

Wheat Market Outlook and Price Report: October 3, 2022

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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 October 3, 2022

USDA – US Wheat production By Class:

Wheat Production by Class - United States: 2020-2022			
[Wheat class estimates are based on the latest available data including both surveys and administrative data]			
Crop	2020	2021	2022

		1,000 bushels	

Winter			
Hard red	658,977	749,878	530,910
Soft red	266,239	360,697	336,525
Hard white	12,194	20,303	10,647
Soft white	233,987	146,877	225,625

Spring			
Hard red	531,179	297,076	446,015
Hard white	10,693	5,662	6,707
Soft white	45,633	28,112	29,468
Durum	69,141	37,649	63,981

Total	1,828,043	1,646,254	1,649,878

Source: USDA, Small Grains Production Report, September 30, 2022

- According to the latest United States Department of Agriculture (**USDA**) **crop production summary**, all wheat production totalled 1.65 billion bushels in 2022, up less than 1% from the 2021 total of 1.65 billion bushels.
- The levels of production and changes from 2021 by type were reported as:
 - Winter wheat: 1.10 billion bushels, down 14%
 - Other spring wheat: 482 million bushels, up 46%
 - Durum wheat: 64.0 million bushels, up 70%

- Specifically, all wheat production was up, but winter wheat production was down. **HRW** wheat saw the most significant reduction dropping 29% compared to last year at 14.4 million mt. **SRW** and **hard white** were also reduced, while **soft white wheat** was increased. **All spring wheat** classes were up, led by **HRS** wheat, up 50% from 2021 at 12.1 million mt.

Developments in Wheat Demand:

A financial meltdown of several economies cannot be excluded, and it is unclear what this would mean for overall demand.

➤ **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:

- December 2022 contract **Chicago winter wheat** closed at 921-4, up 25-2 cents on Friday, *up 41 cents on the week.*
- December 2022 contract **Kansas hard red winter wheat** closed at 991-4, up 24-6 cents in Friday's trade, *up 41 cents on the week.*
- December 2022 **Minneapolis hard red spring wheat** closed at 982-0, up 16 cents on Friday, *up 32-8 cents on the week.*
- Futures are mostly unchanged this morning.

CBOT December 2022 Wheat (1 yr.) KC December 2022 Wheat Mpls. December 2022 Wheat



Canadian Wheat

- Saskatchewan Agriculture said that 83% of Saskatchewan spring wheat was harvested as of September 26th. Their yield estimate still is at 43bu/acre. Alberta Agriculture expects 83% of Alberta spring wheat to be harvested as of September 27th. They gave no updated yield estimate, so we assume it still is at 54 bu/ acre. In Manitoba, 74% of spring wheat is harvested, with yields estimated at 60-75 bu/acre. These yields imply a 24.1 million mt spring wheat production compared to the September StatsCan estimate of 26.1 million mt for 2022 spring wheat.

Spring WHEAT	Acres					Production Est. ('000 mt)		
	2018	2019	2020	2021	2022	% '22	E'22 Yield	E2022 Production
Manitoba	2,852,100	3,099,900	3,106,400	2,827,100	2,955,100	17.1%	67.5	5,428,621
Sask.	7,827,400	8,705,800	8,053,000	7,433,800	7,993,100	46.2%	43.0	9,353,998
Alberta	6,265,000	6,587,600	6,314,100	5,849,800	6,310,300	36.5%	54.0	9,273,792
BC	59,500	68,500	44,900	50,100	50,100	0.3%	54.0	73,628
Ttl. W Cda.	17,004,000	18,461,800	17,518,400	16,160,800	17,308,600	100.0%	51.2	24,130,039

- Canadian wheat export loadings for week 8 were unusually good at 628k mt, for a year-to-date total of 2.4 million mt. Bids to farmers have firmed, reflecting the improved shipments. However, there are also a total of 3.3 million mt of wheat in the handling system, and we are concerned about sufficient rail movement to keep the momentum going.

(CGC) Grain Handling Summary - Wheat		Week 8 (September 25/2022)		
('000 mt)	Producer Deliveries	Terminal Receipts	Bulk Exports	Domestic Disappearance
Week 8	547.1	654.9	627.8	102.0
Week ago	767.4	623.6	278.5	94.7
YTD	3,941.3	3,402.0	2,362.4	692.6
Last YTD	2,681.0	3,223.9	2,346.1	778.8
YTD less Last YTD	1,260.3	19,500.2	16.3	-86.2
YTD over Last YTD	147%	106%	101%	89%

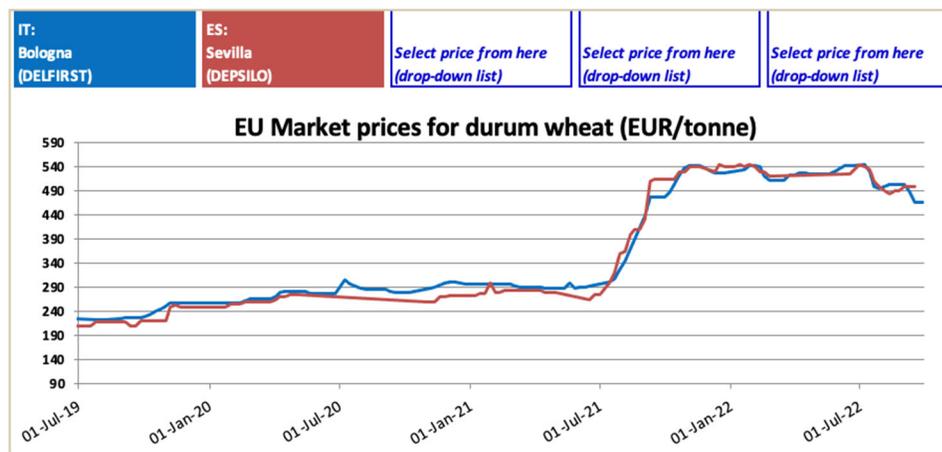
- Wheat prices have been supported by strong futures and a weak Canadian dollar. There were several "specials" at prairie elevators close to \$12.00 for November delivery. These are good prices, and while we are in uncertain times, growers are advised to hold their grains for now.*
- Durum:** The durum harvest is essentially finished. Saskatchewan Agriculture still has Saskatchewan durum yields at 30 bu/acre, while Alberta Agriculture did not give a yield. We note that using Saskatchewan Agriculture and average provincial yields would result in a 5.4 million mt durum production, compared to the latest StatsCan estimate of 6.1 million mt! We have heard a lot of varied yields, so the final verdict is still out there.

DURUM	Acres					Production Est. ('000 mt)			
	2018	2019	2020	2021	2022	% '22	E'22 Yield	E2022 Production	
Manitoba		18,400	31,000	19,300	34,800	0.6%	55.0	52,090	L.T. Avg excl. '21
Sask.	4,989,600	4,100,000	4,645,600	4,519,400	5,215,400	84.0%	30.0	4,258,165	SK Ag est.
Alberta	1,184,800	775,000	1,012,000	988,500	957,500	15.4%	42.0	1,094,464	L.T. Avg excl. '21
BC	900		0		0	0.0%	42.0	-	L.T. Avg excl. '21
Ttl. W Cda.	6,175,300	4,893,400 ▲	5,688,600	5,527,200 ▲	6,207,700	100.0%	32.0	5,404,719	

- According to USDA on Friday, **US durum production** for 2022 was estimated at 64.0 million bushels (1.74 million mt), up 70% from the 2021 total of 37.6 million bushels (1.02 million mt). The 2020 US durum production amounted to 1.9 million mt. As of September 11th, durum harvest was 91% complete in Montana and 65% in North Dakota.
- Canadian exports have remained small, with only 28k mt loaded during week 8. However, we have seen bids from a couple of companies at \$12.50/bu in Saskatchewan, so bids are still appreciating.

(CCG) Grain Handling Summary Durum		Week 8 (September 25/2022)		
('000 mt)	Producer Deliveries	Terminal Receipts	Bulk Exports	Domestic Disappearance
Week 8	97.0	98.4	27.7	13.9
Week ago	115.4	81.4	77.2	14.7
YTD	675.6	553.7	304.8	91.6
Last YTD	583.7	458.5	575.7	31.3
YTD less Last YTD	91.9	95.2	-270.9	60.3
YTD over Last YTD	116%	121%	53%	293%

- We note that durum prices in Italy have weakened slightly over the past week to Euro\$468/mt (~US\$458.70), reflecting roughly \$11.90/bu at the Saskatchewan elevator.



Source: European Commission, Sept. 30/2022

US Wheat:

- In The **USDA stocks report** last Friday at 1.78 billion bu left **wheat stocks** the same as a year ago. Still, in terms of **production**, all classes of the 2022 wheat crop were below the previous levels, with the total at 1,650 million bu, down a large 133 million bu from the September NASS figure. Wheat futures went up by 15-25 c/bu following the report. The USDA stock numbers were considered bullish for wheat and corn but bearish for soybeans.
- In their **Small Grains Summary**, the USDA showed that **all wheat production** was up, but winter wheat production was down. HRW wheat saw the most significant reduction dropping 29% compared to last year at 14.4 million mt. SRW and hard white were also reduced, while soft white wheat was increased. *All spring wheat classes were up, led by HRS wheat, up 50% from 2021 at 12.1 million mt.*
- The US imposed a whole new set of Russia-related sanctions following President Putin's official announcement of Russia's annexation of the four regions of East Ukraine. This should put even more significant constraints on Russian exports, while confirmation of the closure of the Ukrainian grain corridor appears imminent.
- US drought monitor: Despite some rain this week in the High Plains, most of the region's topsoil moisture was more than 50% short to very short. Oklahoma and Texas recorded record high

temperatures, and some areas observed the third straight week of nearly no cloud cover, making dry conditions worse. Degradation of topsoil moisture increased in the northwest and Montana as well. In Montana, the USDA reported that 95% of topsoil moisture was short or very short.

- US HRS for October 2022 was valued at \$432.10/ mt FOB PNW (*up \$0.60/mt from last week*), FOB Gulf HRW 11/12.5 pro is valued at \$432.40/mt (*down \$10.20/mt from last week*).

Australian wheat:

- Australian wheat futures increased to their highest weekly close in over 3 months.

Argentine wheat:

- The Buenos Aries Grain Exchange (BAGE) left the Gd/Exc ratings unchanged at 14% (compared to 51% last year), but Poor/V Poor rose by 3% to 45%.
- BAGE put the Poor/Dry share of the crop up 3% to 50% and took the favourable share down 3% to 50%. However, the soil moisture maps seem to show that drought is much more widespread than this. About 26% of the crop is heading against 28% last year and 31% average.

EU wheat:

- Marché à Terme International de France (Matif) made a 15-week high close in wheat on a lack of farmer selling and Black Sea concerns for both current crop exports and new crop plantings in Ukraine and Russia. (Ukrainian acreage is expected to fall by at least 40%, while Russia is way behind last year's progress due to persistent rain).
- EU cash markets were higher early last Friday but reportedly fell when Algeria started buying Russian wheat (although that should have been no surprise with Russian wheat being the cheapest).
- Beyond the Algerian tender, European markets are far more concerned with imminent political decisions: Putin is expected to announce the future of the regions that were the subject of the referendums, and there are growing expectations that the export corridor will not survive beyond November 22nd and that the Russian Government is reportedly studying a request from VTB (a Russian state-owned bank) that 'unfriendly' western grain companies should be excluded both from domestic trade and from owning any share in port facilities.
- FOB prices in the EU: October 2022 French 11.5 pro wheat closed at \$347.30/mt (*down \$0.10/mt from last week*); October 2022 German 12.5 pro wheat closed at \$356.40/mt (*down \$4.20/mt from last week*); October 2022 Baltic 14.0 pro wheat closed at \$392.50/mt (*down \$0.20/mt from last week*).

Black Sea wheat:

- President Putin signed treaties to begin the annexation process of four Ukrainian regions. The EU and US are claiming that these are illegal and have imposed a whole new set of Russia-related sanctions
- There is increasing concern that the Ukrainian grain export corridor will not survive beyond November 22nd, and some reports say that inbound sailings to Ukraine will stop on November 4th.
- The Russian government is reportedly studying a request from VTB that 'unfriendly' western grain companies should be excluded from domestic trade in Russia and from owning any share in export port facilities.
- FOB prices in the Black Sea: October 2022 Russian 12.5 pro closed at \$330.00/mt (*up \$5.00/mt from last week*).

➤ **Significant purchases/ trades:**

- **Algeria** bought about 300k tonnes of Russian wheat on their tender at ~\$370-372.00/mt.
- **Japan** bought 62k mt of food-quality wheat from the US and Canada in their regular tender last Thursday.
- We hear **Jordan** passed on their tender.
- The **Philippines** passed on their feed wheat tender.
- **US wheat export sales** of 280k mt were towards the low end of expectations, leaving the season total of 393 million bu down 4% last year.

➤ **Wheat Market Outlook:**

Significant events over the past week:

- Saskatchewan Agriculture said that 83% of Saskatchewan spring wheat was harvested as of September 26th, Alberta Agriculture expects that 83% of Alberta spring wheat is harvested as of September 27th, and Manitoba shows 74% of spring wheat is harvested. Provincial agency yields imply a 24.1 million mt **spring wheat production** compared to the September StatsCan estimate of 26.1 million mt for 2022 spring wheat.
- **Canadian wheat export loadings** for week 8 were unusually good at 628k mt, for a year-to-date total of 2.4 million mt.
- **Wheat bids** in the country have been supported by strong futures and a weak Canadian dollar.
- The **durum harvest** is essentially finished. Using Saskatchewan Agriculture and average provincial yields would result in 5.4 million mt durum production, compared to the latest StatsCan estimate of 6.1 million mt.
- According to USDA on Friday, **US durum production** for 2022 was estimated at 64.0 million bushels (1.74 million mt), up 70% from the 2021 total of 37.6 million bushels (1.02 million mt).
- The **USDA stock numbers** were considered bullish for wheat and corn but bearish for soybeans.
- In their **Small Grains Summary**, the USDA showed that **all wheat production** was up, but winter wheat production was down. *All spring wheat classes were up, led by HRS wheat, up 50% from 2021 at 12.1 million mt.*
- The US imposed a whole new set of **Russia-related sanctions** following President Putin's official announcement of Russia's annexation of the four regions of Eastern Ukraine.
- In **Argentina**, BAGE left the Gd/Exc ratings unchanged at 14% (compared to 51% last year), but Poor/V Poor rose by 3% to 45%. BAGE put the Poor/Dry share of the crop up 3% to 50% and took the favourable share down 3% to 50%.
- In Europe, **Matif** made a 15-week high close in wheat on a lack of farmer selling and Black Sea concerns for both current crop exports and new crop plantings in Ukraine and Russia.
- There is increasing concern that the **Ukrainian grain export corridor** will not survive beyond November 22nd, and some reports say that inbound sailings to Ukraine will stop on November 4th.
- The Russian government is reportedly studying a request from VTB that **'unfriendly' western grain companies** should be excluded from domestic trade in Russia and from owning any share in export port facilities.

Outlook:

This market is essentially about adding risk premium as a function of the growing uncertainty surrounding Black Sea exports over the coming months. The following events all look to be likely and pose future complications for the market:

- an escalation in the war efforts,
- an end to the export grain corridor,
- additional western sanctions and
- renewed difficulty in finding and insuring freight.

At the same time, the market is weighing new crop prospects with significant acreage losses expected in Ukraine and some increasingly serious planting issues in Russia.

Geopolitics, unfortunately, remains the key market mover. Still, drought in the US and Argentina are also coming into focus, along with probable declines in winter wheat acreage in both Russia and Ukraine.

iii) Primary Elevator Price Tables and Grade Spreads

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

Date: 03-10-2022					
NW Sask	Spot		NW Sask	Deferred	
	(bu.)	(mt)		Nov. '22 (bu.)	Nov. '22 (mt)
1 CWRS 13.5	\$12.04	\$442.40	1 CWRS 13.5	\$12.15	\$446.44
1 CWAD 13.0	\$11.82	\$434.31	1 CWAD 13.0	\$11.91	\$437.62
1 CPSR 11.5	n/a		1 CPSR 11.5	\$11.47	\$421.45
SW Sask			SW Sask		
1 CWRS 13.5	\$11.84	\$435.05	1 CWRS 13.5	\$12.00	\$440.93
1 CWAD 13.0	\$11.81	\$433.95	1 CWAD 13.0	\$11.88	\$436.52
1 CPSR 11.5	n/a		1 CPSR 11.5	\$11.44	\$420.35
NE Sask			NE Sask		
1 CWRS 13.5	\$11.69	\$429.54	1 CWRS 13.5	\$11.84	\$435.05
1 CWAD 13.0	\$11.70	\$429.90	1 CWAD 13.0	\$11.81	\$433.95
1 CPSR 11.5	n/a		1 CPSR 11.5	n/a	
SE Sask			SE Sask		
1 CWRS 13.5	\$11.64	\$427.70	1 CWRS 13.5	\$11.82	\$434.31
1 CWAD 13.0	\$11.63	\$427.33	1 CWAD 13.0	\$11.78	\$432.84
1 CPSR 11.5	n/a		1 CPSR 11.5	\$11.21	\$411.90

Data source: PDQ, Oct. 3/2022

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

Avg. Grade Spread/ Pro Discounts	Cdn\$/bu.	Cdn.\$/mt
1 CWRS 13.5	Base Grade	Base Grade
2 CWRS 13.5	(0.10)	(3.67)
1 CWRS 12.5	(0.02)	(0.85)
1 CWAD 13.0	Base Grade	Base Grade
1 CWAD 13.5	0.01	0.37
2 CWAD 13.5	(0.09)	(3.31)
2 CWAD 12.5	(0.11)	(4.04)

Data source: PDQ, Oct. 3/2022

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/million mt. During the 2013/14 crop year the export basis for wheat widened to approximately C\$250/million mt, 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 Basis¹ (see *Export Basis* in Table 3) defined as Canadian FOB Prices minus primary elevator bids, the FOB prices are translated into Canadian 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/million 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 Northwest (PNW) ≈ 1 CWRS 13.5% in Vancouver
 - HRS in the Pacific Northwest (PNW) ≈ 2 CWRS 13.0% in Vancouver
 - HRW in the Pacific Northwest (PNW) ≈ 3 CWRS in Vancouver
 - SW (lowest price wheat) ≈ CPS red (mostly fed domestically)
 - HAD (Lakes) ≈ CWAD (Thunder Bay/ Lawrence)
 - 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

¹ Gray, R.S. (2015). The Economic Impacts of Elevated Export Basis Levels on Western Canadian Grain Producers 2012/13, 2013/14 and 2014/15.

“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.”

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

Relevant FOB Prices and Export Basis				03-10-2022
Type of Wheat	FOB Prices CDA ¹ (calculated)		Street Prices	Export Basis ²
	West Coast (Cdn./mt\$)	Great Lakes (Cdn.\$/mt)	Rosetown (Cdn.\$/mt)	Basis: West Coast-Centr. SK (Cdn\$/mt)
DNS 14.0	\$541.64	\$566.22		
HRS	\$533.62			
HRW 11.5	\$566.22			
SWW 12.0	\$473.44			
1 CWRS 13.5 ³	\$541.64		\$434.31	\$107.33
2 CWRS 13.0 ³	\$533.62		\$421.45	\$112.17
3 CWRS ³	\$566.22		\$406.76	\$159.46
CPS ³	\$466.42		\$417.41	\$49.00
1 CWAD ⁴		\$559.20	\$429.54	\$129.66
Competing wheat:	US\$/mt			
Russia 12.5 (Black Sea, 25k mt)	\$330.00	Oct.		
French 11.5 (Rouen)	\$347.30	Oct.		
APW 10.5 (W Coast)	\$360.00	Dec.		
Argentine 12.0	\$352.00	Dec.		

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