

Environmental Protection Operations Directorate
Suite 301, 5204 - 50th Avenue
Yellowknife, NT X1A 1E2
tel: (867) 669-4700

September 22, 2006

Our File: 4781 003 001

Mackenzie Valley Environmental Impact Review Board
200 Scotia Centre
Box 938, 5102-50th Ave
Yellowknife, NT
X1A 2N7

Attention: Patrick Duxbury
Environmental Assessment Officer

Re: EA0506-007 Paramount SDL-8-2D Geophysical Program Closing Comments

Environment Canada (EC) staff from the Environmental Protection Operations Directorate (EPOD) and the Canadian Wildlife Service (CWS) have reviewed documentation provided for the above Environmental Assessment. The following advice is provided pursuant to Section 22 of the *Mackenzie Valley Resource Management Act*.

Environment Canada's (EC) contribution to your request for specialist advice is based primarily on the mandated responsibilities for the enforcement of Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act* (CEPA) the *Migratory Birds Convention Act* (MBCA), and the *Species at Risk Act* (SARA).

The initial review, summarized in Wade Romanko's letter dated September 30, 2005, identified several points of concern, found below.

- Paramount indicates the minimum line width will be cleared is 6 metres on source/receiver lines: to allow for a debris pile and passing of the vibrators. Environment Canada recommend 6 (six) metres be the maximum width of cutlines and the proponent maximize the use of existing cut areas, burn areas, trails and cutlines for debris piling and equipment turnarounds.
- The *Species at Risk Act* (SARA) came into full effect on June 1, 2004. While conducting their operations, the proponent should be aware of the special status, and minimize disturbance to, or contact with, these species. Species at risk that may be encountered in this area include:
 - Woodland Caribou, Threatened, Schedule 1
 - Short-eared Owl, Special Concern, Schedule 3
 - Wolverine, Special Concern, pending addition to Schedule 1

Since the initial review, revisions have been made to narrow the widths of the cutlines, such that 6 metres will be the maximum, if required due to extensive snow cover.^{1,2} If heavy snowfall is not

¹ Paramount Resources Ltd. Significant Discovery Licence 8, 2D Geophysical Program Environmental Assessment EA0506-007 Round 2 Information Request Responses IR0506-007-15 to IR0506-007-23, August 24, 2006, IR0506-007-18, #3

encountered, the lines would be cut to either 4.5 or 5 metres in width³, depending on the methodology used. Further, it is understood that the proponent's current preferred method is to use vibroseis to conduct the 2D seismic program. Cutline widths can be further reduced to 3 meters if Paramount Resources Ltd. implements the use of mulchers⁴.

Environment Canada has received a Letter of Notification⁵ that the project is occurring in an area known to be frequented by Woodland Caribou. Environment Canada has referred the Mackenzie Valley Environmental Impact Review Board to the Government of the Northwest Territories – Department of Environment and Natural Resources for further discussions⁶ regarding this species at risk.

Recommendations:

1. Environment Canada recognizes that Paramount Resources Ltd. has reduced the width of the proposed cutlines and strongly encourages the proponent to obtain the use of mulchers for the proposed 2D seismic program.
1. Meeting the requirements of the *Fisheries Act* is mandatory, irrespective of any other regulatory or permitting system. Section 36(3) of the *Fisheries Act* specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. The legal definition of deleterious substance provided in subsection 34(1) of the *Fisheries Act*, in conjunction with court rulings, provides a very broad interpretation of deleterious and includes any substance with a potentially harmful chemical, physical or biological effect on fish or fish habitat. Deleterious substances include, but are not limited to glycol, fuel, and cement.
2. Water crossings should be at right angles to streams. Snow and ice fill crossings should be used and removed or V-notched when finished to avoid ice damming in spring.
3. Seismic access should only be conducted on frozen, snow packed ground.
4. Although this work is being conducted during the winter when there will be no direct contact with migratory birds, Section 35 of the *Migratory Bird Regulations* states that "no person shall deposit or permit the deposit of, oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds." Therefore, activities on frozen water that will later in the year become habitat for migratory birds must be mitigated according to the measures outlined by the proponent.

² Paramount Resources Ltd. Significant Discovery Licence 8, 2D Geophysical Program Environmental Assessment EA0506-007 Developers Assessment Report May 2006, page 7

³ Paramount Resources Ltd. Significant Discovery Licence 8, 2D Geophysical Program Environmental Assessment EA0506-007 Round 2 Information Request Responses IR0506-007-15 to IR0506-007-23, August 24, 2006, IR0506-007-18, #3),

⁴ Paramount Resources Ltd. Significant Discovery Licence 8, 2D Geophysical Program Environmental Assessment EA0506-007 Developers Assessment Report May 2006, page 8

⁵ Letter from MVEIRB to Environment Canada, dated May 30, 2006 regarding Notification pursuant to the requirements of subsection 79(1) of the *Species at Risk Act* (SARA).

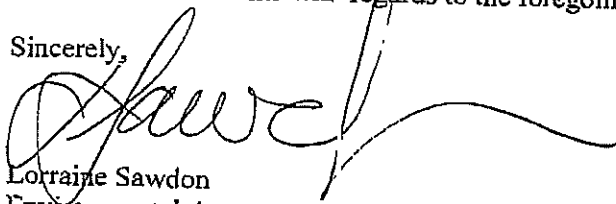
⁶ Letter from Environment Canada to MVEIRB dated June 20, 2006 regarding Notification pursuant to the requirements of subsection 79(1) of the *Species at Risk Act* (SARA).

If harmful substances do come into contact with waterbodies that are frequented by migratory birds during the open water season, then these must be completely cleaned up following the procedures identified by the proponent and subject to final approval by an Inspector.

5. All mitigation measures identified by the proponent, and the additional measures suggested herein, should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponent's representatives (including contractors) conducting operations in the field. Environment Canada recommends that all field operations staff be made aware of the proponent's commitments to these mitigation measures and provided with appropriated advice/ training on how to implement these measures.

Please do not hesitate to contact me at (867) 669-4782 or lorraine.sawdon@ec.gc.ca with any questions or comments with regards to the foregoing.

Sincerely,



Lorraine Sawdon
Environmental Assessment
Environmental Protection Operations Directorate

cc: Steve Harbicht (Head, Environmental Assessment & Monitoring, EPOD)
Mike Fournier (Northern Environmental Assessment Coordinator, EPOD)
Wade Romanko (Environmental Emergencies Officer, EPOD)
Myra Robertson (Environmental Assessment Coordinator, CWS)