Visiprep (Supelco, Inc.), consisting of glass vacuum basin, collection rack and funnel, collection vials, replaceable stainless steel delivery tips, built-in vacuum bleed valve and gauge. The system is connected to a vacuum pump through a vacuum trap made from a 500-mL sidearm flask fitted with a one-hole stopper and glass tubing. The manifold is necessary for use of the cartridge cleanup protocol.

3.5 Reagents

Reagent grade chemicals shall be used in all tests. Reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. The use of other grades must be first demonstrated to not lessen the accuracy of the determination. Reagents should be stored in glass to prevent the leaching of contaminants from plastic containers.

3.5.1 Organic-free reagent water, as used in other sections of this document.

3.5.2 Sodium sulfate (granular, anhydrous), Na2SO4 -- Purify by heating at 400 °C for 4 hrs in a shallow tray, or by precleaning the sodium sulfate with methylene chloride. A method blank should be analyzed in order to demonstrate that there is no interference from the sodium sulfate.

3.5.3 Hexane (C_6H_{14}), pesticide grade or equivalent.

3.5.4 Florisil® cartridge phenol check solution (for the organochlorine pesticide technique) -- Prepare a solution of 2,4,5-trichlorophenol in acetone at a concentration of 0.1 mg/L. See the note in Sec. 7.12.

3.5.5 Florisil® cartridge PCB check solution -- Prepare a solution containing the 8082 PCB standard in hexane at 10 µg/L.

3.5.6 Florisil® cartridges -- 40 µm particles, 60 Å pores. The cartridges from which this method were developed consist of 6-mL serological grade polypropylene tubes, with the 1 g of Florisil® held between two polyethylene or stainless steel frits with 20 µm pores. Cartridges containing 0.5 g and 2.0 g of Florisil® are available, however, the compound elution patterns should be verified when cartridges containing other than 1 g of Florisil® are used.

The Florisil activity needs to be verified using a recovery test. This test needs to be conducted on each batch of Florisil® following its activation (Sec. 7.3).

3.5.7 The efficiency of each lot of the solid-phase extraction cartridges needs to be verified. Only lots of cartridges from which the spiked analytes are quantitatively recovered may be used to process the samples. A check should also be performed at least once on each individual lot of cartridges and at least once for every 300 cartridges of a particular lot, whichever frequency is greater.

3.5.8 To check each new lot of Florisil® cartridges before use, perform the following in duplicate:

3.5.8.1 Combine 0.5 mL of the 2,4,5-trichlorophenol solution in Sec. 7.11, 1.0 mL of the pesticide solution in Sec. 7.12, and 0.5 mL of hexane in a vial.

3.5.8.2 Condition the cartridge as described in Sec. 11.1 and then perform the cartridge cleanup starting with Sec. 11.7.

3.5.8.3 Elute the cartridge with 10 mL of hexane. Reduce the volume to 1.0 mL and analyze by Method 8082.

3.5.8.4 The lot of Florisil® cartridges is acceptable if all PCBs are recovered at 80 to 110%, if the recovery of trichlorophenol is less than 5%, and if no peaks interfering with the target analytes are detected.

Any method blanks, matrix spike samples, or replicate samples should be subjected to the same analytical procedures (Sec. 11.0) as those used on actual samples. For sample extracts that are cleaned up using this method, the associated quality control samples should also be processed through this cleanup method.

3.6 Procedure

Sec. 11.1 describes the procedures for assembling and conditioning the Florisil® cartridges. Sec. 11.2 describes general procedures for handling sample extracts prior to cleanup. Sec .11.3 describes the cartridge procedure for PCBs. If the interference is caused by high boiling materials, then Method 3640 should be employed prior to Florisil® cleanup. If the interference is caused by relatively polar compounds in the same boiling range as the analytes of interest, then multiple column or cartridge cleanups may be necessary. For additional cleanup of organochlorine pesticides and PCBs, see Method 3665. If crystals of sulfur are present in the extract, then Method 3660 should be employed prior to Florisil® cleanup.

Whenever Florisil® is used to fractionate groups of target compounds (rather than to simply remove potential interferants) it is critical that the specific fractionation scheme be validated using spiked solutions or spiked sample extracts that contain most or all of the analytes of interest. This may be particularly important when the Florisil® cartridge techniques are employed, because the differences between the various cartridge formats and manufacturers may affect the fractionation patterns. In addition, it may be useful to archive any fractions not originally intended for analysis, in the event that the fractionation scheme chosen does not yield the intended results.

Once the determinative analysis has been performed and demonstrates that the fractionation has been successful, such archived fractions may be disposed of in an appropriate manner. However, if the fractionation did not perform as intended, the analytes of interest may be contained in the archived fractions which may be analyzed or combined with the other fraction(s) for reanalysis.

Following Florisil® cleanup, extracts may need further concentration and/or solvent exchange.

3.6.1 Cartridge set-up and conditioning

3.6.1.1 Arrange the cartridges on the manifold in the closed-valve position.

3.6.1.2 Turn on the vacuum pump and set the vacuum to 10 in (254 mm) of Hg. Do not exceed the manufacturer's recommendation for manifold vacuum. Flow rates may be controlled by opening and closing cartridge valves.

3.6.1.3 Condition the cartridges by adding 4 mL of hexane to each cartridge. Slowly open the cartridge valves to allow hexane to pass through the sorbent beds to the lower frits. Allow a few drops per cartridge to pass through the manifold to remove all air bubbles. Close the valves and allow the solvent to soak the entire sorbent bed for 5 minutes. Do not turn off the vacuum.

3.6.1.4 Slowly open cartridge valves to allow the hexane to pass through the cartridges. Close the cartridge valves when there is still at least 1 mm of solvent above the sorbent bed. Do not allow the cartridges to become dry. If cartridges go dry, repeat the conditioning step.

3.6.2 Handling sample extracts

Most sample extracts have to be concentrated to a smaller volume prior to the use of Florisil® cleanup. The extract volume is a function of the analytical sensitivity necessary to meet the project objectives. The extract volume will also affect the ability of the Florisil® to separate target analytes from potential interferences, particularly for the cartridge procedures, where applying large extract volumes to the cartridges may cause poor results.

3.6.2.1 If the extract was in cold storage, allow it to reach room temperature. Inspect the extract visually to ensure that there are no particulates or phase separations and that no evaporative loss has taken place. If crystals of sulfur are visible or if the presence of sulfur is suspected, proceed with Method 3660.

3.6.3 Cartridge procedure for organochlorine pesticides and PCBs

3.6.3.1 Using 1-g Florisil® SPE tubes, condition the tube beds with hexane, as described in 3.6.1.

3.6.3.2 Transfer the extract from the collection tube to the SPE tube. Open the cartridge valve to allow the extract to pass through the cartridge bed at approximately 2 mL/min.

3.6.3.3 When the entire extract has passed through the tube bed, but before the bed becomes dry, rinse the collection tube with an additional 0.5 mL of hexane, and add the rinse to the cartridge to complete the quantitative transfer.

3.6.3.4 Close the cartridge valve and turn off the vacuum after the solvent has passed through, ensuring that the tube bed never goes dry.

3.6.3.5 Place a 10-mL collection tube into the sample rack corresponding to the SPE tube position. Attach a solvent rinsed stainless steel solvent guide to the manifold cover and align with the collection tube.

3.6.3.6 The following steps remove several organochlorine pesticide and polar interferants from the extract, while recovering the PCBs in the extract.

3.6.3.7 Turn on the vacuum pump and adjust the pump pressure to 10 inches (254 mm) of Hg. Add 3 mL of hexane to the SPE tube. Allow the solvent to soak the sorbent bed for 1 min or less. Slowly open the SPE tube's valve and collect the eluate into the collection vial. This is the primary fraction and it will contain the PCBs and a few of the organochlorine pesticides (see Tables 1 and 2). Allow all of the hexane to elute from the SPE tube, then properly dispose of the tube.

3.6.3.8 Attach the VisiDry N_2 blowdown manifold to the VisiPrep and adjust to a gentle stream of nitrogen to evaporate the eluate to a volume of 1.0 mL.

3.7 References

1. J. Gordon and R. A. Ford, The Chemist's Companion: A Handbook of Practical Data, Techniques, and References, New York: John Wiley & Sons, Inc., pp. 372, 374, and 375, 1972.
2. Floridin of ITT System, Florisil: Properties, Application, Bibliography, Pittsburgh, Pennsylvania, 5M381DW.
3. P. A. Mills, "Variation of Florisil Activity; Simple Method for Measuring Absorbent Capacity and its use in Standardizing Florisil Columns," Journal of the Association of Official Analytical Chemists, 51, 29, 1968.
4. U.S. Food and Drug Association, Pesticides Analytical Manual (Volume 1), July 1985.
5. V. Lopez-Avila, J. Milanes, N. S. Dodhiwala, and W.F. Beckert, "Cleanup of Environmental Sample Extracts Using Florisil Solid-Phase Extraction Cartridges," J. Chrom. Sci. 27, 209-215, 1989.
6. U.S. EPA, "Evaluation of Sample Extract Cleanup Using Solid Phase Extraction Cartridges," Project Report, December 1989.
7. U.S. EPA Method 608, Organochlorine Pesticides and PCBs, 40 CFR 136, October 26, 1984.

3.8 Method performance

Table 1 - Example average recoveries of Aroclors from Florisil cartridges

Compound	Average Recovery (%)
Aroclor 1016	105
Aroclor 1221	76
Aroclor 1232	90
Aroclor 1242	94
Aroclor 1248	97
Aroclor 1254	95
Aroclor 1260	90

Table 2 - Example elution patterns and recoveries of organochlorine pesticides from Florisil cartridges

	Fraction 1		Fraction 2		Fraction 3	
	% Rec.	RSD	% Rec.	RSD	% Rec.	RSD
α-BHC	-	-	111	8.3	-	-
β-BHC	-	-	109	7.8	-	-
γ-BHC	-	-	110	8.5	-	-
δ-BHC	-	-	106	9.3	-	-
Heptachlor	98	11	-	-	-	-
Aldrin	97	10	-	-	-	-
Heptachlor epoxide	-	-	109	7.9	-	-
Chlordane	-	-	105	3.5	-	-
Endosulfan I	-	-	111	6.2	-	-
4,4'-DDE	104	5.7	-	-	-	-
Dieldrin	-	-	110	7.8	-	-
4,4'-DDD	-	-	111	6.2	-	-
Endosulfan II	-	-	-	-	111	2.3
Endrin aldehyde	-	-	49	14	48	12
4,4'-DDT[b]	40	2.6	17	24	63	3.2
Endosulfan sulfate[b]	-	-	-	-	-	-
Methoxychlor	-	-	85	2.2	37	29

[a]1 g Florisil® cartridges spiked with 0.5 µg of each compound.

[b]These two compounds coelute on the DB-5 capillary column.

Eluant composition: Fraction 1 -- 3 mL of hexane, Fraction 2 -- 5 mL of methylene chloride/hexane (26/74, v/v), Fraction 3 -- 5 mL of acetone/hexane (10/90, v/v)

4. Copper clean-up to remove elemental sulfur (S_8)

The following method is based on EPA SW-846 Method 3660B

4.1 Indicated use of this method

Elemental sulfur is encountered in many sediment samples (generally specific to different areas in the country), marine algae, and some industrial wastes. The solubility of sulfur in various solvents is very similar to the PCBs. Therefore, the sulfur interference follows along with the PCBs through the normal extraction and cleanup techniques. In general, sulfur will usually elute entirely in Fraction 1 of the Florisil cleanup (Method 3620C).

Sulfur will be quite evident in gas chromatograms obtained from electron capture detectors. If the gas chromatograph is operated at the normal conditions for PCB analysis, the sulfur interference can completely mask a large region of the chromatogram from the solvent peak onward.

Two techniques for the elimination of sulfur are recommended: (1) the use of copper powder; and (2) the use of tetrabutylammonium sulfite. Tetrabutylammonium sulfite causes the least amount of degradation of a broad range of pesticides and organic compounds, while copper may degrade organophosphorus and some organochlorine pesticides. Because this document focuses only on the PCB

content of the samples, the degradation of interfering pesticides is beneficial, so the copper powder method has been selected.

4.2 Summary of the method

The sample to undergo cleanup is mixed with either copper powder. The mixture is shaken and the extract is removed from the sulfur cleanup reagent.

4.3 Interferences

The copper technique requires that the copper powder be very reactive, as evidenced by a bright shiny appearance (see Sec. 5.5 for the preparation of this reagent). However, care must be taken to remove all traces of the acid used to prepare the copper, in order to avoid degradation of some analytes.

4.4 Apparatus and consumables

4.4.1 Mechanical shaker or mixer - Vortex Genie or equivalent.

4.4.2 Pipets, disposable - Pasteur type.

4.4.3 Centrifuge tubes, calibrated - 12 mL.

4.4.4 Glass bottles or vials - 10 mL and 50 mL, with polytetrafluoroethylene (PTFE)-lined screw caps or crimp tops.

4.5 Reagents

Reagent grade chemicals shall be used in all tests. Reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. The use of other grades must be first demonstrated to not lessen the accuracy of the determination.

4.5.1 Organic-free reagent water, as used in other sections of this document.

4.5.2 Nitric acid (HNO_3), dilute

4.5.3 Acetone (CH_3COCH_3), pesticide quality or equivalent.

4.5.4 Hexane (C_6H_{14}), pesticide grade or equivalent.

4.5.5 Copper powder - Remove oxides by treating with dilute nitric acid, rinse with organic-free reagent water to remove all traces of acid, rinse with acetone and dry under a stream of nitrogen. (Copper, fine granular Mallinckrodt 4649 or equivalent).

4.6 Procedure

Removal of sulfur using copper.

4.6.1 Concentrate the sample to exactly 1.0 mL or other known volume. Perform concentration using the techniques described in the appropriate 3500 series method.
CAUTION: When the volume of solvent is reduced below 1 mL, semivolatile analytes may be lost.

4.6.2 If the sulfur concentration is such that crystallization occurs, centrifuge to settle the crystals, and carefully draw off the sample extract with a disposable pipet leaving the excess sulfur in the concentration vessel. Transfer 1.0 mL of the extract to a calibrated centrifuge tube.

4.6.3 Add approximately 2 g of cleaned copper powder to the centrifuge tube. (The copper will fill the tube to approximately the 0.5 mL mark). Vigorously mix the extract and the copper powder for at least 1 min on the mechanical shaker. Allow the phases to separate.

4.6.4 Separate the extract from the copper by drawing off the extract with a disposable pipet and transfer to a clean and labeled GC ALS vial. The volume remaining still represents 1.0 mL of extract. NOTE: This separation is necessary to prevent further degradation of the pesticides.

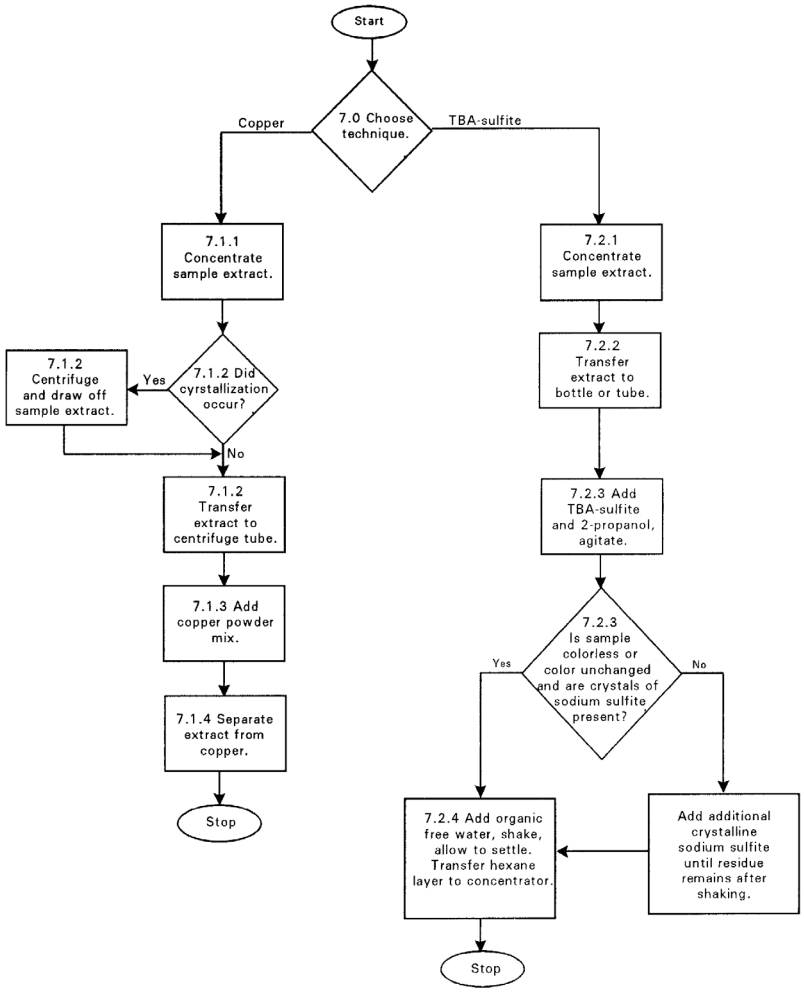
4.7 References

1. Goerlitz, D.F. and L.M. Law, Bulletin for Environmental Contamination and Toxicology, 6, 9 (1971).
2. U.S. EPA Contract Laboratory Program, Statement of Work for Organic Analysis, Revision, July 1985.

Table 3 - Effect of copper on analyte recoveries

Analyte	Percent recovery with copper[a]
Aroclor 1254	104.26
Lindane	94.83
Heptachlor	5.39
Aldrin	93.29
Heptachlor epoxide	96.55
DDE	102.91
DDT	85.10
BHC	98.08
Dieldrin	94.90
Endrin	89.26
Chlorobenzilate	0.00
Malathion	0.00
Diazinon	0.00
Parathion	0.00
Ethion	0.00
Trithion	0.00

Percent recoveries cited are averages based on duplicate analyses for all compounds other than for Aldrin and BHC. For Aldrin, four and three determinations were averaged to obtain the result for copper. Recovery of BHC using copper is based on one analysis.


Start
7.0 Choose technique.
Copper
TBA-sulfite
7.1.1 Concentrate sample extract.
7.1.2 Did cyrstallization occur?
Yes
7.1.2 Centrifuge and draw off sample extract.
No
7.1.2 Transfer extract to centrifuge tube.
7.1.3 Add copper powder mix.
7.1.4 Separate extract from copper.
Stop
7.2.1 Concentrate sample extract.
7.2.2 Transfer extract to bottle or tube.
7.2.3 Add TBA-sulfite and 2-propanol, agitate.
7.2.3 Is sample colorless or color unchanged and are crystals of sodium sulfite present?
Yes
No
7.2.4 Add organic free water, shake, allow to settle. Transfer hexane layer to concentrator.
Add additional crystalline sodium sulfite until residue remains after shaking.
Stop

WASTE PROFILE FORM
COVER SHEET

45282
APPROVED

Waste Characterization Information

Waste Stream ID:	45282
WPF ID (Legacy):	
Waste Stream Name:	ORGANIC SOLVENT FOR PCB EXTRACTION
Expiration Date:	12/18/2021
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Chemical
Composition (other):	
EPA Codes:	D001 F002 F003
Waste Acceptance:	
EPA Form Code:	W204 Organic Liquids: Concentrated halogenated/ non-halogenated solvent mixture
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2020	100.00 L
2019	100.00 L
2018	100.00 L

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
45282	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
342232	HUBER, DANIEL	208498	MARTINEZ, PHILIP		5056672209
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
K484	C-CDE	59	000001	139	5056060818

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 6538
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____
- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

ER Use Only

☐ ER Site — SWMU/AOC No. _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	Procedure, Waste Log sheet when
☑ Material Safety Data Sheet (MSDS)	☑ Attached		MSDS

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☑ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

0.1000

Section 3 - Process and Waste Description

Process Description: Solvent used for extraction of PCBs from santiary waste water.
Waste Description: Solvent used for extraction of PCBs from santiary waste wate. Extraction insturment conditioning rinse; 20 ml Dichloromethane, 10ml Acetone, 20 ml methanol, 20ml water. Solvent cleaning-up / drying 20ml Dichloromethane. Sample clean up solvent; 5 ml hexane. All solvents will be free of PCBs, they are collected as samples. All solvents are either evaported off the sample for concentration or used to wash sample glassware following PCBs isolation.

Section 4 - Characteristics

Ignitability *(check only one)*	**Corrosivity** *(check only one)* (pH)	**Reactivity** *(check as many as apply)*	**Boiling Point** *(check only one)*
☑ < 73 F (< 22.8 C)	☐ <= 2.0	☐ RCRA Unstable	☐ <= 95 F (<= 35 C)
☐ 73 - 99 F (22.8 - 37.2 C)	☐ 2.1 - 4.0	☐ Water Reactive	☑ >95 F (> 35 C)
☐ 100 - 139 F (37.8 - 59.4 C)	☐ 4.1 - 6.0	☐ Cyanide Bearing	☐ Not Applicable
☐ 140 - 200 F (60.0 - 99.3 C)	☐ 6.1 - 9.0	☐ Sulfide Bearing	
☐ > 200 (> 99.3 C)	☐ 9.1 - 12.4	☐ Pyrophoric	
☐ EPA Ignitable - Non-liquid	☐ >= 12.5	☐ Shock Sensitive	
☐ DOT Flammable Gas	☐ Liquid Corrosive to Steel	☐ Explosive [Specify DOT Div.]	
☐ DOT Oxidizer	☑ Non-aqueous	☑ Non-Reactive	
☐ Not Ignitable			

	Characterization Method				Concentration of Contaminants		
Identify for all contaminants listed	**AK**	**TCLP**	**Total**	**None or Non-detect**	**Contaminant present at Minimum**	**Maxiumum**	**Regulatory Limit**
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
67-64-1	Acetone	80000	to	140000
75-09-2	Methylene chloride	380000	to	460000
110-54-3	Hexane	30000	to	70000
67-56-1	Methanol	190000	to	230000
7732-18-5	Water	190000	to	230000
	Total of max. ranges of this section and page 2			113.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Waste package in acccordance with P409-1. Waste will be accumulated in glass bottles or Nalgene plastic containers, then packed into DOT-polypropylene drums which are compatible with the specified waste streams. (i.e., lab-packs). All material indentified in the compostion are compatible with each other

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *WILLIAM HOLLIS (113868)* Date: *12/18/18 09:47 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *PHILIP MARTINEZ (208498)* Date: *12/18/18 09:56 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *12/18/18 09:58 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☑	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☑	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☑	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

45283
APPROVED

Waste Characterization Information

Waste Stream ID:	45283
WPF ID (Legacy):	
Waste Stream Name:	SULFURIC ACID FOR PCB EXTRACTION
Expiration Date:	09/05/2021
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Aqueous Solutions
Composition (other):	acidic
EPA Codes:	D002
Waste Acceptance:	
EPA Form Code:	W103 Inorganic Liquids: Spent concentrated acid (5% or more)
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2021	5.00 L
2020	5.00 L
2019	5.00 L

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
45283	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
342232	HUBER, DANIEL	208498	MARTINEZ, PHILIP		5056672209
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
K484	C-CDE	59	000001	139	5056060818

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 6538
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____

ER Use Only

- ☐ ER Site — SWMU/AOC No. _____

- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	Procedure
☑ Material Safety Data Sheet (MSDS)	☑ Attached		MSDS

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☐ Organic
- ☐ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☑ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
Sulfuric Acid used for extraction cleanup of PCBs samples from santiary waste water.

Waste Description:
50:50 concentrated sulfuric acid to water

Section 4 - Characteristics

Ignitability *(check only one)*
- ☐ < 73 F (< 22.8 C)
- ☐ 73 - 99 F (22.8 - 37.2 C)
- ☐ 100 - 139 F (37.8 - 59.4 C)
- ☐ 140 - 200 F (60.0 - 99.3 C)
- ☐ > 200 (> 99.3 C)
- ☐ EPA Ignitable - Non-liquid
- ☐ DOT Flammable Gas
- ☐ DOT Oxidizer
- ☑ Not Ignitable

Corrosivity *(check only one)* (pH)
- ☑ <= 2.0
- ☐ 2.1 - 4.0
- ☐ 4.1 - 6.0
- ☐ 6.1 - 9.0
- ☐ 9.1 - 12.4
- ☐ >= 12.5
- ☐ Liquid Corrosive to Steel
- ☐ Non-aqueous

Reactivity *(check as many as apply)*
- ☐ RCRA Unstable
- ☐ Water Reactive
- ☐ Cyanide Bearing
- ☐ Sulfide Bearing
- ☐ Pyrophoric
- ☐ Shock Sensitive
- ☐ Explosive [Specify DOT Div.]
- ☑ Non-Reactive

Boiling Point *(check only one)*
- ☐ <= 95 F (<= 35 C)
- ☑ >95 F (> 35 C)
- ☐ Not Applicable

Identify for all contaminants listed	Characterization Method: AK	TCLP	Total	None or Non-detect	Concentration of Contaminants: Contaminant present at Minimum	Maxiumum	Regulatory Limit
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
7664-93-9	Sulfuric acid	800000	to	990000
7732-18-5	Water	10000	to	200000
	Total of max. ranges of this section and page 2			119.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Although used to clean up organic extractions of PCB samples all PCBs will reside in the orgainic phase and no PCBs will be in the aqueous phase.

Waste is strongly acidic, and will not be mixed with caustics, oxidizers, or other incompatible wastes.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Waste will be accumulated in glass bottles or Nalgene plastic containers, both of which are compatible with the waste, then overpacked into DOT compliant outer containers (i.e., lab-packed)

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *DANIEL HUBER (342232)* Date: *09/06/19 07:59 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *PHILIP MARTINEZ (208498)* Date: *09/12/19 10:39 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *09/12/19 10:44 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☐ Non Wastewater ☑ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM COVER SHEET

45286
APPROVED

Waste Characterization Information

Waste Stream ID:	45286
WPF ID (Legacy):	
Waste Stream Name:	SOLID WASTE FROM PCB COLUMN CLEANUP
Expiration Date:	09/11/2021
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Other [Describe]
Composition (other):	Silica Gel;Florisil
EPA Codes:	F002
Waste Acceptance:	
EPA Form Code:	W319 Inorganic Solids: Other inorganic solids (specify in comments)
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2022	4.00 L
2021	4.00 L
2020	4.00 L
2019	4.00 L

Los Alamos NATIONAL LABORATORY EST.1943

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
45286	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
342232	HUBER, DANIEL	208498	MARTINEZ, PHILIP		5056672209
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
K484	C-CDE	59	000001	119	5056060818

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 6801
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____
- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

ER Use Only

☐ ER Site SWMU/AOC No. _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	Procedure, Waste log sheet when
☑ Material Safety Data Sheet (MSDS)	☑ Attached		MSDS

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☐ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☑ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☑ Homogeneous
- ☐ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
Columns are made to "cleanup" environmental samples containing suspect PCBs in hexane solvent. All waste in this stream are spent column contents and do not contain PCBs. Florisil is a non-polar absorbent, sodium sulfate is used to dryout any remaining water in the samples. Acidified silica gel (trace sulfuric acid) is used to purify/elute the extract before GC-ECD analysis.

Waste Description:
Sodium Sulfate that has come i contact with methlyene chloride

silica gel that has come in contact with sulfuric acid in a 50:50 w/w% ratio.

Florisil granules

Section 4 - Characteristics

Ignitability *(check only one)*	**Corrosivity** *(check only one)* (pH)	**Reactivity** *(check as many as apply)*	**Boiling Point** *(check only one)*
☐ < 73 F (< 22.8 C)	☐ <= 2.0	☐ RCRA Unstable	☐ <= 95 F (<= 35 C)
☐ 73 - 99 F (22.8 - 37.2 C)	☐ 2.1 - 4.0	☐ Water Reactive	☐ >95 F (> 35 C)
☐ 100 - 139 F (37.8 - 59.4 C)	☐ 4.1 - 6.0	☐ Cyanide Bearing	☑ Not Applicable
☐ 140 - 200 F (60.0 - 99.3 C)	☐ 6.1 - 9.0	☐ Sulfide Bearing	
☐ > 200 (> 99.3 C)	☐ 9.1 - 12.4	☐ Pyrophoric	
☐ EPA Ignitable - Non-liquid	☐ >= 12.5	☐ Shock Sensitive	
☐ DOT Flammable Gas	☐ Liquid Corrosive to Steel	☐ Explosive [Specify DOT Div.]	
☐ DOT Oxidizer	☑ Non-aqueous	☑ Non-Reactive	
☑ Not Ignitable			

	Characterization Method				Concentration of Contaminants		
Identify for all contaminants listed	**AK**	**TCLP**	**Total**	**None or Non-detect**	**Contaminant present at Minimum**	**Maxiumum**	**Regulatory Limit**
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
7757-82-6	Sodium sulfate	150000	to	250000
75-09-2	Methylene chloride	0	to	1
-----	Silica Gel CAS # 112926-00-8	450000	to	710000
7664-93-9	Sulfuric acid	0	to	10
-----	Florisil	150000	to	270000
	Total of max. ranges of this section and page 2			123.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

Sodium sulfate and acidified silica are completely dry once added to the waste container. Trace amounts, if any, of sulfuric acid and dichloromethane remain with solids.

Waste log sheets will be included with each waste container. Waste log sheets present in "documentation" for full bottles ready for disposal. Waste logs will also be included with future waste containers once they are full and ready for packaging.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Waste package in acccordance with P409-1. Waste will be accumulated in amber glass bottles, then packed into DOT-polypropylene drums which are compatible with the specified waste streams (i.e., lab-packs). All material in compostion are compatiable with each other.

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *WILLIAM HOLLIS (113868)* Date: *09/12/19 07:37 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *PHILIP MARTINEZ (208498)* Date: *09/12/19 08:24 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ANDY ELICIO (118692)* Date: *09/12/19 09:21 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☑ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☐	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☐	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☐	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

WASTE PROFILE FORM
COVER SHEET

47579
APPROVED

Waste Characterization Information

Waste Stream ID:	47579
WPF ID (Legacy):	
Waste Stream Name:	ORGANIC SOLVENTS FOR PCB EXTRACTION
Expiration Date:	09/22/2021
Waste Type:	Hazardous Waste
Radiological Type:	Non Radioactive
RCRA Category:	RCRA Solid Hazardous
Ancillary Types:	
Primary Composition:	Chemical
Composition (other):	
EPA Codes:	D001 F002 F003
Waste Acceptance:	
EPA Form Code:	W204 Organic Liquids: Concentrated halogenated/ non-halogenated solvent mixture
EPA Source Code:	G22 Pollution Control and Waste Management Process Residuals: Laboratory analytical wastes (used chemicals from laboratory operations)

Waste Generation Estimates

YEAR	VOLUME
2022	100.00 L
2021	100.00 L
2020	100.00 L
2019	100.00 L

WASTE PROFILE FORM

Reference Number

WCATS ID	Legacy WPF ID
47579	

Generator's Z Number	Waste Generator's Name *(print)*	WMC's Z Number	WMC's Name *(print)*		Generator's Phone
342232	HUBER, DANIEL	208498	MARTINEZ, PHILIP		5056672209
Generator's Mail Stop	**Waste Generating Group**	**Waste Stream Technical Area**	**Building**	**Room**	**WMC Phone**
K484	C-CDE	59	000001	119	5056060818

Waste Accumulation *(check only one)*

- ☑ Satellite Accumulation Area — Site No: 6801
- ☐ Less-than-90 Days Storage Area — Site No: _____
- ☐ TSDF — Site No: _____
- ☐ Universal Waste Storage Area — Site No: _____
- ☐ Used Oil for Recycle — Site No: _____
- ☐ Central Accumulation Area — Site No: _____
- ☐ NM Special Waste — Site No: _____
- ☐ None of the Above — Site No: _____
- ☐ PCBs Storage Area — Site No: _____
- ☐ Rad Staging Area — Site No: _____
- ☐ Rad Storage Area — Site No: _____

ER Use Only

☐ ER Site SWMU/AOC No. _____

Method of Characterization *(check as many as apply)*

☐ Chemical/Physical Analysis	☐ Attached	Sample No:	
☐ Radiological Analysis	☐ Attached	Sample No:	
☐ PCB Analysis	☐ Attached	Sample No:	
☑ Acceptable Knowledge Documentation	☑ Attached	Documentation No:	Procedure, Waste Log sheet when
☑ Material Safety Data Sheet (MSDS)	☑ Attached		MSDS

Section 1 - Waste Prevention/Minimization *(answer all questions)*

Can hazard segregation, elimination, or material substitution be used?	☐ Yes *(provide comments)*	☑ No	
Can any of the materials in the waste stream be recycled or reused?	☐ Yes *(provide comments)*	☑ No	
Has waste minimization been incorporated into procedures or other process controls?	☑ Yes	☐ No *(provide comments)*	
Can this waste be generated outside a RCA?	☐ Yes *(provide comments)*	☐ No	☑ N/A

Comments:

Section 2 - Chemical and Physical Information

Waste Type *(check only one)*

- ☐ Unused/Unspent Chemical
- ☑ Process Waste/Spent Chemical/Other

Radiological Information

Was Waste generated in a RCA?

- ☐ Yes ☑ No
- ☑ Non-radioactive
- ☐ Radioactive - Low Level
- ☐ Radioactive - Transuranic

Waste Destination *(check one)*

- ☐ SWWS
- ☐ RLWTF
- ☐ RLWTP
- ☐ TA-16/HE
- ☐ NTS

Classified Information

- ☑ Unclassified
- ☐ Classified/Sensitive

Waste Category *(check all that apply)*

- ☑ Inorganic
- ☑ Organic
- ☑ Solvent (see instructions)
- ☐ Degreaser (see instructions)
- ☐ Dioxin
- ☐ Electroplating
- ☐ Treated Hazardous Waste or Residue
- ☐ No-Longer Contained-In
- ☐ Explosive Process
- ☐ Infectious/Medical
- ☐ Biological
- ☐ Beryllium
- ☐ Empty Container (see instructions)
- ☐ Battery (see instructions)

Asbestos

- ☐ Friable
- ☐ Non-Friable

PCB Source Concentration

- ☐ PCB < 50 ppm
- ☐ PCB >= 50 - < 500 ppm
- ☐ PCB >= 500 ppm
- ☐ Hazardous Waste Contaminated Soil
- ☐ Untreated Hazardous Debris
- ☐ Commercial Solid Waste
- ☐ Other [Describe]

Other:

Waste Source *(check only one)*

Waste Source A

- ☐ Decon
- ☐ Materials Processing/Production
- ☑ Research/Development/Testing
- ☐ Scheduled Maintenance
- ☐ Housekeeping - Routine
- ☐ Spill Cleanup - Routine
- ☐ Sampling - Routine Monitoring
- ☐ Other (describe)

Waste Source B

- ☐ Abatement
- ☐ Construction/Upgrades
- ☐ Demolition
- ☐ Decon/Decom
- ☐ Investigative Derived
- ☐ Orphan/Legacy
- ☐ Remediation/Restoration
- ☐ Repacking (secondary)
- ☐ Unscheduled Maintenance
- ☐ Housekeeping (non-routine)
- ☐ Spill Cleanup (non-routine)
- ☐ Non-Petroleum Tanks
- ☐ Petroleum Tanks
- ☐ Other (describe)

Other:

Waste Matrix *(check only one)*

Gas

- ☐ ≤1.5 Atmospheres Pressure
- ☐ >1.5 Atmospheres Pressure
- ☐ Liquified Compressed Gas

Liquid

- ☐ Aqueous
- ☑ Non-Aqueous
- ☐ Suspended Solids/Aqueous
- ☐ Suspended Solids/Non-Aqueous

Solid

- ☐ Powder/Ash/Dust
- ☐ Solid
- ☐ Sludge
- ☐ Absorbed/Solidified Liquid
- ☐ Debris

Matrix Type *(check only one)*

- ☐ Homogeneous
- ☑ Heterogeneous

Estimate Annual Volume (m^3):

Section 3 - Process and Waste Description

Process Description:
Solvent used for extraction of PCBs from santiary waste water and solvents used for diluting GC calibration standards.

Waste Description:
Solvents used for the extraction of PCs from sanitary wastewater. Instrument conditioning: 20 mL dichloromethane, 20 mL hexane. Extraction clean-up: 20 mL dichloromethane rinses, <5 mL acetone rinses. Sample clean-up procedure solvent: 20 mL hexane rinses. All solvent waste will be free of PCBs. Any solvent containing PCBs is collected as a sample. Methanol will rarely be used. Trace amounts of methanol will be present from cleaning the Dryvap extraction apparatus. When used, methanol will not be in combination with any other solvent present in this WSP. It will be used by itself for cleaning, supporting EPA F003.

Calibration: Isooctane is used to dilute PCB standards to calibrate gas chromatography instruments. Trace amounts of PCB-free isooctane will be present in this waste stream, as vials and glassware will be rinsed prior to calibration standards being made.

There is no water present in this waste.

Section 4 - Characteristics

Ignitability *(check only one)*	**Corrosivity** *(check only one)* (pH)	**Reactivity** *(check as many as apply)*	**Boiling Point** *(check only one)*
☑ < 73 F (< 22.8 C)	☐ <= 2.0	☐ RCRA Unstable	☐ <= 95 F (<= 35 C)
☐ 73 - 99 F (22.8 - 37.2 C)	☐ 2.1 - 4.0	☐ Water Reactive	☑ >95 F (> 35 C)
☐ 100 - 139 F (37.8 - 59.4 C)	☐ 4.1 - 6.0	☐ Cyanide Bearing	☐ Not Applicable
☐ 140 - 200 F (60.0 - 99.3 C)	☐ 6.1 - 9.0	☐ Sulfide Bearing	
☐ > 200 (> 99.3 C)	☐ 9.1 - 12.4	☐ Pyrophoric	
☐ EPA Ignitable - Non-liquid	☐ >= 12.5	☐ Shock Sensitive	
☐ DOT Flammable Gas	☐ Liquid Corrosive to Steel	☐ Explosive [Specify DOT Div.]	
☐ DOT Oxidizer	☑ Non-aqueous	☑ Non-Reactive	
☐ Not Ignitable			

	Characterization Method				Concentration of Contaminants		
Identify for all contaminants listed	**AK**	**TCLP**	**Total**	**None or Non-detect**	**Contaminant present at Minimum**	**Maxiumum**	**Regulatory Limit**
Toxicity Characteristic Metals					(10,000 ppm = 1%)		
Arsenic	☑	☐	☐	☑	to	ppm	5.0 ppm
Barium	☑	☐	☐	☑	to	ppm	100.0 ppm
Cadmium	☑	☐	☐	☑	to	ppm	1.0 ppm
Chromium	☑	☐	☐	☑	to	ppm	5.0 ppm
Lead	☑	☐	☐	☑	to	ppm	5.0 ppm
Mercury	☑	☐	☐	☑	to	ppm	0.2 ppm
Selenium	☑	☐	☐	☑	to	ppm	1.0 ppm
Silver	☑	☐	☐	☑	to	ppm	5.0 ppm
Toxicity Characteristic Organics							
Benzene	☑	☐	☐	☑	to	ppm	0.5 ppm
Carbon tetrachloride	☑	☐	☐	☑	to	ppm	0.5 ppm
Chlorobenzene	☑	☐	☐	☑	to	ppm	100.0 ppm
Chloroform	☑	☐	☐	☑	to	ppm	6.0 ppm
Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
p-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
m-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
o-Cresol	☑	☐	☐	☑	to	ppm	200.0 ppm
1,4-Dichlorobenzene	☑	☐	☐	☑	to	ppm	7.5 ppm
1,2-Dichloroethane	☑	☐	☐	☑	to	ppm	0.5 ppm
1,1-Dichloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
2,4-Dinitrotoluene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobenzene	☑	☐	☐	☑	to	ppm	0.13 ppm
Hexachlorobutadiene	☑	☐	☐	☑	to	ppm	0.5 ppm
Hexachloroethane	☑	☐	☐	☑	to	ppm	3.0 ppm
Methyl ethyl ketone	☑	☐	☐	☑	to	ppm	200.0 ppm
Nitrobenzene	☑	☐	☐	☑	to	ppm	2.0 ppm
Pentachlorophenol	☑	☐	☐	☑	to	ppm	100.0 ppm
Pyridine	☑	☐	☐	☑	to	ppm	5.0 ppm
Tetrachloroethylene	☑	☐	☐	☑	to	ppm	0.7 ppm
Trichloroethylene	☑	☐	☐	☑	to	ppm	0.5 ppm
2,4,6-Trichlorophenol	☑	☐	☐	☑	to	ppm	2.0 ppm
2,4,5-Trichlorophenol	☑	☐	☐	☑	to	ppm	400.0 ppm
Vinyl chloride	☑	☐	☐	☑	to	ppm	0.2 ppm
Herbicides and Pesticides							
Chlordane	☑	☐	☐	☑	to	ppm	0.03 ppm
2,4-D	☑	☐	☐	☑	to	ppm	10.0 ppm
Endrin	☑	☐	☐	☑	to	ppm	0.02 ppm
Heptachlor (& its epoxide)	☑	☐	☐	☑	to	ppm	0.008 ppm
Lindane (gamma-BHC)	☑	☐	☐	☑	to	ppm	0.4 ppm
Methoxychlor	☑	☐	☐	☑	to	ppm	10.0 ppm
2,4,5-TP (Silvex)	☑	☐	☐	☑	to	ppm	1.0 ppm
Toxaphene	☑	☐	☐	☑	to	ppm	0.5 ppm

Section 5 - Additional Constituents and Contaminants

Additional Constituents and Contaminants. Please account for 100% of waste. Range should be given within guidelines of individual constituents. List all other constients (including inerts) not identified above and attach any applicable analysis. No chemical formula allowed in this field. Continue in Section 3 Additional information as necessary. CAS numbers are needed for all chemical constituents, for material without a CAS number, enter "No CAS Number".

CAS No.	Name of constituent	Minimum (ppm)		Maximum (ppm)
67-64-1	Acetone	20000	to	80000
75-09-2	Methylene chloride	450000	to	620000
110-54-3	Hexane	300000	to	500000
67-56-1	Methanol	10000	to	70000
-----	Isooctane CAS # 540-84-1	0	to	20000
	Total of max. ranges of this section and page 2			129.00 in %

Additional Information

If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below

There is no water content in this waste.

Section 6 - Work Control Documentation

Do the procedures for this process cover how to manage this waste? ☑ Yes ☐ No *(provide comments)*

Do the procedures for this process address controls to prevent changes to waste constituents and concentrations or addition or removal of waste to/from containers? ☑ Yes ☐ No *(provide comments)*

Comments:

Section 7 - Packaging and Storage Control

Describe how the waste will be packaged in according to the applicable WAC.

Waste package in acccordance with P409-1. Waste will be accumulated in glass bottles or Nalgene plastic containers, then packed into DOT-polypropylene drums which are compatible with the specified waste streams. (i.e., lab-packs). All material indentified in the compostion are compatible with each other. All glass bottles and/or Nalgene plastic containers are confirmed to be chemically compatile with the solvent waste in this

Identify the storage management controls that will be used for this waste stream: *(check all that apply)*

☐ Tamper Indication Devices ☐ Limited use locks with log-in for waste ☑ Locked cabinet or building ☐ Other (describe)

Section 8 - Waste Certification Statements

☑ Waste appears to meet WAC attachment for: HAZ

☐ Waste stream needs exception/exemption for treatment, storage, or disposal.

☐ Waste does not meet the criteria for any known TSDF. (DOE approval is required. Contact the office of the Principle Associate Director for Weapons Programs [PADWP] for assistance.)

Waste Generator Certification: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the waste characterization information on this form is correct and that it meets the requirements of the applicable waste acceptance criteria. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: *DANIEL HUBER (342232)* Date: *09/23/19 09:41 AM*

Waste Management Approval: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *PHILIP MARTINEZ (208498)* Date: *10/02/19 11:09 AM*

RCRA Review: I have reviewed this form and any associated attachments and the characterization information provided appears to be complete and accurate. I certify, to the best of my knowledge, that the waste characterization information provided by the waste generator meets the requirements of the applicable WAC.

Signature: *ROBERT MOLTER (239137)* Date: *10/02/19 11:13 AM*

Attachment 4 - LDR and UHC

Identify category and presence of any constituents listed below *(equal to or above limit)*.

Non-Wastewater/Wastewater Category *(check only one)*

☑ Non Wastewater ☐ Wastewater [as defined by 40 CFR 268.2(f)] ☐ Lab Pack [40 CFR 268.2(f)] **Sign Certification #1**

Notifications and Certifications - Check the appilcable boxes

Generator Requirements:

☐ This shipment contains hazardous waste contaminated soil that does not meet treatment standards **Sign Certification #2**
☐ This shipment contains untreated hazardous debris to be treated to 40 CFR 268.45 treatment standards **(No certification)**
☐ Hazardous wastes (except soil) meeting treatment standards at point of generation **Sign Certification #3**
☐ Hazardous wastes contaminated soil meeting treatment standards at point of generation **Sign Certification #4**

TSDF or Generator Treatment:

☐ TSDF treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #5**
☐ Generator treated hazardous debris meeting the alternative treatment standards of 40 CFR 268.45 **Sign Certification #6**
☐ Hazardous wastes contaminated soil treated to 40 CFR 268.49 **Sign Certification #7**
☐ Wastes or residues from characteristic hazardous waste treatment meeting treatment standards and UTS **Sign Certification #8**
☐ Wastes or residues from characteristic hazardous waste treatment not meeting UTS **Sign Certification #9**
☐ Other TSDF wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #10**
☐ Other generator wastes meeting the more stringent 40 CFR 268.40 treatment standards to be land disposed **Sign Certification #11**

Notification of Underlying Hazardous Constituents

(Check the applicable underlying constituents above the concentration levels for D001 through D043 characterstic wastes only)

☐ ***No Underlying Hazardous Constituents in this waste stream.***

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Acenaphthene	83-32-9	0.059	3.4	34.0
☐	Acenaphthylene	208-96-8	0.059	3.4	34.0
☑	Acetone	67-64-1	0.28	160.0	1600.0
☐	Acetonitrile	75-05-8	5.6	38.0	380.0
☐	Acetophenone	98-86-2	0.01	9.7	97.0
☐	2-Acetylaminofluorene	53-96-3	0.059	140.0	1400.0
☐	Acrolein	107-02-8	0.29	N/A	N/A
☐	Acrylamide	79-06-1	19.0	23.0	230.0
☐	Acrylonitrile	107-13-1	0.24	84.0	840.0
☐	Aldicarb sulfone	1646-88-4	0.056	0.28	2.8
☐	Aldrin	309-00-2	0.021	0.066	0.66
☐	4-Aminobiphenyl	92-67-1	0.13	N/A	N/A
☐	Aniline	62-53-3	0.81	14.0	140.0
☐	o-Anisidine	90-04-0	0.01	0.66	6.6
☐	Anthracene	120-12-7	0.059	3.4	34.0
☐	Aramite	140-57-8	0.36	N/A	N/A
☐	alpha-BHC	319-84-6	0.00014	0.066	0.66
☐	beta-BHC	319-85-7	0.00014	0.066	0.66
☐	delta-BHC	319-86-8	0.023	0.066	0.66
☐	Barban	101-27-9	0.056	1.4	14.0
☐	Bendiocarb	22781-23-3	0.056	1.4	14.0
☐	Benomyl	17804-35-2	0.056	1.4	14.0
☐	Benz[a]anthracene	56-55-3	0.059	3.4	34.0
☐	Benzal chloride	98-87-3	0.055	6.0	60.0
☐	Benzene	71-43-2	0.14	10.0	100.0
☐	Benzo(b)fluoranthene	205-99-2	0.11	6.8	68.0
☐	Benzo[a]pyrene	50-32-8	0.061	3.4	34.0
☐	Benzo[ghi]perylene	191-24-2	0.0055	1.8	18.0
☐	Benzo[k]fluoranthene	207-08-9	0.11	6.8	68.0
☐	Bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2	72.0
☐	Bis(2-chloroethyl) ether	111-44-4	0.033	6.0	60.0
☐	Bis(2-chloroisopropyl) ether	39638-32-9	0.055	7.2	72.0
☐	Bis(2-ethylhexyl) phthalate	117-81-7	0.28	28.0	280.0
☐	Bromodichloromethane	75-27-4	0.35	15.0	150.0
☐	Bromomethane	74-83-9	0.11	15.0	150.0
☐	4-Bromophenyl phenyl ether	101-55-3	0.055	15.0	150.0
☐	n-Butyl alchohol	71-36-3	5.6	2.6	26.0
☐	Butyl benzyl phthalate	85-68-7	0.017	28.0	280.0
☐	Butylate	2008-41-5	0.042	1.4	14.0
☐	Carbaryl	63-25-2	0.006	0.14	1.4

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Carbendazim	10605-21-7	0.056	1.4	14.0
☐	Carbofuran	1563-66-2	0.006	0.14	1.4
☐	Carbofuran phenol	1563-38-8	0.056	1.4	14.0
☐	Carbon disulfide	75-15-0	3.8	4.8	48.0
☐	Carbon tetrachloride	56-23-5	0.057	6.0	60.0
☐	Carbosulfan	55285-14-8	0.028	1.4	14.0
☐	Chlordane	57-74-9	0.0033	0.26	2.6
☐	p-Chloro-m-cresol	59-50-7	0.018	14.0	140.0
☐	p-Chloroaniline	106-47-8	0.46	16.0	160.0
☐	Chlorobenzene	108-90-7	0.057	6.0	60.0
☐	Chlorobenzilate	510-15-6	0.1	N/A	N/A
☐	Chlorodibromomethane	124-48-1	0.057	15.0	150.0
☐	Chloroethane	75-00-3	0.27	6.0	60.0
☐	2-Chloroethyl vinyl ether	110-75-8	0.062	N/A	N/A
☐	Chloroform	67-66-3	0.046	6.0	60.0
☐	Chloromethane	74-87-3	0.19	30.0	300.0
☐	2-Chloronaphthalene	91-58-7	0.055	5.6	56.0
☐	2-Chlorophenol	95-57-8	0.044	5.7	57.0
☐	Chloroprene	126-99-8	0.057	0.28	2.8
☐	3-Chloropropylene	107-05-1	0.036	30.0	300.0
☐	Chrysene	218-01-9	0.059	3.4	34.0
☐	p-Cresidine	120-71-8	0.01	0.66	6.6
☐	m-Cresol	108-39-4	0.77	5.6	56.0
☐	o-Cresol	95-48-7	0.11	5.6	56.0
☐	p-Cresol	106-44-5	0.77	5.6	56.0
☐	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4	14.0
☐	Cyanide (Amenable)	57-12-5*	0.86	30.0	300.0
☐	Cyanide (Total)	57-12-5	1.2	590.0	5900.0
☐	Cyclohexanone	108-94-1	0.36	0.75	7.5
☐	2,4-D	94-75-7	0.72	10.0	100.0
☐	o,p'-DDD	53-19-0	0.023	0.087	0.87
☐	p,p'-DDD	72-54-8	0.023	0.087	0.87
☐	o,p'-DDE	3424-82-6	0.031	0.087	0.87
☐	p,p'-DDE	72-55-9	0.031	0.087	0.87
☐	o,p'-DDT	789-02-6	0.0039	0.087	0.87
☐	p,p'-DDT	50-29-3	0.0039	0.087	0.87
☐	Di-n-butyl phthalate	84-74-2	0.057	28.0	280.0
☐	Di-n-octyl phthalate	117-84-0	0.017	28.0	280.0
☐	Di-n-propylnitrosamine	621-64-7	0.4	14.0	140.0
☐	Dibenz[a,h]anthracene	53-70-3	0.055	8.2	82.0
☐	Dibenzo[a,e]pyrene	192-65-4	0.061	N/A	N/A
☐	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15.0	150.0
☐	1,2-Dibromoethane	106-93-4	0.028	15.0	150.0
☐	Dibromomethane	74-95-3	0.11	15.0	150.0
☐	1,4-Dichlorobenzene	106-46-7	0.09	6.0	60.0
☐	m-Dichlorobenzene	541-73-1	0.036	6.0	60.0
☐	o-Dichlorobenzene	95-50-1	0.088	6.0	60.0
☐	Dichlorodifluoromethane	75-71-8	0.23	7.2	72.0
☐	1,1-Dichloroethane	75-34-3	0.059	6.0	60.0
☐	1,2-Dichloroethane	107-06-2	0.21	6.0	60.0
☐	1,1-Dichloroethylene	75-35-4	0.025	6.0	60.0
☐	trans-1,2-Dichloroethylene	156-60-5	0.054	30.0	300.0
☐	2,4-Dichlorophenol	120-83-2	0.044	14.0	140.0
☐	2,6-Dichlorophenol	87-65-0	0.044	14.0	140.0
☐	1,2-Dichloropropane	78-87-5	0.85	18.0	180.0
☐	trans-1,3-Dichloropropene	10061-02-6	0.036	18.0	180.0
☐	cis-1,3-Dichloropropylene	10061-01-5	0.036	18.0	180.0
☐	Dieldrin	60-57-1	0.017	0.13	1.3
☐	Diethyl phthalate	84-66-2	0.2	28.0	280.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Dimethyl phthalate	131-11-3	0.047	28.0	280.0
☐	p-Dimethylaminoazobenzene	60-11-7	0.13	N/A	N/A
☐	2,4-Dimethylphenol	105-67-9	0.036	14.0	140.0
☐	4,6-Dinitro-o-cresol	534-52-1	0.28	160.0	1600.0
☐	1,4-Dinitrobenzene	100-25-4	0.32	2.3	23.0
☐	2,4-Dinitrophenol	51-28-5	0.12	160.0	1600.0
☐	2,4-Dinitrotoluene	121-14-2	0.32	140.0	1400.0
☐	2,6-Dinitrotoluene	606-20-2	0.55	28.0	280.0
☐	Dinoseb	88-85-7	0.066	2.5	25.0
☐	1,4-Dioxane	123-91-1	12.0	170.0	1700.0
☐	Diphenylamine	122-39-4	0.92	13.0	130.0
☐	1,2-Diphenylhydrazine	122-66-7	0.087	N/A	N/A
☐	Disulfoton	298-04-4	0.017	6.2	62.0
☐	Dithiocarbamates (total)	NCATS-001	0.028	28.0	280.0
☐	EPTC	759-94-4	0.042	1.4	14.0
☐	Endosulfan I	959-98-8	0.023	0.066	0.66
☐	Endosulfan II	33213-65-9	0.029	0.13	1.3
☐	Endosulfan sulfate	1031-07-8	0.029	0.13	1.3
☐	Endrin	72-20-8	0.0028	0.13	1.3
☐	Endrin aldehyde	7421-93-4	0.025	0.13	1.3
☐	Ethyl acetate	141-78-6	0.34	33.0	330.0
☐	Ethyl benzene	100-41-4	0.057	10.0	100.0
☐	Ethyl ether	60-29-7	0.12	160.0	1600.0
☐	Ethyl methacrylate	97-63-2	0.14	160.0	1600.0
☐	Ethylene oxide	75-21-8	0.12	N/A	N/A
☐	Famphur	52-85-7	0.017	15.0	150.0
☐	Fluoranthene	206-44-0	0.068	3.4	34.0
☐	Fluorene	86-73-7	0.059	3.4	34.0
☐	Fluoride	16984-48-8	35.0	N/A	N/A
☐	Formetanate hydrochloride	23422-53-9	0.056	1.4	14.0
☐	Heptachlor (& its epoxide)	76-44-8	0.0012	0.066	0.66
☐	Heptachlor epoxide	1024-57-3	0.016	0.066	0.66
☐	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	0.000035	0.0025	0.025
☐	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	0.000035	0.0025	0.025
☐	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	0.000035	0.0025	0.025
☐	Hexachlorobenzene	118-74-1	0.055	10.0	100.0
☐	Hexachlorobutadiene	87-68-3	0.055	5.6	56.0
☐	Hexachlorocyclopentadiene	77-47-4	0.057	2.4	24.0
☐	Hexachloroethane	67-72-1	0.055	30.0	300.0
☐	Hexachloropropene	1888-71-7	0.035	30.0	300.0
☐	HxCDDs (All Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000063	0.001	0.01
☐	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	0.000063	0.001	0.01
☐	Indeno[1,2,3-cd]pyrene	193-39-5	0.0055	3.4	34.0
☐	Iodomethane	74-88-4	0.19	65.0	650.0
☐	Isobutyl alcohol	78-83-1	5.6	170.0	1700.0
☐	Isodrin	465-73-6	0.021	0.066	0.66
☐	Isosafrole	120-58-1	0.081	2.6	26.0
☐	Kepone	143-50-0	0.0011	0.13	1.3
☐	Lindane (gamma-BHC)	58-89-9	0.0017	0.066	0.66
☐	Mercury (Retort Residues)	7439-97-6*	N/A	0.2	2.0
☐	Methacrylonitrile	126-98-7	0.24	84.0	840.0
☑	Methanol	67-56-1	5.6	0.75	7.5
☐	Methapyrilene	91-80-5	0.081	1.5	15.0
☐	Methiocarb	2032-65-7	0.056	1.4	14.0
☐	Methomyl	16752-77-5	0.028	0.14	1.4
☐	Methoxychlor	72-43-5	0.25	0.18	1.8
☐	Methyl ethyl ketone	78-93-3	0.28	36.0	360.0
☐	Methyl isobutyl ketone	108-10-1	0.14	33.0	330.0
☐	Methyl methacrylate	80-62-6	0.14	160.0	1600.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	Methyl methanesulfonate	66-27-3	0.018	N/A	N/A
☐	Methyl parathion	298-00-0	0.014	4.6	46.0
☐	3-Methylcholanthrene	56-49-5	0.0055	15.0	150.0
☐	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.5	30.0	300.0
☑	Methylene chloride	75-09-2	0.089	30.0	300.0
☐	Metolcarb	1129-41-5	0.056	1.4	14.0
☐	Mexacarbate	315-18-4	0.056	1.4	14.0
☐	Molinate	2212-67-1	0.042	1.4	14.0
☐	N-Nitroso-di-n-butylamine	924-16-3	0.4	17.0	170.0
☐	N-Nitrosodiethylamine	55-18-5	0.4	28.0	280.0
☐	N-Nitrosodimethylamine	62-75-9	0.4	2.3	23.0
☐	N-Nitrosodiphenylamine	86-30-6	0.92	13.0	130.0
☐	N-Nitrosomethylethylamine	10595-95-6	0.4	2.3	23.0
☐	N-Nitrosomorpholine	59-89-2	0.4	2.3	23.0
☐	N-Nitrosopiperidine	100-75-4	0.013	35.0	350.0
☐	N-Nitrosopyrrolidine	930-55-2	0.013	35.0	350.0
☐	Naphthalene	91-20-3	0.059	5.6	56.0
☐	2-Naphthylamine	91-59-8	0.52	N/A	N/A
☐	5-Nitro-o-toluidine	99-55-8	0.32	28.0	280.0
☐	o-Nitroaniline	88-74-4	0.27	14.0	140.0
☐	p-Nitroaniline	100-01-6	0.028	28.0	280.0
☐	Nitrobenzene	98-95-3	0.068	14.0	140.0
☐	o-Nitrophenol	88-75-5	0.028	13.0	130.0
☐	p-Nitrophenol	100-02-7	0.12	29.0	290.0
☐	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	0.000063	0.005	0.05
☐	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	0.000063	0.005	0.05
☐	Oxamyl	23135-22-0	0.056	0.28	2.8
☐	Parathion	56-38-2	0.014	4.6	46.0
☐	PeCDDs (All Pentachlorodibenzo-p-dioxins)	36088-22-9	0.000063	0.001	0.01
☐	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	0.000035	0.001	0.01
☐	Pebulate	1114-71-2	0.042	1.4	14.0
☐	Pentachlorobenzene	608-93-5	0.055	10.0	100.0
☐	Pentachloroethane	76-01-7	0.055	6.0	60.0
☐	Pentachloronitrobenzene	82-68-8	0.055	4.8	48.0
☐	Pentachlorophenol	87-86-5	0.089	7.4	74.0
☐	Phenacetin	62-44-2	0.081	16.0	160.0
☐	Phenanthrene	85-01-8	0.059	5.6	56.0
☐	Phenol	108-95-2	0.039	6.2	62.0
☐	1,3-Phenylenediamine	108-45-2	N/A	N/A	N/A
☐	o-Phenylenediamine	95-54-5	N/A	N/A	N/A
☐	Phorate	298-02-2	0.021	4.6	46.0
☐	Phthalic acid	100-21-0	0.055	28.0	280.0
☐	Phthalic anhydride	85-44-9	0.055	28.0	280.0
☐	Physostigmine	57-47-6	0.056	1.4	14.0
☐	Physostigmine salicylate	57-64-7	0.056	1.4	14.0
☐	Promecarb	2631-37-0	0.056	1.4	14.0
☐	Pronamide	23950-58-5	0.093	1.5	15.0
☐	Propanenitrile	107-12-0	0.24	360.0	3600.0
☐	Propham	122-42-9	0.056	1.4	14.0
☐	Propoxur	114-26-1	0.056	1.4	14.0
☐	Prosulfocarb	52888-80-9	0.042	1.4	14.0
☐	Pyrene	129-00-0	0.067	8.2	82.0
☐	Pyridine	110-86-1	0.014	16.0	160.0
☐	Safrole	94-59-7	0.081	22.0	220.0
☐	Sulfide	18496-25-8	14.0	N/A	N/A
☐	2,4,5-T	93-76-5	0.72	7.9	79.0
☐	TCDDs (All Tetrachlorodi-benzo-p-dioxins)	41903-57-5	0.000063	0.001	0.01
☐	TCDFs (All Tetrachlorodibenzofurans)	30402-14-3	0.000063	0.001	0.01
☐	2,4,5-TP (Silvex)	93-72-1	0.72	7.9	79.0

	Organic Constituents	CASRN	Wastewater Standard (mg/L)	Non Wastewater Standard (mg/kg unless noted otherwise)	Hazardous Soil 10Xs UTS (mg/kg unless noted otherwise)
☐	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14.0	140.0
☐	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0	60.0
☐	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0	60.0
☐	Tetrachloroethylene	127-18-4	0.056	6.0	60.0
☐	2,3,4,6-Tetrachlorophenol	58-90-2	0.03	7.4	74.0
☐	Thiodicarb	59669-26-0	0.019	1.4	14.0
☐	Thiophanate-methyl	23564-05-8	0.056	1.4	14.0
☐	Toluene	108-88-3	0.08	10.0	100.0
☐	Total PCBs (Polychlorinated biphenyls)	1336-36-3	0.1	10.0	100.0
☐	Toxaphene	8001-35-2	0.0095	2.6	26.0
☐	Triallate	2303-17-5	0.042	1.4	14.0
☐	Tribromomethane	75-25-2	0.63	15.0	150.0
☐	2,4,6-Tribromophenol	118-79-6	0.035	7.4	74.0
☐	1,1,2-Trichloro-1,2,2,-trifluoroethane	76-13-1	0.057	30.0	300.0
☐	1,2,4-Trichlorobenzene	120-82-1	0.055	19.0	190.0
☐	1,1,1-Trichloroethane	71-55-6	0.054	6.0	60.0
☐	1,1,2-Trichloroethane	79-00-5	0.054	6.0	60.0
☐	Trichloroethylene	79-01-6	0.054	6.0	60.0
☐	Trichloromonofluoromethane (R11)	75-69-4	0.02	30.0	300.0
☐	2,4,5-Trichlorophenol	95-95-4	0.18	7.4	74.0
☐	2,4,6-Trichlorophenol	88-06-2	0.035	7.4	74.0
☐	1,2,3-Trichloropropane	96-18-4	0.85	30.0	300.0
☐	Triethylamine	121-44-8	0.081	1.5	15.0
☐	Tris(2,3-dibromopropyl) phosphate	126-72-7	0.11	0.1	1.0
☐	Vernolate	1929-77-7	0.042	1.4	14.0
☐	Vinyl chloride	75-01-4	0.27	6.0	60.0
☐	Xylene	1330-20-7	0.32	30.0	300.0
☐	2,4-Xylidine	95-68-1	0.01	0.66	6.6
☐	Antimony	7440-36-0	1.9	1.15	11.5
☐	Arsenic	7440-38-2	1.4	5.0	50.0
☐	Barium	7440-39-3	1.2	21.0	210.0
☐	Beryllium	7440-41-7	0.82	1.22	12.2
☐	Cadmium	7440-43-9	0.69	0.11	1.1
☐	Chromium	7440-47-3	2.77	0.6	6.0
☐	Lead	7439-92-1	0.69	0.75	7.5
☐	Mercury	7439-97-6	0.15	0.025	0.25
☐	Nickel	7440-02-0	3.98	11.0	110.0
☐	Selenium	7782-49-2	0.82	5.7	57.0
☐	Silver	7440-22-4	0.43	0.14	1.4
☐	Thallium	7440-28-0	1.4	0.2	2.0
☐	Vanadium	7440-62-2	4.3	1.6	16.0
☐	Zinc	7440-66-6	2.61	4.3	43.0

Attachment 1 - Additional Radionuclides

Please list the supplimentary radionuclides and their concentration values.

CONTAINER PROFILE
W854060
CON-HAZ

WS ID: 45282
C ID: 854060
ACTIVE

GENERAL INFORMATION

Container ID:	854060		
Labeled ID:	W854060		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	45282	**Container Subtype:**	14-gallon poly
Work Path:	CON-HAZ	**Origin Date:**	22-Oct-2019 2:31 pm
Quantity (Univ):	1	**Accum Start Date:**	
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: WILLIAM HOLLIS (113868)

Insert By: PHILIP MARTINEZ (208498)

Waste Desc: ORGANIC SOLVENT FOR PCB EXTRACTION

WEIGHTS AND VOLUMES

Container Volume:	14.00 gal	**Gross Weight:**	41.00 lb
Waste Volume:	8.00 L	**Tare Weight:**	10.00 lb
		Net Weight:	31.00 lb

LOCATION

Pickup (Origin): LANL: 59: 000139

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
3C070A	X49G	0220	0000	100.00	ACTIVE	ACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D001B	D001	Ignitable: High TOC Ignitable Characteristic Liquids- >= 10% total organic carbon.
F002C	F002	Spent halogenated solvents: Methylene chloride
F003A	F003	Spent non-halogenated solvents: Acetone
F003G	F003	Spent non-halogenated solvents: Methanol

UNDERLYING HAZARDOUS CONSTITUENTS

CAS No.	Chemical Name

CONTAINER PROFILE
W854059
ITEM-HAZ

WS ID: 45286
C ID: 854059
ACTIVE

GENERAL INFORMATION

Container ID:	854059		
Labeled ID:	W854059		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	SOLID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	45286	**Container Subtype:**	5-gallon poly
Work Path:	ITEM-HAZ	**Origin Date:**	22-Oct-2019 2:29 pm
Quantity (Univ):	1	**Accum Start Date:**	12-Nov-2019
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: WILLIAM HOLLIS (113868)

Insert By: PHILIP MARTINEZ (208498)

Waste Desc: SOLID WASTE FROM PCB COLUMN CLEANUP

WEIGHTS AND VOLUMES

Container Volume:	5.00 gal	**Gross Weight:**	14.50 kg
Waste Volume:	1500.00 mL	**Tare Weight:**	3.00 kg
		Net Weight:	11.50 kg

LOCATION

Pickup (Origin): LANL: 59: 000139

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
3C070A	X49G	0220	0000	100.00	ACTIVE	ACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
F002C	F002	Spent halogenated solvents: Methylene chloride

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE 108512 108682	NA3077, HAZARDOUS WASTE, SOLID, N.O.S., 9, III, (LABPACK)

CONTAINER PROFILE
W859264
CON-HAZ

WS ID: 47579
C ID: 859264
ACTIVE

GENERAL INFORMATION

Container ID:	859264		
Labeled ID:	W859264		
Optional ID:		**Status:**	ACTIVE
Chemical Barcode:		**Decommissioned:**	YES
Physical State:	LIQUID	**Container Type:**	DF: Fiberboard or plastic drums, barrels, kegs
Waste Stream ID:	47579	**Container Subtype:**	14-gallon poly
Work Path:	CON-HAZ	**Origin Date:**	08-Sep-2020 3:05 pm
Quantity (Univ):	1	**Accum Start Date:**	06-Oct-2020
Compactible:	NO	**Closed Date:**	

Discard Matrix:

TID(s):

Gen Contact: DANIEL HUBER (342232)

Insert By: PHILIP MARTINEZ (208498)

Waste Desc: ORGANIC SOLVENTS FOR PCB EXTRACTION

WEIGHTS AND VOLUMES

Container Volume:	14.00 gal	**Gross Weight:**	40.50 lb
Waste Volume:	8.00 L	**Tare Weight:**	10.00 lb
		Net Weight:	30.50 lb

LOCATION

Pickup (Origin): LANL: 59: 000001

Current: VEOLIA-CO: OPER: RECV

COST CODES

Cost Center	Prog Code	Cost Account	Work Package	Percent Allocation	Cost Center Status	Cost Code Status	Recharge Mode
3C070A	X49G	0220	0000	100.00	ACTIVE	ACTIVE	*SELECTION LIST*

EPA CODES

System Code	Hazardous Waste No.	Waste Description & Treatment Subcategory
D001B	D001	Ignitable: High TOC Ignitable Characteristic Liquids- >= 10% total organic carbon.
F002C	F002	Spent halogenated solvents: Methylene chloride
F003A	F003	Spent non-halogenated solvents: Acetone
F003G	F003	Spent non-halogenated solvents: Methanol

UNDERLYING HAZARDOUS CONSTITUENTS

CAS No.	Chemical Name

CONTAINER PROFILE
W859264
CON-HAZ

WS ID: 47579
C ID: 859264
ACTIVE

UNDERLYING HAZARDOUS CONSTITUENTS

CAS No.	Chemical Name
67-64-1	Acetone
67-56-1	Methanol
75-09-2	Methylene chloride

DOT SHIPPING DESC

Status/ Manifest IDs	DOT Shipping Description
ACTIVE 109784 109717	UN1992, WASTE FLAMMABLE LIQUIDS, TOXIC, N.O.S., 3 (6.1), II, (LABPACK)

TASK HISTORY

Date/ Time	Task ID/ Status	Task Name/ Storage or Disposal Grid Location	Reject
09/15/2020 7:53 AM	1902963 EXECUTED	LANL:59 - WDR-NRAD	NO
10/06/2020 1:30 PM	1904331 EXECUTED	LANL:59 » 60:000017 (MANIF ID: 109717)	NO
10/13/2020 1:08 PM	1881178 PENDING	LANL:60 - WALL2W - 000017	NO
10/20/2020 1:55 PM	1905130 EXECUTED	LANL:60 » VEOLIA-CO:OPER:RECV (MANIF ID: 109784)	NO

Note: Highlighted row indicates container was output or receiving container for the indicated task

DOCUMENTATION

Doc. Number	Title	Uploaded By
Doc-1	Container closure checklist	PHILIP MARTINEZ (208498)

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
10/06/2020 1:28 PM SUNEE SANDOVAL (193789)	YES	C_MASTER.ACCUM_START_DATETIME [859264] changed from null to 10-06-2020 01:28 PM
10/06/2020 1:28 PM SUNEE SANDOVAL (193789)	NO	Edit Container Authorization; Locked Container. Looking for [P=303577, C=859264]; Found [P=303577, G=TSD-DOTQA]; Reason for Edit: ASD
09/15/2020 7:53 AM PAUL NEWBERRY (112056)	NO	Edit Container Authorization; Locked Container. Looking for [P=42805, C=859264]; Found [P=42805, G=TSD-WDR-NR]; Reason for Edit: psn
09/08/2020 3:24 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.VOL_WASTE [859264] changed from null to 8.0
09/08/2020 3:24 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_WASTE [859264] changed from 13.834 to 30.5
09/08/2020 3:24 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_WASTE_UNIT [859264] changed from kg to lb
09/08/2020 3:23 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_WASTE [859264] changed from 8.37 to 13.834

CONTAINER PROFILE
W859264
CON-HAZ

WS ID: 47579
C ID: 859264
ACTIVE

EDIT LOG

Date Time/ User Name	Quality Record	Explanation
09/08/2020 3:23 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_TARE_UNIT [859264] changed from kg to lb
09/08/2020 3:23 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_WASTE [859264] changed from 30.5 to 8.37
09/08/2020 3:23 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_WASTE [859264] changed from 40.5 to 30.5
09/08/2020 3:23 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_TARE [859264] changed from 0.0 to 10.0
09/08/2020 3:23 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_WASTE [859264] changed from 0.0 to 40.5
09/08/2020 3:23 PM PHILIP MARTINEZ (208498)	YES	C_MASTER.WEIGHT_GROSS [859264] changed from 0.0 to 40.5
09/08/2020 3:15 PM PHILIP MARTINEZ (208498)	NO	Create Container Authorization; Looking for [P=318017, WS=47579, WP=233, U=2427]; Found [P=318017, W=1, F=69, U=ALL, B=2, G=59-WMC];
09/08/2020 3:15 PM WCATS APPLICATION (000000)	NO	INITWORKPATH (C_ID=859264/PATH_ID=233): PASSED