

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	3/2/2023 – 3/3/2023	
Media Program:	RCRA	
Regulatory Program(s)	RCRA TSDF	
Company Name:	Texas Molecular Svcs, LLC	
Facility Name:	Texas Molecular – Deer Park Facility	
Facility Physical Location:	2525 Independence Pkwy	
(city, state, zip code)	Deer Park, TX 77536	
Mailing address:	PO Box 1914	
(city, state, zip code)	Deer Park, TX 77536	
County/Parish:	Harris	
Facility Phone Number	281-930-2598	
Facility Contact:	Christina Perez	EHS Director
	Christina.perez@vlses.com	
FRS Number:	110070754719	
Identification/Permit Number:	IHW #50058	
Media Identifier Number:	TXD000719518	
NAICS:	562211 - HAZARDOUS WASTE TREATMENT AND DISPOSAL	
SIC:	n/a	
Personnel participating in inspection:		
Erin Young-Dahl	EPA R6/ECD-SR	Lead Inspector
Dedriel Gardner	EPA R6/ECD-SR	Sr. Environmental Engineer
Nicole Weist	TCEQ	Environmental Investigator
Christina Perez	TMDP	EHS Director
Shandalyn Washington	TMDP	EHS Manager
Kirk Edwards	TMDP	VP of Operations
Felton Greer	TMDP	Compliance and Operations Manager
EPA Lead Inspector Signature/Date		
	Erin Young-Dahl	Date
Supervisor Signature/Date		
	Jeff Yurk	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

On March 2-3, 2023, I, Erin Young-Dahl, conducted an unannounced inspection of the Texas Molecular Deer Park facility (TMDP) located at 2525 Independence Pkwy in Deer Park, Texas. The inspection focused on compliance with the Resource Conservation and Recovery Act (RCRA). I was assisted by Environmental Protection Agency (EPA) inspector Dedriel Gardner and Texas Commission on Environmental Quality (TCEQ) investigator Nicole Weist. The inspection included a walkthrough of the facility's wastewater receiving, testing, and disposal processes as well as a review of facility records related to hazardous waste management.

The facility was targeted for inspection due to its recent acceptance for disposal of firefighting wastewaters originating from the East Palestine, Ohio train derailment cleanup in February 2023, when Norfolk Southern tanker cars containing vinyl chloride spilled and were subsequently burned. TMDP has been receiving hazardous wastewater from the spill site since February 16, 2023 and has attracted national media attention for its role in the cleanup process. The facility expects to continue receiving tanker truck shipments from the site of the duration of the cleanup.

This report serves as documentation of all onsite activities and observations during the inspection of the TMDP facility. A summary of all areas of concern identified during the inspection is provided in Section III.

FACILITY DESCRIPTION

TMDP is a permitted waste treatment, storage, and disposal facility that specializes in deep well injection of hazardous and industrial wastewaters. The facility has been in operation for over 40 years and was recently acquired by VLS Environmental Solutions in December 2022. The facility operates three Class I underground injection wells and serves a variety of industries that generate hazardous wastewaters and aqueous industrial wastes. TMDP operates 24/7, employs 38 people onsite, and occupies a 10-acre footprint, which includes a co-located chemical plant leased by Novvi, LLC.

Section II - OBSERVATIONS

Dedriel Gardner, Nicole Weist, and I conducted the onsite inspection during business hours on March 2 and 3, 2023. During the inspection, TMDP was at full operational capabilities, and all areas of the facility were in use. We visited TMDP's waste receiving, management, fingerprinting, storage, and disposal areas and reviewed records pertaining to the facility's RCRA applicability and compliance requirements, specifically regarding the management of hazardous wastewaters received from East Palestine, OH.

This section provides an abbreviated description of our daily activities (see also Appendix 2). Appendix 1 provides photographs of these observations. Unless otherwise specified, the statements cited in this section reflect those claims made by facility personnel or documents reviewed during the inspection.

March 2, 2023

Dedriel Gardner, Nicole Weist, and I entered the facility at 1130 hrs, and we presented our credentials to Ms. Christina Perez (TMDP, Environmental, Health, and Safety (EHS) Director) and informed her that we were there to conduct a focused inspection of the facility under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA). I explained the right of TMDP to assert a Confidential Business Information claim for records requested by the EPA and presented a copy of EPA Region 6's Confidentiality Notice (40 C.F.R. §2.203). I then facilitated an opening briefing with Ms. Perez and Ms. Shandalyn Washington (EHS Manager), where we discussed the purpose of EPA's inspection: assessment of TMDP's compliance with its requirements under RCRA as they pertain to East Palestine, OH wastewater.

Scale and Guardhouse

We observed a truck entering the facility and checking in at the guardhouse. The truck was not from OH. The guard on duty cross-references the arrival with the daily schedule, calls in the arrival to the control room, and gives paperwork to the driver. Trucks are weighed when they first enter the facility and again when they leave to calculate the amount of waste unloaded (Appendix 1, Photo 1).

Control Room

We then walked to the control room, located on the northwest side of the property, where employees coordinate unloading pad assignments, monitor tank levels, and log unit conditions. Trucks stop outside this building and wait to receive their unloading pad assignments. Paperwork is exchanged inside the building. Here, we met Mr. Kirk Edwards (Vice President of Operations) and Mr. Felton Greer (Compliance and Materials Manager), who continued the tour with us.

Main Truck Unloading Pad (Pads #2 and #3)

We observed workers sample a tanker truck of East Palestine wastewater. The sampler used a COLIWASA to extract two 1-liter bottles worth of material from the truck (Appendix 1, Photos 3 - 4).

Following the fingerprinting procedure and confirmation of waste compatibility with receiving tank contents, we watched the initiation of the wastewater unloading process from the truck into tank T-56. Workers connect a flexible hose to the truck drainage port and begin unloading (Appendix 1, Photo 6). We were told that this is the only part of the waste receiving/unloading/disposal process that does *not* use hard piping to transfer waste.

Control Room Laboratory

We followed the employee with the truck sample into the control room laboratory to perform TMDP's fingerprint test, which included tests for specific gravity, filtration, compatibility (with receiving tank contents), and pH (Appendix 1, Photo 5). Sample containers are set aside on a shelving unit in secondary containment and await relocation to the "retain building" central storage area, Unit #187 (Appendix 1, Photos 19 – 22).

Storage Treatment Area II N

We inspected tanks T-56 and T-8 as well as associated hard piping for LDAR tags and overall condition. Tanks T-56 and T-8 have dish bottoms for ease of inspection and, if needed, leak containment. Tank T-56 has a capacity of 100,000 gallons and contained 23,350 gallons of East Palestine wastewaters at the time of inspection. Down-hole tank T-8 has a capacity of 40,000 gallons and was empty at the time of inspection. Tank T-8 is designated for East Palestine wastes, and Tank T-56 is the main receiving tank used for East Palestine wastes. These tanks and their associated piping systems are Subpart CC- and BB-applicable, respectively (Appendix 1, Photos 7 – 11).

We also inspected the condition of the secondary containment area and identified no areas of concern.

Injection Wells 169 and 249

We inspected the two injection wells used for East Palestine wastewater disposal. At the time of inspection, TMDP was actively injecting wastewater into well #169, although it was not East Palestine waste that was being injected at the time we were there. Wells 169 and 249 are the two wells used for East Palestine waste disposal (Appendix 1, Photos 12 – 16).

Stabilization Building

Next, we inspected the stabilization building. TMDP has two permitted in-ground tanks where wastes are stabilized by backhoe mixing (Appendix 1, Photos 17 - 18). Lime kiln dust from LaHoist is used for stabilization but is also used as a drying agent. Operators work in a fully enclosed operating area. The stabilization building was not in use at the time of the inspection.

TMDP received a small percentage of waste solids from East Palestine. The solids were mixed with lime kiln dust to facilitate drying before being placed into roll-off boxes in Unit #109 and shipped offsite for incineration. At the time of the inspection, the wastes had not yet been shipped offsite for incineration but were scheduled to be shipped the week of March 12, 2023.

Storage Treatment Area VIII N

We inspected Tank T-100, which receives some tanker truck loads of East Palestine wastewater (Appendix 1, Photos 23 - 24). We did not find any areas of concern.

Storage Unit #109

We then observed the less than 90-day storage area, where the waste solids from East Palestine were being staged in roll-off boxes at the time of the inspection and awaiting transport offsite for incineration (Appendix 1, Photo 25).

Retain Building and Unit #187

We were escorted to the Retain Building and to central storage area Unit #187, which holds sample jars of fingerprinted waste streams. The sample jars are organized by compatibility and sampling date into bins on shelves (Appendix 1, Photo 26). After one month, waste jars are consolidated in one of two totes in ST-15.

We noticed the breaker box for the Retain Building was in close proximity (approx. 15 ft) to the waste bins (Appendix 1, Photos 27 - 28). Mr. Edwards estimated that the amount of ignitable wastewaters in this storage area is small. As of the time of inspection on March 3, TMDP was actively considering placing ignitable wastewater sample jars in a flammable cabinet.

ST-15 (Unit #189)

ST-15 is a permitted less than 90-day storage area that consists of four totes, two of which contain consolidated samples from Unit #187 (Appendix 1, Photo 29). Wastes are disposed into one of the three onsite wells within the 90-day time limit.

We also observed a filter press in the area, although this press does not manage East Palestine-related wastes. There were also two totes that were designated for blowdown from filter press usage.

March 3, 2023

The following day, the inspection team continued with onsite document review and continued with the inspection of TMDP operations and equipment.

Control Room Laboratory

We observed a TMDP employee sample the East Palestine tanker truck #702192 from Pad #2. See Appendix 3 for a detailed explanation of the fingerprinting tests.

Storage Treatment Area II N

We traced the layout of hard piping between T-56 and wells #169 and #249. We observed the piping from T-56 to filtration pump P-16 (Appendix 1, Photos 30 – 32). An automated manifold ensures the waste is then pumped to filter press DE-7. The manifold is controlled from the control room, but all pipes and valves may also be operated manually.

Once the wastewater is filtered at DE-7, the filtrate is piped to T-8. When injection begins, the contents of T-8 are piped to down-hole pump P-16A, which pumps the waste into the appropriate injection well. Mr. Edwards mentioned that P-16A can also be used as a filtration pump, but its purpose is down-hole pumping. An old oil stain underneath the pump was explained to be an old drip from the pump engine or a maintenance activity.

Filter Press DE-7

We next saw filter press DE-7, although it was not actively managing waste at the time of the inspection (Appendix 1, Photo 33). DE-7 filters multiple wastewaters, including all East Palestine wastewaters. Mr. Edwards explained that filter cake from a filtration event drops into a hopper beneath the press. Once the filter press stops actively managing waste, the hopper is capped with a metal lid fitted with a gasket for a complete seal. The filter press area is a less than 90-day storage area, but filter cake waste from East Palestine may also be transferred to the facility's permitted storage area ST-7.

The inspection team noticed an extra hazardous waste ID label on the hopper beneath the press (Appendix 1, Photo 34). Facility representatives immediately removed the excess label.

Permitted Storage Area ST-7

In the permitted storage area, we observed three full, covered hoppers containing filter cake from onsite filter presses, though not necessarily including cake from DE-7 (Appendix 1, Photos 36 - 37). Hoppers were labeled and dated. Many full totes were also being stored in the area at the time of the inspection.

Storage Unit #109

We next inspected the storage area, Unit #109, and looked at two roll-off boxes, WT-857 and WT-805, which contained the dried East Palestine waste solids mixed with one other solid-phase waste stream. The contents of the roll-off boxes were profiled by TMDP and awaited shipment to Clean Harbors – Deer Park for incineration (Appendix 1, Photos 38 – 40).

Receiving Tank T-6

Inspector Gardner, accompanied by Mr. Edwards, inspected T-6 (capacity 73,000 gallons), which also manages some waste from East Palestine (Appendix 1, Photos 42 - 43). The tank was not actively managing East Palestine waste at the time of the inspection. Facility representatives told us that the decision to put some East Palestine waste into T-6 instead of T-100 or T-56 depends mainly on injection efficiency.

Section III – AREAS OF CONCERN

- I observed potentially ignitable wastes held in storage within 15 feet of an active breaker box. The facility made efforts to remedy this immediately.
- I observed one instance where a hopper beneath filter press DE-7 was labeled twice. The incorrect label was removed immediately.

On March 3, 2023, we conducted a closing conference with TMDP representatives Christina Perez, Shandalyn Washington, and Kirk Edwards. We reviewed the above areas of concern and discussed next steps.

Section IV – FOLLOW UP

EPA is in daily communication with TMDP to track the receipt and disposal of hazardous wastewater from East Palestine, OH. These efforts will continue until East Palestine wastewater is depleted. The following information was received by EPA after exiting the facility:

- Daily RCRA inspection reports for operation areas
- Weekly RCRA inspection reports for operation areas
- Coating material SDSes for secondary containment areas

- Security Plan
- Contingency Plan
- Control room operational schematic diagram

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log

Appendix 2 – Daily Summaries

Appendix 3 – Fingerprint Testing

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030002.jpg	Date of Photo: 3/2/2023	Time: 1334 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NW. Truck Scale - Example of a tanker truck being weighed on the scale. (Not the East Palestine waste).		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030003.jpg	Date of Photo: 3/2/2023	Time: 1341 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NE. Pad #4 - Example of tanker truck being staged on Pad #4 after arriving onsite this day. (Not the East Palestine waste).		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030004.jpg	Date of Photo: 3/2/2023	Time: 1346 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NE. Pad #2 - Tanker truck #8020 of East Palestine waste that arrived onsite 3/2/23 and being staged on Pad #2 for fingerprint sampling.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030005.jpg	Date of Photo: 3/2/2023	Time: 1346 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NE. Pad #2 - Tanker truck #8020 of East Palestine waste that arrived onsite 3/2/23 and was being sampled for fingerprint analysis. Close-up of Photo 3.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030006.jpg	Date of Photo: 3/2/2023	Time: 1351 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NE. Lab in Control Room - Sample taken from tanker truck #8020 being analyzed for fingerprint analysis.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030007.jpg	Date of Photo: 3/2/2023	Time: 1357 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NE. Pad #2 - Tanker truck #8020 of East Palestine waste being connected to be pumped into tank #T56.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030008.jpg	Date of Photo: 3/2/2023	Time: 1401 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing E. Down Hold Tank T-8 - Used to store East Palestine waste prior to being disposed in deep well.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030009.jpg	Date of Photo: 3/2/2023	Time: 1401 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SW. Receiving Tank T-56 - Contained East Palestine waste.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

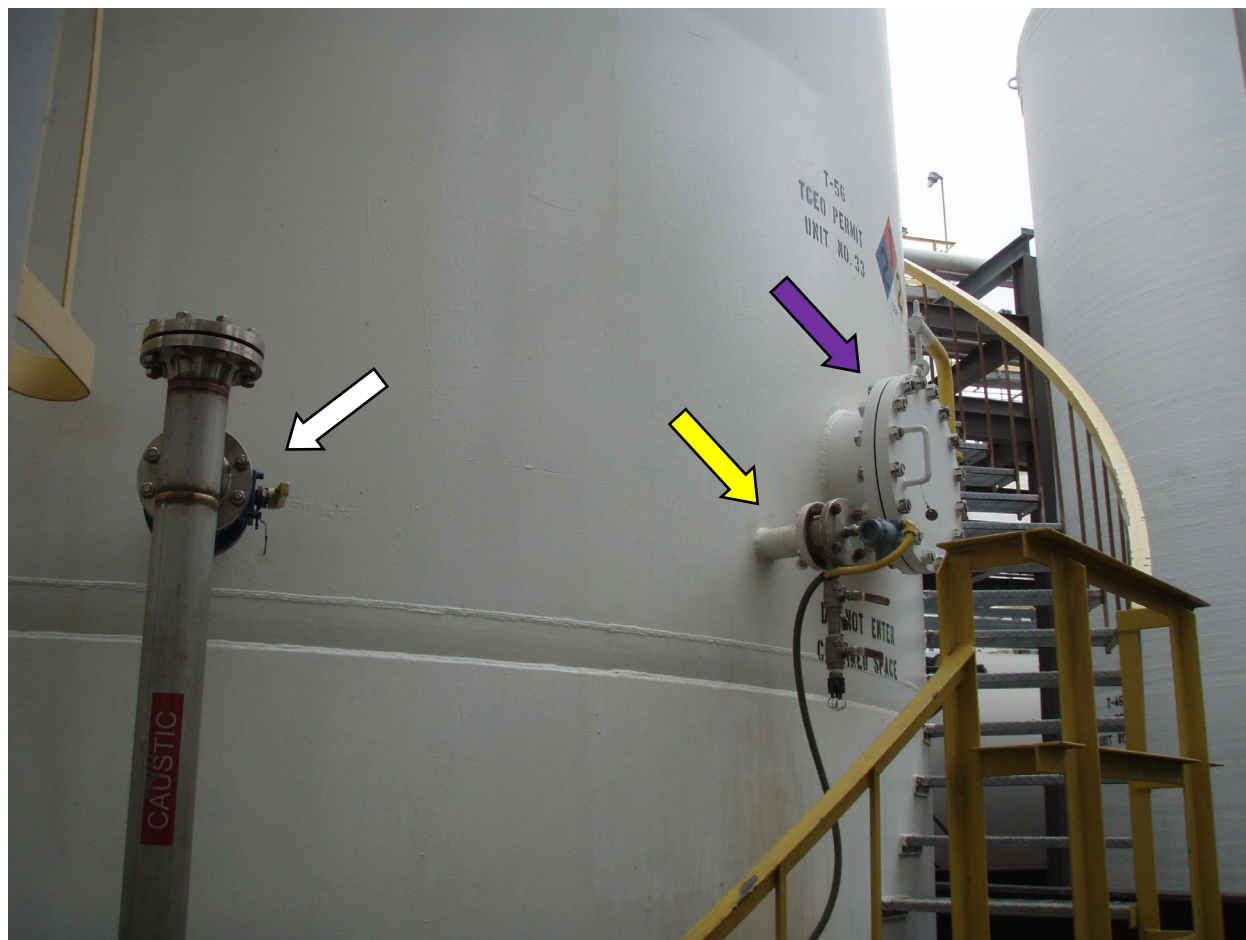


Photo File Name: P2030010.jpg	Date of Photo: 3/2/2023	Time: 1407 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SW. Tank T-56 - Subpart BB equipment tags including #125466 (yellow arrow), #2156 (white arrow), and #445545 (purple arrow). Arrows added to photo for clarification.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

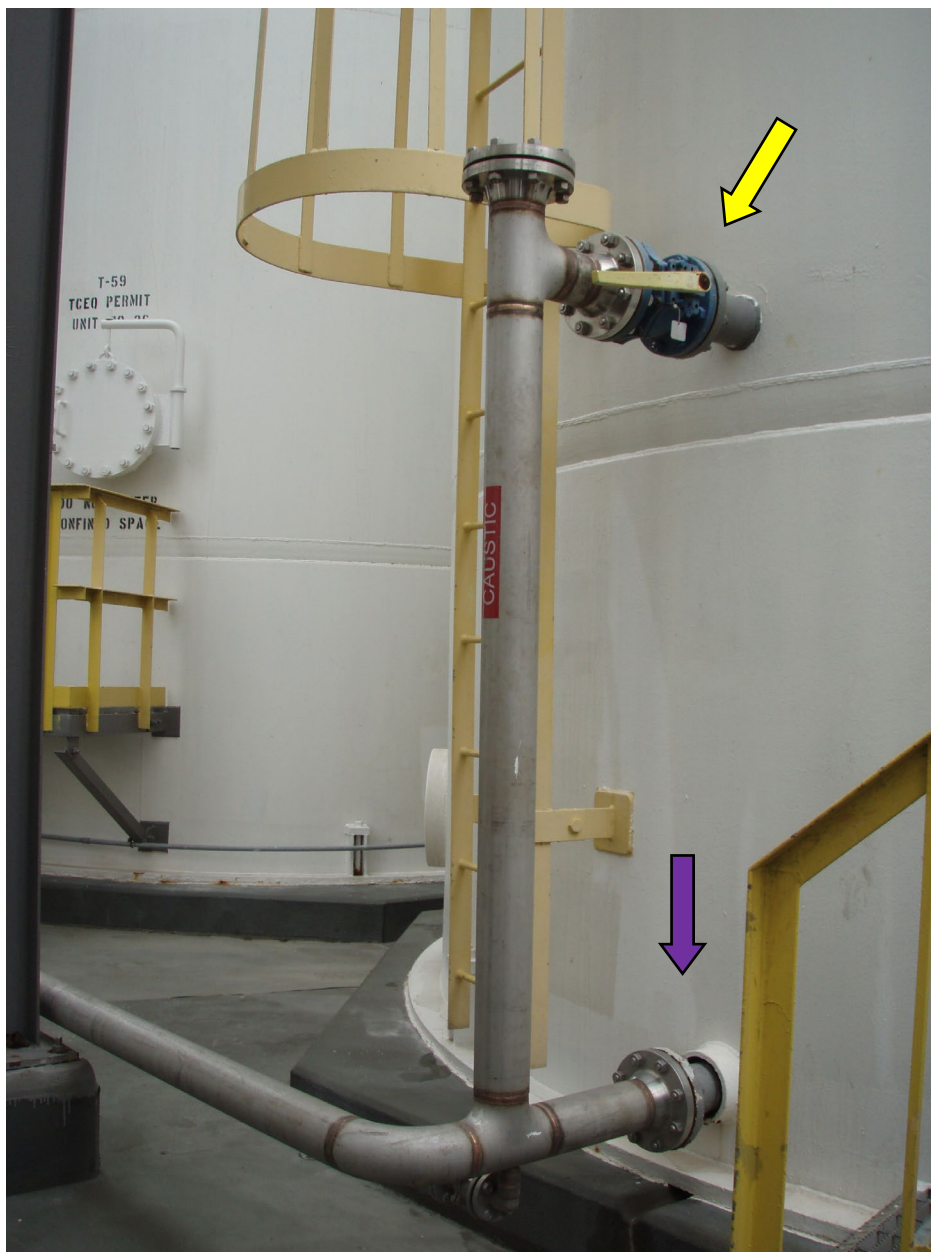


Photo File Name: P2030011.jpg	Date of Photo: 3/2/2023	Time: 1407 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. Tank T-56 - Subpart BB equipment tags including #2156 (yellow arrow) and #445545 (purple arrow). The equipment on the bottom pipeline had no tags. Arrows added to photo for clarification.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

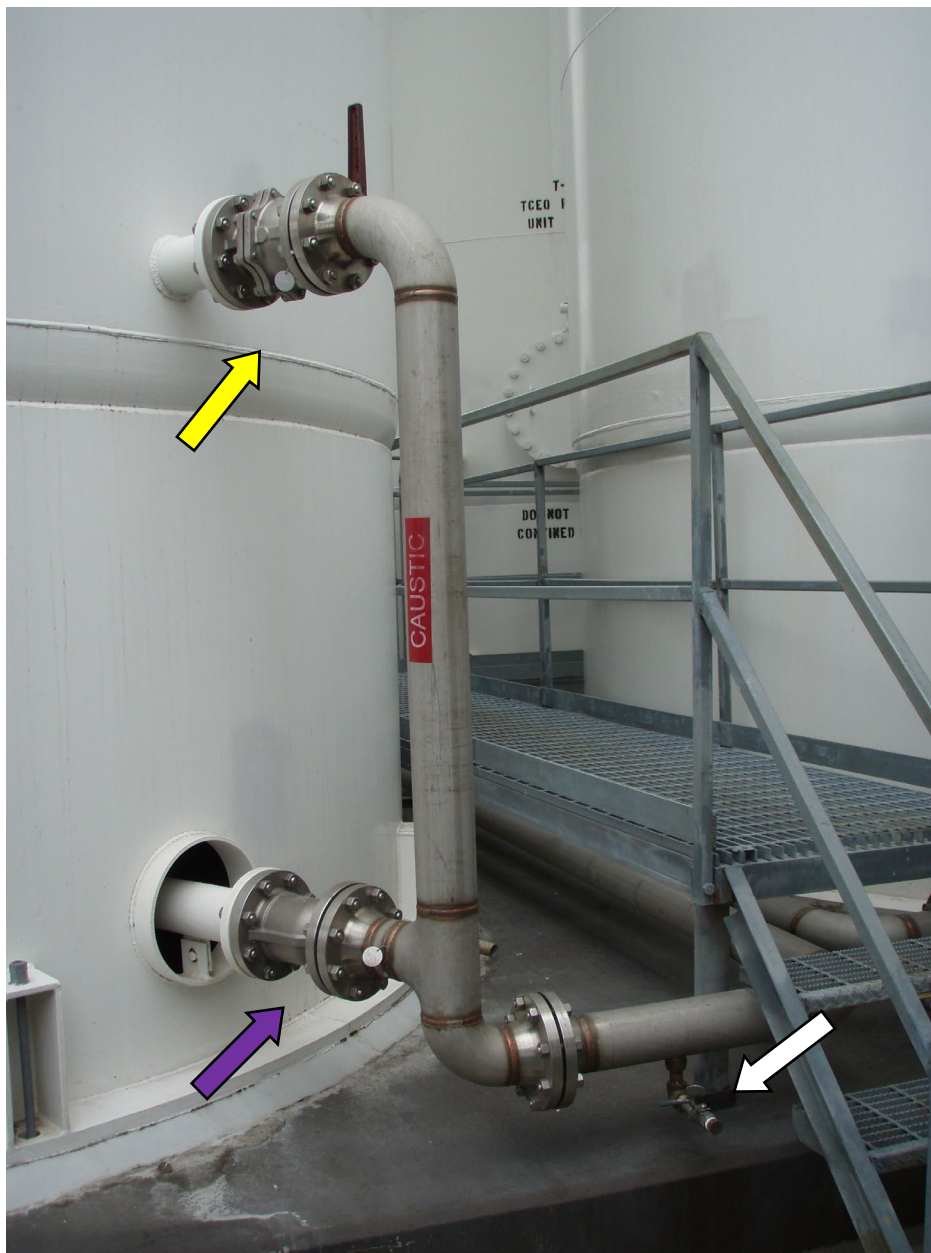


Photo File Name: P2030012.jpg	Date of Photo: 3/2/2023	Time: 1410 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. Tank T-8 - Subpart BB equipment tags including #20121 (flange - yellow arrow), #20095 (flange – purple arrow), and #20096 (capped line with valve on bottom – white arrow). Arrows added to photo for clarification.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030013.jpg	Date of Photo: 3/2/2023	Time: 1420 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing W. Active Disposal Well # 169.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030014.jpg	Date of Photo: 3/2/2023	Time: 1423 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing N. Active Disposal Well # 169 pressure gauges.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030015.jpg	Date of Photo: 3/2/2023	Time: 1423 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing N. Active Disposal Well # 169 pressure gauges. Close-up of Photo #13.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 15

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030016.jpg	Date of Photo: 3/2/2023	Time: 1425 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. Active Disposal Well # 249		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 16

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030017.jpg	Date of Photo: 3/2/2023	Time: 1428 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing E. Active Disposal Well # 249 pressure gauges.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 17

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

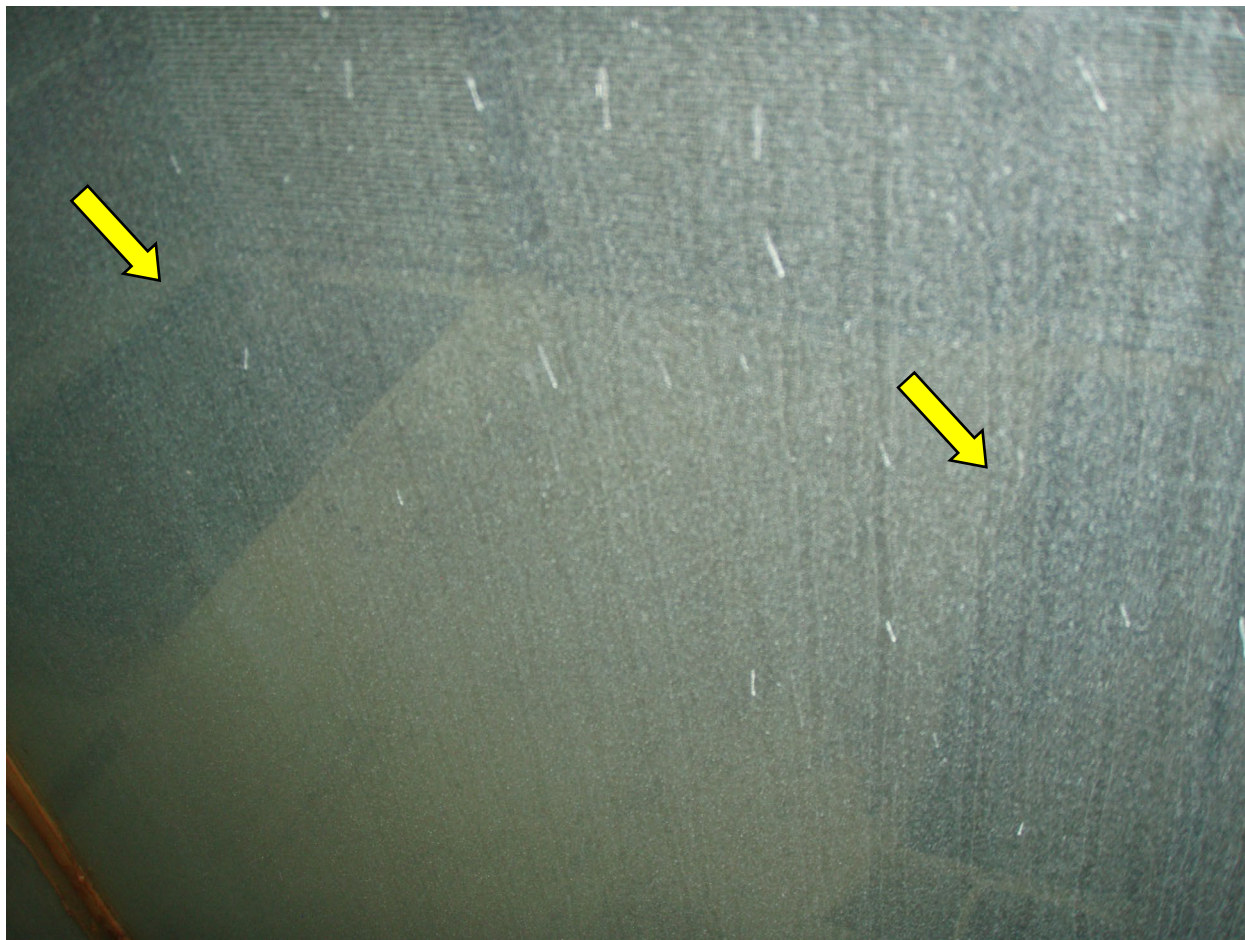


Photo File Name: P2030018.jpg	Date of Photo: 3/2/2023	Time: 1432 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SW. Stabilization Building - Two stabilization tanks (yellow arrows) where some of the East Palestine waste was dried by adding lime dust. Photo taken in an enclosed observation room looking through a window down into the room. Arrows added to photo for clarification.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 18

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

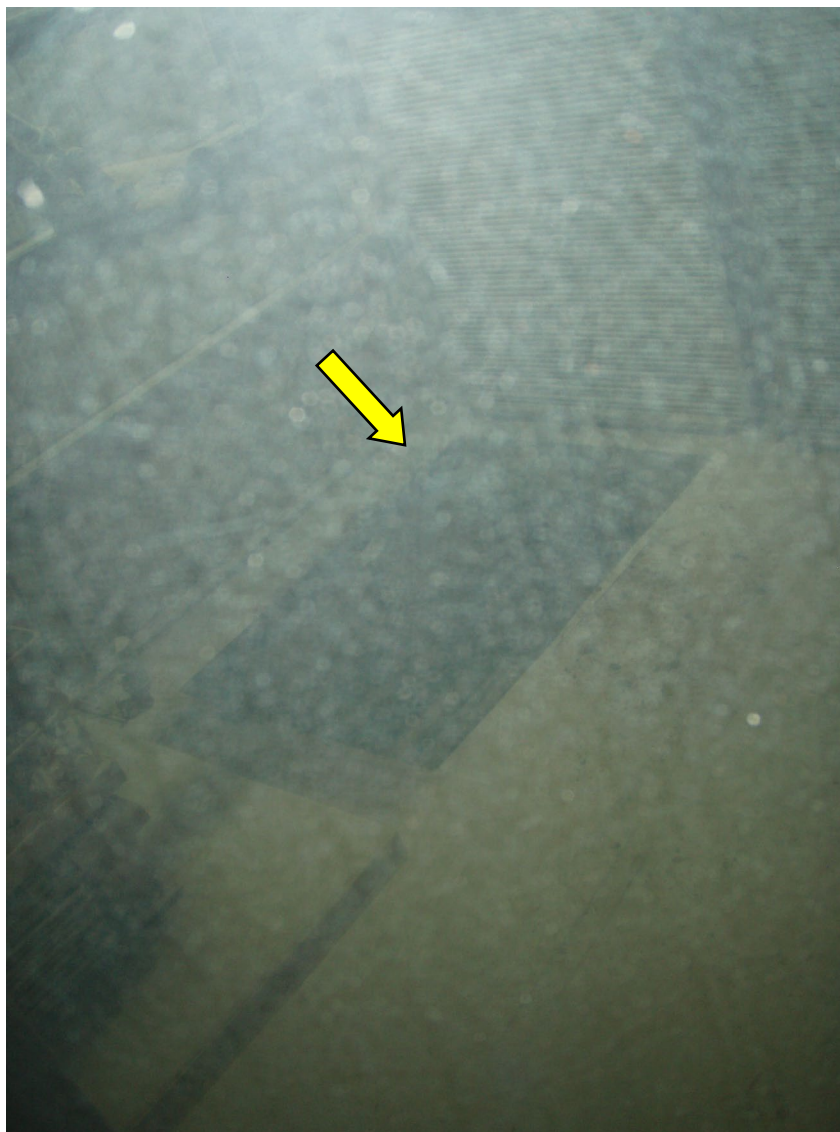


Photo File Name: P2030019.jpg	Date of Photo: 3/2/2023	Time: 1434 hrs
Photographer: Dedriel Gardner, EPA Inspector Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SW. Stabilization Building - Stabilization tanks where some of the East Palestine waste was dried by adding lime dust. Photo taken in an enclosed observation room looking through a window down into the room. Yellow arrow indicates south stabilization tank. Arrow added to photo for clarification.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 19

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030020.jpg	Date of Photo: 3/2/2023	Time: 1444 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NW. Lab in Control Room - Retained sample of East Palestine waste taken from tanker truck on 3/1/2023.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 20

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

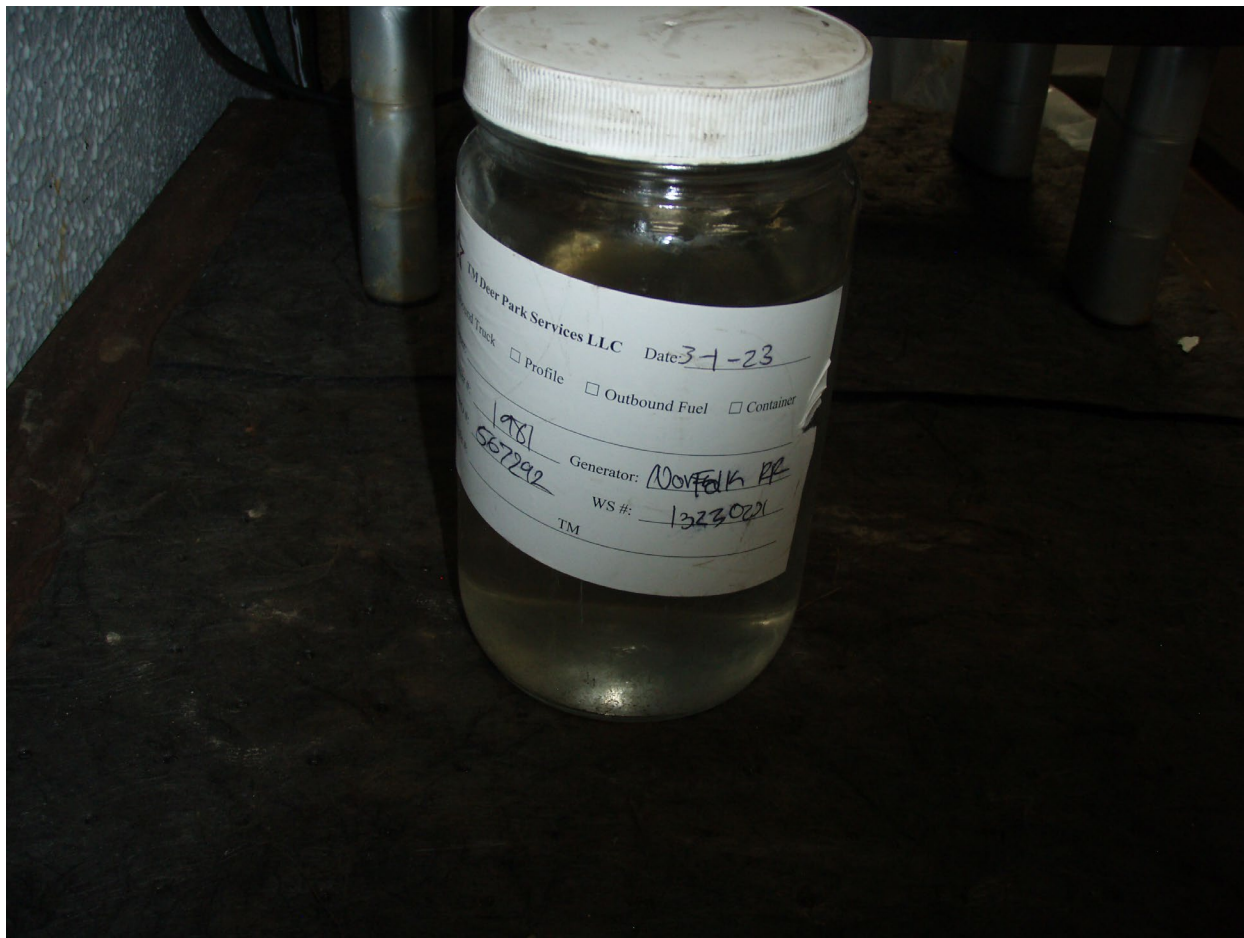


Photo File Name: P2030021.jpg	Date of Photo: 3/2/2023	Time: 1445 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NW. Lab in Control Room - Retained sample of East Palestine waste taken from tanker truck on 3/1/2023. Close-up of label in Photo #19.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 21

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

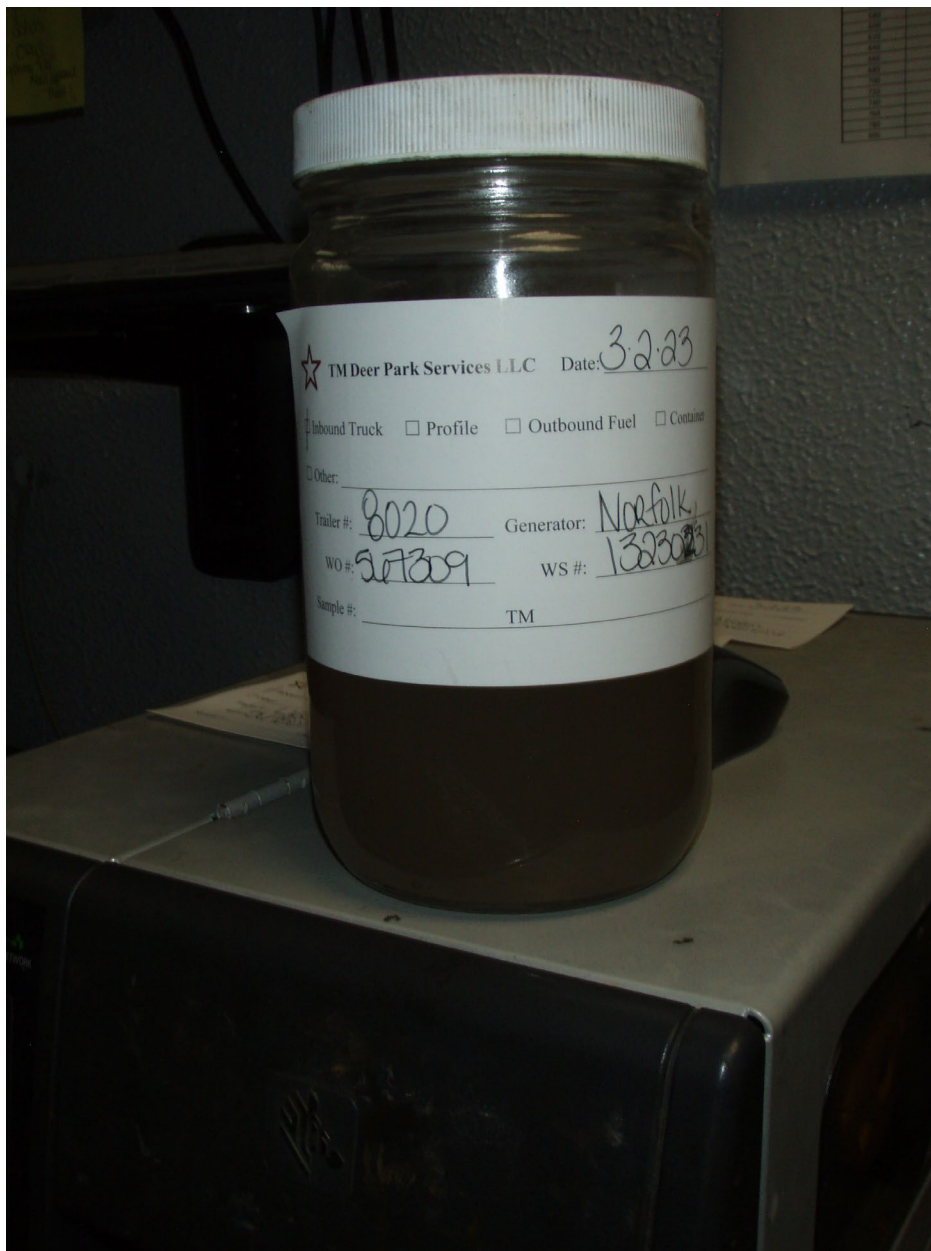


Photo File Name: P2030022.jpg	Date of Photo: 3/2/2023	Time: 1446 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NW. Lab in Control Room - Retained sample of East Palestine waste taken from tanker truck #8020 on 3/2/2023.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 22

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

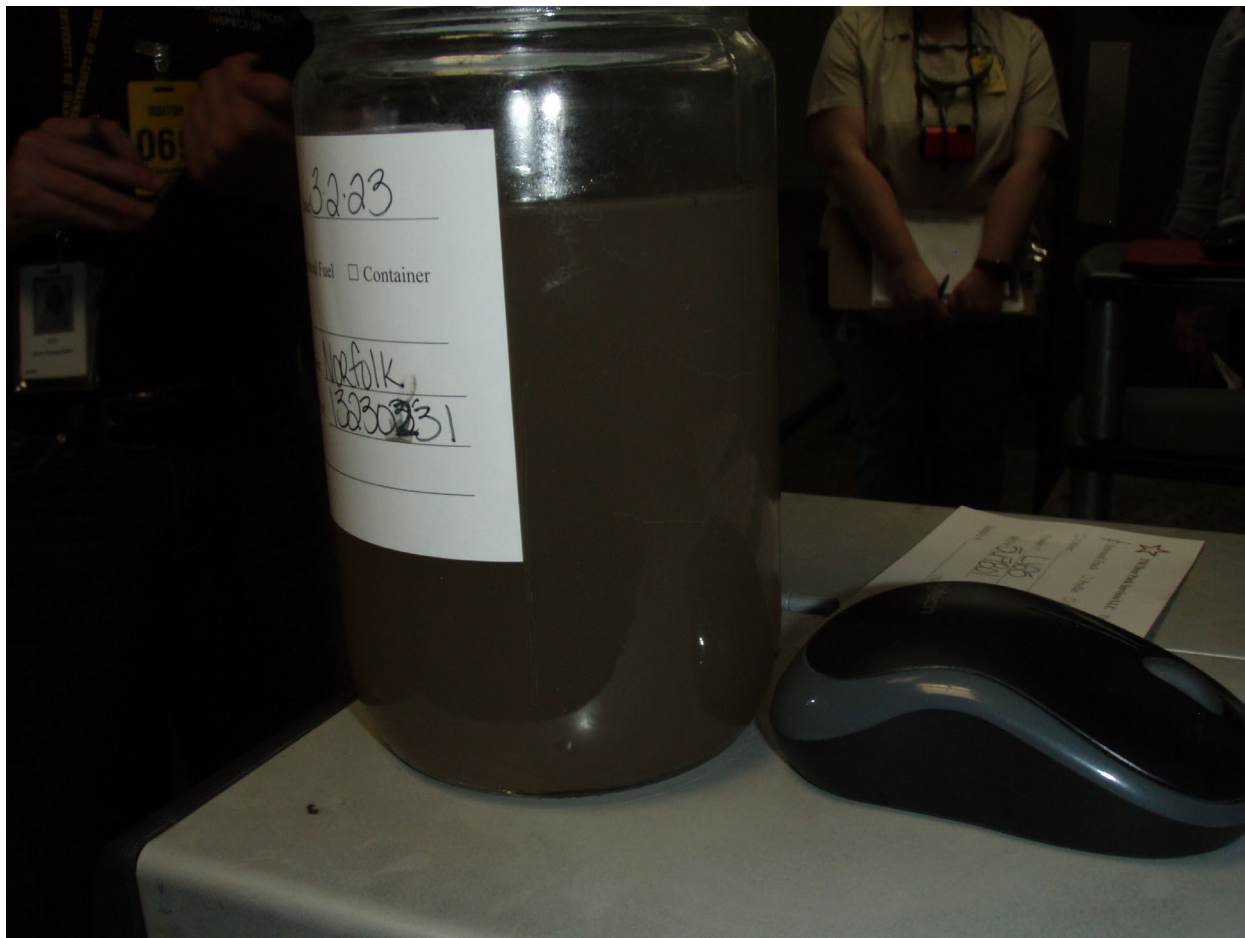


Photo File Name: P2030023.jpg	Date of Photo: 3/2/2023	Time: 1447 hrs
Photographer: Dedriel Gardner, EPA Inspector Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SW. Lab in Control Room - Retained sample of East Palestine waste taken from tanker truck #8020 on 3/2/2023.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 23

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

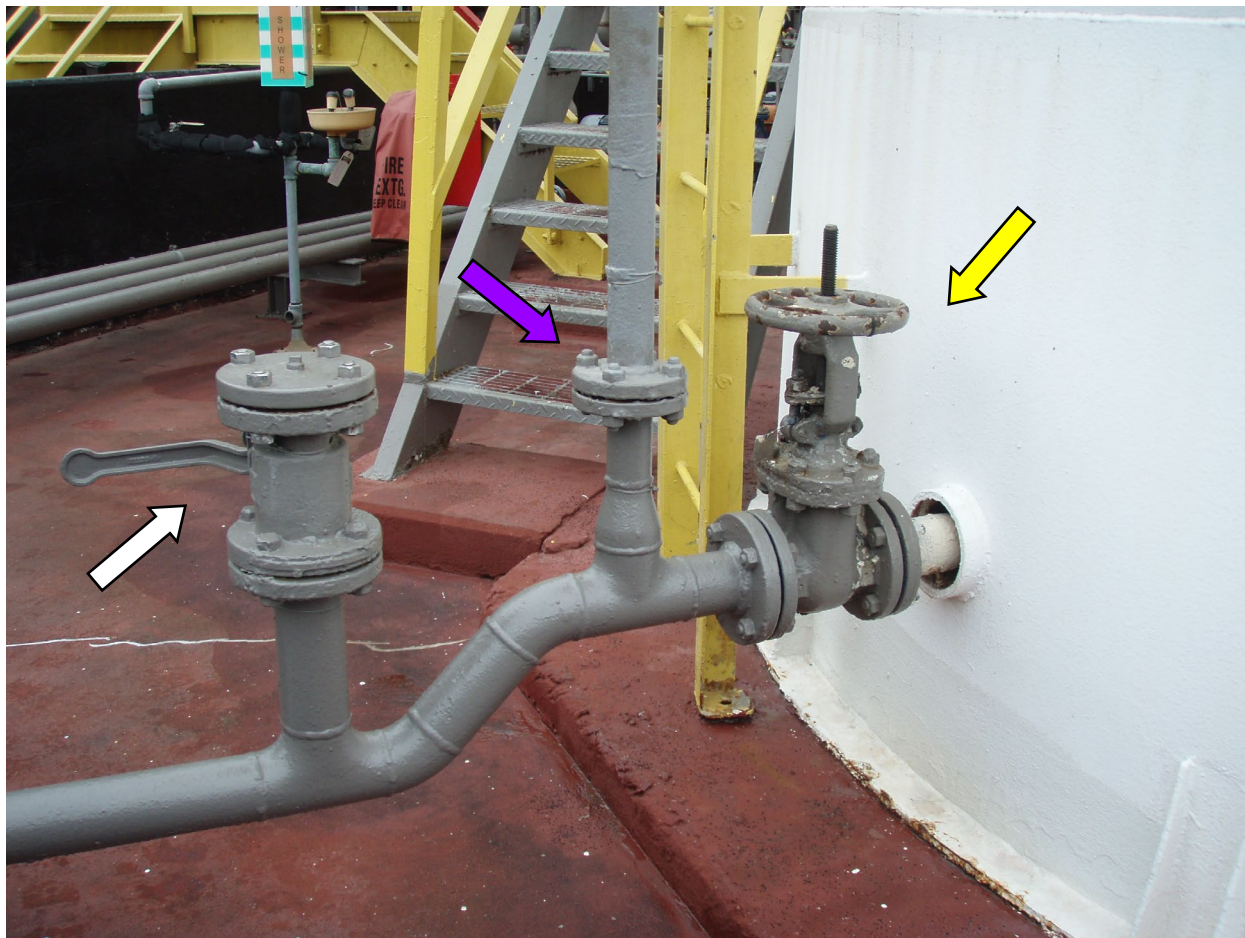


Photo File Name: P2030024.jpg	Date of Photo: 3/2/2023	Time: 1453 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NE. Tank T-100 - Subpart BB equipment tags including #53204 (valve - yellow arrow), #718186 (flange - purple arrow), and #718185 (flange - white arrow). Arrows added to photo for clarification.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 24

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030025.jpg	Date of Photo: 3/2/2023	Time: 1454 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. Receiving Tank T-100 - Contained East Palestine waste in the past.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 25

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030026.jpg	Date of Photo: 3/2/2023	Time: 1458 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing W. Roll-Off <90 Day HW Storage Area - Area where the dried East Palestine waste is stored prior to being shipped off-site.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 26

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030027.jpg	Date of Photo: 3/2/2023	Time: 1504 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing NW. ST-9 <90 Day HW Storage Area - Area where the retained samples are being stored for a month prior to being added into a HW tote shown in Photo #29		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 27

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030028.jpg	Date of Photo: 3/2/2023	Time: 1509 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. ST-9 (Unit #187) <90 Day HW Storage Area - Electrical breaker boxes located across from shelves (right side of photo) where the retained samples are stored for a month prior to being added into a HW tote shown in Photo #29.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 28

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030029.jpg	Date of Photo: 3/2/2023	Time: 1509 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. ST-9 (Unit #187) <90 Day HW Storage Area - Electrical breaker boxes located across from the area where the retained samples are being stored for a month prior to being added into a HW tote shown in Photo #29. Close-up of Photo 27.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 29

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030030.jpg	Date of Photo: 3/2/2023	Time: 1511 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. ST-15 <90 Day HW Storage Area - Four totes of HW generated onsite including Filter Caustic, Filter Acid, Lab Waste Caustic, and Lab Waste Acid. The caustic and acid retained samples, after 30 days, are added into the applicable Lab Waste Caustic and Lab Waste Acid totes.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 30

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030031.jpg	Date of Photo: 3/3/2023	Time: 1142 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. Pipeline manifold for tanks T-56 and T-8 and injection wells within secondary containment.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 31

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

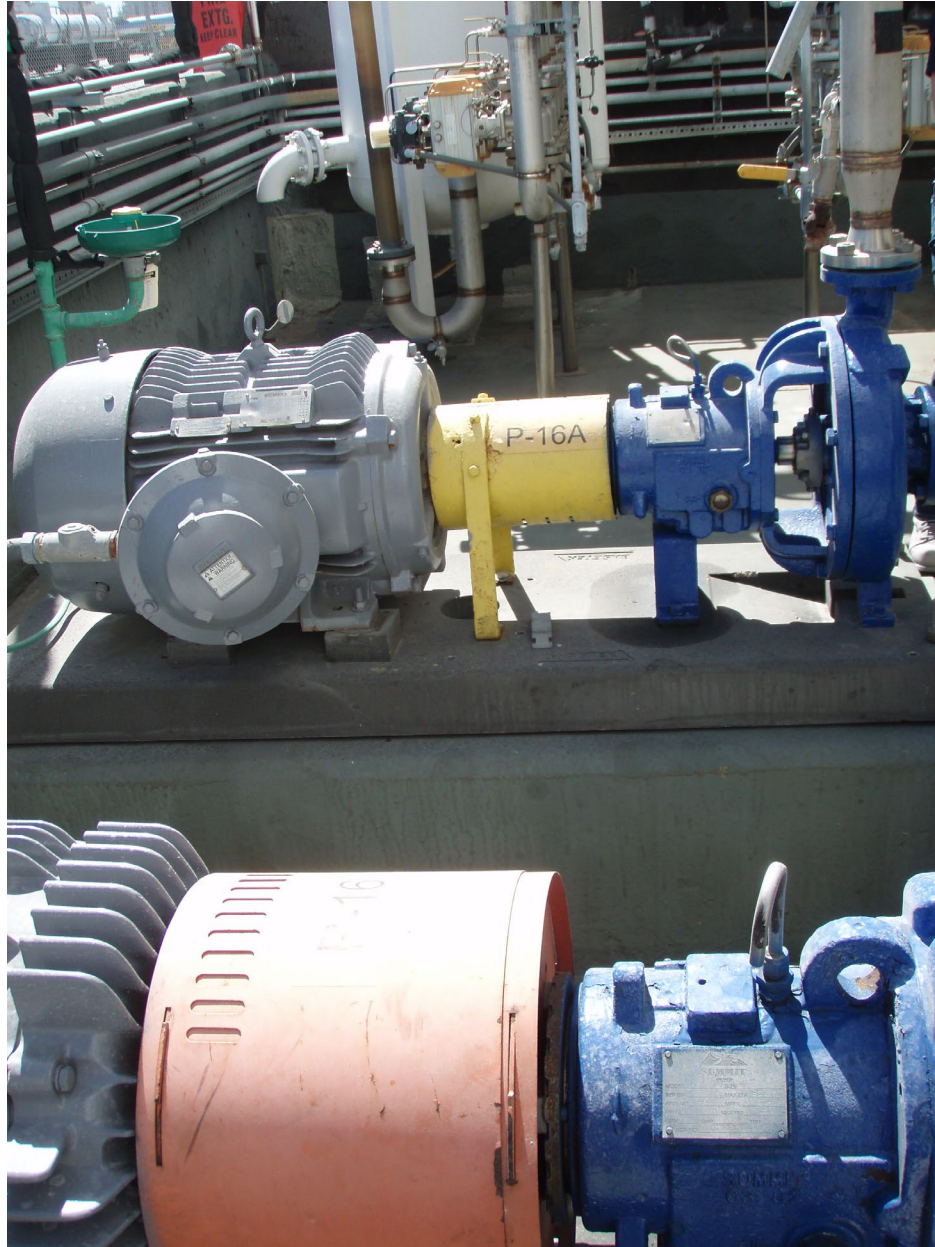


Photo File Name: P2030032.jpg	Date of Photo: 3/3/2023	Time: 1144 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing S. Pumps P-16 and P-16A on pipeline for tanks T-56 and T-8 and injection wells within secondary containment. The small (approximately 1 ft diameter) dark stain under P-16A was stated to be a possible oil leak but not a waste leak. Close-up of Photo 32.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 32

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030033.jpg	Date of Photo: 3/3/2023	Time: 11144 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing S. Pumps P-16 and P-16A on pipeline for tanks T-56 and T-8 and injection wells within secondary containment.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 33

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030034.jpg	Date of Photo: 3/3/2023	Time: 1146 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing E. Filter press used to filter waste from receiving tank T-56 to down hold tank T-8. Accumulation hopper located underneath. The hopper contained two hazardous waste labels (close-ups shown in Photos 34 and Photo 35). The incorrect label shown in Photo 34 was removed at the time of the inspection and was believed to have just been forgotten to be removed.		

Photo File Name: P2030035.jpg	Date of Photo: 3/3/2023	Time: 1147 hrs
Photographer: Dedriel Gardner, EPA Inspector Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing E. Close-up of hazardous waste label dated 1/26/23 on left side of hopper in Photo 33. Sticker was removed upon identification, although apparently there were other labels underneath that were also all removed.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 35

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030036.jpg	Date of Photo: 3/3/2023	Time: 1151 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing E. Close-up of hazardous waste label dated 2/23/23 on right of hopper in Photo 33.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 36

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030037.jpg	Date of Photo: 3/3/2023	Time: 1200 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing S. ST-7 permitted storage area. Totes on right and hoppers on left of hazardous waste being stored.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 37

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030038.jpg	Date of Photo: 3/3/2023	Time: 1201 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SE. ST-7 permitted storage area. Hoppers shown in Photo 36 of hazardous waste being stored.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 38

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030039.jpg	Date of Photo: 3/3/2023	Time: 1209 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing S. Roll-Off <90 Day Storage Area - Close-up of the hazardous waste label dated "Feb/24/23" on roll-off #WT-805 that contained hazardous waste generated from solids removed from some of the East Palestine waste that was mixed with lime dust and other hazardous waste received from off-site.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 39

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030040.jpg	Date of Photo: 3/3/2023	Time: 1210 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing S. Roll-Off <90 Day Storage Area - Close-up of the hazardous waste label dated "Feb/24/23" on roll-off #WT-857 that contained hazardous waste generated from solids removed from some of the East Palestine waste that was mixed with lime dust and other hazardous waste received from off-site.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 40

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030041.jpg	Date of Photo: 3/3/2023	Time: 1210 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SW. Roll-Off <90 Day Storage Area - Two roll-offs (numbers WT-805 and WT-857) containing hazardous waste generated from solids removed from some of the East Palestine waste that was mixed with lime dust and other hazardous waste received from off-site. Close-ups of the labels on each of the roll-offs are shown in Photo 38 and Photo 39. WT-805 is closest to the camera.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 41

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas

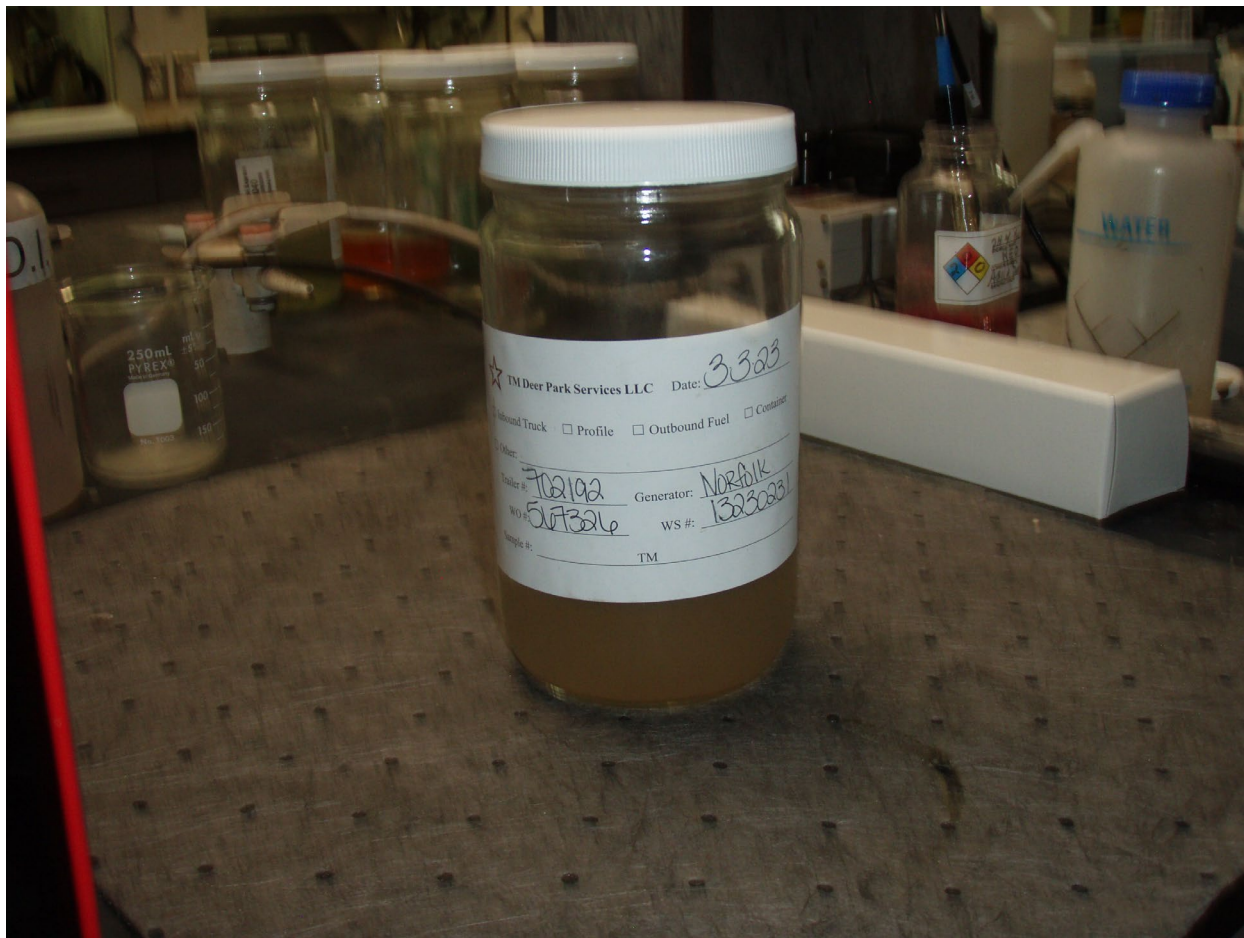


Photo File Name: P2030042.jpg	Date of Photo: 3/3/2023	Time: 1216 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Erin Young-Dahl, EPA Inspector		
Description: Facing SW. Lab on south side of facility. Sample of East Palestine waste taken from tanker truck #702192 on 3/3/23 that was being fingerprinted.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 42

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030043.jpg	Date of Photo: 3/3/2023	Time: 1243 hrs
Photographer: Dedriel Gardner, EPA Inspector		
Witness: Kirk Edwards, TMDP		
Description: Facing NW. Receiving Tank T-6 - Some of the East Palestine waste had been stored in this tank.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 43

Location: Texas Molecular Services, LLC		
City: Deer Park	County/Parish: Harris	State: Texas



Photo File Name: P2030044.jpg	Date of Photo: 3/3/2023	Time: 1244 hrs
Photographer: Dedriel Gardner, EPA Inspector Witness: Kirk Edwards, TMDP		
Description: Facing W. Receiving Tank T-6 (on left of photo) - Some of the East Palestine waste had been stored in this tank. The caution tape surrounds a newly coated area of the secondary containment area.		

Appendix 2

Daily Summaries

All,

Here is a summary of my notes from today's inspection. If there are any errors or omissions, please let me know.

Introduction

On March 2 and 3, 2023, I, Erin Young-Dahl, will be conducting an unannounced, focused inspection of the Texas Molecular facility (TMDP), located at 2525 Independence Pkwy in Deer Park, Texas, for compliance with the Resource Conservation and Recovery Act (RCRA). The focus of the inspection will be on the management of vinyl chloride-contaminated wastewater from the cleanup of the February 3, 2023 Norfolk Southern train derailment in East Palestine, Ohio. I will be assisted on this inspection by Environmental Protection Agency (EPA) inspector Dedriel Gardner and Texas Commission on Environmental Quality investigator Nicole Weist. The inspection will include a walkthrough of the facility's hazardous waste receiving, management, and disposal units and a review of the facility records related to the management of East Palestine hazardous waste.

Purpose

TMDP will be assessed for compliance with RCRA. In particular, the inspection will focus on hazardous waste received by the facility from the site of the Norfolk Southern train derailment and how it is managed from receipt to disposal.

Inspection Attendees:

NAME	TITLE	REPRESENTING	PHONE	EMAIL
Erin Young-Dahl	Physical Scientist – Lead Inspector	US EPA Reg. 6	(214) 665-3166	youngdahl.erin@epa.gov
Dedriel Gardner	Environmental Scientist Engineer – Sr. Inspector	US EPA Reg. 6	(281) 938-2133	gardner.dedriel@epa.gov
Nicole Weist	Environmental Investigator	TCEQ	(713) 767-3656	nicole.weist@tceq.texas.gov
Christina Perez	EHS Director	TMDP	(281) 930-2593	christina.perez@vlses.com
Shandalyn Washington	EHS Manager	TMDP	(281) 930-2523	shandalyn.washington@vlses.com

Daily Summary

- Initial Entry to the facility – 11:30 am
- Opening meeting start – 11:37 am
 - Signed in at guardhouse.
 - Presented credentials to Ms. Perez and informed her that we were there to conduct an inspection of the facility under the authority of Section 3007 of the Resource Conservation and Recovery Act
 - Discussed the purpose of EPA's inspection – assessment of TMDP's compliance with its requirements under RCRA, with focus on East Palestine waste, including, but not limited

to, the requirements for: waste determination and counting; waste marking; waste container management; use of the hazardous waste manifest; emergency planning; personnel training; and air pollution control requirements for hazardous waste units.

- Discussed the right of TMDP to assert a Confidential Business Information claim for records requested by EPA (see attachment)
 - Discussed the process for transferring electronic records – EPA has set up a Microsoft OneDrive folder with access limited to the inspection participants.
- General Facility Process – TMDP is a permitted waste treatment, storage, and disposal facility that specializes in deep well injection of hazardous wastewaters. The facility has been in operation for over 40 years and was recently acquired by VLS Environmental Solutions ~~within the past 2 months~~ **in December, 2022**. The facility operates three Class I underground injection wells and serves a variety of industries that generate hazardous wastewaters and aqueous industrial wastes. TMDP operates 24/7, employs 38 people **onsite**, and occupies a 10-acre footprint, which includes a co-located chemical plant leased by Novvi, LLC. The facility has been receiving East Palestine spill cleanup wastewaters since February 16, 2023 and expects to continue receiving tanker truck shipments from the site **for the expected duration of the cleanup**.
 - Initial request for compliance records (attached)
 - Facility Walkthrough – began at approx. 1:30 pm
 - EPA and TCEQ inspectors, along with TMDP facility personnel Ms. Perez, Ms. Washington, Mr. Kirk Edwards (VP of Operations), and Mr. Felton Greer (Compliance and Materials Manager), toured the facility. Inspectors traced the path of a shipment of East Palestine wastewater from onsite arrival (~1:15 pm) to waste unloading into a receiving tank.
 - Areas of interest:
 - Scale and guardhouse
 - Control room
 - Coordinate unloading pad assignments, monitor tank levels and unit conditions
 - Main truck unloading pad (#2 and #3)
 - Watched workers sample a tanker truck of East Palestine wastewater
 - Following the fingerprinting procedure, watched initiation of the waste unloading into T-56
 - Control room laboratory
 - Fingerprinting: specific gravity, filtration **for T-8 (billing purposes)**, compatibility w/ T-56
 - Daily sample containers set aside on metal shelving unit in bin awaiting relocation to retain building CSA
 - Storage treatment area II N
 - Looked at tank and piping condition, condition of secondary containment area. Tanks T-56 and T-8 have ~~conical~~ **dish** bottoms for ease of inspection and potential leak containment.
 - Receiving tank T-56 capacity 100,000 gal (contained 23,350 gal at time of inspection)
 - Down-hole tank T-8 capacity 40,000 gal

- Injection wells 169 and 249
 - Actively injecting waste (though not East Palestine waste at the time of inspection)
 - Wells 169 and 249 are the two wells used for East Palestine waste disposal, though 169 is the main well used for this activity.
- Stabilization building
 - Fully enclosed operating area. Stabilization done by backhoe-like machinery. Baghouse filters and collection system. Lime kiln dust used in stabilization from LaHoist. **For OH waste, the lime kiln dust is used to help dry the waste before incineration. Stabilization tanks are permitted in-ground tanks**
 - A small percentage of waste from East Palestine was solid and required stabilization in this area. Waste required drying out and was mixed with lime kiln dust before being placed into roll-off boxes and shipped offsite for incineration. TMDP is listed as the generator for the resulting stabilized waste.
 - Inspectors were told this happened earlier in the East Palestine waste receipt period.
- Storage treatment area VIII N
 - Inspected Tank T-100, which received a few tanker truck loads of East Palestine waste earlier in the waste receipt period.
 - This had to do with unloading pad availability, not waste compatibility issues
- 90-day storage area south of unloading pad #6 **(WMU 109)**
 - **Sludge pumped into stabilization bay from tanker trucks. Some solids in totes transported to stabilization bay, but not stored. Some solids placed in totes during high-traffic times at the facility.**
 - Roll-off boxes for macroencapsulation present in the area at the time of inspection
 - Roll-off boxes containing solid East Palestine waste **(waste stream 00175194H in NOR) (mid/late February) were are being stored in this area before being manifested offsite to Clean Harbors for incineration**
- “Retain building” and central storage area 187
 - Central storage area 187 housed sample jars from fingerprinted wastes from the past month, organized by ~~acidity~~ **acidity compatibility** and sampling date. After one month, waste jars are emptied into and consolidated in **one of two totes** in storage area 189 **differentiated by caustic/acid.**
 - Breaker box for the building in close proximity (15 ft) to waste bins. **Breaker box is still active even though the building isn’t in use.**
- “ST-15” 90-day storage area 189
 - Totes consolidating retained samples stored in this area for < 90 days. Wastes are disposed of into wells within the 90 day time limit.
 - Filter press in the area (does not manage East Palestine-related waste)
 - **Two additional totes designated for blowdown from filter press usage.**
- Wrap up meeting with EPA and TCEQ inspectors, Ms. Perez, Ms. Washington, Mr. Edwards, and Mr. Greer. Reviewed outstanding document requests and tentatively planned activities for the following day.

- Departed Facility at approximately 3:45 pm

All,

Here is a summary of my notes from today's inspection. If there are any errors or omissions, please let me know.

*Please note change in document request under item 3b.

Inspection Attendees:

NAME	TITLE	REPRESENTING	PHONE	EMAIL
Erin Young-Dahl	Physical Scientist – Lead Inspector	US EPA Reg. 6	(214) 665-3166	youngdahl.erin@epa.gov
Dedriel Gardner	Environmental Scientist Engineer – Sr. Inspector	US EPA Reg. 6	(281) 938-2133	gardner.dedriel@epa.gov
Nicole Weist	Environmental Investigator	TCEQ	(713) 767-3656	nicole.weist@tceq.texas.gov
Christina Perez	EHS Director	TMDP	(281) 930-2593	christina.perez@vlses.com
Shandalyn Washington	EHS Manager	TMDP	(281) 930-2523	shandalyn.washington@vlses.com

Daily Summary

- Entry to the facility – 9:30 am
 - Reviewed the daily inspection report from 3/2/2023 and made corrections/clarifications as needed. Additions are written in **red**, deleted/changed text has a ~~striketrough~~. Additions and/or clarifications for the 3/3/2023 daily summary are underlined. The altered and added areas are re-pasted *in italics* below:
 - *General Facility Process – TMDP is a permitted waste treatment, storage, and disposal facility that specializes in deep well injection of hazardous wastewaters. The facility has been in operation for over 40 years and was recently acquired by VLS Environmental Solutions ~~within the past 2 months~~ in **December, 2022**. The facility operates three Class I underground injection wells and serves a variety of industries that generate hazardous wastewaters and aqueous industrial wastes. TMDP operates 24/7, employs 38 people **onsite**, and occupies a 10-acre footprint, which includes a co-located chemical plant leased by Novvi, LLC. The facility has been receiving East Palestine spill cleanup wastewaters since February 16, 2023 and expects to continue receiving tanker truck shipments from the site **for the expected duration of the cleanup**.*
 - *Scale and guardhouse*
 - Trucks enter the facility property and check in at the guardhouse. The guard cross-references with the daily schedule, calls in the arrival, and hands off paperwork to the driver.
 - *Control room*
 - *Coordinate unloading pad assignments, monitor tank levels and unit conditions*
 - Trucks are stopped outside this building and receive unloading pad assignment. Paperwork is exchanged inside the control room building.

- Main truck unloading pad (#2 and #3)
 - Observed workers sample a tanker truck of East Palestine wastewater
 - Following the fingerprinting procedure, we watched the initiation of the waste unloading into T-56
 - Workers use a hose to connect to the truck drainage port. TMDP representatives told us this is the only part of the process that does not use hard piping to transfer waste.
 - Inspectors did not identify any areas of concern.
- Control room laboratory
 - Fingerprinting: specific gravity, filtration **for T-8 (billing purposes)**, compatibility w/ T-56
 - Daily sample containers set aside on metal shelving unit in bin awaiting relocation to retain building CSA
 - Inspectors did not identify any areas of concern.
- Storage treatment area II N
 - Looked at tank and piping condition, condition of secondary containment area. Tanks T-56 and T-8 have ~~conical~~ **dish** bottoms for ease of inspection and potential leak containment.
 - Receiving tank T-56 capacity 100,000 gal (contained 23,350 gal at time of inspection)
 - Down-hole tank T-8 capacity 40,000 gal
 - Tanks and piping are Subpart CC- and BB-applicable, respectively.
 - Before wastes are injected, waste samples are taken every two hours OR when operators change downhole tanks.
 - Inspectors did not identify any areas of concern.
- Injection wells 169 and 249
 - Actively injecting waste (though not EP waste at the time of inspection)
 - Wells 169 and 249 are the two wells used for EP waste disposal, though 169 is the main well used for this activity.
 - TMDP UIC permits specify that the combined rate of injection for all three wells onsite shall not exceed 450 gallons/min.
 - Inspectors did not identify any areas of concern.
- Stabilization building
 - Fully enclosed operating area. Stabilization done by backhoe-like machinery. Baghouse filters and collection system. Lime kiln dust used in stabilization from LaHoist. **For OH waste, the lime kiln dust is used to help dry the waste before incineration. Stabilization tanks are permitted in-ground tanks**
 - A small percentage of waste from East Palestine was solid and required stabilization in this area. Waste required drying out and was mixed with lime kiln dust before being placed into roll-off boxes and shipped offsite for incineration. TMDP is listed as the generator for the resulting stabilized waste.
 - Inspectors were told this happened earlier in the East Palestine waste receipt period.
 - Inspectors did not identify any areas of concern.
- Storage treatment area VIII N
 - Inspected Tank T-100, which received a few tanker truck loads of East Palestine waste earlier in the waste receipt period.
 - This had to do with unloading pad availability, not waste compatibility issues
 - Inspectors did not identify any areas of concern.
- 90-day storage area south of unloading pad #6 (**WMU 109**)

- *Sludge pumped into stabilization bay from tanker trucks. Some solids in totes transported to stabilization bay, but not stored. Some solids placed in totes during high-traffic times at the facility.*
 - *Roll-off boxes for macroencapsulation present in the area at the time of inspection*
 - *Roll-off boxes containing solid East Palestine waste (waste stream 00175194H in NOR) (mid/late February) were are being stored in this area before being manifested offsite to Clean Harbors for incineration*
 - *Inspectors did not identify any areas of concern.*
 - *“Retain building” and central storage area 187*
 - *Central storage area 187 housed sample jars from fingerprinted wastes from the past month, organized by acidity compatibility and sampling date. After one month, waste jars are emptied into and consolidated in one of two totes in storage area 189 differentiated by caustic/acid.*
 - *Breaker box for the building in close proximity (15 ft) to waste bins. Breaker box is still active even though the building isn't in use.*
 - *Mr. Edwards estimated that the amount of ignitable wastewaters in this area is small. As of the time of inspection on 3/3/23, TMDP was actively considering placing applicable ignitable wastes in a flammables cabinet.*
 - *“ST-15” 90-day storage area 189*
 - *Totes consolidating retained samples stored in this area for < 90 days. Wastes are disposed of into wells within the 90 day time limit.*
 - *Filter press in the area (does not manage East Palestine-related waste)*
 - *Two additional totes designated for blowdown from filter press usage.*
 - *Inspectors did not identify any areas of concern.*
- After reviewing daily summary notes from 3/2/23, inspectors, accompanied by Ms. Perez, Ms. Washington, Mr. Edwards, and Mr. Greer, inspected additional areas of the facility pertinent to the management of East Palestine wastes and received additional clarification of processes in areas inspected the day before. By the time inspectors commenced the day's walking inspection, one tanker truck load of East Palestine waste had already been sampled and fingerprinted.
 - We discussed the prior day's EP waste receipt numbers. In total, the facility received 45,171 gallons of EP wastewater in nine trucks on 3/2/2023. Overnight, TMDP injected approximately 70,000 gallons of wastewater into well #249, which included 3 loads of non-EP wastewater.
 - Mr. Edwards estimated an average wastewater turnaround (from receipt to injection) of 24 hours. He also estimated that trucks are onsite (from receipt to unloading) for 45 minutes to 2 hours, depending on how busy the facility is on a given day.
 - We clarified that the tanks that manage EP wastewater are T-56, T-100, T-6, and T-8. T-56 is exclusively managing EP wastewater. T-8 manages EP wastewater and one other compatible waste stream. T-100 and T-6 are used as needed depending on compatibility and unloading pad availability.
 - We clarified that the injection wells taking up EP waste are 169 and 249. Well 422 could take up EP waste, but has not yet as of the time of the inspection.
 - TMDP was scheduled to receive 25 truckloads of EP waste on 3/3/2023.
 - Continuation of facility walkthrough:
 - Load sampling and fingerprinting

- Inspectors observed a TMDP employee sample tanker truck #702192, which was carrying East Palestine wastewater. The truck was scheduled to unload at Pad #2.
- In the control room lab, we then watched the fingerprinting process on the EP wastewater, which included the following tests:
 - pH – monitor and gauge used are calibrated every Monday and Thursday morning according to the facility.
 - Compatibility – wastewater and a sample of wastewater from T-56 are mixed and observed for any reaction. No reaction occurred.
 - Specific gravity – scale is tared, and 200 mL of wastewater is weighed to calculate specific gravity.
 - Filtration – workers first test the speed of vacuum filtration of 200 mL of wastewater through a 5 µm filter. If the wastewater does not filter quickly enough, the wastewater is then mixed with T-8 wastewater in a 1:1 ratio and filter tested again. The process repeats until the wastewater meets filtration requirements as specified in the facility's WAP. Note that this test does not affect the way TMDP manages the waste, but is used to calculate fees owed by the waste generator for disposal.
 - Solids – wastewater mixed with T-56 sample is centrifuged for 1-3 minutes to determine solids content. No solids separated from the EP wastewater from this truck load.
- At the end of this day's walking inspection, we observed the sample undergo a flash point test. To perform the test, the lab worker mixed up the waste in the sample jar and pipetted the homogenized waste into a Rapid Tester – Flash Point Tester machine in a small hood. The EP sample did not flash.
- Inspectors found no areas of concern here.
- Piping of EP waste between T-56 and well #169 and #249
 - Inspectors then walked over to storage treatment area II N to trace the path of EP wastewaters from T-56 to its ultimate destination, well 169 or well 249. We observed the piping from T-56 to filtration pump P-16. An automated manifold then ensures the waste is then pumped to filter press DE-7. The manifold is controlled from the control room, but all pipes and valves may also be operated manually.
 - Once the wastewater is filtered at DE-7, the clean filtrate is piped to downhole tank T-8. When T-8 levels are high enough to begin injection, the contents of T-8 are piped to down-hole pump P-16A, which pumps the waste into the appropriate injection well. P-16A can also be used as a filtration pump, but its main purpose is down-hole pumping. An old oil stain underneath the pump was explained to be an old drip from the pump engine or the result of a maintenance activity.
 - Inspectors found no areas of concern here.
- Filter press DE-7
 - We next saw filter press DE-7, although it was not actively managing waste at the time of the inspection. DE-7 takes all EP wastewaters,

among other waste streams at different times. Mr. Edwards explained that filter cake from a filtration event drops into a hopper beneath the press. Once the filter press stops actively managing waste, the hopper is capped with a metal lid fitted with a gasket for a complete seal. The filter press area is a 90-day storage area, but filter cake waste from EP may also be transferred to the facility's permitted storage area #123. Inspectors found no areas of concern here.

- Permitted storage area ST-7
 - In the permitted storage area, we observed three full, covered hoppers containing filter cake from onsite filter presses, though not necessarily DE-7. Hoppers were labeled and dated. A number of full totes were also being stored in the area at the time of the inspection. The ground surface was uncoated. Inspectors found no areas of concern here.
- Storage area south of Pad #6 (unit #109)
 - We then inspected the storage area unit #109 and looked at two roll-off boxes (WT-857 and WT-805) containing the dried and stabilized EP waste solids mixed with one other compatible solid-phase waste stream. The contents of the roll-off boxes have been profiled by TMDP and await shipment to Clean Harbors – Deer Park for incineration. Inspectors found no areas of concern here.
- Receiving tank T-6
 - Inspector Gardner observed tank T-6, which also manages EP waste. The tank was not actively managing EP waste at the time of inspection. Facility representatives told us that the decision to put some truckloads of EP waste into T-6 instead of T-100 or T-56 depends mainly on injection efficiency. No areas of concern were noted.
 - T-6 has a capacity of 73,000 gal.
- Inspectors then conducted onsite document review of work orders (shipping documents and fingerprint data) and manifests from 2/16/23 through 3/1/23.
 - Work orders recorded receipt and testing of seven truckloads of EP waste that contained solids. Five of these truckloads arrived on 2/20, one on 2/21, and one on 2/27. Percentage of solids ranged from 5% to 30%, with an average of approximately 10% volume. In sum, these truckloads accounted for 5,865 gallons of solid-phase EP waste that required stabilization by TMDP.
 - Manifests all recorded the U043 listed waste code for vinyl chloride and all appropriate signatures were present. Discrepancies in weight of greater than 10% were noted. At the top of each manifest, TMDP recorded the actual weight (lbs) and volume (gallons) of EP waste received.
- I initiated a closeout meeting at 1:40 pm. Dedriel Gardner, Nicole Weist, Christina Perez, Shandalyn Washington, and Kirk Edwards were all in attendance. I discussed outstanding document requests (updated request list attached), overall inspection findings, and what TMDP should expect for next steps from EPA. Inspectors departed the facility at 2:00 pm.

Appendix 3

Fingerprint Testing

FINGERPRINT TESTING

On March 3, 2023, EPA and TCEQ observed the fingerprinting process, in the control room lab, on the East Palestine (EP) wastewater. The tests conducted on truck #702192 included:

- **pH** – The pH monitor and gauge used are calibrated every Monday and Thursday morning according to the facility. The EP wastewater had a neutral (approx. 7) pH.
- **Compatibility** – Sampled wastewater from the tanker truck and a sample of wastewater from the assigned receiving tank (T-56) are mixed and observed for any reaction. No reaction occurred.
- **Specific gravity** – First, the scale is tared to an empty beaker. Then, 200 mL of wastewater is weighed to calculate specific gravity.
- **Filtration** – Workers first test the speed of vacuum filtration of 200 mL of wastewater through a 5 µm filter. If the wastewater does not filter quickly enough (within 20 seconds), the wastewater is then mixed with assigned down-hole tank (T-8) wastewater in a 1:1 ratio and filter tested again. The process repeats until the wastewater meets filtration requirements as specified in the facility's Waste Analysis Plan. Note that this test does not affect the way TMDP manages the waste, but it is used to calculate fees owed by the waste generator for disposal. This load of EP wastewater filtered "clean" (within 20 seconds) after additional dilution.
- **Solids** – Wastewater mixed with T-56 sample is centrifuged for 1-3 minutes to determine solids content. No solids separated from this truck load of EP wastewater.
- **Flash Point*** – Wastewater is mixed up in the sample jar and pipetted into a Rapid Tester – Flash Point Tester machine in a small hood. The EP sample did not flash.

*NOTE: The flash point procedure is performed in a lab on the south side of the facility next to the Retain Building.