

ENERGY RESOURCES CONSERVATION BOARD

APPLICATIONS NOS. 1520388, 1513051, 1517148, 1520922,
1517151, 1574366, 1574414, 1574409, 1547168, 1517170,
1517176, 1517160 and 1620923

PETRO-CANADA OIL AND GAS

SULLIVAN DEVELOPMENT PROJECT

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REPLY ARGUMENT OF PETRO-CANADA OIL AND GAS

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I. INTRODUCTION

Petro-Canada's position on the issues identified by the Board together with the other issues Petro-Canada considers relevant are addressed in the Petro-Canada final argument. Petro-Canada does not intend to address each and every argument spoken to in the interveners' submissions, as in Petro-Canada's view most of these have already been addressed in its original submission. Additionally, Petro-Canada does not intend to address each and every error, misrepresentation or coloring of the evidence found in some of the interveners' submissions. To do so, would be excessively time consuming and not particularly productive as in the final analysis, the Board must make its decision based on the actual evidence, not counsels' submissions. What Petro-Canada will do in this reply submission, is highlight for the Board what Petro-Canada considers to be the most egregious errors or inadequacies in the interveners' submissions. As is apparent from the above, failure to challenge each and every statement in the interveners' submissions, should not be taken as actual or tacit acceptance as to the accuracy of such statements.

Petro-Canada would like to formally record its disappointment with what Petro-Canada considers to be totally unfounded and inappropriate statements and innuendo found in two of the interveners' submissions. The interveners' submissions are part of the public record, and will have wide distribution within a community that Petro-Canada has had and hopes to continue to have a long time viable working relationship.

Statements such as found at paragraph 89 of the Stoney Nakoda Nations ("SNN") submission:

"...there is some evidence to suggest that the Board's staff person who advised Petro-Canada of the set back required at Eden Valley may have

been the same person who subsequently became involved with a Petro-Canada employee."

are totally unfounded and inappropriate. Conspicuous by its absence is any reference to the "evidence".

At paragraph 266, the SNN states:

"It is not inappropriate to ask whether Petro-Canada would have overlooked this Board requirement were Eden Valley a non-native community falling within the jurisdiction of this Board."

thereby suggesting that Petro-Canada's actions were race based. There is absolutely no evidence supporting that statement and it is totally unfounded, inappropriate and inflammatory. A similar allegation of race-based decision making was raised by Mr. Rae in a letter dated June 4, 2009 to the Department of Justice to which Petro-Canada took strong exception by letter of June 16th, 2009. In particular, Petro-Canada identified specific transcript references that contradicted the statements made by Mr. Rae and pointed out that he had not challenged or examined further on the issue.

Petro-Canada has a long-standing respectful working relationship with SNN at Wildcat Hills and is extremely offended by any suggestion of race based decision making.

Petro-Canada would suggest when reading the SNN submission, the Board extend to the totality of the submission the credibility warranted by the unsubstantiated allegations made in paragraphs 89 and 266.

Race-based allegations were also raised by the BLG group (IX, page 40) where it states:

"The BLG urges the Board to afford the residents of Eden Valley the very same public safety protection as would be afforded a similar non-aboriginal community in the province. The BLG is deeply concerned about the suggestion that the Eden Valley community should be treated in any other way."

Once again, conspicuous by its absence, is any evidentiary reference supporting this allegation. Unfounded, inflammatory statements such as this are by the process given wide public distribution and gain unwarranted credibility.

Similarly, at page 12, BLG speaks to "manipulation" in that Petro-Canada:

"... even was prepared to misrepresent alleged difficulties with alternate routes".

Misrepresentation is a very serious allegation, and once again conspicuous by its absence, is any evidentiary reference substantiating the allegation that Petro-Canada misrepresented difficulties with alternate routes.

Petro-Canada would urge the Board to give the balance of the BLG submission, the same level of credibility warranted by the accuracy of the statements in the two sections identified above.

Although many of the interveners criticize the alleged inadequacy of the material filed by Petro-Canada that criticism must be viewed in the context of the failure of the interveners and their consultants to review much of the material filed by Petro-Canada. Attached as **Tab 1** to this reply submission is a spreadsheet prepared by Petro-Canada that identifies limitations in the Interveners review of the Petro-Canada materials.

Petro-Canada will respond in this reply submission to each of the interveners' submissions separately, except where issues have been raised in one or more of the interveners' submissions where the issue will be identified and spoken to only once.

II. PETRO-CANADA'S REPLY TO THE FINAL ARGUMENT OF THE SNN DATED JUNE 26, 2009

A. Introduction

Petro-Canada wishes to remind the Board of the dramatic change in the position of the SNN between the date of the pre-hearing meeting held on March 18, 2008 and the commencement of this hearing.

The position of the SNN was stated at the pre-hearing meeting to be as follows:

"It is submitted, finally, that it's the position of the Stoney Nakoda Nations the project may proceed on the condition that and only if the proponent complies with the conditions set out in the Nation's letters, which have been supplied to the ERCB and to the interested parties and just to reiterate, the Nations are still awaiting from the applicant copies of the environmental assessment report for the Sullivan Development Project, emergency management system for the Sullivan Development Project, and Petro-Canada's corporate emergency response plan, as well as a site specific emergency response plan for the Sullivan Development Project."

[Pre-hearing meeting transcript, page 58 lines 4 – 17]

Attached as **Tab 2** to this reply submission is a letter from the Stoney Tribal Administration dated September 12, 2007 to the Alberta Energy and Utilities Board. The letter identified 6 requirements summarized as follows:

- Creation of a synergy group;

- Projects specific short term mitigation matters to be implemented through the synergy group;
- Environmental Health and Safety Issues to be identified through the synergy group and concerns addressed by Petro-Canada personnel;
- Project operations and maintenance should incorporate long term consultation through the synergy group;
- A cultural working map has been generated by and is the intellectual property of the SNN and Petro-Canada was to define where the map would be stored and secured and the map was to be used only for project planning purposes;
- A cultural protection plan would be prepared.

The SNN indicated if the foregoing points were acceptable to Petro-Canada, then the SNN had no objection to the project. Petro-Canada has confirmed that it was in agreement with the above requirements. [see **Tab 3** and paragraph 127, of Volume 6.2 (Stakeholder Consultation of the public document record)] . Petro-Canada was therefore surprised on September 18, 2008 when it received Appendix "C" to the SNN argument, which dramatically changed the position of the SNN. A reading of the proposed Benefits Agreement and the Co-operation and Benefits Agreement reveals that they purport to address matters far beyond the issues raised by the Petro-Canada Sullivan applications and require substantial economic commitments and propose to grant to SNN the ability to "earn" a 33% equity position in the Sullivan project.

The list of proposed conditions set out in Appendix "B" to the SNN agreement, go even beyond what was advanced as the SNN position in the draft Benefits Agreement and the draft Co-operation and Benefits Agreement. The conditions suggested by the SNN in Appendix "B" are unreasonable and excessive. Petro-Canada is prepared to honor all undertakings given to the Board during the course of the hearing but the Board must ensure that the applications are not used by parties to advance unreasonable negotiating positions or to extract excessive demands.

Much of the SNN final argument contains repetitive material that has been previously provided by the SNN to the Board and ruled upon by the Board.

Although the SNN sets out in paragraph 4 the purported basis on which it opposes approval of the applications, the SNN did not adduce any evidence during the course of the hearing on these issues.

B. The Facts

Much of what is contained in the SNN final argument under the heading "The Facts" consists of argument rather than a description of facts.

Although the SNN argument in paragraph 10 refers to the project being constructed virtually in its entirety on unoccupied crown land, Petro-Canada's evidence is more particularly set out in its final argument is that much of the area has seen previous oil and gas activity including seismic and well site activity. In addition, it has been used extensively for livestock grazing requiring fencing and other support infrastructure.

The cultural assessment overview referred to in paragraph 12 of the SNN argument was prepared as part of the consultation process required by SRD and the Board.

The fact the SNN may have filed a Certificate of Lis Pendens in relation to interests claimed in Queen's Bench action number 0301-19586 is of no relevance to the matters before the Board. As a matter of practice, Petro-Canada does not normally register interests on crown land, which are covered by dispositions even where there may be a title issued to Her Majesty the Queen in Right of the Province of Alberta.

Contrary to the suggestion in paragraph 19 that the alignment sheets identify cultural sites of the SNN, which exist upon the imposed pipeline route, the alignment sheets flag the general locations of sites in proximity to the pipeline and give a brief reference to the mitigation required. Detailed mitigation is described in the Cultural Protection Plan prepared by Snow & Associates. Extensive consultation with the SNN (coordinated by Snow & Associates) was carried out during the route selection process. The Petro-Canada team at all times stated its willingness to rework cultural sites for avoidance if this was deemed necessary by the SNN. All possible sites of interest in the project were identified and mapped on the survey drawings prepared for the application. A total of 134 sites were identified in general proximity to the project. All these sites were graded, that is ranked for mitigation by the Snow & Associates expert cultural team in conjunction with Eden Valley representatives including elders. Mitigation measures were recommended in the Cultural Protection Plan for approximately 15 of these sites, none of which required a reroute of the pipeline right-of-way.

On the Petro-Canada Sullivan area, emergency planning base area map [Petro-Canada Sullivan ERP Site-Specific Supplemental Section – Maps], the tan shaded area clearly shows the EPZ expanded to treat the entire reserve as though it were in the EPZ. This affords all public on the reserve instructive and protective communication directly from Petro-Canada in the unlikely event that the reserve was impacted by an emergency. Therefore, although not technically deemed an "Urban Centre" by the ERCB, Petro-Canada has afforded Eden Valley additional emergency planning public protection measures / safety measures as an urban density development. This is important as the ERCB requested that these additional emergency planning public protection measures / safety features be included in the ERP in the ERCB's e-mail of March 15, 2006 (see attached e-mail from the ERCB marked as **Tab 3**). Contrary to the statement made by the SNN in paragraph 21, the IIZ is within the southwest portion of the reserve, the remainder of the reserve is within the EPZ and both zones are within the larger EAZ.

Although in paragraph 28 c, reference is made to concerns from Parks Canada and the Bar U Ranch National Historical Site of Canada, neither Parks Canada nor the Bar U Ranch National Historical Site of Canada played any role in the hearing and of course did not adduce any evidence which spoke to any of the "concerns spoken to in the SNN submission".

Paragraph 28 g of the SNN argument misstated the effect of the letter of advice from the Department of Fisheries. Petro-Canada's evidence was clear that a final letter of advice simply would not be issued until after the hearing [2TR287]; there was no evidence whatsoever that the letter would not be finalized until a federal environmental assessment had been carried out.

C. Need for Proposed Project / Public Consultation

Much of these sections are taken up with "constitutional" arguments.

In its April 30, 2009 invitation to Interested Parties to file final Written Argument, the Board asked Interested Parties to consider following a particular Outline, including, as the first two headings:

1. Need for the project
2. Public Consultation

Petro-Canada discussed both the need for the project and its public consultation in the Final Written Argument it filed herein May 22, 2009.

The SNN in their Final Argument filed herein June 26, 2009 employ appropriate headings suggesting they intend to address the need for the project and Petro-Canada's public consultation. But the arguments of the SNN under the heading Need for the Proposed Project has very little to do with the issue of need for the Project; the argument under the heading Public Consultation has little to do with the scope, *etc.* of Petro-Canada's public consultation.

Instead, vast tracts of the Final Argument of the SNN on these two issues merely repeat verbatim arguments made in previous filings of the SNN herein on its

Constitutional questions.¹ Particularly, the SNN re-argue Constitutional questions relating to the Crown's duty of consultation with First Nations which this Board has earlier concluded it does not have jurisdiction to consider. (Crown consultation with First Nations is wholly unrelated to the public consultation that an applicant in the position of Petro-Canada must undertake as part of the Board's approval process.)

The SNN also uses its argument under these two headings to elaborate generously on its prior Constitutional arguments, without addressing either the need for the project or Petro-Canada's public consultation.

The constitutional arguments made by the SNN were responded to by Petro-Canada in its Reply Submission on Constitutional Issues filed herein June 25, 2009 and in a Brief of the Attorney General of Alberta ("AG Alberta"), filed herein June 25, 2009. Petro-Canada refers to and relies on those submissions and does not intend to repeat herein what has already been stated in those submissions.

Petro-Canada disputes the alleged inconsistencies referred to at paragraph 26(b-d) between the positions of the AG Alberta and Petro-Canada. The SNN state that certain matters it attributes to the AG Alberta are found in the text of its October 14, 2008 Written Submission. Petro-Canada is unable to find reference to those matters in that Written Submission.

The SNN's paragraph 35 is incorrect, likely by inadvertence. The Board made a decision on the review application in its June 23, 2009 letter.

To the extent that the SNN suggest (particularly at paragraphs 37, 87) that the Constitutional questions concerning consultation are not closed because the Board erred in its decision dated June 23, 2009 denying the review application of the SNN, this is an argument the SNN would have to make before the Alberta

¹ Attached hereto as Tab 4 is a table of concordance showing paragraph numbers in the Final Argument of the SNN filed June 26, 2009 and corresponding paragraphs of the Argument of the SNN on Constitutional Issues filed herein May 29, 2009 in which identical or substantially the same points are argued.

Court of Appeal. The Board made its decision by way of its May 8, 2009 letter that it did not have jurisdiction to consider the additional constitutional questions. Subsequently, in answer to the review request of the SNN, the Board made its decision dated June 23, 2009 denying the review request. These are the Board's conclusions. Having made a decision on the review request pursuant to section 39 of the *ERCA*, the Board has no further statutory jurisdiction to give further consideration to the additional constitutional questions.

The SNN argue, particularly at paragraphs 60-63,66-69,73 that Alberta has already granted land tenures to Petro-Canada for the Proposed Project and the pipeline is in breach of Alberta's constitutional obligation to consult with the SNN, or that the evidence is contradictory on whether such land tenures have already been granted. This line of argument should be disregarded as it goes to the Constitutional questions that the Board has already concluded it is without jurisdiction to consider. The SNN have available to them recourse against Alberta by way of a separate action to the extent the SNN have a claim for breach by Alberta of the duty to consult.

The application material confirms the PLA for the pipeline right-of-way adjacent to the Eden Valley reserve is PLA 870837, which has been applied for and not issued due to outstanding Consents of Occupant. Subject to obtaining regulatory approval from the ERCB, the required consents or alternatively Right Of Entry Orders by the Surface Rights Board will be required to facilitate issuance of the PLA.

At paragraph 71 the SNN misrepresents Alberta as arguing that SNN evidence on "wildlife impacts is of no relevance to the public interest". In fact, the passage quoted from Alberta counsel Mr. Krowina makes no reference whatsoever to "wildlife impacts". Rather it refers to the "extent and nature of certain land uses and certainly the extent and nature of trade between and among First Nations and commercial trade with the Hudson's Bay Company and whatnot". Consequently there is no inconsistency between Alberta's representation that

"wildlife impacts may have some relevance to the public interest" and the statement made by Mr. Krowina to the effect that certain evidence put forth by the SNN bears on points that are "not material to what is before the Board here with respect to these applications".

It is trite to say that "wildlife impacts" are a factor relevant to the public interest consideration that this Board must bring to its decision on these applications. But it does not follow that the public interest must include the SNN's "treaty right to hunt that wildlife" as argued at paragraph 72. Certainly the public interest includes the rights of members of the SNN and other members of the public to hunt wildlife on Crown lands under the laws of Alberta. But in the absence of a valid Notice of Question of Constitutional Law raising issues of the treaty rights of the SNN, the public interest does not raise any treaty rights of the SNN, be they treaty rights to hunt or other treaty rights.

At paragraph 77 the SNN rely on section 9(2) of the *Pipeline Act*. That section provides:

9(1) A licence for a pipeline may be granted by the Board subject to any terms and conditions expressed in the licence or the Board may refuse to grant a licence.

(2) The Board, in a licence granted under this section, may stipulate that the licensee must acquire any interest in land not owned by the licensee and required for the purposes of the licensee's pipeline by negotiation with the owner.

This wording does not support the interpretation placed on it by the SNN. Section 9(2) expressly contemplates the Board granting a license for a pipeline in advance of the licensee negotiating access rights with landowners.

Petro-Canada agrees with the SNN's paragraph 78. In fact, this statement accurately summarizes the Board's mandate in considering the pipeline application and the role of the SNN as an interested party. The rights of the SNN are among the many rights and interests, which it is proper for the Board to consider as part of its mandate to consider the public interest.

At paragraphs 84, 86, 89, 96 and 102 the SNN suggest a link between the bias allegation that is the subject of the currently pending leave to appeal application before the Court of Appeal and advice that Petro-Canada received from a Board staff member relating to the set back requirements for the pipeline and its proximity to Eden Valley. As stated previously, this is pure conjecture, entirely unsupported by any evidence. The imputation of bad faith on the part of the Board at paragraph 102 is outrageous.

The bald assertion of the SNN at paragraph 95-96 that Alberta is a *de facto* co-applicant or co-joint venturer with Petro-Canada is not supported by any legal authority or factual undertaking and is without merit.

At paragraphs 11, 110 and 146 the SNN argue that Petro-Canada was itself required to file a Notice of Question of Constitutional Law by reason of its having filed its Cultural Assessment Overview (CAO) and thereby implicitly recognizing that the SNN have constitutionally protected rights. Petro-Canada's position has always been that the SNN's use of the lands is material as part of the broad "public interest" mandate of the Board pursuant to statute. But Petro-Canada has not nor has it ever intended to "raise a question of constitutional law" as per Section 12(1) of the *Administrative Procedures and Jurisdiction Act* R.S.A. 2000, c. A-3. Petro-Canada has never sought or required any constitutional relief as part of its applications. Consequently no Notice was required.

At paragraphs 113 and 114, references are made to the SNN having inclusive traditional land use in the area and reference is provided to the hearing transcript. However, the text on page 79 confirms Petro-Canada has dedicated aboriginal affairs personnel who have engaged the SNN at Eden Valley, as well as the Piikani, Tsuu T'ina, and Siksika Nations. Consultations with these First Nations remains ongoing. The text on page 1472 reiterates that Cultural Assessment Overviews were carried out for the same four First Nations.

At paragraphs 178-193 the SNN argue that international law requires the Board to either deny the applications or to address and decide the constitutional

questions raised by the SNN relating to consultation. This was previously argued in the Argument of the SNN on Constitutional Issues filed herein May 29, 2009. The AG Alberta addressed these international law arguments in its Brief on Constitutional Issues filed herein June 25, 2009 at paragraphs 59-62. Petro-Canada agrees with the submissions of the AG Alberta.

D. Route and Site Selection

Petro-Canada has exhaustively reviewed the route and site selection issues in its final argument and does not propose to restate those submissions in this reply submission. Petro-Canada would however observe that the SNN when suggesting that alternate route highway 940 was a viable route based their position on the evidence of Mr. Bartlett. Petro-Canada would urge the Board to review transcript pages 4424 to 4468 and exhibits B183 through to B189, which confirm that Mr. Bartlett, aside from having absolutely no expertise in the areas in which he purported to give evidence put his own credibility into serious question. The transcript confirms that there were ongoing negotiations with Mr. Bartlett with respect to access through his lands and no issues about the Eden Valley routing of the pipeline were ever raised. It was only when Petro-Canada refused to accede to the excessive demands being made by Mr. Bartlett, that he took issue with that routing. Although Mr. Bartlett suggested during his cross-examination, that the e-mails that were being shown to him and were marked as exhibits were selective, no additional e-mails were placed in evidence that would substantiate the allegation that there was a selective culling of e-mails and that Mr. Bartlett's current position was anything other than opportunistic.

With respect to the Mazeppa route, Petro-Canada's initial submission speaks in detail to the inappropriateness of this "route". Petro-Canada is confused why the SNN would be advancing the Mazeppa route as a viable alternative because the Mazeppa route would not reduce the proximity of the pipeline to the reserve population. In addition, the OH Ranch management plan is a major obstacle contrary to the suggestion made in paragraph 243. In addition there would be a

larger number of residences affected by the Mazeppa route as opposed to the Eden Valley route.

The suggestion in paragraph 245 that somehow the February 2008 Sullivan sour gas development plan news letter shows a lack of respect for SNN rights is simply another unjustified attack without any substantiation. We urge the panel to review the reference provided.

E. Public Safety / Public Protection

At paragraph 256, once again the SNN made a number of statements but failed to provide any references whatsoever to justify the statements made. The demographics identified in Petro-Canada Sullivan ERP would appear to put in question many of these statements. The suggestion that Petro-Canada has a "to be determined" approach to emergency planning, is totally unjustified. The entire Eden Valley Indian Reserve has been included in Petro-Canada emergency response plan. Petro-Canada has developed instructive specific public safety response actions to protect the public on the reserve. In fact, Petro-Canada has gone so far as to create a specific sub-set within its ERP for the Eden Valley Reserve and has prepared site-specific training scenarios for the Eden Valley Reserve. [Petro-Canada Sullivan ERP Site-Specific Supplemental Section, pages 8-9 and 29-30]

Petro-Canada's ERP clearly includes the number of residences and business on the reserve and in fact the ERP details how many people reside in each residence; the specific name, age and special needs of the occupant (including language barriers); the residence, work and/or cellular number for each occupant; alternate contact information for each residence, work and/or school information about each resident and whether a particular resident requires evacuation assistance. Any additional concerns or comments expressed by the occupants of each residence is also documented within the ERP. Although the hearing transcripts on page 1987 indicate uncertainty as to the exact number of

residents residing within the Eden Valley Indian Reserve, Petro-Canada's ERP does contain the detailed information as spoken to above.

With respect to the condition of the road signs on the reserve, at the time that Petro-Canada understood it had an arrangement with the SNN for access through the reserve to construct the pipeline portion of the project, Petro-Canada upgraded that portion of the road that it anticipated needing for access for its equipment. At the same time that Petro-Canada upgraded that main portion of the road, Petro-Canada also upgraded some portions of the road that were not so required but that required upgrading [12TR2183]. Petro-Canada would provide maintenance service on roads required for access or evacuation [12TR2184].

Petro-Canada is prepared to document map-specific traditional use locations if the SNN would facilitate identifying locations within the EPZ that they use [11TR2100]. While the SNN suggested Petro-Canada is somehow deficient in addressing the Health Canada concerns, that position is totally unfounded. Petro-Canada has stated its commitment to working with the residents of Eden Valley and Health Canada to satisfy any concerns of Health Canada with respect to adequacy of the houses, the water supply and communication, all to ensure the safety of the reserve residents.

While Petro-Canada understands that some of the homes do not have telephone or cellular phone access, and that concerns have been raised with respect the adequacy of the homes for sheltering in place, Petro-Canada will work closely with the Eden Valley community, as well as Health Canada in order to address those concerns [9TR1811]. As a matter of interest, Health Canada has not inspected any of these houses, as Mr. Deneau was asked whether there were any records as to the conditions of the houses and he indicated that he did not have any information [12TR2188].

As stated on numerous occasions, Petro-Canada will work with Health Canada and Eden Valley to identify where there are gaps in the shelter in place facilities but based on the work that Bissett has done believe that proper shelter in place can occur with the existing infrastructure [12TR2188].

Contrary to the suggestion in the SNN submission, Petro-Canada has recognized and identified methods for removing the public from the H2S, as more particularly set out in the filed ERP.

Suggestions that there are questions about the designs and procedures are easily answered by a simple review of the Petro-Canada application materials. The language identified in paragraph 282 "...being proposed..." simply referred to what was set out in detail in the application materials, something which would be easily ascertainable from a review of those materials.

Petro-Canada's ERP has been designed to initiate the public protection measures necessary to provide for the safety of the reserve residents. A number of design features on the project will contribute to ensuring that Petro-Canada does not have a release of sour gas. Examples include well site specific emergency response plans, external cement coatings to protect the pipelines from rocky terrain, dehydration of the gas in the trunk line to reduce the internal corrosion risk and the ability to inspect the lines while in service. In addition there are a number of design features that address safety in the unlikely event of a sour gas release. The gathering system and the trunk line will be equipped with emergency shut down, or ESD valves which can be activated automatically and remotely [9TR1806]. What is important to understand is that Petro-Canada has designed the system so that if there is an emergency or release in a section of the line, Petro-Canada can open up a valve at the other end and take all of the gas to flare [11TR2140].

If there is an emergency and Petro-Canada is required to shut down, evacuate or shelter in place, all things can occur simultaneously. If it is concluded that a siren within the community is appropriate, it will be programmed into Petro-Canada's emergency response. The siren will go off, the ESD valve would shut, flares would open and that would take place within a matter of seconds [11TR2142].

At this point, for obvious reasons, Petro-Canada hasn't hired staff to operate the Sullivan facilities. It would be Petro-Canada's intent to have operators located to the Sullivan facilities in Black Diamond and potentially Longview. It would also be Petro-Canada's hope to retain and train individuals in the Eden Valley Reserve to act as responders in the case of emergency [11TR2004].

Petro-Canada's ERP contains documented mutual understanding with respect to emergency response with Eden Valley. This mutual understanding was obtained with Mr. Claude Lefthand of the Eden Valley Stoney Reserve #26 on May 27 [Petro-Canada Sullivan areas site specific supplemental section, page 12].

See also the public consultation component of the emergency response plan, volume 5.1 of the public record documentation filed with the ERCB in June 2009, which documents personal consultation with all residents within the Eden Valley Reserve in November/December 2007 and a follow-up in writing in May 2008.

Although in paragraph 286, the SNN suggests that Petro-Canada's attempts to establish a dialogue with the SNN have been largely unsuccessful, in fact the references speak to ongoing discussion and dialogue between Petro-Canada and the Eden Valley community, rather than unsuccessful attempts at establishing a dialogue.

The suggestion in paragraph 287 that Petro-Canada has postponed all consultation pertaining to ERP matters until approval is granted is inaccurate. In November and December of 2007, Petro-Canada carried out one on one

consultation with each household and business on the reserve. Additionally on May 27, 2008 as is indicated previously Petro-Canada obtained a mutual understanding with respect to the ERP with Mr. Lefthand. If approval is granted, Petro-Canada is committed to updating its ERP to ensure it is current prior to commencing any operations. Within the ERP, the use of rovers (including Petro-Canada trained rovers from the reserve) is identified. These rovers will have the ability to contact residents in person on the Eden Valley reserve. In addition, Petro-Canada has repeatedly offered to engage in discussions with reserve representatives to enhance the ability to communicate with the public. An example of this is Petro-Canada's suggestion about the community public protection siren. The siren is not obsolete in the context of the reserve, and in fact might be substantially more effective than cell telephones, which may or may not be carried by particular individuals at any given time.

With respect to the ERCBH2S software, the ERCBH2S calculations submitted by Petro-Canada used the latest version of the software available at the time. As of July 2009, the final version of the ERCBH2S model has yet to be released by the ERCB. Petro-Canada is required to update the ERP in accordance with Directive 071 requirements prior to operations using the most up to date version of the ERCBH2S software in effect at that time.

At paragraphs 315, 321 and 322 and Appendix A, the SNN argue that, pursuant to the by-law making powers granted to Band council under Section 81(1) of the *Indian Act*, R.S.C. 1985, c. I-5, Band council intends to pass a by-law that would prohibit any level 2 or level 3 sour gas pipeline from being "located within 1,500 meters of the boundary of the [Eden Valley Indian] reserve".

Such a by-law, assuming it is passed, would be in excess of the by-law making powers which the Band council holds under Section 81(1) to the extent the by-law purports to limit pipeline construction within 1,500 meters outside of Eden

Valley. Section 81(1) does not grant the power for Band council to legislate extra-territorially.

R. v Lewis 1996 CarswellBC 951 (S.C.C.) at paragraph 78-80 [Tab 5]

In answer to the Relief Requested by the SNN,

- Petro-Canada disputes that the Board is prohibited from approving the applications for any of the reasons asserted by the SNN, particularly at paragraphs 356-359. The Board's decision making power is to be exercised in accordance with the purposes set out in sections 2 and 3 of the *ERCA* and in particular the Board's mandate to consider the "public interest, having regard to the social and economic effects of the project and the effects of the project on the environment."
- Petro-Canada disputes the assertions at paragraphs 363-364 that any prior approval of Canada or the SNN is required before the Board can approve the applications and grant licenses to Petro-Canada. The approvals that the Board is empowered to give under the *ERCA*, the *OGCA* and the *Pipeline Act* are within the legislative competence of the province of Alberta, all as previously argued in the written submissions of Petro-Canada and Alberta filed herein in respect of constitutional issues.
- For the reasons previously spoken to in the introduction, the conditions of approval suggested by the SNN are unreasonable and should be rejected.

III. PETRO-CANADA'S REPLY TO THE FINAL ARGUMENT OF THE BLG DATED JUNE 26, 2009

A. Introduction

The Big Loop Group – comprised of Big Loop Cattle Co. Ltd., represented by Mr. Tom Bews, Pekisko Creek Ranch & Cattle Co. Ltd. (“Pekisko Creek”), Alec C. Burke and family, the Municipal District of Ranchlands No. 66 (“MD of Ranchlands”), E.P. Ranch Ltd. (“EP Ranch”), and High Lonesome Ranch Limited (“High Lonesome Ranch”) – made written submissions prior to the hearing and presented some expert testimony at the hearing.

In the introduction to the BLG’s Final Argument, Mr. Carscallen implies that the views expressed are those of the entire group, however this is misleading.

It must be clarified that only two representatives of the Big Loop Group – Mr. Cam Gardner for the MD of Ranchlands and Mr. Curtis Bartlett for E.P. Ranch Ltd. and High Lonesome Ranch Limited – actually testified at the hearing. It is important to note that *neither* of these parties were granted standing to intervene [ERCB Decision 2008-029 and ERCB June 23, 2008 letter].

The Big Loop Cattle Company Ltd. was granted standing to intervene by virtue of its grazing lease and grazing allotment within the emergency planning zone for the Project, but Mr. Bews did not testify at the hearing and acknowledged in his written affidavit dated January 5, 2009 that he no longer has any interest in the lands that initially granted him standing [Exhibit C-22].

With respect to Pekisko Creek, another member of the Big Loop Group, no representative was brought forward to testify at the hearing regarding how the Project may directly and adversely affect its interests. Since purchasing the lands described as SE 25-16-4 W5M from E.P. Ranch, Pekisko Creek has not shown any active interest in opposing the Project.

Again, counsel for the Big Loop Group states that he was representing Mr. Alec C. Burke and family, and yet no representative of that family came forward to testify. We were advised by counsel for the Big Loop Group that Mr. Alec Burke was unable to testify because he lives in Vancouver [13TR2381, 19TR3774]. Petro-Canada's understanding, from the September 14, 2007 letter of objection from Mr. Alec Burke to the ERCB's predecessor, is that the legal owners of the relevant quarter section of land are actually Pamela and Ronald Burke, both residents of Calgary who could have attended to testify in opposition to the Project. Petro-Canada contacted these owners of the land in August of 2007, and while they had questions, they did not indicate any opposition to the Project [Exhibit B-54, Stakeholder Consultation Update – August 1 to October 31, 2007 (page 3)].

Mr. Cam Gardner, of the MD of Ranchland, testified regarding the MD's concerns with safety, off-highway vehicle damage south of Highway 532, integrity issues with the existing Livingstone pipeline, and general environmental concerns [23TR4751-4756]. Of course, Mr. Gardner acknowledged that he was no expert in environmental matters or pipeline integrity [23TR4758]. He was also unaware that the Livingstone pipeline was neither constructed, nor operated, by Petro-Canada [23TR4757-8]. He also acknowledged that only about 4% of the Project would fall within the MD's jurisdiction [23TR4757]. Finally, Mr. Gardner discussed the significant consultation Petro-Canada had conducted with the MD [23TR4761 and 4767].

E.P. Ranch and High Lonesome Ranch are also said to be within the Big Loop Group. While Mr. Curtis Bartlett provided testimony respecting alternative routing of the trunk line, as discussed above, he acknowledged that he had no pipeline construction or environmental expertise [22TR4419-4421]. Nor did he have standing to intervene [see ERCB letter June 23]. Mr. Bartlett does not hold any interest in lands affected by the Project, or even in any lands within 10 kilometres

of the Project, either in his own name or in the name of E.P. Ranch or High Lonesome Ranch. Cross-examination revealed the real driver behind his recent change of position regarding the Project, as well as his utter lack of credibility [22TR4427-4476].

In light of the preceding evidence, Petro-Canada submits that it is unclear exactly whose views and interests are being represented in Mr. Carscallen's Final Argument.

B. Un-eroded and Unfragmented State of the HR

The BLG assert that the Eden Valley Route area (the area referred to as the Headwaters) is in an "unfragmented and un-eroded" state, absent of industrial activities (BLG Final Argument, page 3). Petro-Canada's analysis of the area including substantial field studies concluded that, in fact, industrial activity has occurred in the area. This includes a gas well site and associated access roadway to the west of the proposed trunkline alignment, and large areas subjected to range modification. Range modification (removal of native aspen and seeding to non-native agronomic forage species) exists in the vicinity of Miller Creek. In addition, the Willow Creek equestrian trail, originally developed as a road suitable for truck traffic, runs north from the Indians Grave Campground and intersects much of the lower reaches of the Willow Creek and Pekisko drainages. Seismic lines are also found throughout the area in various states of regrowth. The proposed trunkline corridor is *not* a pristine area untouched by man. Industrial and agricultural land uses have occurred and continue to occur and the biodiversity as identified in the BLG Final Argument has persisted.

The habitats and associated biodiversity will also persist *after* the Trunkline is built. No road is being constructed in the area and the right of way will be completely revegetated. A well-vegetated pipeline right of way will not present a

barrier to species movement or significantly fragment the landscape. Petro-Canada's analysis of before and after the project, indicates that changes to natural vegetation and landscape connectivity are of low magnitude, low environmental consequence and local geographic extent [Environmental Assessment Table 14-18] and do not present a threat to the biodiversity of the area.

Landscapes are not static. They are shifting mosaics of vegetation types and habitats shaped by disturbance, both natural and human. Major fires have swept through the area in the past, consuming most of the region, and providing disturbance levels that are orders of magnitude greater than that potentially resulting from pipeline construction. The Sullivan Project must be viewed in the context of a changing landscape. Given the careful construction and reclamation techniques proposed by Petro-Canada, this project can proceed responsibly without significantly impacting the valuable natural resources of the area.

C. Reference to the Whaleback case

Mr. Carscallen's suggestion that "the Board's decision in the Whaleback case is precisely applicable to the present case," is flawed. In the Whaleback case, the governing regulation was the Special Places 2000 initiative, which was designed to set aside protected areas completely free of industrial development. Authorizing the Amoco project proposed in the case, would have potentially compromised the candidacy of the Whaleback area as a protected area. Conversely, the Land Use Framework, which governs in Petro-Canada's application, is not designed to exclude development from the planning area, but rather to control the level of effects caused by development, in order to protect valuable resources. Petro-Canada has clearly demonstrated its willingness to work with the province and stakeholders to develop the Sullivan project in a way that would not compromise sensitive resources or future land use options for the area.

D. Watercourse Crossings

Throughout the hearing, the BLG consistently referred to 72 as the number of watercourse crossings associated with the Sullivan Development Project, despite being provided with very clear explanations on several occasions as to why 40 watercourse crossings rather than 72 is the actual number [1TR155; 2TR258].

To reiterate, the Alberta provincial hydrology database was accessed during preliminary routing of the Eden Valley route. This is a standard procedure to ascertain the approximate potential number of watercourse crossings associated with a particular routing alignment. Field work is then conducted to verify that the information contained in the provincial hydrology database is true. Reference is also made to Alberta Environment's Code of Practice for Pipelines and Telecommunication Lines crossing a water body. The Code of Practice identifies a water body as "a water body with defined bed and banks whether or not water is continuously present but does not include fish bearing lakes." Field work completed for the Sullivan project indicated that a number of hypothetical watercourses shown on the hydrology map for the area did not meet the definition of a water body as defined in Alberta Environment's Code of Practice in that they did not have a defined bed or bank. Further route alignment resulted in an additional reduction in watercourse crossings. The total number of watercourse crossings associated with the Sullivan Development Project is therefore 40 not 72, 24 of which exist along the trunk line.

E. The Pipeline Application as a Separate Action

The BLG submits that the pipeline application with respect to the proposed trunkline is a separate application and encourages the Board to consider it as such. However, dividing Petro-Canada's application would be contrary to the

ERCB's requirements under I.L. 93-9. Petro-Canada has met these requirements, which state that:

At each stage of development (ie. initial pool delineation, subsequent delineation, pool development) a potential operator will provide, in as much detail as practical, its best estimate of the overall extent of development. This is required in order to avoid piecemeal proposals and to ensure that the overall scope and potential impacts of the development, if permitted, are clearly understood.

Rather than submitting individual applications for each project component, which would not have provided the Board with a clear picture of the total project, Petro-Canada submitted an integrated package of applications. This package details the entire project as well as a comprehensive development plan to allow regulators and stakeholders to understand the potential regional effects of the proposed development.

F. Route Selection

The BLG has asserted in their final argument that there is only one route that Petro-Canada is prepared to consider for the trunk line from the Sullivan Field (Page 8 of the Final Argument of the BLG). The BLG goes on to state that Petro-Canada carefully avoids the distinction between its needs and wants, indicating that it does not need to route the trunk line through the "headwaters region" as there are other alternatives available to it by using the Highway 940 route or the Mazeppa route (page 10 of the Final Argument).

Petro-Canada has followed standard, proven methods of route selection during preparation of the Sullivan Development Project. These methods have been adopted by companies proposing linear developments throughout the world, for many years. Petro-Canada clearly explained during testimony the method that

was used in selecting the Eden Valley corridor [1TR 174]. The purpose of route selection is to find the optimum balance of a number of important considerations such as environmental concerns, constructability, safety, economics, and future operability. A definition of balance is "to compare as to relative importance, value, etc". Indeed, this is the purpose of route selection.

The approach to careful route selection is to examine broad corridors as potential feasible candidates for further route refinement. Should it be determined that obstacles exist associated with a particular corridor that cannot be resolved (show stoppers), the corridor is abandoned. There is simply no point in conducting detailed environmental assessments, or public consultation on corridors when there is absolutely no intention of developing them because of one or more overriding, unresolved obstacles.

Petro-Canada conducted a corridor analysis at the beginning of the project in 2006. This information is contained in the documents entitled "Sullivan Infrastructure Project Route Evaluation Report Trunk Line South and East Options". Criteria used in the evaluation includes construction considerations, environmental considerations, land use and stakeholder relations, visual resource considerations and cost considerations.

There is certainly the inference that Petro-Canada was not sensitive to the concerns of the intervenors. Petro-Canada reiterates:

"From an ease of construction and designated wildlife habitat perspective, the most easterly route (Pekisko) is the most desirable. However, the route passes through prime ranching country and bisects some of the largest remaining patches of native fescue grassland in the province. Given the prominence of the Pekisko Ranchers group and the public awareness of the importance of fescue grasslands, this option is not recommended" [Route Evaluation Report, page 28].

Put another way, Petro-Canada recognized and fully acknowledged the importance of fescue grassland to the ranching community. That importance became a show-stopper and accordingly Petro-Canada looked for alternate corridor options.

Clear show stoppers were also determined for both the Mazeppa route, as well as the Highway 940 route. No clear show stoppers were determined for the Eden Valley corridor, therefore this corridor was advanced in the assessment by conducting further detailed studies to define the final route.

The BLG also seems to have misunderstood the nature of the involvement of environmental and landscape management experts in the development of this project, especially with respect to route selection. The BLG has dubbed these experts "advocates" and "spokesmen", failing to recognize that these professional consultants participated as part of the team from the conceptual development stage and brought their expertise forward early on in the route evaluation and selection process to help avoid unacceptable conflicts with the biophysical and human environment. The route selection decision was made by a team composed of both Petro-Canada functional experts as well as these recognized industry experts, in the areas of environmental effects, landscape management, construction and stakeholder management. Petro-Canada submits that the involvement of these experts at such an early stage of development is an aspect that makes this project particularly innovative.

In opposition to Petro-Canada's proposed trunkline route, the BLG relies on the "opinions" of Mr. Curtis Bartlett on pages 20 and 21. However, Mr. Bartlett's factors and route selection evidence is comprised of biased opinion unsupported by any expert qualifications. As stated in section VI-E on page 54 of Petro-Canada's final argument, the Board should not give Mr. Bartlett's opinions any weight.

Petro-Canada takes issue with the BLG's argument and conclusion with respect to Mr. Carscallen's cross-examination of the Petro-Canada panel on the Mazeppa and 940 "factors". The transcripts clearly demonstrate that the Petro-Canada panel disagreed with Mr. Carscallen's opinions and did not consider a Mazeppa or 940 route to be superior [TR 931-975]. The conclusions suggested by Mr. Carscallen are clearly a misrepresentation of actual witness responses.

G. Construction Difficulties

Petro-Canada feels it is necessary to remind the Board, and more importantly the public that when considering the adequacy of regulatory and industry standards and the potential for pipeline washout, Mr. Carscallen uses an example of a pipeline built according to extremely outdated standards of construction. The construction practices to which he refers are those used 40 years ago when the primary concerns during the installation of a sweet gas line were ease and speed of construction, which were addressed at the expense of environmental care.

Much has changed over the past 40 years and the industry standards and practices proposed by Petro-Canada for construction in this application are significantly different from those used in the past. At present, due to increased education and more stringent regulations, emphasis is now placed on the following considerations:

- Using less workspace;
- Route selection that avoids high erosion areas such as riverbends, turbulent areas and parallel watercourses;
- Including environmental experts when scouting;
- Employing more stringent watercourse crossing techniques;
- Surface soil salvage and replacement;
- Using surface and subsurface drainage controls;

- Reclamation to avoid erosion;
- Special reclamation for steep slopes;
- Monitoring and remediation where necessary, following construction; and,
- Continuous inspection throughout the operating phase.

It would be irrational to expect the same consequences with a pipeline built using these significantly higher standards and practices, in the event of flooding.

H. Rollback

The Big Loop Group has misunderstood the evidence presented by Petro-Canada during the hearing as it relates to the use of rollback on the pipeline. There are several purposes for rollback – erosion control, access control, and to discourage cattle from excessive grazing and resting on the pipeline or using the pipeline as a travel corridor. Rollback will not be placed on grasslands, only treed portions of the pipeline as was clearly stated during the hearing. Merchantable timber may be used on the pipeline should there be a need. As was indicated during the hearing [8TR1469], there are no existing timber dispositions on the trunk line portion of the project between Highway 532 and 541, therefore the option to use merchantable timber as rollback is open to Petro-Canada upon approval from ASRD. Contractual obligations with Spray Lake Sawmills referred to by the Big Loop Group in their submission apply to the gathering system portion of the project, which is within Spray Lakes Sawmills FMA. However, there still remains the option for Petro-Canada to purchase the merchantable timber from Spray Lake Sawmills in the gathering system for use as rollback should the latter agree with this.

I. Access Control

The Big Loop Group asserts in their Final Argument at page 36 that the rare plant community of Foothills Rough Fescue – Hairy Wild Rye is located within the FLUZ on the north side of Highway 532. The Big Loop Group goes on further to state that because of its uniqueness and its location within Kananaskis Country the community is signed in an attempt to keep ATVs off, but ATV users have continued to damage this community by traversing the sweet gas pipeline right of way that runs through it.

This information is erroneous in that the Foothills Rough Fescue-Hairy Wild Rye community is located on the *south* side of Highway 532 [EPP, Appendix G] in the Willow Creek FLUZ where the use of 800 lb ATVs is permitted (as opposed to the north side of Highway 532 where there is a complete ban on the recreational use of ALL motorized vehicles). Furthermore, this community is not signed to keep ATVs off [4TR673].

The BLG submits that there would be no concerns about access control on their preferred alternate route, the Hwy 940 route, because it is located near a public highway, within logged cut blocks or on already existing Petro-Canada roads and rights of way. However, the close proximity of the Hwy 541/940 route to the public and the number of highway crossings required on this route is precisely the reason that access control would be *more* difficult [TR937-938; TR969; TR985].

J. Watershed

Contrary to the views of BLG, Petro-Canada has not ignored or downplayed potential effects on watersheds. The evidence raised by BLG relating to watershed concerns is highly generalized, speculative and anecdotal, and fails to recognize the wealth of site-specific field survey, assessment and mitigation planning done by Petro-Canada (partly because the BLG witness had not consulted the most relevant material).

Petro-Canada reiterates that it did fully consider watershed sensitivity, potential project effects and its ability to mitigate such effects in its application. Watershed issues were considered fully in routing and siting decisions [EA Chapter 2; Sullivan Infrastructure Project Route Evaluation Reports] and in detailed project design and mitigation development [EA Chapter 2; Sullivan Infrastructure Project Route Evaluation Reports]. For example, Petro-Canada will make extensive use of horizontal directional drilling for crossings [Environmental Protection Plan], will avoid sensitive fish overwintering or spawning habitat at trenched crossings [Fisheries Update November 2008], and has not closely paralleled surface waterbodies [Fisheries Update November 2008]. As demonstrated at the hearing, Petro-Canada has completed an extensive inventory and assessment of even the most minor watercourse crossing.

Petro-Canada's evidence confirms that potential residual effects on and risks to watersheds crossed by the Project are manageable and acceptable based on accepted watershed management practices and current regulatory requirements.

K. Fisheries

Petro-Canada challenges BLG's statement that it is "proposing to install the Proposed Trunkline in the critical habitat of a threatened species" (BLG Argument page 45). The Board should note that critical habitat has not yet been defined for westslope cutthroat trout. Further Petro-Canada has routed the proposed pipeline away from potential spawning and overwintering areas that might at some future date be considered critical habitat.

L. Wolves

Mr. Carscallen's argument on the Willow Creek wolf pack clearly demonstrates his unwillingness to accept and acknowledge the fact that Petro-Canada has

adopted an appropriate and responsible approach for the protection of this wolf pack. As a result Mr. Carscallen's argument is filled with inaccuracies, half-truths, inconsistencies with his own expert's evidence and, at times, outrageous suggestions.

Firstly, Mr. Carscallen's suggestion that Petro-Canada refused to disclose the existence of wolf natal sites (pg 55) in any of its filed materials is simply not true. The Sullivan 2008 EPP did, in fact, identify a restricted activity period and the need for subsequent monitoring in the vicinity of the natal sites to reflect the sensitivity of the area. This fact was raised by Mr. Eccles in Petro-Canada's evidence-in-chief, presented at the commencement of the hearing [TR151-153]. As Mr. Eccles testified, the exact locations of the natal sites has not been incorporated into the file material at the request of the ASRD [TR152, lines 10-14]. Petro-Canada has made a clear commitment to continue discussions with ASRD on the appropriate restricted activity period (RAP) and buffer, and other appropriate protection measures to be implemented in the vicinity of any active natal sites, should the project proceed.

Secondly, Mr. Carscallen takes the liberty of inferring that Petro-Canada and its consultants had "a deliberate plan to drive the wolves away from their den so as to clear away the wolf natal issue as an impediment to the Proposed Trunkline". The irresponsible and false nature of the accusation is clarified by two pieces of evidence on record:

- Upon hearing of ASRD's concerns about the possible effects of Petro-Canada's survey activities on natal den occupancy in 2007, Petro-Canada immediately launched its own investigation into the alleged concerns, using a security investigator who in turn met and questioned ASRD staff on the issue [TR340, lines 1-13]. The self-initiation of such an investigative effort would not have been the obvious response of a company who, in Mr.

Carscallen's opinion, had reverted to willful harassment to make the wolf issue go away.

- Minutes from the meeting between the investigator and Mr. Jorgenson of ASRD clearly demonstrate Mr. Jorgenson's position that "it is indeed a very gray area with many unknowns as to which activities impact wolves' behavior. And there was certainly no definite proof that the AXYS survey was responsible in disturbing the wolves, and this may have been the result of any type of human contact" [TR340-341]. He includes Petro-Canada surveys, SRD personnel, independent wolf researchers, ranchers or other hikers in his list of other human contact that may have had an effect on the wolf pack behavior.

Thirdly, Mr. Carscallen continues to suggest that the project will result in significant increases in access into the natal area, "coupled with the impossibility of controlling an anticipated increase in human and vehicular access". He makes these statements in spite of the fact that:

- The area currently falls under a Forest Land Use Zoning (FLUZ) designation which prohibits the unauthorized off-road use of motorized vehicles;
- The well known Willow Creek equestrian trail, which passes immediately next to the wolf pack natal area and rendezvous site, could easily be accessed by ATVs from the Indian Graves campground, and yet receives no documented, regular unauthorized use by motorized vehicles;
- Mr. Carscallen's own experts' testimony repeatedly refers to the security and lack of disturbance enjoyed by these sites, thereby supporting the effectiveness of current FLUZ legislation in protecting them.

This clearly indicates that the current FLUZ legislation is effective in controlling off-road travel, as the natal and rendezvous sites, although easily accessed by the

Willow Creek trail, are not experiencing disturbances from unauthorized ATV use.

As stated in its May 22 final argument, Petro-Canada has committed to measures for the protection of large carnivores and their prey species, including the Willow Creek wolf pack. These measures are comparable to or exceed those recently applied in much larger National Park pipeline project, and are to be applied in a multiple resource use area, occupied by a wolf pack which has been subjected to significant levels of human disturbance and intervention in the last five years (trapping, selective removals, hazing, and poisoning), and which has persisted in the area in spite of these disturbances. Petro-Canada is confident that, with the implementation of its proposed mitigation plans, the project, if approved, can proceed without noticeable adverse effects on the wolf pack or its interaction with the ranching community.

M. Historically, Culturally and Ecologically Sensitive Sites

The BLG has stated in its final argument on page 60 that despite Petro-Canada's efforts to preserve them, Petro-Canada's preferred route selection "still intrudes upon 79" culturally, traditionally and ecologically sensitive sites. As evidence, Mr. Carscallen refers to Petro-Canada's construction alignment sheets, as well as transcript references from his own cross-examination of the Petro-Canada panel at the hearing [TR921,1.24]. In this transcript reference Mr. Carscallen discusses "79 different impediments...that were encountered or avoided or recognized." He has taken the words "encountered", "avoided" and "recognized" to have the same meaning as "intrudes upon", which is obviously false and misleading.

N. Impact on Spoon-leaf Moonwort

The Big Loop Group states at page 66 of their reply submission with respect to mitigation for spoon-leaf moonwort that Petro-Canada is of the position that it

cannot mitigate for this plant and so offers a “compensatory approach to further study the species in question”. This is simply not true as evident from the transcripts [4TR687]. The approach Petro-Canada intends to take with this species is to avoid the species by adopting specialized pipelining techniques such as reducing workspace in the vicinity of the plant, and pre-welding pipe in a separate location, then pulling the pipe through the ditch. The plant observed in the rare plant survey was positioned well up against the adjacent forest, thereby affording space on the right-of-way to permit this type of construction technique.

O. Rough Fescue—Hairy Wild Rye

At Page 65 of the Big Loop Group’s submission, they indicate that the Rough Fescue-Hairy Wild Rye community cannot be avoided by the trunk line, and that the community in the end will be “reduced in area”. The proposed trunk line will cross through this community – utilizing the existing fuel gas line right-of-way to the extent possible. Petro-Canada views construction of the trunk line through this community as an opportunity to restore the community as much as possible to its natural state – thereby improving on its existing condition. Although the extent of the community will be temporarily reduced during the construction process, the overall objective is to actually increase the size of the community by correctly recontouring and restoring both rough fescue and hairy wild rye on the existing fuel gas line [4TR672]. This is the site where the technologies developed by Steven Tannas will be primarily used. This site lends itself well to the establishment of native species since it has shallow gravelly soils which limit the ability for invasive non-native species to become established.

P. Stakeholders

On page 72, Mr. Carscallen indicates that Petro-Canada has chosen a proposed pipeline route, despite the fact that “other stakeholders are universally opposed to it”. This allegation is incorrect, as evidenced by the detailed stakeholder

contact information, which was uncontested during cross-examination [Volume 6.2 of the Public Record Documentation filed with the ERCB in June, 2009]. This stakeholder information indicates that those stakeholders, both local and regional, who have expressed opposition to the proposed pipeline route, were a small contingent of the overall number of local and regional stakeholders dealt with in this application.

IV. PETRO-CANADA'S REPLY TO THE FINAL ARGUMENT OF ROYAL ADDERSON AND BAR AD RANCHES LTD. DATED JUNE 26, 2009

A. Introduction

Petro-Canada has observed that overall, many of the claims in the Final Argument of Royal Adderson and Bar AD Ranches Ltd. ("Royal Adderson") rely on selected information presented by the Petro-Canada panel at the hearing, that has been considered in isolation from the scientific and technical context in which it was presented and/or has been recombined with other selected information to support erroneous conclusions.

It is necessary to clarify that this application does not include a "sour gas processing facility" as stated on the cover page of the Final Argument of Royal Adderson. As per the application, all processing will be done at the existing Coleman gas plant. Actual proposed Central Facility equipment located at 11-08 is described in Section 3.6 of the May 2007 EA.

Petro-Canada would also like to note that although the total project development could take up to 2.5 years to complete, the work would not be continuous due to the restricted activity periods with which Petro-Canada has agreed to comply. Only drilling operations, no construction, is proposed at 3-19 through the winter season [section 3.8 of the May 2007 EA].

B. Response to What the Board Should not Address – Industry Process with ASRD

Petro-Canada has made every effort to be transparent throughout the planning and application process, and has provided extensive stakeholder consultation logs in our application that outline discussions with ASRD. These logs have been used by both the interveners and Petro-Canada throughout the hearing and their accuracy was not challenged. In addition, all Petro-Canada panel members were under oath during their testimony of ASRD's involvement and responded clearly and truthfully to the questions asked.

ASRD, being the applicable manager of the Crown land base for the province of Alberta, has a disposition approval process that Petro-Canada and its industry partners continue to follow for all Crown land operations in Alberta. This process includes extensive ASRD consultation (including field visits) to review and discuss specific project details. Petro-Canada has received all but one disposition for the Sullivan Project from ASRD following this process. The one outstanding PLA has resulted due to outstanding consent of occupant from Grazing Lease holders.

C. Groundwater

Mr. Fitch quotes the evidence correctly in pointing out the high hydraulic conductivity of the aquifer feeding Mr. Adderson's spring and in his discussion of groundwater recharge occurring on the slopes of the foothills. However, paragraph 32 ignores the fact that much of this groundwater recharge occurs on relatively low permeability soils, such as those that were tested beneath the proposed Central Facility. For contaminants from the facility to be detected in Mr. Adderson's spring, they would have to flow more than a kilometer downhill through these low permeability soils (hydraulic conductivity of 6×10^{-6} m/s) prior to entering the higher permeability aquifer on the flood plain, then migrate across

that flood plain to his spring. Petro-Canada's hydrology expert estimated that a molecule of water would take a number of decades to make that journey.

As indicated by Petro-Canada, engineered systems would be built on the facility to preclude the loss of liquids into the ground, and a groundwater monitoring system would be installed to test for contaminants in the groundwater beneath the facility. If contaminants were detected, mitigative measures would be taken to remove these compounds from the groundwater, years before Mr. Adderson's spring was at risk. While Petro-Canada takes Mr. Adderson's concerns seriously, this is a standard approach used by Petro-Canada and other companies to protect groundwater in the vicinity of oil and gas facilities.

D. Environmental Significance of the Area-Weeds and Non-native Invasive Species

The environmental significance of the area was discussed in the Royal Adderson submission at page 11. Although Petro-Canada agrees with most of the bulleted items in paragraph 46, the first item is not accurate. Weeds and non-native invasive species were found at 67 of 81 sites that underwent rangeland and riparian health surveys [Petro-Canada Final Argument, March 2007 EA]. Throughout the project area, especially at lower elevations along creeks and in meadows, weeds and other invasive agronomic species are abundant as a result of range modifications, grazing practices and other land use activities [Appendix I, 2008 EPP]. Therefore, the assertion that "the vast majority of the area is natural vegetation and relatively undisturbed", is simply not true.

E. Integrated Resource Plan

Royal Adderson states that "(i)n fact, if an acceptable location for a well site cannot be found on a lease, there is the potential for sterilization or inadequate evaluation of the hydrocarbon resources" on page 15 of their Final Argument submission. Petro-Canada submits that in order for this statement to be given

accurate meaning, it must be read within the context of preceding points made within the same section of the Kananaskis Country Sub-Regional Integrated Resource Plan [Exhibit D-9, pages 85-88]. This document states that in Zone 2 (Critical Wildlife), "All operational or development plans, whether for renewable or non-renewable resources, must be in accordance with the intent of the zone. These plans should mitigate wildlife and fisheries concerns."

As evidenced by Petro-Canada's EA and associated Environmental Protection Plan, considerable efforts were taken to avoid or "mitigate wildlife and fisheries concerns". These efforts were, in turn, discussed at length with applicable ASRD personnel, who agreed to the issuance of Letters of Authority for Crown dispositions within the respective area [Public Record Documentation, volumes 4.1, 4.5 and 3.1].

F. Wildlife Habitat

With respect to the siting of the Central Facility, the Royal Adderson Final Argument states at paragraph 99, page 23 that, Option 1 is no better than Option 2, as it relates to wildlife habitat. Both Petro-Canada and ASRD determined that locating the Central Facility at Option 1 would decrease the level of operational traffic and activity in more remote sensitive wildlife and fisheries habitat.

G. Environmental Significance of the Area—Site Specific Knowledge of the Project Area

In Royal Adderson argument, page 18, Paragraph 74, a claim is made that Petro-Canada admitted it has very little site specific environmental knowledge of the Sullivan Project area north of the Highwood River. Firstly, no transcript reference is supplied to support this claim. Secondly, it is simply not true. Petro-Canada's application is founded on site specific knowledge for the Project area north of the Highwood River where it has had ongoing operations since 2005. The following

is a list of studies filed as part of Petro-Canada's application that contain site specific biophysical information for the area north of the Highway:

- Sullivan Sheep Study
- Sullivan Wildlife Baseline 2005
- EA Wildlife Baseline
- EA Vegetation Baseline
- EA Soils Baseline
- Central Facility Soil Survey 2008
- EA Hydrology, Surface Water and Aquatic Resources Baseline
- Fisheries Catalogue
- Route Evaluation Report

H. Grizzly Bears

Almost 20 pages of Mr. Fitch's Final Argument are devoted to questioning Petro-Canada's choice of analytical techniques for assessing the effects of the project on grizzly bears. As we will demonstrate below, this line of argument has little relevance to the actual protection and management of the grizzly bear resource in the Project area, under current provincial policies.

Furthermore, several of his points are inconsistent with the evidence on record or demonstrate a lack of understanding of the assessment process used, some of which are addressed below.

With regards to Petro-Canada's assessment of project effects on habitat availability, Mr. Fitch criticizes the use of HSI models, rather than RSF models, which he claims were available for the region at the time the EA was prepared [page 30]. Petro-Canada clearly indicates on page 69 of its Final Argument of May 22, 2009, that "while the base case habitat maps were available in 2006, the modeling tools required to measure change from new project footprints or

developments had not been completed for Phase 4, making the use of Phase 4 data of limited value [7TR1330].”

In addition, under point 136, page 31 of his Final Argument, Mr. Fitch leaves the impression that 8500 location points of collared grizzly bears were available to Petro-Canada for use in assessing habitat values in their EA when, in fact, there is no evidence to indicate that any of these data points actually fell in the LSA for the Sullivan Project. As Petro-Canada indicated at page 69 of its Final Argument, “the Phase 4 model relied heavily on data from bears collared well outside of the Sullivan local study area (“LSA”), in the northern portions of Kananaskis Country in support of the G8 summit and in the Crowsnest Pass area, as indicated by Mr. MacHutcheon during his testimony” [17TR3339].

Mr. Fitch further criticizes the use of only a spring HSI model to assess habitat effects, suggesting that fall habitat is more critical to grizzly bears. While this might be the case in some areas, it is inconsistent with Mr. MacHutcheon’s own evidence. As indicated in Petro-Canada’s Final Argument at page 70 “Mr. MacHutcheon, while discussing his involvement with the DNA hair capture work in the Project area, acknowledged that the bears caught in June and July *‘were heavily concentrated up in the western side of the study area along the B.C. border and some of the protected areas in this population unit and less so out in the eastern fringes,’* and indicated that the bears had left lower elevation eastern areas to follow the advancing phenology of plants at higher elevations [17TR3323].” While the project area is undoubtedly used to some degree throughout the bears’ active season, Mr. MacHutcheon’s evidence suggests that the Sullivan project area is in fact primarily used as a spring foraging area for bears, with the bears moving west to higher elevations during summer and fall.

Finally, Mr. Fitch takes issue with Petro-Canada’s ranking of project effects on habitat availability and mortality risk as low to moderate consequence, arguing that both Dr. Leeson and Mr. MacHutcheon believe that the effects on bears

would be significant. These are surprising and perhaps uninformed conclusions from Mr. Fitch's experts, as both admitted that they arrived at this conclusion without being aware of the full suite of mitigation measures being proposed by Petro-Canada to reduce project effects on bears. In Mr. MacHutcheon's case, it was pointed out in Petro-Canada's Final Argument that the mitigation measures being proposed by Petro-Canada are all the measures that Mr. MacHutcheon himself has recommended in his filed evidence for this hearing or which he recommended for the TMX pipeline project through Jasper National Park and Mount Robson Provincial Park. In addition, Mr. MacHutcheon's position on the potential effects of the Sullivan Project on grizzly bears is inconsistent with his report and the associated findings of the environmental impact assessment team for the much larger TMX project. Although portions of the TMX line are within the protected jurisdiction of parks, a large portion of the line is within unprotected Crown lands where public access is not curtailed. In addition, the footprint and associated habitat disturbances for the TMX project is more than three times larger than the Sullivan project and much of the right-of-way for the TMX project will represent a potentially attractive foraging habitat for bears in close proximity to a major highway and railroad system, posing a much higher mortality risk to bears than the Sullivan project. In spite of these facts, the TMX team concluded that, with appropriate mitigation, there would be no unacceptable adverse effect on bears.

Petro-Canada would like to return to the issue of what is important and relevant to the actual protection and management of the grizzly bear resource in the project area under current provincial policies. In Point 37 of his Final Argument, Mr. Fitch suggests that Mr. MacHutcheon was the only "real grizzly bear expert to give evidence at the hearing." However, Mr. Fitch has failed to acknowledge the team of "real" grizzly bear experts who have set a direction for the protection and management of sustainable grizzly bear populations for the province—the provincial grizzly bear recovery team under the leadership of Gord Stenhouse. Since the filing of the Sullivan application, this team has:

- Finalized the RFP models and Mortality Risk Models for bear management areas within the eastern slopes;
- Used the final model outputs to identify Grizzly Bear Priority Areas (GPAs) that will offer bears high quality habitat and low levels of mortality risk from human activities;
- Developed land use guidelines to minimize mortality risk to bears, and maintain and enhance the integrity of grizzly bear habitat, particularly in GPAs; and,
- Released the Alberta Grizzly Bear Recovery Program (2008-2013) in 2008, a document that acknowledges that “(g)rizzly bear recovery can be balanced with socially and economically important activities. In other words, bears and humans can co-exist on the same landscape if there is a willingness to conduct human activities in ways that are conducive to grizzly bear conservation” [Alberta Grizzly Bear Recovery Program (2008-2013), page 18].

Petro-Canada respectfully submits that the Board must judge the acceptability of the Sullivan project with respect to grizzly bears based on the ability of the Project to proceed in a fashion that is consistent and compliant with the new standards and management directives outlined in the recovery plan. Conversely, Mr. Fitch would have the Board judge the acceptability of the Project based on subjective disputes over the appropriate analytical methods to be used in the EA, an approach, which offers no meaningful protection for this important resource. As indicated in its Final Argument, Petro-Canada is confident that the Project, if approved, can proceed in a manner that is consistent with recovery initiatives. Open route densities in the LSA currently fall below the threshold value presented in the recovery plan and the new roads to be created by the Project

will not meet the definition of “open routes” provided in the Plan, since there are restrictions imposed on motorized vehicle use. Even if these roads, as a worst case scenario, were classed as open with unrestricted public access, open route densities would still fall below threshold levels. Therefore, from an open route density perspective, the Sullivan project will be compliant with grizzly bear recovery plans. In addition, Petro-Canada, as a funding participant in the Foothills Research Institute Grizzly Bear Research Project, is firmly committed to working with ASRD to investigate and implement other measures in the proposed Project area to enhance habitat values and reduce mortality risk for bears.

I. Cumulative Effects

The final argument of Royal Adderson states that Petro-Canada’s Cumulative Effects Assessment (CEA) is “hopelessly inadequate”, and that only the “real” CEA completed by Dr. Stelfox is appropriate [paragraphs 199-200]. This statement demonstrates the intervener’s complete misunderstanding of the requirements of a CEA conducted on a single, operational project in a regulatory environment. Moreover, Dr. Stelfox’s methodology hardly sets the bar for an appropriate project specific CEA.

The mischaracterization of the significant CEA work done for the Petro-Canada project is both misleading and wrong. Royal Adderson implies that Petro-Canada’s CEA had a temporal scale of 6 months [paragraph 201]. This is false. In fact, the assessment considers activities, including future timber harvesting plans over the next 25 years and beyond to post-project reclamation.

Royal Adderson also states in its final argument that the Petro-Canada CEA did not include Petro-Canada wells nor did it include forestry access roads [paragraph 205]. This also is untrue. All 11 known wells were considered in the project case. Similarly, main timber harvest access roads **were** considered in the assessment. While roads **within** cutblocks were not specifically considered, the

footprint of those roads was captured within the proposed harvest polygons and assessed in the CEA [TR1404 line 17].

As previously stated throughout the hearing and in Petro-Canada's Final Argument [Section Cumulative Effects Assessment], Petro-Canada's CEA included all reasonably foreseeable projects. The projects included in the assessment were not strategic speculation as to what *might* happen on the landscape, (as in Dr. Stelfox's assessment), but were founded on specific geophysical evidence, detailed forest harvest sequencing plans provided by Spray Lakes and the fact that Petro-Canada holds the vast majority of PNG rights in the gathering system, thereby precluding other energy projects in the area. The projects included by Petro-Canada are based on real data, not contrived and unsupported speculation.

Petro-Canada asserts that Dr. Stelfox's future energy extraction projections are spurious. Royal Adderson argues that information obtained from Alberta Energy was used to develop the future hydrocarbon extraction assumptions [paragraph 214]. This information was in fact, merely *strategic* level coefficients [TR 18 3698] and not based on a detailed geophysical understanding of the area such as used by Petro-Canada.

The Royal Adderson Final Argument further confuses the matter by stating that, based on information from Alberta Energy, one energy project of similar scale would occur in the project area in the next 50 years [paragraph 214]. However, in his original report, Dr. Stelfox states that his assumptions for the analysis were one such project occurring in the area every **20 years**. This discrepancy only further undermines the credibility of the Stelfox assessment. No evidence has been presented by any intervener that indicates the likelihood of further energy sector development in the area.

The Royal Adderson Final Argument (paragraph 207) states that Dr. Stelfox presented a CEA with an appropriate scale. The issues of appropriate scale of analysis scale have been discussed in both Petro-Canada's evidence and in our final argument and needn't be repeated here. Petro-Canada asserts Dr. Stelfox's focus on effects assessment at the footprint scale is an unreasonable approach for impact assessment as it unrealistically skews the results. When Dr. Stelfox did assess effects at a more reasonable regional level he found that the project had no measurable effects on important resources.

In paragraph 217 of their Final Argument, Royal Adderson states that "development begets development" and that fairness would dictate that subsequent projects be approved. This indicates a misunderstanding of the role of cumulative effects assessment in a regulatory environment. CEA in the context of this hearing is far different from the speculative assessments used to develop potential future "what if?" scenarios in a regional planning exercise. Cumulative effects assessment for individual projects is done to stop projects that go beyond acceptable limits, not to stop those that are acceptable.

The broad speculations and the questionable methods of Dr. Stelfox are simply not rigorous enough for a detailed CEA of a single project in a regulatory environment and should be given appropriate weight.

J. Safety, Hazards and Risks

At page 51 in paragraph 222, Royal Adderson states that "Petro-Canada acknowledged under cross-examination that nobody from the company or its consultants ever sat down with Mr. Adderson and explained to him that he was in the IIZ for the trunk line and the EPZ for the central facility. [Tr.,1824, 2-23]". Firstly, Petro-Canada would like to clarify that, although it may be true that Bissett representatives "never sat down with Mr. Adderson," he was offered an opportunity for a one-on-one meeting on the new Directive 71 Emergency

Response Planning Protocol. However, Mr. Adderson declined to discuss emergency planning or any other matters typically covered in a Directive 71 consultation. This is documented in a telephone conversation with Mr. Adderson on November 28, 2007 [Stakeholder Information Management System]. Though paragraph 222 of Mr. Fitch's Final Argument may technically be true, it must be realized that this result was brought about by Mr. Adderson, and not Petro-Canada.

K. Risk Assessment

On page 53 at paragraph 230 of Royal Adderson's Final Argument Mr. Fitch suggests that there is a "good chance that the H₂S monitors located at the ESD valves will not detect" an H₂S release. While Petro-Canada agrees that the two methods of detecting a sour gas release from the pipeline mentioned in Mr. Fitch's argument will be used (i.e., 1. the use of SCADA and 2. H₂S monitoring), and we agree that the detection of a release occurring at the mid-section of a pipeline segment would be difficult to detect using H₂S monitors located at the risers, it is noted that this information should be viewed within the context of all of the information provided [Report: "Assessment of the Public Safety Risks for the Sullivan Field Development Project Overall" (Report)]:

- A broad range of failure sizes is possible [Report, Table 10, page 42];
- A range of release geometries is possible [Report, Table 10, page 42];
- The frequency of failures is very low (leaks = 1.97×10^{-3} /km yr, ruptures = 2.7×10^{-4} /km yr). The probability of a rupture is approximately an order of magnitude less than the probability of a leak [Report, Table 10, page 42];
- Large ruptures would be detected by pressure monitoring more quickly than a small failure: a 200% and a 100% rupture would be detected and the pipeline isolated in less than two minutes; a 5% rupture would be detected and the pipeline isolated in less than thirty minutes; and a 3 mm hole may go undetected until visually observed or an odour complaint is made;

- The track along which a plume would be dispersed is very narrow and the region over which safety consequences might be realized is even more restricted [Report, Figures 17-26, pages 30-40].

While the latter case (the 5% rupture case) advanced by the interveners as the basis of their argument is plausible this case is not very probable. Given the consideration of the above factors, the probability of being exposed to a concentration that would result in an adverse safety outcome is small. The measure used to describe this probability is risk. On balance, the risk should be considered within the context of accepted standards and not, as the interveners suggest, on the basis of a single selected case.

Regardless of the size of a failure, gas released to the atmosphere will travel at the speed and in the direction of the wind. It is noted that for people situated on the centreline of the plume, that consequences associated with exposure to the dispersing gas will be dependent on the distance an individual is from the release, the size of the failure, and the weather conditions at the time. In general:

- Lower concentrations will be associated with leak events; and
- The higher the wind speed, the faster the plume will travel and the lower the concentrations will be.

There appears to be a desire by the interveners to suggest that the decision regarding the acceptability of this application should be based on modeling results representing a single low-probability event. While we believe that where possible the results and findings of the hazard assessment should be incorporated into the emergency planning process, it is our view that the results of the Risk Assessment should be used to consider the acceptability of the activity. The results of the Risk Assessment presented, support this application.

The information presented by the interveners represents a single worst-case event, which has been evaluated as part of the preparation of the Risk Assessment. While this single event is plausible, it is highly unlikely.

The Risk Assessment, as presented, represents the current state-of-the-art methodology and technology for conducting risk assessments, applies conservative assumptions, and is compatible with similar assessments conducted by Mr. Dowsett and Mr. Springer as tabled for consideration at other hearings.

- The Risk Assessment represents the expected maximum H₂S content of the pipeline, not the maximum licensed value.
- Risk modeling was conducted using local and regional meteorological data sets to increase the rigour of the Assessment.
- It is also noted that the results presented on the basis of risk modeling methods, such as those submitted by the applicant, represent predicted values.

The predicted levels of individual risk fall within accepted risk standards and in the case of societal risk, the predicted levels would be considered allowable when managed using engineering practices, which maintain the risks at levels that are as low as reasonably practicable (ALARP), [Report, Figures 34-42, pages 53-65]. To date, in Alberta, no members of the public have been killed as the result of a sour gas well or pipeline failure.

V. PETRO-CANADA'S REPLY TO THE FINAL ARGUMENT THE PEKISKO GROUP DATED JUNE 26, 2009

A. Introduction

The final arguments as submitted on behalf of the Pekisko Group and the Big Loop Group, as noted in the introduction section (page 1) of each submission, portray the respective intervener groups as concerned area landowners.

Notwithstanding that the Pekisko and Big Loop Group members may be concerned with the project, the only intervener who actually owns land in vicinity of the Project is Mr. Adderson (Royal Adderson and Bar AD Ranch Ltd.). The Interveners as represented by the Pekisko Group and the Big Loop Group do not currently own any lands in the vicinity of the Project². The entire Project is located on Crown lands, and, with the exception of a few quarter sections where two of these Interveners have grazing lease interests, is located within the Forestry Reserve, where grazing allotments are held by groups of ranchers.

Two of the members of the Pekisko Group panel (Mr. F. Gardner and Mr. Blades), as well as Mr. Adderson and Dr. Lockton, acknowledged that their limited allotment interest provided them with a mere right to use the lands for the sole purpose of grazing cattle [21TR4224 (Lockton)]. It was freely acknowledged that they had no right to exclude others from these public lands.

More importantly, applications for mineral surface leases ("MSLs"), licenses of occupation ("LOCs"), and pipeline agreements ("PLAs") on Forestry Reserve lands do not require the consent of allotment holders as, historically, grazing allotment holders have not been deemed to have an interest in land. Simply put, the "Landowner" for the entire Project is the Province of Alberta and, by extension, the people of Alberta.

The Manager of Crown lands in Alberta, ASRD, has given approval through the issuance of MSLs, LOCs and PLAs for all but one portion of this multi-faceted and integrated Project³. These dispositions were granted following extensive consultation between Petro-Canada and the various ASRD agencies (Forestry,

² While Petro-Canada understands that some of these Interveners do own and/or lease lands in the Eastern Slopes, they were only granted standing under Decision 2008-029 by virtue of their allotment interests.

³ PLA 070837 is subject to acquisition of Consent of Occupant for two grazing leases.

Rangeland Management, Alberta Fish and Wildlife), four Aboriginal communities, Alberta Environment, Alberta Transportation, and Fisheries and Oceans Canada. The comprehensive environmental studies conducted over a three-year period were carefully reviewed by the provincial and federal agencies, with conditions being imposed to ensure the protection of the environment across these lands owned by the people of Alberta.

The Pekisko Group, being comprised of Willow Creek Stock Association, Timber Creek Grazing Allotment, Mt. Sentinel Ranch, Bluebird Valley Ranch, D Ranch, Spruce Grazing Co-op, Kim Cochlan, and Bow Vista Farms, was granted standing by virtue of the status of two of its members, Rocking P. Ranch (represented by Mr. Blades) and Mt. Sentinel Ranch (Mr. F. Gardner) [Exhibit F-16]. Both of these individuals testified on behalf of the Pekisko Group, along with Mr. Cartwright of the D Ranch who did not have standing to intervene, as he does not hold any land rights closer than 9.6 kilometres (6 miles) from the Project [18TR3599-3600]. While Mr. Blades and Mr. Gardner are holders of Crown grazing allotments in the general vicinity of the southern portion of the trunk line, they reside many kilometres from the Project and only have a limited allotment right to graze cattle on tens of thousands of acres of public land for a nominal cost [18TR3601].

As seen in the evidence, these ranching families have held grazing rights in this area for up to and in some cases up to 100 years. These grazing leases and allotments are highly prized and valuable assets, primarily due to the negligible rent they pay to the province of Alberta to use the lands and also because of the very large land base it provides these ranchers in return for limited capital investment. So prized, according to the Pekisko Group's evidence, that there is an active market for grazing rights, both in the form of grazing leases and allotments [18TR3640-3643].

While the term 'NIMBYism' is often viewed negatively, the Pekisko panel was quick and clear in its response to Board questioning that this is "their backyard" and that they want to protect this area [18TR3602-3605]. What is important to

note is that the Board's duty is to determine what is in the public interest for *all* Albertans, not simply a select group of ranchers who have enjoyed a highly-advantaged use of public lands for many decades.

Dr. Chuck Lockton provided testimony as a pasture manager for the Willow Creek Stock Association ("WCSA"), which joined the Pekisko Group late in the process and was not granted standing to intervene. Dr. Lockton was highly complimentary of Petro-Canada's stakeholder consultation efforts [21TR4220] and of the fact that Petro-Canada had routed the pipeline in response to a request to increase the grazing lands within the allotment [meeting minutes; 21TR4204]. He also conceded that, throughout Petro-Canada's consultation with the WCSA, no member of the WCSA raised any objections to the Project in general, or the right-of-way alignment through the Willow Creek Allotment in particular. In fact, Petro-Canada worked with WCSA throughout the Project planning and routing of the trunk line to address its requests.

Petro-Canada proposes to briefly address the polling evidence of Leger Marketing that was presented as part of these proceedings [Exhibit F-10 and 21TR4241-4292]. It is Petro-Canada's position that this evidence should be given no weight by the Board. As evidenced in Transcript 21TR4280, line 17-23, the credibility of this evidence was questioned by the panel as well.

Q. Court's a judicial body; we're a quasi-judicial body.

Do you think it's appropriate that a judicial or quasi-judicial body takes some account of public opinion or polling results?

A. My personal opinion, and I will answer for Leger Marketing as well, the answer is yes.

Q. Wow.

In conclusion, the bottom line is this Board has only heard directly from one landowner, that being Mr. Adderson, throughout the entire 23-week span of this hearing. The rest have chosen to remain silent, evidence we submit, that there is not serious opposition to this Project by the numerous other holders of Crown

rights on the Project lands. Throughout our extensive consultations with these parties, there have been no concerns raised as to Petro-Canada's ability to construct and operate the Project in a responsible manner. While some of the Interveners suggest that they are 'the stewards' of these Crown lands, the fact is that the people of Alberta have charged the ERCB and other regulators with the obligation to ensure that energy development is conducted in an environmentally responsible and balanced manner.

B. Animal Health Concerns

With respect to the animal health concerns raised by the Pekisko Group, their Final Argument indicates that the Pekisko Group are livestock producers and are concerned about the potential risk to livestock posed by both catastrophic occurrences and day-to-day emissions from the project (page 2, Item 12). Petro-Canada fully appreciates this concern and submits that the principal reason why the company elected to voluntarily commission the Livestock Health Risk Assessment (LHRA), prepared by Intrinsic Environmental Sciences, was to identify and understand the potential impacts the Project might have on the health and productivity of herds found in the area [Exhibit B-63].

As the Board heard from Mr. Rasmussen during the Opening Statement, the LHRA was designed in accordance with well-accepted practices, and extended to all stages of the Project, including drilling, well completion and testing, and operations. The assessment captured:

- i) multiple scenarios in which opportunity for exposure of livestock to the Project emissions was deemed to exist;

- ii) multiple chemicals of potential concern contained in the emissions;

iii) multiple pathways by which livestock could be exposed to the chemicals; and,

iv) multiple receptor locations where livestock might be pastured or corralled.

The scenarios examined, covered both day-to-day operations as well as hypothetical catastrophic events. The LHRA found that no adverse health impacts would be expected to occur among livestock found in the area, from exposure to the Project emissions under day-to-day operations [Exhibit B-63, p. 106]. Similarly, the LHRA found that, because of the many controls and safeguards that would be in place during all stages of well exploration and development to prevent, or at least minimize, the occurrence of catastrophic events, as well as the release, discharge or emissions of chemicals into the environment, very little, if any, prospect would exist for the health and productivity of livestock to be adversely affected by the Project [Exhibit B-63, pages 89-99].

C. Generic Evidence vs. Project-Specific Evidence

The Final Argument of the Pekisko Group refers to the evidence of Dr. Kennedy, bearing on various animal health concerns that he alleges are associated with the Project. With respect to this evidence, the Board is reminded that Dr. Kennedy acknowledged during his testimony that his evidence was generic in nature, dealing with the potential impacts of the oil and gas industry on livestock health in general, and that he did not conduct any analysis or assessment of the potential impacts of the Project on the health and productivity of the herds found in the local area [20TR4100]. In addition, he acknowledged that he did not review all of the relevant materials from Petro-Canada's application, including the companion Human Health Risk Assessment [Exhibit B-62] or the air quality

assessment detailing the air dispersion modeling and expected emissions from the Sullivan Project [Exhibit B-15].

Petro-Canada submits that an understanding of these materials is imperative for proper interpretation of the findings reported in the LHRA, including the interpretation of the significance of the predicted levels of the various chemical emissions on animal health. Without full understanding of the approaches used in performing the Health Risk Assessment and air dispersion modeling, and a full appreciation of the conservatism involved, it is difficult to interpret the findings, especially against a generic background only.

D. The Western Interprovincial Scientific Studies Association

Mr. Laycraft refers to the Western Interprovincial Scientific Studies Association ("WISSA") study, and the report, research appendices, technical summary and interpretative overview that form part of the study, and over which much discussion took place during the hearing [Exhibit B-176]. Petro-Canada submits that the WISSA study comprises an investigation of the potential impacts of oil and gas activity in general on animal health and productivity. Although extensive in scope, its findings cannot be arbitrarily applied to specific projects without full understanding and appreciation of the limitations and uncertainties surrounding the study itself as well as project-specific details. These factors have a direct bearing on the opportunities, if any, that could exist for exposure of livestock to chemicals, which in turn will determine the likelihood that animal health and productivity will be impacted.

The LHRA commissioned by Petro-Canada not only acknowledged the WISSA study [Exhibit B-63, page 99], but also referenced a considerable number of other studies in which the effects of chemicals on animal health were examined [Exhibit B-63, Appendix C]. The LHRA fully considered, as part of its design and conduct, all relevant project-specific details, including emission sources [Exhibit

B-63, pages 9-16], the manner in which the emissions would disperse [Exhibit B-63, pages 32-34], site characteristics (including the location of the well sites and central processing facility in relation to local livestock operations) [Exhibit B-63, pages 20-23], and operational safeguards [Exhibit b-62, pages 5-9].

Petro-Canada submits that, unlike the LHRA, Dr. Kennedy's evidence did not account for these project-specific details, which was demonstrated by his acknowledgement during his testimony that he did not review the project description or other application materials relating to the nature of the project and the facilities [20TR4099]. Accordingly, Petro-Canada submits that those sections of the Pekisko Final Argument describing Dr. Kennedy's concerns over the Project arising out of the WISSA study (pages 9-11), although perhaps of general interest, are of questionable relevance in relation to Petro-Canada's application. Dr. Kennedy's concerns are based on generic information only, without regard for project-specific details that are critical to establishing whether or not, and to what extent, the Sullivan Project might impact animal health and productivity.

Notwithstanding the questionable relevance of Dr. Kennedy's concerns due to his failure to consider project-specific details as fundamental as the nature of the operations and facilities, each of his concerns is founded on his own interpretation of findings from the WISSA study. Petro-Canada submits that Dr. Kennedy's interpretation of these findings does not match the overall views held by the Science Advisory Panel (SAP) that prepared the Interpretive Overview [Exhibit B-176]. In this regard, Petro-Canada submits that the Interpretive Overview represents an important document since it captures and summarizes the opinions of the Panel on the meaning and significance of the various study findings. As the Board is aware, the SAP was comprised of 11 internationally-respected experts in the fields of cattle health, veterinary medicine, epidemiology, toxicology, pathology, endocrinology, biostatistics and exposure assessment [20TR4159]. The role that the Panel played is clear from the editorial

prepared by Dr. Guidotti that was referenced by Dr. Kennedy during his testimony in which he writes [20TR4041-42]:

"A Scientific Advisory Panel provided oversight to develop a strategy for the study, to guide and monitor its implementation for quality assurance, to ensure scientific integrity, and to review data and assist in the interpretation of findings. The SAP framed the basis architecture of the study, vetted the investigators, monitored progress, probed data quality, reviewed the analysis, and oversaw the roll-out of the final report and public dissemination of the findings. They were truly partners in the research" [Guidotti. T. 2009. The Western Canada Study: Effective Management of a High-Profile Study of Risk. Arch. Environ. Occup. Health 64: 3-5]

Petro-Canada submits that the Panel was highly regarded, and because of its expertise and close involvement with the study, it was charged with interpreting the study observations and assigning significance to the findings. The importance *per se* of the Panel and the respect it garnered are evident from a statement contained in the Technical Summary of the WISSA report, which again was referenced by Dr. Kennedy as part of his testimony [20TR40440]. In this summary, the reader is instructed to refer to the Interpretative Overview prepared by the SAP for details on the interpretation of the study findings and their significance [WISSA Technical Summary, page 9].

Petro-Canada submits that the above instruction to the reader infers that where differences might exist between the opinions expressed by the individual study researchers, of which Dr. Kennedy was one [20TR4036], and those held by the Panel over the interpretation of the meaning and significance of the study findings, the opinions of the Panel are to prevail.

Petro-Canada also submits that the record shows that Dr. Kennedy was in disagreement with certain conclusions reached by the SAP. He also dismissed the Panel's interpretation of some study outcomes as being speculative, was puzzled by some of the Panel's statements, and was not convinced that the Interpretive Overview represented the collective opinion of the Panel members. The record also shows that Dr. Kennedy was hesitant to accept the SAP's interpretation of the study findings, but rather preferred to rely on his own

interpretation of the observations because the Interpretive Overview was produced for public distribution and represented the opinions of others and not his own. In support of its position, Petro-Canada offers the following:

- When asked by Ms. Kolber to read into the record, statements contained in the Interpretive Overview summarizing the Panel's interpretation of the significance of the association between exposure to SO₂ and increased calf mortality, Dr. Kennedy twice indicated that he was "puzzled" by the statements [20TR4115-16];
- When asked by Ms. Kolber to comment on the statement made by the SAP that the increased calf losses may have been associated with exposure to pollutants other than SO₂, Dr. Kennedy labelled the statement as "speculative", preferring to assign cause to SO₂ alone [20TR4123];
- When asked by Ms. Kolber whether he could accept the opinion of the SAP that the association between exposure to SO₂ and increased calf mortality was weak and by extension could be related to other risk factors, Dr. Kennedy offered that he did not agree with the position taken by the Panel and maintained that the increased calf losses were causally related to SO₂ [20TR4121];
- When asked by Ms. Kolber whether he could accept the SAP's position that the biological significance of the association between exposure to oil and gas emissions and calf treatments appears to be limited, Dr. Kennedy responded that he could not agree with the statement [20TR4133];
- When questioned by Ms. Kolber as well as the Board Panel concerning the authorship of the Interpretive Overview, Dr. Kennedy indicated he was not certain as to who wrote the Overview and whether it represented the collective views of the Panel members [20TR. 4117 and 4159];

- When questioned as part of re-direct by his own counsel as to whether he could agree with the assessment prepared by the SAP as outlined in the Interpretive Overview, Dr. Kennedy responded that he did not rely on the information contained in the Overview (nor in the Technical Summary of the WISSA study) as part of his evidence because it represented “somebody else’s interpretations” as opposed to the facts [20TR4166].

Petro-Canada submits that Dr. Kennedy has taken liberty in his interpretation of the WISSA findings, choosing to ignore the interpretations reached by the SAP and to substitute his own views. Therefore, greater weight should be given to the opinions expressed by the 11-member SAP in their Overview than to the arguments made by Dr. Kennedy in his evidence.

The Pekisko Final Argument maintains that the Interpretive Overview is equivocal and cautious in its language, thereby inviting Dr. Kennedy’s contradictory views [Exhibit B-176]. However, Petro-Canada submits that the language of the Overview is clear, especially in terms of the overall conclusion reached by the SAP, that oil and gas activity is not having an adverse impact on cattle health and productivity, and especially in terms of the lack of any impacts on the primary indicators of reproductive health that historically have been of concern to ranchers. The SAP’s position is clear from the Overview as well as from the editorial prepared by Dr. Guidotti (who served as co-chair of the Panel), referenced by Dr. Kennedy as part of his testimony [20TR4041-42].

Petro-Canada submits that the concerns raised by Dr. Kennedy, as outlined in the Argument, refer exclusively to the few exceptions to the overall findings and conclusion of the WISSA study that oil and gas activity is not adversely affecting cattle health and productivity. We also would submit that in all cases, unlike Dr. Kennedy, the SAP judged the exceptions to be of questionable or unknown significance, with the reported associations found to be few, small and weak—possibly related to factors other than exposure to the chemical emissions—and absent of any definitive evidence of cause-and-effect.

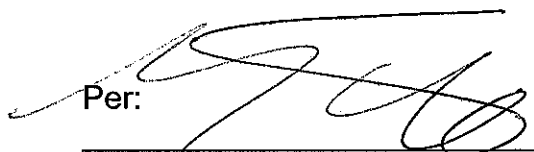
Petro-Canada submits that it is clear from the above statements that the SAP and those closest to the WISSA study caution against assigning too much significance to the few exceptions because of the uncertainties involved. Again, Petro-Canada reiterates that Dr. Kennedy has taken liberty in his interpretation of the WISSA findings, against the advice of the SAP, and has failed to acknowledge the limitations and uncertainties surrounding the few exceptions that serve as the basis of his concerns over the Project.

VI. SUMMARY

Notwithstanding the length of the intervenors submissions, no cogent arguments supported by persuasive evidence have been advanced, that challenge Petro-Canada's position with respect to the Sullivan Project. Petro-Canada submits that the Sullivan Project embodies a balanced development that represents the public interest in Alberta. Petro-Canada respectfully requests that the Board approve its integrated application for the Sullivan Project.

ALL OF WHICH IS RESPECTFULLY SUBMITTED THIS 17TH DAY OF JULY, 2009.

FIELD LLP

Per: 

W.T. CORBETT, Q.C.
Solicitor for Petro-Canada Oil & Gas

PETRO-CANADA OIL & GAS

Per: 

Sarah Christensen.
Solicitor for Petro-Canada Oil & Gas