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Nunavut Maligaliurvia
Legislative Assembly of Nunavut
Assemblée législative du Nunavut

Return to Written Question

Asked by: *Daniel Qavvik*

Asked of: *Hon. Minister David Joanasie*

Number: *4-6(2)*

Date: April 24, 2023

Subject: *Annual Fuel Purchases, Bulk Fuel Storage Capacity and Annual Resupply Operations*

Question:

1. Expressing the information in the same format as that which the Government of Nunavut provided in Return to Written Question 8-5(2), what quantities of fuel were purchased and delivered during the 2020, 2021 and 2022 calendar years?

2. Expressing the information in the same format as that which the Government of Nunavut provided in Return to Written Question 8-5(2), what is the current bulk fuel storage capacity in each Nunavut community?

3. With respect to the 2022 bulk fuel resupply, what were the scheduled dates of delivery for each Nunavut community?

4. With respect to the 2022 bulk fuel resupply, what were the actual dates of delivery for each Nunavut community?

5. With respect to the 2022 bulk fuel resupply, what specific factors accounted for early and/or late deliveries of bulk fuel in respect to each Nunavut community where delivery did not occur on the scheduled date?

6. From January 1, 2022, to December 31, 2022, which communities in Nunavut received fuel deliveries by airlift and in what amounts?

Response:

1. Please refer to *Table 1.1 Total Fuel Quantities Purchased & Delivered Annually.* Fuel purchased in Fiscal Year 2020-21, was delivered in the 2021 resupply season, fuel purchased in Fiscal Year 2021-22 was delivered in the 2022 resupply season and fuel purchased in Fiscal Year 2022-23 will be delivered in the 2023 resupply season. Note that the total fuel purchased equals the total fuel delivered.

Table 1.1 Total Fuel Quantities Purchased Annually

Table 1.1 Total Fuel Quantities Purchased & Delivered Annually				
	Fuel Type			
FY Purchased	**ULSD**	**Jet A**	**Gasoline**	**Total**
2020-21	138,599,120	50,484,825	25,505,371	214,589,316
2021-22	134,095,449	36,033,359	23,766,244	193,895,052
2022-23	139,380,000	52,765,000	25,265,000	217,410,000

2. Please refer to *Table 2.1. Fuel Tank Storage Capacities by Community* for the current bulk fuel storage capacities for each community Nunavut.

Table 2.1 Fuel Tank Storage Capacities by Community

Table 2.1 Fuel Tank Storage Capacities by Community					
Region/ Community	**ULSD**	**Jet A**	**Gasoline**	**# of Tanks**	**Total**
Baffin					
Arctic Bay	3,188,704	1,376,516	641,555	5	5,206,775
Kinngait	5,099,315	814,464	986,870	8	6,900,649
Clyde River	4,068,194	1,252,754	1,115,311	8	6,436,267
Grise Fiord	1,289,828	182,738	274,386	6	1,746,958
Sanirajak	4,629,133	1,608,470	1,235,542	5	7,473,150
Igloolik	6,223,401	2,225,469	1,381,491	6	9,830,367
Iqaluit	43,312,526	30,446,034	7,150,077	14	80,908,651
Kimmirut	2,331,285	N/A	419,778	6	2,751,069
Pangnirtung	8,155,724	1,246,370	1,909,018	6	11,311,118
Pond Inlet	6,377,907	1,967,214	950,658	9	9,295,788
Qikiqtarjuaq	4,016,298	732,899	953,013	6	5,702,216
Resolute Bay	13,663,313	12,949,287	4,049,707	19	30,662,326
	102,355,628	**54,802,215**	**21,067,406**	**98**	**178,225,334**
Kivalliq					
Arviat	4,527,927	N/A	1,345,362	6	5,873,295
Baker Lake	10,243,473	N/A	2,562,896	8	12,806,377

Chesterfield Inlet	3,271,208	N/A	573,175	3	3,844,386
Coral Harbour	3,922,814	1,997,426	1,320,637	8	7,240,885
Rankin Inlet	17,341,340	9,033,698	2,990,757	13	29,365,808
Naujaat	4,086,828	N/A	941,254	3	5,028,085
Sanikiluaq	2,974,030	1,177,760	478,592	11	4,630,393
Whale Cove	2,015,560	N/A	421,246	3	2,436,809
	48,383,180	**12,208,884**	**10,633,919**	**55**	**71,226,038**
Kitikmeot					
Cambridge Bay	12,019,470	4,001,225	2,216,728	5	18,237,428
Gjoa Haven	10,995,499	1,796,795	1,745,630	14	14,537,938
Kugaaruk	2,756,038	844,007	1,634,209	7	5,234,261
Kugluktuk	4,741,960	1,604,558	1,366,938	7	7,713,463
Taloyoak	3,549,414	1,317,525	691,842	10	5,558,791
	34,062,381	**9,564,110**	**7,655,347**	**43**	**51,281,881**
Territorial Totals	**184,801,189**	**76,575,209**	**39,356,672**	**196**	**300,733,253**
N/A - Fuel type not available in community					

3. Please refer to *Table 3.1 Delivery Schedule* for the preliminary delivery schedule for each community Nunavut.

Table 3.1 Delivery Schedule

Table 3.1 Initial Scheduled Delivery Date(s) as at June 25, 2023				
Delivery #	**1**	**2**	**3**	**4**
Region/ Community				
Baffin				
Arctic Bay	Aug 4			
Clyde River	Aug 13			
Grise Fiord	Aug 12			
Igloolik	Sept 11			
Iqaluit	July 9	Aug 27	Sept 30	Oct 20
Kimmirut	July 2			
Kinngait	July 5			
Pangnirtung	Aug 22			
Pond Inlet	July 31	Sept 12		
Qikiqtarjuaq	Sept 26			
Resolute Bay	Aug 6			
Sanikiluaq	Sept 26			
Sanirajak	Sept 13			
Kivalliq				
Arviat	July 5	Oct 21		

Baker Lake	July 8	July 13	July 25	
Chesterfield Inlet	July 12			
Coral Harbour	Sept 30			
Naujaat	Sept 7			
Rankin Inlet	July 3	July 7	July 15	Oct 14
Whale Cove	July 10			
Kitikmeot				
Cambridge Bay	Aug 31			
Kugluktuk	Sept 3			
Gjoa Haven	Sept 18			
Taloyoak	Sept 23			
Kugaaruk	Sept 12			

4. Please refer to *Table 4.1 Actual Delivery Schedule* for the preliminary delivery schedule for each community Nunavut.

Table 4.1 Actual Delivery Schedule

Table 4.1 Actual Delivery Schedule					
Delivery #	**1**	**2**	**3**	**4**	**5**
Region/ Community					
Baffin					
Arctic Bay	Aug 14-16				
Clyde River	Sept 6	Oct 26-28			
Grise Fiord	Sept 2-4				
Igloolik	Oct 1-5				
Iqaluit	July 13-16	Aug 28-31	Dec 1-4	Dec 7-10	
Kimmirut	July 2-3				
Kinngait	July 4-6				
Pangnirtung	Aug 9	Aug 23-26			
Pond Inlet	Aug 13	Aug 26	Oct 7		
Qikiqtarjuaq	Sept 7-8	Oct 29-30			
Resolute Bay	Aug 18-24	Sept 16-17			
Sanikiluaq	Oct 31-Nov 7				
Sanirajak	Oct 11-19				
Kivalliq					
Arviat	July 9-12	Nov 8-11			
Baker Lake	July 11-13	July 23-25	July 28-29		
Chesterfield Inlet	July 9-10				
Coral Harbour	Oct 8-11				
Naujaat	Aug 28-29	Sept 24-27			

Rankin Inlet	July 5-8	July 9-11	July 25-27	Nov 3-5	Nov 8-18
Whale Cove	July 8-9				
Kitikmeot					
Cambridge Bay	Oct 9-16				
Kugluktuk	Oct 3-7				
Gjoa Haven T/F	Sept 19-21	Oct 10			
Taloyoak	Sept 30-Oct 3				
Kugaaruk	Sept 24-26				

5. Planning each resupply season is a complex undertaking involving five separate ships. Four fuel tankers provide fuel delivery to communities while one ship provides resupply to the fuel tankers delivering to the communities as they navigate their scheduled supply route.

   During each resupply season, adjustments and alterations to the scheduled deliveries are expected to be made to accommodate several factors. These factors include but are not limited to weather, increases in sales of specific fuel products leading to shortages or outages, short-term demands for fuel products stemming from discrepancies between available storage and annual fuel demands in a particular community.

   A single change made to the distribution schedule impacts each subsequent scheduled delivery. Each ship is pre-loaded with a precise volume of fuel based on a combination of the most recent inventory and seasonal usage forecasting. An unplanned increase in fuel required for a community directly impacts each successive delivery adding to the scheduled offloading time, delaying a ship in arriving to the next community or requiring an earlier fuel tanker refill before continuing to the ships next destination. Another situation faced for each ship through the 2022 resupply was the need to reroute a ship to accommodate a shortage or outage in a community. Rerouting a ship to accommodate a shortage or outage result in each successive community's delivery date being pushed back or completely rescheduled.

   Thus, for each delivery that was delayed, the cause was a culmination of the previous changes in that ships schedule. Each of the four delivery ships experienced:

   - Weather delays causing significant delays (the greatest delay faced was six days before being able to safely connect to commence off-loading).
   - Longer than usual offloading times once connected
   - Accommodating changes to community-specific fuel orders. Most often increases in volumes of a particular fuel type and/or each fuel type stemming from shortages or outages.
   - Re-routing of a ship to meet a greater need in a different community resulting in longer times between the fuel tanker reaching the remaining scheduled communities. Each of the changes to redirect a ship to another community was a result of one or more of the following:
     - Increases in sales from the previous year for personal and commercial usage

- Smaller than normal annual inventories from the previous year's resupply due to a reduction in the total fuel purchased in FY 2021-22
- Deficiencies in fuel storage inventory monitoring

Please refer to *Table 5.1 Number of Days Delayed/Re-Scheduling of Fuel Deliveries* for a summary of the difference, total number of days, difference between the scheduled delivery and the actual delivery in each community in Nunavut.

Table 5.1 Number of Days Delayed/Re-Scheduling of Fuel Deliveries

Table 5.1 Number of Days Delayed/Re-Scheduling of Fuel Deliveries					
	Total # Days deviated from preliminary schedule				
Delivery #	**1**	**2**	**3**	**4**	**5**
Region/ Community					
Baffin					
Arctic Bay	10				
Clyde River	31				
Grise Fiord	28				
Igloolik	19				
Iqaluit	4	1	61	48	
Kimmirut					
Kinngait	-1				
Pangnirtung	-13				
Pond Inlet	13	-17	N/A		
Qikiqtarjuaq	-19				
Resolute Bay	12	N/A			
Sanikiluaq	35				
Sanirajak	28				
Kivalliq					
Arviat	4	18			
Baker Lake	3	10	N/A		
Chesterfield Inlet	-3				
Coral Harbour	8				
Naujaat	-8	N/A			
Rankin Inlet	2	2	10	19	N/A
Whale Cove	-2				
Kitikmeot					
Cambridge Bay	39				
Gjoa Haven T/F	1				
Kugaaruk	12				
Kugluktuk	0				
Taloyoak	7				

*N/A - not originally scheduled, delivery added to the schedule

While changing a ships schedule is common practice, prior to the 2022 resupply season, standard operating procedure has not required the thorough documentation of the cause of each minor change or alteration to the schedule. Reviewing the 2022 resupply data in hindsight provides general indicators but does not provide the level of detail requested.

For the 2023 resupply season, the Petroleum Products Division will monitor and document each change or alteration to the schedule along with the reason for the change. To improve service delivery Petroleum Products Division is continuously evaluating and monitoring inventory levels in all communities, purchased 23 million additional litres of fuel from the 2022 resupply season, and is committed to increasing delivery efficiencies in the 2023 resupply season to avoid service interruptions and ensure Nunavummiut have continuous access to fuel products throughout the year.

6. There was a total of six (6) airlifts deliveries during the 2022 resupply season. Please refer to *Table 6.1 Airlift Resupply by Community* for the list of communities receiving an airlift during the resupply season and total volume of the resupply.

Table 6.1 Airlift Resupply by Community

Table 6.1 Airlift Resupply by Community		
Community	**Fuel Type**	**Amount of Fuel (in litres)**
Arctic Bay	Diesel	64,000
Arctic Bay	Gasoline	22,000
Clyde River	Gasoline	22,000
Pond Inlet	Gasoline	62,341
Arviat	Diesel	399,362
Rankin Inlet	Gasoline	40,000