i) Background and Rationale for the Report

The following wheat market outlook and price report will be published on a weekly basis on the Sask Wheat Website. The report provides producers with an overview of world wheat markets, a market forecast, and benchmark prices at both the primary elevator and export positions (FOB Vancouver or elsewhere).

The report is made up of several sections. Following this section, a World Wheat overview is provided, which includes a summary of wheat market fundamentals, world production and trade, and a wheat market outlook. This is followed by several price tables, which include primary elevator bids at various Saskatchewan locations (Table 1), grain spreads (Table 2), and FOB port prices and basis (as measured by subtracting the primary elevator price (Rosetown) from the relevant port location price for individual crops) (Table 3). Table 3 is preceded by a description of the various assumptions, definitions and methodology used in arriving at the FOB port prices and in the export basis calculation.

ii) Wheat Market Outlook January 10, 2020

USDA’s January 10/20, Estimates of Global Wheat Supply and Use

- The USDA report on Friday was largely as expected. Global wheat production was reduced by 1.0 mln mt from last month to 764.39 mln mt. Russian production was down 1.0 mln mt from last month (to 73.5 mln mt) based on updated government data, while a further 0.5 mln mt decrease in Australia (to 15.6 mln mt which is still ~0.5 mln mt too high) was offset by an equal increase in the EU (to 154 mln mt).
- Global trade was higher, largely because of strong demand from Turkey (+0.6 mln mt from last month). Exports were up 1.3 mln mt from last month led by a 2 mln mt increase in the EU offsetting a 1 mln mt decrease in Russia.
- With supply falling and use rising, global ending stocks were reduced by 1.2 mln mt from last month to 288.1 mln mt (vs the trade’s expected 287 mln mt).
Global wheat production and trade:
There is a lot of competition in the wheat markets as wheat is produced around the world. Below is a brief synopsis on last week’s market events in the major wheat origins.

- **Futures:** Mar ‘20 contract Chicago winter wheat closed at 564-4, up 2-2 cents for the day, up 10-0 cents for the week. Mar ‘20 contract Kansas hard red winter wheat closed at 494-6, up 4-4 cents for the day, up 19-6 cents for the week. In Minneapolis, Mar ‘20 contract hard red spring wheat closed at 558-2, up 6-2 cents for the day, up 10-0 cents for the week, while May ‘20 hard red spring wheat closed at 566-4, up 9-2 cents for the day, up 6-0 cents for the week.

**Canadian Wheat:**
- Canadian producers delivered 983k mt of wheat into the Canadian handling system from week 20-22 (an average of 328k mt/week), for a season total of 9 mln mt, down 7% (681k mt) from last year. Exports over the three weeks were 755.5k mt (252k mt/week) for a season total of 6.82 mln mt, down 15% (1.16 mln mt) from last year.
- There was 162k mt worth of durum delivered during shipping week 20-22 for a YTD total of 2.12 mln mt, 36% (565.2k mt) more than last year. Exports over the 3 weeks averaged 93.2k mt/week for a YTD total of 2.15 mln mt, 47% (692.3k mt) more than this time last year.
- The latest StatsCan data shows that Canada exported just under 1.3 mln mt of wheat during November for an Aug-Nov YTD total of 5.47 mln mt, 19% (1.3 mln mt) less than last year. Exports have been smaller to all our major trading partners except for Japan, Nigeria and Australia (Australia continues to import 60+k mt of milling wheat per month.)
- **US traders are concerned that US/Iran tensions could cause Iraq to switch from the US to Canada for its supply of high-quality wheat.** US wheat exports to Iraq are variable year-year; in the last 5 years they have been as high as 882k mt (2018) or as low as 0 mt (2016). Similarly, Canadian exports during the same timeframe have been as high as 600k mt (2014) or as low as 0 mt (2017).
- Year-to-date durum exports continue to be strong. The bulk of Canadian durum is going to Italy, Turkey and Morocco. While exports to Morocco are like last year, there have been huge increases to Italy (+224k mt y/y) and Turkey (+295k mt).
• Canadian drum exports to the US have been low due to the 20-year high in US 2018/19 ending stocks of 55 mln bu (because of slow US exports). As most of the US durum was stored in the N Plains, there was little incentive to buy from Canada.

• World values continue to trade at levels that allow for Canadian elevators to improve their basis levels. For now, elevators are content to let the futures do the heavy lifting which has caused cash prices to rise, but in most cases, not enough to hit our next targeted level of $7.00 for No. 2 13.5 CWRS.

• We expect this strong demand for durum will last until users have enough supplies until new crop. Low production and strong demand is causing ending stocks in many key areas to fall to multi year lows, and while large beginning stocks were able to supply much of the early demand, lower ending stocks will start to play a larger roll as we approach the end of the 2019/20 marketing year.
US wheat:
- The only change the USDA made to the US all wheat S&D was a 9 mln bu increase in domestic use for an equal decrease in ending stocks to 965 mln bu (vs trades expected 962 mln bu).
- On a by-class basis, HRW exports were seen 5 mln bu lower to 385 mln bu (+16% y/y), while durum exports were raised the same amount to 40 mln bu (+82% from last year’s slow pace).
- Domestic use was increased by 5 mln bu in both HRS and SRW wheat classes for respective decreases in ending stocks to 264 mln bu (up just 1 mln bu y/y) and 106 mln bu (down 52 mln bu y/y).
- This increase in durum exports has the USDA forecasting durum ending stocks to be a 6-year low of 21 mln bu (just 38% of last year’s amount).
- NASS put US all wheat stocks as of December 1st at 1.83 bln bu, down 9% from last year. The Sept-Nov disappearance was 512 mln bu, 35% more than the same period last year.
- The seeded acreage report showed that 30.8 mln mt of winter wheat has been planted, down 1% from last year. The largest % decreases in winter wheat area were in Illinois (-25% y/y) and Missouri (-20%). Of the total seeded area, HRW is expected to account for 21.8 mln acres (-3% y/y), SRW was planted on 5.64 mln acres (+8% y/y), while white winter wheat was seeded on 3.37 mln acres (-4% y/y).

Australian wheat:
- The USDA lowered Aussie wheat production by 500k mt to 15.6 mln mt. This is still likely upwards of 500k mt too high as most domestic estimates are closer to 15.0 mln mt.
- USDA decreased Aussie exports by 200k mt to 8.2 mln mt.
- While Australia will have an exportable surplus, it will only go to the most inelastic of demand as Fob prices have risen $10/mt since Christmas to $260.00/mt.

Argentine wheat:
- The governor for Argentina's BA province announced a sharp increase in real-estate taxes for larger farmers. This is another blow to farmers already facing increased export taxes.
- The USDA left Argentina’s wheat estimated unchanged.
- There were no changes to Argentine old crop farmer sales or exports while new crop farmer sales rose just 200k mt from last week.
- Argentine FOB wheat values for 12% pro rose $11 from last week and range from $210-$214/mt.
EU wheat:
- Soft (non-durum) wheat exports from France reached a 7-year high in December despite crippling transportation strikes across the country. Exports as a whole are up 14 percent compared to last season. In its January World Agricultural Supply and Demand Report, USDA increased its estimate of EU exports by 2.0 MMT on improved price competitiveness.
- The French AgMin is estimating that 2019/20 French wheat exports will be 25% higher than last year at 12.2 mln mt.
- As the French rail strike continues, another round of port strikes are further slowing movement.
- Fob values in the EU were again stronger week-over-week with French 11.5 pro bid at $220.30/mt up $3.62 cents from last week, German 12.5 pro was bid at $223.00/mt (+$2.49/mt from last week) and Baltic 12.5 pro was $221.9/mt (+$1.95/mt from last week).

Black Sea wheat:
- Farmers in Ukraine continue to worry about frost damage as their late planted winter crops are still without snow cover and exposed to frost/freeze.
- SovEcon lowered its forecast for 2019/20 Russian wheat exports to 33.1 mln mt vs the USDA’s recently reduced (1 mln mt) 34 mln mt number.
- Russia returns from holiday this week, and as the Ruble continues to rise, without a decrease in Fob, Russian exports will continue to slow.
- Russian 11.5 pro is now bid at $219.00/mt, $4.00/mt more than last week.

- Significant purchases/trades:
  - Egypt (GASC) bought 300,000 mt of Black Sea wheat for 18-29 Feb at $245.75/mt, some $7.50 above their previous purchase.
  - Thailand passed on a 70,000 mt Mar-May feed wheat tender (we got no prices).
  - Jordan passed at its 120,000 mt May-June hard wheat tender (we got no prices).
  - Morocco got no offers at its tender for 354,000 tonnes USA durum.
  - USA inspections were 345,000 mt (season total 545 mln bu up 15%), sales were awful at 81k mt (season total 696 mln bu up 6%).

- Wheat Market Outlook:
  - Significant events:
    - US wheat futures closed higher from last week as the global price of wheat continued to climb, forecasts for winter wheat seedings was lowered and the USDA decreased wheat supplies.
    - Rising futures prices, higher farmer selling, cheaper rail rates and slow export sales pressured HRW and HRS basis levels in the PNW and Gulf.
    - Egypt (GASC) tendered on Jan. 8th, buying 300k mt of Russian (120k mt), Ukrainian (60k mt) and Romanian (120k mt) wheat for an average price of $245.71 C&F. This was on average $7.52 more than what they paid in their last tender on December 10th. The increase in price came entirely from a ~$8 rise in Fob values, as freight prices were just under $2/mt less than on Dec 10th.
Offered prices at the GASC tender showed no willingness in either the Black Sea or EU to discount current replacement. There was no US wheat bid at the tender; while HRW is competitive on a Fob basis, freight spreads continue to prevent the US from buying additional demand.

Egypt announced on the 9th that it has enough wheat reserves to last until mid-June. Such reports are often code for “we will tender soon.”

A moderate to severe drought has been developing in the Red River Valley of SW Oklahoma and NW Texas as well as the high plains of Colorado, SW/Central parts of Kansas and Central Idaho.

January 15th is slated for the signing of Phase 1, US wheat is poised for a large gain in exports to China, but as the deal is going to be calendar based rather than crop based, the additional 2019/20 demand will likely not cause ending stocks fall further than 800k mt which does not need rationing.

Weather Around the World:
- The South American forecast shows a drier than normal outlook for Argentina and central/North East Brazil, with declining soil moisture levels particularly in eastern Brazil and temperatures turning above normal in most regions. The USA is increasing precipitation across the Midwest and Northern Plains, but the central and Southern Plains stay drier than normal. Temperatures remain cold in the north but above average elsewhere. Most of Europe remains in a drier than normal pattern with the FSU looking completely dry. Temperatures remain above normal and the limited existing snow cover will recede.

Outlook:
With the USDA report out of the way, trade’s attention will turn to the signing of the Phase 1 deal on Wednesday. There were rumours of Chinese looking for USA wheat offers last week. This may be linked with the trade deal, and together with the stronger Russian/FSU prices and a number of upcoming tenders in the short term, wheat looks firm.

World values continue to trade at levels that provide Canadian elevators room for basis improvement. However, we don’t see any expansion in grain sales for Canada as we don’t see any additional supplies of railcars for the balance of the year. Therefore, we recommend growers take advantage of any increase in wheat bids and sell. New crop wheat prices look like a hedging opportunity to us.
### iii) Primary Elevator Price Tables and Grade Spreads

#### Table 1: Canadian Primary Elevator Bids, in Canadian Dollars per Bu and per MT

<table>
<thead>
<tr>
<th>NW Sask</th>
<th>Spot (bu.)</th>
<th>Spot (mt)</th>
<th>NW Sask</th>
<th>Deferred Mar.'20 (bu.)</th>
<th>Deferred Mar.'20 (mt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CWRS 13.5</td>
<td>$6.50</td>
<td>$238.84</td>
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<td>$242.51</td>
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<td>$264.19</td>
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<td>$266.03</td>
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<td>$6.01</td>
<td>$220.83</td>
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<td>SW Sask</td>
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<td>SW Sask</td>
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<td>1 CWRS 13.5</td>
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<td>$263.82</td>
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<td>$7.23</td>
<td>$265.66</td>
</tr>
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<td>$206.50</td>
<td>1 CPSR 11.5</td>
<td>$5.93</td>
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</tr>
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<td>NE Sask</td>
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<td></td>
<td>NE Sask</td>
<td></td>
<td></td>
</tr>
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<td>1 CWRS 13.5</td>
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<td>$7.59</td>
<td>$278.89</td>
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<td>$206.87</td>
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<td>SE Sask</td>
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<td>SE Sask</td>
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<td></td>
</tr>
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<td>$278.89</td>
</tr>
<tr>
<td>1 CPSR 11.5</td>
<td>$5.55</td>
<td>$203.93</td>
<td>1 CPSR 11.5</td>
<td>$5.76</td>
<td>$211.65</td>
</tr>
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</table>

#### Table 2: Grade Spreads, in Canadian Dollars per Bu and per MT

<table>
<thead>
<tr>
<th>Avg. Grade Spread/ Pro Discounts</th>
<th>Cdn$/bu.</th>
<th>Cdn.$/mt</th>
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</thead>
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<tr>
<td>1 CWRS 14.0</td>
<td>0.05</td>
<td>1.89</td>
</tr>
<tr>
<td>1 CWRS 13.5</td>
<td>Base Grade</td>
<td>Base Grade</td>
</tr>
<tr>
<td>2 CWRS 13.5</td>
<td>(0.10)</td>
<td>-3.67</td>
</tr>
<tr>
<td>1 CWRS 12.5</td>
<td>(0.15)</td>
<td>-5.51</td>
</tr>
<tr>
<td>1 CWAD 13.0</td>
<td>Base Grade</td>
<td>Base Grade</td>
</tr>
<tr>
<td>1 CWAD 13.5</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2 CWAD 13.0</td>
<td>(0.10)</td>
<td>-3.67</td>
</tr>
<tr>
<td>2 CWAD 12.5</td>
<td>(0.20)</td>
<td>-7.35</td>
</tr>
</tbody>
</table>
iv) FOB Wheat Prices and Export Basis Calculation

**Background and Rationale:**
Reporting FOB prices at port position and primary elevator prices allows the reader to gain an understanding of both local and international wheat prices and to understand the relationship between the two, as measured by the export basis. Export basis can be defined as FOB port position prices minus the primary elevator prices at any given prairie delivery location and is therefore reflective of transportation costs plus any premiums being captured by terminal grain elevator companies or the railway companies, at any given time.

In general, a widening basis is indicative of decreasing system performance in terms of either reduced port capacity or rail service, or both. A narrowing basis is indicative of increased available port capacity and/or better ability of the railways to provide ample service to grain shippers. In this regard, tracking these prices over time has value both in terms of producers being able to time the selling of their grain but also in terms of evaluating and setting policy related to various transportation and capacity issues.

Gray (2015) has calculated a normal basis to be in the range of C$72/tonne. During the 2013/14 crop year the export basis for wheat widened to approximately C$250/tonne, which indicated an inability of the grain handling and transportation system to adequately handle the record crop produced that year. This occurrence has highlighted the need to improve the level of rail service and take measures to expand port capacity where possible. It has also underscored the need for better price transparency and market information within the grain sector.

**Assumptions, Definitions, and Methodology**
The following background information should assist in understanding and interpreting international market signals and to relate them to the ‘local’ Saskatchewan wheat market:

- The price information generated for the weekly report is designed to show farmers at what price levels several wheat classes are trading at local primary elevators (Table 1) and in nearby international markets (Table 3). To express the Export Basis 1 (see Export Basis in Table 3) defined as Cdn. FOB Prices minus primary elevator bids, the FOB prices are translated into Cdn. dollars from US dollars and compared to current actual primary elevator Street prices at Rosetown, Saskatchewan (see Street Prices in Table 3). Rosetown is used as a proxy for all primary elevators in the basis calculation. The actual handling and transportation costs from the West Coast to delivered elevator (Rosetown area) range from ~C$58.00-C$74.72/mt, depending on number of cars moved and elevator used.

- Approximate relationship between U.S. wheat classes and Canadian wheat classes:
  - DNS 14% in the Pacific North West (PNW) ≈ 1 CWRS 13.5% in Vancouver
  - HRS in the Pacific North West (PNW) ≈ 2 CWRS 13.0% in Vancouver
  - HRW in the Pacific North West (PNW) ≈ 3 CWRS in Vancouver
  - SW (lowest price wheat) ≈ CPS red (mostly fed domestically)
  - HAD (Lakes) ≈ CWAD (Thunder Bay/ Lawrence)

“The difference between FOB Vancouver prices and the Saskatchewan elevator cash bids to producers is referred to as export basis: Basis can refer to the difference between any two prices. As the largest volume port, Vancouver FOB, minus the elevator bid prices representative measure of the “export” basis for grains in Western Canada.”
Abbreviations: DNS (Dark Northern Spring Wheat); HRS (Hard Red Spring Wheat); HRW (Hard Red Winter Wheat); SW (Soft Wheat); HAD (Hard Amber Durum Wheat); CWRS (Canadian Western Red Spring Wheat); CPS (Canada Prairie Spring Wheat); CWAD (Canadian Western Amber Durum Wheat)

- **Hard wheat price calculations:**
  Exporters in Western Canada generally derive their primary elevator wheat prices from HRS values at the West Coast (Pacific Northwest - PNW). Similarly, HRW values are used for lower grade (3) CWRS.
  - West Coast HRS and HRW values essentially dominate the international hard wheat trade and determine its basic value.
  - If premiums are paid for 1 CWRS 13.5, elevator companies are often able to retain the premium

- **Durum wheat price calculations:**
  The primary export route for Canadian durum wheat is still through Thunder Bay, not the West Coast of Canada.
  - Nevertheless, the Pacific Coast has increased in importance for durum over time with 38% of total export volume crop year to date.
  - Italy is the single biggest buyer of Canadian durum wheat with 27% of total Canadian durum exports YTD (East Coast shipments).

- **Optional origin grain sales:**
  Most major international grain companies sell ‘optional origin’ wheat to their customers and often cover their sales ‘at best’ closer to the shipment position. The Canadian grain system is not conducive to servicing optional origin sales because the volume of wheat kept in storage in port today is much smaller than prior to deregulation of the Canadian wheat market.
### Table 3: Relevant FOB Prices and calculated Basis, US & Canadian Dollars per MT

<table>
<thead>
<tr>
<th>Type of Wheat</th>
<th>FOB Prices CDA¹ (calculated)</th>
<th>Street Prices</th>
<th>Export Basis²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>West Coast (Cdn./mt$)</strong></td>
<td><strong>Rosetown (Cdn.$/mt)</strong></td>
<td><strong>Basis: West Coast-Centr. SK (Cdn$/mt)</strong></td>
</tr>
<tr>
<td>DNS 14.0</td>
<td>$348.72</td>
<td>#VALUE!</td>
<td></td>
</tr>
<tr>
<td>HRS</td>
<td>$342.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRW 11.5</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SWW 12.0</td>
<td>$302.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.5³</td>
<td>$348.72</td>
<td>$237.37</td>
<td>$111.35</td>
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<tr>
<td>2 CWRS 13.0³</td>
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<td>3 CWRS³</td>
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<td>CPS³</td>
<td>$295.36</td>
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<td>$83.72</td>
</tr>
<tr>
<td>1 CWAD³</td>
<td>#VALUE!</td>
<td>$284.77</td>
<td>#VALUE!</td>
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#### Competing wheat:

<table>
<thead>
<tr>
<th></th>
<th>US$/mt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia 12.5 (Black Sea, 25k mt)</td>
<td>$224.00</td>
</tr>
<tr>
<td>French 11.5 (Rouen)</td>
<td>$220.30</td>
</tr>
<tr>
<td>APW 10.5 (W Coast)</td>
<td>$260.00</td>
</tr>
<tr>
<td>Argentine 12.5</td>
<td>$210-$214</td>
</tr>
</tbody>
</table>

¹ FOB Prices CDA = FOB US$ converted into Canadian Currency
² Export Basis = FOB Prices CDA minus Cdn. Street Price
³ DNS 14% = 1 CRWS 13.5%; HRS = 2 CWRS 13.0%; HRW = 3CWRS; SWW = CPS
⁴ Values derived to Lakehead FOB

*Note: The Great Lakes are closed, thus there are no bids posted were #VALUE is shown.*
## ADDENDUM

Futures Driven Basis Calculation, Canadian Dollars per MT

<table>
<thead>
<tr>
<th></th>
<th>1GWRs13.5</th>
<th>2GWRs</th>
<th>3GWRs</th>
<th>Winter wnt.</th>
<th>GPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canadian Wheat - World Price Parities</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PNW value/Vancouver</td>
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<td></td>
<td></td>
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<tr>
<td>May/June delivery</td>
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<td>$9.15</td>
<td>$8.17</td>
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<tr>
<td>Party Track Rosetown</td>
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<td>$6.54</td>
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<tr>
<td>Track Bid Rosetown Area</td>
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<td>$6.78</td>
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<tr>
<td>Gross Margin at Elevator ($/bu)*</td>
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<td>$1.80</td>
<td>$1.90</td>
<td>$0.78</td>
<td>$0.78</td>
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<td>Gross Margin at Elevator ($/mt)*</td>
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* To cover elevator, elevator market risk, margin