Oil Industry Segment Update

Lee K. Johnson
Hess Corporation

Rail Energy Transportation Advisory Committee
Surface Transportation Board

October 4, 2018
Oil Industry Segment Market Environment

- Global consumption exceeds production
  - Global production June 2018 99.9 MBPD
  - Global consumption June 2018 100.7 MBPD
  - Global days of supply June 2018 58.7 Days
    [Source: EIA]

- WTI average price remains flat [Source: EIA]
  - May $69.98   June $67.87   July $71.13   August $68.06

- US crude oil production and exports are trending upward [Source: EIA]
  - US production June 10.7 MBPD (forecast average 10.7 for 2018 and 11.5 for 2019)
  - US imports June 8.5 MBPD
  - US exports June 2.2 MBPD

- US land rig count is trending upward [Source: Baker Hughes]
  - August - 2016 = 362 (Texas 50%); 2017 = 672 (Texas 59%); 2018 = 1,034 (Texas 51%)

- CBR volumes have declined on an annual basis from 2014 to 2017 [Source: EIA]
  - Annual originated US C/L’s (000’s) – ’14 493, ‘15 410, ‘16 212; ‘17 129; [Source: AAR]
  - 1st half 2018 47.7 MB moved by rail within US [Source: EIA] (approximately 75K C/L)
Williston Basin Crude Oil Modal Share

Average Production/BOPD | Rail/BOPD est.
--- | ---
6/2014 | 1,092,519 | 644,586
6/2015 | 1,211,328 | 569,324
6/2016 | 1,027,131 | 297,868
6/2017 | 1,032,873 | 72,301
6/2018 | 1,225,510 | 232,847

Source: ND Pipeline Authority

June, 2018

CBR Destinations, 1st half 2018
West Coast | 60.2%
East Coast | 37.5%
Gulf Coast | 2.3%

[Source: EIA]
Permian Oil Production

• Frac sand now in surplus [Source: WSJ]
• Crude oil production volumes continue to grow [Source: EIA]
• August production 3.4 MBPD [Source: EIA]
• Estimated pipeline and local refining capacity 3.6 MBPD [Source: EIA]
• Pipeline capacity being increased to meet demand [Source: EnSys NA Logistics Review]
• Some expected to see an increase in rail market share
  – 1st half 2018 1.8 MB moved rail within PADD 3 (approximately 2.7K C/L’s) [Source: EIA]
  – 1st half 2018 0.43 MB moved PADD 3 to 5 (approximately 660 C/L’s) [Source: EIA]
• Potential barriers to CBR
  – Cost differential
  – Increasing pipeline capacity
  – Limited rail loading terminal capacity
  – Availability of rail unloading capacity depends on market
  – Availability of new DOT 117 tank cars
Summary

• Global crude oil demand is growing and currently outpacing production
• US crude oil production and exports trending upward; imports relatively flat
• Crude oil prices remain volatile but within a relatively narrow range
• US land based rig count is trending upward
• Much US onshore E&P growth remains in pipe centric Texas
  – Permian capacity (pipeline and refining)/production gap is narrowing [Source: Goldman Sachs]
• Texas frac sand capacity development has eliminated Permian shortage
• US production trending upward now exceeding 10.7 MBD
• Permian production trending upward now exceeding 3.4 MBD
• No apparent growth in Permian CBR through June
• Bakken production trending upward now exceeding 1.2 MBPD
• CBR volume showing some growth; primarily from the Bakken