



Department of Environment
PO Box 2703, Whitehorse, Yukon Y1A 2C6



December 09, 2020

Chad Padgett, State Director
BLM-Alaska State Office
222 West 7th Ave. #13
Anchorage, AK, 99513
by email: blm_akso_ak932_cpccomments@blm.gov

Dear Mr. Padgett:

RE: Coastal Plain Lease Sale

I am writing on behalf of the Government of Yukon, to state our opposition to oil and gas lease sales in the Arctic National Wildlife Refuge. The Government of Yukon is very concerned that the timeline for the notice of sale for the Coastal Plain Oil and Gas Leasing Program does not allow the Bureau of Land Management to consider comments provided during this call for nominations period. We respectfully request that all comments be considered fairly and carefully in decisions regarding lease sales.

Development activities in tracts identified by the Bureau of Land Management for lease sale have the potential to cause significant adverse impacts to important transboundary species, and in turn, the people who rely on them. The attached Nomination and Comment Worksheet provides specific technical information on potential impacts to the Porcupine caribou herd and the South Beaufort polar bear subpopulation, as well as an assessment of each tract's importance to conservation interests.

The Government of Yukon has consistently identified that development in the Arctic National Wildlife Refuge has a high risk of significant negative impacts to wildlife populations, including the Porcupine caribou herd and polar bears. We provided comments on the Coastal Plain Oil and Gas Leasing Program Environmental Impact Statement and the subsequent Record of Decision. We also provided comments on the Marsh Creek East Seismic Exploration Environmental Assessment.

The Porcupine caribou herd uses the Arctic National Wildlife Refuge as critical calving and post-calving habitat. In some years, this use will extend into early and mid-summer periods, which coincides with the period where the herd forms large, dense aggregations of caribou attempting to avoid insects. This area provides protection, nutrients and insect-relief that the herd requires at these important stages of their life-cycle.

Page 2

Mr. Padgett

December 09, 2020

The Government of Yukon's major role in research and management of the Porcupine caribou herd makes us uniquely able to provide comments on the tracts identified for lease sale.

The Government of Yukon is a member of the International Porcupine Caribou Board, the Porcupine Caribou Management Board, and the Porcupine Caribou Technical Committee. In recent years, and in partnership with several other governments, the Government of Yukon and the Alaska Department of Fish and Game have led most of the technical aspects of managing the herd including maintenance and management of the collar program, habitat and seasonal distribution analyses, population and demographic data estimation, and harvest management here in Canada. In particular, the Government of Yukon has led efforts to manage the spatial data collected for the herd. Our comments in the attached Comment Worksheet reflect this expertise and knowledge.

The Arctic National Wildlife Refuge is also an increasingly important denning area for polar bears of the Southern Beaufort subpopulation. Current trajectories point to an ever-increasing use of land-based sites for denning of this subpopulation, and the Arctic National Wildlife Refuge contains a disproportionate number of these sites. As a shared resource between Canada and the United States, and valued internationally, protection of polar bears from human developments is of utmost importance.

Notwithstanding variability in the level of conservation interest between individual tracts, as described in the attached, the Government of Yukon remains entirely opposed to lease sales in the Arctic National Wildlife Refuge. The Government of Yukon is not opposed to sustainable development; however, as identified in the comments we submitted to the recently completed Record of Decision, we do not believe the Bureau of Land Management has given due consideration for conservation values and the risks that development would pose to those values. The Government of Yukon urges the Bureau of Land Management to give full and fair consideration of our attached comments.

Sincerely,



Ryan Hennings
Director of Fish and Wildlife

Enclosure: Oil and gas lease sale nomination and comment worksheet

Bureau of Land Management Alaska
Coastal Plain
Oil and Gas Lease Sale
Nomination and Comment Worksheet

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Company: Government of Yukon

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Tract Number	Conservation Priority	Comments
1	Extremely significant	<p>This tract ranks as one of the ten highest areas of importance for Porcupine caribou requirements in the lease sale. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 1 is used significantly for calving (May 26-June 10) and post-calving (June 11-30) on an almost annual basis. The tract is also significant for migration movements as the caribou pass through this area as they move into and out of the remaining tracts. This tract is often the area where the first caribou arrive in the spring, which is significant, as leaders will help determine where the herd calves for the year. Impacts on the lead animals can be disproportionate. The herd also makes significant use of this tract in early summer (July 1-15) and is one of the most frequently used areas in the program area during the mid-summer period (July 16-August 7).</p>
2	Extremely significant	<p>This tract ranks one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 2 is used significantly for calving (May 26-June 10) and post-calving (June 11-30) on an almost annual basis. This tract is often the area where the first caribou arrive in the spring, which is significant, as leaders will help determine where the herd calves for the year.</p>

		Impacts on the lead animals can be disproportionate. The herd also makes significant use of this tract in early summer (July 1-15) and is one of the most frequently used tracts in the program area during the mid-summer period (July 16-August 7). This tract contains a known historic polar bear den site.
3	Extremely significant	<p>This tract ranks one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 3 is used significantly for calving (May 26-June 10) and post-calving (June 11-30) on an almost annual basis. This tract is also significant for migration movements as caribou pass through this area as they move into and out of the remaining tracts. This tract is often the area where the first caribou arrive in the spring, which is significant, as leaders will help determine where the herd calves for the year. Impacts on the lead animals can be disproportionate. The herd also makes significant use of this tract in early Summer (July 1-15) and it sees the highest use in mid-summer (July 16-August 7).</p>
4	Extremely significant	<p>This tract ranks one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 4 is used significantly for calving (May 26-June 10) on an almost annual basis and post-calving (June 11-30) between every year and every other year on average. The tract is also significant for migration movements as caribou pass through this area as they move into and out of the remaining tracts. The herd also makes significant use of this tract on average every fourth year during the early summer period (July 1-15) and it sees similar use during the mid-summer period (July 16-August 7).</p>
5	Extremely significant	<p>This tract ranks one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd.</p>

		<p>Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p>
6	Highly significant	<p>Tract 5 is used significantly for calving (May 26-June 10) and post-calving (June 11-30) between every year, and every other year on average. The tract is also significant for migration movements as caribou pass through this area as they move into and out of the remaining tracts. This tract is often the area where the first caribou arrive in the spring, which is significant, as leaders will help determine where the herd calves for the year. The herd also makes significant use of this tract on average every fifth year during the early Summer period (July 1-15) and it sees slightly less use than this during the mid-summer period (July 16-August 7).</p> <p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p>
7	Highly significant	<p>Tract 6 is used significantly for calving (May 26-June 10) and post-calving (June 11-30) between every second to third year. The tract is also significant for migration movements as caribou pass through this area as they move into and out of the remaining tracts. This tract is often the area where the first caribou arrive in the spring, which is significant, as leaders will help determine where the herd calves for the year. The herd makes use of this tract a little less than every fifth year during the early summer period (July 1-15) and it sees slightly less use than this during the mid-summer period (July 16-August 7).</p> <p>This tract contains a high potential for polar bear denning habitat, some of which has been used by polar bears to den in previously.</p>
		<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p>

		<p>Tract 7 is used significantly for calving (May 26-June 10) on average every other year and post-calving (June 11-30) every fourth year with some portions being used every other year. The herd makes more use of this tract in summer as it frequents the tract every third year in the early summer period (July 1-15) and slightly less than this during the mid-summer period (July 16-August 7).</p> <p>This tract has limited polar bear habitat but it has been used by polar bears to den in previous years.</p>
8	Extremely significant	<p>This tract ranks as one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 8 is used significantly for calving (May 26-June 10) with some portions being used 3 out of every 4 years. Post-calving (June 11-30) occurs in this tract every fourth year with some portions being used every other year or more. The herd makes more use of this tract in summer as it frequents the tract every third year in the early summer period (July 1-15) and slightly less than this during the mid-summer period (July 16-August 7).</p> <p>This tract has been used by polar bears to den in previously.</p>
9	Extremely significant	<p>This tract ranks as one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 9 is used significantly for calving (May 26-June 10) with some portions used 3 out of 4 years, while post-calving (June 11-30) occurs every fourth year with some portions being used every other year or more. The herd makes more use of this tract in summer with it frequenting the tract every third year in the early summer period (July 1-15) and sees slightly less use than this during the mid-summer period (July 16-August 7).</p>

		Within the program area, polar bears have used this tract to den on slightly more than average relative to other tracts in the program area, indicating significant efforts will be required to ensure polar bears are not impacted.
10	Extremely significant	<p>This tract ranks as one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 10 is used significantly for calving (May 26-June 10) with some portions being used 3 out of every 4 years. Post-calving (June 11-30) use occurs in this tract every fourth year, with some portions being used every other year or more. The herd makes more use of this tract in summer as it frequents the tract every third year in the early summer period (July 1-15) and slightly less than this during the mid-summer period (July 16-August 7).</p> <p>This tract contains a moderate quantity of polar bear denning habitat and is immediately adjacent to a number of documented den sites. It is anticipated that polar bears may also den in this tract.</p>
11	Extremely significant	<p>This tract ranks as one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 11 is used significantly for calving (May 26-June 10) with most portions used 3 out of every 4 years. Post-calving (June 11-30) use occurs in this tract every other year. The herd makes use of this tract every fourth year in the early summer period (July 1-15) and it sees slightly less use than this during the mid-summer period (July 16-August 7). During migration to calving areas, this tract lies on the edge of the main migratory pathway.</p>

		This tract has a moderate proportion of potential polar bear denning habitat.
12	Extremely significant	<p>This tract ranks as one of the ten highest areas of importance for Porcupine caribou requirements. We recommend not leasing this tract under any circumstances owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have the highest risk if development occurs in this specific tract.</p> <p>Tract 12 is used significantly for calving (May 26-June 10) as, on average, the caribou use it every other year with some portions used 3 out of every 4 years. Post-calving (June 11-30) use occurs in this tract every other year. The herd makes more use of this tract in summer. It uses it every fifth year in the early summer period (July 1-15) and slightly less than this during the mid-summer period (July 16-August 7). In some years, the main migratory movement to calving areas occurs directly through this tract.</p>
		<p>This tract contains moderate quantities of polar bear denning habitat that are adjacent to documented den locations.</p>
13	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Tract 13 is used significantly for calving (May 26-June 10) and post-calving (June 11-30) with use during these periods occurring, on average, greater than every third year, approaching every other year in portions of the tract. The herd makes use of these habitats in both the early summer period (July 1-15) and mid-summer period (July 16-August 7), although summer use is far less frequent than in other tracts. During the spring migration to calving grounds, this tract is nearing the terminus of the main migratory pathway for the herd. We anticipate this tract will see more significant use during calving and post-calving in the future based on work completed by Russell and Gunn (2019).</p> <p>This tract has some potential polar bear denning habitat and has had historic polar bear denning in previous years.</p>

	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Portions of tract 14 are used for calving (May 26-June 10) as frequently as every 3 to 4 years. However, this area sees frequent use during the post-calving (June 11-30) period with use averaging every third year. The herd makes use of these habitats every tenth year relatively equally in both the early summer period (July 1-15) and mid-summer period (July 16-August 7). During the spring migration to calving grounds, this tract is nearing the terminus of the main migratory pathway for the herd. We anticipate this tract will see more significant use during calving and post-calving in the future based on work completed by Russell and Gunn (2019).</p> <p>This tract has some potential polar bear denning habitat, has historic dens documented in its bounds and is adjacent to some of the most frequently used land denning sites in the South Beaufort.</p>
15	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Portions of tract 15 are used for calving (May 26-June 10) as frequently as every 4 to 5 years. Post-calving (June 11-30) use averages every third year but can be more frequent in portions of the tract. The herd makes use of early summer habitats (July 1-15) up to every fifth year while its frequency of use declines slightly over the mid-summer period (July 16-August 7). During the spring migration to calving grounds, this tract is nearing the terminus of the main migratory pathway for the herd. We anticipate this tract will see more significant use during calving and post-calving in the future based on work completed by Russell and Gunn (2019).</p>

		This tract has some potential polar bear denning habitat and is adjacent to some of the most frequently used land denning areas in the South Beaufort.
16	Moderately significant	<p>This tract is used by the Porcupine caribou between calving (May 26-June 10) and mid-summer (June 11-30); however, the herd's use is primarily during the post-calving period (June 11-30) and early summer (July 1-15) period when the herd occasionally aggregates this far west. Use during post-calving may be as frequent as every third year in portions of the tract. While habitats in this area are not used as frequently as those further east, when the herd does use these habitats their use is significant. Large post-calving aggregations can occur in this area and will likely increase in the future based on predictions by Russell and Gunn (2019).</p>
17	Lower significance	<p>This tract is used by the Porcupine caribou between calving (May 26-June 10) and mid-summer (June 11-30), however its use is generally light.</p> <p>This tract has had previous documented polar bear denning in it.</p>
18	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Tract 18 is used significantly for calving (May 26-June 10) with use during this period occurring, on average, just less than every other year. Some portions of the tract may be used in every 2 out of 3 years. Post-calving (June 11-30) activities occur in this tract every fourth year but some portions are used as frequently as every third year. The herd makes frequent use (every third year) of portions of this tract for the early summer period (July 1-15). During the mid-summer period (July 16-August 7) the herd frequents the tract every fourth year and as high as every third year in some portions. The herd's use in the mid-summer declines to approximately every seventh year. In some years, the main migratory movement to calving areas occurs on the south edge of this tract.</p> <p>This tract has a high proportion of potential polar bear denning habitat available and denning is known to occur in adjacent habitats.</p>

	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Tract 19 is used significantly for calving (May 26-June 10) with use during this period occurring, on average, just less than every other year. Some portions of the tract may be used in 2 out of every 3 years. Post-calving (June 11-30) activities occur in this tract every fourth year but portions are used as frequently as every third year. The herd makes frequent use (every third year) of portions of this tract for the early summer period (July 1-15). During the mid-summer period (July 16-August 7), the herd frequents the tract every fourth year and as high as every third year in some portions. The herd's use in mid-summer declines to approximately every seventh year. In some years, the main migratory movement to calving areas occurs on the south edge of this tract.</p> <p>This tract has limited potential polar bear denning habitat available however has historic denning documented within its bounds near its northern boundary.</p>
20	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Tract 20 is used significantly for calving (May 26-June 10) with use during this period occurring, on average, just less than every other year. Some portions of the tract may be used in 2 out of every 3 years. Post-calving (June 11-30) activities occur in this tract every third year but some portions are used as frequently as every other year. The herd makes frequent use (every third year) of portions of this tract for the early summer period (July 1-15). During the mid-summer period (July 16-August 7), the herd frequents the tract in every fourth year and as high as every third year for some portions. The herd's use in mid-summer declines to approximately every seventh year. In some years, the main migratory movement to calving areas occurs on the south edge of this tract.</p>

		This tract has a moderate amount of potential polar bear denning habitat and portions are relatively close to the coast, increasing the probability that these habitats will be used.
21	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Tract 21 is used significantly for calving (May 26-June 10) with use during this period occurring, on average, just less than every other year. Some portions of the tract may be used in every 2 out of 3 years. Post-calving (June 11-30) activities occurs in this tract every fourth year but portions are used as frequently as every third year. The herd makes frequent use (every third year) of portions of this tract for the early summer period (July 1-15). During the mid-summer period (July 16-August 7), the herd frequents the tract in every fourth year and as high as every third year in some portions. The herd's use in mid-summer declines to approximately every seventh year. In some years, the main migratory movement to calving areas occurs on the south edge of this tract. With changing environmental conditions, we expect this tract will be used even more significantly in the future than has been documented to date, meaning this tract will likely become even more critical to the herd.</p>
		<p>This tract has moderate potential polar bear denning habitat available in the project area and a den has been located within its bounds.</p>
22	Extremely significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract. In addition, this tract is one the most significant tracts with respect to denning by polar bears in the program area. It is part of one of the most significant areas for polar bear land denning in the South Beaufort polar bear subpopulation with all indicators pointing towards increased use. The complexity and duration of just these two values in this tract should preclude it from further consideration.</p>

		<p>Tract 22 is used significantly for calving (May 26-June 10) with use during this period occurring, on average, every third year. Some portions of the tract may be used every other year. Post-calving (June 11-30) activities occur in this tract every third year but portions are used as frequently as every other year. The herd is present in this tract every fifth year on average during the early summer period (July 1-15). Mid-summer (July 16-August 7) use occurs but is less common. In some years, the main migratory movement to calving areas occurs on the south edge of this tract.</p> <p>This tract has a high proportion of potential polar bear denning habitat and is tied for the tract with the second most denning locations. Denning locations are dispersed through the northern half of the tract but polar bear habitat occurs throughout the tract.</p>
23	Extremely significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract. In addition, this tract is the most significant tract with respect to denning by polar bears in the program area. It also ranks as one of the most significant areas for polar bear land denning in the South Beaufort polar bear subpopulation with all indicators pointing towards increased use. The complexity and duration of just these two values in this tract should preclude it from further consideration.</p> <p>Tract 23 is used significantly for Porcupine caribou calving (May 26-June 10) with use during this period occurring, on average, every fourth year. Some portions of the tract may be used every third year. Post-calving (June 11-30) activities occur at least every third year. The herd makes use of these habitats in both the early summer period (July 1-15) and mid-summer period (July 16-August 7), although far less frequently than in other tracts.</p> <p>This tract has a high proportion of potential polar bear denning habitat and has the most denning locations in the project area. Locations of dens are spread throughout the tract meaning mitigating impacts will be challenging if not impossible.</p>

24	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements and we anticipate its use will only become more common with current environmental trajectories in the region. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Portions of tract 24 are used for calving (May 26-June 10) as frequently as every 3-4 years. However, this area sees significant use during the post-calving (June 11-30) period with use averaging between every second and third year. The herd makes use of these habitats in both the early summer period (July 1-15) and mid-summer period (July 16-August 7), although far less frequently than in other tracts. We anticipate this tract will see more significant use during calving and post-calving in the future based on work completed by Russell and Gunn (2019).</p> <p>This tract has a moderate proportion of potential polar bear denning habitat but has historic dens documented within its bounds.</p>
25	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements and we anticipate its use will only become more common with current environmental trajectories in the region. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Portions of tract 25 are used for calving (May 26-June 10) although not as frequently as areas further south or southeast. This tract sees significant use during the post-calving (June 11-30) period with use averaging between every second and third year. The herd makes use of these habitats in both the early summer period (July 1-15) and mid-summer period (July 16-August 7) although far less frequently than in other tracts. We anticipate this tract will see more significant use during calving and post-calving in the future based on work completed by Russell and Gunn (2019).</p> <p>This tract has a lower proportion of potential polar bear denning habitat, however its proximity to other key denning habitats and the coast increase its potential importance for polar bear.</p>

26	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract.</p> <p>Portions of tract 26 are used for calving (May 26-June 10) although not as frequently as areas further south or southeast. This tract sees frequent use during the post-calving (June 11-30) period with use averaging between every third and fourth year. The herd makes use of these habitats in both the early summer period (July 1-15) and mid-summer period (July 16-August 7), although far less frequently than in other tracts.</p>
27	Lower significance	<p>This tract is used by the Porcupine caribou between calving (May 26-June 10) and mid-summer (June 11-30) periods. However use of this tract is primarily during the post-calving period (June 11-30) and early summer (July 1-15) period when the herd occasionally aggregates this far west.</p> <p>This tract has a moderate proportion of potential polar bear denning habitat.</p>
28	Highly significant	<p>This tract is needed by the Porcupine caribou to meet their life requirements. We recommend not leasing this tract owing to the type, frequency, and intensity of use by the Porcupine caribou herd. Impacts predicted by Russell and Gunn (2019) that are likely to occur to the herd from development in the program area have a high risk if development occurs in this specific tract. In addition, this tract is one the most significant tracts with respect to denning by polar bears in the program area.</p> <p>Tract 28 is used between every third year and every other year for calving (May 26-June 10). During post-calving (June 11-30) and early summer (July 1-15) it may be used as frequently as between every fifth and third year. In the mid-summer (June 11-30) the herd will occasionally use habitats in this tract.</p> <p>This tract has a high proportion of potential polar bear denning habitat and is tied for the fourth most denning locations previously identified in the leasing area. Den sites are associated with coastal features but also inland denning habitat along riparian corridors.</p>

	Highly significant	<p>This tract is used by the Porcupine caribou during calving (May 26-June 10) and mid-summer (June 11-30) periods. However, the herd's use is primarily during the early summer (July 1-15) period and is less frequent than areas to the east.</p>
29		<p>This tract is tied for the fourth most denning locations previously identified in the leasing area and, as such, is significant habitat for land denning polar bears. It is also adjacent to a major cluster of denning activity associated with both barrier islands and riparian features. Together this area forms a significant maternity area for polar bears. While more inland features are not used by either of the two main values comment on, the current juxtaposition of this tract should preclude it from further consideration.</p>
30	Highly significant	<p>This tract is used by the Porcupine caribou between the calving (May 26-June 10) and mid-summer (June 11-30) periods. However, use is primarily during the post-calving (June 11-30) and early summer (July 1-15) periods when the herd occasionally aggregates this far west. Use during the post-calving (June 11-30) period may be as frequent as every third year in the southeast corner, while the tract as a whole is frequented every fourth year on average.</p> <p>This tract is tied for the second most denning locations previously identified in the leasing area and, as such, is significant for land denning polar bears. It is also adjacent to a major cluster of denning activity associated with both barrier islands and riparian features. Together this area forms a significant maternity area for polar bears. While more inland features are not used by either of the two main values comment on, the current juxtaposition of this tract should preclude it from further consideration</p>
31	Lower significance	<p>This tract is used by the Porcupine caribou between the calving (May 26-June 10) and mid-summer (June 11-30) periods. However, use is primarily during the post-calving (June 11-30) and early summer (July 1-15) periods when the herd occasionally aggregates this far west. Use during the post-calving (June 11-30) period may be as frequent as every fourth year.</p> <p>This tract has significant quantities of potential polar bear habitat and has been used for polar bear denning habitat in the past. It is proximal to a significant number of previously documented polar bear den locations.</p>

32	Moderately significant	<p>Porcupine caribou use habitats adjacent to this tract frequently from the calving (May 26-June 10) period through mid-summer (July 16-August 7).</p> <p>Polar bear denning habitat occurs in habitats immediately adjacent to this tract.</p>
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Reference

Russell, D., and A. Gunn. 2019. Vulnerability analysis of the Porcupine Caribou Herd to potential development of the 1002 lands in the Arctic National Wildlife Refuge, Alaska. Report prepared for: Environment Yukon, Canadian Wildlife Service, and GNWT Department of Environment and Natural Resources. 143 pp