## **U.S. Natural Gas Storage**

Haawks ID: | Symbol: USDJPY | Importance: \* | Positive Deviation: bearish

## **Description:**

The Energy Information Administration (EIA) Natural Gas Storage report measures the change in the number of cubic feet of natural gas held in underground storage during the past week. While this is a U.S. indicator it tends to have a greater impact on the Canadian dollar, due to Canada's sizable energy sector. If the increase in natural gas inventories is more than expected, it implies weaker demand and is bearish for natural gas prices. The same can be said if a decline in inventories is less than expected. If the increase in natural gas is less than expected, it implies greater demand and is bullish for natural gas prices. The same can be said if a decline in inventories is more than expected.

## Note:

The data below was calculated using historic news & tick data of 321 releases from 2017-01-05 to 2023-02-23.

It combines the data from releases with positive deviations and releases with negative deviations. For the releases with negative deviations, the pip movements were multiplied by -1 to conform with the data from positive deviations. If a higher deviation is bullish for the trading symbol, a positive number signifies movement in the expected direction and a negative number signifies movement in the opposite direction. If a higher deviation is bearish then the opposite is true.

## Key:

| Name                      | Meaning   |
|---------------------------|---|
| Time Delta                | The amount of time elapsed after the news release                                   |
| Range                     | The range of the pip movements  |
| Mean                      | The mean average of the pip movements for all releases for each trigger             |
| Median                    | The median average of the pip movements of all releases for each trigger            |
| Correlation 1 Score (c_1) | Percentage of how many times the asset moved in the expected direction              |
| Correlation 2 Score (c_2) | Percentage of pips which moved in the expected direction vs. the opposite direction |
| Correlation 3 Score (c_3) | The mean average of the Correlation 1 & 2 scores                                    |

Trigger 1: +-2.0B

| 1119901 11 1 |                 |      |        |      |      |      |         |         |       |
|--------------|-----------------|------|--------|------|------|------|---------|---------|-------|
| time_delta   | range           | mean | median | c1   | c2   | c3   | c1_ema5 | c2_ema5 | c3_en |
| 1s           | (-0.6,<br>0.9)  | 0.0  | 0.0    | 58.8 | 47.7 | 53.2 | 55.3    | 53.8    | 54.6  |
| 2s           | (-0.8,<br>1.2)  | -0.0 | -0.1   | 66.7 | 56.4 | 61.5 | 63.8    | 63.5    | 63.6  |
| 3s           | (-0.9,<br>1.9)  | 0.0  | 0.0    | 56.9 | 47.1 | 52.0 | 53.2    | 54.0    | 53.6  |
| 4s           | (-0.9,<br>1.8)  | -0.0 | -0.1   | 60.8 | 53.9 | 57.3 | 57.4    | 62.4    | 59.9  |
| 5s           | (-1.5,<br>1.6)  | -0.1 | -0.1   | 58.8 | 56.7 | 57.8 | 59.6    | 62.1    | 60.8  |
| 10s          | (-3.1,<br>2.0)  | -0.1 | -0.1   | 56.9 | 54.5 | 55.7 | 57.4    | 57.0    | 57.2  |
| 15s          | (-6.1,<br>1.9)  | -0.1 | -0.0   | 52.9 | 53.6 | 53.2 | 51.1    | 52.9    | 52.0  |
| 20s          | (-4.2,<br>3.8)  | 0.0  | 0.3    | 45.1 | 49.5 | 47.3 | 44.7    | 50.3    | 47.5  |
| 25s          | (-3.9,<br>2.3)  | -0.0 | 0.1    | 49.0 | 51.5 | 50.2 | 48.9    | 52.5    | 50.7  |
| 30s          | (-5.3,<br>3.5)  | -0.1 | 0.0    | 56.9 | 53.9 | 55.4 | 53.2    | 55.6    | 54.4  |
| 45s          | (-7.1,<br>4.2)  | -0.3 | -0.2   | 56.9 | 60.2 | 58.5 | 55.3    | 62.3    | 58.8  |
| 1m           | (-6.3,<br>3.4)  | -0.3 | -0.2   | 56.9 | 60.1 | 58.5 | 55.3    | 62.8    | 59.0  |
| 2m           | (-19.9,<br>6.0) | -0.5 | -0.3   | 54.9 | 61.4 | 58.1 | 55.3    | 61.0    | 58.2  |
| 3m           |                 | -0.3 | -0.2   | 56.9 | 56.0 | 56.5 | 55.3    | 54.7    | 55.0  |

| time_delta         | range            | mean | median | c1   | c2   | с3   | c1_ema5 | c2_ema5 | c3_en |
|--------------------|------------------|------|--------|------|------|------|---------|---------|-------|
|                    | (-18.9,<br>5.8)  |      |        |      |      |      |         |         |       |
| 4m                 | (-24.4,<br>10.4) | -0.5 | 0.1    | 49.0 | 58.4 | 53.7 | 48.9    | 61.1    | 55.0  |
| 5m                 | (-27.7,<br>17.8) | -0.5 | -0.3   | 54.9 | 57.2 | 56.0 | 55.3    | 62.1    | 58.7  |
| 10m                | (-33.8,<br>12.0) | -1.0 | -0.4   | 56.9 | 61.2 | 59.0 | 57.4    | 63.3    | 60.4  |
| 15m                | (-23.5,<br>16.9) | -0.9 | -0.4   | 56.9 | 58.8 | 57.8 | 55.3    | 62.6    | 59.0  |
| Total/<br>Averages | (-33.8,<br>17.8) | -0.3 | -0.1   | 55.9 | 55.5 | 55.7 | 54.6    | 58.6    | 56.6  |

Trigger 2: +-4.0B

| time_delta | range           | mean | median | c1   | <b>c2</b> | <b>c</b> 3 | c1_ema5 | c2_ema5 | c3_en |
|------------|-----------------|------|--------|------|-----------|------------|---------|---------|-------|
| 1s         | (-0.5,<br>1.1)  | 0.0  | -0.0   | 61.9 | 41.5      | 51.7       | 59.3    | 45.6    | 52.4  |
| 2s         | (-1.2,<br>2.3)  | 0.1  | -0.0   | 58.7 | 38.9      | 48.8       | 55.9    | 42.0    | 49.0  |
| 3s         | (-1.4,<br>3.6)  | 0.1  | -0.0   | 57.1 | 38.4      | 47.8       | 54.2    | 43.9    | 49.0  |
| 4s         | (-1.4,<br>4.9)  | 0.1  | -0.1   | 58.7 | 43.0      | 50.9       | 57.6    | 50.9    | 54.2  |
| 5s         | (-1.3,<br>8.2)  | 0.1  | -0.1   | 60.3 | 37.7      | 49.0       | 57.6    | 47.3    | 52.4  |
| 10s        | (-1.8,<br>11.7) | 0.1  | -0.1   | 63.5 | 41.3      | 52.4       | 61.0    | 54.7    | 57.8  |
| 15s        | (-3.1,<br>3.8)  | 0.0  | -0.1   | 57.1 | 48.0      | 52.5       | 55.9    | 51.2    | 53.6  |

| time_delta         | range            | mean | median | c1   | c2   | сЗ   | c1_ema5 | c2_ema5 | c3_en |
|--------------------|------------------|------|--------|------|------|------|---------|---------|-------|
| 20s                | (-3.3,<br>5.2)   | -0.0 | -0.1   | 52.4 | 51.3 | 51.8 | 52.5    | 55.9    | 54.2  |
| 25s                | (-3.6,<br>11.1)  | -0.1 | -0.2   | 54.0 | 53.6 | 53.8 | 55.9    | 61.9    | 58.9  |
| 30s                | (-5.6,<br>15.9)  | 0.2  | -0.1   | 52.4 | 44.6 | 48.5 | 54.2    | 52.9    | 53.6  |
| 45s                | (-17.6,<br>26.0) | 0.3  | 0.1    | 46.0 | 41.9 | 44.0 | 42.4    | 46.3    | 44.3  |
| 1m                 | (-14.8,<br>20.6) | 0.4  | 0.4    | 39.7 | 41.3 | 40.5 | 35.6    | 44.3    | 40.0  |
| 2m                 | (-19.5,<br>24.8) | 0.9  | 0.5    | 41.3 | 37.3 | 39.3 | 40.7    | 40.6    | 40.7  |
| 3m                 | (-10.0,<br>27.1) | 1.2  | 1.2    | 39.7 | 36.2 | 38.0 | 40.7    | 40.1    | 40.4  |
| 4m                 | (-11.0,<br>22.8) | 1.3  | 0.6    | 42.9 | 34.4 | 38.6 | 40.7    | 37.3    | 39.0  |
| 5m                 | (-10.2,<br>31.3) | 1.5  | 0.9    | 36.5 | 32.5 | 34.5 | 35.6    | 35.8    | 35.7  |
| 10m                | (-20.2,<br>35.0) | 1.9  | 0.7    | 44.4 | 34.7 | 39.5 | 44.1    | 37.3    | 40.7  |
| 15m                | (-12.4,<br>44.4) | 1.8  | 0.1    | 49.2 | 36.3 | 42.8 | 49.2    | 42.2    | 45.7  |
| Total/<br>Averages | (-20.2,<br>44.4) | 0.6  | 0.2    | 50.9 | 40.7 | 45.8 | 49.6    | 46.1    | 47.9  |

Trigger 3: +-7.0B

| time_delta | range          | mean | median | c1   | c2   | <b>c</b> 3 | c1_ema5 | c2_ema5 | c3_en |
|------------|----------------|------|--------|------|------|------------|---------|---------|-------|
| 1s         | (-1.5,<br>1.5) | -0.1 | -0.1   | 66.7 | 60.3 | 63.5       | 64.4    | 67.2    | 65.8  |

| time_delta | range            | mean | median | c1   | <b>c2</b> | <b>c</b> 3 | c1_ema5 | c2_ema5 | c3_en |
|------------|------------------|------|--------|------|-----------|------------|---------|---------|-------|
| 2s         | (-1.5,<br>1.4)   | -0.0 | -0.1   | 61.9 | 56.9      | 59.4       | 59.3    | 61.4    | 60.4  |
| 3s         | (-1.8,<br>1.4)   | -0.1 | -0.1   | 65.1 | 56.8      | 60.9       | 62.7    | 59.8    | 61.2  |
| 4s         | (-2.2,<br>1.4)   | -0.1 | -0.0   | 57.1 | 56.9      | 57.0       | 54.2    | 59.5    | 56.8  |
| 5s         | (-2.4,<br>2.3)   | -0.0 | 0.0    | 55.6 | 52.9      | 54.2       | 52.5    | 56.7    | 54.6  |
| 10s        | (-2.2,<br>2.3)   | 0.1  | 0.1    | 46.0 | 42.1      | 44.0       | 45.8    | 43.1    | 44.4  |
| 15s        | (-2.2,<br>4.2)   | 0.2  | 0.1    | 47.6 | 36.9      | 42.2       | 44.1    | 39.2    | 41.7  |
| 20s        | (-3.7,<br>3.5)   | 0.3  | 0.3    | 38.1 | 35.3      | 36.7       | 37.3    | 34.9    | 36.1  |
| 25s        | (-2.9,<br>4.4)   | 0.4  | 0.3    | 38.1 | 34.2      | 36.2       | 37.3    | 34.9    | 36.1  |
| 30s        | (-3.4,<br>4.7)   | 0.3  | 0.2    | 41.3 | 38.4      | 39.8       | 40.7    | 40.3    | 40.5  |
| 45s        | (-4.6,<br>5.6)   | 0.3  | 0.4    | 41.3 | 40.1      | 40.7       | 42.4    | 41.0    | 41.7  |
| 1m         | (-6.0,<br>6.6)   | 0.3  | 0.6    | 39.7 | 43.2      | 41.5       | 39.0    | 44.2    | 41.6  |
| 2m         | (-11.5,<br>11.6) | 0.2  | 0.3    | 47.6 | 46.7      | 47.2       | 47.5    | 50.4    | 49.0  |
| 3m         | (-12.0,<br>12.9) | 0.0  | 0.2    | 47.6 | 49.2      | 48.4       | 47.5    | 52.0    | 49.8  |
| 4m         | (-15.0,<br>17.0) | 0.3  | 0.4    | 44.4 | 45.7      | 45.0       | 44.1    | 49.6    | 46.8  |
| 5m         |                  | 0.4  | 0.4    | 44.4 | 44.7      | 44.5       | 45.8    | 48.9    | 47.3  |

| time_delta         | range            | mean | median | c1   | <b>c2</b> | с3   | c1_ema5 | c2_ema5 | c3_en |
|--------------------|------------------|------|--------|------|-----------|------|---------|---------|-------|
|                    | (-13.3,<br>17.2) |      |        |      |           |      |         |         |       |
| 10m                | (-20.8,<br>19.4) | -0.2 | -0.2   | 52.4 | 52.2      | 52.3 | 52.5    | 55.3    | 53.9  |
| 15m                | (-22.8,<br>22.2) | -0.9 | -0.6   | 52.4 | 59.0      | 55.7 | 52.5    | 62.3    | 57.4  |
| Total/<br>Averages | (-22.8,<br>22.2) | 0.1  | 0.1    | 49.3 | 47.3      | 48.3 | 48.3    | 50.0    | 49.2  |

Trigger 4: +-11.0B

| time_delta | range          | mean | median | c1   | c2   | сЗ   | c1_ema5 | c2_ema5 | c3_en |
|------------|----------------|------|--------|------|------|------|---------|---------|-------|
| 1s         | (-0.9,<br>1.8) | -0.0 | -0.0   | 68.1 | 53.1 | 60.6 | 66.2    | 59.5    | 62.8  |
| 2s         | (-1.5,<br>2.7) | -0.1 | -0.1   | 66.7 | 58.8 | 62.8 | 64.7    | 65.7    | 65.2  |
| 3s         | (-2.3,<br>1.0) | -0.1 | -0.1   | 65.3 | 68.1 | 66.7 | 63.2    | 69.8    | 66.5  |
| 4s         | (-3.7,<br>1.2) | -0.2 | -0.1   | 65.3 | 72.3 | 68.8 | 63.2    | 73.6    | 68.4  |
| 5s         | (-4.3,<br>1.1) | -0.2 | -0.1   | 65.3 | 72.1 | 68.7 | 63.2    | 73.2    | 68.2  |
| 10s        | (-5.1,<br>2.5) | -0.2 | 0.0    | 54.2 | 65.2 | 59.7 | 51.5    | 66.8    | 59.2  |
| 15s        | (-8.3,<br>2.8) | -0.1 | -0.1   | 54.2 | 58.0 | 56.1 | 54.4    | 57.9    | 56.2  |
| 20s        | (-6.6,<br>1.9) | -0.3 | -0.3   | 58.3 | 66.5 | 62.4 | 58.8    | 66.9    | 62.8  |
| 25s        | (-7.5,<br>6.2) | -0.1 | 0.1    | 48.6 | 55.9 | 52.2 | 48.5    | 58.3    | 53.4  |

| time_delta         | range            | mean | median | c1   | c2   | сЗ   | c1_ema5 | c2_ema5 | c3_en |
|--------------------|------------------|------|--------|------|------|------|---------|---------|-------|
| 30s                | (-5.7,<br>3.7)   | -0.2 | -0.1   | 51.4 | 58.1 | 54.8 | 51.5    | 60.1    | 55.8  |
| 45s                | (-4.5,<br>7.4)   | -0.1 | 0.0    | 54.2 | 55.4 | 54.8 | 51.5    | 60.9    | 56.2  |
| 1m                 | (-5.6,<br>7.5)   | 0.1  | -0.0   | 52.8 | 48.3 | 50.5 | 51.5    | 52.6    | 52.0  |
| 2m                 | (-10.6,<br>8.4)  | -0.2 | -0.2   | 56.9 | 53.7 | 55.3 | 58.8    | 55.9    | 57.4  |
| 3m                 | (-9.1,<br>11.1)  | -0.1 | -0.4   | 55.6 | 52.8 | 54.2 | 55.9    | 57.2    | 56.6  |
| 4m                 | (-7.7,<br>9.9)   | 0.1  | -0.3   | 54.2 | 48.3 | 51.2 | 54.4    | 51.4    | 52.9  |
| 5m                 | (-10.6,<br>15.9) | -0.1 | 0.2    | 48.6 | 51.3 | 50.0 | 48.5    | 55.1    | 51.8  |
| 10m                | (-34.9,<br>14.9) | -0.8 | 0.0    | 50.0 | 59.8 | 54.9 | 50.0    | 60.6    | 55.3  |
| 15m                | (-25.4,<br>14.2) | -0.7 | -0.2   | 50.0 | 57.8 | 53.9 | 50.0    | 60.0    | 55.0  |
| Total/<br>Averages | (-34.9,<br>15.9) | -0.2 | -0.1   | 56.7 | 58.6 | 57.6 | 55.9    | 61.4    | 58.6  |