



Maryland
Department of
the Environment

Memorandum

TO: Brian Dietz and Anu Mohanty
THRU: Andrew Grenzer & Binyam Woldemichael *BW*
FROM: Jessica Vavrek JV
DATE: January 19, 2023
RE: Eastalco South (Closed) Industrial Landfill – Second 2022 Monitoring Report (2022-348)

This memorandum is in reference to the Second 2022 Groundwater Monitoring Report (Report) for the Closed South Landfill at the Eastalco site in Frederick County, Maryland. Tetra Tech prepared the report for Quantum Loophole. Quantum Loophole acquired the property from ALCOA on June 28, 2021. The Maryland Department of the Environment received the report on December 28, 2022.

The South Landfill is smaller than the nearby North Landfill, occupying only 3.6 acres. Non-hazardous industrial wastes accepted at the South Landfill included carbon wastes, refractory wastes and fluoridated wastes that originated exclusively from the Eastalco plant. The plant is closed and has been demolished.

Groundwater quality at the South Landfill is monitored through the collection and analysis of samples from seven groundwater monitoring wells. Four wells (MW-4, MW-6, MW-25, and MW-26) are sampled annually, and three wells are sampled semi-annually (MW-66, MW-67, and MW-68). MW-4 is the upgradient well. All wells were sampled during this sampling event.

Total Fluoride was detected above its MCL of 4 mg/L in wells at MW-25 (14 mg/L), MW-26 (4.3 mg/L), MW-66 (9.6 mg/L), MW-67 (7.1 mg/L) and MW-68 (20 mg/L, with 19 mg/L measured in the duplicate sample).

Fluoride is the primary constituent of concern at this industrial landfill. Fluoride contamination at the site includes a plume attributed to other onsite source areas such as the North and South Ponds, which are no longer in operation. The report indicates that a historical fluoride plume not associated with the landfill is being addressed under Consent Order CO-07-026, which was issued by the Land Restoration Program. These concentrations are consistent with the continuing downward trend evident in MW-68, and the relatively flat trends in the other monitoring wells. In October 1990, the fluoride concentration in MW-68 was 505 mg/L. The lowest recorded is in March 2019 a concentration of 13.00 mg/L.

Monitoring should continue at the landfill according to the approved groundwater monitoring plan. Questions regarding this matter may be directed to me at jessica.vavrek@maryland.gov or ext. 3365. JV