



MEMO

TO Diane D. McDaniel, P.E.
Environmental Program Manager
Environmental Cleanup & Brownfields

THRU Tom Buchan, P.G. *TCB*
Environmental Group Manager/ Responsible Charge

FROM Jacob Browell *JB*
DEP Project Manager

DATE February 28, 2023

RE ECB- Land Recycling Program
Technical Memo Summary- Statewide Health Standard
eFACTS PF # 861781
eFACTS Activity # 58172
eFACTS LRP # 5-63-960-19866
Trax Farm Well Pad
Union Township, Washington County

Property Owner Name and Address:

Trax Farm Inc.
528 Trax Rd
Finleyville, PA 15332

Lessee:

EQT Corporation
625 Liberty Ave.
Pittsburgh, PA 15222

Act 2 Standard(s) Sought: Residential Statewide Health Standard (SHS) for soil for brine constituents.

Property Size: Approximately 0.01-acre spill area defined as the Site. Property size is 20.51 acres.

Site Cleanup History:

July 26, 2022 – Release discovered and reported.

October 21, 2022 – Final Report was submitted within 90 days of the release date.

December 20, 2022- The Department sent Letter of Technical Deficiency.

February 6, 2023- Strontium sampling conducted.

February 17, 2023- Revised Final Report/Remedial Action Completion Report submitted to the Department.

Project Site History: The pad is located within a rural area comprised primarily of agricultural land.

Site Findings: On July 26, 2022, a spill was discovered along the southeastern side of the 4H Gas Production Unit (GPU). An above ground dump line failed resulting in a spill of approximately one barrel of produced fluid. Upon discovering the release, the GPU was shut-in, the dump line was repaired. Specialized Professional Services (SPSI) was dispatched to conduct interim remedial activities which included power washing the GPU and removing impacted soil and gravel from around the unit via hand tools and hydro-excavation. The power washer was also used to clean the inside of the 4H GPU.

On July 26, and July 27, 2022, Moody conducted field screening of soil conductivity to evaluate the extent of potential impacts at the Site. Grid-based field screening was conducted at a total of 24 locations within the excavated area.

Remediation was completed August 1, 2022. All removed material was collected in vacuum boxes, which were covered and staged on Site until they could be transported to a landfill for proper disposal. The final remediated area had an area of approximately 444 square feet and ranged from approximately 0 inches to 48 inches in depth. In total, 26.97 tons (approximately 20 cubic yards) of material were removed and taken off-site to the Carbon Limestone Landfill facility in Lowellville, Ohio and the Austin Master Services facility in Martins Ferry, Ohio, for proper disposal.

Moody collected a total of eight (8) attainment soil samples within the remediated area using a random-grid sampling method.

Because there are currently no standards for chloride in soils, chloride concentrations were evaluated in the context of potential impacts to ecological receptors. Based on a soils physical capacity to contain a regulated substance (chloride) as per 25 Pa. Code § 250.305(b), a cap concentration of 190,000 mg/kg can be applied to chloride. By taking 1/10th of this calculated value as per 25 Pa. Code § 250.311(b), the concentration becomes 19,000 mg/kg for chloride in soil. In addition, chloride concentrations analyzed using the synthetic precipitation leaching procedure (SPLP) were compared to an alternative soil-to-groundwater value of 250 milligrams per liter (mg/L), which is the groundwater secondary maximum contaminant level (MCL) for chloride.

Additional sampling for Strontium attainment was collected on February 6, 2023 for soil.

Discussion of Cleanup Involved and Demonstration of Attainment:

- Because vanadium concentrations within seven of the eight attainment samples (87%) were below the statewide health standard of 15 mg/kg, and the concentration that exceeded the standard (16.3 mg/kg at SO-15) was less than ten times the standard, attainment of the statewide health standard has been demonstrated through the 75%/10x rule.
- All other brine-related parameters were detected at levels below their applicable soil MSC, with the exception of strontium. All SPLP chloride concentrations were below the alternative soil-to-groundwater value of 250 mg/L, the groundwater secondary MSC for chloride.
- Strontium concentrations exceeded the statewide health standard in three (3) of the eight (8) attainment soil samples. Attainment for Strontium was demonstrated by the 75%/10x rule with the additional samples collected on the 6th of February, 2023.
- Tributary 39497 (T-39497) to Peters Creek is the dominant drainage feature within the vicinity of the Site. T-39497 is located southeast of the Site and flows south into South Branch Pigeon Creek. Based on the local topography and slope of the area surrounding the Site, shallow groundwater movement is expected to flow south from the Site toward T-39497. Groundwater was not encountered during excavation; therefore, Moody does not believe groundwater and surface water are media of concern.
- The constituents of concern at the site consist of inorganic brine-related constituents. Therefore, no further vapor intrusion analysis is necessary.
- The surface area of impacted material did not exceed the 2-acre criterium outlined in Act 2, the Site has been remediated to statewide health standards, and the impacted materials were removed from the Site. Because there are no exposure pathways for ecological impacts at the Site or surrounding area, no further ecological evaluation is required.

AULs: NA

DEP Final Action Approval/Disapproval Letter: An Approval letter was drafted for EPM signature on February 28, 2022.

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