Article Title: ARCHIVE | Criteria | Corporates | Industrials: How Standard & Poor's Arrives At Natural Gas Liquids Pricing Assumptions For U.S. Midstream Energy Companies Data: (EDITOR'S NOTE: — This criteria article is no longer current. It has been superseded by the article titled, "Standard & Poor's Revises Its Natural Gas Liquids Price Assumptions For 2011, 2012, and 2013," published Oct. 7, 2011) 1. Standard & Poor's Ratings Services is introducing its methodology for determining our natural gas liquids (NGL) price assumptions. We are publishing this article to help market participants better understand our approach to developing our price assumptions and the factors that we believe will affect future prices. SCOPE OF THE CRITERIA 2. Standard & Poor's Ratings Services methodology for determining our natural gas liquids (NGL) price assumptions is a tool that assists our analysis of the relative credit strength of U.S. midstream energy companies that gather and process natural gas liquids (NGL; e.g., ethane, propane, butanes, and pentanes). We use these assumptions in fundamental credit analysis and in modeling financial scenarios. Price assumptions help us assess credit quality 3. Standard & Poor's uses its price assumptions to evaluate a company's ability to timely and fully repay its near- and long-term debt obligations. Our assumptions equitably compare the relative credit quality of a broad and diverse set of energy companies and allow us to assess the likelihood that a company will have enough cash flow to repay its obligations and support its overall strategy. While our price assumptions provide the basis for our financial modeling to assess credit strength, we emphasize that the assumptions are not and we do not use them as pricing forecasts. However, because our issuer credit ratings reflect our opinion of a company's ability and willingness to meet financial obligations in a timely manner, our modeling assumptions are generally lower than current market prices and provide a conservative view of the market over a specific period of time. We also use our modeled prices to standardize pricing across companies that may have different cash flow at risk due to their relative contract mix, hedge position, geographical exposure, financial obligations, and capital structures. 4. Whereas Standard & Poor's applies price assumptions to both investment-grade ('BBB-' and above) and speculative-grade ('BB+' and below) companies, how we apply the price assumptions will differ slightly depending on where a specific issuer falls on the ratings spectrum. Generally, we expect investment-grade companies' financial performance to be more resilient to stress than non-investment-grade companies. Therefore, we de-emphasize the cash flow benefits of hedge positions for investment grade companies, because these companies' financial profiles should be able to withstand longer term deterioration in market conditions. This does not suggest that Standard & Poor's rating committees ascribe no benefit to hedges at investment-grade companies, but rather we believe companies with investment-grade profiles should not need to rely on these instruments to ensure adequate cash flow at any given rating level. Our approach differs for the speculative grade due to our opinion that these companies are less able to absorb changes in market conditions. When we apply our assumptions to these companies, we specifically recognize the near-term benefits of a company's hedging program. Plus we focus on other short-term factors that may affect the rating, such as available liquidity, the ability to make required principal and interest payments, fund maintenance and growth capital expenditures, and dividends/distributions to shareholders/unitholders. 5. We arrive at our assumptions through a qualitative process that considers available market information related to available NGL forward price data, the relative crude oil and natural gas price relationship, supply-and-demand trends, the petrochemical industry's outlook, NGL storage and transportation capacity, and any effect imports may have on NGL fundamentals (see table 1). Table 1 Standard & Poor's NGL Price Assumptions (CENTS/GALLON) % OF BARREL 2010 2011 2012+ Ethane 40 37.00 40.00 40.00 Propane 30 72.00 79.00 79.00 Butane 10 92.00 100.00 100.00 Isobutane 5 98.00 107.00 107.00 Gasoline 15 105.00 114.00 114.00 NGL composite barrel 66.25 72.15 72.15 West Texas Intermediate crude ($/barrel) 55 60 60 NGL/crude ratio (%) 51 51 51 NGL--Natural gas liquids. EFFECTIVE DATE AND TRANSITION 6. This criteria is effective immediately for all U.S. midstream energy companies that have cash flow exposed to NGL price fluctuations. We will begin reviewing companies financial risk profiles using our price assumptions and expect to update the effect, if any, on our ratings over a period of three months. METHODOLOGY AND ASSUMPTIONS 7. Several factors come into play when we make our price assumptions: Our composite NGL barrel consists of 40% ethane, 30% propane, 10% butane, 5% isobutane, and 15% natural gasoline. We acknowledge that the barrel's composition will vary among processors and depends on the richness of the gas in the

particular basins a company operates. Our price assumptions for periods beyond 12-months are more speculative given the absence of long-dated market prices for these commodities. Nevertheless, in arriving at our price assumptions for more distant time periods, we assume that current market fundamentals will continue to persist over the next three year period. Therefore, relative differences in our NGL price assumptions after 12 months will be driven by Standard & Poor's long-term price assumptions for crude oil over the same period. The crude oil to natural gas ratio will likely remain high in 2010, although we expect the ratio to decrease from recent highs of 30x to the 12x to 13x range in 2010. This could result in some pressure on fractionation margins for those processors who have keep-whole exposure. (Keepwhole exposure refers to contractual relationships that allow NGL processors to retain ownership of liquids extracted from the natural gas stream, but that also require the processor to financially compensate gas suppliers for the energy content of these extracted liquids.) This creates a margin based on a "long" NGL position and a "short" natural gas position. We expect the price relationship between ethane and crude to remain weak for 2010 and possibly longer. There is a current oversupply of ethane, despite high demand from petrochemical companies, which use it as a feedstock in the manufacturing of plastics and other chemical-based products (specifically, in their light-end steam "crackers", where complex organic molecules are broken down into simpler molecules). The NGL supply will continue to exceed demand despite the dramatic decline in natural gas rigs, primarily because of more prolific discoveries from the emerging shale "plays" (areas of exploration and production). We believe that U.S. imports of liquefied natural gas (LNG) will not affect the overall supply/demand balance for NGLs in 2010. LNG exporters can receive better prices for their cargoes in Asia and Europe, because of excess natural gas supply in the U.S. LNG terminals throughout the U.S. are only receiving a small fraction of their total capacity, and much of this gas has been processed before being shipped. 8. There are several factors that make determining a forward view of NGL prices especially challenging relative to other commodities, such as crude oil or natural gas. Reasons for this include: The NGL market's price transparency and liquidity becomes significantly limited beyond 12 to 18 months; The NGL barrel's composition could vary dramatically depending on how the gas richness varies from play to play and individual companies' exposure to this variation; and The industry historically discusses the NGL barrel's price as a percentage of the crude price. This price relationship, particularly for the lighter ends (ethane and propane) of the barrel, has broken down over the past 12 to 15 months. 9. At times, liquidity and price visibility in the NGL forward markets can be low, except for propane, which trades on the New York Mercantile Exchange (NYMEX) and is used for heating and engine fuel, as well as a feedstock for petrochemical companies. However, the ability to analyze forward over-the-counter pricing data is available through a number of sources that track trades among market participants. Spot price data is available for all of the components of the NGL barrel, with the main two pricing hubs located at Mont Belvieu, Texas, and Conway, Kan. We are basing our price assumptions on our forward view for NGLs priced at Mont Belvieu, because we believe Mont Belvieu is the more active of the two markets. We are primarily basing our forward view of NGL prices for the next 12 months, because of the limited market liquidity beyond that time, and we will revisit our assumptions at least twice annually. 10. We acknowledge that it is a common convention when discussing NGLs to make an assumption about the composition of the barrel. The relative weights given to the liquids products is one important factor that determines fractionation margin economics, commonly know as the "frac" spread. However, there is no "uniform" barrel because the NGL mix will change given the richness of the gas in a particular play. Furthermore, a geographically diverse gathering and processing company's NGL mix will differ across all of its basins, with the company typically reporting one average realized NGL price or multiple prices if it categorizes its operating segments by region. Based on our estimates, ethane and propane, the "lighter" ends of the barrel (products with the lowest Btu content), generally constitute between 60% and 70% of the barrel, with the butanes and pentanes making up the rest of the mix (see table 2). Table 2 Barrel Composition PRODUCT MIL. BTU/GALLON % OF BARREL USES Ethane 0.066 40 Feedstock for ethylene, a component in the manufacture of plastic and other chemical-based products Propane 0.092 30 Production of ethylene and propylene, and also as a heating and engine fuel Butane 0.104 10 Production of isobutane, as a blending agent for refined products or as a fuel Isobutane 0.099 5 Produce alkylates in refineries to enhance octane levels Natural gasoline 0.120 15 Blending component for certain refined products and can also be used as a

feedstock to produce ethylene and propylene 11. Price movements for NGLs, on an individual product and composite basis, historically have strongly correlated to crude prices. As a result, NGL prices are usually discussed in terms of their relationship to crude. During the extraordinary run-up in crude prices from the mid-$60 range in June 2007 through its July 2008 peak of about $145 per barrel, NGL prices followed crude's climb. However, at the same time, the correlation to crude for ethane and, to a lesser extent, propane, weakened. Since the first half of 2008, there has essentially been a lot more variability in the price of ethane and propane relative to a change in the crude price than there is with the heavier hydrocarbons. We will explicitly consider this relationship when we make our assumptions about future prices for ethane and propane. How market conditions inform our assumptions 12. The crude-to-natural-gas ratio is one important factor that influences a processor's decision to fractionate the NGLs, as well as the demand for ethane and propane as feedstocks for the petrochemical industry. While crude prices strengthened for the first nine months of 2009 from the $30-$40 per barrel lows of October-November 2008 to the high $60s to low $70s per barrel range, in the U.S. natural gas prices have been weak. Anemic domestic industrial demand, mild weather, more supply from low-cost shale plays, and record inventory levels that should peak at nearly 3.8 trillion cubic feet by the end of this injection season by the end of October (currently about 3.6 trillion cubic feet), have been the main reasons. These factors have caused the crude-to-gas ratio to approach 30x, which is well above the 10-year average of 9x. The low cost of gas relative to crude has resulted in a significant improvement in frac margins, which have trended upward as this ratio increased (see chart 1). Chart 1 13. As the price disparity between crude oil and natural gas has grown, many petrochemical industry participants have switched to processing more economical, lighter feedstocks like ethane and propane (which are natural gas-based products) from higher cost oil-based gas-oil and naphtha products. 14. While we believe the use of lighter feedstocks for steam cracking has helped support ethane prices, we do not expect the petrochemical industry's preference for ethane to provide much additional future price support. Generally, feedstock switching, or "flexing" from crude-based to natural gas-based feedstocks, tends to occur at approximately a 7:1 crude/natural gas ratio, and NGL utilization has essentially peaked at present. Based on the current economic incentives, we believe that petrochemical producers with feedstock flexibility at their facilities are currently maximizing the processing of light feedstocks, and any further increase would require additional and meaningful outlays. We also do not anticipate any new domestic cracker construction given our belief that any increase in domestic petrochemical demand will be limited in the near to –intermediate term. 15. In our view, the North American petrochemical industry has entered a period of subdued operating performance that has been somewhat mitigated by recently strong export opportunities to Asia and other high-growth regions. These opportunities, in our view, have helped the petrochemical industry's utilization rates and profitability in 2009, as several major new petrochemical facilities in the Middle East have been delayed. However, we believe Middle East- and Asia-based petrochemical capacity will increase meaningfully during the next one to two years, likely curtailing North American export opportunities and limiting any economic incentive to consider large-scale capacity additions in this region. We continue to believe that most new growth capital will be deployed in higher-growth or low-cost regions. The rig count is a wild card 16. We believe that natural gas prices will remain under pressure in 2010 despite about 1,000 fewer rigs in operation through mid-September 2009 compared with the same period in 2008 (see chart 2). Until recently, natural gas production has not declined even with the lower number of rigs in production. We believe that contributing factors include more efficient and productive rigs, more prolific discoveries from the new shale plays, and some exploration and production companies' need to drill to maintain lease rights. Chart 2 17. We also note that, according to the U.S. Energy Information Administration's (EIA) monthly data, ending stocks of natural gas liquids increased for the first six months of 2009 despite the falling rig count (see table 3). This is mainly attributable to the build-up of propane stocks in the summer in anticipation of the crop-drying and winter-heating seasons, and the use of butane stocks for propane and gasoline blending. Table 3 End-of-Month Natural Gas Liquids Stocks (MIL. BARRELS) JAN. 2009 FEB. 2009 MARCH 2009 APRIL 2009 MAY 2009 JUNE 2009 JULY 2009 JULY 2008 YEAR-OVER-YEAR VARIATION Ethane-Ethylene 27.3 27.4 27.9 25.5 24.5 24.7 24.9 17.1 7.8 Propane-Propylene 45.5 39.8 40.0 44.5 55.0 65.3 69.8 47.5 22.2 Butane-Butylene 15.6 13.6 15.1 21.7 29.0 35.4 41.2 40.4 0.8 Isobutane-Isobutylene 7.3 8.0 7.2 7.0 7.1

6.9 6.9 8.3 (1.4) Pentanes-plus 15.7 16.1 15.8 15.6 16.7 17.0 17.0 14.2 2.8 Total 111.5 104.9 106.0 114.3 132.3 149.3 159.7 127.5 32.2 Rig count 1,553 1,320 1,105 995 918 895 931 1,932 (1,001) Source: Energy Information Administration; Baker Hughes Inc. 18. However, ethane inventories are higher than they were a year ago and seem to have stabilized from higher levels earlier in 2009 when many processors rejected ethane because it was not profitable to remove from the gas stream. Our NGL supply and demand expectations 19. We view the current NGL market as oversupplied and expect this trend to continue in 2010, which could dampen meaningful price appreciation. We believe our market research and EIA data support this hypothesis. In our view, there is a significant backlog of product coming into the Mid-Continent region, which is contributing to the wide Conway/Mt. Belvieu basis differentials. Storage availability in Kansas is getting tight, with many facilities full. In addition, most NGL pipelines are at full capacity, moving product to Mont Belvieu and other areas of the Gulf Coast region. We expect volumes on ONEOK Partners L.P.'s new Arbuckle pipeline to ramp up quickly and help narrow the Conway/Mont Belvieu differential. We also believe that robust frac margins are contributing to a dearth of available fractionation capacity, which is allowing fractionator operators to negotiate better contract terms. 20. In our opinion, the supply of the heavier products will continue to exceed demand into 2010. According to the EIA, total gasoline stocks are up to 213 million barrels as of Sept. 18, 2009, compared with 179 million barrels a year ago. Demand is about 8.8 million barrels per day, and the four-week rolling average continues to decrease. We expect gasoline demand to continue to be weak in 2010, and it will only increase with a broad improvement in the economy. We also expect that major refinery expansions in the Gulf Coast region may keep the gasoline supply high relative to demand. 21. It is not unusual to see propane and butane volumes build in the summer months due to the seasonal demand for these products. However, propane stock continues to build rapidly, from about 65 million barrels in June 2009 to 73 million barrels, according to the EIA's weekly petroleum report dated Oct. 7, 2009, or about 12 million barrels higher than the same period in 2008. In our opinion, a warm winter that would reduce demand could prevent prices from meaningfully appreciating. Continued oversupply is likely to hold down prices 22. Our 2010 NGL price assumption for the composite barrel represents a discount of slightly more than 25% compared with the current spot price and about 28% when compared with the first quarter 2010 forward price. This conservative assumption reflects both a degree of prudence in assumptions underlying our base-case cash flow forecasts for corporate issuers and our belief that NGL price appreciation will continue to lag the higher crude oil prices, due to our expectations that the supply of NGLs will continue to exceed demand, the crude oil-to-gas ratio will narrow, and the price relationship between ethane and crude oil will remain in the 30% to 35% range (see table 4). We will continue to monitor underlying fundamentals that may affect NGL prices, such as the crude oil to natural gas ratio, NGL inventories, and petrochemical industry demand, and could revise our assumptions at least twice annually. Table 4 Natural Gas Liquids/Crude Ratios (000 BARRELS/DAY) 2005 2006 2007 2008 JULY 2008 JULY 2009 ETHANE Natural gas processing 649 676 709 701 722 772 Refinery production 20 19 20 18 22 19 Imports 1 0 0 0 0 0 Total supply 670 695 729 719 744 791 Total demand 660 707 744 685 708 785 Excess (short) supply 10 (12) (15) 34 36 6 Ethane-to-crude ratio (%) 46.14 41.18 45.03 38.37 40.88 30.81 PROPANE Natural gas processing 499 501 507 512 532 551 Refinery production 540 543 562 519 534 574 Imports 233 228 182 185 130 102 Total supply 1,272 1,272 1,251 1,216 1,196 1,227 Refinery and blender net inputs 0 0 0 0 0 0 Exports 37 45 42 53 18 56 Products supplied 1,229 1,215 1,235 1,154 1,017 1,022 Total demand 1,266 1,260 1,277 1,207 1,035 1,079 Excess (short) supply 6 12 (26) 9 161 148 Propane-to-crude ratio (%) 67.39 63.80 69.35 60.39 61.19 55.26 BUTANE Natural gas processing 134 136 128 134 147 122 Refinery production 43 67 67 84 282 261 Imports 66 70 45 47 41 5 Total supply 243 273 240 265 470 388 Refinery and blender net inputs 119 135 132 137 75 68 Exports 15 11 15 14 22 30 Products supplied 110 116 101 111 220 96 Total demand 244 262 248 262 317 194 Excess (short) supply (1) 11 (8) 3 153 194 Butane-to-crude ratio (%) 81.01 75.57 81.40 71.89 74.73 71.70 ISOBUTANE Natural gas processing 168 163 176 173 172 211 Refinery production (30) (1) 6 8 (1) (9) Imports 28 34 20 21 22 15 Total supply 166 196 202 202 193 217 Refinery and blender net inputs 134 182 196 197 205 202 Exports 0 0 0 0 0 0 Products supplied 30 15 5 4 (6) 16 Total demand 164 197 201 201 199 219 Excess (short) supply 2 (1) 1 1 (6) (2) Isobutane-to-crude ratio (%) 85.78 77.48 85.89 73.54 76.05 82.40 NATURAL GASOLINE Natural gas processing 266 263 263 264 288 291 Refinery

production 0 0 0 0 0 (16) Imports 47 27 29 22 18 5 Total supply 313 290 292 286 306 280 Refinery and blender net inputs 188 184 177 152 159 184 Exports 7 11 13 34 39 37 Products supplied 116 83 106 91 65 61 Total demand 311 278 296 277 263 282 Excess (short) supply 2 12 (4) 9 43 (2) Natural gasoline-to-crude ratio (%) 93.77 89.28 96.45 89.05 92.05 84.39 Source: Energy Information Administration. RELATED RESEARCH "Ratings Criteria For U.S. Midstream Energy Companies,' published Dec. 18, 2008. These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as Standard & Poor's Ratings Services' assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment. Special Report Click on the links below to see other articles in "Special Report: 2010: A Turning Point For U.S. Midstream Energy." Click on this link to go to the Special Report Archive. The Changing Landscape Of U.S. Midstream Energy Credit Methodology For Examining Capital Spending Program Risk For U.S. Midstream Energy Companies 2010: U.S. Midstream Energy's Prospects For A Brighter Future For U.S. Midstream Energy Companies, Advanced Biofuels Offer Credit Risks Similar To Ethanol's