



**WILLIAMS MIDSTREAM NATURAL GAS LIQUIDS  
SPECIFICATIONS  
DEMETHANIZED MIX**

<b>SPECIFICATION POINT</b>	<b>TEST METHOD</b> (Note 1)	<b>SPECIFICATIONS</b>
Carbon Dioxide	GPA 2177	Maximum 0.35 L.V.% (8038 ppm <sub>w</sub> ) of the Ethane
Methane (Note 2)	GPA 2177	Maximum 0.50 L.V.% of the total components excluding N <sub>2</sub> and CO <sub>2</sub> and 1.50 L.V.% of the Ethane. Product analysis must fail both tests to be considered off-spec.
Aromatics	GPA 2186	Maximum 10.00 L.V. % of Pentanes Plus
Olefins	GPA 2163	Maximum Total Olefins, 1.00 L.V.% of the total stream Maximum Propylene, 5.00 L.V.% of the Propane Maximum Butylene, 0.35 L.V.% of the Butanes Maximum Butadiene, 0.01 L.V.% of the Butane
Vapor Pressure @ 100°F	Calculated (Note 3)	Maximum 600 psig
Corrosion	ASTM D-1838	Maximum Number 1 Copper Strip @ 100°F (Note 4)
Volatile Sulfur	ASTM D-2784, D-6667, or D-5623	Maximum 150 ppm <sub>w</sub>
Hydrogen Sulfide	ASTM D-2420 or D-5623	Pass
Carbonyl Sulfide	ASTM D-5623	Maximum 15 ppm <sub>w</sub> of the Propane
Distillation, End Point Temperature	ASTM D-86	Maximum 375°F @ 14.7 psia (Note 5)
Color, Saybolt Number	ASTM D-156	Minimum +27 (Note 5)
Water Content	Inspection	No Free Water at 34°F
Product Temperature	Observation	Maximum 90 °F when Ethane is 65 mole % or more Maximum 110 ° F when Ethane is less than 65 mole %
Halides (including Fluorides)	UOP-619	Maximum 1 ppm <sub>w</sub> of the Normal Butane
Contaminants	Demethanized Mix shall be commercially free from dirt, rust, scale, sand, dust, gums, and gum-forming substances, oil, catalyst poisons, impurities, and other objectionable substances which may be injurious to the system or which may interfere with its transmission through the system. Product will not contain contaminants such as glycol, inhibitors, amine, oxygen, oxygenates, nitrogen, halides, chlorides, arsine/arsenic, mercury, or any compound added to the product to enhance the ability to meet these specifications. Particulate content shall be less than 10 micron in size.	

## Notes:

- The most current version of the published industry test method will be referenced. Other appropriate industry approved test methods may be substituted if all parties are in agreement.
- Includes Nitrogen and Oxygen
- Gomez-Nieto and Thodos Vapor Pressure Correlation
- The use of corrosion masking agents is strictly prohibited
- Distillation and Color to be run on that portion of the mixture having a boiling point of 70°F and above at atmospheric pressure
- This specification does not apply to truck or rail unloading. For truck or railcar unloading refer NGL Mix Truck & Rail Unloading Specifications.