

Bradford Soil and Water Conservation District's Questions About the Chemours Trail Ridge South Mine in Bradford and Clay Counties Florida

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Based on the information about the Chemours Trail Ridge South (TRS) Mine in the documents we found in OCULUS, and the 1/29/2024 Google Earth imagery of the TRS Mine Bradford Soil and Water Conservation District (BSWCD) has several concerns about the operation of the TRS Mine on Suwannee River Water Management District (SRWMD) property in Bradford County. The BSWCD believes that answers to the questions asked in this document will help reduce the chances of environmental impacts from the operation of the Chemours TRS Mine in the future and the failure of stormwater containment systems during and after significant rain events. The predictions that this may be a year with an active hurricane season should be a consideration in obtaining answers to the BSWCD questions.

The OCULUS documents being referenced are in bold type.

The Google Earth imagery from 1/24/2024 that was downloaded between 4/24/2024 and 5/6/2024 provides a method to view the TRS Mine and its Impacts.

Permit Language

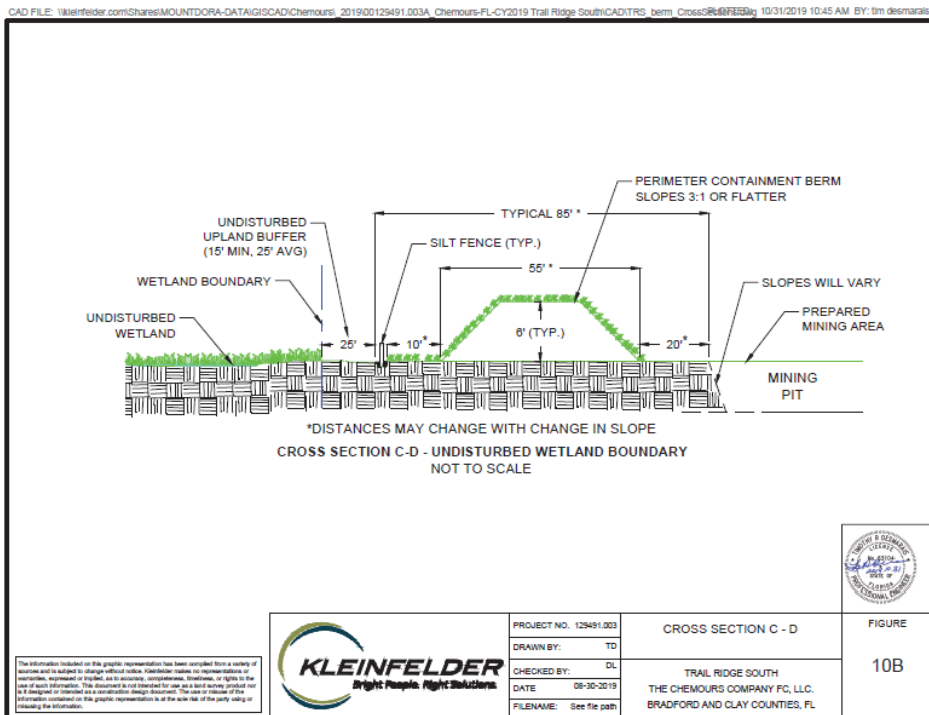
Permit Number: MMR_137482-018 states on page 2:

The Trail Ridge South Mine will be mined via mobile mining units, with a land-based separation plant site, the mobile concentrator. Approximately 1,548.99 acres will be mined. The depth of mining will average 22 feet below grade with a maximum depth of 40 feet below grade. Groundwater will be maintained a minimum of 1-foot below ground surface using a ditch and sump system to allow equipment to access material. Mining cells will be dewatered in advance of mining via rim ditches and hydraulic pumps operating within the mining cell perimeter containment berm. The dewatering effluent will be mixed with the excavated ore (after oversize materials are removed) to form a slurry that will be pumped to the process water pond at the plant site for further processing. After each mine cell has been excavated, sand tailings from the plant site will be pumped into the excavated pit. Excess water from the tailings will be decanted and incorporated into the active mining process for the next mine cell. Reclamation of mined areas will occur concurrently with mining. As mining and reclamation progress, new areas will be incorporated into the stormwater management system and reclaimed areas will be removed from the system. Approximately 160 acres (80 acres per Mobile Mining Unit) may be in various stages of the mining process (site preparation, active mining, tailings, contouring/reclamation) at the active mining areas at one time. The stormwater management system will be capable of containing the runoff from a 25-year, 24-hour storm event.

Permit No.: ST404_137482-022 states on: Page 4 of 33

Reclamation of mined areas will occur concurrently with mining. As mining and reclamation progress, new areas will be incorporated into the stormwater management system and reclaimed areas will be removed from the system. The stormwater management system will be capable of containing the runoff from a 25-year, 24-hour storm event. The construction of the Trail Ridge South Plant Site, including the laydown area, processing area, and stormwater ponds, is authorized under ERP # MMR_137482-017. The construction of the industrial wastewater ponds (Process Pond, IWW Pond 1-Lime Neutralization Pond, IWW Pond 2-Treatment Pond, and IWW Pond 3- Final Effluent Pond) is permitted under the associated Environmental Resource Permit (MMR_137482-018). The operation and reclamation of the Trail Ridge South Plant Site are authorized under the associated Environmental Resource Permit (MMR_137482-018). The construction of which, including reclamation, will be completed by the year 2035. The excavation and overall project areas will have a perimeter berm to retain runoff with zero offsite discharge resulting from the 25-year, 24-hour design storm event. Excavation is not proposed to result in significant permanent alteration of the topography post-reclamation, as the target mineral resource comprises only approximately 2-3% of excavated material volume.

Permit Number: MMR_137482-018 Attachments



Comparison of Google Earth Images and Permit Maps



Google Earth 1/29/2024

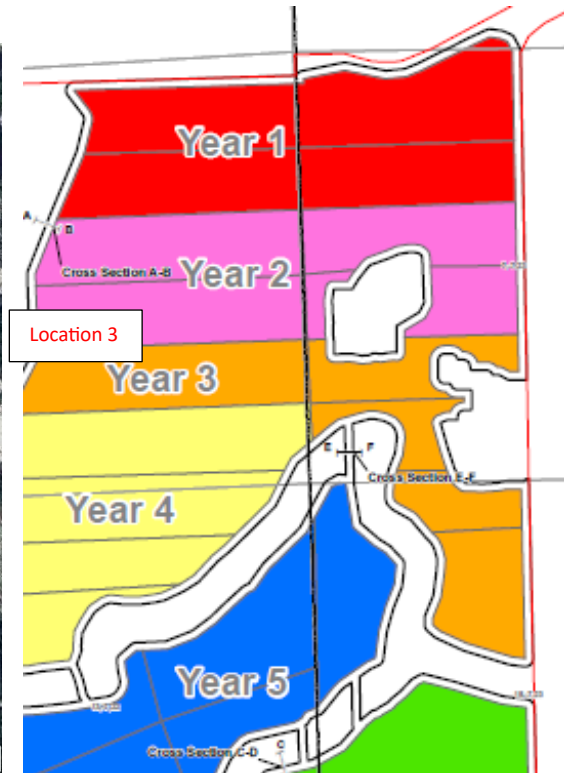


Figure 10 Attachments MMR_137482-018

The disturbed area in the Google Earth image does not appear to match that area noted in the two different Figure 10 images from the two permits.

Do the activities seen in the Google Earth image meet permit requirements with respect to timing of mining activities?

Should the two Figure 10 maps be updated with a permit modification?

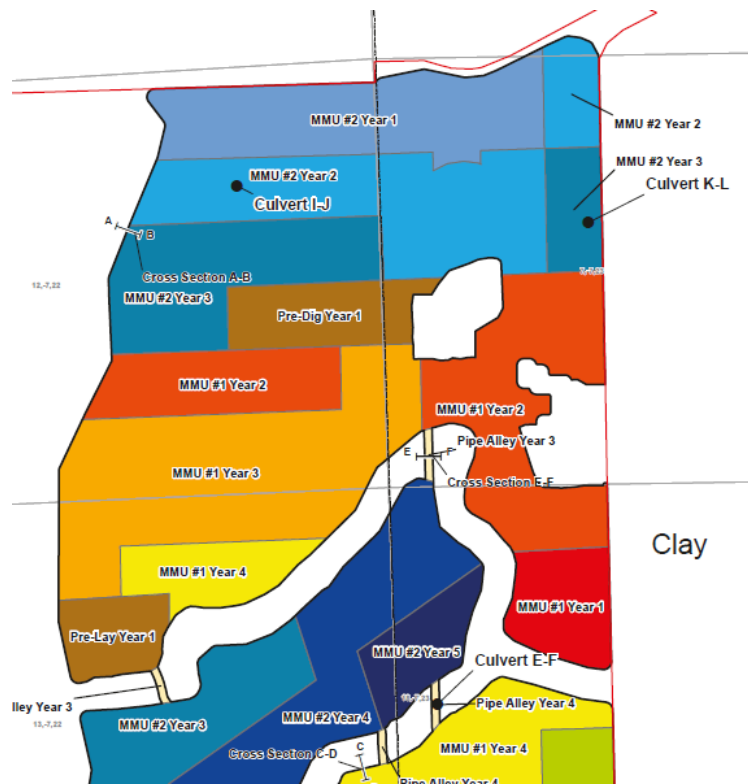


Figure 10 Permit No: ST404_137482-022

The BSWCD has broken up the Google Earth imagery into the four Locations in the image on the below. The Google Earth zoomed in imagery from each location is used to identify specific areas where we have questions.



Google Earth 1/29/2024

2022 Annual Report and 2023 Annual Report

2022 Annual Report page 1 states

c. Work Completed Calendar Year 2022 (MMR 38c and ST40437c)

Work was initiated on June 27, 2022, with the initial pre-dig pit. The pre-dig pit was excavated with the sand being stock-piled as the pit provides the space for the tailings upon start-up. The first HMS through the plant was October 26, 2022.

Figure 10 of Permit No: ST404_137482-022 copied on page 3 of this document appears to place the pre-dig pit in the Location 2 of the Google Earth images.

Location 2 Pre-dig Year 1



What are the source of the soils in this image?



What is the sources of the soils in this image?

What is the source of the water in the image?

What is the depth of the water in the image?

Has the water depth varied over time?

What is the height of the permitter berm?

What are the materials piled to the east of the permitter berm in the upper right corner of the above image?

What prevents water flow from moving soils to the east of the piles of materials?

What is the function of the 4 ponds at the top of the image?

What is the black material being deposited in the southeast part of the site?

What are the soils in the tall pile on next to the water on the west side of the site?

How deep was the pit?

What is the area of the pit?

What is the status of the stockpiled sand?

Did the pit receive water with radium levels of 9.3 piC/L noted in the radium exceedance documents?

What were/are the radium levels of the tailings?

Should the pre-dig pit area be shown as mined?



What is the function of the unit in the above image of the southeast corner of Location 2?

When was this unit installed?

Why is this disturbed area around the unit not noted in the 2023 Annual Report?

Do the perimeter berms for the unit meet the permit requirements?

Where is this unit referenced in the permit documents?

Many black pipes can be seen in this image and throughout the mine site. What is the plan for removing the pipes as the pipes are replaced, are no longer used or after mining has been completed?

Parts of the **2023 Annual Report** are copied below along with questions associated with the copied materials.

Page 2 2023 Annual Report

e. Work Completed Calendar Year 2023 (MMR 38c and ST40437c)

Mining occurred in approximately 84.8 acres within Cells B001, B002 and A001. Clearing and disturbance only accounted for approximately 54.1 (Figure 1 and Table 1). Wetland impacts for both the ST404 and MMR totaled approximately 72.0 and 73.6 acres respectively (Figures 2A and 2B).

Wetland ID	ST 404	MMR
W1	15.7	15.7
W5	22.4	22.4
W21	34.0	34.0
W4		0.7
W21		0.8
Total	72.0	73.6

Approximately 34.5 acres have been tailed and 24.1 acres were contoured in CY 2023 (Figure 3). The enhancement area was completed and planted in CY 2024.

Has DEP attempted to validate the above information?

Page 3 2023 Annual Report

g. Problems Encountered, Solutions implemented/Proposed (MMR 38 e)

There was a malfunction with the thickener that caused solid overflow into the process pond. A dredge was leased to remove the solids from the pond. Work will continue into early 2024.

Why is the April 2023 radium exceedance not included in g?



Is the thickener referenced in g the round unit in the above image?



Is the dredge seen in the process pond in the above Google Earth image on the right the dredge referenced in g?

What was the date of the malfunction?

Was DEP informed of the malfunction?

Did Chemours continue using the process pond during the dredging?

If the process pond was not used what was the last date it received process water and where was the process water held?

Where were the materials pumped from the dredge pumped to?

Where were the dredged materials disposed?

Were the dredged materials analyzed for radium and barium or any other regulated chemicals?

What are the radium levels of the water remaining in the process pond?

How was the holding volume of the process pond impacted by the excess solids?

Page 3 **2023 Annual Report**

i. **Groundwater Report (MMR 38g (SC 31 and ST404 37f)**

Piezometer and staff gauges were installed per the Undisturbed Wetland monitoring Program in August 2021. Two additional piezometers per the ST404 permit were installed in July 2022. The report was uploaded to the Department’s FTP site on February 16, 2024.



The Chemours Company FC, LLC
Trail Ridge South Mine MMR_137482-018
Undisturbed Wetlands Monitoring Data
January 2023 – December 2023

As required by MMR_137482-018 and ST404_137482-022, the following provides a summary of the monitoring associated with the undisturbed wetlands adjacent to the Trail Ridge South Mine.

- Enc. Permit Figure 17 – Undisturbed Wetland Monitoring Piezometer and Staff Gauges Location Map
- Permit Figure 18 – Undisturbed Wetland Monitoring Piezometer and Staff Gauges Location Map
- Table 1: Trail Ridge South Monitoring Piezometer Locations
- Wetland Monitoring Data Sheets; (January 2023 to December 2023)
- Hydrologic Data Graphs 1 - 15

Where can the enclosures be found on OCULUS?

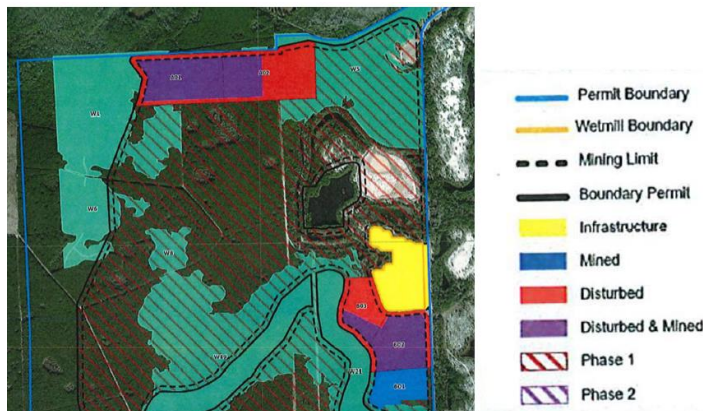
Page 4 **2023 Annual Report**

i. **Surface Water Quality Monitoring Reports (ST404 37g)**

Surface water quality monitoring reports have been submitted to the Department per the schedule in the MMR report, due monthly.

Where can the monthly MMR reports be found on OCULUS?

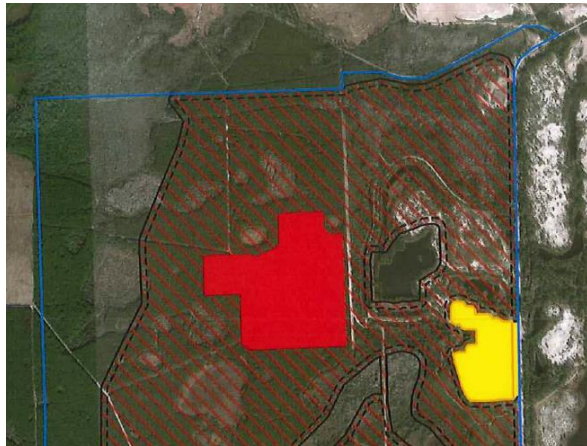
2023 Annual Report Figure 1



What is the difference between Permit Boundary, Boundary Permit, and Mining Limit?

What is the difference between Mined and Disturbed & Mined?

2022 and 2023 Annual Report Figures



From 2022 Annual Report Figure 1
Mined/Disturbed

From 2022 Annual Report Figure 3
Reclamation Status 2022

Since the heavy mineral sands have been removed and stockpiled, should the pre-dig pit area in tan in the image on the right be shown as disturbed & mined in the image on the left?



From 2023 Annual Report Figure 3 Reclamation Status 2023

If there was a pit associated with the 2023 tailed area, how deep was the pit?

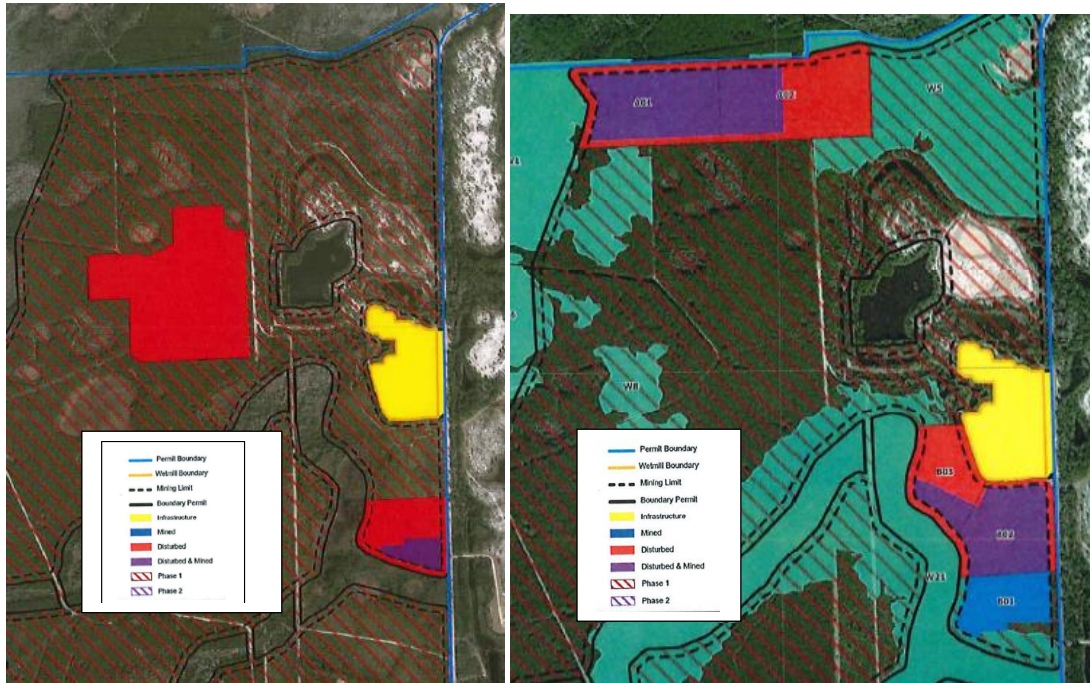
What is the area of the 2023 tailed area?

What is the status of the stockpiled sand?

Did the pit receive water with radium levels of 9.3 piC/L noted in the radium exceedance documents?

What were/are the radium levels of the tailings deposited in Location 2?

Should the pre-dig pit area be shown as mined?



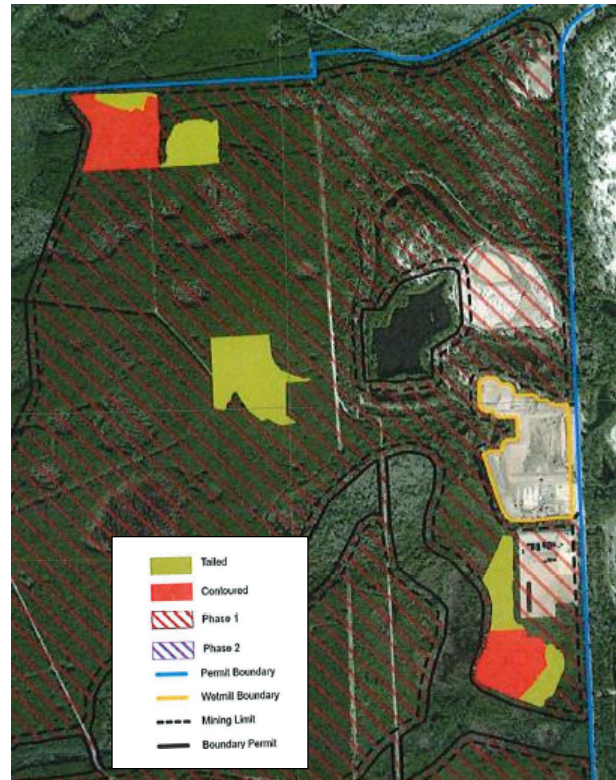
From 2022 Annual Report Figure 3 2023 Annual Report Figure 1 Mined/Disturbed Reclamation Status 2022

Is Figure 1 from the 2023 Annual Report misleading because it does not show the disturbance noted in the 2022 Annual Report and the current conditions seen in the 1/29/2024 Google Earth Imagery?

Comparison of Google Earth Images and Annual Report Images



Google Earth 1/29/2024



From 2023 Annual Report Figure 3
Reclamation Status 2023

Does the 2023 Annual Report accurately describe the disturbance, mining tailing, and contouring in the Google Earth image?

Why is the area in the lower right shown as phase 1 when it appears to have been mined and is covered with water in the Google Earth image?

Are the parts of Locations 1, 2, and 4 that are filled with water being used to avoid discharging water and reporting on water quality requirements?

Should the water in Locations 1, 2, and 4 be analyzed for constituents such as radium, barium, and iron to determine potential impacts on groundwater?

How would a significant rain event impact the water levels seen in Locations 1, 2, and 4?

How would a significant rain event impact the containment berms associated with Locations 1, 2, and 4?

Calculation of the Location Impacted by Mining and Processing

The 2022 and 2023 Annual Reports Table 1 Mining Summary

Table 1: 2022 Mining Summary

Mine	Acres Mined	Acres Disturbed Only	Acres in Mining Operations*	Acres Reclaimed**	Planned 2023 Mining	Acres Released
Trail Ridge South	6.4	104.6	20.8	0.0	123.9	0.0

* Mining Operations - water storage areas, tailing, contouring
 **Reclaimed - initial revegetation to approved land use completed

Table 1: Trail Ridge South - 2023 Mining Summary

Mine	Acres Mined	Acres Disturbed Only	Acres in Mining Operations*	Acres Reclaimed**	Planned 2024 Mining	Acres Released
Trail Ridge South	84.8	54.1	72.0	0.0	154.8	0.0

* Mining Operations - water storage areas, tailing, contouring
 **Reclaimed - initial revegetation to approved land use completed

The Google Earth Ruler function was used to measure the area covered by each of the 4 locations. The results are shown below.

Location 1 Northwest Mine Cell



81.81 acres

Location 2 Pre-dig Year 1



87.28 acres

Location 3 IWW Treatment Ponds, Process Pond, and Plant Units



30.45 acres

Location 4 Southeast Mine Cell



68.02 acres

The estimated Acres in Mining Operations shown in Table 1 appears to be less than the 268 acres estimated from the Google Earth images.

Has DEP attempted to validate the information in Table 1?

Parts of the **March 23,2023, Wastewater Inspection Report** are copied below.



**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
WASTEWATER COMPLIANCE INSPECTION REPORT**

Facility Details

Facility Name	Florida Mine – Trail Ridge South			WAFR ID	FL0A00014
Physical Address	5222 Treat Road			City, State, Zip	Starke, Florida 32091
County	Bradford and Clay County			Facility Phone #	(904) 539 -7101
Permit Issued:	8/12/2022			Permit Expiration:	8/11/2027
Facility Type	Industrial Wastewater			Is the Facility NPDES (Y/N)	Yes
Latitude	Degrees °	29	Minutes *	54	Seconds " 46.15
Longitude	Degrees °	82	Minutes *	1	Seconds " 52.35

Inspection Details

Inspection Type	Entry Date		Exit Date		
CEI	3/23/2023		3/23/2023		
	Entry Time (HH:MM AM/PM)		Exit Time (HH:MM AM/PM)		
	10:30 AM		2:30 PM		
Sampling Taken (Y/N)	No	RQ #	N/A	QA Conducted (Y/N)	No
Name(s) and Title of Field Representatives(s)	Operator Certification		Email	Phone Number	

Page 14

DMRs review period	10/1/2022 – 2/28/2023 Yes
Are the groundwater monitoring results sent to the Department on Discharge Monitoring Report, Form 62-620.910(10), F.A.C. or entered into EzDMR and submitted by the DMR due date?	Yes
procedures and treatment?	
Do the groundwater monitoring wells meet DEP requirements including; tamper-proof locks, unique well label(s), concrete well pad with protective bumpers not containing numerous cracks, and is free of clutter for sampling purposes.	Yes

Observations:
Groundwater wells have not been completed yet, due to unavailability of the drill rig team. Facility is required to sample groundwater semi-annual.

How can you have the 3 Yes responses if the groundwater wells had not been completed?

Why was the TRS Mine allowed to begin operation before the monitoring wells were installed?

May 23,2023, Chemours document regarding the April 2023 Radium Exceedance

The following provides additional information pertaining to the radium 226/228 exceedance from the Trail Ridge South D001 outfall during the April 2023 release. Per the notification to the Department on May 17, 2023 (verbal) and email (May 18, 2023, the radium 226/228 was reported to be 9.3 pCi/L and gross alpha was 6.2 pCi/L (permit limits of 5.0 pCi/L and 15.0 pCi/L, respectively).

A discharge was initiated on April 12 through 28, 2023. The monthly radium sample was taken on April 19. Results of the radium sample became available on May 16, 2023. No discharge has occurred since April 28, 2023.

Two internal Ra-228 samples were taken prior to the discharge to estimate Ra- 226/228 values and did not contain elevated levels. Currently, barium chloride is being added to the treatment process, as a preventative measure, as it has been shown to remove radium from water.

A complete Root Cause Analysis (RCA) will be conducted on this incident. Should you have any questions regarding the attached, please do not hesitate to contact me at 904.263.8592.

Why was April 2023 Radium Exceedance not referenced in the 2023 Annual Report?

What are the results from the Root Cause Analysis?

What was/is the source of the radium?

How did Chemours alter its systems to avoid discharges from its IWW system?

How much barium chloride is being added and where in the treatment system is it being added?

Is the barium/radium material collected or just included with the tailings?

Should barium be added to the monthly DMR?

What is the radium content of all the water bodies seen in the Google Earth images of mined areas?

What is the radium content of the tailings that have been and are being deposited in Bradford County?

Trail Ridge South Release Incident NO. 20024-0997 5 day Report

Page 1

Summary of Incident

As discussed with our original notification, cells are in various phases of mining activity (clearing, mining, tailing and reclamation). Reclamation is ongoing in the northwest corner of the mining boundary. A portion of the reclamation cell remains bermed (northern perimeter and portion of western perimeter). Topsoil was being returned in the southern portion of the reclamation cell. At 6:20 am, operators noticed water on the topsoiled area and also water flowing over the northwest berm. Operators immediately constructed a berm to contain the water from the topsoiled area and built up the northwest corner of the remaining berm. Supervision was notified and the operations were shut down. Review of the area for source of water indicated a “washout” by the active tailings line which caused water to flow back toward the reclamation cell. From the topsoiled area, water left the site at an historic fire break and water from the northwest corner of the reclamation cell entered the adjacent offsite wetland. The water did not contain humate and there was not any breach of the reclamation cell structure. There was no deposition of sediment in the wetland.

What is meant by “A portion of the reclamation cell remains bermed”?

Why was only a portion of the cell bermed?

Where was the “water on the topsoiled area”?

Where was “water flowing over the northwest berm”?

Page 1

Immediate actions taken upon discovery

- Area bermed
- Operations shut down.

Page 2

- Supervision and Environmental notified
- Rain pump in cell started to reduce water levels
- Environmental Assessment of release area
- Silt fence repair

Refer to Exhibit A which provides a graphic of the area where water was released and the sampling locations. Additionally Exhibit B provides photo representation of the reclamation cell, Area 1 and Area 2 sampling locations, and perimeter sampling locations.

What operations were shut down?

When were operations restarted?

What was the location of the process water line discharge point at the time of the breach?

What were the sources for the water that was being discharged at the process waterline discharge point?

What was the location of the “washout” by the active tailings line”?

Is there an image of the “washout”?

Was the process water discharge point relocated after the incident?

Is the pump in the upper right image on page 23 of this document the “Rain pump”?

What was the time and date of each of the bulleted items?

Page 2

Estimate of volume of water released

Upon the Department’s request for volume released, a worst case scenario was provided to the Department on February 1, 2024. This estimate was based on pipe flow calculations over time. The operational area was inspected at 3:00 am indicated no issues and from the 6:20 am discovery of the water release from the site. Calculation:

Average Flow:	4,182	gpm
Total Minutes:	200	min
Total Volume:	836,323	gal

As discussed in our February 1 email, additional survey data was being conducted as some water was retained onsite within the northwest corner berm (Exhibit B).

- Total tailing pipe volume during event = **836,323 gal**
- Total volume contained within mine boundary = **642,128 gal**
- **Total volume released = 194,195 gal**

How was the operational area inspected at 3:00 am?

How was it documented that the “washout” location was visited at 3:00 am?

How was the 200 minute time determined?

Were there any other points where process water was being discharged?

What was the rate of water being pumped into the process pond?

How was it documented that the south end of the breached berms was intact at 3:00 am?

How do the calculations account for the loss of stored water on the east side of the breached berm?

Would you have to use the depth of the water before and after the discharge and the surface area before and after discharge to calculate acre feet of water before and after discharge to get an estimate of the released volume?

Do the water holding areas have water level gages?

If not, how do operators know when to stop adding water to an area that would cause groundwater levels to increase over the *1-foot below ground surface* permit requirement?

Page 2

Environmental Review

Water went offsite in two (2) areas; referred to as Area 1 (northwest corner of reclamation cell) and Area 2 (topsoiled portion of reclamation cell).

Area 1

Area 1 is located along the northern and portion of the western boundary of the reclamation cell. This is a mixed forested wetland system. There was little to no flow within the area around the reclamation cell at the time of review. Water had accumulated within and around the hummocks in the wetland. Water depths were approximately 3-6 inches throughout the area reviewed. Observations within the wetland showed some areas of "cloudy" water and areas of clear water.

Water samples taken on the morning of January 31, were at the point of entry and within the surrounding area (Sample Location Map) between 8:30 am and 11:00 am. Samples taken in Area

Page 3

1 include Sample 2, 3, 4 and 5. Sample 1 had no flow at the time of sampling and the nephelometric turbidity unit (NTU) was 57. The highest NTU was 77 at Sample location 3.

Four perimeter sample locations were identified, Samples 9, 10, 11 and 12, to monitor upstream flow from the wetland. Samples 9 and 10 were in the flow path. Samples 11 and 12 were south of the flow pattern.

Water samples were taken at the Sample 1 location in the PM on January 31 and on February 1, though there was no flow. The location dried so no additional samples were taken. Sample locations 2, 3, 4, 5 were not sampled after the initial sample as the majority of the water had soaked into the ground and there was either no water or very little ponded water.

Samples continued to be taken two times per day from January 31, 2024 – February 4, 2024 at the perimeter locations; Sample 9 and 10. One sample was taken February 5, 2024.

What was the turbidity level of the water that was retained behind the berm?

What was the depth of the water when the samples were taken at Sample 1?

Why were samples taken from Sample 9 and Sample 10?

What was the direction of flow from Sample 9 and Sample 10 when samples were taken?

Page 3

Area 2

The water that flowed over the topsoil returned area exited the site within a fire break that borders the wetland. Three samples were taken at this point (Samples 6, 7 and 8). No additional samples were taken as the water was evaporating and soaking into the ground.

Table 1: Sampling Data (NTU)

Sample Location	Area 1					Area 2			Perimeter			
	1	2	3	4	5	6	7	8	9	10	11	12
1/31/2024 AM	57.1	22.6	76.9	25.6	53.3	46.2	70.0	31.7	7.5	8.0	4.7	5.8
1/31/2024 PM	52.7	NS	NS	NS	NS	NS	NS	NS	5.7	5.8	NS	NS
2/1/2024 AM	55.7	NS	NS	NS	NS	NS	NS	NS	7.6	7.6	NS	NS
2/1/2024 PM	Dry	NS	NS	NS	NS	NS	NS	NS	7.6	13.4	NS	NS
2/2/2024 AM	Dry	NS	NS	NS	NS	NS	NS	NS	5.8	15.0	NS	NS
2/2/2024 PM	Dry	NS	NS	NS	NS	NS	NS	NS	7.3	14.5	NS	NS
2/3/2024 AM	Dry	NS	NS	NS	NS	NS	NS	NS	6.4	11.8	NS	NS
2/3/2024 PM	Dry	NS	NS	NS	NS	NS	NS	NS	5.4	7.6	NS	NS
2/4/2024 AM	RW	NS	NS	NS	NS	NS	NS	NS	5.7	6.2	NS	NS
2/4/2023 PM	RW	NS	NS	NS	NS	NS	NS	NS	6.1	7.0	NS	NS
2/5/2024 AM	RW	NS	NS	NS	NS	NS	NS	NS	7.2	6.5	NS	NS
NS	No Sample											
RW	Rainwater											

Were Samples 6, 7, and 8 dry at 1/31/2024 pm or were samples not taken?

What is the meaning of the term Rainwater?

Was the rain water sampled at Sample 1 and if it was what NTU value resulted?

Page 3

Summary

A release of water from the active mining area over a reclamation cell occurred on January 31, 2024. The volume of release was estimated at approximately 194,195 gallons. The highest turbidity reading was 77 NTU within the Area 1 location immediately after the release. There was little to no flow in Area 1 subsequent to the initial event, so samples were not taken at locations 2, 3, 4 and 5. Water flow over the topsoiled area (Area 2) water exited within a fire break adjacent to a wetland. Sampling was conducted immediately after the event with the highest reading about 60 feet from the topsoiled area,

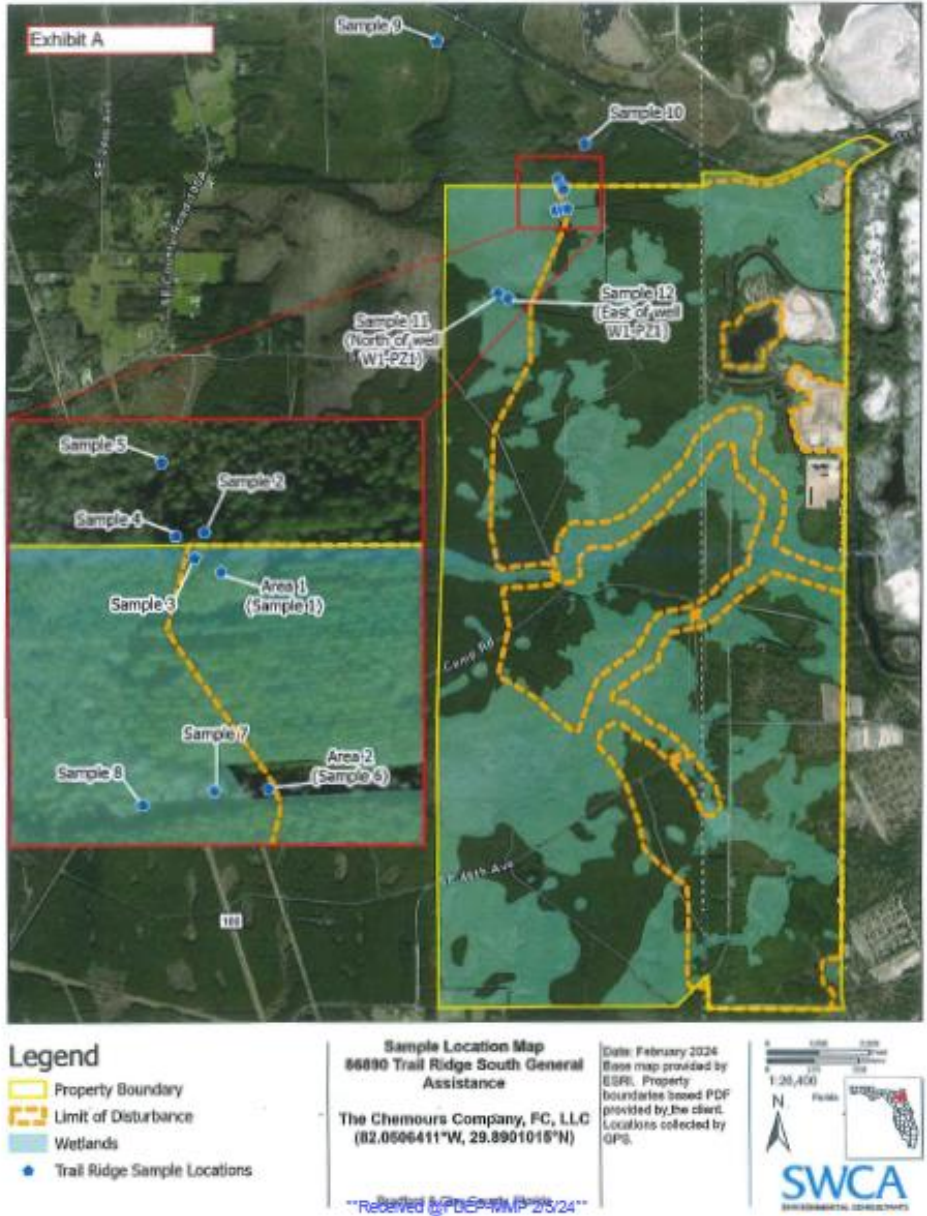
Page 4

measuring a 70.0 NTU. By the PM sampling event the water within Area 2 had soaked into the ground, so no additional sampling was conducted.

The perimeter sampling locations 9 and 10 were sampled through the morning of February 5, 2024. Turbidity within location 10 experienced an increase to 13.4 NTU on February 1, 2024 during the pm sampling event. This station increased to a 15 NTU on the morning of February 2, 2024 and decreased on subsequent sampling events. As indicated previously, there was no sediment deposition within the offsite wetlands.

What was the highest reading that was about 60 feet from the topsoiled area?

What data were used to establish that “there was no sediment deposition within the offsite wetlands”?



Are Samples 2 and Sample 4 on NFLT property?

Why is the location of the berm breach not shown on the image?

Why is the location of the berm overtopping not shown on the image?

Where is the mine cell pit that was receiving the process pond water?

Did the process water contain tailings?

What was the concentration of the tailings in the process pond water?

What data would support the flow being toward the Samples 9 and 10 locations?

Exhibit B – Photo-documentation

Northwest corner Reclamation cell
(January 31, 2024)



Northwest Corner Reclamation cell – Where water entered wetland
(January 31, 2024)



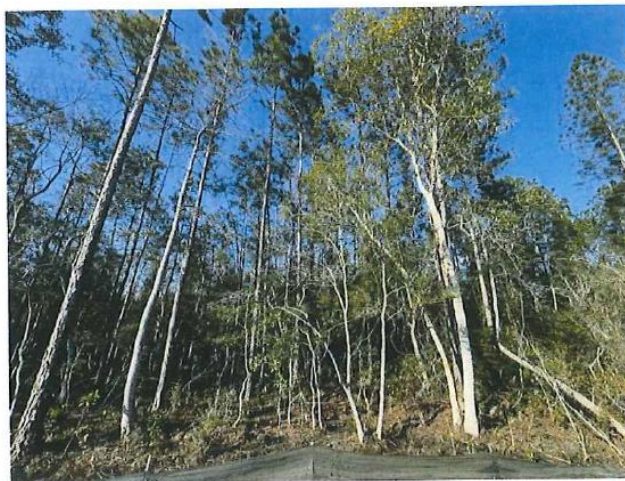
Is the above image from Area 1?
Page 7

What is the exact location of this image?

Representation of Wetland
Sample 5 (January 31, 2024)



Northwest corner Reclamation Cell
Representation of wetland (February 1, 2024)



What are the exact locations of two above images?

Page 8

Area 2
Water on Topsoil return area (January 31, 2024)



Firebreak
(January 31, 2024)



What is the exact location of this image

What is the grey material seen under the water in the above image?

Page 9

Perimeter Sample Location 9 (January 31, 2024)



Perimeter Sample Location 10 (January 31, 2024)



What are the exact locations of two above images?

Page 10

Silt Fence Repaired (January 31, 2024)



What is the exact location of the above image?

Incident 2024-0997 File No. MMR_137482 – Site Inspection Report

Questions that could be asked during an inspection and follow up.

What was the direction of flow of the discharge from the berm breach (Area 1)?

What was the direction of flow from the berm overtopping (Area 2)

What was the direction of flow from the impacted area before site disturbance?

What drainage basin receives flow from the disturbed area?

Where is the berm that was to be installed around mined areas?

How many feet is SRWMD property boundary from the cleared area and silt fences?

What analytical data are available about the radium content, turbidity, color, pH, and humate content of the discharged process water?

Why is Chemours placing process water at land surface behind a shallow berm?

Is Chemours using the land surface process water storage as a method to avoid discharging process water via the permitted IWW system?

Why was the perimeter berm for the mined area removed before the mined area was reclaimed and released?

Why were GPS coordinates directions not provided for the images in the Inspection Report?

What data were used to determine that Area 1 and Area 2 had no evidence of sediment deposition?

Should DEP or EPA require a full analysis of the water retained in the pond after the berm breach occurred?

Should DEP or EPA require a full analysis of the top sediments deposited on the North Florida Land Trust (NFLT) property and SRWMD property?



Inundation in Area 1.

Is the light grey material on soil surface and leaves in top image copied on the next page sediment deposition?



Area 1, showing double row of silt fence containing standing water.

Is the light grey material on the old silt fence in the above image sediment deposition?

Did the force of released water push the original silt fence down?

Why was the integrity of the silt fence not referenced in the Inspection Report?

Why were GPS coordinates and direction not provided for the images in **Incident 2024-0997 File No. MMR_137482 – Site Inspection Report?**

1/29/2024 Google Earth Images and the 1/31/2024 Discharge

The Discharge was related to Location 1 Northwest Mine Cell. The following Google Earth images lead to questions about the discharge that follow the Google Earth images.



Location 1 appears to have 4 completed mine sections, 1 active mine section and a processing unit to the south just to the east of the north perimeter of Location 2.

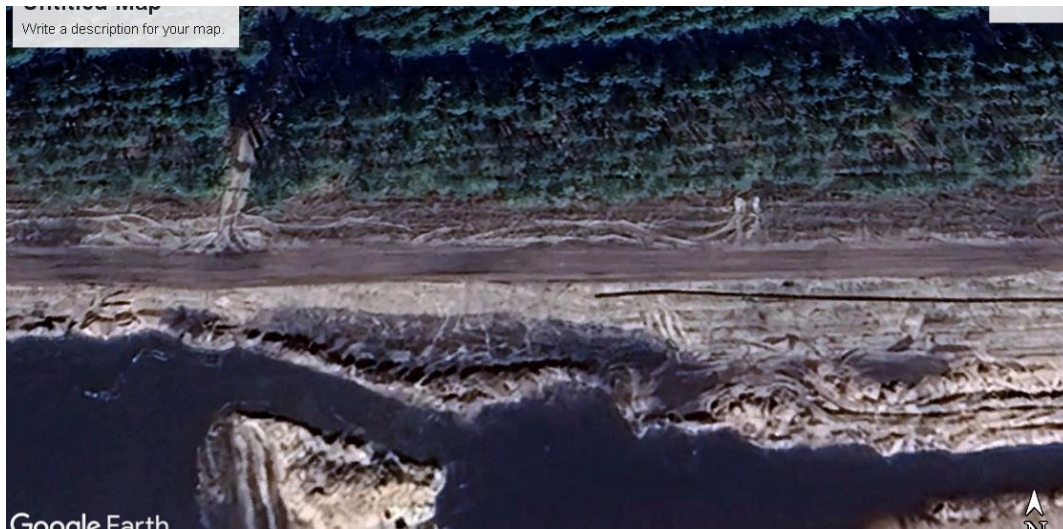


The Location 1 active mine cell MMU above appears to be receiving muck top soils. Where are the muck soils being deposited?

The following Location 1 images and question begin at the northwest corner of Location 1.



The pump in the Google Earth image above appears to be the same pump as in the image from 1/31/2024 on page 23 of this document. Based on the position of the black pipe just inside of the berm, it appears that there was significantly more water on 1/31/2024 than was present on 1/29/2024.



Does the berm at the water edge in the 1/31/2024 image meet the design requirements of the permitter berm?

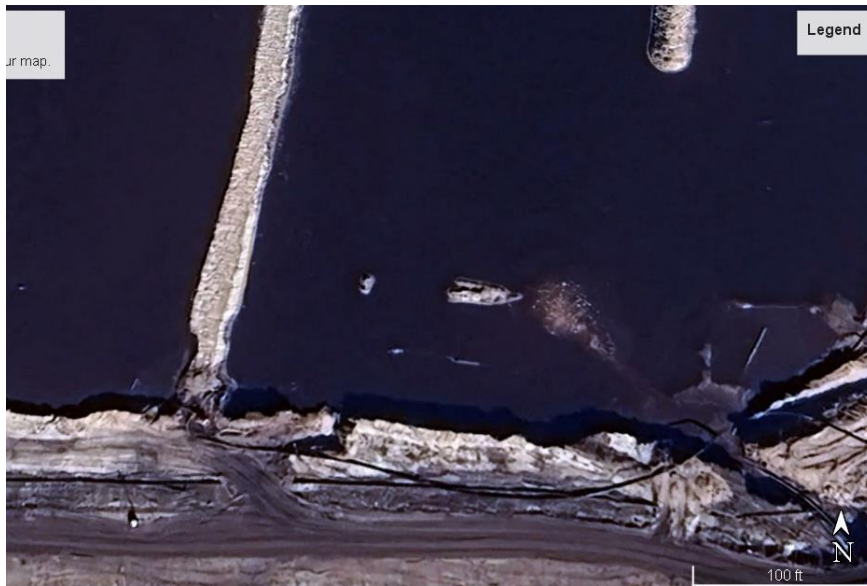
Why was the north south berm cut through on its northern end?

Was there any indication on 1/29/2024 that water was seeping through the thin berm section where the black pipe becomes visible?

Was there seepage in this area on 1/31/2024?



Why was this breach in the north south berm allowed to remain?



Is the berm failure in the above image of the north south berm the failure noted in the 5 day report that stated a *“washout” by the active tailings line which caused water to flow back toward the reclamation cell.*”

What is/was the purpose of the pump at the end of the north south berm?

When was the pump installed?

What was the elevation of the water in the flood cells on 1/29/2024 and 1/31/2024?

What is the current elevation of the water in the mined cells?

What is the elevation of the land surface outside of the mined cells?

Where has the perimeter berm been removed from the mined cells in Location 1?

Location 1 South Ditch and South Unit



The Location 1 cells appear to be connected by a roadside ditch to the unit and wetland in the bottom image above.



What is the function of this unit?

When was the unit installed?

Is there a berm around this unit?

Is the wetland receiving mine contact stormwater?

Location 1 conditions on 1/29/2024 and 1/31/2024 and Permit Language

Permit Number: MMR_137482-018 states on page 2:

Groundwater will be maintained a minimum of 1-foot below ground surface using a ditch and sump system to allow equipment to access material

After each mine cell has been excavated, sand tailings from the plant site will be pumped into the excavated pit. Excess water from the tailings will be decanted and incorporated into the active mining process for the next mine cell. Reclamation of mined areas will occur concurrently with mining. As mining and reclamation progress, new areas will be incorporated into the stormwater management system and reclaimed areas will be removed from the system.

The stormwater management system will be capable of containing the runoff from a 25-year, 24-hour storm event.

Permit No.: ST404_137482-022 states on: Page 4 of 33

Reclamation of mined areas will occur concurrently with mining. As mining and reclamation progress, new areas will be incorporated into the stormwater management system and

reclaimed areas will be removed from the system. The stormwater management system will be capable of containing the runoff from a 25-year, 24-hour storm event.

The excavation and overall project areas will have a perimeter berm to retain runoff with zero offsite discharge resulting from the 25-year, 24-hour design storm event.



Google Earth 1/29/2024

The above image shows the pump and water level in relation to black pipe on 1/29/2024 and the two points of discharge on 1/31/2024 Area 1 to the north and Area 2 to the west.

How did the water get from Area 1 to Area 2?

Permit Number: MMR_137482-018 states on page 2:

As mining and reclamation progress, new areas will be incorporated into the stormwater management system and reclaimed areas will be removed from the system.

Was the perimeter berm removed from the northwest corner of Location 1 before the reclamation was completed?

Would the perimeter berm have blocked the offsite flows from the 1/31/2024 discharge?

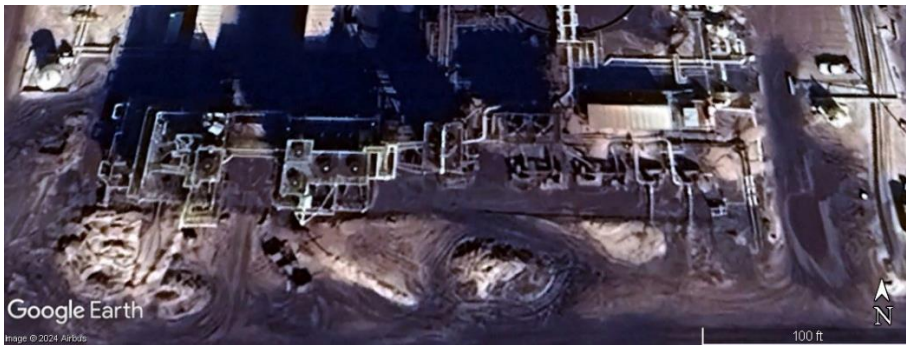
After the addition of process water on 1/30/2024 was the system *capable of containing the runoff from a 25-year, 24-hour storm event?* and

Did the groundwater level meet the permit requirement that *Groundwater will be maintained a minimum of 1-foot below ground surface?*

Questions for Location 3 IWW Treatment Ponds, Process Pond, and Plant Units



What is the black substance covering the area and roads in the above image?



What is the function of the above unit?



How are the IWW ponds being kept below the discharge level?

What is the radium levels of the water remaining in the 3 ponds?



What are the structures in the southeast corner of the process pond?

Questions for Location 4 Southeast Mine Cell



Why have the tailing and reclamation at this location not been completed?

What were the radium levels of the discharge water when this area was mined?

What are the radium levels of the tailings from this area?

Conclusion

The BSWCD believes that finding the answers to the questions raised are critical if property and the health of Bradford County residents are to be protected from harm resulting from the type of failures the TRS Mine has experienced in the less than 2 years it has been operating. More aggressive and frequent inspections of the TRS Mine are needed by DEP, EPA, SRWMD (property owner), Bradford County who issued the Special Permit for Mining and possibly the ACOE to reduce the risks the TRS Mine operations currently are creating.