Gas Processing Primer
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Stacy Duke

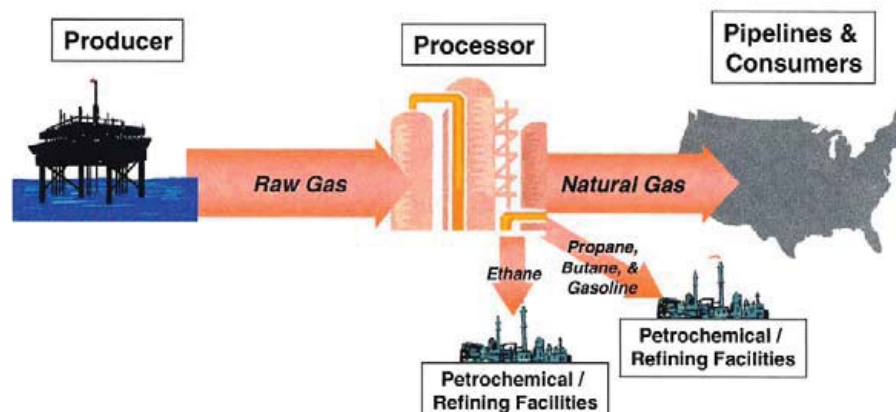## Upstream, Midstream, & Downstream

Oil & Gas Industry

- **Upstream:** The exploration and production portions of the oil and gas industry

- **Midstream:** Industry activities that fall between exploration and production (upstream) and refining and marketing (downstream); the term is most often applied to processing and pipeline transportation of crude oil, natural gas, and NGLs

- **Downstream:** Refineries, chemical plants, and their associated distribution and marketing

Shale Plays in the Lower 48 States

- Increasing production from shale continues to be a game-changer in the U.S.

- Producers are currently focused on oil and liquids-rich plays, with increasing volumes from the Permian Basin, Bakken shale and Barnett combo.

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Processing Product Flow

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Gas Processing is…

- **The extraction of imbedded NGLs and the removal of water vapor and other contaminants (i.e. sulfur and carbon dioxide) to form (i) a stream of marketable natural gas, commonly referred to as residue gas, and (ii) a stream of mixed NGLs.**

- Once processed, the ***residue gas*** is transported to markets through pipelines that are owned by either the gatherers and processors or third parties.

- After being extracted in the field, ***mixed NGLs*** are typically transported to a centralized facility for fractionation where they are separated into discrete NGL products: ethane, propane, normal butane, iso-butane, and natural gas.
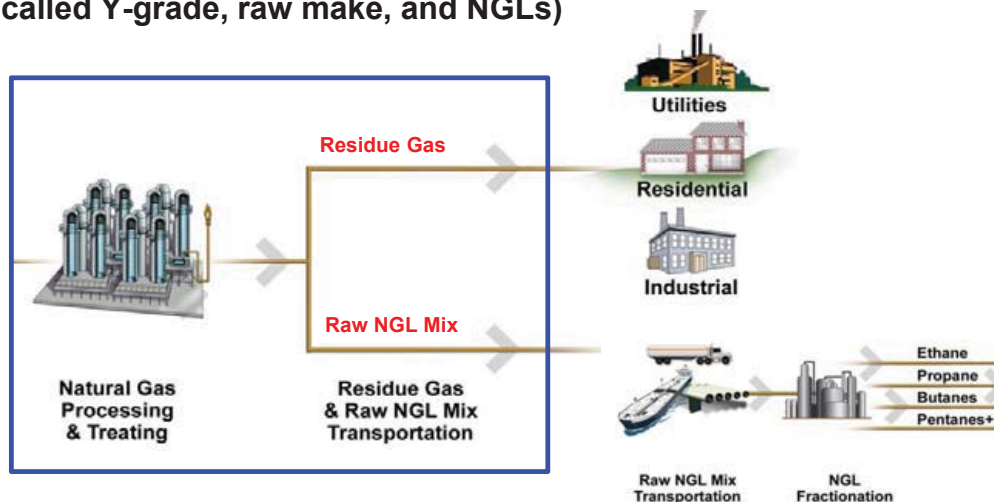
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Gas Plants

Separate the residue gas (methane) from the raw NGL mix (also called Y-grade, raw make, and NGLs)

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Title search: Gas Processing Primer

Also available as part of the eCourse
Gas Processing Primer

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16th Annual Gas and Power Institute session
"Gas Processing Primer"