



**Paramount**  
resources ltd.

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tel 403 290 3600 fax 403 262 75

March 4, 2002

Mackenzie Valley Land and Water Board  
7<sup>th</sup> floor, 4910 - 50<sup>th</sup> Avenue  
Yellowknife, NT  
X1A 2P6

Attention: Mr. Janpeter Lennie-Misgeld  
Regulatory Officer

**Mackenzie Valley Land  
& Water Board**

**File**

**MAR 07 2002**

**Application #** MV2000P0055  
**Copied To** KLIPUM/EP81/Reg

Dear Sir;

**Re: Paramount Resources Ltd. Land Use Permit Application MV2000P0055,**  
**Pipeline and Gathering System, Cameron Hills**

As requested in condition 41 of the above land use permit, Paramount Resources Ltd. hereby submits 15 copies of the Post-Construction Wildlife Monitoring Plan for the Cameron Hills Project.

If you require any further information, then please contact the undersigned by phone, (403) 290-3693 or fax, (403) 266-6032 or e-mail address, [tom.hong@paramountres.com](mailto:tom.hong@paramountres.com).

Yours truly;

**PARAMOUNT RESOURCES LTD.**

Tom Hong, P. Eng.  
Project Manager

Attachments



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NEB File 3400-P097-1 & 2520-D-4-4

March 1, 2002

National Energy Board  
444 Seventh Avenue SW  
Calgary, Alberta  
T2P 0X8

National Energy Board  
444 Seventh Avenue SW  
Calgary, Alberta  
T2P 0X8

Attention: Mr. Michel Mantha

Attention: Mr. Terry Baker

Dear Sir,

**Re: Paramount Transmission Ltd. (PTL) Cameron Hills Pipeline and Fuel Gas Pipeline,  
Order XO-P097-02-2002; Condition 13: Wildlife Monitoring Program  
Paramount Resources Ltd. (Paramount) Cameron Hills Oil and Gas Development  
Project, Order EPO-01-2002; Condition 10: Wildlife Monitoring Program**

As required by the conditions in the above National Energy Board (NEB) orders, Paramount Resources Ltd. , on behalf of Paramount and PTL, hereby files with the NEB the Post-Construction Wildlife Monitoring Plan, which covers both projects. Enclosed are eight copies of the plan for the NEB's approval.

If there are questions regarding the above matter then please contact the undersigned at (403) 290-3696.

Yours truly,

**PARAMOUNT RESOURCES LTD.**

Tom Hong, Project Manager

Attachments

**PARAMOUNT RESOURCES LTD. / PARAMOUNT TRANSMISSION LTD.  
CAMERON HILLS GATHERING SYSTEM AND  
TRANSBORDER PIPELINE**

**POST CONSTRUCTION  
WILDLIFE MONITORING PLAN**

**Prepared By:**

**Paramount Resources Ltd.  
4700 Bankers Hall West  
888 Third Street S.W.  
Calgary, Alberta  
T2P 5C5  
and  
Golder Associates Ltd.**

**Paramount Resources Ltd. / Paramount Transmission Ltd.**  
**Cameron Hills Gathering System and Transborder Pipeline**  
**Wildlife Monitoring Plan**

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**Table 1: Abbreviations and Acronyms**

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COGOA	Canada Oil and Gas Operations Act
EA	Environmental Assessment
EC	Environment Canada
GNWT	Government of the Northwest Territories
GPS	Global Positioning System
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
NEB	National Energy Board
NWT	Northwest Territories
Paramount	Paramount Resources Ltd.
PTL	Paramount Transmission Ltd.
ROW	Right-of-Way

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## **2. OBJECTIVES**

Paramount plans to conduct a wildlife monitoring program consisting of wildlife sighting cards and winter track counts. Wildlife sighting cards provide an ongoing source of data that documents the wildlife species observed during construction and operations, their locations and activity on the ROW and adjacent habitat within the project area.

The objective of the winter track count survey will be:

- > To determine if the ROW is affecting wildlife movement;
- > To compare early and late winter use of the ROW and adjacent habitat types by wildlife;
- > To determine the relative use of the habitat types found along the pipeline corridor by wildlife in winter; and,
- > To compare use of the ROW by wildlife, with use of adjacent edge, interior habitat and an undisturbed buffer area.

A field sheet will be used to record observations within 2.5 m on either side of the transect centre. Data collected will include: snow thickness & hardness, weather conditions, time since last snowfall, species, number of animals, direction of travel, habitat, terrain, tracks, beds, browse activity, owl plunge holes, and grouse snow roosting sites. In addition, tracks will be assessed for animal behaviour to provide an indication of the various species' willingness to cross and/or utilise the new ROW. Typical behaviours include:

- refused crossing (animal turned back and did not cross);
- direct crossing (animal crossed the right-of-way without altering direction); and,
- delayed crossing (animal wandered along ROW before crossing).

A single transect intercept will be recorded as one crossing. If multiple animals of the same species cross the transect at the same location, then an attempt will be made to determine the number of individuals. If the number of individuals cannot be determined, then the observation will be recorded as a "trail" and counted as three individuals. If animals criss-cross the transect many times over a short distance due to bedding, feeding or other activities, then the tracks will be counted as a "network" and will be recorded as five individuals for every meter of transect the network covers.

While travelling the ROW between transects, tracks will be recorded along with adjacent habitat and GPS location. Detailed notes on habitat, activity & behaviour, and direction of travel will be taken if relevant. Photographs will be taken along each transect and will include photos of unusual tracks, tracks of interest, or other wildlife sightings.

For each transect and species, the total length of tracks per area per day will be calculated. This result will be compared with results taken from transects in similar habitat using appropriate statistical analyses.

#### **4. SCHEDULE**

Normally, winter track counts will be completed twice during each winter, in the early winter (December-January) and again in the late winter (March). The winter track survey will be timed to occur after a significant snowfall.

If the operational considerations permit, Paramount, will attempt to complete the first set of track counts late in the first winter season of 2002, as requested by RWED. However, any delays in the completion of the construction of the facilities and pipelines or affects from the weather, or the occurrence of an early spring would compromise ideal conditions required to complete track counts (e.g., melting conditions, lack of adequate new snowfall).

Thereafter, the extent of the monitoring program is scheduled to continue in 2003, and end in 2007. Paramount requests that the program be reviewed after two years of data have been collected and evaluated by regulatory biologists. At that time, if the data do not provide useful correlations or if a trend cannot be established, Paramount would request relief from continuing the wildlife-monitoring program.

**6. REFERENCES**

- Canadian Wildlife Service (CWS). January 24, 2002. Paramount's Cameron Hills project MVEIRB conditions for approval: Wildlife Studies recommended by Environment Canada. Letter to Gordon Ferguson of Paramount Resources Ltd.
- Golder Associates Ltd. January 17, 2002. Response to Final Approved Measures. Letter to Paramount Resources Ltd. Project 002-2252.
- Mackenzie Valley Environmental Impact Review Board (MVEIRB). 2001. Report of Environmental Assessment on the Paramount Resources Ltd. Cameron Hills Gathering System and Pipeline Development - Final Approved Measures.
- Mackenzie Valley Land and Water Board (MVLWB). January 17, 2002. Issuance of Type "A" Land Use Permit: Conditions Annexed to and Forming Part of Land Use Permit Number MV2000P005. Letter to Ms. Shirley Maaskant of Paramount Resources Ltd. File: MV200P0055.
- National Energy Board (NEB). January 22, 2002. Paramount Transmission Ltd. (PTL) Cameron Hills Pipeline and Fuel Gas Pipeline (Cameron Hills Pipeline) Application Pursuant to Section 58 of the National Energy Board Act (the NEB Act). Letter to Mr. Alan Hollingworth of Gowling Lafleur Henderson. File 3400-P097-1.
- National Energy Board (NEB). January 30, 2002. Paramount Resources Ltd. (Paramount) Application to Construct the Cameron Hills Oil and Gas Development Project dated 1 August 2001 pursuant to Paragraph 5(1)(b) of the Canada Oil and Gas Operations Act (COGOA). Letter to Mr. Tom Hong of Paramount Resources Ltd. File 2520-D-4-4.
- Paramount Resources Ltd., Golder Associates Ltd., and Alpine Environmental Consulting Ltd. 2001. Environmental Impact Assessment for the Cameron Hills Transborder Pipeline Project. Submitted to the National Energy Board. June 2001. 117 pp + figures.



**Appendix II: Letter from the Canadian Wildlife Service (CWS). January 24, 2002. RE: Paramount's Cameron Hills project MVEIRB conditions for approval: Wildlife Studies recommended by Environment Canada. Letter to Gordon Ferguson of Paramount Resources Ltd.**

- 2) That the fieldwork and report from June 2000 should be the benchmark quality to maintain going forward. Surveys should start no earlier than June 5<sup>th</sup> and end no later than June 30<sup>th</sup> for migratory birds.
- 3) My sole recommendation to improve the study is to add point count stations (bird monitoring stops) 150m away from the right-of-way in adjacent habitat to currently established plots.

If other wildlife/vegetation monitoring work does occur during the month of June on the Cameron Hills project, some valuable information could be collected simultaneously for no additional cost. The Canadian Wildlife Service has a number of species of birds that are of high conservation priority. Any sightings of Blackpoll Warbler, Short-eared Owl and Rusty Blackbird should be noted. Date, place (GPS location) and number observed would be helpful. These species may be sighted in the open, wet habitats along the right-of-way.

At the completion of the third assessment of bird use of the Shiba right-of-way I offer my scientific expertise and time to coauthor a scientific publication summarizing the results of this important work. Submitting the work to peer review will provide strong support for management recommendations coming from the work. Preserving the raw field data from all three years of the project will be critical to ensuring this can be accomplished.

Please do not hesitate to contact me for any concerns related to your projects and migratory birds.

Sincerely,  
Craig Machtans, MSc.  
Forest Bird Biologist  
email: [craig.machtans@ec.gc.ca](mailto:craig.machtans@ec.gc.ca)  
voice: 867.669.4771

cc: Paula Pacholek, Environment Canada  
Karl Lauten, MVLWB  
Laura van Ham, NEB