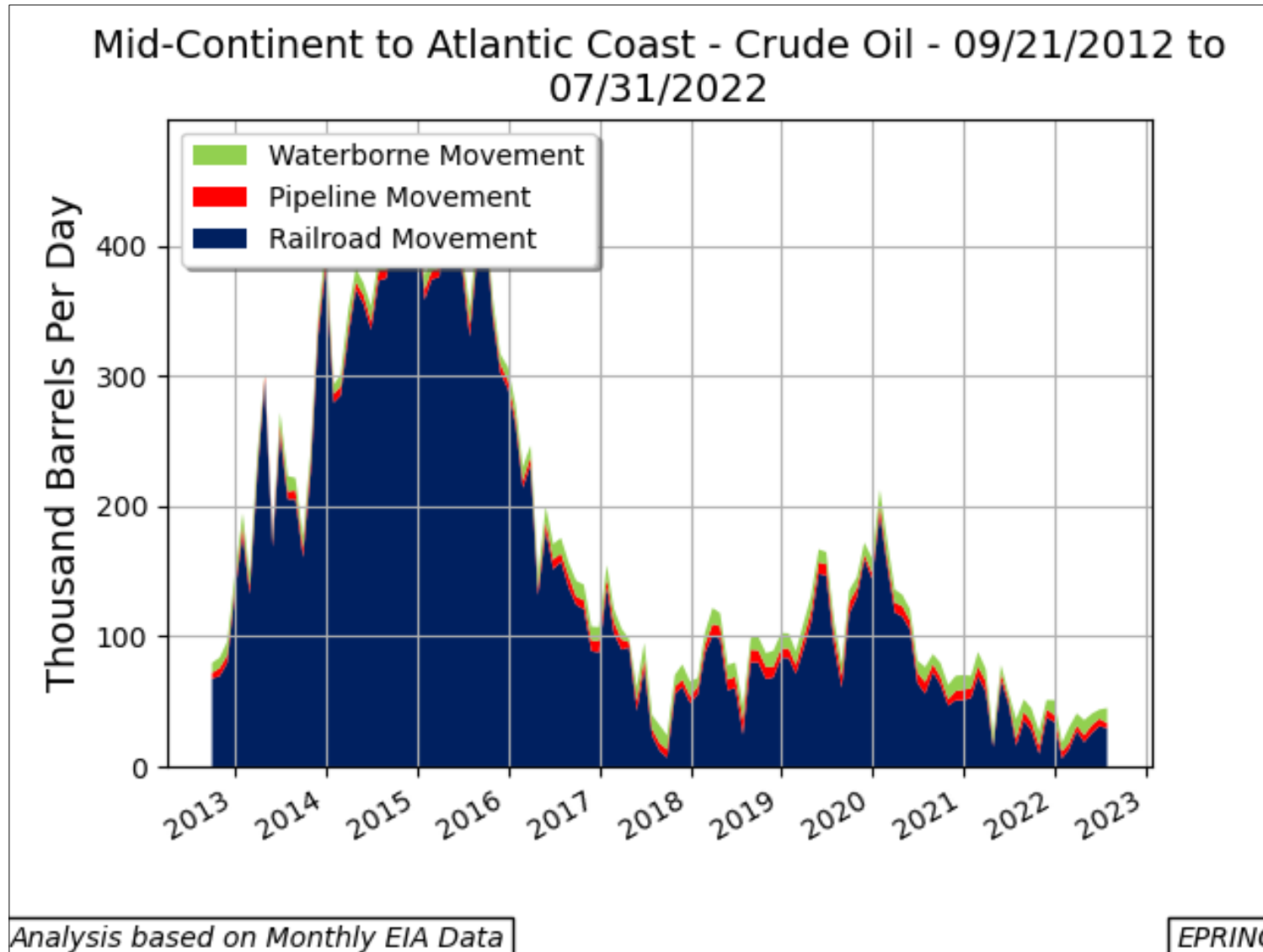




Chart of the Week #2023-01 **U.S. Liquid Fuel and Feedstock Rail Movements: Select Views**

Max Pyziur
January 4, 2023
Washington, DC

U.S. Crude Oil Rail Movements – Mid-Continent to the East Coast



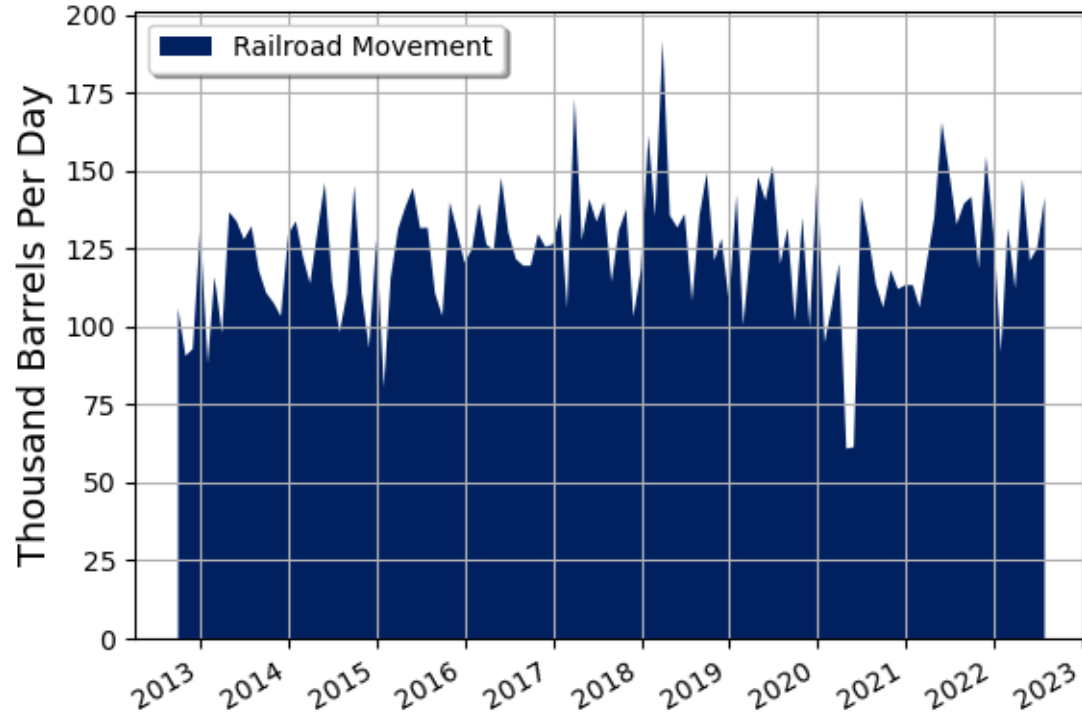
At the onset of the U.S. shale revolution in the late 2000s, there were few pipeline systems capable of moving crude oil production, notably from North Dakota.

Consequently, until pipeline systems such as DAPL were commissioned in 2017, much of North Dakota crude was shipped via rail to East Coast refineries.

U.S. Fuel Ethanol Rail Movements – Mid-Continent to West and East Coasts



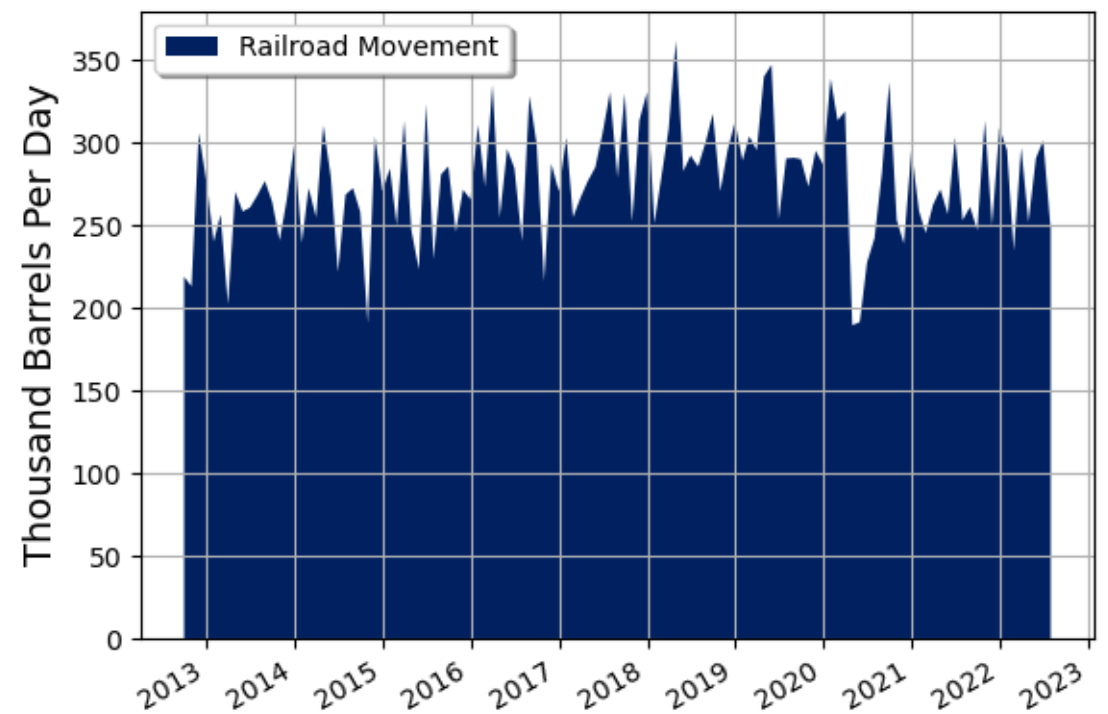
Mid-Continent to West Coast - Fuel Ethanol - 09/21/2012 to 07/31/2022



Analysis based on Monthly EIA Data

EPRINC

Mid-Continent to Atlantic Coast - Fuel Ethanol - 09/21/2012 to 07/31/2022



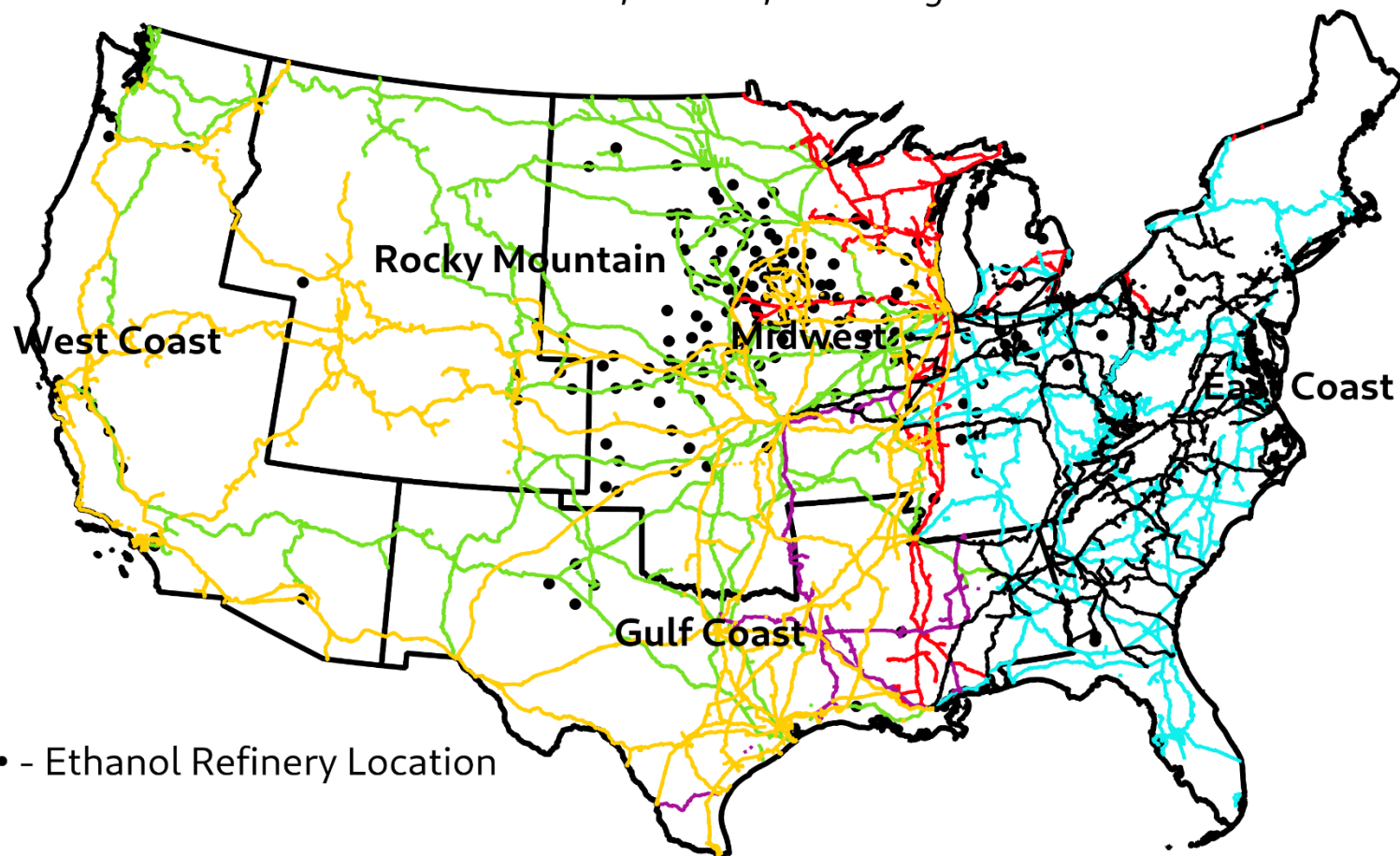
Analysis based on Monthly EIA Data

EPRINC

Fuel ethanol is a critical source of octane and oxygenate for U.S. gasoline, and it is aggressively mandated as a blend stock per the RFS. Most ethanol refineries are located in the Mid-Continent where corn, ethanol's feedstock, is produced.

Ethanol's hypertrophic properties make it difficult to transport via pipeline. Consequently, rail is the only way that it can be moved to final blending and consuming locations.

U.S. Ethanol Refineries, PADDs, and Long-Haul Railroads



• - Ethanol Refinery Location

Data Source: EIA

EPRINC

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