



Government of Canada Gouvernement du Canada

Environmental Assessment Review Examen des évaluations environnementales

INFORMATION DOCUMENTATION
FOR THE ENVIRONMENTAL ASSESSMENT REVIEW PROCESS
BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL

INDEX TO THE PUBLIC FILE
OF BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL MATERIAL
(Annotated)

Prepared for the Secretariat
Beaufort Sea Environmental Assessment Review Panel

By E.M. MacDonald
Consultant
Research/Information Coordination

Canada

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Index to the public file of
Beaufort Sea Environment
Assessment Panel materia



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FEARO INFORMATION INDEX

Beaufort Sea Category 2 - Documents Submitted to the Panel.

Material submitted to Panel as part of the review process of the Beaufort Sea Hydrocarbon Production Proposal.

- 2.1 Proposal Related - Information, reports comments or publications submitted to the Panel and which were prepared specifically for the review or relate directly to the proposal.
- 2.2 General Literature - Reports or publications submitted to the panel as part of the review process and which are relevant to the proposal although not necessarily specific to the proposal or prepared for the review process.
- 2.3 Environmental Impact Statement - Documentation.
 - 2.3.1 Environmental Impact Statement
 - 2.3.2 Environmental Impact Statement - Support Documents
 - 2.3.3 Environmental Impact Statement - Reference Works
 - 2.3.4 Environmental Impact Statement - Additional Reference Documents
- 2.4 Government Position Statements
- 2.5 Comments and Intervenor Submissions on the EIS.
 - 2.5.1 Technical Specialists Comments
 - 2.5.2 Intervenor Submissions - General Comments
 - 2.5.3 Written Questions and Answers

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- 2.3 Environmental Impact Statement - Documentation.
 - 2.3.1 Environmental Impact Statement (and Supplementary Information in Response to Deficiency Statement)
 - 2.3.2 Environmental Impact Statement - Support Documents
 - 2.3.3 Environmental Impact Statement - Reference Works
 - 2.3.4 Environmental Impact Statement - Additional Reference Documents
 - 2.3.5 Documents submitted in response to questions raised about the EIS.
- 2.4 Government Position Statements
- 2.5 Comments and Intervenor Submissions
 - 2.5.1 Technical Specialists Comments
 - 2.5.2 Intervenor Submissions on the EIS - General Comments and Additional Information Submitted
 - 2.5.3 Written Questions and Answers
 - 2.5.4 Presentations (written submissions) to the Panel - Community and General

FEARO Beaufort Sea Cat. 1.1
Bound Report (Bulky)

Location: FEARO Library

This category includes bulky documents or bound reports produced by or for FEARO, the Beaufort Sea Environmental Assessment Review Panel or the Panel Secretariat as part of the review of the Beaufort Sea Hydrocarbon Production and Transportation Proposal.

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Document Folder
1.1 #1

Location: FEARO Library

Canada, Environmental Assessment Review (FEARO)

September 1980

BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL - REVIEW PROCESS

Abstract: The bulletin covers review process (3 pages), prospective participants (1 page), and background information on proponents preliminary plans (14 pages)

(Expanded Abstract)

Review Process

The Panel review is to include all related activities north of 60° associated with possible development of oil and gas resources in the Beaufort Sea. This includes production facilities and subsequent transportation to southern markets by pipeline and/or ice breaker tankers.

The Panel Secretariat includes D.W.I. Marshall and P. Wolf (FEARO-Ottawa) and P. Scott (FEARO-Vancouver). A review process structured for early identification of major issues is outlined starting with information meetings with prospective participants and identification of issues followed by a Seminar to discuss these issues and proponent plans. Major steps in the process leading to the Panel Report are identified.

Background Information: Estimated reserves for the Mackenzie Delta and Beaufort Sea, and production scenario presented includes an Arctic Production Loading Basin (APLB) as an initial system with eventual combinations of bottom founded caissons, platform variations of man-made islands, and some subsea completions. During early production years oil would be transported via Class 10 icebreaker tankers through the eastern and/or western Northwest Passage with pipeline transportation once economic thresholds were achieved. Substantial, but undetermined, shorebased facilities will be required over the long-term, including a deep draft harbour. The environmental setting of the Beaufort Sea and Northwest Passage is briefly described.

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Canada - Environmental Assessment Review
Secretariat, Beaufort Sea Environmental Assessment Panel.

November 5, 1980.

BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL INTERIM COMPENDIUM OF
MAJOR ISSUES.

Abstract: The bulletin contains an interim compendium of issues to be addressed in the Environmental Assessment Panel review received by the Panel Secretariat as of November 5, plus total submission of the Inuit Tapirisat of Canada.

(Expanded Abstract)

Issues (and contributors) included:

Dome Petroleum Ltd. Issues relating to:

- year round Arctic tanker traffic
- construction and maintenance of artificial islands
- land use in the Beaufort Region
- large scale dredging
- migratory sea life
- sea bottom pipelines
- subsea well heads, manifolds and control systems
- offshore oil storage
- social and economic effects on Northerners

Greenpeace:

- impact on marine mammals
- economic impact of diverting funds towards this project as opposed to other energy options
- possible de-emphasis on energy conservation
- damage to Inuit community & way of life

Energy, Mines & Resources: Impacts related to sea ice, ice scour, seismic hazards, permafrost, surficial geology and dredging.

Canadian Nature Federation - Adverse impacts on bowhead whale (endangered) and the Peary caribou (threatened); porcupine caribou calving grounds and migration routes; biological importance of areas of open water & thin ice; identification of proposed national parks, wildlife areas and ecological reserves.

Canadian Wildlife Federation - Concerns related to Beluga whales, bowhead whales, polar bears, seals and marine environment, migratory birds, caribou, and impact on Mackenzie Delta.

Fisheries & Oceans - Concerns identified under headings of - protection of life and property; preservation of important Arctic biological species and ecosystems; regional planning; oil spills;

1.1 #2-2

waste disposal; location and timing of activities; siting of facilities; ship traffic; need for environmental studies and scenarios for development and levels of activities.

Government of Yukon: Environmental Concerns identified under following headings: oil spill; marine biology; caribou; waterfowl; other wildlife; tundra; Herschel Island; Babbage River; harbour facilities and land based facilities. Socio-economic concerns: infrastructure; employment and training; business opportunities; population; social fabric; land based facilities; and Yukon's native peoples.

Environment Canada: Series of questions relating to project boundaries, interactions with other major developments, alternatives to maximize benefits and minimize adverse impacts, areas to be reserved for other uses and excluded from development, design factors to minimize risks, ice information and weather/sea-state information system requirements.

DIAND: Issues related to major spills, cumulative impact of project components, physical presence impacts, noise impact, alteration of natural ice regime, construction of harbour facilities, sub-sea permafrost problems, water quality and air pollution concerns, increased hunting & fishing, protection of special interest areas. Socio-economic issues: employment and training needs; local business development/benefits; community impacts; impacts on transportation and other basic services; general economic concerns; cultural concerns; specific native concerns and relation of project to other economic development activities.

Inuit Tapirisat of Canada: (7 page document) Concerns identified in the areas of land claim settlements, effect on marine environment, effect of land based support activities, lack of comprehensive planning, equity participation and rights to compensation, consideration of development alternatives, and development standards and regulatory measures requirements. More specifically concerns focus on:

- regulation of marine transportation, selection of port site and adequate consideration of long term implications;
- the magnitude of offshore exploration and production operations is enormous and requires far sighted regional plans and effective regulatory authority;
- marine life and coastal zone management plans need to be established consistent with Inuit needs and environmental protection;
- marine conservation areas should be identified before development proceeds.

In conclusion land claims and the need to plan and manage development in a manner that is conducive to environment protection and the Inuit way of life are foremost in importance.

FEARO Beaufort Sea Cat. 1.1 Location: FEARO Library
Document Transcripts (Bound)
1.1 #3

Federal Environmental Assessment Review Office

November 13, 1980

SEMINAR, BEAUFORT SEA/MACKENZIE DELTA DEVELOPMENT PLAN

Held at the Holiday Inn, Calgary, Alberta, November 13, 1980.
Transcripts by International Reporting Inc. 93 p.

Abstract: Seminar purpose defined as early identification of issues involved related to the Proposal. Questions on the presentation by Dome, Esso and Gulf are included (p. 13-31) followed by statements by representatives from Canada Nature Federation, Yukon Territorial Gov't, Energy, Mines & Resources, Environment Canada, the Beaufort Sea Advisory Committee, Dome Petroleum and Fisheries & Oceans. Questions from the floor complete the transcripts (p. 62-91)

Expanded Abstract:

Presentation by Dome, Esso and Gulf is covered by their report - Beaufort Sea/Mackenzie Delta Development Plan (Nov. 1980) and is not included in these transcripts. Questions were raised concerning the following areas:

Quantity of material required to construct production and exploration islands and its availability.

- Detail on oil spill counter measures and modeling of oil movement under ice (On-site experiment of past winter described in response).
- State of development of the Synthetic Aperture Radar (SAR) and the Satellite Borne Segment Communication System (Reply - Technology is available and will improve - with major inconvenience the operation from aircraft. Estimate 1990 for satellite imagery).
- Question as to how industry can recommend that there will be no negative socio-economic impacts in the Beaufort (Reply - Impacts will be addressed in EIS).
- Question whether intent is to form a consortium of major operators and develop an integrated system for transportation (There will be sharing of a number of common components possibly including transportation).
- Have the proponents looked into the question of equity participation for native organizations. (Dome's position is to encourage equity participation.)
- Classification of timing of events requested. (Production 1985 requires financial commitment 1982).
- Question as to why native peoples from Alaska were not invited (Contact is being made through External Affairs).
- Selection of 20" pipeline questioned? Why not a bigger pipeline as opposed to a loop.

1.1 #3-2

- Plans for handling conditions of ice ride-up requested (A. Some consideration in design factors of structures - and ride up in Beaufort not recorded to extent of the example referred to at Point Barrow.)
- Is the Panel looking at the entire impact of offshore production and transportation throughout the whole Northwest Passage into Baffin Bay and Davis Strait (Reply: Yes).
- Additional questions concerning pipeline size leading to indication that actually two 20 inch lines would eventually be planned.

Comments by:

Diane Griffin (Canadian Nature Federation). Need for monetary support from FEARO identified. Other issues included: - individual projects should not be considered until this review is complete (including current ones).

- some Assessment Panel members must be non-governmental
- issue of most concern is protection of endangered species and preservation of critical wildlife breeding, migration and staging areas in regions to be developed (eg. bowhead whale, Peary caribou, birds in Lancaster Sound, white whale and narwhale)
- biological importance of areas of open water need to be studied
- identification and establishment of proposed parks, wildlife areas and ecological reserves.

Bill Oppen (Yukon Territorial Government) Yukon Government's philosophy is one of pro-development within established boundaries - and ability to manage impacts. The Yukon is a part of the project (Pauline Cove, King Point, Dempster Highway) and expects to participate in the project. Impacts on transportation system and manpower planning need to be addressed.

Ron Edwards (Energy, Mines & Resources). Issues identified in relation to aspect of development. Offshore operations - sea-ice, ice scour and damage to sea floor installations, evaluation of ice scour hazard and impact of climatic change. Other issues include presence of gas or over pressure-water zones, seismic activity, seabed instability, effect of permafrost, degradation of permafrost or gas hydrates, and dredging.

- Frost heaving and salt rejection during freezing, and knowledge of distribution of subsea permafrost present development problems.
- Island stability and effectiveness of ice pile up benches, scour at the base of bottom founded structures warrant consideration.
- Sources of aggregate and their exploitation must be addressed.
- Current and shore zone dynamics and projection of spilled oil trajectory.
- Effect of dredging, island construction, and development on coastal and shelf zone processes should be determined.

1.1 #3-3

Shore Base Facilities - Issues: dredging, aggregate mining, hauling aggregate overland, frost heave or subsidence and design requirements.

Tanker Transport: Knowledge of sea ice thickness and distribution, direction and magnitude of climatic change; navigational hazard determinations;

Pipelines: Protection against ice scours, potential for subsidence or frost heave, and effect of ground motion require consideration.

There are numerous geologically related issues to installation and operation of pipelines, many site specific and require characterization along any proposed route.

John Mar (Environment Canada):

- The Beaufort Hydrocarbon Development must not be assessed in isolation but must be considered as part of the total northern development scenario.
- Development time tables should consider options for maximizing the socio-economic and environmental concerns.
- Land use planning incorporating the concept of coastal zone management should be looked at.
- Identification of ecologically sensitive locales and proposed mitigative measures should be focused upon.
- Requirement for a careful evaluation of systems design integrity of both onshore and offshore facilities to withstand the arctic environment.
- Identification and management of waste discharges.
- Adequacy of ice information system and an appropriate integrated weather and sea-state airpoting and prediction system is of concern.

Bill Goose (Beaufort Sea Advisory Committee)

- Need for a northerner in the Assessment Panel.
- Hearings should be in Inuvik or Yellowknife.
- Hearings should stick to the environment.
- Territorial Government should handle socio-economic impact studies.
- Funding should be given to Northerners first.
- FEARO office should be in Inuvik or Tuk.
- Reports should be in Inuktitut.

Comments (p. 57-91)

- Hearings will be held in the north and a public office will be opened in the north. Public meetings in the north will have consecutive or simultaneous English-Inuktitut translation.

Discussion period covered "issues versus concerns" and level of "issue" identification; jurisdiction for land use planning in the North (DIAND or Territorial gov't); will the panel be able to

1.1 #3-4

reach a conclusion; what is the government policy regarding northern hydrocarbon resources; separation of environmental and socio-economic issues and handling of the latter by the Govt of the N.W.T., and how can Northerners become part of the process rather than "canon fodder" to it?.

List of Invitees and List of Attendees Attached.

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Document Report (Bound)
1.1 #4

Beaufort Sea Environmental Assessment Panel

June 1981

DRAFT GUIDELINES FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT. THE BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL. (36 p.)

Abstract:

This report outlines guidelines in a draft form to allow their circulation for review prior to public meetings planned to allow input by any person or organization.

The Introduction to the guidelines reviews history and scope of the referral, a brief outline of the proposal as presently envisaged and the major features the Panel wants reflected in the EIS. The EIS should include five elements: an overview; background information; baseline description; impact analysis and a zone summary document. The remainder of the document discusses components to be included under the above elements as follows:

2.	CONTENTS OF ENVIRONMENTAL IMPACT STATEMENT	7
2.1	Overview	7
2.2	Background	8
2.2.1	Need for Beaufort Sea Development	8
2.2.2	Associated Projects and Proposals	9
2.2.3	The Proposal	9
2.2.3.1	General Layout	10
2.2.3.2	Construction	10
2.2.3.3	Operation and Maintenance	11
2.2.3.4	Environmental Hazard Prediction Systems	14
2.2.3.5	Abandonment	15
2.3	Description of the Existing Environment	15
2.3.1	Physical Environment	16
2.3.2	Biological Environment	17
2.3.3	Socio-economic Environment	18

1.1 #4-2

2.4	Impact Analysis, Enhancement, Mitigation and Compensatory Measures and Monitoring	19
2.4.1	Effects on the Physical Environment	20
2.4.2	Effects on Biological Environment	23
2.4.3	Oil Spill Effects	26
2.4.4	Effects on the Socio-economic Environment	30
2.4.5	Enhancement, Mitigation and Compensatory Measures	33
2.4.6	Monitoring	34
2.5	Summary of Impacts by Zone for Community Review	35
2.6	Appendices	36

Appendix A - Detailed outline of specific components to be included in the description of the existing physical environment.

Appendix B - Detailed outline of specific components to be included in the description of the existing biological environment.

Appendix C - Detailed outline of specific components to be included in the description of the existing socio-economic environment.

A "Summary of Draft (First Version) Environmental Impact Statement Guidelines for Community Use" provides a brief description of the above elements. (FEARO Lib. Document 1.1 #5)

FEARO Document 1.1 #5 Beaufort Sea Cat. 1 Report (Bound) Location: FEARO Library

Canada - Environmental Assessment Review

Beaufort Sea Environmental Assessment Panel

June 1981

SUMMARY OF DRAFT (FIRST VERSION) ENVIRONMENTAL IMPACT STATEMENT GUIDELINES FOR COMMUNITY USE - THE BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL. (11 p.)

Content:

This report is intended to help people in those communities most directly affected by the production of oil and gas in the Beaufort Sea and its transportation to market to understand the way the government has decided to get public opinion. A summary of the first version of the guidelines for preparation of an environmental impact statement is provided, outlining the zones to be discussed in the EIS and the types of information to be found under the general headings of: Overview, Background, Present Environment; Impact analysis, enhancement, mitigation and compensation measures and monitoring; and Summary of effects.

FEARO Document 1.1 #6 Beaufort Sea Cat. 1 Folder Location: FEARO Library

Transmitted to Beaufort Sea Environmental Assessment Panel

June 14, 1980.

TERMS OF REFERENCE (10 p.)

Abstract: The purpose of the terms of reference are defined as follows: "to delineate the responsibilities of the Environmental Assessment Panel, the review process it should follow and the expectations that the federal government has for this specific review". The mandate was defined as "to identify major developmental effects, both positive and negative, upon the physical, biological and human environments and recommend ways and means of dealing with them". In addition to expanding upon these definitions, the terms of reference define the scope of the review, "all related activities north of 60° of the proponents proposal associated with or resulting from the commercial production and shipment of hydrocarbon resources from the Beaufort Sea area" and direct the Panel to "take into consideration previous and possible future northern activities which are relevant to this specific proposal". In terms of International Implications the Panel should not explore or evaluate potential impacts outside of Canada. Twelve of the "Panel Review Process" components are identified with details provided on the following:

- Environmental Impact Statement Guidelines.
- Environmental Impact Statement prepared by the Proponents.
- Additional Information.
- Public Meetings.
- Interim Progress Report to the Minister.
- Panel Operational Procedures.
- Panel Reports to the Minister.

Panel relationships with the following are outlined: FEARO, the Panel Secretariat, Proponents, Initiator and the Public.

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1.1 #7

Canada - Environmental Assessment Review
Beaufort Sea Environment Assessment Panel

October 1981

OPERATIONAL PROCEDURES - BEAUFORT SEA
ENVIRONMENTAL ASSESSMENT PANEL (9 p.)

Contents:

Operational procedures are outlined to assist all those wishing to participate in the review and cover:

- General review principles (all Panel contact must be through the Secretariat; all information submitted to the Panel is public; panel deliberations are confidential; Panel report is submitted to the Minister of the Environment).
- Use of technical specialists (the Panel may secure the use of specialists).
- Public Meetings (the Panel will hold public meeting on the Draft EIS Guidelines and on the EIS and related documentation. These will include General Sessions and Community Sessions. Meeting procedures and the role of the proponents are covered).
- Review of Draft EIS Guidelines. (Comments through written submissions (14 days prior to public meetings) or oral presentation at public meeting. The final Guidelines will be issued to the proponent through the initiator (DIAND) and will be public.)
- Review of Proponents - Environmental Impact Statement (EIS) and preparation for final public meetings. (A minimum of 90 days from distribution of the EIS and government position statements to the public will be allowed for review. If the Panel decides the EIS is an acceptable document, the final public meeting stage will proceed. If not acceptable, the Panel will issue an EIS Deficiency Statement. At least 30 days will be allowed after public distribution for review of response to the Deficiency Statement before proceeding with public meetings.)

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1.1 #8

Beaufort Sea Environmental Assessment Panel

October 27, 1981

COMPENDIUM OF WRITTEN SUBMISSIONS TO THE PANEL ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT GUIDELINES

Abstract: This report contains submissions resulting from a request by the Beaufort Sea Environmental Assessment Panel for public and government input to the development of guidelines for the preparation of the environmental impact statement. Submissions from the following groups are included: Metis Association of the N.W.T.; North Slope Borough; Government of Yukon; Government of Northwest Territories; Arctic Biological Station; Employment and Immigration Canada; Department of Energy, Mines and Resources; Environment Canada; Department of Indian Affairs and Northern Development; Fisheries and Oceans Canada; Transport Canada - Marine; Dome Petroleum Limited.

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1.1 #9

Beaufort Sea Environmental Assessment Panel

Gov't of Canada - Environmental Assessment Review

December 18, 1981

ADDITIONAL COMPENDIUM OF WRITTEN SUBMISSIONS TO THE PANEL
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT GUIDELINES

Abstract: This Compendium of Written Submissions supplements the earlier Compendium dated October 27, 1981. Most of the submissions contained in this Compendium were received by the Panel during the course of its public meetings held between November 4 and December 4, 1981, to discuss its draft Environmental Impact Statement (EIS) Guidelines. Together these contain all the written submissions received by the Panel on the draft EIS Guidelines as of December 18, 1981.

Submissions from the following groups are included:

Town of Inuvik;
Hamlet of Pond Inlet;
The Northwest Territories Association of Municipalities;
Baffin Regional Inuit Association;
Council for Yukon Indians;
Dene Nation and Metis Association of the Northwest Territories;
Fort McPherson Bank Manager;
Inuit Tapirisat of Canada;
Labrador Inuit Association;
Old Crow;
Ukpeagvik Inupiat Corporation;
Arctic International Wildlife Range Society;
Beaufort Sea Research Coalition;
Canadian Environmental Law Association;
Inuvik & District Chamber of Commerce;
Carson H. Templeton;
The Yukon Conservation Society;
Yukon Historical & Museums Association;
Government of Yukon;

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1.1 #10

Beaufort Sea Environmental Assessment Panel

November 17, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
GUIDELINE MEETINGS, COMMUNITY SESSION
Fort Norman, NWT

Official Reporters, Angus Stonehouse & Co., Ltd.

Abstract: The following summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

Introduction P 1-5 Introduction by panel chairman of Panel members and secretariat. Introduced as an independent panel (no government or oil industry members) appointed by Government to look at the possible effects oil and gas development in the Beaufort Sea on the people, on the land, on the sea and on the wildlife - and to report to Government the concerns of the people of this community and other communities across the north.

Process P 6-11 Description of the process:
Draft guidelines have been prepared as instructions to the oil company about the report they are to prepare for the government on the impact of the proposed oil and gas production. The current public meetings are being held to determine what the concerns are of the people of the communities - so these can be included.

After the preparation of the Environmental Impact Statement and other government reports another set of public hearings will be held to see if the communities are satisfied with it. Following that, the Panel will prepare its report to the government and make recommendations about the oil and gas development and how the environment should be protected.

The government will then decide how and if the Beaufort Sea oil and gas should be developed.

1.1 #10-2

Proponent	P 11-19 Presentation by the proponent representatives, (Mr. Bezaire - Esso). Dome, Esso and Gulf are the three major oil companies active in the area and a description of their production facilities that would be used and possible transportation systems was presented including: artificial islands; round drill ships; oil pipeline from the Beaufort; partially elevated, partially buried; tanker transportation. Support facilities for production would be required in areas such as Tuktoyaktuk or McKinley.
	P 20 - <u>Question Period</u> : Issues raised included the following:
Dams	P 21 - Chief Corrigan had heard mention of dams. (Mr. Bezaire. No dams in this proposal). P 22 Chief Corrigan indicated he would like to question the natural resource people but could not do it without the whole people in town.
Jobs/ Unions	P 23 Once the oil companies start and the union people are involved, will the northern people be deprived of all the jobs that would be created from this proposal? (Chief Corrigan)
Training	P 24 Are the skills involved to pipeline construction so specialized that local people would essentially be limited to brushcutting and cement pouring? (Ms. Haley)
Timing	P 26 If all review procedures go favourably, when would the pipeline be built? (speaker from the floor) P 26 (Panel Question). Can a reasonable time frame be provided within which the oil companies expect to know whether or not they have sufficient reserves for economic development. (Dr. Tener)
Employment	P 28 Would pumping stations (on pipeline) be located in or near towns - and how many local people would be employed at the station? (Several follow-up questions re employment possibilities). (Ms. Haley)
Pipeline	P 29 Which parts of the pipeline or the route through Bear River will be buried and where? (Mr. Hardy) P 31 In the buried section, how would warm oil effect the permafrost? (Mr. Masuzumi)
Caribou/ Migration	P 31 Will the above ground portion between Inuvik and Fort Good Hope affect caribou migration and geese migration and things like that? (Mr. Masuzumi)
Moose	P 32 Will the pipeline affect the migration of the moose population to the river? (Chief Doctor)

1.1 #10-3

Panel Note	P 32 (Panel) The Panel is also interested in any information the oil companies may have about effects of elevated pipelines on moose and caribou and other animals and that is the kind of information that will be requested in the EIS. (Dr. Tener)
Pipeline Const.	P 33 Question about burying pipelines below scour zone and suspending it above the river. (Mr. Hardy)
Power	P 34 What is the source of power for the pumping stations. (Police Constable Lamberton)
Oil Spill Clean-up	P 35 The draft guidelines don't seem to deal with clean-up and prevention adequately. If there was a spill - what would be done? How would contaminated animals be dealt with and how would others be kept away? (Mr. Masuzumi)
Tanker Spill	P 36 Can the flow from a tanker spill be controlled? (Mr. Blondin)
Wildlife	P 37 What about the population of the wildlife, in relation to other wildlife? (This is still in relation to spill response measures). (wildlife that has become wild).
Oil Spill &	P 37 Has the staff been trained to clean up animals that have become contaminated with oil? (Joe Naedzo)
Wildlife	P 38 If an oil spill occurs and an animal becomes contaminated, would it be healthy for human consumption? (Joe Naedzo)
Forest Fire	P 39 Every summer there are forest fires on the land - what kind of damage would the fire do to the surface line? (Joe Naedzo)
Pre-build Training	P 42 If within two years there will be a permit issued to build a pipeline to Norman Wells, is there not a lot of pre-build work that could be done by the communities so they could gain experience from this and thus be able to more fully participate in the pipeline construction (when it starts)?
Company Training	P 44 What kind of programs have the companies set up to train people for the Norman Wells pipeline which would give an example of what might possibly be planned for the Beaufort one? (Mr. Lueck)
Other Training	P 45 Are there any local people in training programs now, if not how soon and where do they apply? (Mr. Lueck) P 46 Can vocational schools (in Alberta) turn out qualified pipeline welders in three weeks? (Mr. Hardy)

1.1 #10-4

P 47 When industry trains a person for one job, is the training so specific there is no opportunity for advancement to another job - or even to move to another oil company? (Ms. Haley)

P 48 What kind of qualifications would an industry trained person have? Is industry planning on providing qualifications referred to re-licensed mechanic, electrician, etc. (Ms. Haley)

P 51 The oil company seems the only one to benefit. A few Dene may make money, and a lot would go for booze. The main concern is the wildlife, the land, the water. If there is damage to the land we will be poorer than when we started. (Mr. Corrigan)

Water
Level

P 52 The water level is going down and is anyone looking into it? (Mr. Corrigan)

P 53-54 Concluding statement - with the promise to try and get back before the major meetings next summer. (Dr. Tener)

FEARO Beaufort Sea Cat. 1
Document Transcript (Bound)
1.1 #11

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Beaufort Sea Environmental Assessment Panel

November 18, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
GUIDELINE MEETINGS, COMMUNITY SESSION

Tuktoyaktuk, Northwest Territories

Official Reporters, Angus Stonehouse & Co. Ltd.

Abstract: The following summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

Introduction: 1-29

P 1-11 Panel introduction and review of EAR process by the Panel chairman.

P 11-26 Presentation of proposal by representatives of proponents (Rick Hoos, Dome; John Hnatiuk, Gulf; and George Bezaire, Esso).

P 26-29 Fred Carmichael - (Condensed) Summary of purpose of the guidelines and the meetings.

Oil
Spill

Discussion Period: Questions raised:

P 29 Mr. Raddi - What will happen if there is an oil spill or blowout in the Beaufort Sea during the time in between freeze up?

If there is an accident, like an earthquake out in the multi-year ice, what is going to happen to the valves (shut-off valves) down below in the sea-bed?

Compensation If a blowout occurs and the animals starve including the white fox (our bread and butter) is the oil company going to provide compensation or tell us that the Government will look after us - give us food rations?

We want to know what kind of compensation will be provided, not just money.

We have not had any results from land claims and if we don't speak up now and maybe lose our animals - we will lose our livelihood in our country.

1.1 #11-2

Island Construction P 33 (Mr. Raddi, conr.) Why use Ellesmere Island (see p. 21) which is close to shore as an example for an artificial island which will be a hundred miles north of here? There is a strong current there - not like close to shore. A strong current can cause a lot of damage to the multi-year ice! More study should be done before the companies rush out 100 miles or 200 miles north.

Panel Summary P 36 Summary of above points:
 - concern about blowout in the sea bed caused by heavy ice destroying the shut-off valve.
 - concerned about compensation (after loss of animals)
 - concern about the strength of currents in the multi-year ice areas.

Artificial Islands P 40 Mr. V. Steen - What are the alternatives if artificial islands don't prove to be satisfactory?
 How many islands can the Beaufort Sea stand before you change the environment in the Beaufort Sea into a land fast area like the high Arctic, and how much ice can a tanker break?
 P 42 Mr. Steen - Part of the concept of protecting artificial islands is to have grounded rubble fields around those islands. If there are grounded rubble fields, there shouldn't be tankers around such as shown in the slides?

Hunting Effect How many of these islands can the Beaufort Sea stand before they affect hunting? We're having a hard time hunting up there now in the rubble fields - the bears are in different places. Also a tanker running around behind you in a boat is a real worry.

Guideline Simplification P 45 Father LeMeur - The guidelines need more clarification in easier terms.
 More specific information about the plans for Mackenzie Bay are needed.

Tanker Routing - Why do they choose the Prince of Wales instead of going around Banks Island?

Fog - In relation to tanker breaking what would be the effect on the ice - on the open water? Will there be more fog?

Weather - Concern about tanker traffic - you have satellites and modern equipment - but the weather in the north is unpredictable - and you can have equipment failure.

Employment - After the transporting of oil and gas starts will there be any industry development for the people?

Education - There should be more education about this for the children, preparing them for the future.

1.1 #11-3

Greenland - The people here should be provided with a better understanding of the effect on Greenland and the Greenlanders' reaction.

Tanker P 55 Mr. Raddi - In relation to the statement that it does not take long to freeze after you break the trail - whose idea is that - the guy on the wrong side of the trail or the guy in the warm office?

Birds P 56 Mr. Carpenter - There are more birds in the south of Banks Island (see p. 32) - if the company has this wrong how can we believe the rest. Also in the middle of the Prince of Wales Strait there is no room for a tanker to manoeuvre if it goes wrong.

Ice Variation P 57 Roy Kikoak - I have seen the ice since I was 14, 15. They talk about 20-30 ft. thick ice. Recently yes, but I have seen 40 ft. high ice for 4 or 5 years running.

Land Purchase P 60 Ms. Meldrum - The companies are buying or leasing most of the land in Tuktoyaktuk and more, will it be for local housing? Can it be controlled?

Hunting Effect P 62 Mr. Jacobsen - It is getting in some areas that hunters have to go 20 or 30 miles further.

Employment Also they (companies) say they will help the Tuk people but in McKinley Bay - there are hundreds of people working there - but except for 2 men on bear services there was not one young man hired. Other communities are there, but no Tuk people.

Land Claims P 64 Mr. Carpenter - I would like question in the review as to what role the oil company is playing and are they trying to undermine our agreement in principal (interfering with land claims and the whole process).

Evacuation P 67 Mr. Steen - Is there an evacuation plan for the artificial islands (if they get rolled over by ice, etc).

Pipeline We would prefer that pipelines be established rather than tankers - because that will stay with us and provide some benefits (plug into the pipeline, etc.).

Population P 69 Concern about the influx of people - more people should not move into a community than already live there.

Safety Measures P 71 Mr. Emmanuel Felix - You need some kind of safety measures on the islands in case multi-year ice drifts in - safety measures for disasters.

Birds - The birds have already changed their spring migration routes way back into the land.

1.1 #11-4

- Birds/
Noise P 72 Mr. Raddi - The snow geese are changing their routes - and we are not allowed to hunt in the area they now take. They are now flying where there are less charters and no noise.
- Local
Business P 77 Mr. Raddi - Opportunity for local business contracts should be provided - and we need notification of requirements ahead of time.
- Employment P 78 Mr. Pokiok - Can the company adjust hiring practices to accommodate trappers needs (and hunters)? (3 to 4 months employment rather than 6).
- Exploration P 81 Mr. Steen - What is the company's mandate for exploration? How many islands can they build and call it exploration?
- P 82 Chairman Comment - Although the Panel is only instructed to look at production, they will be looking at information about how the companies are going to explore during production.
- Wildlife
& Land P 88 Mr. Owayuak - Main concern should be for the land and the animals.
- P 89 Speaker from Coppermine - Although Coppermine is quite a way from Tuk their concern is oil movement to the area in case of a spill.
- Employment
in Env.
Protection P 91 Mr. Cassels - If the oil companies are truly interested in protection of the environment - are they going to provide jobs that serve to protect it? This is the kind of job the native people would be interested in. (Environmentalists should be working with the oil companies - not have to work against them. Are there such jobs in the oil industry?)

FEARO Beaufort Sea Cat. 1
Document Transcripts (Bound)
1.1 #12

Location: FEARO Library

Beaufort Sea Environmental Assessment Panel

November 19, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
GUIDELINE MEETINGS, COMMUNITY SESSION

Inuvik, Northwest Territories

Official Reporters: Angus Stonehouse & Co. Ltd.

Abstract: The following summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

P 1-10 Panel introduction and review of the purpose of the guideline meetings and outline of the EAR process by the Chairman.

P 10-24 Presentation by oil companies Representatives: Jim Lu, Esso; Rick Hoos, Dome; John Hnatiuk, Gulf; Roy Goose, Liaison officer.

P 25-32 Presentation by Mayor Cynthia Hill
Text and written submission reproduced in full in "Additional Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines", Beaufort Sea Environmental Assessment Panel. Dec. 18, 1981.

Questions re presentation:

Funding P 32 Clarification provided to funding for intervenors.

Inuvik
Partici-
pation P 35 Does Inuvik wish to participate in preparation of the EIS, or do they want to gather sufficient information to judge the EIS when available. (Answer - both)

More
Specific
Guidelines P 36 Ms. Ericson - In response to request for clarification over statement "Draft guidelines should provide clear direction to the proponent": Panel should be very specific in identifying what areas the proponents should consider. Too much latitude currently given to proponent (who may interpret guidelines narrowly). Review of proponents comments on the guidelines support this concern. Review of their comments shows their interpretation of the document to be different from ours. The Panel is responsible to make a clear mandatory agenda (preferably defined in consultation with the communities).

1.1 #12-2

P 42 Ms. Ericson - Suggestion to Panel. The EARP tool is suited to site specific inquiries. To make it useful - since it is too difficult to narrow the proposal - you must narrow the areas of enquiry so that you have a specific number of impact areas.

P 47 Mr. Mackay - Do you want the coverage but to focus more deeply (do you want to go into more depth on a narrow range) or do you want to narrow the coverage and delete things from the overall study?

Ms. Ericson - The ideal is to cover everything and then to say which should be covered in depth (in consultation with us). It is better to have in-depth coverage of areas we know to be significant than a wide catalogue with brief statements of oil anticipated impacts.

Community Involvement

P 54 The proponents need to come into the community at resident levels, community group levels and municipal levels. They need information from the community so that impact management strategy can be developed for each impact area.

P 55 Ms. Hill - Inuvik council would prefer to be looked upon as "consultants for hire" and "organization to be funded".

P 55 Mr. Lueck - Have you not been contacted by the oil companies and had in-depth discussion about the impacts on Inuvik?
Ms. Hill - As far as the specific EIS. No.

Municipal Policy Papers

P 56 Ms. Hill - The Federal Government Departments and Territorial Departments are being asked to identify their specific policy plans and activities that could be affected by the proposal - Municipal should be included.

P 57 Mr. Lee - The community would like to prepare before the oil companies come. Our visiting does not solve the problem.

P 58-76 Grafton Nootli - Presentation of submission from Old Crow, Yukon. (Written submission reproduced in "Additional Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines" 125-138.) (Not abstracted here.)

Community Visits

P 76 (From the Floor) - The Panel was to look at communities of concern - why was Old Crow not included.

Training

P 79-85 - Discussion with industry re current native employment, training plans, and how they can interface with Inuvik Town Council re issue identification.

1.1 #12-3

McPherson Community Input Time frame Problem

P 85 Bob Simpson (Fort McPherson) - Fort McPherson is in the process of developing an economic development strategy plan - including non-renewable resources. There are problems with the Panels time frame - insufficient review time and the Panel should visit McPherson - especially for community hearings on the guidelines. Without additional review time - they will be left out of the process.

P 89 Workshop possibility discussed.

FEARO Beaufort Sea Cat. 1
Document Transcripts (Bound)
1.1 #13

Location: FEARO Library

Beaufort Sea Environmental Assessment Panel
November 20, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
GUIDELINE MEETINGS, GENERAL SESSION

Inuvik, Northwest Territories

Official Reporters: Angus Stonehouse & Co. Ltd.

Abstract: The following summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

P 100-114 Oil Company presentation (by R. Hoos)

P 115-120 Presentation by Bob Simpson - (Fort McPherson)
(1) Telex - Workshop participants - organized by Environmental Coalition, Dene Nation, and Métis. (Written submission included in "Additional Compendium of Written Submissions to the Panel on the Draft Environmental Guidelines". Dec. 18, 1981. P 121)

Items emphasized in presentation included: insufficient community visits; insufficient prior distribution of information; lack of consideration of land claims; non-participation by COPE; suggestion that the Panel come back to visit more communities. The second portion suggests a delay in guideline approval; revision in process of consultation; guidelines directed at the impacted public as well as the proponent; more funding at regional and municipal level.

P 122 Chairman - Comments on community information process, funding of participants through the FEARO office; land claim issue.

Process Improvement P 125-129 Comments/Suggestions on improvements in distribution of information to communities included public meetings to discuss material prior to hearings and workshop sessions.

Proponent Funding - Public P 129 Mr. Simpson - Question to proponent re proposal for proponent funding of the public. Lee - Policy is to fund only studies managed by themselves.

Land Claims P 131-138 Ted Hayes - The fact that the Panel cannot address land claims is a fault in the process.
- Questions in the guidelines about amelioration of service do not address the cause of the problem.

Socio-Economic Impacts

- One assumption on which the guidelines are drafted seems to be that there has not already been an impact - that we are starting from a base line. The fact that there has already been an impact which has not been dealt with by the companies can not be ignored.

Prevention

- Social impacts cannot be compensated for with money and the companies should be asked to address prevention.
- Another issue not dealt with is the impact that ameliorative services are going to have on the Region (and should not be assumed to be positive).

Inadequate Guidelines

- Guidelines are inadequate in terms of social and economic effects of biological and physical impacts.

Comments (Summary)

P 138-149 A. Plum and Dick Hill (for Inuvik and District Chamber of Commerce). (Written submission "Additional Compendium of Written Submissions ... Dec 18, 1981" P 205)
- Awareness of review process and contact with the people insufficient.
- Training should be brought to the area to prepare for what will take place.
- The Panel's job would be simpler if they decentralized to where the problem is.
- The Panel should convey to the funding committee that funding should be provided to the communities where the people have to deal with the facts (not to those who analyze them and leave).
- Re Technical consultants (of a local nature - not drilling etc). Southern consultants come - ask the questions - take back our answers and get paid. The middle man should be eliminated. If the Panel plans to hire "technical expertise" (as indicated) they should be looking to the North.
- Training should be provided "locally" so people don't have to be taken out of their environment.

Panel Note: Request Education

P 149-152 There is an acute need to get education underway. A five year action program has been delineated (Inuvik Region Education Program). The request to the Panel is to issue an early statement or partial statement covering such things as education to get them underway and now, not in two years time.

EMR

P 153-158 Mr. Rothschild - Presentation from Energy, Mines & Resources.

Areas of involvement:

Energy Policy

Energy Policy - This will dictate timing of initial production and subsequent rate of production of Beaufort Sea Hydrocarbons. Earth Sciences - Authority in the disciplines of bedrock and surficial geology, submarine geology, coastal processes, seismicity, permafrost and associated terrain sensitivity. (Written submission in "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines" October 27, 1981. P 30.) (Not Abstracted.)

1.1 #13-3

Question Period:

Climatic Change P 158 (Mackay) Topics listed in written submission are those which EMR is prepared to comment on? (Ans. Yes)
What is the magnitude of climatic change we are looking at for the lifetime of the project? (Ans. No comment)
Is the suggestion that the proponent document the material by the name of the author just for EMR or everyone. (Ans. Proponents discretion).

EMR Policy Paper Timing P 160 Dr. Rothschild - Timing of paper on rate of development of Beaufort oil and gas should precede (just) the EIS.

EIS Detail Level P 161-166 Discussion re detail requested by EMR in their suggestions. Everything need not be included in the EIS. With proper reference, the original material can be referred to by the reviewers. All issues should be recognized in the EIS and addressed - although all answers may not be available. Feasibility of identifying minimum research requirements in guidelines or in an EIS response discussed.

P 167-185 Dr. MacPherson - Dept. Environment. Environment Canada will assist the Panel by reviewing the proposal for forestry, inland water resources, pollution control, migratory bird management, National and Historic Parks, weather and climate services, and certain other services. In addition, Environment Canada will undertake a broader environmental overview function. (Written Submission covered in "Additional Compendium of Written Submissions ... Dec. 18, 1981. P. 265) (Not Abstracted.)

Question Period:

Cumulative Impacts P 187-188 Discussion as to how and who can best deal with cumulative impacts of other projects (e.g. how to incorporate the effects of current hunting pressures on wildlife resources on top of impacts the companies might introduce).

P 188-191 Policy discussion: How is the government going to handle the process after it leaves the Panel? Discussion re co-ordination of policy responses - a framework to co-ordinate government management of the program is required. Suggestion that a framework for the policy could be requested to accompany the policy paper itself.

Climatic Change P 192 Dept. Environment, Atmospheric Environment Service recently developed a unit concerned with climatic change.

DFO P 194-205 Dr. Lawler - Dept. of Fisheries and Oceans. (Written statement, p. 276 - "Additional Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines", Dec. 18, 1981.) (Not Abstracted.)

1.1 #13-4

DFO's responsibilities related to this referral are to provide scientific advice on broad environmental issues related to the ecology of Canadian seas, rivers and lakes and to ensure the adequacy of nautical charts necessary for the safety of Arctic shipping.

P 207 Question Period

Significant Effect P 297-209 Discussion relating to definition of "significant effect" - How and by whom?

Review Timing P 209-217 Discussion of timing for review of Draft EIS and final EIS if both are circulated for review.

Proponent Answer - EIS P 217-220 R. Hoos - Comments on previous 3 statements:
- Level of detail requested will not be provided in all areas.
- Re request for different development scenarios: proponents are going to try and work with the most realistic combination of components and level of activity - broken into 5 years, 10 years or 20 but not into a range of options, components, etc.
- We are working on hypothetical oil spills (10 kinds) in areas selected for environmental sensitivity. Seasonal variations are not included due to lack of information.

P 221 Dick Hill - speaking as co-ordinator of the Beaufort Sea Community Advisory Council - but not on their behalf.

Beaufort Sea Community Advisory Council The council is made up of 2 representatives from seven Beaufort communities. Four meetings a year are held and several study tours. They are aware of the Beaufort Sea Developments and familiar with the area. The lack of their participation in this review is anomalous. At Calgary they participated and pressed for favored funding for Northern people, community group.- Beaufort Groups. Lack of response to that participation has probably led to non-participation.

Simplification P 224 The Beaufort Sea people are asking for more simplification whereas the previous statements request more detail, scenarios, etc. Statements indicate this is not a "go or no-go" situation - that the process is going ahead on that assumption, we are concerned with today things - and preparation - education, etc.

DIAND Presentation P 276 Suggestion that a representative from the initiator be present to answer questions.
- Industry can look after technical aspects, but the government should handle policy issues.

1.1 #13-5

P 231 The Beaufort Sea Committee exists and the Panel should be making an effort to involve them.

Participation P 233 Mr. Hill - People will be interested if they feel they are truly participating - and that their elected governments (municipal, territorial, federal) are part of the process. (Political process should be used) - Participation and simplification.

P 235 Mr. Craig - Is a one window agency approach desirable - Hill (Yes - with reservations)

Dam P 238 Mr. Pokiook - Concern expressed about proposed dam that would effect the water level and flow of the Mackenzie. This would effect spring break up and endanger the Beluga whales and other species of fish and water fowl.

Effects P 241-245 Dr. MacPherson - Relevance to this project is in question. Information provided on various dam proposals and possible impacts - and sources of information.

Panel P 244 This matter is being addressed at the intergovernmental Note level which could be useful to the Panel in determining its relevance to the Beaufort Sea deliberations.

Municipal P 247 Mr. Zubko - Emphasized need for municipal participation. Position Although Territorial and Federal governments have been requested to Papers clarify their capacity to deal with the Beaufort Sea oil and gas development, the municipal governments have been left out. The co-operative approach among governments and between government and industry is supported. We hope this would lead to an on-going assessment management process (involving all of the govts. and industry).

Social - DIAND's absence was noted with concern. Impact of - Government policy has the potential for the greatest social Gov't impact to the area. Policy - Total abandonment would have the greatest simple impact and could be result of govt policy.

Impact P 252-256 Clarification of "ongoing assessment of the management Management of impacts" requested. Zubko - It is anticipated that one result of the process will be the definition of the method of assessment of impact which will change as the development goes forward. We may not guess now how large an impact will be - but if the impact is recognized, a process of continued assessment can be set up and a management capability to rapidly respond to this assessment be established.

1.1 #13-6

Panel Note: P 256 Mr. Ericson - Would it be possible for the Panel to direct Question the government agencies that are going to prepare the position statements (management strategies), direct them to co-ordinate with or request an assessment of their strategies by the communities that are going to be effected? (on the basis of municipal level input).

P 257-262 Abandonment Issue and Government Policy.

Abandonment P 257 R. Hoos - the proponents did not want to address total abandonment because it was not considered to be a realistic scenario.

P 258 Mr. Zubko - People in the Arctic have seen it happen on other projects and would like it addressed by the proponent or by government policy.

Change P 267 Mr. Hill - As the process is continually changing, especially looking to years ahead, what provision has been made to handle change - new technology, etc. Is there a mechanism in the EIS and review structure to deal with this?

Technical P 269 Mr. Ericson - Requested elaboration on the type of technical Assistance specialists the Panel is considering, and what technical assistance Avail- ability will be available to participants.

1.1 #14-2

FEARO Beaufort Sea Cat. 1
Document Transcripts (Bound)
1.1 #14

Location: FEARO Library

Beaufort Sea Environmental Assessment Panel

November 23, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
GUIDELINES MEETING, GENERAL SESSION.

Whitehorse, Yukon Territory.

Official Reporters: Angus Stonehouse & Co. Ltd.

Abstract: The following summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

Introduction P 1-8 Introduction of Panel members and Secretariat. Brief description of hearing process and Panel activities.

P 8-13 Mr. Jeff Hunston - for the Yukon Historical and Museums Association. (p. 234 of above reference "Additional Compendium ...", Dec. 18, 1981).

Historical Sites Sites of historical significance should be considered as a valuable non-renewable resource which is in danger of being destroyed by a conflicting land use. Guidelines for the proper management for Yukon's archeological and historic resources were presented.

P 13 Mr. Craig (Summary) - The Panel guidelines should request the proponents to include in the EIS their plans for archeological protection.

P 16-36 Presentation by oil companies (given by R. Hoos, Dome Petroleum. Also present Mr. Georg Bezaire, Esso; Mr. Ray Glasrud, Gulf).

P 28 Discussion of Interest in King Point and increased use of the Dempster Highway (of particular interest to the Yukon).

P 37 Mr. Randall Charlie, Band Manager of Old Crow.

Questions:

- when did the hearings start?
- when is the Panel going to draft the final guidelines?
- is the timetable geared to the oil companies, the government or the people of the north?
- are there any northerners on the Funding Committee? any natives? how are they chosen?
- are any members (Funding Committee) from the north or have they ever been in the north?
- why are there no natives on the Committee?
- will the Panel have enough community input to draft final guidelines since they are in a rush and didn't visit every community?
- are the oil companies prepared for a major oil spill in the Arctic and how are they equipped?
- if the oil companies are going to build a pipeline, what kind of equipment will be involved?
- are the camps going to be dry or wet? (If dry - what about days off?)
- concern expressed about control of garbage and sewage.
- concern expressed about the Porcupine Caribou herd and whether they will cross the pipeline.
- how much study of wildlife have the companies done on the proposed pipeline routes?
- how many native people from Old Crow are the companies willing to train now, where and for how long?
- are the companies willing to support programs in northern communities such as recreation and alcohol programs.
- during and after pipeline construction, will cheap oil & gas be available to northerners?
- if the pipeline goes down the Dempster, kilometre post 350 is a Porcupine Caribou herd crossing point and restrictions on human activity have been set by Old Crow people. Are the companies willing to stop construction during migration (spring, fall)?
- is there any activity now at King Point; and what are the plans for there?
- there is concern both for the Porcupine Caribou herd and the Canada geese, the snow geese, in relation to King Point.
- if the oil companies plan to build a port there, will they put an office in Old Crow to hire people and to do local business?

P 52-62 Mr. Bill Klassen - Yukon Territorial Government (Written submission, p. 241 in above referenced "Additional Compendium ...", Dec. 18/81").

Yukon
Policy

P 55 - A paper outlining positions and policies of the Yukon government on Beaufort development has been prepared "Beaufort Development - the Yukon Perspective". Copies are available - Dept. of Intergovernmental Relations.

1.1 #14-3

P 62 Mr. Mackay (to Mr. Klassen) - From the viewpoint of reviewing the EIS, to what degree should the EIS go into technical matters to help your Beaufort Sea Advisory Group? Easily readable or technical with documentation?

EIS Detail P 62 Mr. Klassen - It would be adequate if the EIS did not go into detail beyond people with non-technical background as long as the information is referenced and the more detailed reports are available for review.

P 63 Mr. Stutter - Requested clarification on the remarks about the barite deposit in the Ross River area and what kinds of information should be requested of the proponents in the EIS in terms of mining and transportation.

Mining P 64 Mr. Fairman - The government is interested in knowing how many people will be employed at any barite mine in the Yukon; how many people will be employed in transporting barite to the Beaufort Sea and how many are going to be Yukoners?

Panel Note P 65 Chairman - As an associated activity, the company could be asked for a socio-economic evaluation of the impact of that development.

P 66 Mr. Fairman - To the greatest possible extent we want to know the direct and indirect effects of mining and transporting the barite, or any other projects that might be started in the Yukon.

P 66-28 Further discussion of this aspect and involvement of the Yukon government with the proponents in assessing socio-economic impacts.

Wildlife Resource P 69 Mr. Stutter - Could Mr. Klassen enlarge on the concerns about the increased activity as far as hunting game brought about by increased population? This is a concern for the whole northern area because game management is already under the YTG?

Mr. Klassen - What we would like in the guidelines is some instruction to the proponent to address the subject of increased pressure on wildlife resource which might not have occurred without the presence of the Beaufort Sea proposal.

P 71-82 Ms. Russel LeBlond - Arctic Wildlife Range Society (Written submission, p. 145, "Additional Compendium ... Dec. 18, 1981."

P 83 Ms. LeBlond - EARP is acting as one part of a planning exercise that needs to occur but the integrated framework required doesn't exist. The EARP panel is functioning in a kind of vacuum.

1.1 #14-4

Panel Timing P 85 Mr. William Smith - resident of Old Crow - Concern expressed about timing and duration of the Panel's inquiry indicating the people of Old Crow are not aware of the magnitude of the proposal and the tremendous effects the proposed activities will have on them.

Caribou - Meetings in Old Crow should have translators available.
- Concern with impact on the caribou herd - and what effect will this impact on the herd have on the native people.
- Yukon should be looked at in zones, and in the northern zone or porcupine range zone there should be consideration to the long term effect of the activities on the habitat.
- From personal experience - over a period of time the animals will not frequent that range anymore.

Technical Support - In consideration of any guidelines - the people of Old Crow should not be left on their own. There should be some means that the people can call in to support them in the review and preparation of comments the experts they feel are needed.

P 91 Mr. Smith - In respect to timing or visits to Old Crow - there should be discussions to determine an optimum time.

P 92 Noted one of the reasons for the success of the Berger inquiry in terms of people in Old Crow was that he took care to really understand the people and listen to them informally - not just at hearings where they may be hesitant to speak.

P 93 Mr. Carson Templeton (Written submission, p. 208, "Additional Compendium ... Dec. 18, 1981").
Major recommendation: "The single most important action required is to establish immediately a regional development planning and impact management process for the entire area that would permit anticipatory response or direction to events every step of the way".

Southern Hearings P 109 Mr. Craig - In talking about Calgary, were you recommending that there should be more hearings in southern Canada.
Mr. Templeton - Although you can't go to all cities in Canada, Calgary is an odd choice when you are making trade-offs between the oil business and the environment and social aspects.

P 110 Chairman - We could consider perhaps some cities in eastern Canada.

Land Use Planning P 110 Mr. Templeton (Comment on the current land use planning by DIAND) - I have participated in the regional plan for Tuktoyaktuk - but I don't think it's even public. Although there have been many plans and exercises started regarding land use planning in the Delta we are not any further now than we were ten years ago except through COPE Canada agreement. I don't have the confidence that you're going to end up with a regional plan for the Delta in my lifetime.

1.1 #14-5

Gov't Activities P 112 Mr. Templeton (re associated activities) - One difficulty is that all the associated activities will not be carried out by the development companies and therefore would not be included in the EIS. For example, extension of the Dempster Highway would be carried out by the Dept. of Public Works. The source of the gravel which is a limited resource in the Delta would quite likely never enter into your hearing process.

P 113 Chairman - We have requested government departments to provide us with their interpretation of the significance of the proposed development to their policies and operational plans. You've suggested an aspect of this that the Panel will have to think about.

P 114 Mr. Templeton - A lot of activity dealing with commercial activities cannot be controlled by the oil companies. How do you deal with migration of workers looking for employment which may overload social and all other services in the Yukon.

P 115 Mr. Tieran (to Mr. Templeton) - Is there some critical area for development of regional plans?
Mr. Templeton - Endorsed the goal of the Panel in looking at the total region and transportation. Better to start out broad and narrow down.

P 116-118 R. Hoos - Comments on aspects of Mr. Templeton presentation - exploration in the long term will be addressed in the EIS; industry is an active supporter in land use planning in the north; we are trying to assess all parts of the infrastructure that we have any control over-including roads we may not build ourselves.

Council Yukon Indians P 118 Mr. Porter, Council of Yukon Indians (Written submission, p. 119 "Additional Compendium ... Dec. 18, 1982.") Directed towards deficiencies in the hearing process and in the proposed guidelines - with another presentation planned for Calgary.
Hearing Process - insufficient time allowed for community input. Northern communities operate most effeciently when the community as a whole participates - more communities should be included.
Guidelines - Guidelines ignore land claims which should be a factor in the socio-economic guidelines.

Yukon Conservation Society P 127-148 Nancy MacPherson - Yukon Conservation Society (Written submission, p. 216, "Additional Compendium ... Dec. 18, 1981"). In summary - the draft guidelines are not considered appropriate for the task and a sequence of events for a planning process was outlined - indicating where the EARP process fits. The Panel was urged not to continue with a conventional EIA and not to an agreement in principle. The Panel was urged to turn the process into an environmental feasibility assessment. Examples of management efforts which proved unsuccessful were given.

1.1 #14-6

P 149 Mr. Hoos - Comment on letter referred to (A. Milne) and Dome's scenario plans. Agreed to provide Panel with a written clarification of Dome's views as opposed to Mr. Milne's.

Timing Frames P 152 Ms. MacPherson - Timing is one area in which they will make no estimates. The sequence of events are outlined - but timing is another question.
Mr. Hodge - According to the Federal Government statements in the National Energy Program - the time is available (i.e. "need to know reserves - not necessarily to develop at this time). If there is a more recent time frame, as intervenors we should know.

Animals P 155 Reverend Brown (from Old Crow) - There should be studies of the effect of oil on muskrats, caribou, martens and other land animals that are basic to Old Crow's way of life and their economy.

Social Aspects - If more roads are built, more salt licks are turned up to attract animals which can then be shot from the road.
- One concern is the people who will then be driving through and back - and introduction of cars to our young people.
- Danger of high alcoholism is another problem, complicated by the fact people have to buy it by the case.
- The moral implications of any plan to industrialize an area like this are tremendous. The people have no way to control movement of people, housing standards, etc. and the local option of control is important.

EIS by whom? P 173 Mr. Wykes - Environment Canada - The Panel flow chart refuse to the companies EIS. Is not the EIS the initiating department's responsibility and they can in fact decide what they want the company to prepare and what they prepare themselves?

P 176 Above statement verified by Mr. Lueck after referring to the Order-in-Council.

P 177 Mr. John Firby - Government of Yukon - It is going to be difficult to identify government policies and programs without a preview of what the company may be doing. If we have to wait for the EIS to see the companies plans or proposals, it's difficult to say the impact of these on our policies in a paper at the same time.

P 179 Mr. Templeton - Although Dome says they will include exploration, the Minister of Environment excludes it. Is the reason for this because EMR is in charge.

1.1 #14-7

Exploration P 180 Chairman - The mechanisms referred to are those used up to this point by DIAND to handle the exploratory phase. Based on many comments. Our guidelines must consider:
- to the best the Panel can get information on the impact of the exploratory phase to date which will give some information on the significance to be applied to future exploration.
- in the development phase, take into account that exploratory drilling will be going on.

DIAND P 180 Brent Moore - Environment Canada - Due to the magnitude of DIAND's role (as pointed up by Mr. Wykes), they should be more obvious participants in these hearings so we can get some feedback on their perceptions.

P 181 Ms. MacPherson - Too often planning processes are reactive. In this process perhaps it can be avoided if the govt wants to plan on the priorities of the people, and not just on the development options.

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1.1 #15

Beaufort Sea Environmental Assessment Panel
November 25, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT GUIDELINES MEETING, GENERAL SESSION.

Yellowknife, Northwest Territories

Official Reporters: Angus Stonehouse & Co. Ltd.

Contents: (Does not include abstract of presentations covered by written submissions in the "Additional Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines", December 18, 1981.)

Abstract: The following summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

Introduction P 1-7 Introduction of Panel members and secretariat. Brief outline of process and Panel activities.

Proponent P 7-17 Proponent presentation by George Bezaire, Esso. Also present Al Shannon, Gulf and R. Hoos, Dome.
P 19 P. Hiram Beaubier, Director, Dept. of Indian and Northern Affairs, Northwest Territories region. (Written submission, p. 288, "Additional Comments... Dec. 18/81)."

Beaufort Sea Office P 20 - Description of composition and objectives of Beaufort Sea Office, housed in DIAND, and established to improve co-ordination of the Federal Government's responsibilities with respect to hydrocarbon development in the Beaufort Region.
- Noted that DIAND was requesting funds to implement the Regional Land Use Planning.

DIAND Planning Timing DIAND Land Use Planning/Timing
P 24 Mr. Beaubier - Noted he would assume that staffing requirements had been considered, when DIAND indicated an interim land use plan would be available by late 1982.
P 25 Review of the EIS by DIAND could take a couple of months.

Timing Conflicts Land Use Planning and Panel Timing Conflict
P 26 DIAND is requesting that the Panel consider carefully and keep close watch on the initiative of the department in the land use planning area as they relate to the panel activities.

1.1 #15-2

- It is being put to the Panel that in the event that the Panel is ahead of the regional planning, they should evaluate the need for a slow down.

Coordinat- P 28 Mr. Lueck (to Mr. Beaubier) - Many government departments are ion tion involved and a lot of coordination is required. Do you have any suggestions about who is going to go first on this thing?

Mr. Beaubier - Some of the required direction will be provided by the Cabinet paper on Northern Hydrocarbon which should be available soon. With respect to government strategies on how to deal with issues, this should evolve from the position papers requested by the Panel.

Panel Mandate P 30 Mr. Lueck - Does DIAND as initiator see it within our mandate to make a recommendation such as "no development unless the people of the North have a direct benefit from royalties".

Mr. Beaubier - No - the Panel is one element within the decision-making process.

Coordinat- Government Position Papers - DIAND Co-ordination? ion tion P 31-34 .Included a discussion of the position papers which have been requested of the government departments, and the suggestion that DIAND should provide an overall co-ordinated government approach. It was indicated that if each paper deals with that Departments mandates and policies, they could be handled individually but would have to fit into the Northern Hydrocarbons paper directive.

Legislation Part of the function of the Beaufort Sea office is to provide an understanding of the legislative and mandate responsibilities given to government offices and identify overlap, and possibly comment on new and embracing forms of legislation.

Polar Gas P 34-44 Mr. Ken Taylor - Polar Gas (assisted by Mr. Lee Dorond). (Written submission, p. 302, "Additional Compendium ... Dec 18, 1981). - On summary Polar Gas indicated that pipelines are feasible and efficient transportation systems; specific environmental effects are significantly different in different locations and regional reviews can be misleading; a considerable amount of baseline environmental and socio-economic information is available for parts of the Northwest Territories; and finally, a clarification of the role of Associated Projects in these Panel proceedings is needed.

1.1 #15-3

Transportation Air Ship/LNG
P 45-46 Discussion of transportation of natural gas by air ship versus LNG tankers. Although (at the time of the study) it appeared a viable alternative to LNG, pipelines were considered the preferable option and work since then has been in that area.

P 47 Mr. Taylor - The question of gas supplies in the south makes a decision as to when the Polar Gas application will be filed difficult.

Panel Note P 49 Mr. Lueck (to Mr. Taylor) - You noted the assumption that this Panel would not be making recommendations on the relative merits of pipeline routes or on modes of transportation.

Should we put into the guidelines that the Polar Gas route should be studied?

Mr. Taylor - That is a decision for the Panel, but Polar Gas needs more clarification as to what its role and involvement should be.

Panel Note P 50 Chairman - The Panel is looking in this reference to the need to look at associated activities - this would probably include components of the Polar Gas proposal. Polar Gas can probably expect to hear from the Panel.

Guidelines Guidelines Comprehensive Broad
P 53 Mr. Taylor - Comment on guidelines - very comprehensive, but so broad they may create difficulties. With so many route alternatives, the Panel has to cover a lot of geography.

Employment and Immigration P 54-64 Mr. Gilles Patenaude & Mr. Keith Patterson, Employment and Immigration. (Written submission, p. 254, "Additional Compendium ... Dec. 18, 1981). - Identified need for more emphasis on manpower planning in the EIS.

Human Resource Planning P 65 Mr. Patterson - Within the socio-economic component of the guidelines, we need to have guidelines to help the proponents be aware of and put together the proper plans in relation to the utilization of human resources.

P 65 Chairman - The Panel has heard the request in a number of communities for training programs. What has to happen to make it a reality.

P 67 Mr. Patterson - The demand schedules need to be identified so training will meet the demand in that location.

1.1 #15-4

Implementation Training Programs Implementation
Some short term measures are being implemented in relation to Tuk.
- but to meet longer term needs, demand schedules are needed. Then
good PR work is required.

P 69 Mr. Patenaude - Description of systems in place for training.
In the Northwest Territories the two main programs are the
institutional training and the industrial training. (Brief
description provided).

Incentives P 71 Mr. Lueck - Are there incentive programs designed to show the
advantages of taking a training program away from the area? Are
there programs designed for those who want jobs as a supplement
(not replacement) to hunting and trapping.

P 72 Mr. Patterson - Proponents are starting to offer employment
opportunities compatible with traditional lifestyles. One training
program is a basic job readiness training program to make them
aware of labour market demands as opposed to "Upgrading" which is
basic training and is straight educational preparation for the work
field. In the basic job readiness training there have been efforts
at decentralization. In some cases even the upgrading is available
in communities. More upgrading will be required with the major
project developments.

Department Mandate P 74 Mr. Patenaude - I don't see it as the responsibility of this
department to catalogue increases in staff in all the gov't
departments or service industries or to identify for the Panel the
impact of this.

P 78 Evening Session:
Mr. John Bailey - on behalf of Dene Nation and Metis Association
(Written submission, p. 61, "Additional Compendium ... Dec 18/81
P 80-84). Before presenting the Brief, they questioned the
proponent representatives as to how they saw their role as a
proponent; whether they had a proposal as generally defined by a
panel (Hoos, Dome - ideas on the future considered a proposal.
Shannon, Gulf - proposal in the formative stages; Bezaire, Esso -
identified future activities).

Summary

Funding

DIAND
Participation

1.1 #15-5

Presentation Summary

P 84 Presentation
- If there is no proposal - how can a review or assessment take
place.
- Why should the proponent only be obliged to describe some of the
options considered.
- Several examples of government and industry concern or confusion
at lack of proposal or purpose of the EARP assessment given.
- Community complaint of lack of advertising and adequate
preparation - inadequate number of communities visited.
- Terms of Reference or Draft Guidelines do not refer to the impact
of government plans on the proponents and their intentions.
- Case presented with several examples and background documentation
for the need of regional planning before an EARP process can be
carried out. The Panel must first address the need for planning.
- The Dene and Metis are prepared to put forward as an alternative
to the EARP process proceeding at this time, a land use planning
process consistent with the objective of DIAND's Northern Land Use
Planning Study. Proposed model outlined.

Regional Planning

P 114-117 Discussion of above presentation to better define
regional plans and whether the proposal is to combine EARP and the
DIAND planning exercise.

P 120-121 Clarification re funding of public interest groups: The
Panel is not associated with the funding.

P 121-122 Mr. Bailey - The proposal at the end of the presentation
is for the regions that our clients have an interest in. There may
be other proposals for the ITC and Eastern Arctic. Also, although
we accept the principles of the DIAND proposals re land use
planning we do not accept the structure which has all the planning
occurring in Ottawa.

P 124-125 Discussion of proposed representation e.g. one member
from each of the five regions making up the Dene native - and
whether this specifically excludes Metis and white people from
being on the proposed Board.

P 126 Mr. Carmichael - Emphasized that the Government was going to
have to make some firm decisions quickly in order for this Panel to
proceed. The need for the initiating department to be present and
available for questions was strongly supported.

P 128 Mr. Paul F. Nind - Northwest Territories Association of
Municipalities (Written submission, p. 30, "Additional Compendium
... Dec 18/81"). Presentation for the Association of
Municipalities.

1.1 #15-6

Municipal
Involve-
ment/
Funding

The Association represents 15 major municipalities or 2/3 of the Territories population. Communities are responsible for essential services and their budgets and personnel are not adequate to deal with a project of this size. Federal funds should be made available to community councils for research and presentations to the Panel and for research, planning and infrastructure to provide the services they are responsible for.

P 130 Mr. Nind - Presentation of an amendment to the Town of Inuvik's submission. (p. 15 Additional Compendium ... Dec. 18/81).

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1.1 #16

Beaufort Sea Environmental Assessment Panel

November 26, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
GUIDELINES MEETING, GENERAL SESSION.

Calgary, Alberta

Official Reporters: Angus Stonehouse & Co. Ltd.

Abstract: The following summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

P 1-7 Introduction

P 8-17 Proponent presentation.

P 18 Mr. Don Gamble (CARC).
Outlined composition and operational procedures for the Beaufort Sea Research Coalition (Generally members will as individual groups unless views are all the same).

- Introduction of participants in the presentation to be given by the Coalition and their background.

P 78 Documents of interest given to Panel - with brief comments on these.

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 1.1 #17

Beaufort Sea Environmental Assessment Panel

November 27, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
 GUIDELINES MEETING, GENERAL SESSION.

Calgary, Alberta

Official Reporters: Angus Stonehouse & Co. Ltd.

Contents: (Does not include abstracts of presentations covered by
 written submissions in "Additional Compendium of Writtent
 Submissions to the Panel on the Draft Environmental Impact
 Statement Guidelines", December 18, 1981.)

Dept. P 1 Mr. Bob Braithaupt. Director of Communications, Satellite
 Communi- Programs, Federal Department of Communications.
 cations The departments interest is for rational development and
 improvement of communication services and facilities for people in
 northern Canada, and to ensure that present services are not
 negatively impacted. The present proposed major satellite program
 is probably the most significant current program. Specific
 guideline comments have been submitted (p. 251, Additional
 Compendium ... Dec. 18/81).

Esso P 2-4 George Bezaire (Esso). (Written submission, p. 301,
 Additional Compendium ... Dec.18/81):
 - EARP and the regional clearance concept is supported. The
 forecast developed by the proponents provides the reference for
 addressing maximum impacts.
 - Guidelines should focus on major issues.

Dome P 4-8 Rick Hoos (Dome Petroleum). (Written submission, p. 291,
 Additional Compendium ... Dec 18/81). Summary of the major
 elements constituting the preliminary proposal was provided. In
 relation to determining significance of impacts, the proponents
 proposed "environmental impact assesment definitions".

Panel P 9 Mr. Lueck (to Mr. Hoos).
 mandate In reference to the statement that "all reasonable options are
 being examined" - if these options were identified it would assist
 the panel and the intervenors. For example, if the Y line or the
 Dempster lateral are being considered, this should be stated. Mr.
 Hoos - We consider these as not being within the Panels mandate.
 Chairman - The Panel has a mandate to look at associated
 activities, and the Panel should know what alternative delivery
 systems are being considered.

Panel
 note

It was noted that the Panel would consider the identification that
 the proponents do not consider the Polar Y to be an alternative.

P 12-54 Presentation by the Beaufort Sea Research Coalition.
 (Written submission, p. 160, Additional Compendium ... Dec. 18/81).
 presented by Nancy MacPherson, Nancy Russel LeBlond, Francois
 Bregha, Rick Pratt, Don Gamble, and Eric Tull.
 Detailed presentation presenting several recommendations including
 the need for the Panel to define its task - what kinds of
 recommendations will it make, shall there be future hearings on
 concrete proposals, etc? The Panel's role in the decision making
 process must be clarified at the level at which the review will
 address issues determined. The guidelines must define what the
 issues are, what the outcome of the process will be, how and to
 what end the information from the proponents will be used.

P 54 Discussion:

Dr. Mackay - The proposal suggests four categories - minimum, low,
 medium and maximum? And production alternatives for each?
 - Discussion on number of scenarios this request would lead to.
 The objective of the alternatives is to bring focus on what the
 trade-offs among the various development alternatives are.
 - Although impacts for each scenario is requested, to prepare
 impacts of maximum development would canvas all the information
 required to prepare the others.
 - The term of testing feasibility is preferred to impact assessment
 by the coalition - The alternatives of the scenarios can be
 assessed for feasibility depending on impact.
 - In relation to the Guideline section "Need for Beaufort Sea
 Development", the coalition has no great quarrel with the
 guidelines but would like a tightening up, and should be addressed
 to government not to the proponent.

P 62 Clarification requested by Mr. Gamble on which parts of the
 guidelines are addressed to the proponents, and which to
 government.

Chairman - Through the formality of the process the guidelines go
 to the initiator for transmittal to the proponent. Specific
 guidelines have not been developed for government departments.

P 64 Dr. Rothschild (EMR). EMR is preparing a paper to coincide
 with the EIS (about 3 months) not only on the impacts on the
 Beaufort Sea development or the Departments programs, but also on
 our view of the role of the Beaufort Sea hydrocarbons in energy/
 supply/demand situations in Canada.

The question which seems to be currently under discussion is
 whether the Panel should wait to see these papers before completing
 the guidelines.

Dr. Gamble - This is exactly the position we are taking. Take the
 time now to determine the context within which to draft the
 guidelines.

P 66 Chairman - If we wish to be more specific in our requests to
 the Government departments, this will be handled by letters from
 the Chairman, not guidelines. These letters and responses will be
 public.

Timing

1.1 #17-3

P 68 R. Hoos - Comments on presentation.
- In relation to the concern about inventory and cataloguing - over half the documentation will be concentrating on analysis.
- Re suggestion that practical interpretation of the guidelines would be inadequate - we feel that we are in a position to adequately respond and to interpret them practically.
(Mr. Gamble - The coalition was emphasizing that Dome will do this on the assumption of what they think the purpose and scope of the guidelines is. However this might be quite different from the assumption that some other group might make).

P 70-72 Discussion of letter by "A. Milne" which led to the Coalitions conclusion that "there is no clear definition of what it is that will cause the impact".

P 75 Mr. Hoos - By the time the EIS is prepared the proponents will have produced a much better description of the development as we perceive it to be taking place.

Proposal changes

P 75 Mr. Bragha - If the proponents change their plans in the course of the hearings - will these too be presented to the Panel for review.

P 76 Ms. MacPherson - The proponents seem to be using the EIS to develop their plans which doesn't seem acceptable to the process we are in.

P 76 Mr. Hoos - The plans are an evolving thing, and the process is being used to determine how the Beaufort can be developed in an environmentally acceptable manner.

Mr. Bregha - The concern being noted is essentially about the open indeed nature of the process.

P 80 Mr. Gamble. Re number of scenarios being requested. Based on the Rind of information being provided by EMR, the Panel themselves should define certain types of scenarios.

P 84 Mr. Fitzsimmons - The Panel has perpetuated misunderstanding as to whom the guidelines are directed at by asking for separate statements from government rather than integrating the overall process.

P 84-87 Discussion as to lead time required for possible production in 1986. In terms of island construction, 1983 was proposed as the start building date (and to build in '83 you need commitments in '82). Pipeline options could take four or five years. Suggested that some of the assumptions being made were unrealistic but tended to bias the assessment.

Worst case

P 87 Mr. Bezaire - We have attempted to provide a production scenario that in some instances could be regarded as the worst case. If specific projects come forward in the near term, we would expect the impacts would be established by an examination of this large scale production facility.
If you prefer individual proposals for individual plans, industry could do it and it would take a great amount of uncertainty out of our forecast. We need comments about how specific we should be.

P 88 Mr. Gamble - Comment about detailed proposals was in the context of time. Our proposal was that the Panel take the time now

1.1 #17-4

to consider government inputs before finalizing the guidelines. However, if the proponents feel the Panel does not have this time then they should come forward with specific proposals.
P 91 Mr. Bregha - A number of scenarios have been requested since a cut back in production does not necessarily lead to a proportional cut back in impacts.

Afternoon Session

P 93 Chairman Statement - The guidelines are sent to DIAND for transmittal to the proponents. The panel will be issuing a guide to the government departments on what should be contained in their response to the Panel's requests of them.

P 94-97 Discussion of timing and perceived need for a slow down in operations. The contention is that time taken now to really obtain community input may save time in the long run.

Council Yukon Indians

P 99 Mr. Dave Porter - Council of Yukon Indians. (Mr. Vic Mitander) (Written submission, p. 47 - Additional Compendium ... Dec. 18/81). Contained discussions of issues of concern in respect to hearing process and proposed guidelines, agreement-in-principle with respect to land use planning and environmental assessment in the Yukon and proposal tabled in Land Claims negotiations. In summary the recommendations "are that the matter of land claims be included as a factor in the assessment of impacts. That Native communities be included in the preparation of impact statements, and that the hearing process be modified so as to recognize the realities of life in Northern Native communities and thereby allow these communities opportunity to participate effectively".

P 108 Mr. Porter - Other community visits should include Davison, Mayo, Pelly, Comax and Whitehorse.

- Not suggesting that the work of the Dempster lateral in terms of environment scenario needs to be done over, but we are suggesting that the communities need to have an appreciation of this proposal. When it comes to management of impacts, people from all communities need to be involved.

Land Claims

P 111 Mr. Porter - We are not advocating that the Panel become involved in land claims, only that the guidelines proceed with the recognition that the process is going on.

P 112 Mr. Porter - In terms of native participation in preparation of the EIS, we need more specific plans. Then the people in the communities have a lot to contribute in terms of gathering data for impact statements.

P 116 Mr. Bailey (Metis Association and Dene Nation) - Remarks prepared in response to matters arising from their presentation in Yellowknife. - concerned about unfulfilled needs for land use policy and planning structures.
- National energy program calls for a Northern Energy policy but should not be confused with one.

1.1 #17-5

P 120-123 Mr. Lewis - Addressed policy of exploration and production. The current Cabinet deliberations are to address "managements' questions" and that implies development policies, strategies, time tables, etc.

P 124-128 Mr. Baily (continuing presentation) - need for a plan or policy emphasized.

P 128 Response to question at previous meeting as to why the Dene/Metis are proposing representatives of the five Dene regions rather than representatives of community councils. The answer is that community councils are a form of municipal government and have no mandate beyond the boundaries of the community they represent.

Mr. Lueck - Part of the question was that the white members of the community would not be represented under your proposal.

Mr. Bailey - For non-native interest, government representation at two levels were included.

P 130 Chairman - The direction by the Government of Canada that the Panel was not to look at aboriginal rights was by omission in the Terms of Reference.

Planning

P 131-135 Discussion of land use planning and problems involved due to factors which could radically change the current situation. Need for a dynamic plan not a "glossy plan to the next 20 or 50 years".

- A planning process is a process which evolves with circumstances.

P 135-137 Mr. Gamble - In response to the statement that the exploration commitments were in fact a commitment, by government to develop, several examples were given in which government had stated that exploration did not imply development, e.g. "need to know Policy".

P 138 Mr. Bailey - If an option is being considered by the proponents it should be included in the EIS.

P 139 Mr. Lueck - In regards to options being considered and not presented for review, it would appear to be foolhardy for the proponents to come up with something different at a latter date and think they can do it without another EARP.

Panel comment

Chairman - The Panel in its final conclusion can make a recommendation to that effect.

P 144-150 Greg Thompson (for Fran McIntosh, President of Labrador Inuit Tapirisat) Written submission, p. 117, "Additional Compendium ... Dec. 18/81.

Labrador Inuit Tapirisat

Items of concern noted included lack of recognition of native people; 60th Parallel should not be the arbitrary cut-off point defining impact area for the tanker route; currently there are four major projects which could affect the Labrador Inuit, each a candidate for EARP and the EIA is expected to participate in each separately; guideline distribution for review inadequate; consideration of the Beaufort proposal is premature.

1.1 #17-6

P 150-152 Chairman response to presentation.

Inuit Tapirisat Canada

P 153 Mr. Kadlun - Inuit Tapirisat of Canada. (Written submission, p. 89, "Additional Compendium ... Dec. 18/81"). Opposition to the present environmental assessment review as an acceptable process to deal with the impacts of the Beaufort Sea hydrocarbon production stated, and reasons for this position were presented. A recommendation to refer the entire Beaufort Sea development, including tanker routes outside of Canada and the port facilities south of 60th parallel to a comprehensive public inquiry.

P 170-173 Discussion of authority to call for a hearing or environmental assessment of problems that may arise from tanker traffic on the High Seas, with reference to hearings held by the NEB application by Transmountain Pipeline to build port facilities in the state of Washington.

P 174 Mr. Lewis - The best way to discourage briefs from members of the public and communities is to require that they be submitted a certain period in advance.

P 175-178 Mr. Dave Porter - Discussion of a resource development plan for the Yukon calling for a resource corporation owned by the federal Government, the Yukon Government and by the Yukon Indian people (called Yukon Resource Corporation).

P 179 Presentation by proponents on some issues raised (Mr. Hoos). Discussed forecast approach taken by industry, dynamic nature of proposal, and submitted that the need for a number of scenarios would not significantly improve the process - but would possibly create more confusion/uncertainty.

- Statement that Dome, Esso and Gulf are willing to participate actively in resolving the land use planning issues.

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 1.1 #18

Beaufort Sea Environmental Assessment Panel

December, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT
 GUIDELINES MEETING
 GENERAL SESSION

Pond Inlet, Northwest Territories

Official Reporters: Angus Stonehouse & Co. Ltd.

Contents:

P 1-6 Panel Introduction and process description.
 P 6-16 Presentation by Proponents - Dome, Esso, Gulf. (R. Hoos, Dome; Bill Neilson, Gulf; Abe Okpik, Eastern Arctic Community Liaison co-ordination).

P 16-33 Questions to Oil Company Representatives
 Several questions relating to ice breaker tankers were posed by the Panel (Brief indication of response by R. Hoos, also included in some cases in brackets).

Ice Breaker Tanker Questions
 - If the sidewalls are expected to provide most, if not all, of the protection, what about bottom puncture on uncharted rocks?
 - If the wall punctures when fully loaded, does the ship take in a double load?

Hoos - The ship will never be fully loaded. There will always be empty compartments. Both oil and water containers are compartment oilized - so a break would only be in one or two compartments.

Refreezing
 - How soon after passage of an icebreaker could people cross on sleds or skidoos, and what temperature regimes were these studies carried out under? Spring and fall (hunting seasons) could be quite different from winter.
 (A study has just been initiated using representatives from the hunters and trappers associations of Tuktoyaktuk, Polytuk, Holman Island and Sacks Harbour to study crossing of ship tracks at different times. This will be carried out again in winter and spring breakup).

- Why is the bow of the Kigoriak wider than the beam?
 (The idea is to break the ice with the front end wider than the ship - because a tanker cannot be built elliptical like normal ice breakers).

- What sort of manoeuvrability can you get out of a tanker when you have solid ice just a few feet on either side? How wide a circle would it take to turn the tanker?
 (Affected by many things, but would probably be large or need icebreaker assistance).

Is it possible for an icebreaker tanker to cut part of a new channel to make one wider in order to turn shorter?

These questions are based on concerns about manoeuvrability of a long tanker going through narrow channel such as the Prince of Wales sound.

- Where problems of manoeuvrability exist do you plan to use turn ships.
 (This isn't firm but is a possibility and will be covered in the EIS).

If there was a rupture along one side of the ship so the displacement tanks filled with seawater, would this exceed the displacement capacity of the ship?

(One-third the compartments could be filled with water before the ship lists and this exceeds international safety standards for passenger ships).

In the worst case scenario - due to momentum of such a large ship, if a reef opened the full side of the ship, will the ship sink. (Not able to give the answer off the cuff. Agreed to submit it in writing to be put in the record. He noted that this kind of thing would be fully covered in the EIS - right to the extreme case. Naval architects usually state that it would not be possible to tear out more than 2 or 3 compartments).

P 30 Mr. Smiley - During the Arctic Pilot Project it was suggested that greullers or small bergs that float around the sea or large icebergs are probably the major cause of ice induced accidents (as opposed to problems encountered in cutting through an ice track). (It is correct that smaller pieces of ice just below or at the surface are more troubles one. As a result, ships will travel at a reduced speed and one which would not cause significant damage to the hull).

Smiley - Greullers might also be encountered in Baffin Strait and Davis Strait which might otherwise appears on open area.
 Mr. Smiley - Guideline comment. There is no requirement for the proponents to discuss the question of the effect of ice breaking sound on mammals. During the APP and subsequent workshops this was identified as probably the environmental impact about which people are most ignorant.

P 34 General Discussion

P 34 Mr. Allooioo - Are the plans still to have 27 ships on Repulse Bay by 1985?

P 34 R. Hoos - Current plans to bring oil out in 1986 with three tankers by 1990 - as opposed to 11 in the original proposals - dependent upon many things.

P 35 Mr. Allooioo - If there are tankers going through our area by 2000, is there any prediction on the tanker accidents that may occur?

Pond Inlet Presentation P 36 Mr. Erkloo - Introduced the presentation by the Development Committee of Hamlet Pond. (Written submission, P. 17. "Additional Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines".) Mr. Nukurak (for Development Committee Pond Inlet).

- The Green Paper on Lancaster Sound is to study possible uses, and no hasty decision should be made for Lancaster Sound to be used as a transportation corridor until a more thorough scientific investigation is completed.

"If" or "When"? P 39 Is the review, as indicated in the guidelines, entirely a matter of how it will be done - or is there any "if" involved.

- Will the panel be making recommendations on whether or not the Beaufort Sea proposal should proceed - or is its job to recommend how it should proceed?

Guideline comments (summary) P 41-49 Margaret Allooooloo and Titus Allooooloo - Comments on the Draft Guidelines. (Written submission, p.)

- Language should be clear, concise and state both negative and positive issues.
- Zoning is good, but overall picture is necessary too.
- Realistic, unprejudiced view of need required (Canadian consumption or export).
- Variations in plan - such as rerouting - require more than "discussion".
- Northerners should be employed in such things as weather stations, ice observation.
- The Arctic has not been studied long enough to allow "predictability".
- The possibility that Lancaster Sound might better be a protected area should be clearly not.
- Socio-economic: Someone in each community should be contracted to do a socio-economic study in his/her area.
- Can Greenlanders present their views.
- Inter-relationships of the physical, biological and socio-economic environment and how impact on one affects the other must be included.
- Man is part of the food chain - and should be recognized as such.
- Again in oil spills - man is part of the food chain & must be dealt with in associations with the environment.
- Effect of icebreaking operations on breeding habits of animals - and ultimate effect on man.
- Noise pollution should be included.
- Under risk analysis - Isn't there anything more realistic than "one in a million".
- Deficiency of informations on counter-measures to control oil spills should be clearly noted.
- Increase of mixed race, especially bastard children, as a result of increased invasion of southerners should be considered. Problem also in Aboriginal right claims.
- More northern input in several sections: (sections noted by member).

- Inuktitut translation should be in appropriate dialect.
- Should be a section on land claims.

P 49 Mr. Erkloo - Should the North not be studied more thoroughly scientifically, better inventories, before development (oil or mining) proceeds?

- Should not the expense be shared by the Government of Canada and all the industries who share an interest in the North for exploitation. Carry out the studies, get it together and make a total assessment - including an understanding of the priorities of the northerners.

P 50-55 Chairman and Proponent comments on some of the issues noted.

Lancaster Sound Protection P 55 Mr. Allooooloo - Lancaster Sound is very important to us and we don't want it destroyed by oil. We would like to see it a protected area for the animals we hunt, since we felt that Lancaster Sound is the supplier of sea mammals to the area. Mr. Lueck to Mr. Allooooloo - If it was shown that tanker traffic would not be environmentally detrimental (at least not to destruction) are you opposed to tanker traffic under those circumstances.

Overall Picture Mr. Allooooloo - We need to see the overall picture of development in the Northwest Passage. What if projects are declared individually safe - but when you put all them together they become dangerous.

P 57 Panel request for identification of research needs based on their intimate knowledge of the area.

Food chain Studies P 58 Mr. Allooooloo - We would like to see studies done on the food chain of the animals we eat. We cannot say that seal studies are more important than walrus, etc.

Tanker Trail Crossing P 58 Mr. Lueck - How often do people cross the area where tankers would break ice? Is it a regular hunting ground? Olank Nagitaquik - Tankers don't come into the area, but the animals we hunt migrate back and forth to Lancaster Sound.

P 59 Comment on Lancaster Sound Green Paper (Brian Smiley - on request). The Green Paper exercise will provide much useful information towards consideration of shipping through the Northwest Passage. There are good data reports and records of northern workshops similar to this.

P 61 Chairman - Mr. Aimo Nookiguak (Northern Liaison Officer, DIAND) was requested to notify his department of the panels request (follows) and that the panel will be directly requesting information from them.

Panel note "What is the present status of the Green Paper exercise and what is the status of the Land Use Planning exercise that will flow from it - and when can we expect the results of both of those".

P 62 Mr. Kalluk, Arctic Bay - Presenting concerns brought up by the people of Arctic Bay. We are close to Lancaster Sound and the proposed route - which is used by hunters - although not daily. The animals migrate from there to Arctic Bay in the spring time.

Animal Concerns

1.1 #18-5

Wildlife Disturbance
Oil spills are not the only concern. For example - some seal live in older ice - some in new ice. If seals from newer ice move to the thicker ice pack they are killed off by the seals there. There could also be disruption of the walrus which live at the edge of the flow age. This is why we do not want development rushed.
- Airplanes can disturb animals being hunted.
- If there is too much disruption animals will move to a place where there is insufficient food for them.

Inadequate Research
P 65 Mr. Naquitaquik, Arctic Bay - Current research has not satisfied the people here - it has been done and written by white people and translation takes time. We are aware that it is not complete. More should be done from the land (not just aircraft & ships).
Mr. Kalluk - In Nanisivik ships come in springtime and fall, and there are detrimental effects - sometimes overlooked or attributed to natural causes.

P 66 Mr. Naquitaquik - Mammals occupy some areas seasonally, and we do not fully understand their way of life, their food sources, and the food chain.

P 68 Mr. Allooooloo - The Panel and participants of this meeting should find out the status of the green paper. The understanding was that there was to be no development in Lancaster Sound until the paper was finished. Now it seems that it is not important to the North and the Department.

Lack of DIAND Representation
Chairman - Noted disappointment with lack of DIAND representation and will bring it to the notice of the Minister.

Progress of Research?
P 71 Mr. Pamiloo (Grise Fiord) - Noted that he had not been informed of what research is going on - except vague reference to animals, ice movements.
- Is research going on in regards to icebergs and the smaller ice bits?
- Research on marine mammal movement, also non-sea mammals.
- Inuit should be informed on progress of this research. If their were informed they could participate (including the elders).

P 73 Hoos - Suggested that DIAND should be asked to develop a summary of the information collected through the study of the eastern Arctic for use of the people here.

Information Survey available
P 74 Chairman - Noted that survey of current research is being printed and should be distributed shortly. (will be distributed to Northerners free).

Moral Obligations
P 75 - Mrs. Angelik, Pond Inlet (Inuit) - The Inuit have lived with and helped the white people since they came to the North. They have always tried to live in unity and fairness. Inuit people know their own culture and environment. The white people have a moral obligation to do further studies about the Inuit land and environment.

1.1 #18-6

P 76 Mr. Pamiloo, Resolute Bay - From observation and seeing the presentation, I would say that more study is required on ice conditions. Some ice packs cannot be broken by icebreakers. It does not appear that a thorough study of different ice formations and conditions in the high Arctic has been carried out.
- Although I have studied the mammals all my life and lived with the ice conditions, I could not say I was truly experienced with the subject. More studies are required - and the knowledge held by the older people should be utilized.

DIAND Comments
P 80 Don Stocker, Beaufort Sea Office, DIAND. - The published version of the Green Paper is due March 1982.
- The Land Use planning Process is in the form of a Treasury Board submission.
- The Beaufort Sea Interim Land Use Plan is scheduled for completion by the end of 1982.
- The date for completion of the Interim Land Use Plan for the Lancaster Sound area has not been determined.
DIAND Information Survey
- DIAND has decided to attempt to catalogue, identify and make available the kind of studies that are being done by both Indian Affairs and contractors working for them and where possible, by other government departments. (To be in operation next year). Information by discipline and by geographic area).

P 84 Mr. Carmichael - Registered concern over DIAND's participation. Previous suggestion that DIAND be prepared to answer questions as well as the proponent.

Preservation of Wildlife
P 87 Mr. Aeeagok - Noted that the Inuit need to preserve marine life and animals not only for food but for many things.
- We have seen that caribou and muskox have changed their migration route since exploration (in some cases left their feeding grounds and starved).

P 89 Mr. Innotiko - How far from Orendas Harbour is the proposed tanker route? There is open flowage in the area which has many old ice packs, big in size. These are used by seals to breed and as their feeding ground - and that is where the oil tanker route would be.

P 96 Mr. McDermott - Can you describe in more detail why you wish to use the Northwest Passage rather than the Alaskan Coast.
Hoos - The Place where the oil is needed most is the east coast. There is also a moratorium on bringing tankers into B.C. waters of this sort.

Arctic Pilot Project
P 92 Mr. Allooooloo - Confusion over whether the Arctic Pilot Project is still going ahead and the existence of other "pilot projects".

Panel Note
P 94 The Panel is going to be clear on the relationship of the Arctic Pilot Project and the Beaufort Sea Proposal and the implications of having two tanker systems.

Oil Spills
P 96 Mr. McDermott - What experience has Dome Petroleum had in ships being broken up by ice and oil spills and cleaning up of oil spills in frozen water.

1.1 #18-7

P 96-98 Hoos - A Canadian ice breaker (chartered by Dome) did suffer damage. A supply boat hit an object on the bottom of Tuk Harbour. A barge suffered some ice damage this summer. In McKinley Bay, 1979, during winter, there was some damage to a barge and some oil spilled.

Dome has carried out experimental oil spills and clean-up, and has (probably) the largest collection of oil spill clean-up equipment anywhere in Canada in the Beaufort Sea Region and the most experience-including a team of 14 Inuit, specially trained.

Abstract: The above summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

FEARO Beaufort Sea Cat. 1 Location: FEARO Library
Document Transcripts (Bound)
1.1 #19

Beaufort Sea Environmental Assessment Panel

December 4, 1981

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL, DRAFT GUIDELINES MEETING. GENERAL SESSION

Pangnirtung, Northwest Territories

Official Reporters: Angus Stonehouse & Co. Ltd.

1-2 Introduction - Panel introduction.

Job Training 3 Mr. Camaliel Akeeagok. Oil production should progress slowly to allow time for more Inuit participation and training for the skilled jobs.

Culture - The number of animals are decreasing.
- Inuit culture is beginning to be lost - and is in greater danger during production when the number of white employees outnumber Inuit population.

Wildlife - People in the past tell us that if animals go to a place that doesn't freeze up, they will die.

P 5-12 Mr. Norman Komoartuk - Presentation for the Baffin Region Inuit Association. (Complete written submission, p. 32. "Additional compendium of written submissions to the Panel on the Draft Environmental Impact Statement Guidelines". Dec. 18, 1981.)

Brief Abstract:

Land Claims - There should be no major development proposals until land claims are settled and before the establishment of a regional plan for the Baffin region.

Arctic Pilot Project - Referral of this proposal to an EAR panel in spite of Arctic Pilot Project report destroys the credibility of the EAR process.

Project - Review of this proposal at the preliminary planning stage and omission of project - specific details are not acceptable (Review would be incomplete, other regulatory mechanisms referred to does not guarantee Inuit participation; approval of year-round hydrocarbon transportation would likely allow other year-round shipping project to proceed without an EARP review).

Transportation (shipping) - The Panel should remove shipping component from its terms of reference.

- The Panel should recommend postponement of any review of year-round hydrocarbon transportation through the Northwest Passage until land claim settlement.

1.1 #19-2

Shipping Inquiry - The Panel should recommend referral of the concept of year-round hydrocarbon shipping to an independent comprehensive public inquiry.

Regional Plan - A regional plan should be established with participation and approval of Inuit, before approval of major development projects.

P 14-17 Panel comments concerning Panel and above noted concerns.

P 17 Miss C. Guenette - Explanation. The proposal was for an independent review of the concept of year-round tanker traffic - not just traffic from the Beaufort proposal.

Guideline Note P 19 Mr. Lueck - The guidelines should be requesting DIAND to set out what kind of impact they see occurring in the area because of the opening up of a tanker traffic line.

Green Paper P 20 Mr. Nookiguak - (Northern Liaison and Science Officer, DIAND)
- The green paper is in the process of being translated into Inuktitut and French.

P 21 Mr. Nookiguak - Suggested that tapes would be more effective than written translation (in reference to green paper).

Oil spill Cleanup P 22 Mr. Metuq - Question to oil company people. What are the plans to clean up oil spills?

P 23-25 Hoos (Dome Pet.) - Reponse describing oil spill clean-up equipment.

Compensation P 25 Mr. Metuq - In case of loss of animals, are there ways of compensation?

P 26 Hoos - Bill C-48 has a clause that addresses the subject of compensation in the event of damage caused by an activity.

P 27 Hoos - Response to a question about number of accidents involving oil in the Beaufort Sea. One spill from the icebreaker, John A. MacDonald (diesel oil) and a second from a NTCL barge in Tuk harbour.

Response time P 29 Mr. Patrick Rousseau - Pieces of ice from Davis Strait can move into Cumberland Sound in a matter of three to four days with the right wind. The response time of a clean-up crew is going to be very important.

He noted that a study by Dr. Gilbert of Queen's University has found that Pangnirtung Fiord has a rail or a terminal marine underwater at the mouth of the fiord. At every tide there is a total exchange of water. This could take oil from a spill to the bottom of the fiord which is full of life.

Fiord sensitivity Is there oil equipment to respond quickly enough to pick up oil at the mouth between tides.

1.1 #19-3

P 31-33 Hoos - Chance of oil reaching Pang are very remote and would take much longer than four days.
If oil did reach Pang probably most of the oil would stay on top.

P 33 Mr. Rousseau - A total exchange of water occurs in this fiord. Also the park extends north of Broughton Island and there is a lot of exposed coast where studies of this nature have not been carried out - and the same problem may exist.

Guideline Note P 35 Mr. MacKay - A question in the guidelines for discussion of density current effects in a fiord would raise this issue.

P 35 Mr. Lueck to Mr. Rousseau (Parc Ranger) - Have there been any oil spills in the fiord from barges or tanks.
Mr. Rousseau - Not to his knowledge.

Frobisher Bay - spill effect P 36 Simonc Alaingda - Tank farm spills have occurred in Frobisher Bay - and there are no fish where there used to be fish. Diagrams and pictures of oil spill equipment would have been very helpful - and made the capability of oil spill clean-up more believable to those present.

P 40 Mr. Alaingda - I have carried out independent studies - on spilled oil outside Frobisher Bay and near Markenty - Resolution Island and animal movement. I have been doing my own studies because it is part of my environment - but I think Inuit and southerners should be working together on such studies.

Oil spill cleanup P 43 From the floor - Do the oil companies have plans for emergency clean-up of spills in the Davis Strait or Lancaster Sound area?

P 43 Mr. Kilabuk - Comment concerning Inuit people and concerning the damages that are happening near Frobisher Bay. When tankers started to carry oil into Frobisher Bay, they used to spill fuel into the sea and land. There used to be clams in Frobisher Bay and now there are none.

Inuit Employment & training - It has not been the Inuit tradition to work in the white mans way and now the southerners believe Inuit people can't do anything. If the proposal goes ahead, Inuit and white should work together from the beginning. Inuit people who are employed have their own opinion to voice to their employer. Inuit people have their own contribution to make hunting, migration routes, guides. They can do also "white employment" but they need training - and we should be working together.

P 48-53 - Introduction to evening session.

Wildlife & Year round shipping P 53 Mr. Kooneeloosie - If there is going to be year round shipping, some of our animals will be depleted. There are less animals in the last 14 years (since ships have been coming close to the shore base).

1.1 #19-4

- Has clean-up of oil spills been tested already during a storm, high waves?

P 57 Mr. P. Qappik - When will the year round tanker start?

P 58 Mr. P. Qappik - Noted that the answer is often that research is going on.

- Is there research on steam from the cold - fumes from tankers?

P 60 A few comments: - If the shipping is year round and from the same area - it will change the pattern of migrations of the animals.

- Questioned statement that walrus come up for air at the same place (unless in an aquarium?)

Wildlife
Fumes &
Noise

P 61 Mr. Stutter - Does the smell and noise of skidoos affect the hunting?

P 61 Mr. Kooneloosie - The fumes from the skidoos do effect the animals. The problem of smell is about the same, whether dogs or skidoo trails.

One difference is that a seal will not lay on top where a skidoo has passed over the hole - whereas if a dog has passed by a seal hole it won't make changes.

The fumes of a ship and using shipping routes all year round is going to cause problems.

Visit
Timing

P 65 Winter is a good time for settlement visits. After May, people go out in camps and come back in September, October.

Informal
Talks

P 67 Mr. Kooneloosie - Suggested that the Panel might get better informed if they talked to people individually and collected all their ideas, rather than getting them to meet.

Wildlife

P 68 Mr. P. Qappik - One further comment concerning tradition-culture. Although there are a few people who will be employed, the majority of the Inuit line off the game and the animals are thus our main concern.

Because of effect on breeding, migration and possibility of oil spill we can't always agree with the proposals - but we can try and avoid damages by working with the people.

P 74 Mr. P. Qappik - In relation to question of whether Inuit would be interested in employment from development, the answer would be yes if the animals are not harmed.

Land
Claim

P 74 Mr. Komoartuk - We recognize that our land is rich in mining and oil and will not be forgotten so we should co-operate in exploration. But land claim settlement should come first.

Ice
Conditions

P 77 Mr. J. Kakka - How are ice conditions or ice packs in Lancaster Sound and Davis Strait going to be determined?
- Have ice conditions been studied year round.

Informa-
tion
distribu-
tion

P 78 Mr. A. Okpik - Airplanes are sighted from April to November, but the Inuit should be informed what research is going on and what are the findings.

1.1 #19-5

Abstract: The above summary is intended to identify the questions, comments and issues raised at the above guideline meeting. The format of the transcripts - speaker plus question - has been continued. The questions, however, are abbreviated and may summarize the context of several questions. They are not quotations. Abstracts are not included for presentations covered by written submissions in the "Compendium of Written Submissions to the Panel on the Draft Environmental Impact Statement Guidelines, Oct. 27, 1981," or the "Additional Compendium of Written Submissions ... Dec. 18, 1981".

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Document Interim Report
1.1 #20 Tape

Canada, Environmental Assessment Review (FEARO)

SUMMARY OF DRAFT EIS GUIDELINES FOR COMMUNITY USE

1.1 #21 Tape

Canada, Environmental Assessment Review (FEARO)

SUMMARY OF DRAFT EIS GUIDELINES FOR COMMUNITY USE: INUIT VERSION

1.1 #22 Tape

Canada, Environmental Assessment Review (FEARO)

AKLAVIK AND SACHS HARBOUR COMMUNITY GUIDELINE MEETINGS: November
4-5, 1981.

FEARO Beaufort Sea Cat. 1
Document Report
1.1 #23

Canada, Environmental Assessment Review (FEARO)

October, 1981

INFORMATION SURVEY - KINDS AND SOURCES - FOR THE ENVIRONMENTAL
ASSESSMENT REVIEW PROCESS: BEAUFORT SEA HYDROCARBON PRODUCTION AND
TRANSPORTATION PROPOSAL

Compiled by E. MacDonald for the Federal Environmental Assessment
Review Office.

Abstract

This report contains the responses to a survey undertaken to
determine kinds and sources of information available to
participants in the Environmental Assessment and Review Process
(EARP) as applied to the Beaufort Sea Hydrocarbon Production and
Transportation Proposal.

The first section of the report deals with information sources in
general and consists of 60 Agency Information Sheets. Each
information sheet identifies a contact for the agency, as well as
objectives, areas of expertise, relevant current projects,
publications and information services of that agency.

The second section contains more specific information on kinds of
data available in the form of 162 Project Information Sheets. Each
sheet covers a current or recently completed (approximately 1979)
project. Information provided includes project objectives,
approach and/or progress, anticipated time frame, reports or
publications, agencies and researchers involved, and a contact for
additional information. Relationship of individual projects to the
Environmental Assessment Review Process of the Beaufort Sea
Hydrocarbon Production and Transportation Proposal is indicated
with a subject by zone index.

1.1 #23.1

Canada, Environmental Assessment Review (FEARO)

June, 1982

FIRST UPDATE TO: INFORMATION SURVEY - KINDS AND SOURCES - FOR THE
ENVIRONMENTAL ASSESSMENT REVIEW PROCESS: BEAUFORT SEA HYDROCARBON
PRODUCTION AND TRANSPORTATION PROPOSAL.

FEARO Beaufort Sea Cat. 1
 Document Report
 1.1 #24

Beaufort Sea Environmental Assessment Panel

February 1982

GUIDELINES FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT

Abstract

Guidelines issued by the Beaufort Sea Environmental to DIAND as a basis for the preparation of an Environmental Impact Statement by the proponents. The attached table of contents indicates the scope of the guidelines.

1. INTRODUCTION	1
1.1 Background	1
1.2 The Proposal	2
1.3 General features of the EIS	2
1.4 Organization of the EIS	4
1.5 Responsibilities of the Proponents	5
2. CONTENTS OF ENVIRONMENTAL IMPACT STATEMENT	5
2.1 Overview	5
2.2 Background	5
2.2.1 The Proposal	5
2.2.1.1 General Layout	6
2.2.1.2 Construction	6
2.2.1.3 Operation and Maintenance	8
2.2.1.4 Environmental Hazard Prediction Systems	10
2.2.1.5 Abandonment	11
2.2.2 Associated Projects and Proposals	11
2.3 Description of the Existing Environment	12
2.3.1 Physical Environment	12
2.3.2 Biological Environment	13
2.3.3 Socio-economic Environment	13

2.4.5 Impact Management	28
2.4.6 Monitoring	28

2.5 Summary of Impacts by Zone for Community Review	29
2.6 Appendices	29

3. APPENDICES

A Outline of Specific Components to be Included in the Description of the Existing Physical Environment	33
---	----

A.1 Climate and Air Quality	33
A.2 Sea Ice	34
A.3 Geology	34
A.4 Oceanography	35
A.5 Coastal Zone	36
A.6 Permafrost	36

B Outline of Specific Components to be Included in the Description of the Existing Biological Environment	37
---	----

C Outline of the Specific Components to be Included in the Description of the Existing Socio-Economic Environment	40
---	----

C.1 Demographics	40
C.2 Social and Cultural History and Existing Patterns	40
C.3 Services and Facilities (including discussion of who supplies these)	40
C.4 Local Businesses and Industry	41
C.5 Land and Resource Use	41
C.6 Employment	41
C.7 Education and Training	41
C.8 Cost of Living	42
C.9 Energy Use	42
C.10 Transportation and Accommodation Facilities for Employees and/or Trainees	42

2.4	Impact Analysis, Enhancement, Mitigation and Compensatory Measures and Monitoring	14
2.4.1	Effects on the Physical Environment ..	15
2.4.1.1	Ice	16
2.4.1.2	Climate	16
2.4.1.3	Permafrost	17
2.4.1.4	Water and Air Quality	17
2.4.1.5	Others	18
2.4.2	Effects on the Biological Environment.	18
2.4.2.1	Major Spills (see also Section 1.3.6.1)	19
2.4.2.2	Offshore Operations	20
2.4.2.3	Onshore Operations Including Pipelines	20
2.4.2.4	Tanker Operations	20
2.4.2.5	Pollution Effects	20
2.4.2.6	Others	21
2.4.3	Risk Analysis, Probability and Clean-Up Measures	21
2.4.3.1	Risk Analysis and Probability	21
2.4.3.2	Clean-Up Measures	22
2.4.4	Effects on the Socio-Economic Environment	24
2.4.4.1	Demographics	25
2.4.4.2	Social and Cultural Patterns.	25
2.4.4.3	Services and Facilities	25
2.4.4.4	Local Businesses and Industries	26
2.4.4.5	Land and Resource Use	26
2.4.4.6	Employment, Education and Training	26
2.4.4.7	Energy Use	27
2.4.4.8	Health, Safety and Search and Rescue	27
2.4.4.9	Others	28

1.1 #24.1

Beaufort Sea Environmental Assessment Panel

February 1982

GUIDELINES FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT

French version

FEARO Beaufort Sea Cat. 1
Document Report
1.1 #25

Beaufort Sea Environmental Assessment Panel

February 1982

EXPLANATION OF PANEL PROCESS AND SUMMARY OF PANEL'S GUIDELINES FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT - FOR COMMUNITY USE.
THE BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL
(English)

1.1 #25.1

Beaufort Sea Environmental Assessment Panel

February 1982

EXPLANATION OF PANEL PROCESS AND SUMMARY OF PANEL'S GUIDELINES FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT - FOR COMMUNITY USE.
THE BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL
(Inuktituk)

1.1 #25.2

Beaufort Sea Environmental Assessment Panel

February 1982

EXPLANATION OF PANEL PROCESS AND SUMMARY OF PANEL'S GUIDELINES FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT - FOR COMMUNITY USE.
THE BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL
(Inuvialuit)

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Document Report
1.1 #26

Beaufort Sea Environmental Assessment Panel

February 1982

GUIDELINES FOR THE PREPARATION OF GOVERNMENT POSITION STATEMENTS:
BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL

1.1 #27 Folder

Beaufort Sea Environmental Assessment Panel

February 1982

REQUEST TO INITIATOR: BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL

FEARO Beaufort Sea Cat. 1 Location: FEARO Library
Document Interim Report
1.1 #28

Federal Environmental Assessment Review Office

April, 1982

BEAUFORT SEA HYDROCARBON PRODUCTION PROPOSAL INTERIM REPORT OF THE
ENVIRONMENTAL ASSESSMENT PANEL

Content Outline:

The interim report summarizes progress of the Panel to date, outlines future plans, provides some preliminary thoughts on the review process and recommends some amendments to the Terms of Reference. The main panel activity had been the preparation of the EIS Guidelines involving a series of public meetings in November and December 1981. Requests have been made to federal and territorial government departments for position statements outlining how the Beaufort Sea proposal will interact with their programs, policies and activities. A more detailed and comprehensive position paper has been requested from the initiating department, DIAND.

A review of the public meetings held by the Panel to discuss the Draft EIS Guidelines outlines the purpose of the meetings and addresses the major concerns related to the review process:

- what is being reviewed by the Panel and what is the scope of the review.
- there is a need for better community understanding of and involvement in the Panel review process.
- what role will land claims issues have in the Panel review process.
- what is the role of government in the Panel review process.
- how will the ongoing Beaufort Sea Hydrocarbon Exploration Program fit into the Panel review process.
- how will the Panel consider concerns south of 60° latitude, in Alaska and in Greenland.
- why is the panel reviewing a proposal involving year-round tanker operations through the Northwest Passage before the Arctic Pilot project has had a chance to prove the feasibility of such operations.
- what is the relationship between the Lancaster Sound Regional Study and the proposal for year round tanker operations through the Northwest Passage.

As a result of concerns related to the review process, the Panel recommended that the Terms of Reference be changed to include exploration activities which will occur concurrently with production as part of the review; reworded to better reflect the current state of the proposal; and to clarify the International implications of the review, to allow the Panel to hear concerns from Greenland and Alaska pertinent to its review.

(English/French version)

TEXTNAME: lib-1.1 (R)P: (p.01) 01

Plans for future activities include community workshops; engaging technical specialists to provide advice on certain subjects during the review; review of the EIS and the DIAND and other government position statements; approach to final public meetings and preparation of the final report.

1.1 #28.1

(Inuktituk/Inuvialuit version)

FEARO Beaufort Sea Project
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1.1 # 29 Beaufort Sea Environmental Assessment Panel

January 1983

A SHORT STATEMENT ON WHERE THE PANEL IS GOING

Abstract. The statement provides background information to those wishing to participate in the public meetings. The summary includes a brief history of oil and gas in the Beaufort Sea, the referral of hydrocarbon production and transportation from the Beaufort Sea to FEARU and the appointment of the present Environmental Assessment Panel. The public review phase of the Panel process is outlined, with emphasis on the fact that the final decision is the responsibility of the Government of Canada. A review of what the Panel is considering is presented. Issues which are not specifically part of the Panel's Terms of Reference but which the Panel considers as important background and as such will accept information on are identified and include: exploration, detailed project designs, effects outside Canada, native land claims, economic issues, energy policy issues, government policy making, regional planning, other environmental reviews and plans.

FEARU Beaufort Sea Project
Document Category 1

1.1 # 30 Beaufort Sea Environmental Assessment Panel

March 1983

A STATEMENT OF DEFICIENCIES ON THE ENVIRONMENTAL IMPACT
STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA -
MACKENZIE DELTA REGION

Beaufort Sea Environmental Assessment Panel. 1983.
A statement of deficiencies on the environmental impact
statement for hydrocarbon development in the Beaufort
Sea-Mackenzie Delta region. Issued through the Department
of Indian Affairs and Northern Development to Dome Petroleum
Limited, Esso Resources Canada Limited, Gulf Canada
Resources Inc. and others. Federal Environmental Assessment
Review Office, Ottawa, Ontario. 31p.

Abstract. The report identifies major deficiencies in the
Beaufort Sea EIS in four categories:

1. Assessment of socio-economic effects
2. Assessment of environmental effects
3. Oil spills
4. Zone summaries

In addition, the Panel identifies a number of concerns about
which it wishes the Proponents to provide further
information by means of discussion papers to be provided at
the same time as the response to the Deficiency Statement.

The report defines the nature of the deficiencies and
presents a list of specific questions to assist the
Proponents in addressing identified deficiencies.

The four major deficiencies addressed in this manner are:

1. Assessment of socio-economic effects: The Panel concluded
that the socio-economic impact analysis have not presented
an adequate picture of the effects of the proposed
development on the northern residents and their social
environment. Specific questions are discussed under the
headings of:

A. Impact assessment methods and analysis - Aspects to be
addressed for four identified alternatives included manpower
requirements, potential changes in population structure and
distribution, changes in employment and income distribution
and social consequences of changes outlined, social impact
of presence of construction phased work force, development
effects by community type, post construction turnaround and
unexpected project shutdown effects, and the ability of

communities to respond to these effects.

B. Mitigation and monitoring - Panel requirements in this
area include a description of the mitigation measures and
monitoring programs which could be applied to identified
socio-economic effects, assessment of the effectiveness of
these measures, recommendation of mitigation measures and
programs to measure their effectiveness, and a statement of
Proponent commitment.

C. Compensation - More information is required on methods
available to compensate northern residents for losses
resulting from industry activities including industry
responsibilities and commitments, legal and equity issues,
feasibility, and other relevant factors. As specific
examples the Proponents are asked to address the disturbance
of traplines in the Mackenzie Valley, an oil spill in
Lancaster Sound and disturbance and deflection of marine
mammals.

D. Special concerns

- Native traditional lifestyle and culture have not been
adequately treated and the Panel requests information as to
the nature and likelihood of resultant changes, consequences
of these changes to traditional culture and lifestyle,
ability to adjust to these changes and research requirements
and industry policies to aid in adjustment of native
communities.

- Northern resident access to employment and economic
benefits requires additional information concerning effect
of union requirements, barriers to employment due to
education and training, age or sex, hiring qualifications,
transportation and lifestyle. The Proponents are requested
to outline their policies and intentions considering these
concerns, indicate their commitments and outline method for
monitoring success of their programs.

2. Assessment of environmental effects: The Panel expresses
a concern that the conclusions concerning environmental
risks cannot be inferred from the evidence presented in the
EIS and requests information in the following areas:

A. Cumulative environmental effects

B. Mitigation

Panel requirements outlined to deal with these deficiencies
are identified and the Proponents requested to provide the
information using as examples the Porcupine Caribou as a
terrestrial mammal and the ringed seal and narwhal as marine
mammals. Specific requests included identification of
project components or associated activities which effect
these species, provision of a specific list of mitigative
measures, discussion of potential effectiveness and
responsibilities associated with implementation, indication
of residual impacts, description of monitoring programs
required, statement of cumulative and synergistic effects
with rationale, discussion of adequacy of data bases, and

assessment of social role and significance of the species to northerners.

3. Oil spills: Information requests in this area includes probability estimates of the percentage of oil produced that may be released to the environment, practicality of clean-up strategies and proven reliability of procedures, estimates of effectiveness of present technology for the 10 scenarios presented, elaboration of monitoring program for early detection of hydrocarbon accumulation, and evaluation of ice/oil mixtures moving undetected for long distances (including movement to Labrador Sea).

4. Zone summaries: The Panel notes that the Summary Volume of the EIS does not meet the requirements for Zone Summaries called for in the Guidelines and presents examples of points in which the EIS is lacking. The Panel calls for the preparation of three separate Zone Summaries as an easy to read document. Specific requests in this area are noted as Appendix A.

Further information:

Discussion papers are requested to address concerns in the areas of industry and government responsibilities in oil spill clean-ups, effect of ice-breaking ships on traditional hunting activities and travel modes, effect of ice regime on tanker movements through narrow passages, plans to control changes in existing ice behaviour patterns, sharing of shorebases by the various proponents, problems associated with localized high ice content areas.

FEARU Beaufort Sea Project
Document

1.1 # 31 Beaufort Sea Environmental Assessment Panel

February 1983

BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL PROCEDURES FOR GENERAL SESSIONS.

The report expands upon the previous Operating Procedures released by the Panel but do not cover every eventuality and may at the discretion of the Chairman be amended or waived if the purposes of the Assessment can be better achieved by some change in procedure.

Part I of the document covers: purposes of the procedures (efficient and fair hearings, an informal atmosphere, fostering of cooperative discussion); means of implementation and interpretation; courteous tone and style; communications (restrictions on Panel members re private communications about substantive issues); openness of proceedings and maintenance of a Public File covering all information submitted to the Panel; technical specialists - role in terms of Panel and other participants; purpose of two types of meetings - community sessions (informal, non-technical) and general sessions (more structured and technical); legal formalities will not apply; limitation of discussion at discretion of Chairman; transcripts provided for purchase; session notices will be issued re dates, times and locations and may vary these procedures or their application.

Part II addresses written questions and pre-session conferences and covers the following subjects: purpose of written questions and handling of these; time limits on written questions; procedures for written questioning between participants; confidentiality of material requested and how to deal with this; communication re deficient replies; disagreements to be resolved by Chairman and replies considered deficient may be required to be rewritten; session rescheduling in case of deficient replies; the calling and purpose of Pre-Session Conferences.

Part III - Session Procedures:

This section addresses the following aspects of the General Sessions: purposes, session notice; provision of interpreters; transcripts; notice of intention to participate; questioning of participants; technical presentations and questioning on these; limiting of questions; opening and final statements; final presentation - content and time; questioning of participants; sequence of presentations; changes in order of presentation (Chairman); pre-filing of presentations; groups of experts and questioning procedure; disagreements re questioning; adjournments.

FEARO Beaufort Sea Project
Document

1.1 # 32 Beaufort Sea Environmental Assessment Panel

February 1983

BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL PROCEDURES FOR
COMMUNITY SESSIONS.

The report expands upon the Operating Procedures previously released by the Panel. The procedures are not intended to cover every eventuality and may be amended or waived at the discretion of the Chairman. Aspects covered by the procedures for Community Sessions include the following: purposes of the procedures (efficient and fair hearings in an informal atmosphere with cooperative and constructive discussion); implementation and interpretation of the Procedures; courteous tone and style; communications - (restrictions on Panel members re private communication concerning substantive issues); openness of proceedings and provision of a Public File covering information submitted and correspondence relating to review process; technical specialist - role and availability to other participants; two kinds of public meetings - Community Sessions (informal, non-technical) and General Sessions (more structured and technical); legal formalities not to apply; limitation of discussions; session notices (may vary procedures or application); purpose of community sessions (to permit Community members to provide their views of the likely impacts of the proposal on their community); scheduling and advance notice; provision of interpreters; notes (transcripts may not be taken at all Community Sessions); informal procedures to be outlined by Chairman at the opening of the Session; non-community participants; role of Proponents and time allowances; questioning and statement procedures and final reply.

FEARO Beaufort Sea Project
Reference

1.1 # 33

Beaufort Sea Environmental Assessment Review Panel

March 1983

COMPENDIUM OF GOVERNMENT POSITION STATEMENTS TO THE PANEL ON
BEAUFORT SEA HYDROCARBON PRODUCTION
VOLUME I AND VOLUME II

Reference:

Beaufort Sea Environmental Assessment Review Panel. 1983.
Compendium of government position statements to the Panel on
Beaufort Sea hydrocarbon production. Two volumes. Federal
Environmental Assessment Review Office. 935 p.

Abstract:

In February 1982 the Beaufort Sea Environmental Assessment
Panel issued "Guidelines for the Preparation of Government
Position Statements: Beaufort Sea Hydrocarbon Production
Proposal" and a "Request to Initiator: Beaufort Sea
Hydrocarbon Production Proposal". The responses to these
requests are presented.

Volume I includes responses from:

Royal Canadian Mounted Police
Northern Canada Power Commission
National Museums of Canada
External Affairs
Environment Canada
Transport Canada - Marine
Transport Canada - Air
Employment and Immigration
Government of Yukon

Volume II includes responses from:

Health and Welfare Canada
Industry, Trade and Commerce
Fisheries and Oceans Canada
Government of the Northwest Territories
Energy, Mines and Resources
Indian Affairs and Northern Development.

FEARO Beaufort Sea Project
Reference No.

1.1 # 3A

Prepared under contract to the Federal Environmental Assessment Review Office by the Institute of Local Government and the Social Program Evaluation Group, Queen's University.

June 1982

AN EVALUATION OF FUNDING OF PUBLIC PARTICIPATION IN THE
BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL REVIEW.

Reference.

Graham, K.A., E.G. Moore, M.P.S. Brown and A.J.C. King.
1982. An evaluation of funding of public participation in the Beaufort Sea Environmental Assessment Panel Review. Prepared by the Institute of Local Government and the Social Program Evaluation Group, Queen's University for the Federal Environmental Assessment Review Office, Ottawa, Ontario.
81p. Appendices.

Abstract.

The report presents an evaluation of the funding of public participation undertaken for the Beaufort Sea Environmental Assessment Review on an experimental 'one time' basis. The report provides background information on the EAR Process and the decision to fund public participation; discusses the objectives of the funding experiment ; identifies and discusses targetting issues, issues concerning participation in the review process, and issues concerning the impact of funding public participation on outcomes of the Beaufort Sea Environmental Assessment Panel Review; describes methodology; and presents the results of the evaluation by issue.

Executive Summary follows.

Executive Summary

This study is an evaluation of the first round of funding of public participation in the Beaufort Sea Environmental Assessment Panel (BSEAP) Review. The federal government undertook to fund public participation in the review of the development proposal for hydrocarbon production in the Beaufort Sea, partly as a consequence of suggestions of previous Environmental Assessment Panels, and by other participants in the review process. This funding is on a "one-time" experimental

basis, utilizing monies from an existing program in the Department of Indian Affairs and Northern Development. The evaluation presented in this report was conducted after the first round of funding had been completed but while the process of funding public participation in the Beaufort Sea Environmental Assessment Panel Review was still evolving. Accordingly, the substance of some of the comments made here may already be reflected in the funding of public participation for the federal fiscal year 1982/83.

The purposes of this evaluation were twofold:

- (1) to assess the extent to which participation in the Beaufort Sea Environmental Assessment Panel Review has resulted in the activities and outcomes intended by the funding program, and
- (2) to assess the ways in which the procedures used in implementing the program affected those activities and outcomes.

The overall conclusion reached in this study was that funding did have a demonstrable impact on the course of the BSEAP Review. This impact was positive in the sense that the results of the first set of Panel hearings during the review reflect the submissions made by funded participants. In general, funding public participation was seen to broaden the effect of public participation by expanding the range of participants in public reviews and improving participants' ability to raise and address substantive issues.

Within this context of a general positive assessment of the program, however, a number of problems and concerns were identified which have implications for the implementation of such a funding program. For example, timing emerged as a critical issue in this evaluation. The short time between the formal announcement that funds would be available (Aug. 8, 1981) and the deadline for applications (Sept. 1, 1981) left little time for communities and other potential applicants to learn of the program's existence, send for and receive application materials and develop a suitable application. This, coupled with the fact that the program documents lacked clarity concerning the level of detail desired or required in applications, presented severe difficulties for interested northern communities who wanted to apply.

Problems also arose because many successful applicants did not receive their allocation of money until just before the hearings and some groups were reluctant to begin activities on the basis of a telex informing them of their award. As a result, less than one-third of the first-round allocation was spent on pre-hearing activities.

Concern was also expressed over the pattern of allocation of funds. Strong opinion was evident that the northern communities most directly affected by the hydrocarbon development were underfunded. In addition, several respondents expressed the strong opinion that the total allocation of funds for public participation was insufficient.

However, despite the concerns that were expressed, all the participants who were interviewed (both eligible groups and representatives of government and industry) supported the concept of funding public participation in the environmental assessment and review process.

FEARO Document

1.1 # 35 Beaufort Sea Environmental Assessment Panel

February 9, 1983

INTERIM COMPENDIUM OF WRITTEN SUBMISSIONS TO THE PANEL
ON THE DOME, GULF & ESSO ENVIRONMENTAL IMPACT STATEMENT.

Includes all submissions received as of February 9,
1983.

The compendium includes 20 submissions as follows:

- p. 1 - Dept. of Fisheries & Oceans
- p. 2 - Labrador Institute of Northern Studies
- p. 7 - Environment Canada
- p. 13 - Mr. Wayne Liebau
- p. 27 - Beaufort Sea Alliance
- p. 49 - Trans North Air
- p. 53 - Dene Nation
- p. 57 - Canadian Wildlife Federation
- p. 84 - Canadian Nature Foundation
- p. 87 - Councillor, Old Crow Band
- p. 139 - Dr. C. Eric Tull
- p. 189 - Environment Canada
- p. 229 - Arctic International Wildlife Range
Society
- p. 237 - Mrs. Rita Pasiciel
- p. 239 - Metis Association of the Northwest
Territories

- p. 275 - Arctic Bay Development Review Committee
- p. 289 - Labrador Inuit Tapirisat of Canada
- p. 295 - Inuit Tapirisat of Canada
- p. 315 - Fisheries & Oceans Canada
- p. 381 - Department of Indian Affairs and Northern Development (Vol. 1)

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FEARO Document

1.1 # 36 Beaufort Sea Environmental Assessment Panel

February 15, 1983

SECOND (FINAL) COMPENDIUM OF WRITTEN SUBMISSIONS ON THE DOME, GULF & ESSO ENVIRONMENTAL IMPACT STATEMENT.

Includes all submissions received between Feb. 9 and Feb. 15, 1983.

The compendium covers 16 submissions plus 2 attached submissions to the Panel as follows:

- P. 1 - Settlement and Band Councils of Fort Norman
- p. 55 - Yukon Conservation Society
- p. 61 - Mackenzie Dene Regional Council
- p. 67 - Dene Community Council - Fort Good Hope
- p. 73 - Government of the Northwest Territories
- p. 95 - North Slope Borough
- p. 101 - Archaeological Survey of Canada

- p. 115- Energy, Mines and Resources Canada
- p. 125- Beaufort Sea Alliance
- p. 127- Morten Lindhard
- p. 145- Government of Yukon
- p. 159- Baffin Regional Inuit Association
- p. 173 -Department of Indian Affairs & Northern Development (Vol.II)
- p. 271- Hamlet of Pond Inlet
- p. 281- Town of Inuvik
- p. 283- Employment & Immigration Canada

Attachments:

- Artic Transportation Ltd.
- Hamlet Council of Norman Wells

FEARO Document

1.1 # 37 Beaufort Sea Environmental Assessment Panel

August 15, 1983

COMPENDIUM OF WRITTEN SUBMISSIONS TO THE PANEL ON THE
DOME, GULF & ESSO RESPONSE TO THE PANEL'S ENVIRONMENTAL
IMPACT STATEMENT DEFICIENCY STATEMENT.

Includes all submissions received as of August 15, 1983
from review participants and the panel's technical
specialists.

Submissions from the following are included:

- R-1 N.H. Richardson
- R-2 Govt. of Northwest Territories
Ministry of Energy, Mines and Resources
- R-3 Dr. Paul Greisman
- R-4 National Museum of Man
- R-5 Dr. Don Mackay
- R-6 Environment Canada, Western and Northern Region
- R-7 Dr. C. Eric Tull
- R-8 W. Winston Mair
- R-9 Dr. Jack B. Ellis
- R-10 Baffin Region Inuit Association
- R-11 Renewable Resources, Govt. of Northwest Territories
- R-12 Dr. Ray Lemberg
- R-13 Fisheries & Oceans Canada, Freshwater Institute
- R-14 Ms. Val Walsh
- R-15 Employment & Immigration Canada, Alberta/NWT Region
- R-16 Ms. Diane Erickson
- R-17 Govt. of Yukon
- R-18 Indian and Northern Affairs Canada
- R-19 Town of Inuvik
- R-20 Dene Nation

1.1 # 38

Beaufort Sea Environmental Assessment Panel
September 14, 1983

Schedule of Meetings and Agenda for Beaufort Sea
Environmental Assessment Panel General Sessions.

Agenda indicates major topics for each location with
attachments outlining anticipated subject matter in
greater detail. Technical Specialists available at each
session are indicated.

Major topics by location are outlined as follows:

RESOLUTE - arctic tankers; community and socioeconomic
effects - Parry Channel; government management; and
other concerns.

INUUVIK - oil spills; environmental effects in the
offshore development zone; environmental effects in the
onshore production zone; community and socio economic
effects- Beaufort Sea/Mackenzie Delta; government
management; other concerns;

WHITEHORSE - environmental effects of Yukon
development; Yukon social and economic effects;
government management;

YELLOWKNIFE - overland pipeline; community and socio
economic effects - Mackenzie Valley; government
management ; other concerns.

CALGARY - general concerns.

OTTAWA - government management - biophysical effects;
government management; socio economic effects; other
concerns.

1.1 # 39 Beaufort Sea Environmental Assessment Panel

September 14, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - PRE-SESSION CONFERENCE:

Yellowknife, N.W.T.

Total Reporting Services

Review:

The meeting opened with a review of the Panel activities to date, and comments on the procedures for the general sessions. Points noted included: request that oral presentation is not just a reading of the written submission; a brief should be provided to the Secretary one week prior to the Session at which it is to be presented; role of technical advisors outlined noting that they will be subject to questioning the same as any intervenor or the proponents; opening statements may be presented at the beginning of each general session; curriculum vitae for technical experts should be provided; presentations are to be 20 minutes; translation services will be provided where needed.

A review of the final draft agenda followed on a session by session basis. Questions and points of clarification included:

- boundary for the Resolute hearings will be the north end of Prince of Wales Strait
- Parry Channel will be used, not Northwest Passage in describing the area.
- question as to where river oilspills will be addressed (c. onshore oil spills) Onshore is defined to include spills in water that's on land.
- question concerning government role and that it appears at all meetings.
- questions concerning opening presentations - one at the first of a general session, or one at the first of each topic. Suggestion proposed that for those not able to attend the opening session that they would be allowed their opening remarks just before their presentation.
- duplication of discussion of effects on wildlife (one is to be primarily bio-physical and the other primarily socio-economic) clarification of the role of the proponent in the Ottawa Session
- discussion of the type of questions that will be allowed in Ottawa - questions of clarification.

- questions of clarification.
- omission noted of a specific category for the comparison of pipeline versus tanker transportation.
- request that sufficient time for discussion be allowed at the time of presentation in preference to adding it on to the end of the session. allowance for flight delays.

p.46 The procedures were discussed by Andrew Roman. Question concerning community sessions were whether transcripts were to be made and if translation services were to be provided.

Discussion of general session rocedures included:

- where and to whom written submissions must be sent, and whether each intervenor must circulate their submission to other intervenors.
- are additional written questions to the proponents planned by the Panel
- provision of curriculum vitae for technical experts
- question as to whether there will be a time limit on the final statements in Ottawa. Discussion noted that Ottawa session was not intended to be a grand wrap-up and should not be treated any differently from other sessions.
- purposes of opening and closing statements clarified (p.74)
- concern over requirement for distribution of written submissions - communities may not have money to publish consultants reports
- request for some technical experts at community sessions (p.76-80)

A brief indication from various intervenors as to nature of their intervention was provided.

Means of response if a question cannot be answered immediately was discussed, for example at a community session if a particular expert is not available, will be written response at a later date be sufficient.

1.1 #40-1 Beaufort Sea Environmental Assessment Panel

September 14, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSIONS

Tuktoyaktuk, N.W.T.

Total Reporting Services.

Summary:

FEARO Doc No Zone	page no	Agenda Index	Guideline ref
1.1#40-1 I	1-17 proposal/general	I community/concerns	2.1 *
description	Tuktoyaktuk	overview	

Tuktoyaktuk Comm. Session. The meeting was opened with panel introductions, a brief outline of happenings to date and the procedures were outlined for community session. The proponents then presented a summary of the proposal starting with a review of exploration activities which have already been undertaken and equipment used. Both tanker and pipeline modes of transportation were commented upon, with the proposed ice-breaking tankers described. Concerns identified by the proponents through community consultation were then addressed and included: pace of development; artificial islands and their affect on ice patterns (this area is identified as an area for future work); crossing of ship tracks, with the study in McKinley Bay cited as indicative of how soon after passage a man may cross the track; employment and business training (150 people from Tuk currently involved and 600 from the North).

1.1#40-1	17-23	I-V	2.2.1
I	transport modes	preferred mode	env safety
govt management	northern benefits	*	

Hunters & Trappers Assoc. (speaker Roy Goose). Presentation is a combined presentation for the Hunters & Trappers Associations for Tuk, Paulatuk, Coppermine and Sachs Harbour. Active participation by the Inuvialuit within government and industrial developments is sought. Without such input (as that of the Hunters & Trappers Associations) the area will suffer effects which may eventually exterminate the culture. The Beaufort Hunters & Trappers Association prefers the pipeline mode of transportation on the basis that this alternative is less dangerous to the environment. Also the pipeline mode allows for a skilled labour force to be developed for the construction phase. An oil spill on land is considered more manageable, and the pipeline is considered a proven system as opposed to the experimental icebreaking tankers. "Generally, the Beaufort Hunters & Trappers Associations feel that a Mackenzie Valley pipeline would be more safe than twenty-six icebreaking tankers traversing the Northwest Passage." Further research into the physical and biological effects of Class X tankers is recommended before consideration of the tanker transportation mode.

1.1#40-1	22-26	I-III	2.4.2.4
I	tankers	env concerns	sources
summary			
env&soc-ec eff	wildlife		recommendations

Beaufort Sea Hunters & Trappers Assoc. "Our major concerns directly related to all icebreakers traversing the Beaufort Sea, Amundsen Gulf and Northwest Passage are the threat of killing seals during pupping seasons, that's the bearded and ringed seals; the threat of underwater sound; abandonment of seal pups by adult seals (that's because of noise pollution and other problems associated with transporting the hydrocarbon couth); polar bears would be most affected by the reduction of the seal population; Inuvialuit hunters and trappers from Banks Island and Victoria depend very much on the Prince of Wales Strait as an Inuit ice bridge; hunting patterns will change due to changing ice formations; break-up will be prolonged because of ice build-up around ship tracks."..... These concerns are identified in more detail and recommendations proposed in the event of increased marine traffic. These included (establishment of harbour authority; involvement of Inuit in this program; cross-cultural program; harbour authority influence should be identical to any major Canadian port; environmental monitors from the community needed and training provided. Research is required and the recommendation is to proceed with the Robert Lemeur to provide required data; experiments as specified by the Inuvialuit Shipping Authority; research into animals' hearing and communication levels (involving the Beaufort Hunters & Trappers Assoc); research on affect on mammals of air traffic; consultation re air traffic in hunting seasons; oil spill experiments required in Amundsen Gulf in all seasons under real conditions.

1.1#40-1 26-28 I-IV.F 2.4.5
I compensation long-term eff *

env&soc-ec eff native harvest recommendations

Beaufort Sea Hunters & Trappers Assoc. The use of the land by subsidence hunters and as teaching/learning cultural experiences for the younger people are outlined. Compensatory measures deemed essential to the culture, livelihood and continued existence as Inuvialuit are noted and include: compensation in kind; income; compensation for use of the land and for disturbance to traplines and hunting areas, for subsidence use and for the land "the land, the lease of the land, the rent of it, the repossession, expropriation, all this sort of thing for the current value, the deemed value." A compensation board needs to be established and should include a government employee, two Inuvialuit representatives and an industry representative. Recommended mandate for the board is outlined.

1.1#40-1 28-30 I-IV.H 2.2.1
I abandonment artific/islands *

phy/env effects ice patterns recommendations

Beaufort Hunters & Trappers Association recommends that the agreement that industry signs each year with the government should stipulate the the structures utilized for exploratory and production programs should be removed from the site.

1.1#40-1 30 I-II.C 2.2.1
I proposal/general support bases disturbance

control * recommendations

Beaufort Hunters & Trappers Assoc recommends that shore base facilities should not be built in areas other than McKinley Bay. This area has already been disturbed and established as a new community.

1.1#40-1 31-39 I-IV.D 2.4.4
 I soc-ec effects cross-cult train
 education/train northern people recommendations
 employment

(Tuktoyaktuk Comm Session). Beaufort Hunters & Trappers Assoc(Speaker Roger Allen). A concern of the Association is the seeming inability to deal effectively with the problems related to training and employment of native people. This was supported by a review of the history of operations in the area and their affect on the local labour market. Although the Socio-Economic Action Plans now required include submissions for employment and training of Northern People the concern is that there is poor communications between the company's Northern Interface group and the Operations Personnel. The plans seem fine but the Program Delivery Systems fall down. This leads to a recommendation for the Operations Personnel to become more involved in the community consultation process and that all Operation Line Supervisors should attend Cross Cultural Orientation Programs. Training programs are only short term, the long range goals are being neglected. "The Hunters & Trappers Association representatives must ensure that the operating companies abide by their Socio-Economic committments in promoting long term training programs and be supportative of both entry level and advanced training to overcome "bottlenecking" problems." An additional concern is that even after training the person returns to the same job he held previously. Several areas should be concentrated on....."The lack of social considerations which need to be addressed is as follows: rotation and leave schedules; supervisory roles; and the orientation process." Trades training is encouraged by the HTA Association. Also only Tuktoyaktuk has a community employment office. An employment office in other communities would assist the local population in finding suitable employment and could act as an advisory group.

1.1#40-1 39-43 I-IV.D 2.4.4
 I soc-ec effects business oport unions
 preferences northern people recommendations

(Tuktoyaktuk Comm Session) Beaufort Hunters & Trappers Assoc. Concern was expressed over recent instances when contracts were awarded outside the community where existing services were already in place. This was cited as one example where the company was not living up to its stated corporate policy. On the other hand the HTA does not favour the practice of awarding secondary contracts to natives "mainly to pacify the native in order that he will not speak out against the company's operation." This practice could have long term implications for future native business interests. Unions have neglected their obligation to the northern native resident. "The Beaufort Sea HTA representatives have adopted a consensus to control any union activities in the future Beaufort Sea development unless it is in the best interests of the local labour force." Unions should not become involved without prior consultation with the community representatives; companies are urged to support this approach; the Legislative Assembly is urged to draft up founding principles to oversee union activities. This would require operating unions to establish a local hiring hall in the Beaufort Region.

1.1#40-1 43-46 I-IV.D I-VI.A
 I soc-ec effects * training
 education northern people plans/proposals

(Tuktoyaktuk Community Session) Beaufort Hunters & Trappers Assoc. Support for the efforts of the Native Employee Relations staff of the petroleum companies is noted and recognition of the limitations they must work within. "Therefore, it has been decided by the representatives to establish a future employment and training board will establish guidelines and a mandate in incorporating board functions The board's first priority will be to undertake a position with the Department of Education, Government of the NWT for the need of a locally centralized petroleum industry training center." Other efforts will be directed towards changes in school curriculum, improved extension programs which will result in gainful employment.

1.1#40-1 46-49 I-III.E 2.4.1
 I offshore develop artific/islands icebreaking
 env&soc ec eff native harvest concerns

(Tuktoyaktuk Comm Session) Speaker Mr. Wolki , on behalf of the Hunters & Trappers in Tuk: Concern is expressed that the artificial islands will affect the ice patterns and the hunters will have to travel further to hunt bear. Also if the ice patterns are changed the whales might stop coming into Tuk Harbour. Ship tracks between Banks Island and Holman Island present the concerns that the ice forming under a ship's track will eventually reach the bottom and will not melt. Concern of the effect of noise on mammals is noted.

1.1#40-1
I

57-73
soc-ec effects

I-IV.B
airport/harbour

2.4.2
control of

community effect

*

concerns

Tuktoyaktuk Community Session) Hamlet of Tuktoyaktuk: speaker
Mr. Eddie Dillon. Concerns of the people of Tuk: Socio-economic effects on
Tuktoyaktuk ...the people must be allowed to retain their culture and their
means of livelihood from the land and also be given the opportunity for
development employment. "We ask that the oil companies, their associated
contractors and the governments show proper respect for the land and its
people." Rate and direction of growth should be determined by the residents not
industry or the south. The Council neither supports nor opposes a road to
Inuvik although at the moment they feel the detrimental affects outweigh the
advantages to the community. "Fly-in, fly-out" base campas currently used is
supported. Development Impact Zone: Tuk Council is a member. Recommendation
that there should be only one funded group to provide communication between the
community and industry. Also, it is proposed that the D.I.Z. Group become
involved in the distribution of Special Impact Funding. Education: "We have
always maintained that there should be a high school in Tuk but...which would
ensure that our children are able to receive an education that would be relevant
to potential requirements for technically trained individuals in this
development area." The Adult Education Programs currently offered are not
sufficient....training must be more thorough and more meaningful. Airport
facilities: "We must tolerate the noise, the dust and the responsibility of
large volume of industrial air traffic virtually sitting on our doorstep with
absolutely no benefits to the residents of this community.....Should
the proposed expansion of the airport take place as planned, it would result in
further hardships to the people of Tuk." Concern that the proposed extension
would cut off access to the south of the airstrip during certain seasons. Also
if the industry were to utilize commercial airlines to some degree, then Tuk
could warrant a scheduled service which would benefit all. The Council
recommends relocation of the airport, not relocation of the community. Harbour
Control: The Council has previously attempted to persuade the Federal
Government to provide harbour control. Concern was also expressed over the
anchoring of fuel barges in the harbour during the winter. The monitoring for
oil spills should be more fully funded and placed under an agency such as the
Environmental Protection Service. One large harbour facility is recommended,
preferably McKinley Bay. Artificial islands: concern about affect on ice
patterns and recommendation that monitoring of any subtle changes must
continue. A meaningful committee must be established to monitor artificial
islands and to have control over their construction. Questions (p.66 - 72)
provided additional explanation on the effect of airport expansion, control of
harbour activity, and affect of artificial islands.

1.1#40-1 72-74 I-I.B 2.4.2.2
I offshore develop * oilspill
cumulative effect * recommendations

(Tuktoyaktuk Comm Session) Unidentified speaker: Concern expressed over "minor" spills and the fact that these have been overshadowed by major oil spills caused by spills or blowouts. The speaker noted that there have been numerous reports to the Council by the harbour monitors about spills that have been reported. Recommendation that the Environmental Protection officer should be stationed in Tuk and McKinley Bay where the activity takes place.

1.1#40-1 74-82 I-V.A 2.4.5
I proposal/general coordination *
govt management community level discussions

(Tuktoyaktuk Community Session) Speakers: Mr. Kiklwa, Fred Wolki, E. Goose. Discussion about the desire of the Hunters & Trappers Group to have a say in the control of effects from development and the pros and cons of having all funding centralized in one organization. Hunters & Trappers Assoc. indicated reasons why they felt their participation is essential.

1.1#40-1 82-98 I-IV.C 2.4.4
I soc-ec effect reg compliance *
commun/consult northern people observ/experienc

(Tuktoyaktuk Comm Session) speaker: Mr. Kikoak Concern that larger boats in the harbour are no longer obeying speed regulations and are causing problems to the fishermen. Speaker: Ms. White: noted that 75% of the people at the meeting are not from Tuk. Comment that people have become discouraged with participation in meetings of this kind. Ms. Lyons: Noted that the Inuit people want to retain their culture and the impact that industry is having on the children. Children are becoming more orientated to southern culture, are losing traditional skills. Concern that people in the area have lost control over their own lives. Concern that twelve hour shifts by mothers are affecting the children. Calvin Pokiok: Benefits derived from the oil companies are noted, but more can be done. Public relations can be improved. Concern that the community should not become too reliant upon the industry...what happens when they are gone. No development should proceed on the North Slope until land claims are settled.

1.1 #40-2 Beaufort Sea Environmental Assessment Panel

September 15, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

AKLAVIK, N.W.T.

Summary:

1.1#40-2	5-15	I	2.1	
I	proposal/general	commun/concerns		*
effects/gen	*		overview	

Aklavik Community Hearings-Presentation by proponents directed most specifically to Aklavik and concerns identified by the community during 25 visits over the past 2 years. History of activity in the area noted and the new kinds of drilling equipment recently introduced were described (S.S.D.C. - barge designed to be sunk; circular caisson type islands; floating conical drilling unit). Present shorebases include Tuktoyaktuk, McKinley Bay, a recent application for a shore base at Stokes Point, and some use of Herschel Basin. Some of the types of production facilities are outlined, followed by options for transportation - tanker and pipeline. In terms of shore bases facilities which are probably of more interest to Aklavik, it was noted that shore base support in an area of deep water will be required. The north slope of the Yukon is one of the best sites - possibly Stokes Point or Kings Point. Concerns about this by the community appear to be: concerns over hunting, fishing, trapping; a company in Aklavik does environmental studies and monitoring and would like to continue; social concerns include business opportunities, employment opportunities, and training. Concern about the Yukon North Sloope includes concern over the Porcupine Caribou Herd. Experience in the Prudoe Bay area indicates the herd is not adversely affected by development. The snow geese is also an identified concern, particularly their disruption by aircraft. It is noted that industry aircraft are now required to fly high enough to avoid this disturbance. Harm to wildlife has been avoided and this would be expected to continue in the future. White whale studies have been ongoing for 12 years and industry knows that whales like to concentrate in the shallows of the Mackenzie Delta, and especially in Shallows Bay which is close to Aklavik. In terms of employment - there are many people working with Beaufort Environmental Support Services; about 50 people from Aklavik directly or as contractors work for the oil companies; and money has been going into the community through business expenditures generally.

1.1#40-2 16-18 I-II.I 2.4.2
I onshore/dev * disturbance
env effect wildlife observ/exp

Aklavik Comm Session. Question by Dr. Tener concerning photographs shown in the presentation (caribou around the Prudoe Bay facilities) and whether the fact that these caribou were all bulls meant that cows and calves react differently. Answer indicates that the response is different, however there are observations indicating that calving still occurs in the Prudoe Bay area. Studies the past 8 years show that the Porcupine Caribou Herd has been calving quite far west of Stokes Point or King Point.....Dr. Mackay questioned whether there had been any experience regarding the effect of the Dew Line site on caribou or migrating birds. Response by Mr. Abe Okpik who had been involved with the building of the Dew Line, indicated that he didn't think the noise or activity had been a disturbance. The caribou had been around for about three weeks while there was a lot of activity. Mr. Hoos added that in terms of the snow geese, the Wildlife Service did not record any significant effect even though airplane flights at that time did not comply with current regulations.

1.1#40-2

21-33

IV-D

2.4.4

I soc-ec effects

cross-culttrain

education/train

job oport

northern people

presentation

Aklavik Comm. Session--Presentation by Mr. Martin Carrol: Concern that after watching development in these areas for 15 years there is seldom any opportunity for participation at a more senior level. Training programs are completed by people who are then unable to find jobs. One example cited that a group of people trained in heavy equipment operation could not obtain employment even though there was road construction on the Dempster at the time. Pictures presented by the proponents show Eskimos and Indians at the end of a shovel, but not as an engineer or plumber. In terms of means of solving this problem, more should be done to understand the people here..particularly by the supervisors in technical fields. The trade schools here do not provide training to be competitive with southern certifications and the companies should be providing this type of training. The Chairman noted that they had heard a similar requests in Tuk where cross-cultural orientation programs were requested. Mr. Carrol noted that the apprenticeship programs here do not give people sufficient training except at the maintenance level - they do not have the required construction experience. Proponents response indicated that it is becoming common practice for supervisors to have cross cultural training. One of the problems is that currently all the work is exploration and is seasonal and that makes training more difficult. One problem discussed is that of matching job requirements with the training people are receiving. The proponents are working on the area of relating skill requirements to the jobs available. Mr. Carrol asked the proponents if they actually went into high schools. Response indicated that one problem is that high school is not enough. There are training programs available but there doesn't appear to be the interest. Dome has in the last year put 97 northerners through training programs (job training, in house technical apprenticeship, Tuk Tech) --but they are having difficulty encouraging people to sign up for Tuk Tech. However, the complaint that graduates from Tuk Tech haven't been hired for the job they were trained for is recognized, and that people are discouraged by this. In terms of the comment that all employment is in the unskilled area, about half of the people employed last year from Aklavik were in skilled or semi-skilled positions. The proponents do go into the schools and talk about opportunities available and they do take high school students out to the operation. Mr. Carrol posed the question as to whether Tuk Tech provided any technician's certificats. The response indicated that all the programs were pre-employment programs mostly for those who had not completed high school. This gives them a better chance of receiving a promotion than someone who did not take the program. Mr. Carrol pointed out that this essentially applies to those with a grade 10 education and questioned what happened to high school graduates...are they given incentives. Ms. Karnes indicated that the Territorial government sponsorship for higher education made it quite easy for people to go to university or technical school in the south. Mr. Carrol in summing up noted that there are not many people prepared to assume high technology construction jobs. All too often people are trained only in basic maintenance positions...they can change the fuse but they can't put the panel there.

1.1#40-2
NSp

34-47
govt role(Terr)

Y-III
funding

2.4.4
summary

govt manag

NWT

overview

Aklavik-Comm. Session. Presentation by Mr. Nerysoo, member of the Legislative Assembly from the Mackenzie Delta. Mr. Nerysoo noted that the govt will make a more detailed appearance at the technical sessions. This appearance is to introduce some of the issues. GNWT's participation in the review was noted as well as participation in Senate Committee hearings and on the North Slope Committees. The need for decision making was emphasized. It was noted that the GNWT supports the Beaufort Development. Both individual and government benefits are anticipated. The GNWT feel that given funds they could ensure that the benefits of the Beaufort development would be more widely distributed and longer lasting. The additional GNWT presentation will discuss employment and training, the Joint Needs Assessment Committee report, union activity; issues associated with population growth in the Beaufort communities. One major issue is funds and the implementation of planning structures. Additional funds have not been provided to the government to ensure that impacts on Tuk or Inuvik could be dealt with effectively. If there is one recommendation with certainty, that is that additional funding requirements and financial assistance must be dealt with in a serious manner. Some departments will be examining the Norman Wells project. The Dept. of Renewable Resources will address the potential effects of increased industrial activity on polar bears, ungulates and harvest patterns, as well as the control of contaminants in the NWT. A policy for compensation was noted as now being available, and the status of the Land Use Planning Policy will be reviewed. In terms of port development on the North Slope, the Executive Council does not support the advocacy by Gulf Canada Resources to establish an exploration base at Stokes Point, but advocates that further consideration should be given to McKinley Bay. Development of one major port facility is viewed as beneficial and less environmentally disruptive. In terms of transportation options, the pipeline is preferred, and support for the phased approach was noted. Small projects will allow for slower more controlled expansion. GNWT is seeking a joint role at the Assistant Deputy Minister level within the Northern Affairs Program; and wants a seat on the Policy Review Committee of COGLA for northern issues. The Government has established the Beaufort Sea Development Impact Zone Group to act as the main regional consultative window for the public, government and industry. The GNWT has completed its resource development policy and is developing a resource management and revenue sharing proposal.

1.1#40-2 48-53 I-IV.C 2.4.4
I soc-ec effects employment *

soc-ec-effect northern people observ/exp

Aklavik Session. Comments by Mr. Freddy Greenland, Chief of Aklavik. A formal presentation will be made at Inuvik but for this session some of the following comments: Mr. Thomas Berger recommended that the North Slope be set aside as a park. Listening to the proponents talk about opportunities for northern people, he would like to have a definition of northern people. Concern that some people may have employment for a year, but what about their future? If the North Slope is developed the contracts will go to the Yukon. Concern that none really listens to the communities.. what happened to the Berger Report². Norman Wells could be an example..statistics for numbers of Dene, Metis and Inuit employed were requested. "The whites that they bring in from the south do not want native people working alongside them." People in this area have had to quit for this reason. Concern that the people of the north will be left out. It already happens with contracts going to the south. Concern about the suicide rate in Tuk and Fort MacPherson.

1.1#40-2 53-58 I-IV.C 2.4.4
I soc-ec effects * alcohol

control northern people iobserv/exp

*Aklavik Session. Rev. Dixon. proposed that the main community concern is the long-term effect on their lives. One serious problem is alcoholism. The Aklavik Alcohol and Advisory Counselling Board is trying to develop ways to give assistance to people with problems relating to alcohol. The question was posed as to what the companies are prepared to offer to people known to have problems with alcohol. Professional counsellors should be employed. Also despite the prohibition of use of drugs at oil bases, drugs have found their way into the community which were purchased at the base. There also appears to be little guidance in the handling of money effectively...."I sometimes feel that both the Federal Government, and sometimes the oil companies in statements made in articles printed have a policy of appeasement. We will give them this and keep them quiet, we'll employ a few here and a few there and keep them quiet."...In response to the questions raised concerning provision of professional counsellors and money management counselling, the response included: industry's attempt to control alcohol and drugs is by security and dry camps. Counselling is available if employees have a problem. In terms of financial counselling, programs are not as far advanced...and more could be done in that area.

1.1#40-2 58-63 I-IV.H 2.4.4
I soc-ec effects * *

* employment experience

Aklavik Community Session. Ms. Sarah Gardlund: An example was cited where one of her boys had been injured at the rig. The first visit to the doctor said there was nothing wrong and he was sent home. The next morning he returned and was sent to the hospital. While he was in the hospital he lost his job and none from the company came to visit him or inquired about him. Another of her sons went to Fort Simpson and became a welder but never obtained any employment in his training and is now working as a driver. Final concern was in the case when her son was injured the parents were not informed and she felt parents should be notified in such cases.

1.1#40-2 63-67 I-IV.C 2.4.4
I soc-ec effects future concern *

* employment observ/exp

Aklavik Community- Mr. George Edwards, Mayor of Aklavik noted that from observation of past experience - the Dew Line, Prudoe Bay - that there are very few natives employed after construction is finished. The concern is that there will be little employment opportunities after production starts ...will it all be handled by computer operators from the south.....Also the concern of Aklavik with Stokes Point is that it will drive the caribou away. It is only recently that they have started coming close to the community like they used to.

1.1#40-2 67-68 I-IV.D 2.4.4
I soc-ec effects * *

education/train education questions
govt manag

Aklavik Community Session- Discussion of funding available for higher education for northern people. Mr. Nerysoo indicated that native people (Inuit, registered Indian, and Metis) can have their education totally paid for (grant, tuition, accomodation, transportation to and from university and back at Christmas). People born and raised in the Territories can receive their tuition and transportation, possibly part of their accomodation and are eligible for loans. For a technical program (e.g. two year program) it would be similar. The government has been trying to provide encouragement to people who may not be academically inclined and provide more opportunities for them.

1.1#40-2 71-80 I-IV.C 2.4.5
I soc-ec effects future concerns *

* northern people *concerns

Aklavik Comm Session. L. Sittichinli and J.E. Sittichinli. Concern expressed that with the changes occurring there is more worry about the future for their grandchildren. Everything now costs more; people can no longer just make a living off the bush; the younger generation make money but they have never been taught how to manage it. Suggestion that the companies could provide some training in this area. There is also concern about the wildlife-their main store or fridge - and the damage that an oilspill might do.

1.1#40-2 80-85 I-IV.D 2.4.4
I soc-ec effects preferred mode
education/train northern benefits *
business oport

Aklavik Comm Session. Mr. C. Furlong Support for the pipeline expressed because it allows for more community involvment. Both the oil industry and the Federal Government need to put money into training programs. Both oil industry and the Federal Govt need to utilize the existing northern business - not create new ones such as the airline formed by Dome in the summer. There is not much evidence of preference to northern business. There is a need for more long-term training programs and monies to existing organizations. Concern expressed over definition of a northener.

1.1#40-2 85 I-IV.H 2.4.4
I * definition *

* northerner definition

Proponents response to a need for a definition was slightly different for each company: Dome - a notherner is someone who has been in the north two years; Esso - someone who has their residence in the NWT or Yukon; Gulf - one year residency requirement.

1.1 #40-3 Beaufort Sea Environmental Assessment Panel

September 16, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

SACHS HARBOUR, N.W.T.

Total Reporting Service

Summary:

1.1#40-3	1.12	I	2.1	*
I	proposal/general	commun/summary		
*	Sachs Harbour	overview		

Sachs Harbour Community Session. Meeting opened with Panel introductions and a brief outline of the procedures for community session. A presentation by the proponents followed, with emphasis on those aspects of the proposal which would have the most affect on Sachs Harbour. The presentation describes the drilling equipment used in the past and new equipment being introduced. The proposal includes building and testing of a class X icebreaking tanker or the alternative of using a pipeline. Environmental concerns that have been identified by people in Sachs Harbour were noted as: crossing of ships tracks (results from McKinley Bay noted as encouraging); effect of shipping on seals; polar bear and affect on them if seals are harmed; noise from tankers and affect on seals and whales.

1.1#40-3 13-24
I tankers

I-III.H
disturbance

2.4.2.4
icebreaking

env effects

seals

comm concerns

Sachs Harbour Community Session. Speakers: Peter Esau, Roy Goose, Mr. Okpik. Mr. Esau raised the concern about the disturbance effect and direct mortality of seals from icebreaking tankers. He noted that the slides shown by the proponents were taken in the summer time and noted that there is a difference when boats are travelling in the winter. The main concern is the areas where seals have their pups. The Strait is quite narrow and some effect will be felt by the seals and siblings. Proponents response indicated that for bearded seals most of the pupping takes place near the shores where ships would not be travelling. Most of the seals would be on the sides of the Strait and the ships will be in the middle. Ships prefer open water, moving ice and deeper waters - areas where seals do not prefer to have their pups. Mr. Craig asked about the ice conditions in the Prince of Wales Strait and whether there is open water or broken ice in the pupping season. Response indicated that it depends on the year - some years there is open water, other years it freezes all the way across. The female seals appear to prefer areas where the ice is stable and are expected to avoid the area where ice is broken every couple of weeks by a ship passing. In response to the length of time it takes a seal to build a birth lair, Mr. Goose indicated that probably they were built in a day or two. He also noted that in the Prince of Wales Strait it depends on how the ice cracks and breaks up. The seals pup anywhere there are pressure ridges and snow drifts form. In terms of research in this area, the proponents noted that work has been funded to determine where seals have their pups with the results indicating that most occurs in shallow water and protected bays. Mr. Alloo noted that ringed seals prefer landfast ice but raised the question of Bearded Seals. The proponents response indicated that research indicated that Ugyuks or Bearded seals do have their pups on moving ice, but because they do so the pups are better designed and can get wet within two weeks - compared to six weeks for ringed seals.

1.1#40-3 24-30
I tankers

I-III.H
operation

2.4.2.4
noise

env effects

wildlife

commum/ concerns

Sachs Harbour Community Session. Speakers: Mrs. S. Esau, Ms. White. Mr. Esau raised the concern about the effect of noise on seals and whales. She noted that after one summer when studies were being done on seals which involved much flying, the seals disappeared from the area and have just returned. Proponents response indicated that company helicopters do not need to fly as low as those used to count polar bear, and that the noise from airplanes and tankers differ. The noise does not come out of the water into the air and disturb seals in their birth lairs. Seals in the water could hear any ship in the Strait, but studies have not shown seals to be affected by noise anywhere in the world. Ms. White questioned whether the noise of a ship breaking ice would not be very intense. The response indicated that the noise would be similar to ice breaking under natural conditions. Proponents noted that studies on the affect of ships, noise, seismic activity and island building has been ongoing for two years now. There has been no indication that the whales have been responding in any significant way to the activities.

1.1#40-3	32-38	I-III.H	2.4.2.4
I	tankers	operation	sources
summary			
env/soc-ec eff	wildlife		recommendations

Sachs Harbour Community Session. Presentation by the Sachs Harbour Trappers Association presented by Mr. Goose & Mr. arpenter. The first part of the presentation deals with the concerns relating to any affect on the biotic community. These concerns are discussed by possible sources of impacts as follows: noise of tankers and icebreaking -- effect on known whelping areas of Bearded and Ringed seals and any effect on seals will affect the polar bear and Arctic fox population; oilspills - minor spills included and concern over a possible 100 or more minor spills per year; the dependence of one species on other species and the delicate balance maintained - movement of one species from an area of disturbance to another area upsets the balance in that area as well; Bearded seal population is much smaller in number and unique to the immediate area involved; ice build-up will prolong spring breakup and cause natural inhabitant to move elsewhere; the Prince of Wales Strait is also used as an ice bridge to Victoria Island and Banks Island. Recommendations include: concerns about noise and ice build-up be studied and documented or go with a prototype and document all impacts for two years; Inuit should be compensated for any loss of subsidence.

1.1#40-1	39-42	I-IV.II	I-V.A
I	soc-ec effects	ecommun/concerns	
education/train			
compensation	northern people		recommendations

Sachs Harbour Community Session. Presentation by Sachs Harbour Trapper Association. "The introduction of industry to our region is essential to the well-being of our peoples A need for jobs and careers have become the order of the day. By and large, our peoples desire the same material comforts and intellectual stimulation as the rest of Canadian society". Problems involved in reaching these goals include skill development; need for a training center; need for better recreational and educational facilities; more economic benefits for northern peoples; employment opportunities in areas other than labourers; wage subsidies for community employees. Recommendations: Establishment of a compensation board manned by a government appointee, representatives of the Inuvialuit community, and an industry representative. The mandate proposed for the board is outlined. Environmental monitors from the communities should be utilized for projects within a 200 mile perimeter of Banks Island. Final approval of projects from the community of Sachs Harbour is essential.

1.1#40-3	43-57	I-IV.C	2.4.5
I	soc-ec effects	commun/concerns	
education/train			
env/soc-ec eff	northern people		discussion

Sachs Harbour Comm. Session. Discussion of Sachs Harbour Trappers Assoc presentation and related questions: Concerns for fate of wildlife noted by Mr. Kuptana. Additional explanation of the recommendation "to investigate and take remedial action for a specific community as specified for the purpose of increasing an individuals income to match that of industry" provided by Mr. Goose. Concern that communities will not be able to keep good employees because they cannot match the salaries offered by industry. Explanation of the term "final approval from this community is essential" notes that this is a request for really adequate community consultation before final decisions are made. Response to question concerning type of training referred to noted that training facilities which would train adults to prepare them for industrial activity was the main concern of the community. They want training with certification to raise them from "second class employee". Some solutions in terms of what can be done include locating a facility in Inuvik. Facilities that could accomodate the whole family during the training period would be preferred. (Mr. Sidney). Mr. Sidney noted that another concern is "certification". There are people here with 20 years experience in some areas who cannot get employment for lack of a certificate. A technical concern was also raised about the anchoring systems on Dome's explorer ships. Two points were noted by Mr. Charlie Haogak: the industry leans heavily on reports done by individuals (Tom Smith on seals as an example) but the views of the Inuvialuit who make their living from the animals should be given equal recognition; also the point was made that after production is over there will be a lot of unemployed people and the animals should be protected for that time.

1.1#40-3	58-73	I-III	2.1
I	tankers	manoeuverability	safety
*	northern people	concerns	

Sachs Harbour Community Session. Mr. Stutter questioned the proponents about the manoeuverability of tankers...how quickly can an object be avoided. Response provided by the proponents outlined special features to increase manoeuverability. In summary the turning circle would be between 5 and 10 ship lenth in two meters of ice. In ice, collision would avoided by stopping rather than manoeuvering.

1.1#40-3
I

63-73
compensation

I-IV.F
*

2.4.5
disturbance

env effect

native harvest

concerns

Sachs Harbour Community Session. Mrs. Esau posed the question concerning a hunter camping where an oil tanker was going to go...do they go around him or compensate him for the loss of a bear. Response indicated some mechanism might be set up to inform communities of when to expect a ship. Also it would be unlikely that a hunter would camp in a known tanker corridor. Specific hunting areas might be avoided at certain times. The response in terms of compensation...."Generally the compensation program is such that if we cause direct damage.....to equipment or boats or nets, that kind of thing, the policy of the company is to compensate for that.....The policy of the company is generally not to compensate for loss of access to hunting grounds, or that type of thing." Noted that if a significant impact was occurring then the situation would be looked at and discussed with the people.

1.1 #40-4 Beaufort Sea Environmental Assessment Panel

September 16, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

HOLMAN ISLAND, N.W.T.

Total Reporting Service

Summary:

FEARO Doc No	page	Agenda ref	guideline ref
Zone	Key words		
1.1#40-4	1-17	I	2.1
I	proposal/general	commun/concerns	*
*	*	overview	

Holman Community Session. The meeting was opened with introduction of the Panel and outline of procedures for community sessions. A presentation by the proponents followed with emphasis on those portions of the proposal which will most affect Holman. The proposed tanker route passes quite close to Holman through the Prince of Wales Strait. The concerns identified through consultations with the community include: affect on hunting and fishing; oilspills; tanker tracks in the ice; environmental studies; compensation; jobs, training and business opportunities; any affect on seals and polar bear. The results of a study on the crossing of ships tracks is presented in more detail. Crossing trials under different conditions are included. "The tests clearly show that ice breaker tracks are not likely to create obstacles more difficult than those normally encountered by Arctic travellers." Hunters from several communities were involved in these studies.

1.1#40-4	17-19	I-III.H	2.4.2.4
I	tankers	*	disturbance
env effects	seals	recommendations	

Holman. Mr. Roy Kuneyuna stated that contrary to the proponents presentation, seals and bearded seals are concentrated right through the Prince of Wales Strait, and not just in shallow areas. He recommended stopping the passage of ships for a period in the spring when seals are having their pups..(two months).

1.1#40-4
I

19-34
tanker

I-I.D
*

2.4.3
oilspills

response cap

wildlife

concerns

Holman. Mr. Roy Kuneyuna requested information on oil spill clean-up. Proponents response included: measures being taken to avoid spills; description of oil spill clean-up equipment. Further questions included: what percentage of the oil would be recovered; what was the spill from the recent ship that sank; if an accident occurred in the north end of Prince of Wales Strait, how long would it take to get equipment on site (response indicates that a contingency plan will be developed identifying equipment storage sites); under what conditions would the hull be punctured (response: collision - vessel, land, ice, or fire or explosion); capacity of an oil tanker and amount represented by 75% recovery; has high currents been taken into consideration when estimating oilspill clean up (dispersants might be used). Mr. Aleekuk supported the suggestion that oil spill equipment be located onboard, noting that in storm conditions other ships might not be able to travel. Mr. Albert Elias asked whether consideration had been given to going around Banks Island. Response indicated that in some years it might be possible but there are more polar bear and snow geese on the west side of the island. Mr. Kuneyuna questioned whether the vessels that would respond to an oil spill would have an accessible ice breaker to accompany them...especially for a spill in winter. (Response was that for most winter spill an ice breaker would not be required or one would be available from one of the oil companies). Dr. Mackay asked the proponents for a comment on the use of dispersants, especially for Arctic waters. (Response indicated research is ongoing for their application in Arctic waters, but results are not complete yet. Permission has been requested for testing new dispersants in Arctic waters). Mr. Stutter questioned the proponents as to whether the position of tankers will be known at all times and will the company have complete control over the tankers that haul their product. Mr. Isaac Aleekuk wanted to know if equal consideration was being given to tanker and pipeline transportation, or whether the proponents are taking too much risk looking mainly at tankers. (Response indicated equal consideration). Mr. John Rose wanted to know the probability of an accident occurring. Finally, Mr. Roy Kuneyuna noted dissatisfaction with the answers provided by the oil companies on specific questions mainly oil spill related. Many are more speculation than fact.

1.1#40-4 43- I-III.F 2.4.1
I tankers ship tracks icebreaking
phy/env effect ice regime questions

Holman. Mr. Alloo questioned the proponents over ships tracks, number of passages in the same track and how wide the final track will be by June. Response indicated that there is a certain amount of uncertainty because there isn't that type of ship around. Review of response to Panel's request for more information presented indicating final track would only be 5% of the channel.

1.1#40-4 44-66 I-III.H 2.4.2.4
I tanker communit/concerns sources
summary biol/phy env presentation
background

Holman. Presentation by Mr. Robert Kuneyuna "to voice the concerns of the people of Holman". ... "This paper begins with a presentation of the perceptions of the people of Holman with respect to their knowledge of and relationship to the land and sea, wildlife resources and critical habitats and of the interdependency of life followed by an overview of the ecology of the region based on existing research." Mr. Aleekuk presented the section on wildlife resources, indicating areas where each species is found. Mr. Simon Kataoyak then indicated areas which are considered critical areas. Mr. Allen Simms presented the technical part of the presentation noting that a regional and ecosystemic basis must be used to analyze environmental impact and development planning. An Arctic food chain was included in the presentation. It was noted that the Arctic Marine environment supports relatively few species with short food chains that are therefore highly vulnerable to environmental disturbance. Furthermore the Arctic Marine Ecosystems are slow to recover from disturbance. Four Arctic Marine habitats are described. Mr. Albert Elias identified some of the concerns of the people of Holman with regard to protecting the land, sea and animals. The concern is how animal life will be changed or disrupted - will the tankers disrupt the seals and the polar bear; will change in ice distribution and conditions affect distribution; will the migration patterns be changed; will they leave the area completely; will travel over the ice still be possible. Sports hunting is an import aspect of the local economy, and will this be affected. Proponents responded to some of these environmental concerns noting: it is possible that will be more seals attracted to the area where the ice is being broken than there are now, resulting in more seals and more polar bears (conjecture). But they do not think the traffic is going to harm wildlife in any way. Some disagreement expressed with this explanation, noting that animals may not adjust well to artificial disturbance. In response to the question of migration, it is noted that there is little information on the migration of seals, but there seems to be no known cases of shipping activity having an affect on seal migration. Finally, ship tracks should not affect crossings of the Prince of Wales Strait.

1.1#40-4 66-69 I-IV.F 2.4.6
I compensation communit/concern *
* * recommendations

Holman. Speaker: Mr. Robert Kauptana. The protection of the harvesting area is foremost, but in terms of damage, "the restoration of wild life and habitat and also to compensate the hunters and trappers, fisherman for the loss of their subsidence, the loss of commercial harvesting caused by development. This is the reason why we support the concept of full compensation scheme in the agreement in principle which was negotiated between the Government of Canada and cope, which contains participation agreement, specific compensation with provisions for loss or diminishing of wild life harvesting. The cost of transportation temporarily or permanently for relocation, reimbursement of any kind, preferential subsidence quotas, cash payment in lump sum or installments or in combination ..."

1.1#40-4 69-75 I-IV.C 2.4.5
I soc ec effects communit/concern *
* * presentations

Holman. Other concerns: Mr. Kuneyuna identified a concern over what might happen if the oil companies should pull out of the Beaufort, what happens to the businesses and the people who have become dependent upon employment. Concerns over family life when one member is away for extended periods; concern over influx of cash and change in activities. Question of training for production related jobs was raised. Mr. Simms wanted to know what happens to all the gaarbage and sewage created by the ships crews.

1.1 #40-5 Beaufort Sea Environmental Assessment Panel

September 19, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

COPPERMINE ,N.W.T.

Total Reporting Service

Summary:

1.1#40-5	1-10	I	2.1	*
I	proposal/general	commun/concerns		
*	*		overview	

Coppermine Community Session. The meeting was opened with Panel introductions followed by a brief presentation by the proponents. Concerns of Coppermine noted by the proponents included: jobs and training; effects of money and employment in the community; tankers and possible oil spill; effects of development on wildlife. Mr. Jim Guthrie, Beaudril's Base Supervisor at Nallok and previous supervisor at Swimming Point, was requested to address the community. Views were indicated as his views as a result of working the Beaufort Sea area for 10 years. Issues included training (programs are in place) and people are hired with no training and provided access to training; cross-cultural orientation (would like to see northerners who have worked in the field be active in putting together cross-cultural exchanges in co-operation with the northern interface groups). As a point of clarification, the Panel chairman questioned whether the speaker was representing the proponents or speaking for himself. Although requested by the proponents to present his experiences in working with northerners in training, the views expressed are his own. The Panel Chairman noted that it was inappropriate for Mr. Guthrie to appear at this point in the meeting...."this is a community session for community views and comments and the purpose of...these sessions is to hear community comments, such as Jim just gave, if he was representing a community. But the purpose of the proponents here is to explain the proposal that is contained in the EIS."

1.1#40-5 11-18 I-IV.C 2.4.5
I soc-ec effects commun/concern budgeting

counselling northern people presentation

Coppermine. Mr. Tom Pigalak for the Hunters and Trappers from Coppermine indicated their support for the presentations from the Hunters and Trappers Assoc. from Sachs Harbour and Holman and their concern about tankers in the Prince of Wales Strait. Mr. Ernie Bernhardt with the Dept of Social Services in Coppermine noted that in terms of training it is sometimes hard to keep young people in school because they are related so closely with the land and with hunting and trapping. This leaves only the alternative to accept progress but at the same time retaining the traditional way of the people. Three items of interest to the community were noted: counselling in general and support at the community level as well as on the job; budgeting; need for an expeditor in the community to keep ties with the family, the company and the employee. Question period following this presentation addressed the following: can attachment to the land be maintained through part time hunting; what are the difficulties people are experiencing that require the service of an expeditor; budgeting was noted as the biggest concern and should be taught to both the employee and his spouse.

1.1#40-5 19-21 I-IV.D 2.4.5
I soc-ec effects benefits training

certification northern people presentation

Coppermine. Mr. Bernhardt noted that if the oil industry is planning on staying around another twenty-five years they should be doing more in the school systems to encourage young people to stay in school. "...like you've been here a long time nowbut I would like to know roughly what kind of certificates or how many certificates have you given to northerners so far,..." Response indicated that many people from Coppermine had good jobs but these did not require diplomas. Response provided by each company.

1.1#40-5 26-28 I-I 2.4.3.1
I tankers preferred mode oilspill
movement * question

Coppermine. Question by Mr. Lueck to the proponents as to whether there is any time of year under any conditions that oil from a tanker spill could find its way to the shores at Coppermine. Response indicated that it was very unlikely. Mr. Pigalak (Hunters & Trappers Assoc) noted concern with currents and tides, not just wind direction in terms of oilspill movement. Support given to the pipeline alternative over tankers in that a spill would be easier to control and clean-up.

1.1#40-5 28-33 I-IV.D 2.4.5
I soc-ec effects * question
education/train northern people
kinds/areas

Coppermine. Mr. Donald Haviyoyak requested information about training including: size of center in Tuk; is there a breakdown of students allowed to enter from each community; are there plans for expansion. A concern was expressed that he has seen more and more applications coming in and most of the Inuks would prefer to take their training at a native community rather than the other alternative - Fort Smith. The need for an information officer was noted with the possibility that this could be added to the job of expeditor.

1.1#40-5 32-45 I-III 2.4.2.4
I tanker * oilspill
env/soc-ec eff wildlife comm concerns

Coppermine. Mr. Algiak expressed concern about wildlife in the event of an oilspill. Although the spill might not be transported the animals are mobile and might be affected during migration. Proponents responded with an indication of some of the plans for spill containment. In terms of wildlife encountering an oil spill while migrating, a response by species was provided for bears, seals, and fish. The response had noted that polar bears travel on the ice in winter and don't swim in the summer. Mr. Allooooloo noted that in the Eastern Arctic bears do swim in the summer and in the winter they hunt through a seal hole and sometimes go into the water. Proponents agreed that bears in the eastern Arctic do behave differently. Bears could enter the water and that is why bear monitors would be hired to keep them away from a spill. Mr. Allooooloo questioned the proponents ability to detect bears in the dark season. The proponents noted that this was still difficult and better means of detection were being sought.

1.1 #40-6 Beaufort Sea Environmental Assessment Panel

September 20, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

PAULATUK, N.W.T.

Total Reporting Service

Summary:

1.1#40-6	1-11	I	2.1	*
I	proposal/general	commun/concern		
*	Paulatuk		overview	

Paulatuk Community Session the meeting started with Panel introductions and outline of procedures for community sessions. A presentation by the proponents followed with emphasis on those aspects most likely to affect Paulatuk. Concerns noted by the proponents as having been identified by the community included: tankers; effects on hunting, trapping and fishing; employment and business opportunities. The animals of most concern are polar bears, arctic fox, seals and common murre. Results from the study of crossing of ships tracks were presented.

1.1#40-6

12-25

I-IV.D

I-111.H

I soc-ec effects

commun/concern

education/train

env/effects

wildlife

presentation

Paulatuk. Speaker: Mr. Gilbert Ruben. Results of interviews with 35 people are presented. On the question of effects of development, 23 indicated that oil development has been beneficial to them. "The conclusion is, my feeling of oil development and increased oil development; it will help the community during the present and future plans, that it will be beneficial to the people because it would provide jobs and employment again...". Community concerns: Community concerns identified included: #1 damage to the environment; #2 training for good jobs will not be available; #3 people may be less likely to live off the land; pipeline and oil spills; support for the Agreement -in - Principle; employment opportunities after the oil companies are finished; houses are not built; what will happen to the animals because of dredging, island construction, glory holes, dumping of mud; concern about affects on birds; concern about social impact on future generations; concern in general about the future; pipelines appear safer than tankers. A map indicating the hunting grounds was presented. Response by proponents (p.17) noted their confidence that development can occur without damage to the environment. Training oportunites are noted and in regard to people living less off the land, companies do have programs that provide the opportunity for people to have time off for hunting. Dredging concerns responded to (p19) - with the indication that the sea life recovers very quickly. Concern about island affect on the ice regime recognized and work will be continuing although there does not appear to be any affect yet. Glory holes and dumping of mud are similar to dredging and is not expected to harm the sea life. Response to migratory bird concern (p.22) and job availability and training (p23). In response to a proponent question, Mr. Garret Ruben noted that both herring and rock cod are caught - also there used to be Tom Cod, but lately there appear to be only rock cod. Ms. Agnes White noted that there are rock cod around Tuk as well.

1.1#40-6 28-29 I-III.F 2.4.1
I tankers ship tracks icebreaking
biol/phy effects * experience

Paulatuk. Mr. Edward Rueban reported his first hand experience with the crossing of ship track trials, and that he had seen with his own eyes that it was safe. He expressed appreciation for the closer communication with the Eskimo.

1.1#40-6 29-37 I-IV.C 2.4.4
I soc-ec effects commun/concerns *
* wildlife questions

Paulatuk. Mr. Roy Rueban questioned the proponents about their studies on wildlife (in relation to proponents questions about species of fish outside Tuk). Proponents response noted some of the whale studies, polar bear studies, and some fish studies. In response to questions about need for counselling in terms of money management, Mr. Garret Ruben noted that it is a problem, but didn't know the solution. Mr. Tom Thrasher suggested that if people from the outlying communities could purchase materials where they were working and have some means of taking it back with them (unused space on planes) that it would make goods more reasonable.

1.1 #40-7 Beaufort Sea Environmental Assessment Panel

September 21, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

FORT McPHERSON / ARCTIC RED RIVER

Total Reporting Service

Summary:

1.1#40-7	1-8	I-IV.C	2.1	*
I	soc-ec effects	commun/concern		
*	*		overview	

Fort McPherson Community Session. Session opened with Panel introduction and outline of community session procedures. Proponents then outlined the proposal noting the following concerns of Fort McPherson and Arctic Red River: hunting, fishing and trapping interference; better consultation; interest in business, jobs and training and community benefits.

1.1#40-7	10-16	I-IV.C	2.4.4	*
I	change	commun/concerns		
*	northern people		experience	

Fort Mc Pherson. Elders were requested to discuss their concerns, and Mr. Charlie Roe noted how the people depend on the MacKenzie Delta for fish and animals. The change in way of life was noted, and the fact that all are Canadians and should try to do good things together. Mr. Hyacynth Andre (p.14) from Arctic Red River presented what had happened in the past and the concern that since the oil company came some wildlife is scarce each year. Some of the rat lakes have gone dry due to ice roads amongst the lakes and seismic activity. Also the concern that the oil companies have filled in some of the creeks and there are no fish. Concern that a pipeline spill could harm the fish in the river. In response to a Panel question, Mr. Norbert confirmed that the people from Arctic Red were asking for more community consultation.

1.1#40-7 11-14 I-IV.H 2.4.4
I comm consult * * *

* northern people presentation

Fort McPherson. Speaker: Mr. Nap Norbert (Arctic Red River) speaking for one of the counsellors who could not attend. Complaint was made over the fact that no community sessions were being held at Arctic Red River. A second concern was that the proponents show pictures, but people do not get the opportunity to see the islands and drilling first hand. Response noted that the Panel had discussed holding a meeting in Arctic Red and it was agreed that a combined community session was acceptable. The proponents indicated they do have community tours of the operation and an invitation could be extended to Arctic Red.

1.1#40-7 18-28 I-IV.C I-IV.D
I soc-ec effects commun/concern *

govt manag northern people presentation

Fort McPherson. Mr. Ernest Firth. Feeling expressed that development is destined to go ahead but it should be done properly by listening to the wishes of the people. The economic advantages to Fort McPherson is appreciated, but problems have also occurred. "They studied the environment, the waters, the land - they haven't taken a serious look at the people that live around this area, the environment." Oil industry and the government must get together to get the people prepared for development and to settle land claims. Specialized training is required, not just introductions to training programs. The oil companies and government should get together on such programs as money management, cross-cultural training (and not cross-cultural training given to white supervisors by other white supervisors).

1.1#40-7
I

23-36
soc-ec effects

I-V
*

2.4.4
*

*

northern people

presentation

Fort McPherson. Speaker: Mr. Robert Simpson. Band Manager for Fort McPherson and interim co-ordinator for the Mackenzie Delta Dene Regional Council. (Written presentation also presented for questions at Inuvik General Session). Items covered in the oral presentation included: concern about loopholes that allow projects to continue without participation of the people while the Panel review is still ongoing; allocation of funds for development in the Mackenzie and Beaufort Sea "is noteworthy for its stunning, inequitable distribution" (industry is receiving a handout for development but what are native people and northern businesses receiving); concern over limited scope of Panel mandate which does not include land claims; "the Delta Dene have and will continue to plan for development because the plan is to choose our future..." concern over lack of funding support; concern over the North Slope Project Review Group. An overview of the economic and social conditions was presented to the Panel and briefly reviewed.... "The facts are saying the economy for the native people is not so rosy. The social problems are increasing. What does industry think of their benefits to this region now? "Question period: Mr. Firth noted that in his presentation he referred to well thought out and planned development which would be a social and economic benefit..." As it is happening now and has been happening in the past ten or fifteen years - no. It will have no benefits at all. In fact I think there would be strictly negative effects." Time frame needed for planning was addressed by Mr. Simpson. The land claim issue and the affect that its settlement might have was reviewed (p.35-36).

1.1#40-7
I

36-48
onshore dev

I-IV.C
commun/concern

I-III.H
disturbance

env effects

wildlife

experience

Fort McPherson. Chief Johnny Charlie, Chief of Fort McPherson. Concerns about development were expressed based on experience in the past when the companies have said there would be no damage and yet damage occurred. Some of the examples cited involved : jamming of creek with debris; cutlines on the hills which let the perma frost out and eventually turn into creeks; breaking of permafrost and drainage of lakes. The Dempster Highway was supposed to make goods cheaper, that his hasn't happened - as long as the oil company is around and their wages , everything will remain expensive. Concern for the land still exists - otherwise people wouldn't still be in town for the meeting since trapping has already started. Restrictions re hunting around the highway make it of no benefit to the people. An example of damage was that a site where land drilling had occurred was no longer used by the caribou. Also, although the camp boss on a lake said they had not hurt the lake - the next spring dead fish were found on the lake. Concern about the caribou and damage to their calving grounds was expressed, and concern that there will be a restricted area around a pipeline. Mr. Charlie Snowshoe from Fort McPherson, member of the Band Council and Vice-President of the Dene Nation from the North: Mr. Snowshoe reviewed his past experiences with Federal Government representatives and oil company people and expressed the feeling that the natives are getting thrown around by them. The changes that have occurred from development and government have not helped the people. Concern about Stokes Point and concern about the Beaufort Sea was expressed. They would like to see the proposal that was sent to the government about Stokes Point. Mr. Snowshoe question how the people were supposed to benefit from development, and noted that they were "forced into this joint venture, we are forced into going into business because we know we are getting left behind." Mr. William MacDonald from Fort McPherson questioned the proponents about their plans for Stokes Point and why nothing has been included in their presentation. Response indicated that proposal is for an exploration base and they do not yet have approval. Plans are not certain but it will be a modest site.

1.1 #41-1 Beaufort Sea Environmental Assessment Panel

September 24, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

FORT FRANKLIN, N.W.T.

Total Reporting Service

Summary:

1.1#41-1	6-12	Y-II	C,F	
II	land/culture	northern benefits		land claims
commun/consult	native harvest		overview	

Fort Franklin Community Session. Mr. George Blondin (former Chief of Fort Franklin) noted that they are really being affected at this time by changes in lifestyle and the development that is going on. "In the past , maybe all the people have heard that the Dene were saying in the Berger Inquiry that no development before the land claim. The reason we say that because we want to own a large tract of land so that we could make deals with companies and we would be a part of it, and maybe we could make some profit for our people, but the land claim is too slow, so now we agree with the development, and we want to be part of it. Now we could see that we have to be part of it; that is one thing that we are thinking about." Concern that the Governmnet is leasing land without consulatation with the Dene .."here we are expecting to settle the land-- and our land is getting smaller and smaller. That is another concern." In the area of business opportunity.."they would like to see the company keep their promise and to help the northern people and the Dene people would get part of it". Concern about what will happen when the development is finished and need to protect the land. Chief Charlie Barnaby , Fort Good Hope , (p.9) - the Berger Inquiry said no development for 10 years....."Now, they are going to build a pipeline from Norman Wells, taking oil out of our land; what benefit we're going to get out of it? All those things should be taught and should be really serious thinking about it with the native people." Concern over granting of land permits without community consulatation noting that in Colville Lake half of the settlement is on a Dome lease...."And that is why some people don't even speak in a meeting no more, because even myself, I think what's the use to talk, because you know, we're just like echo, you know, we're repeating ourselves."

1.1#41-1	12-17	Y-II	2.4.4
II	land/culture	northern benefits	land claims
commun/consult	native harvest	overview	

Fort Franklin. Chief George Kodakin (Fort Franklin) noted that concerns were expressed by the elders at the Berger Inquiry and in other meetings since that time. Talks with companies make development sound good..but .."they have also said they would get a lease for development only with our permission, but it has never been with our permission they get the lease." They also promised consultation before development and benefits.."but it seems that we never get anything out of this development.....So from now on, at all meetings, we will try and make sure that we do get something out of these developments and these pipelines that the oil companies are proposing to put through on our lands." The same concerns about promises by Government were expressed. The desire to get something in return for what is being taken out of their land in the form of royalties and compensation for damage to the land. Request that the Panel take these things into consideration..."Because over all the years of all the meetings taking place, and of all the concerns that we have presented, nothing has really happened, we have never gotten anything at all out of all the development taking place in the north."

1.1#41-1	23-26	Y-II	F,D,B
II	communication	northern benefits	alcohol
commun/consult	job opportunit	concerns	

Fort Franklin. Mr. Alvin Yallee on behalf of the Fort Norman Band Council - noted that no matter how good a fight they put up in the past there is still a pipeline going through and this will probably happen in the future..."so what I think is that we have got to start working together and making it as neat as possible and a benefit to all the native people in the Valley that are going to be involved. " The need for better communication was stressed - "information-wise communication is very poor." . Employment stability could be improved with better communication . Alcohol was noted as a major problem. Small businesses are not being supported. The alcohol problem was noted as being a greater problem on the job that in the community. He noted that the Band in Fort Norman was looking at ways to solve the alcohol problem in the camp across the Bear River. Chief Kodakin indicated that life in Fort Franklin was better since the prohibition of alcohol. Mr. Yallee indicated that in his opinion a lot of people are for the pipeline - they just want a fair share of the deal. In terms of getting a fair share, he indicated he hoped this Panel would learn from the things that didn't work right for the Norman Wells Panel.

1.1#41-1 34-42 Y-II C,D
 II land/culture northern benefits alcohol
 commun/consult native harvest concerns

Fort Franklin. Mr. Paul Wright, Fort Norman, indicated that one cannot say yes or no to the pipeline until they find out if they are going to benefit first. The importance of the land to the people was noted and that what happens to it should be discussed together. "We want a better life tomorrow, that's why we are here, because we're concerned." From past experience it is hard to say yes to a pipeline knowing that you are not going to benefit..."But he says if I know that I'm going to benefit from the project, like a pipeline development, he says then if I know that my children and my people are going to benefit from this, he says I'll be willing to co-operate and work with the pipeline." Concerns about training, high cost of living, and wildlife was expressed. The need to take care that nothing is polluted or damaged was emphasized, because when the resources have all been taken out, the native people will still be in the land. The need to settle land claims so people will have the opportunity to be involved in businesses was noted. The seriousness of the alcohol problem was discussed and the need for training camp in Norman Wells.

1.1#41-1 42-48 Y-II.G 2.4.4
 II land/culture * land claims
 commun/consult native harvest overview

Fort Franklin. Mr. Fred Widow, Fort Norman Dene Chief, noted the great concern with the land..."We love our land, he says, because we make a living on it..". If the land is spoiled or the water polluted the animals will go. This has been noted at other hearings and meetings but that all the notes taken don't seem to go anywhere.

1.1#41-1 48-54 Y-II 2.4.4
 II land/culture northern benefits land claims
 communication * concerns

Fort Franklin. Mr. Paul Baton, Fort Franklin, noted that if people had listened at other hearings.."If it had been done that way, then maybe by now things would have worked out quite well, but it seems that nothing has wver been taken into consideration for this reason. It seems that nothing has come out or worked out well." The people have always spoken of the love of the land and concern about the land, and that is why developement should only be after land claim settlement...."Because I feel if no land claims are settled and development goes ahead and takes place, then I feel that we would lose out on everything..... We don't benefit from this oil and gas development that has taken place so far..... It seems --are we not listeneing to one another? Are we not taking into consideration what is being said at meetings? Is this why nothing ever seems to get done so far?" The need for good participation from everyone was emphasized.

1.1#41-1	55-58	Y-III	2.4.5
II	onshore dev	overland pipe	impact
control			
govt manag	*		recommendations

Fort Franklin. Mr. George Blondin indicated need for more information about the proposal - how does it fit into land use planning, water board hearings, wildlife management. A need for a monitoring agency attached to the pipeline was noted which would look at the problems of the people in terms of job discrimination, training, compensation, etc. A concern was expressed that the education system is too much from the south and concern about its impact on the native culture.

1.1#41-1	59-71	Y-II	B,C,D
II	soc-ec effects	commun/concerns	
education/train			
commun/consult	future generations		concerns

Fort Franklin. Chief George Kodakin spoke about his concern for the future generations... "So he says the reason why I went to so many meetings and so many concerns I put forward, is because, he says, I 'm concerned about our children, our childrens, our future, and he says we've been talking, talking, and then he says nothing accomplished from it yet. He says nobody seems to take it into consideration..." Concerns were noted concerning current developments which are taking away from his people, concerns with schooling, drugs, alcohol.... "So now he says, like recently the people that talked to you about their concerns, like they want to settle their land first, and then development after, and when they say that, he says, its not just one person that's thinking that. He says its all of us, we think that way."

1.1 #41-2 Beaufort Sea Environmental Assessment Panel

September 26, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

NORMAN WELLS, N.W.T.

Total Reporting Service

Summary:

1.1#41-2	1-8	Y	2.1	
II	proposal/general	commun/summary		*
*	Norman Wells		overview	

Norman Wells Community Session. Meeting was opened with Panel introduction and a brief outline of community session procedures. A presentation by the proponents followed with emphasis on those aspects which would most affect the community. Norman Wells would be most affected through its use as a location from which to manage many of the activities. The current Norman Wells project was mentioned as a prototype and "Many, perhaps most of the mitigative measures which have been proposed in the Beaufort EIS have been implemented and are being used at Norman Wells." There are still concerns being expressed however that more could be done by the company.

1.1#41-2	8-9	Y-II.D	2.4.4	
II	soc-ec effects	comm/summary		
education/train				
govt manag	northern benefits		overview	

Norman Wells Community Session. Ms. Kathy Bjornson, Mayor of Norman Wells, spoke on behalf of the Norman Wells Hamlet Council. An overivew of concerns noted the need for further emphasis on local training and upgrading of skills and a need to get the Development Impact Zone Group established as a functioning body.

1.1#41-2	9-13	Y-II.B	Y-III
II	commun/consult	EIS /concerns	*
govt manag/plans	community impact		current impacts

Norman Wells. Norman Wells Hamlet Council presentation: Specific concerns with the Zone Summary of the EIS are noted: concern with pipeline crossing of potable water sources along the Mackenzie Valley; inaccurate statement regarding housing and services and statement that "this reduction in services is not acceptable"; community advisory committee meetings must be held in the Valley region and not in southern centers; resource development meetings should be held in the Valley communities; the Government of the N.W.T. must invest in impact communities - although amenities provided by industry are appreciated there is a concern over loss of autonomy on the Hamlet infrastructure; the term "impact funding" is considered inappropriate as the money did not serve the community in any tangible way." In Norman Wells we have seen operating and maintenance costs soar astronomically.....and other areas such as general administration , water delivery distribution and recreation servicing have also been affected..... we again state that before we conscientiously condone further resource development, it is recommended that all parties involved reach an agreement to shoulder equitably the financial impacts that municipalities will most definitely feel and furthermore, everyone must share planning for orderly development.....In closing, it must be declared that we do not disagree with resource development and in fact we wish to grow along side such projects but we do not wish to become a victim of circumstance." Questions addressed capital projects. Money has been deferred for a fire hall, office expansion and utilidor servicing but status of extra funding remains unclear. School facilities are adequate.

1.1#41-2	15-18	Y-II.B	2.4.4
II	soc-ec effects	commun/concerns	unions
impact management	community impact		current impacts

Norman Wells. Mr. Wayne Bryne noted some of the impacts currently experienced by Norman Wells residents: the main road is in a deplorable state due to project traffic; capital projects have been deferred or cancelled; community school was built for 90 and already houses 113 and is a teacher short; taxis have been used as a school bus and as a result a child was injured - request for a proper school bus which would be recognized as such was turned down; northern hiring practice consisted of hiring a northern shop steward who then hired out of southern unionhalls; lack of residential planning; banking and other facilities overloaded. "In closing, I am hoping that the Hamlet of Norman Wells bands together and unitedly voices its opposition to any further mega project or pipelines in the area until such time as realistic, proper and equitable development takes place in the community.."

1.1#41-2 19-24 Y-II.D 2.4.4
II soc-ec effects employment unions

* job opportunities proponent reply

Norman Wells. Proponents response to Panel question concerning unions and hiring practices noted: a central employment office was set up in Norman Wells managed by Esso. This office interfaced with government agencies and maintains a file on all applications. Individuals are referred from this file as jobs come up for which they are qualified. Unions: Unions represent about half the workforce and the process varies with each union. Some unions can recruit northerners directly while other unions are more restricted in the manner northerners get on the payroll and it has resulted in some reduction of northern involvement. Noted that it is practical to break down a contract into smaller ones and it has been the practice.

1.1#41-2 24-34 Y-II 2.4.4
II soc-ec eff/summ business opport
education/train wildlife presentation
env effects

Norman Wells. Presentation on behalf of the Metis Association, Local 59 of Norman Wells by Ms. Violet Doolittle. Lack of communication between companies and local native organizations noted, and lack of statistics on natives hired. Concern expressed about wildlife and lack of protection from hunting. Licences can be readily obtained and most moose are taken by transients. Concern over winter roads opening access to wildlife and three wheel bicycle use. Concern over the impact on the land and disruption by construction. Present oil spill clean-up system appears inadequate especially under storm conditions. Unions bring their own employees from the south and there are no natives in meaningful positions. Alcohol and drug problems have increased. Present housing situation is operated by southern people and not accessible to northern people. Small businesses are not able to compete with large companies from the south, and if they do are restricted to hiring only 50% northerners. Lack of training noted and lack of information and statistics on training. Concern over company definition of "northerner". Final question posed as to whether there had been any follow up to Esso's baseline study at the Great Bear Region. Concern noted over school and hostel facilities and that people moving north have put out the native people. The school has an adult education room but no teacher. In response to the oil spill concern, the proponents outlined the community plan for Norman Wells and indicated assembly of river booms, skimmers and shoreline protection equipment.

1.1#41-2	36-39	Y-II.C	2.4.4
II	soc-ec effects	*	
alcohol/drugs			
control of	northern people		concerns(comm)

Norman Wells. Discussion of drug problem among young people in Norman Wells. Ms. Bjornson suggested some sort of screening program for people coming into Norman Wells. There are no drug or alcohol programs although the RCMP may talk about these problems.

1.1#41-2	41-57	Y-II.B	Y.III
II	soc-ec effects	business opport	
alcohol/drugs			
govt manag	job opportunities		current impacts

Norman Wells. Presentation by Ms. Liz Danielson noting the following concerns: difficult for small contractors to bid on large jobs because of the union - need to join union; concern over definition of a northerner noting it used to be three years residency; lack of government assistance in the area of capital expenditures; no accounting of impact funds to this community; lack of education by government and industry to small businesses; no result from requests for full-time doctor; sometimes the companies to work successfully with the community, other times they go ahead regardless of Council opinion; more assistance required in drug and alcohol control. In response to question concerning medical facilities, proponents noted that cases are flown to Inuvik or Yellowknife as required.

1.1#41-2 49-58 Y-II.D 2.4.4
 II soc-ec effects northerner def educat/train
 govt manag job opportunities discussion

Norman Wells. Discussion concerning definition of a 'northerner' and a 'northern company'. The proponents noted that the limiting factor in hiring was skill, and there were not enough 'northerners' for the positions under any definition. The companies have development programs once an individual has entered the work force, but there is a need to reach that first level. It was noted that government programs are now training people but construction is already ongoing and they won't finish their training in time to benefit. Problem noted that there needs to be some activity to get a trained workforce because all training cannot be carried out in the classroom. Mr. Stutter asked about the joint venture drilling company and the training of their employees. Shetah is a company owned 50% by Esso and 50% by Dehcho (Dene and Metis). The Shetah employees are being developed and will take over operating positions through the life of Norman Wells. The drilling rig is over 50% native Northerners - one crew out of three is entirely a native crew. There is no union involvement in drilling.

1.1#41-2 58-67 Y-I.D 2.4.2.3
 II pipeline env eff * disturbance
 control of eff wildlife discussion

Norman Wells. In response to question over Game Management Service quotas and control, Ms. Doolittle noted that in the past year moose have been taken in greater numbers and not by permanent residents. Concern over the caribou in the Hammer Mountain area where people go out on bikes and get them. Concern that people manage to get licences to get a large number of moose without the local hunter and trapper group having any say. Proponents were asked to comment on the question of whether the pipeline route will have a corridor where hunting will be prohibited. Proponents note that it would be a decision for the Govt of N.W.T. to limit hunting along the pipeline. Note that in a buried pipeline there would not be a road, but there would be a cleared area making access easier. It was noted that Interprovincial is planning a monitoring program in cooperation with the Government and various hunter and trapper organizations. This program would look at the impacts on harvesting activities along the right-of-way.

1.1#41-2	67-76	Y-II.B	2.4.4
II	soc-ec effects	commun/concerns	funding
(imp)			
control of eff	community impacts		current impacts

Norman Wells. Speaker: Mr. Warren Schmidte noted several concerns relating to the impact on Norman Wells. Section under the Charter of Rights giving residents the privilege to move and take up residence in any province to pursue the gaining of livelihood was noted. Special privileges in hunting and fishing rights could be granted and access to territorial housing and grants should be limited to those for whom they were designed. Support of the Commissioner's decision to implement alcohol rationing was noted as well as the impressive crime control which has been achieved. Concern noted that in the area of social services the best effort has not occurred. Although government and company systems seemed ad hoc at the beginning, communication has improved. Main disappointment is the failure of the development impact zone group.

Ms. Phyllis Linton also addressed community concerns. Ms. Linton noted she had also attended the Berger hearings, and made the observation that "particularly after the Berger Hearings, that both levels of Government, territorial and Federal, have been playing a "wait and see" game when it comes to funding and impact on resource towns in the Northwest Territories." The failure of the DIZ organization in Norman Wells noted as an example. The attempt by Esso to isolate their crews from the Hamlet has left residents feeling left out. Contractors feel they could have handled more of the work and residents employed would like to enjoy more of the privileges given to the camp people.

1.1#41-2	70-73	Y-III.A	2.4.5
II	soc-ec effects	planning	funding
(imp)			
govt manag	community impacts		current impacts

Norman Wells. Ms. Linton noted concern over government preparation for the Norman Wells project. "It seems to me, particularly after the Berger Hearings, that both levels of Government, Territorial and Federal, have been playing a "wait and see" game when it comes to funding and impact on resource towns in the Northwest Territories. To back up my point, I wish to advise that the Norman Wells project is half finished and the "DIZ" organization and impact funding has not been actioned for the project nor Norman Wells.Nor does the Territorial Government have a project officer where the action is.As a concerned citizen and Councillor, I am having great difficulty understanding government policies concerning funding for Norman Wells during this time of direct pipeline building impact.My whole point is that the Federal Government and any proponents of mega projects in the North should have in place special capital expenditure funding for resource towns and agencies before any other future project be implemented...." Mrs. Linton suggested that the Council could have been better prepared at their level if they had been exposed to a place such as Fort McMurray. If they could have had some education at the Municipal level it would have been easier.

1.1#41-2

77-95

Y-II.D

2.4.4

II soc-ec effects
education/train

rotation schedul

*

job opportunities

current impacts

Norman Wells. Question to the proponents concerning Shetah and whether they are using the same approach to job scheduling (two week shifts). The response was basically yes. Work schedules may vary but most of the workforce is on a rotational basis. Proponents noted that after implementation of the rotation schedule more northerners and more natives became employed. When employees are working they stay on the site. The Chairman noted that other communities had raised the concern that a 12 hour schedule was creating problems for mothers of small children. Response indicated that there hadn't really been consideration given to adjusting the work schedules. It was noted that in Tuk where all workers do not remain on site, consideration could be given to a split shift although they didn't think people wanted to give up the income. Mr. Rick Meyer (p.82) noted concern with the rotational scheduling of Esso's workforce at Norman Wells. " But what has the community to gain when half the population living in total subsidization have to bear with the realities of northern life for no longer than a fourteen-day period after which a fourteen-day period prescribed by the employer of R and R." These employees bring only work skills and no skills for the cohesive existence of the community. Previously Esso did have a community here of permanent employees until the last two years. Proponents responded that this change was made to encourage more northern involvement and also to lessen the impact on the community in terms of service requirements. Permanent growth was identified in the EIS as the single most important factor in causing social change and infrastructure cost and communities inability to handle the growth--thus the rotational shedule is assumed to be preferable throughout the development stage. Ms. Sandra Stevens noted that "Native people are a proud race and if given the opportunity can prove to be an asset to your company. You must realize that yes, we are of a different culture and have different viewpoints but you must find it within yourselves to meet us half way. ...If we are unskilled or untrained, don't give us a passing glance and move on to someone else. Take a chance. ...You come in and expect the native people to greet you with open arms. What are you willing to do for the native people?"

1.1 #41-3 Beaufort Sea Environmental Assessment Panel

September 27, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

FORT GOOD HOPE, N.W.T.

Total Reporting Service

Summary:

1.1#41-3	1-6	Y	2.1	
II	proposal/general	commun/summary		*

* Fort Good Hope overview

Fort Good Hope Community Session. The meeting oopened with Panel introductions and a brief outline of the community session procedures. The proponents briefly reviewed their operations in the Beaufort. In relating the Beaufort EIS to Fort Good Hope, they noted the major impact would be in the pipeline alternative and the effects would be small and short-term. The pipeline would provide employment and business opportunities, and will not affect the ability to hunt and fish.

1.1#41-3	7-15	Y-I.D	Y.II.C	
II	existing env	commun/concerns		disturbance

env/soc-ec effect wildlife presentation

Fort Good Hope. Mr. John T'Seleie made a presentation on the Dene Nation's land use research which was started in 1973. Land use was done for 26 Dene communities in the Mackenzie Valley by interviewing a sample of men over 30 in each community. A map of the "group trapping area" was noted. Mr. T'Seleie asked whether there will be hunting and trapping allowed along the right-of-way of the pipeline. (Response noted that any restrictions would be a N.W.T Govt matter). Other concerns include the fact that the town's source of drinking water is the river and concern about oilspills; the Band is currently negotiating a compensation package for any loss of fish but this is after development has gone ahead; large scale projects need to be differently than in the past - more studies on wildlife are needed and the people need to be involved from the start. In response to questions about the need for more studies, it was noted that there were concerns over the studies previously conducted and that there needs to be some studies independent from the proponents.

1.1#41-3	15-20	Y-III	Y.III
II	review process	aboriginal right	land claims
govt manag	*		presentation

Fort Good Hope. Presentation by Mr. Edward Grandjambe discussed their rights as aboriginal people which is provided for in the Constitution. There are concerns regarding development - people still hunt and trap. Royalties need to be agreed upon and provisions made for compensation. An interim agreement on protection of lands and resources until land claims are settled has been discussed with the Hon John Munro. The concern that "We have talked to panels in the past and up 'till today we still don't see any of our concerns recognized. ...We would like to see a panel with some authority when it comes to making decisions on how explorations should happen here in the north. The reason I am saying this is that because we have said many things in the past and more than likely it ends up on a shelf somewhere in Ottawa collecting dust."

1.1#41-3	21-23	Y-II.E	2.4.4
II	compensation	*	*
govt role	*		discussion

Fort Good Hope. Proponents response to question of compensation for damages noted that many groups are studying compensation - DIAND, GNWT, the Govt of Yukon and Interprovincial Pipeline. It is also being discussed in the land claims negotiations. ..."our practice is to compensate for direct damage to property and reasonable direct loss of income from that damage. We think that direct negotiation between the operator and the damaged party is the best way to deal with the issue..."Ms. Delancy continued the discussion about compensation (p.32-34). The example of Grassy Narrows Reserve where the people lost their way of life due to environmental pollution and noted that "it's not enough to talk about compensation for direct damage to property under common law. The point of a compensation policy would be basically to allow the way of life to continue.. ...And the governments can't leave it up to the proponents to come up with their own compensation policy. It's the government's responsibility to make sure that's agreed upon before they give any regulatory go-ahead."

1.1#41-3	23-32	I-I.C3	2.4.3.2
II	onshore pipelin	reg compliance	oilspill
response cap	*		contingenc/plan

Fort Good Hope. Mrs. Debbie Delancy (for the Fort Good Hope Band Council) expressed concerns with the Esso Contingency Plan for Norman Wells (e.g. there were no detailed plans for protecting migratory waterfowl, no plans for cleanup of oil under ice or during breakup). The point made is that the regulatory process is backwards - all the approvals were made without the Contingency Plan. In terms of the EARP review of Norman Wells, points are noted in their written submission where the Panel's recommendations have not been satisfactorily dealt with.

1.1#41-3	34-43	Y-II.D	2.4.4
II	soc-ec effects	employment	
education/train			
ec benefits	job opportunities		current impacts

Fort Good Hope. Mr. Dolphus Shae used his experiences as an example of some of the effects on northern people and the concerns that remain despite all the benefits and job opportunities that are indicted as accruing to native people. Mr. Shae noted that he had not completed high school but had spent four and a half years in Yellowknife studying mechanics and welding (but no certificates were issued); took Grade 12 subjects and marine diesel in Halifax. Even after those years of training there was no choice but to go trapping. Mr. Shae indicated he had worked for Esso as a boat captain on and off until two years ago. Although he has submitted many applications for that type of job since then and had been told that he was first on the list - he has had no choice but to return to his bush camp. He presented this as an example where someone with experience in welding and other trades and ..There now today I can't even get a job in my homeland that's supposed to be a major oil boom that's already half gone.' Discussion followed this presentation included questions to the proponents about percentage of workforce which is native and about the central employment office referred to previously in relation to the experience presented by Mr. Shae.

1.1#41-3	43-46	Y-II.C	2.4.4
II	soc-ec effects	commu/concerns	*
commun/consult	*		current impacts

Fort Good Hope. Mr. Frank T'Seleie (former Chief of Good Hope) presented his concern with the size of the development activity and lands being leased, treatment of people on lands that are leased by the oil companies, impacts being felt at Norman Wells, environmental health concerns, and land negotiations. Mr. T'Seleie noted that he had made a presentation at the Berger Hearings and that position has not changed.

1.1#41-3	47-50	Y-II.C	2.4.4
II	soc-ec effects	employment	
communication			
ec benefits	native harvest		observ/experience

Fort Good Hope. Mr. Frank Pope presented the concerns of the Fort Good Hope Hunters & Trappers Assoc. "We do not wish to stand in the way of resource development in the north, but exploration and drilling causing much damage within our trapping areas has taken place despite the large amount of money expended over these years by the exploration companies. All we have really got out of it was employment and labourers; nothing much more."...Concerns included lack of permanent employment for any of their people; lack of opportunities for local contractors; although there has been improvement in the environmental protection area more could be done. ..."We in Fort Good Hope, make full use of our land to earn a living"...and concerns over compensation and lack of input by the people of the community in drawing rules and regulations to protect the land which encourages lack of communication between the community and the oil companies.

1.1#41-3	50-55	Y-II.D	2.4.4
II	soc-ec effects	northern opport	
education/train			
certification	job opportunity		concerns

Fort Good Hope Hunters & Trappers Assoc. Concerns over education and pre-employment training are expressed. Children must leave their communities to receive a Grade 12 education. "We are told by industry get yourself trained and we will hire you. Our people are getting sick of hearing this line from industry. Many of our men and women have taken several training courses to allow them to compete for positions with industry in the north....They return home, advise Esso in Norman Wells of their newly acquired skill and get that standard southern comment; don't call us, we'll call you.The onus in this case will have to come off the native people and fall right back onto industry..."

1.1#41-3 55-58
II land/culture

Y-II.C
commun/concerns

2.4.4 *

env/soc-ec eff native harvest concerns (commun)

Fort Good Hope. Mr. Charlie Kochon spoke about concerns from Colville Lake. .."And I want the panel to listen to me as I am just the one here from Colville Lake, because Colville Lake people, we live on straight trapping, hunting --trapping, hunting and fishing, that's what we live on..... You white people you have money in the bank....What I am saying is that land is our money; we trap on it and we live on it." Concern that there does not seem to many native people at Norman Wells and this is what will happen in other places if development takes over.

1.1#41-3 57-64
II soc-ec effect
implementation
control of impact

Y-II.C
*

2.4.4

lack of benefits current impacts

Fort Good Hope. Ms. Lucy Jackson noted some of impacts being felt at Norman Wells: drugs, liquor, social problems. Concern that the recommendations and guidelines that are there to make the impacts positive are not being used. Housing in Norman Wells built for natives are not being used for natives but by southern transients." ..we have two or three families that are waiting for these houses, but they never got a chance to have them..." Until there is positive action and support the answer will remain no to the pipeline as presented to the Berger Hearings.

1.1 #41-4 Beaufort Sea Environmental Assessment Panel

September 28, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

FORT NORMAN, N.W.T.

Total Reporting Service

Summary:

1.1#41-4	7-10	Y-II	B,C,D
II	communication	community concerns	env impacts
protection	future generations	presentation	

Fort Norman Community Session. Chief Paul Wright spoke about the importance of communication and about the disillusionment.. "but then he says he's wearied, he doesn't expect anything from it, and he says it's pretty hard for my people, because it seems like they're not going to participate in it, and they wouldn't get anything from it, the way he feels..." Mr. Wright noted that it is hard for young people to get started in business and there are no funds to assist them. This is why they want to protect the land from pollution so that people will have something left.

1.1#41-4	14-19	Y-II.F	2.4.5
II	communication	*	
commun/consult	northern benefits	concerns(comm)	*

Fort Norman. Mr. A. Yallee indicated that lack of communication was a problem..in Fort Norman when there are meetings on development the people have to meet with different organizations one at a time and the information is scattered. There is a need for one body to represent the community itself so that there will only be one body to deal with. The hope is expressed that the companies will wait for any feedback from the communities. "What I would like to see in the future is for any new projects around this area, that the companies take more interest in dealing with one body, one committee or one organization rather than ten different ones."

1.1#41-4	24-26	Y-II.C	2.4.4
II	soc-ec effects	*	alcohol
counselling	northern people	concerns(comm)	

Fort Norman. Mr. A. Yallee commented on alcohol problems related to employment. Question raised as to type of counselling provided and the need for help from the company and the community. p.35 Comment on camp.

1.1#41-4 19-36 Y-II.D 2.4.4
II soc-ec effects northern benefits unions
counselling education/train concerns(comm)

Fort Norman. Mr. Yallee noted that the communities need to know about projects a year in advance not a week in order to give lead time for training..northerners could be trained on projects which are already under way in the south..."It really hurts when you attend these hearings. They promise us all the jobs that are available to the northerners, and then you get on the phone to apply for a job, or send an application in and they tell you you're not qualified for it. You know that really hurts a person." Also instead of firing someone who runs into problems on the job, there should be some assistance provided. ...UNIONS...The union aspect should be explained to the people. An example was cited where people in Fort Norman could not get jobs in a camp across the river because it was a union camp. The people need to know what they require to get into a union to qualify for jobs. TRAINING...Concern noted that people were going on training courses only to become a labourer. Training should be in something which will be useful later on. .."You know, if someone comes and wants education in surveying, you know, they want to do that for a living, so they should be encouraged and put on training for that, not given a shovel and say "Here, go shovel a ditch for a couple of months, and we'll see how you're doing and we'll keep you on if you're good." Comments on the provision indicated that advance information was provided in the case of Norman Wells. Mr. Yallee questioned to whom and how far this information had been distributed. Mr. Benson responded to the question of pre project information distribution by noting meetings held and recruiting trips into Fort Norman. The employment officer in Fort Norman worked with the staff in making selections for pre-employment training.

1.1#41-4 36-43 Y-II.G 2.4.4
II env/soc-ec eff oil discovery oilspill
env effects native harvest concerns(comm)

Fort Norman. Mr. John Blondin told the story of the discovery of oil by his father in Norman Wells. Concern over the cost of living and the alcohol problem was expressed. Mrs. Yakalaya spoke in support of her brother's statement about the discovery of alcohol. She noted that she had talked at the Berger Inquiry and indicated they did not want the pipeline for fear it would break in the winter and destroy the land and the wildlife..that is what they fear. Mrs. Yakalaya indicated she hoped people of Fort Norman would get jobs and training, and indicated that so far there were no problems with the camps.

1.1#41-4	43-45	Y-I.D	2.1
II	proposal/pipe	EIS deficiency	background
data			
*	native harvest		concerns (comm)

Fort Norman. Ms. Susan Haley posed questions about the EIS and lack of detail about what they are supposed to be reviewing..which pipeline alternative, etc. Data presented in the EIS concerning native harvest for Fort Norman are misleading ..."all of them underestimate in a massive way, the dependence of this community on the land." Ms. Haley further noted that there is no information on how the proponents are prepared to protect areas important for the birth and propogation of wildlife.

1.1#41-4	46-59	Y-II	*
II	soc-ec effects	EIS deficiency	*
control of imp	*		current impacts

Fort Norman. Criticism of lack of plans and proposals in the EIS was presented. Experience with the IPL used to illustrate impacts on the community. Although a two year stay had been put on development at the beginning, it was never clear to the people in the community what they were to prepare themselves for. The early planning for the IPL camp was discussed and noted as inadequate..the first meeting officially held of a public nature occurred at the time the camp had originally been planned to start. Promises of lucrative contracts to the local people have not been followed through...."Instead, what we have seen is a pattern of the company offering and withholding contracts throughout the period since January up until this day.I think it's important to ask what went wrong. I believe it was the assumption of the pipeline company that co-operation with the company at the time of main line construction would be sufficient,they did not anticipate, I think, that we might want to participate in a more gainful way. I think they are still not taking that seriously...This is at least one of the things I mean when I say there's a need for planning...and I don't believe that the companies represetning the Beaufort project have presented any sort of planning which is more sufficientUNIONS... an example of concerns with unions was presented with the concern that "the company can then successfully construe almost no northerners as qualified to do work on pipeline construction.....The suspension of union regulations in this context is really meaningless." In terms of training programs the implication was that they had intended to create no programs although recently a poster went up which might mean trainign for seven persons for that part of the pipeline. Another example of lack of planning is that the community has yet to be told when the crossing of Bear River will take place and they have a number of concerns about this aspect. "In conclusion, then, I think our experience with the planning for the Norman Wells pipeline has been essentially a negative impact. I do not believe that the Beaufort Sea pipelline proposal presents any adequate plan, any plan that will avoid these difficulties in the future.....I think the burden of proof remains on the oil companies to show us how this (the Valley becoming an industrial corridor) can be avoided, and how we can gain from development".

1.1#41-4	60-63	Y-II.D	2.4.4
II	land/culture	northern benefits	land claims
delays	job opportunit	concerns	

Fort Norman. Mr. Jonas Neyelle (previous chief and Chairman of the Community Advisory Committee formed by the Hon. John Munro) noted that "One of the problems that the Dene people face today is uncertainty of the final land negotiation with the Federal Government, therefore, more and more Dene people are getting involved in economic development, because we cannot wait any longer." A longer delay would mean the Dene people would suffer financially in terms of economic development. Training is a main concern and the examples of problems with IPL previously presented are good examples and if they occur with the Beaufort the Dene would face a lot of problems. There is a need for the Band to be self sufficient. "Yet, the other things that our elders time and again have stressed to us is to protect our traditional lif; trapping, hunting, living off the land. We want to retain those traditional lifestyles as much as we can, but we have to participate in the development..." A problem not previously mention has to do with the requirement for sub-contractors to provide 100% performance bonds. A small northern company cannot put up such a bond.

1.1#41-4	64-82	Y-I.D	Y-II.B
II	land/culture		disturbance
*	wildlife	current impacts	

Fort Norman. Mr. F. Andrew (80 year old resident) spoke of his life on the land and the natives love of the land. He asks the Panel to listen to their concerns and take them into consideration.. "And he says if you look at my children in this settlement and listen to them, and he say to help them out, he says, I really appreciate that, for their future." Mr. Menacho spoke about a seismic road. He said that he spends most of his time trapping and hunting. He noted that although the companies met with them when they wanted to put in a seismic road, they put it in even though the natives had objected that it was in an area good for hunting. He noted that he has found animals dead on the seismic road and has noticed a decrease in the numbers of animals. There were two good lakes for rats and the companies put the road along side these and the rat population has been about wiped out. This is why they do not want the pipeline.... "if we spoil something, he says we can't just clean it up and put it the way it was before.. This is one of our reasons why, he says, we object to big developments like that.".. p.80 Mr. Mendo also noted he had experienced problems with the seismic lines. Damage was done to his trap lines and although he was supposed to recieve compensation, nothing has happened.

1.1#41-4

75-81

Y-II.D

2.4.4

II communication

northern benefits

education/train

env effect

job opport

presentation

Fort Norman. Mr. M. Mendo noted that he was employed at Norman Wells in the summer and hunted and trapped during the winter. Education is noted as important for the children - for the betterment of life for our future children...Also" and today with the high cost of living, jobs are important to a person, because trapping is a very hard life also." Although he notes that trapping is a part of their life and they want to maintain it, they also want education for their children. There should be better communication between employers and workers. An example was in cases when a family member is sick in another community and it affects a persons work or he has to leave to care for them. Finally, concern for the wildlife noted.."the wildlife on this land is our money to us, so we cannot see any damage done to that part of wildlife."

1.1 # 41-5 Beaufort Sea Environmental Assessment Panel

September 29, 1983

TRANSCRIPTS' BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - COMMUNITY SESSION

FORT SIMPSON' N.W.T

Total Repeating Service

Summary:

1.1#41-5	1-6	Y-II	2.1	*
II	proposal/general	commun/concerns		

* Fort Simpson overview

Fort Simpson Community Session. The meeting was opened with Panel introductions followed by a brief presentation by the Proponents. The aspects of the project most relevant of Fort Simpson were noted (pump station in the area, a major river crossing would be five miles upstream, operation and maintenance facilities would be located there, a district office could be built and the community could be a regional center for construction and operation.

1.1#41-5	7-35	Y-II.C	Y-II.D
II	land/culture	native concerns	land claims
govt manag	job opportunities	current impacts	

Fort Simpson. Chief J. Antoine opened with a presentation reviewing the history of the land claim situation, noting the current proposal is the "realization of the Mackenzie Valley pipeline proposal of the 1970's.If we are to benefit economically as a people, the oil companieshave to recognize our aboriginal rights to the land, its resources and to be dealt with as masters in our own land. Our position on land claim settlement has not changed." The Berger Inquiry was noted as providing a clear indication of their position and feeling and noted .."We are appalled to realize that the Berger Report was not accepted by Parliament." .."We are just recovering from the realization of half the Mackenzie Valley pipeline route clearing in the name of the Norman Wells Pipeline Project...". This was noted as being accepted with a list of terms and conditions and "To date, we are not satisfied with the employment, training and contract opportunities for our people.....There is no real help coming towards improving existing service organization, businesses in the community - so it goes without saying there is no maximum benefit to the native community.." The Norman Wells Funding came too late and has served to create confusion. The report of the Joint Needs Assessment Committee has not been accepted by the Dene Nation. Training needs as indicated by residents have not been provided

for...."We want to submit proposals for native training needs: job readiness, Dene language development,cultural schools...". Concern was expressed that they have had no information on the water crossing. The findings of the Norman Wells EARP Panel were referred to this Panel. The fact that they are being asked to consider a second pipeline before the effects of the first have been fully realized is objected to. "We would like to point to the disparities between the billions being spent on oil and our present situation of miserable housing, health and social conditions we live in, in the North today." Mr. Antione noted that a recent water pipeline breakage on the river makes one wonder about the buried pipelines in the river. "The whole theme of this submission is the recurring theme of "our land and our life" and the same strong position of settling aboriginal title in the Northwest Territories before final development of the resources, be it renewable or non-renewable."...." Royalties should be paid on any resources taken out of the ground of the aboriginal people to ensure that we establish programs to meet our own needs. Discussion period noted: other communities had requested more advanced training rather than job readiness as requested here; there is no monitoring agency in place and the major part of the pipeline will be built this winter; the Federal Policy that land that is leased cannot be part of a land claim, yet they continue to lease land with no Dene input; land claims are being jeopardized by development; statement on Panel mandate re land claims; concern over source of fresh water if an oil spill occurred and the proponents response to this...(amount of water which could get in the river would be small because of block valves); discussion of means to ensure water supplies are not affected during construction.

1.1#41-5	42-48	Y-II.B	2.4.4
II	soc-ec eff	commun/concerns	services
commun/consult	*		presentation

Fort Simpson. Mayor J. Villeneuve focussed his talk on community effects noting: the municipality is having difficulty coping with such services as water supply without development. Support for the Band presentation was noted. The effect of the pipeline that never was was from people moving in at that time in anticipation of development and expansion of services which the community is still trying to cope with financially. There was no special impact funding or assistance.

1.1#41-5 51-53 Y-II.C 2.4.4
 II soc-ec effects prop plans
 alcohol/drugs
 control of imp northern people question

Fort Simpson. Mr. J. McCardy (Alcohol and Drug Program) asked for additional information of measures and precautions by government and companies in terms of alcohol and drugs and social relations (alcohol related). Proponents responds included: isolation of camps; dry camps; special training programs.

1.1#41-5 53-71 Y-II 2.4.4
 II govt role * env effects
 gen
 * * presentation

Fort Simpson.. Presentation by Mr. D. Antoine noting the following concerns: recommendations from the Berger Inquiry have not really been looked at by the companies; "commerce and government will always turn a blind eye to pollution in the name of expediency and profit"; skepticism over type of studies carried out; "rules of economics do not translate readily to the rules of conservation"; concern that the people will have to suffer for any mistakes, not the oil companies; environmental concerns of government from the guidelines noted but with concern over the use of the words "minimize", "adequate" and "effective"; there is still time to consider other alternatives; motion from the Dene National Assembly between Sept 6th and 12th, 1983 was read (p.61) concerning funding to offset the impact of Norman Wells outlining conditions of acceptance and recommendations.

1.1#41-5 72-84 Y-II 2.4.5
 II land/culture northern benefits land claims
 aboriginal rights native people presentation

Fort Simpson. Mr. Menicoche referred to the Berger Inquiry and read into the record the Dene Declaration, passed in 1975.. "It called for the people of Canada and the nations of the world to recognize the simple fact that the original people of the Mackenzie were and are a unique race and culture, and declared themselves to be a nation within Canada.." Some of the settlement history is noted and the coming of the white people with their "peace treaties" described. Objections to the form of government and the resulting poor social conditions in the North are presented. .."In the Northwest Territories the native people are the majority, yet all the decision-making that affects their livesare made for them elsewhere. "One of the most destructive actions against the Dene has been the refusal to listen. The effects of the first pipeline has not been determined.

1.1#41-5 84-91 Y-III 2.4.5
II govt roles northern benefits human env

*govt manag native input presentation

Fort Simpson. Mr. William Lafferty presented his history as a child and the environment as he knew it then. As a child, people were self-reliant and independent and the community was independent. The north is portrayed as a total welfare state due to the past government management and lack of input from the native people. The decision-making powers are not in their hands and the few aspects that have been turned over (such as education) have been done in a manner that does not really address the problem. Problems are occurring because three classifications of people have been created - white, Metis and Indian. The issues are seen not so much as an environmental problem as a human environment problem. There are people who wish to participate in development but will not get the opportunity unless this issue is addressed - better education. "The pipeline would be a start, because it is producing an opportunity for individuals like myself ...to express our true concerns for our homeland and home community. ..And it's just a start; it's a vehicle. And you are creating a corridor through which perhaps many of us can pass toward a goal that I forsee for our people, but first we must address the human environment, their education."

1.1#41-5 92-99 Y-II.D Y-II.C
II soc-ec effects northern benefits
education/train
*employment job opportunities current impacts

Fort Simpson. Mrs. Rohd noted that people are concerned about river crossing by the pipeline and that the high expectations for employment have not proved valid. Young people are still unemployed despite the fact that they took training last year. Concern noted about the housing situation and the long wait for a house, and about the high cost of living. Ms. Menicoche commented on her involvement with the Berger Inquiry, noting that those hearings had helped the native people in terms of giving them the courage to speak up. The poor social and economic situation for the natives in the community now was noted and the unemployment problems. The belief that the people are becoming more independent and strong within themselves and will be better able to cope with the impacts of development. Many of the problems - alcohol, family breakdown - have been experienced and people are starting to overcome these.

- 1.1 #42-1 -----. October 13, 1983.
 Transcripts, Beaufort Sea Environmental Assessment Panel
 public meetings - community session: Pond Inlet, Northwest
 Territories. Prepared by Total Reporting Service for the
 Beaufort Sea Environmental Assessment Panel, Canada
 Environmental Assessment Review. 111p.
- 1.1 #42-2 -----. October 14, 1983.
 Transcripts, Beaufort Sea Environmental Assessment Panel
 public meetings - community session: Arctic Bay, Northwest
 Territories. Prepared by Total Reporting Service for the
 Beaufort Sea Environmental Assessment Panel, Canada
 Environmental Assessment Review. 84p.
- 1.1 #42-3 -----. October 17, 1983.
 Transcripts, Beaufort Sea Environmental Assessment Panel
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 Panel, Canada Environmental Assessment Review. 63p.
- 1.1 #42-4 -----. October 22, 1983.
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 Northwest Territories. Prepared by Total Reporting
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- 1.1 #42-5 -----. October 26, 1983.
 Transcripts, Beaufort Sea Environmental Assessment Panel
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 Territories. Prepared by Total Reporting Service for the
 Beaufort Sea Environmental Assessment Panel, Canada
 Environmental Assessment Review. 123p.
- 1.1 #42-6 -----. October 27, 1983.
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 Territories. Prepared by Total Reporting Service for the
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 Environmental Assessment Review. 51p.
- 1.1 #42-7 -----. October 24, 1983.
 Transcripts, Beaufort Sea Environmental Assessment Panel
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 Northwest Territories. Prepared by Total Reporting
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 Panel, Canada Environmental Assessment Review. 48p.

1.1 #43-1 ----- November 11, 1983

Transcripts, Beaufort Sea Environmental Assessment Panel
public meetings - community session: Old Crow, Yukon.
Prepared by Total Reporting Service for the Beaufort Sea
Environmental Assessment Panel, Canada Environmental
Assessment Review. 109p.

1.1 #45-1 Beaufort Sea Environmental Assessment Panel

October 15, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and presentations):

	PAGE
<u>INTRODUCTION - THE CHAIRMAN</u>	1
<u>SESSION OPENING STATEMENTS</u>	
<u>PROPOSERS</u>	
- DOME/ESSO/GULF	8
<u>INTERVENORS</u>	
- DIAND	14
- INUIT TAPIRISAT OF CANADA	22
- LABRADOR INUIT ASSOCIATION	35
- BRIA	40
- ENVIRONMENT CANADA	44
- DEPARTMENT OF FISHERIES AND OCEANS	47
I. <u>ARCTIC TANKERS</u>	
A. <u>Tanker Design and Performance</u>	
Proponent's Presentation	57
- Questions	72

1.1 #45-2 Beaufort Sea Environmental Assessment Panel

October 17, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

PAGE

I. ARCTIC TANKERS

A. Tanker Design and Performance (con't)

- Questions

4

1.1 #45-3 Beaufort Sea Environmental Assessment Panel

October 17, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and presentations):

	PAGE
<u>I. ARCTIC TANKERS</u>	
<u>B. Navigation and Routing (con't)</u>	
- Questions	1
Intervenor's Presentation	
- LIA	35
<u>C. Oil Spills</u>	
Proponent's Presentation (Dome/Essso/Gulf)	48
- Questions	55
Intervenor's Presentation	
- Environment Canada	57
- Questions	68
- Statement (Dr. R. Wallace)	86
- Statement (Dr. D. Mackay)	97

1.1 #45-4 Beaufort Sea Environmental Assessment Panel

October 17, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and presentations):

	PAGE
I. <u>ARCTIC TANKERS</u>	
B. <u>Oil Spills</u> (con't)	
Proponent's Presentation (Dome/Esso/Gulf)	2
- Questions	15
- Statement (Dr. D. Mackay)	25
- Questions (con't)	26

1.1 #45-5 Beaufort Sea Environmental Assessment Panel

October 18, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

PAGE

I. ARCTIC TANKERS

C. OIL SPILLS

G. ENVIRONMENTAL ASSESSMENT

Questions/Statements 1

Intervenor's Presentation

BRIA 56

Questions/Statements 76

1.1 #45-6 Beaufort Sea Environmental Assessment Panel

October 18, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

	PAGE
I. <u>ARCTIC TANKERS</u>	
G. <u>ENVIRONMENTAL ASSESSMENT</u> (con't)	
Questions/Statements	1
E. <u>NOISE</u>	
<u>Proponent's Presentation - Dome/Esso/Gulf</u>	35
<u>Intervenors' Presentations</u>	
DR. J. TERHUNE	57A
DR. R. HIRST	71
Questions/Statements	84

1.1 #45-7 Beaufort Sea Environmental Assessment Panel

October 19, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

	PAGE
I. <u>ARCTIC TANKERS</u>	
E. <u>Noise</u>	
Questions/Statements	1
Intervenor's Presentation	
- Mr. G. Williams	14
D. <u>Effects of Icebreaking on Ice Patterns</u>	
Proponent's Presentation (Dome/Esso/Gulf)	38
Questions/Statements	44

1.1 #45-8 Beaufort Sea Environmental Assessment Panel

October 19, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

	PAGE
I. <u>ARCTIC TANKERS</u>	
D. <u>Effects of Icebreaking on Ice Patterns</u>	
<u>Intervenors' Presentations</u>	
- Mr. G. Williams	1
Questions/Statements	15
- Resolute Bay Hunters & Trappers Assoc.	26
Questions/Statements	29
- Bria	34
Questions/Statements	36
- Mr. D. Kulluk (Pond Inlet	49
G. <u>Environmental Assessment</u>	
Questions	52
<u>Intervenor's Presentation</u>	
- Museum of Man	62
Questions/Statements	68
H. <u>Other Concerns</u>	
<u>Intervenor's Presentation</u>	
- LIA	72

1.1 #45-9 Beaufort Sea Environmental Assessment Panel

October 19, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

PAGE

II. COMMUNITY AND SOCIO-ECONOMIC EFFECTS
- PARRY CHANNEL

A. Effects on Northern Peoples

Proponent's Presentation (Dome/Esso/Gulf) 3

Questions 12

1.1 #45-10 Beaufort Sea Environmental Assessment Panel

October 20, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

	PAGE
II	
<u>COMMUNITY AND SOCIO-ECONOMIC EFFECTS - PARRY CHANNEL (Cont'd.)</u>	
<u>A. EFFECTS ON NORTHERN PEOPLES</u>	
<u>INTERVENORS' PRESENTATIONS</u>	
ITC	15
Questions	27
BRIA	44
Questions	60

1.1 #45-11 Beaufort Sea Environmental Assessment Panel

October 20, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

II COMMUNITY AND SOCIO-ECONOMIC EFFECTS -
PARRY CHANNEL (Cont'd.)

A. EFFECTS ON NORTHERN PEOPLES

Questions re BRIA's Intervention (Cont'd.) 1

B. NORTHERN ECONOMIC OPPORTUNITIES AND BENEFITS

PROPOSERS' PRESENTATION
- DOME/ESSO/GULF 13

Questions 18

INTERVENORS' PRESENTATIONS

1. BRIA 55

Questions 64

2. D. KULLUK (Arctic Bay) 67

Questions

C. SETTLEMENT PATTERNS

Questions 70

INTERVENORS' PRESENTATION

1. J. NUTARAK (Pond Inlet) 87

D. COMPENSATION

PROPOSERS' PRESENTATION
- DOME/ESSO/GULF 90

Questions 97

1.1 #45-12 Beaufort Sea Environmental Assessment Panel

October 20, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and
presentations):

	PAGE
II	
<u>COMMUNITY AND SOCIO-ECONOMIC EFFECTS - PARRY CHANNEL (Cont'd.)</u>	
<u>D. COMPENSATION</u>	
Questions	1
<u>E. COMMUNITY CONSULTATION</u>	
Questions	18
III	
<u>GOVERNMENT MANAGEMENT</u>	
<u>A. REGIONAL PLANNING</u>	25
<u>B. TANKER ROUTING</u>	26
<u>C. ENVIRONMENTAL PROTECTION</u>	27
 INTERVENORS' PRESENTATIONS	
1. DIAND	22
2. COAST GUARD	33
3. FISHERIES AND OCEANS	37
Questions	42

1.1 #45-13 Beaufort Sea Environmental Assessment Panel

October 21, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION.

RESOLUTE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda Subject and presentations):

III. GOVERNMENT MANAGEMENT

- A. REGIONAL PLANNING
- B. TANKER ROUTING
- C. ENVIRONMENT PROTECTION

Intervenors' Presentations

ENVIRONMENT CANADA	2/20
Questions/Statements	3/23
DR. H. DIRSCHL	27
Questions/Statements	37
ITC/LIA/TFN	43
Questions/Statements	48

SESSION CLOSING STATEMENTS

DIAND	56
DFO	58
ENVIRONMENT CANADA	60
DOME/ESSO/GULF (Proponents)	63
LIA	64
ITC	67
BRIA	71
COMMUNITY OF RESOLUTE BAY	76

1.1 #46-1 Beaufort Sea Environmental Assessment Panel

November 9, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
<u>INTRODUCTION - THE CHAIRMAN</u>	1
 <u>SESSION OPENING STATEMENTS</u>	
1. DOME/ESSO/GULF	9
2. DIAND	19
3. MAYOR J. ROBERTSON	36
4. GNWT (DEPT. OF RENEWABLE RESOURCES)	38
5. GNWT (DEPT. OF HEALTH & SOCIAL SERVICES)	42
6. GOVERNMENT OF YUKON	48
7. DIZ GROUP	61
8. DFO	66
9. DOE	74
10. INUVIK & DISTRICT CHAMBER OF COMMERCE	84

1.1 #46-2 Beaufort Sea Environmental Assessment Panel

November 10, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	Page
I. <u>OIL SPILLS</u>	
B. <u>Offshore Oil Spills</u>	
C. <u>Onshore Oil Spills</u>	
Proponent's Presentation DOME/ESSO/GULF	2
Questions/Statements	28

1.1 #46-3 Beaufort Sea Environmental Assessment Panel

November 10, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	Page
I. <u>OIL SPILLS</u>	
B. <u>Offshore Oil Spills</u>	
C. <u>Onshore Oil Spills</u>	
Questions/Statements	1/83

1.1 #46-4 Beaufort Sea Environmental Assessment Panel

November 10, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
I. <u>OIL SPILLS</u>	
B. <u>OFFSHORE OIL SPILLS</u>	1
C. <u>ONSHORE OIL SPILLS</u>	4
Questions/Statements	10
A. <u>OVERVIEW OF RISK ANALYSIS</u>	14
Proponents Presentation	
DOME/ESSO/GULF	22
Questions/Statements	32

1.1 #46-5 Beaufort Sea Environmental Assessment Panel

November 12, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
I. <u>OIL SPILLS</u>	
A. <u>Overview of Risk Analysis (Cont'd.)</u>	
Statements	2

1.1 #46-6 Beaufort Sea Environmental Assessment Panel

November 12, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
I. <u>OIL SPILLS</u>	
A. <u>Overview of Risk Analysis</u> (Cont'd.)	
Statements	2
D. <u>Response Capability</u>	
Proponent's Presentation DOME/ESSO/GULF	20
Questions/Statements	35

1.1 #46-7 Beaufort Sea Environmental Assessment Panel

November 14, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

I. <u>ARCTIC TANKERS</u>	PAGE
<u>D. Response Capabilities (cont'd)</u>	
Questions/Statements	1
Intervenors' Presentations	
1. DIAND (Dr. D.M. Barnett)	16
Questions/Statements	23
2. DR. P. GREISMAN	27
Questions/Statements	30
<u>Oil Spill Safety Devices</u>	
Proponent's Presentation	
Dome/Esso/Gulf	44
Questions/Statements	48

1.1 #46-8 Beaufort Sea Environmental Assessment Panel

November 14, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>I. ARCTIC TANKERS</u>	PAGE
<u>D. Response Capability (cont'd)</u>	
Intervenor's Presentation	
1. Mr. D. McWatt	2
Questions/Statements	4

1.1 #46-9 Beaufort Sea Environmental Assessment Panel

November 14, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II. ENVIRONMENTAL EFFECTS IN THE ONSHORE DEVELOPMENT ZONE

	Page
Proponent's Presentation - Overview	5
- DOME/ESSO/GULF	
Questions/Statements	12
Intervenor's Presentation	
- Dr. E. Tull	58
Questions/Statements	59

1.1 #46-10 Beaufort Sea Environmental Assessment Panel

November 15, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II. ENVIRONMENTAL EFFECTS IN THE ONSHORE DEVELOPMENT ZONE

B.	<u>Overland Pipelines & Gathering Systems</u>	PAGE
	Questions/Statements on Dr. Tull's Presentation (Cont'd.)	1
C.	<u>Shorebases</u>	
	Questions/Statements	5
D.	<u>Roads and Road Use</u>	
	Questions/Statements	72

1.1 #46-11 Beaufort Sea Environmental Assessment Panel

November 15, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II. ENVIRONMENTAL EFFECTS IN THE ONSHORE DEVELOPMENT ZONE

	PAGE
D. <u>Roads and Road Use</u> Questions/Statements	2
E. <u>Quarries</u> Questions/Statements	18
INTERVENOR's Presentation	
MR. W. NASOGALUAK (Canadian Reindeer)	36
Questions/Statements	37
F. <u>Construction Support Camps</u> Questions/Statements	44
G. <u>On and Offshore Supply Operations</u> Questions/Statements	71

1.1 #46-12 Beaufort Sea Environmental Assessment Panel

November 15, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II. ENVIRONMENTAL EFFECTS IN THE OFFSHORE DEVELOPMENT ZONE

	PAGE
G. <u>Onshore and Offshore Supply Operations</u> Questions/Statements	3
H. <u>Aircraft Operations</u> Questions/Statements	43
I. <u>Summary of Effects on Wildlife</u> Questions/Statements	57
<u>Intervenor's Presentation</u>	
DR. T. BARRY	70
Questions/Statements	72

1.1 #46-13 Beaufort Sea Environmental Assessment Panel

November 16, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II. ENVIRONMENTAL EFFECTS IN THE ONSHORE DEVELOPMENT ZONE

	<u>PAGE</u>
<u>J. ARCHAEOLOGICAL RESOURCES</u>	
<u>Intervener's Presentation</u>	
1. GNWT (Dr. C. Arnold)	2
Questions/Statements	4
<u>K. ENVIRONMENTAL ASSESSMENT</u>	
Questions/ Statements of Proponents	9
<u>Intervener's Presentation</u>	
1. DFO (Mr. M. Lawrence)	60

1.1 #46-14 Beaufort Sea Environmental Assessment Panel

November 16, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
II. <u>ENVIRONMENTAL EFFECTS IN THE ONSHORE DEVELOPMENT ZONE</u>	
<u>K. Environmental Assessment</u>	
Questions/Statements of DFO	1
Intervenors' Presentations	
1. Beaufort Sea Alliance (Dr. E. Tull)	21
Questions/Statements	29
2. DIAND (Mr. J. Inglis)	49
Questions/Statements	52
III. <u>ENVIRONMENTAL EFFECTS IN THE OFFSHORE DEVELOPMENT ZONE</u>	
<u>K. Environmental Assessment</u>	
Questions/Statements	61
<u>B. Effects of Oil Spills</u>	
Questions/Statements	76

1.1 #46-15 Beaufort Sea Environmental Assessment Panel

November 17, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
III. <u>ENVIRONMENTAL EFFECTS IN THE OFFSHORE DEVELOPMENT ZONE</u>	
<u>B. EFFECTS OF OIL SPILLS</u>	
Questions/Statements	3
Intervenor's Presentation	
1. DFO	16
<u>C. COMMON WASTES & HAZARDOUS TOXIC MATERIALS</u>	
Questions/Statements	11
<u>D. DREDGING AND OTHER SEA FLOOR DISTURBANCES</u>	
Questions/Statements	37
Proponent's Presentation	
Dome/Esso/Gulf	39
Questions/Statements	48

1.1 #46-16 Beaufort Sea Environmental Assessment Panel

November 17, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

**III. ENVIRONMENTAL EFFECTS IN THE OFFSHORE
DEVELOPMENT ZONE**

**G. EFFECTS OF NOISE ON MARINE MAMMALS
AND BIRDS**

Proponent's Presentation Dome/Esso/Gulf	2
Questions/Statements	28
Presentation - Dr. Terhune	58
Questions/Statements	70

1.1 #46-17 Beaufort Sea Environmental Assessment Panel

November 17, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
III. <u>ENVIRONMENTAL EFFECTS IN THE OFFSHORE DEVELOPMENT ZONE</u>	
<u>H. SUMMARY OF EFFECTS ON WILDLIFE</u>	
Questions/Statements of Proponents	1
<u>Intervenors' Presentations</u>	
1. BRIA (Ms. J. Donaldson)	10
Questions/Statements	19
2. GNWT (Dr. A. Gunn) (Department of Renewable Resources)	28
Questions/Statements	39

1.1 #46-18 Beaufort Sea Environmental Assessment Panel

November 18, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

III ENVIRONMENTAL EFFECTS IN THE OFFSHORE DEVELOPMENT ZONE

H. Summary of Effects on Wildlife (con't)

	<u>PAGE</u>
Questions of Dr. Gunn	1
 <u>Interveners' Presentations</u>	
1. GNWT (Mr. P. Latour)	20
Questions/Statements	28
2. GNWT (Mr. G. Stenhouse)	50
Questions/Statements	62
3. GNWT (Mr. R. Graf)	64
Questions/Statements	76

1.1 #46-19 Beaufort Sea Environmental Assessment Panel

November 18, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

III ENVIRONMENTAL EFFECTS IN THE OFFSHORE DEVELOPMENT ZONE

H. Summary of Effects on Wildlife (con't)

	<u>PAGE</u>
<u>Intervener's Presentation</u>	
1. DFO (Mr. L. Johnson)	1
Questions/Statements	5
F. <u>Ice Regime Impacts: Effects of Icebreaking</u>	
Proponents Presentation - Dome/Esso/Gulf	12
Questions/Statements	22
E. <u>Ice Regime: Extension of Landfast Ice</u>	
Proponents Presentation - Dome/Esso/Gulf	75
<u>Intervener's Presentation</u>	
1. Mr. V. Steen	82
Questions/Statements	89

1.1 #46-20 Beaufort Sea Environmental Assessment Panel

November 18, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

III. ENVIRONMENTAL EFFECTS IN THE OFFSHORE DEVELOPMENT ZONE

	<u>PAGE</u>
E. <u>Ice Regime Impacts: Extension of Landfast Ice</u>	
Questions/Statements of Proponents	1
Intervenors Presentation	
1. DOE (Mr. B. Moore)	42
B. <u>Effects of Oil Spills (con't)</u>	
Intervenors Presentations	
1. DIAND (Mr. F. Guimunt)	48
I. <u>Research and Monitoring</u>	
Questions/Statements	91
Intervenors Presentation	
1. DIAND (Dr. D. Stone)	118
Questions/ Statements	125
Other Concerns	132
Comments	135

1.1 #46-21 Beaufort Sea Environmental Assessment Panel

November 19, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

- I N D E X -

IV. SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

<u>Agenda Items A, B, C</u>	PAGE
<u>Opening Statement</u>	
1. Beaufort Sea Alliance	4
<u>Proponents' Presentation</u>	
Dome/Esso/Gulf	17
Questions/Statements	24

1.1 #46-22 Beaufort Sea Environmental Assessment Panel

November 19, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

IV. SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

GENERAL	PAGE
<u>INTERVENOR'S PRESENTATION</u>	
1. Mackenzie Delta DIZ Group	1
Questions/Statements	2
2. Beaufort Sea Alliance (Mr. B. Gibson)	9
Questions/Statements	22
3. Tuktoyaktuk Social Services Committee	28
Questions/Statements	34
4. Beaufort Sea Alliance (Dr. P. Usher)	77
Questions/Statements	93

1.1 #46-23 Beaufort Sea Environmental Assessment Panel

November 21, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

IV. SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT
DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

<u>General</u>	Page
Questions/Statements of Dr. P. Usher (Beaufort Sea Alliance)	3
<u>Intervenor's Presentation</u>	
1. Beaufort Sea Alliance (Dr. T. Chamberlin)	60
Questions/Statements	77

1.1 #46-24 Beaufort Sea Environmental Assessment Panel

November 21, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>IV</u>	<u>SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES</u>	PAGE
	<u>General</u>	
	Questions/Statements of Dr. T. Chamberlin (Cont'd)	2
	<u>Agenda A, B, C</u>	
	<u>Intervenor's Presentation</u>	
	1. Mr. T. Detlor	12
	Questions/Statements	16
	<u>C. Effects on Northern Peoples</u>	
	Questions/Statements of Proponents	29
	<u>E. Examination of Resource Development Experiences from Other Areas</u>	
	<u>Intervenor's Presentation</u>	
	1. Dr. G. Nelson/Dr. R. Butler	85
	Questions/Statements	112

1.1 #46-25 Beaufort Sea Environmental Assessment Panel

November 21, 1983. Vol. III

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

IV SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT
DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

E. Examination of Resource Development Experiences from
Other Areas (Cont'd) PAGE

Questions/Statements of Dr. G. Nelson/Dr. R. Butler 1
(North Sea Experience)

Intervenors' Presentations

- | | |
|--|----|
| 1. Mr. P. Weinstein (Alaska Experience) | 35 |
| Questions/Statements | 61 |
| 2. Beaufort Sea Alliance (Dr. D. Brooks) | 78 |

1.1 #46-26 Beaufort Sea Environmental Assessment Panel

November 22, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

IV SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

PAGE

V GOVERNMENT MOT

Intervenors' Presentations

1. GNWT (Mr. M. Moore/Mr. C. McGee)	
Department of Local Government	1
Questions/Statements	12
2. GNWT (Mr. P. Donnelly/Mr. B. Dunbar)	
Department of Social Services	72
Questions/Statements	75

GENERAL

Int. Pres.

1. Mackenzie Delta Dene Regional Council	100
--	-----

1.1 #46-27 Beaufort Sea Environmental Assessment Panel

November 22, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

IV SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

	<u>PAGE</u>
<u>General</u>	
<u>Int. Pres.</u>	
Mackenzie Delta Dene Regional Council (cont.)	1
Questions/Statements	33
E <u>Int. Pres.</u>	
Mr. T. Mason (Fort McMurray Experience)	54
Questions/Statements	70
D <u>Northern Economic Opportunities and Benefits</u>	
Proponents' Presentation	
Dome/Esso/Gulf (IN- 69)	81
Questions/Statements	94

1.1 #46-28 Beaufort Sea Environmental Assessment Panel

November 23, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

IV. SOCIO-ECONOMIC AND COMMUNITY EFFECTS OF BEAUFORT DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

		PAGE
D.	<u>Northern Economic Opportunities and Benefits</u>	
	<u>Intervenor's Presentation</u>	
	1. GNWT (Mr. L. Horn) IN-27	1
	Questions/Statements	10
B.	<u>Direct Effects on Northern Communities</u>	
	1. GNWT (Mr. J. McEachern) IN-60	28
	Questions/Statements	32
D.	Beau-Tuk (Mr. J. Knox) IN-46	47
	Questions/Statements	65
	<u>Agenda Items IV.D and IV.B</u>	78
	Questions/Statements of Proponents	79

1.1 #46-29 Beaufort Sea Environmental Assessment Panel

November 23, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

IV SOCIO-ECONOMIC AND COMMUNITY EFFECTS ON BEAUFORT
DEVELOPMENT - BEAUFORT SEA/MACKENZIE DELTA COMMUNITIES

	<u>PAGE</u>
B. <u>Direct Effects on Northern Communities</u>	
<u>Intervenor's Presentation</u>	
1. Town of Inuvik, IN-19 (Mayor Robertson)	1
Questions/Statements	3
D. <u>Northern Economic Opportunities and Benefits</u>	
<u>Intervenor's Presentation</u>	
1. Inuvik Chamber of Commerce, IN-52 (Mr. D. Hill)	9
Questions/Statements	22
<u>General</u>	
<u>Intervenor's Presentation</u>	
1. Dr. Jack Ellis, IN-65	38
Questions/Statements	49
F. <u>Compensation</u>	
<u>Proponent's Presentation</u>	
Dome/Esso/Gulf	54
Questions/Statements	58
G. <u>Community Consultation</u>	
Questions/Statements of Proponents	95
<u>Other Concerns</u>	97

1.1 #46-30 Beaufort Sea Environmental Assessment Panel

November 24, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>V</u>	<u>GOVERNMENT MANAGEMENT</u>	PAGE
	<u>Intervenor's Presentation</u>	
	1. DIAND/COGLA	2
	Questions/Statements	20

1.1 #46-31 Beaufort Sea Environmental Assessment Panel

November 24, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>V</u>	<u>GOVERNMENT MANAGEMENT</u>	PAGE
	Questions/Statements of DIAND, COGLA	1
	<u>Intervenor's Presentation</u>	
	1. EM&R	55
	Questions/Statements	62
	<u>Proponent's Presentation</u>	
	DOME/ESSO/GULF	71
	Questions/Statements	74
	<u>Intervenor's Presentation</u>	
	2. DOE	76
	Questions/Statements	81
	3. DFO	99
	Questions/Statements	108

1.1 #46-32 Beaufort Sea Environmental Assessment Panel

November 24, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

INUVIK, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
<u>V</u> <u>GOVERNMENT MANAGEMENT</u>	
<u>Intervenors Presentation</u>	
1. Coast Guard	1
Questions/Statements	1
2. Air Transport Administration	6
Questions/Statements	14
<u>Closing Statements</u>	
1. DFO	17
2. DOME/ESSO/GULF	24

1.1 #47-1 Beaufort Sea Environmental Assessment Panel

December 1, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

WHITEHORSE, YUKON

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
<u>INTRODUCTION - THE CHAIRMAN</u>	1
<u>SESSION OPENING STATEMENTS</u>	
1. DOME/ESSO/GULF	5
2. DIAND	8
3. DFO	16
4. DOE	24
5. Beaufort Sea Alliance	28
6. NCPC	36
7. YTG	58
I. <u>ENVIRONMENTAL EFFECTS OF YUKON DEVELOPMENTS</u>	
Proponent's Presentation	
DOME/ESSO/GULF	66
Questions/Statements	68

1.1 #47-2 Beaufort Sea Environmental Assessment Panel

December 1, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

WHITEHORSE, YUKON

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

I. <u>ENVIRONMENTAL EFFECTS OF YUKON DEVELOPMENTS</u>		PAGE
<u>Intervenors' Presentation</u>		
1.	Canadian Wildlife Service	8
	Questions/Statements	59
2.	Yukon Territorial Government	17
	Questions/Statements	59
3.	Department of Fisheries and Oceans	50
	Questions/Statements	59
4.	Canadian Wildlife Service	68
	Questions/Statements	79
5.	Yukon Territorial Government	91
	Questions/Statements	102

1.1 #47-3 Beaufort Sea Environmental Assessment Panel

December 2, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

WHITEHORSE, YUKON

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
I	
<u>ENVIRONMENTAL EFFECTS OF YUKON DEVELOPMENTS</u>	
<u>Intervenors' Presentations</u>	
1. Arctic International Wildlife Range Society/ Beaufort Sea Alliance	1
Questions/Statements	16
Speaker - Dr. D. Forbes	39
Questions	42
II	
<u>YUKON SOCIAL & ECONOMIC EFFECTS</u>	
<u>Proponent's Presentation</u>	
Dome/Esso/Gulf	44
Questions/Statements	48
<u>Intervenor's Presentation</u>	
1. Yukon Territorial Government	73
Questions/Statements	82

1.1 #47-4 Beaufort Sea Environmental Assessment Panel

December 2, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

WHITEHORSE, YUKON

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II YUKON SOCIAL AND ECONOMIC EFFECTS

	<u>PAGE</u>
<u>Intervenors' Presentations</u>	
1. Whitehorse Chamber of Commerce	1
2. Catholic Church	14
3. Dr. T. Hayes (Health Consultant)	21
4. Yukon Territorial Government	34
5. Yukon Historical & Museums Association	44
Questions/Statements	47
6. National Museum of Man	52
Questions/Statements	62
7. Trans-North Air	75
Questions/Statements of Canadian Coast Guard	79

1.1 #47-5 Beaufort Sea Environmental Assessment Panel

December 3, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

WHITEHORSE, YUKON

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II.	<u>YUKON SOCIAL AND ECONOMIC EFFECTS</u>	PAGE
	Intervenor's Presentation	
	1. Reverand R.C. Ferris	2
III.	<u>GOVERNMENT MANAGEMENT</u>	
	Proponent's Presentation	
	Dome/Esso/Gulf	8
	Questions/Statements	18
	Intervenor's Presentation	
	1. DIAND	31
	Questions/Statements	42

1.1 #47-6 Beaufort Sea Environmental Assessment Panel

December 3, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

WHITEHORSE, YUKON

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

III.	<u>GOVERNMENT MANAGEMENT</u>	PAGE
	Intervenors' Presentations	
	1. Yukon Territorial Government Questions/Statements	2 11
	2. DFO Questions/Statements	69 73
	3. Beaufort Sea Alliance Questions/Statements	74 92
IV.	<u>CLOSING STATEMENTS</u>	
	1. Dome/Esso/Gulf	98
	2. DIAND	104
	3. Yukon Territorial Government	105

1.1 #48-1 Beaufort Sea Environmental Assessment Panel

December 5, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
Opening Remarks - THE CHAIRMAN	1
Opening Statement - DOME/ESSO/GULF	4
Opening Statement - DIAND	8
Opening Statement - BSA	9
Opening Statement - DFO	11
Opening Statement - DOE	14
Opening Statement - DENE NATION	15
Presentation - DOME/ESSO/GULF	19
Questions of Dome/Esso/Gulf	35

1.1 #48-2 Beaufort Sea Environmental Assessment Panel

December 5, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
Questions of Dome/Esso/Gulf (Cont.)	1
<u>Presentation - Alyeska Experience</u> (Mr. Michael Metz)	6
Questions of Mr. Metz	18
<u>Questions of Dome/Esso/Gulf re Environment</u>	71
<u>Presentation - DFO (Mr. Jeff Stein)</u>	91
Questions of Mr. Stein	93

1.1 #48-3 Beaufort Sea Environmental Assessment Panel

December 6, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
I. <u>OVERHEAD PIPELINES</u>	
Intervenors' Presentations	
1. Polar Gas	1
Questions/Statements	3
2. GNWT - Mr. Paul Gray	15
- Mr. John Donihee	18
Questions/Statements	35
3. GNWT - Mr. Mel Smith	67
Questions/Statements	80
4. Interprovincial Pipeline Limited	86

1.1 #48-4 Beaufort Sea Environmental Assessment Panel

December 6, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>I. OVERLAND PIPELINES</u>	PAGE
<u>Intervenors' Presentations</u>	
1. BSA	1
2. DOE	6
Questions/Statements	7
3. BSA	9
Questions/Statements	20
4. DOE	36
Questions/Statements	42
Other Concerns	50

1.1 #48-5 Beaufort Sea Environmental Assessment Panel

December 7, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II. COMMUNITY AND SOCIO-ECONOMIC EFFECTS -
MACKENZIE VALLEY

	PAGE
Proponents' Presentation Dome/Esso/Gulf	2
Recommendations - GNWT (Mr. P. Hart)	9
Questions/Statements of Recommendations	11
Questions/Statements of Proponents	15
Mr. Cotterill - Beaufort	36
Mr. Benson - Norman Wells	41
Presentation - Northern Heritage Society	52
Questions/Statements	60

1.1 #48-6 Beaufort Sea Environmental Assessment Panel

December 7, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II. COMMUNITY AND SOCIO-ECONOMIC EFFECTS -
MACKENZIE VALLEY

	PAGE
Proponents' Presentation	
Dome/Eiso/Gulf	1
Questions/Statements	5
Presentation - GNWT	20
Questions/Statements	27
Presentation - DOE	38

1.1 #48-7 Beaufort Sea Environmental Assessment Panel

December 8, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>III</u>	<u>GOVERNMENT MANAGEMENT</u>	PAGE
	<u>Proponent's Presentation</u>	
	1. DOME/ESSO/GULF	1
	Questions/Statements	5
	<u>Intervenor's Presentation</u>	
	1. DIAND	19

1.1 #48-8 Beaufort Sea Environmental Assessment Panel

December 8, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

PAGE

III GOVERNMENT MANAGEMENT

Questioning of DIAND

1

Intervenors' Presentations

1. CEIC	66
Questions/Statements	77
2. GNWT - Financial Issues	96
Questions/Statements	101
3. DFO	108
Questions/Statements	112

1.1 #48-9 Beaufort Sea Environmental Assessment Panel

December 8, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
III <u>GOVERNMENT MANAGEMENT</u>	
<u>Intervenors' Presentations</u>	
1. GNWT - Mr. A. Zariwny/Mr. D. Bohnet Questions/Statements	13 15
2. Esso Resources Questions/Statements	22 34
3. DOE Questions/Statements	41 55

1.1 #48-10 Beaufort Sea Environmental Assessment Panel

December 9, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

YELLOWKNIFE, N.W.T.

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
<u>INTERPROVINCIAL PIPELINE ACTIVITIES</u>	
Questioning of Mr. Pearce	1
<u>III. GOVERNMENT MANAGEMENT</u>	
Intervenor's Presentations	
1. Dene Nation	28
Questions/Statements	71
<u>IV. CLOSING STATEMENTS</u>	
1. DFO	92
2. GNWT	94
3. DOME/ESSO/GULF	95

1.1 #49-1 Beaufort Sea Environmental Assessment Panel

December 12, 1983.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

CALGARY, ALBERTA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>AM</u>	<u>PAGE</u>
1.	<u>CHAIRMAN'S OPENING REMARKS</u>	1
2.	<u>OPENING STATEMENTS</u>	
	Proponent's (Dome/Esso/Gulf)	3
3.	<u>PRESENTATIONS</u>	
	a) Arctic Petroleum Operators' Association	17
	Questions/Statements	31
	b) Bow Arctic Joint Venture	34
	Questions/Statements	54
	c) Beaufort Sea Support Base Ltd.	59
	Questions/Statements	77
	d) Mr. E. Wolfe	78
	<u>PM</u>	
3.	<u>PRESENTATIONS (Cont'd)</u>	
	e) Northern Pipeline Agency	90
	Questions/Statements	103

1.1 #50-1 Beaufort Sea Environmental Assessment Panel

December 14, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

HULL - OTTAWA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
<u>INTRODUCTION - THE CHAIRMAN</u>	1
<u>SESSION OPENING STATEMENTS</u>	
1. DIAND	5
2. DFO	6
3. BEAUFORT SEA ALLIANCE	12
I. <u>GOVERNMENT MANAGEMENT:</u> <u>BIOPHYSICAL EFFECTS</u>	
A. Proponents' Presentation	
Dome/Esso/Gulf	18
Questions/Statements	30
B. Intervenors' Presentations	
1. Canadian Nature Federation	38
Questions/Statements	44
2. Labrador Inuit Association	50
Questions/Statements	60
3. Newfoundland Petroleum Directorate	65
Questions/Statements	70

1.1 #50-2 Beaufort Sea Environmental Assessment Panel

December 14, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

HULL - OTTAWA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	<u>PAGE</u>
I. <u>GOVERNMENT MANAGEMENT:</u> <u>BIOPHYSICAL EFFECTS</u>	
B. Intervenor's Presentation (cont'd)	1
1. MOT (Canadian Coast Guard)	
Questions/Statements	9
B. Intervenors' Presentations (cont'd)	
1. Dr. R. Kretz - Native Rights	113
2. National Museum of Man - "Archaeological Management"	117

1.1 #50-3 Beaufort Sea Environmental Assessment Panel

December 15, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

HULL - OTTAWA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>GOVERNMENT MANAGEMENT</u>	<u>PAGE</u>
<u>Opening Remarks</u>	
The Chairman	1
<u>Presentations</u>	
1. BSA - Mr. L. Staples	3
- Mr. P. Burnet	14
Questions/Statements	27
2. BSA - Mr. G. Beakhust	48
- Mr. G. Milne	62
Questions/Statements	66
3. NPPAC	86
Questions/Statements	94
4. DIAND	95
Questions/Statements	100

1.1 #50-4 Beaufort Sea Environmental Assessment Panel

December 15, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

HULL - OTTAWA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

<u>GOVERNMENT MANAGEMENT</u>	<u>PAGE</u>
 <u>Presentations</u>	
1. BRIA	1
Questions/Statements	16
 2. DOE	 18
Questions/Statements	31
 3. DFO	 91
Questions/Statements	93

1.1 #50-5 Beaufort Sea Environmental Assessment Panel

December 15, 1983. Vol. III.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

HULL - OTTAWA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
II. <u>GOVERNMENT MANAGEMENT:</u> <u>SOCIO-ECONOMIC EFFECTS</u>	
B. Intervenor's Presentations (cont'd)	
1. LIA - Social economic concerns Questions/Statements	1 6
2. ITC - Social economic concerns	8
3. Dr. W. Rees (UBC) - Comments on "Process" Questions/Statements	17 35
4. Mr. M. Carley (UBC) - Social Impact Assessment Questions/Statements	56 67

1.1 #50-6 Beaufort Sea Environmental Assessment Panel

December 16, 1983. Vol. I.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

HULL - OTTAWA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

II.	<u>GOVERNMENT MANAGEMENT:</u> <u>SOCIO-ECONOMIC EFFECTS</u>	PAGE
	<u>Intervenor's Presentation</u>	
	<u>Department Indian Affairs & Northern Development</u> <u>Canada Oil and Gas Lands Administration</u>	
	1. Beaufort Sea Monitoring Project (Dr. D. Stone) Questions/Statements	1 7
	2. Update on Environmental Studies Revolving Fund (Dr. M. Parkes) Questions/Statements	9 15
	3. Northern Affairs (Mr. G.N. Faulkner, ADM) Questions/Statements	25 29
	<u>SESSION CLOSING STATEMENTS</u>	
	1. DIAND (Honourable John C. Munro)	42
	2. GNWT (Honourable Richard Nerysoo)	57
II.	<u>GOVERNMENT MANAGEMENT:</u> <u>SOCIO-ECONOMIC EFFECTS (cont'd)</u>	
	Questioning of Mr. G.N. Faulkner (cont'd)	69

1.1 #50-7 Beaufort Sea Environmental Assessment Panel

December 16, 1983. Vol. II.

TRANSCRIPTS, BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL
PUBLIC MEETINGS - GENERAL SESSION

HULL - OTTAWA

Total Reporting Service

Table of contents follows (indicating Agenda subject and presentations):

	PAGE
II. <u>GOVERNMENT MANAGEMENT:</u> <u>SOCIO-ECONOMIC EFFECTS</u>	
Questioning of Mr. N. Faulkner/Mr. M. Taschereau	1
<u>SESSION CLOSING STATEMENTS</u>	
1. Beaufort Sea Alliance	61
2. Yukon Territorial Government	65
3. Baffin Regional Inuit Association	70
4. Town of Inuvik	76
5. Department of Fisheries & Oceans	79
6. Department of Environment	80
7. Dome/Esso/Gulf	82
<u>CLOSING REMARKS - THE CHAIRMAN</u>	89

1.2 # 51

Beaufort Sea Environmental Assessment Panel

UPDATE REPORT ON PANEL ACTIVITIES

November 15, 1983

Contents:

General Session notice; sessional notice; availability of space on a charter, Whitehorse to Yellowknife; list of submissions received during the Resolute Bay Sessions; notice of closing of the Inuvik office, November 30, 1983.

1.4.1 #
83.10 (10)

83.10.20 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
From: Mr. Jacques Gérin, Deputy Minister, Environment
Canada

Re: Indication of intent to participate fully in the
Beaufort Hearings and request for indication of types
of questions anticipated at various locations.

1.4.1 #
83.11 (3)

83.11.22 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: G.C. Vernon, Assistant Deputy Minister,
Pacific and Freshwater Fisheries

Re: In response to additional information
requests at Resolute:

- the department's views with respect to the two
transportation options will be expressed in the
DFO position paper which is almost complete
- summary statement on current DFO research and
perceived areas of research priority will be
sent in the near future.

1.4.2 #
83.10 (14)

83.10.03 Panel Index E
D.W.I Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: W.E. Bonn, Technical Specialist

Re: Enclosure of letter to Mr. G. Almond, Principal
Ship Surveyor Canada, Lloyds Register of Shipping
discussing possible presentation of a project proposal
at the public hearings now in progress.

1.4.2 #
83.10 (15)

83.10.25 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
To: Mr. Don MacWatt, Beaufort Sea Environmental
Support Services Ltd.

Re: Acknowledgement of receipt of written submission
and intent to speak in Inuvik.

Submission and covering letter filed: 2.5.4 G(I-)

1.4.2 #
83.10 (16)

83.10.13 Panel Index E
Secretariat, Beaufort Sea Environmental Assessment
Panel
To: File and circulation FEARO Ottawa and Vancouver.

Re: Preliminary Summaries of the Community Sessions,
Beaufort Sea Hearings.

1.4.2 #
83.10 (17)

83.10.21 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
by c.c. from: Jacques E. Clavelle, Director General,
Harbours & Ports Directorate

Re: Request for reasoning behind the statement in the
EIS Supplementary Information noting that a
"disadvantage" re shared base facilities could be that
"in a publicly shared facility, DOT could be the
operator and landlord".

1.4.2 #
83.11 (7)

83.11.09 Panel Index E
Secretariat, Beaufort Sea Environmental Assessment
Panel
From: Dr. A.H. Mac Pherson, Regional Director General,
Environment Canada

Re: Enclosure of documentation provided to Dome
Petroleum for EARP hearings on Weather Ship Bravo winds
and two coastal stations.

1.4.2 #
83.11 (8)

83.11.16 Panel Index E

R. Hornal, Secretariat, Beaufort Sea Environmental
Assessment Panel
To: M. E. Metz, GeoTech Services Incorporated,
Golden, Colorado.

Re: Arrangements for participation in the
technical discussions at Yellowknife on the
subject of hydrocarbon pipeline construction.
Areas to be covered include adequacy of design
plans of the proponents and comments on the
construction techniques used in the Alyeska.

1.4.2 #
83.11 (9)

83.11.21 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: H.J. Dirschl, DIAND

Re: Enclosure of a briefing note which describes
the present status of the Northern Land Use
Planning Program, and it envisaged implementation
over the next seven years.

FEARO LIBRARY
DOCUMENT:

BEAUFORT SEA PROJECT

Category 1.2 - Ministerial Releases and Information Bulletins

Beaufort Sea Category 1.2 includes ministerial releases and information releases by FEARO, the Beaufort Sea Environmental Assessment Panel or Panel Secretariat which relate to the review of the Beaufort Sea Hydrocarbon Production Proposal.

FEARO LIBRARY
DOCUMENT:

BEAUFORT SEA PROJECT

1.2 #1 - Correspondence

July 22, 1980

Referral

Honourable John C. Munro writing to the Honourable John Roberts re: referral of the Beaufort Sea Hydrocarbon Production Proposal for formal public review under the Federal Environmental Assessment and Review Process.

Abstract

The letter of referral notes that only scenarios of production are available, not detailed project descriptions. Broad guidelines to cover the scope of the referral will be required. Socio-economic effects are included in the referral, and public hearings on the EIS guidelines are suggested.

1.2 #2 September 1980

Beaufort Sea Environmental Assessment Panel
Review Process

Abstract

The bulletin covers review process (3 pages), prospective participants (1 page), and background information on proponents preliminary plans (14 pages).

1.2 #3 November 5, 1980

Beaufort Sea Environmental Assessment Panel
Interim Compendium of Major Issues

Abstract

The bulletin contains an interim compendium of issues as submitted to the Panel Secretariat for discussion at the Calgary Seminar, November 13, 1980
Expanded Abstract. See Abstracts, Document 1.1 #2.

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DOCUMENT:

BEAUFORT SEA PROJECT

- 1.2 #4 Canada - Environmental Assessment Review
Federal Environmental Assessment Review Office
November 13, 1980
Announcement of Seminar held by the Federal Environmental Assessment Review office to identify issues to be considered by the environmental assessment panel reviewing the Beaufort Sea Proposal (2 p.).
- 1.2 #5 Federal Environmental Assessment Review Office
November 19, 1980
LIST OF ATTENDEES
Beaufort Sea Hydrocarbon Production November 13, 1980 Seminar in Calgary.
- 1.2 #6 Minister, Environment Canada
January 27, 1981
APPOINTMENT of Dr. John Tener as chairman of the environmental assessment panel that will review a proposal of a consortium of oil companies to produce oil and gas in the Beaufort Sea and transport it south (2 p.)
- 1.2 #7 Minister, Environment Canada
February 10, 1981
APPOINTMENT of four members to the environmental assessment panel that will review a proposal by a consortium of oil companies to extract and transport south oil and gas from the Beaufort Sea: The four members are: Fred Carmichael (Inuvik), Douglas Craig (Carbon, Alberta), Dr. Ross Mackay (Vancouver, B.C.) and Michael Stutter (Whitehorse, Dawson City) (2 p.).

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BEAUFORT SEA PROJECT

- 1.2 #8 Minister, Environment Canada
May 8, 1981
APPOINTMENT of two more members to the Beaufort Sea Environmental Assessment Panel: Lucasi Ivalu (Igloodik, NWT) and Allen Lueck (Whitehorse, Yukon).
- 1.2 #9 Beaufort Sea Environmental Assessment Panel
June, 1981
PANEL MEMBER BACKGROUNDS
Abstract
Brief biographies of the panel chairman and members of the Beaufort Sea Environmental Assessment Panel (English and Inuktitut) (2 p.).
- 1.2 #10 Canada, Environmental Assessment Review
Beaufort Sea Environmental Assessment Panel
June 12, 1981
ENVIRONMENTAL IMPACT STATEMENT (EIS) DRAFT GUIDELINES RELEASED
Abstract
Announcement of release of the guidelines for the preparation of an Environmental Impact Statement by the proponents of the Beaufort Sea hydrocarbon production and transportation proposal. Public review will include a series of public meetings in northern communities later in the year.

FEARO LIBRARY
DOCUMENT:

BEAUFORT SEA PROJECT

1.2 #11 Beaufort Sea Environmental Assessment Panel
D.W.L. Marshall, Executive Secretary

June 14, 1981

PROPONENTS PRELIMINARY DEVELOPMENT PLAN RELEASED

Abstract

Circulation of preliminary plans for producing oil and gas from the Beaufort Sea and transporting it south - prepared by Dome Petroleum Ltd, Esso Resources Canada Ltd. and Gulf Canada Resources and entitled "Hydrocarbon Development in the Beaufort Sea-Mackenzie Delta Region".

1.2 #12 Transmitted to Panel

June 14, 1981

CORRESPONDENCE: Honourable John Roberts to Dr. John S. Tener re: TERMS OF REFERENCE

Abstract

Terms of reference issued to the Beaufort Sea Hydrocarbon Production and transportation Environmental Assessment Panel (Expanded Abstract, See Doc. 1.1 #)

1.2 #13 Beaufort Sea Environmental Assessment Panel

June 29, 1981

UPDATE ON PANEL ACTIVITIES

Abstract

Release covers distribution of Draft Environmental Impact Statement Guidelines; Public Review; Public Meetings planned; Summary of Draft EIS for Community Use (See FEARO Document 1.1 #); Inuvik office opened; Panel Terms of Reference (FEARO Document 1.1 #); Federal Government Departments Position Papers; questionnaire for identification of current research; and Preliminary Production and Transportation Plan.

FEARO LIBRARY
DOCUMENT:

BEAUFORT SEA PROJECT

1.2 #14 July 1981

PUBLIC PARTICIPATION FUNDING

Environmental Assessment Review of Hydrocarbon Production in the Beaufort Sea.

1.2 #15 Canada - Environmental Assessment Review

August 1981

ELIGIBILITY AND CRITERIA - FUNDING OF PUBLIC PARTICIPATION IN THE BEAUFORT SEA REVIEW.

1.2 #16 July 1981 (?) check date

APPLICATION FORM for FUNDING OF PUBLIC PARTICIPATION

1.2 #17 Minister of Environment

August 8, 1981

PUBLIC PARTICIPATION IN THE BEAUFORT SEA REVIEW TO BE FUNDED

Abstract

Announcement that funds will be available to assist public participants to effectively present their comments during the review process.

1.2 #18 Beaufort Sea Environmental Assessment Panel

August 28, 1981

UPDATE REPORT ON PANEL ACTIVITIES

Abstract

Items noted in the report included availability of funds for review participants; public meetings on the Draft EIS Guidelines; receipt of written comments on the guidelines; operational Procedures; Summary of Draft Guidelines; and secretariat visits to communities.

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DOCUMENT:

BEAUFORT SEA PROJECT

- 1.2 #19 Beaufort Sea Environmental Assessment Panel
October 16, 1981
UPDATE REPORT ON PANEL ACTIVITIES
Abstract
Dates and locations of public meetings on the Draft EIS Guidelines announced; Operational Procedures includes; announcement of funding of participants.
- 1.2 #20 Beaufort Sea Environmental Assessment Panel
October 1981
OPERATIONAL PROCEDURES
Abstract
The Panel outlines the procedures governing the conduct of its review.
- 1.2 #21 Beaufort Sea Environmental Assessment Panel
December 1981
INFORMATION FOR APPLICANTS
Abstract
The purpose of funding and allocation of funds.
- 1.2 #22 Beaufort Sea Environmental Assessment Panel
January 1982
UPDATE REPORT ON PANEL ACTIVITIES
Abstract
Additional compendium of written submissions; transcripts of EIS guideline public meetings; public meetings on Draft EIS Guidelines; information survey.

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DOCUMENT:

BEAUFORT SEA PROJECT

- 1.2 #23 Beaufort Sea Environmental Assessment Panel
February 1982
GUIDELINES FOR THE PREPARATION OF GOVERNMENT POSITION STATEMENTS
Abstract
Background information; Impact Statement; plans and new initiatives; summary
- 1.2 #24 Beaufort Sea Environmental Assessment Panel
February 1982
REQUEST TO INITIATOR (DIAND)
Abstract
The purpose of this document in conjunction with the one issued to the government agencies and territorial governments (1.2 #23) is to assist DIAND with the preparation of a position statement.
- 1.2 #25 Beaufort Sea Environmental Assessment Panel
March 1982
NOTICE TO ALL RECIPIENTS OF TRANSCRIPTS OF PANEL'S PUBLIC MEETINGS IN WHITEHORSE (NOV. 23) AND CALGARY (NOV. 27 '81)
Abstract
Errors in transcripts corrected.
- 1.2 #26 Beaufort Sea Environmental Assessment Panel
May 1982
UPDATE REPORT ON PANEL ACTIVITIES
Abstract
Panel Interim report released; public meetings in Calgary - June 22.

TEXTNAME: library-1-2 (R)P: 01

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DOCUMENT:

BEAUFORT SEA PROJECT

- 1.2 #27 Beaufort Sea Environmental Assessment Panel
May 11 1982
ENVIRONMENT MINISTER RELEASES INTERIM PANEL REPORT ON
BEAUFORT SEA OIL AND GAS PRODUCTION
Abstract
The report deals with concerns raised during a two month
tour of northern communities in March by the Panel.
- 1.2 #28 Beaufort Sea Environmental Assessment Panel
June 1982
UPDATE REPORT ON PANEL ACTIVITIES
Abstract
Cancellation of June 23 public meeting in Calgary; Fred
Carmichael's resignation.
- 1.2 #29 Beaufort Sea Environmental Assessment Panel
July 1982
UPDATE REPORT ON PANEL ACTIVITIES
Abstract
Distribution of the EIS; appointment of two technical
specialists. (resumes attached to file)
- 1.2 #30 Beaufort Sea Environmental Assessment Panel
August 1982
GOVERNMENT POSITION STATEMENTS
Abstract
(Explanation note to be included with distribution of
statements covering purpose of position statements)
- 1.2 #31 Beaufort Sea Environmental Assessment Panel
August 1982
UPDATE REPORT ON PANEL ACTIVITIES
Abstract
Appointment of new panel member; status of environmental
impact statement (EIS) distribution; distribution of
government position statements; community information
sessions; EIS supporting documentation; appointment of
two technical specialists. (Resumes attached to file)

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DOCUMENT:

BEAUFORT SEA PROJECT

- 1.2 #32 Beaufort Sea Environmental Assessment Panel
August 19, 1982
News Release
ENVIRONMENT MINISTER JOHN ROBERTS APPOINTS NEW MEMBER
TO BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL.
Appointment of Knute Hansen, Aklavik, to the Panel.
- 1.2 #33 Beaufort Sea Environmental Assessment Panel
Secretariat.
September 1982
COMMUNITY INFORMATION MEETING.
Announcement of meetings to be held at Goose Bay and
Nain.
- 1.2 #34 Beaufort Sea Environmental Assessment Panel
November 10, 1982
UPDATE REPORT ON PANEL ACTIVITIES
Abstract: Review of the EIS and distribution of
Summary with this update. Government Position papers
received listed; list of technical specialists.
- 1.2 #35 Government of Canada News Release
November 10, 1982
BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL BEGINS
FORMAL 90-DAY REVIEW OF BEAUFORT SEA ENVIRONMENTAL
IMPACT STATEMENT.
- 1.2 #36 Beaufort Sea Environmental Assessment Panel
December 16, 1982
UPDATE REPORT ON PANEL ACTIVITIES
Abstract: Announcement of Mr. Titus Alloo'loo's
appointment to the Beaufort Sea Panel; comments on
the EIS due February 7, 1982. Updated list of
technical specialists; EIS critiques from technical
specialists preliminary submission from F & O - and
Seasons Greetings!

FEARU Document Beaufort Sea Project

1.2 # 37

Beaufort Sea Environmental Assessment Panel

January 31, 1983

UPDATE REPORT ON PANEL ACTIVITIES

Abstract; The Panel is now receiving comments on the EIS with the deadline of February 7, 1983. Three more reports have been received from technical specialists on risk analysis, pipelines, and regional land use planning. Copies are available.

Ms. Valda Walsh will assist Ms. Diane Erickson on socio-economic issues.

A document entitled "A Short Statement On Where The Panel Is Going" is available on request.

The Panel has written the Minister of the Environment expressing its views on the intent of Gulf Canada Resources to submit an application for approval of a marine base at Stokes Point.

A Public File has been established at Inuvik, Vancouver and Ottawa.

A list of additional Reference Works has been distributed to the Key Participants list and is available on request.

1.2 # 38

Beaufort Sea Environmental Assessment Panel

January 1983

A SHORT STATEMENT ON WHERE THE PANEL IS GOING

The statement has been prepared to provide background information to those wishing to participate in the public meetings. The summary includes a brief history of oil and gas in the

Beaufort Sea, the referral of hydrocarbon production and transportation from the Beaufort Sea to FEARU and the appointment of the present Environmental Assessment Panel. The public review phase of the Panel process is outlined, with emphasis on the fact that the final decision is the responsibility of the Government of Canada. A review of what the Panel is considering is presented. Issues which are not specifically part of the Panel's Terms of Reference but which the Panel considers as important background and as such will accept information on are identified and include: exploration, detailed project designs, effects outside Canada, native land claims, economic issues, energy policy issues, government policy making, regional planning, other environmental reviews and plans.

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TEXTNAME: cat1.2 (R)P: (p.01) 01

FEAKU
Document

Beaufort Sea Project

1.2 # 39

Beaufort Sea Environmental Assessment Panel

February 16, 1983

INTERIM COMPENDIUM OF EIS SUBMISSIONS

Abstract: Circulation of the "Interim Compendium of Written Submissions on the Dome, Gulf and Esso Environmental Impact Statement" containing all submissions received up to February 9th.

1.2 # 40

Beaufort Sea Environmental Assessment Panel

February 23, 1983

FINAL COMPENDIUM OF EIS SUBMISSIONS

Circulation of the "Second (Final) Compendium of Written Submissions to the Panel on the Dome, Gulf and Esso Environmental Impact Statement".

1.2 # 41

Beaufort Sea Environmental Assessment Panel

March 8, 1983.

News Release
ENVIRONMENTAL ASSESSMENT PANEL NOTES DEFICIENCIES IN
BEAUFORT SEA ENVIRONMENTAL IMPACT STATEMENT

An announcement that the Panel has identified four major deficiencies in the EIS and is asking for more information on certain other areas.

1.2 # 42

Beaufort Sea Environmental Assessment Panel

March 8, 1983

UPDATE REPORT ON PANEL ACTIVITIES

Abstract. Items covered in this update include release of Deficiency Statement, copies of documents outlining procedures to be followed for the General and Community Public Sessions, appointment of technical specialists in the areas of socio-economics and renewable resource management.

FEARO Document

1.2 # 43

Beaufort Sea Environmental Assessment Panel

June 1, 1983

UPDATE REPORT ON PANEL ACTIVITIES

Items covered in this update include: Proponents response to deficiencies 2 and 3. Six discussion papers have been submitted and circulated by the Panel. Responses to deficiencies 1 and 4 are anticipated by July 1, 1983.

Government Position Statements - additional information has been requested from Govt. N.W.T., DIAND, Environment, Dept F & O, and EMR.

Technical Specialist - Report on EIS by Dr. Craig Davis is available.

Additional Information - Additional comments on the EIS have been submitted by Environment Canada and National Museums of Man. A new intervention has been received from the Ottawa Field Naturalists' Club.

1.2 # 44 A

Beaufort Sea Environmental Assessment Panel

UPDATE REPORT ON PANEL ACTIVITIES

July 5, 1983

Update contents:

- Listing of reports and publications which form part of the Public File to Beaufort Sea Environmental Assessment Panel Material is available.
- copy of the Public File Index is now located in Yellowknife at the office of Ms. Gay Kennedy.

FEARO Document

1.2 # 44 Beaufort Sea Environmental Assessment Panel

July 4, 1983

UPDATE REPORT ON PANEL ACTIVITIES

Items covered in this update include:

Proponents response to EIS deficiency statement - response is now complete and written comments should be received by August 8.

Technical Specialists - Captain T.C. Pullen has been appointed in the field of Arctic marine operations and tanker navigation.

1.2 # 45 Government of Canada - Environmental Assessment Review
- News Release
August 22, 1983

BEAUFORT SEA ENVIRONMENTAL ASSESSMENT PANEL SETS
SEPTEMBER 14 AS DATE FOR FIRST PUBLIC HEARINGS INTO OIL
AND GAS PROPOSALS

An announcement that the Panel has decided that it now has sufficient information to proceed to hearings. In announcing this decision, the Panel Chairman noted that some areas still require further elaboration but the Panel expected to obtain this additional information at the public hearings.

1.2 # 46 Beaufort Sea Environmental Assessment Panel

August 22, 1983

UPDATE REPORT ON PANEL ACTIVITIES

Items noted in this update include:

Proponents response to the EIS - Review of this material is complete and the Panel will proceed to public hearings.

-
:

Final draft schedule and agenda - circulated for comment

Pre-session conference - scheduled for Sept 13 in Yellowknife. Following this session the final schedule and agenda will be released.

Compendium of written submissions to the Panel on the proponents' response to the deficiency statement... copies are available.

Amendments to Panel Terms of Reference - Amendments made August 8, 1983 have been circulated to key participants and are available on request.

Advice on procedures for general sessions - Technical specialist in this area - Andrew Roman - available through the Executive Secretary.

TEXTNAME: cat1.2 (R)P: (p.01) 01 ¹⁰

1.2 # 47 Beaufort Sea Environmental Assessment Panel

September 15, 1983

UPDATE REPORT ON PANEL ACTIVITIES

Abstract: Items covered in the update include:
-pre-session conference has been held and agenda and schedule for hearings completed
-noise specialist has been appointed: Dr. J.N. Terhune, University of New Brunswick
-EIS Supplementary Information - comments from DIAND have been received; additional information to supplement Discussion Papers 3 and 6 has been requested.

1.2# 49

Beaufort Sea Environmental Assessment Panel

October 14, 1983

UPDATE REPORT ON PANEL ACTIVITIES

Items covered in update include:

-community sessions have been held in the Beaufort and Mackenzie Valley communities. Transcripts are available for purchase.

-Dr. Geoffrey Hainsworth will replace Dr. Craig Davis at the Inuvik General Session.

-List of reports received since September 15, 1983 attached.

New address for the Inuvik Public File.

1.2 # 50

Beaufort Sea Environmental Assessment Panel

SESSIONAL NOTICE

November 3, 1983

Contents:

- Notice of extension to the sitting hours for the Inuvik General Session.
- Notice of a change in the agenda for the Yellowknife General Session.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.05 (1)

81.05.07 Panel Index B
Panel Members
Beaufort Sea Environmental Assessment Panel
From: Secretariat
Re: Panel Secretariat activities to date (May 7,
1981).

1.4.1 #
81.05 (2)

81.05.07 Panel Index B
Panel Members
Beaufort Sea Environmental Assessment Panel
from Secretariat:
Re: Indexing system for material sent to Panel
members by the Secretariat.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.06 (1)

81.06.10 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Northern Communities (list follows)
Re: Notification of the referral of the Beaufort
Sea Hydrocarbon Production Proposal for review
under the Environmental Assessment and Review
Process. An indication of the Panel's task, the
steps involved in the review process and a request
for input for and involvement of northern
communities were included.

Distribution:
Sent to:

Chief Frank T'Selele
Band Office, Fort Good Hope

Mr. Dalphus Tutcho
Mayor, Hamlet Office

Chief William Bethhale
Settlement Office, Fort Liard

Mr. Danny Lennie
Chairman, Settlement Office, Fort Norman

Mr. Orest Watsyk
Mayor, Fort Simpson, NWT

Mr. Jim Watson
Mayor, Norman Wells, NWT

Chief Gabe Hardisty
Band Office, Wrigley, NWT

Mr. Levi Kalluk
Mayor, Arctic Bay, NWT

Mr. Joanasie Kooneeliusee
Mayor, Broughton Island, NWT

Mr. Pauloosie Paniloo
Mayor, Clyde River, NWT

Mr. Bryan Pearson
Mayor, Frobisher Bay, NWT

Mr. Tookilkee K'guktak
Settlement Chairman, Grise Fiord, NWT

Mr. Mikidjuk Kolola
Settlement Chairman, Lake Harbour, NWT

Mr. Peteroosie Qapik
Mayor, Pangnirtung, NWT

Mr. Paniloo Sangoya
Mayor, Pond Inlet, NWT

Mr. George Eckalook
Mayor, Resolute Bay, NWT

Mr. Urnie Steen
Mayor, Tuktoyaktuk, NWT

Mr. Tookilkee Kiguktak
Settlement Chairman, Grise Fiord, NWT

Mr. Mikidjuk Kolola
Settlement Chairman, Lake Harbour, NWT

Mr. Peteroosie Qapik
Mayor, Pangnirtung, NWT

Mr. Paniloo Sangoya
Mayor, Pond Inlet, NWT

Mr. George Eckalook
Mayor, Resolute Bay, NWT

Mr. Vince Steen
Mayor, Tuktoyaktuk, NWT

Mr. Charles Haogak
Chairman, Sachs Harbour, NWT

Mr. Frank Firth
Chairman, Fort McPherson, NWT

Mr. Garrett Ruben
Settlement Chairman, Paulatuk, NWT

Settlement Secretary, Old Crow, Yukon
Ms. Cynthia Hill

Mayor, Town of Inuvik, NWT
Settlement Secretary
Holman Island, NWT

Mr. Myacinte Andre
Chief, Arctic Red River, NWT

Settlement Secretary
Coppermine, NWT

Mr. Knute Hansen
Mayor, Hamlet of Aklavik, NWT

FEARO DOCUMENT
1.4.1

1.4.1 #
81.06 (2)

81.06 (3)

Beaufort Sea Project
Panel Correspondence (direct)

81.06.05 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

To: Mr. George Braden, MLA
Leader of the Elected Executive
Government of the Northwest Territories
Yellowknife, NWT

Mr. C. Pearson, MLA
Government Leader
Legislative Assembly
Government of the Yukon Territory
Whitehorse, Y.T.

Re: Notification of the review of the Beaufort Sea
Hydrocarbon Production Proposal by an Environmental
Assessment Panel under EARP. The assistance and
advice of the territorial governments was requested
and plans for future contacts initiated.

81.06.10
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

To: Distribution below

Re: Notification of the review of the Beaufort Sea
Hydrocarbon Production Proposal by the
Environmental Assessment Process under the EARP.
The scope of the review was outlined. The
participation of other government agencies was
requested in terms of identifying possible impacts
on current programs and identifying initiatives
which might be taken as a result of the proposal.
Issues already raised specific to the department
addressed were noted.

Correspondence sent to:

Mr. Thomas M. Eberlee, Deputy Minister
Labour Canada

Pierre Juneau, Deputy Minister
Department of Communications

Mr. C.R. Nixon, Deputy Minister
Department of National Defense

Mr. A. Kroeger, Deputy Minister
Transport Canada

Mr. R.H. Simmonds, Commissioner
Royal Canadian Mounted Police

Mr. J.A.H. Mackay, Deputy Minister
Department of Public Works

Mr. Robert Johnstone, Deputy Minister
Industry, Trade and Commerce

Mr. J.L. Fry, Deputy Minister
Health & Welfare

Mr. A.E. Gotlieb, Under-Secretary of State
External Affairs

Mr. Blair Seaborn, Deputy Minister
Department of the Environment

Mr. A. Cohen, Deputy Minister
Employment and Immigration

Mr. D.D. Tansley, Deputy Minister
Fisheries and Oceans

Mr. James Smith, Chairman
Northern Canada Power Commission
Whitehorse Yukon

1.4.1 #
81.06. (4)

81.06.14 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Hon. John Roberts, Minister
Environment Canada
Re: Panel Terms of Reference

1.4.1 #
81.06. (5)

81.06.17 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: John Ferby, Deputy Minister
Intergovernmental Affairs,
Government of Yukon
Re: Department of Intergovernmental Relations
identified as having responsibility for
coordinating Yukon government's activities related
to the Beaufort review.

FEARO DOCUMENT

1.4.1

1.4.1 #
81.06 (6)

1.4.1 #
81.06 (7)

1.4.1 #
81.06 (8)

1.4.1 #
81.06 (9)

1.4.1 #
81.06 (10)

Beaufort Sea Project
Panel Correspondence (direct)

81.06.29 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Paul Tellier,
Deputy Minister
DIAND

Re: Outline of Panel review of proposed Beaufort
Sea Hydrocarbon Development

81.06.30 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. John Hnatiuk, Manager
Frontier Exploration
Gulf Canada Resources

Re: Appreciation for assistance with the Panel
tour to the Beaufort Sea.

81.06.30 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: George Bezaire, Frontier Technical Manager
Esso Resources Canada

Re: Appreciation for assistance with the Panel
tour to the Beaufort Sea.

81.06.30 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Murray Todd, Executive Vice-President
Dome Petroleum Ltd.

Re: Appreciation for assistance with the Panel
tour to the Beaufort Sea

81.06.22 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: T.M. Eberlee, Deputy Minister
Labour Canada

Re: Response to letter 81.06.10. Request for
information on continuing basis.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.07 (1)

81.07.02 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Arthur Kroeger, Deputy Minister
Transport Canada
Re: Response to letter of 81.06.10, and enclosing
"Arctic Marine Service Policy". Comments re Tuk
airstrip.

1.4.1 #
81.07 (2)

81.07.06 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J.D. Love, Deputy Minister
Employment and Immigration Canada
Re: Preparation of position papers
(response to Tener 81.06.10)

1.4.1 #
81.07 (3)

81.07.08 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: John Ferbey, Deputy Minister
Intergovernmental Relations
Government of Yukon
Re: Response to note of 81.06.17 confirming
Yukon's support for the Beaufort Sea Environmental
Assessment Panel. Discussion of mechanism for the
Panel to work with the government, and intent of
government in terms of position paper preparation.

1.4.1 #
81.07 (4)

81.07.07 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: S.L. Lee, Assistant Under-Secretary for
U.S.A. Affairs
Office of the Under-Secretary of State
External Affairs
Re: Response to letter 81.06.10 confirming they
will provide a Departmental paper.

1.4.1 #
81.07 (5)

81.07.08 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.A. Cohen, Deputy Minister
Energy, Mines and Resources Canada
Re: Response to letter 81.06.10 and identification
of current participation of EMR.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.07 (6)

81.07.24 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J.B. Seaborn, Deputy Minister
Environment Canada
Re: Establishment of a Beaufort Sea Project
Officer managed by Mr. G. Fitzsimmons.

1.4.1 #
81.07 (7)

81.07.28 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Pierre Juneau, Deputy Minister
Department of Communications
Re: DOC involvement in a review by the
Environmental Assessment Panel of an oil consortium
proposal for resource development in the Beaufort
Sea.

1.4.1 #
81.07 (8)

81.07.30 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J.A.H. Mackay, Deputy Minister
Public Works Canada
Re: Response to 81.06.10 re Beaufort Sea review
and identification of departmental representative.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.08 (1)

81.08.12 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Herb Norwegian, Vice-President
Dene Nation
Re: Questions re funding, ability of process to
obtain information and to change decisions already
made.

1.4.1 #
81.08 (2)

81.08.28 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J.D. Love, Deputy Minister/Chairman
Employment and Immigration Canada
Re: A Position Paper submitted by the CEIC to the
Environmental Assessment and Review Panel in the
Beaufort Sea Hydrocarbon Development Proposal.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.09 (1)

81.09.04 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister
DIAND
Re: Response to letter 81.06.29 and notification
of Cabinet approval of DIAND proposal for a
northern land use planning process.

1.4.1 #
81.09 (2)

81.09.01 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Herb Norwegian, Vice-President
Dene Nation
Re: Funding of potential intervenors; and Panel
review process.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.10 (1)

81.10.08 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Richard Nerysoo, Minister of Energy
Government of N.W.T, Yellowknife
Re: Working relationship between the Panel and
the Government of the Northwest Territories.
Information concerning the preparation of position
papers by federal government departments.

1.4.1 #
81.10 (2)

81.10.09 Panel Index B
FEARO Date: 81.10.19
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: J.B. Seaborn, Deputy Minister
Environment Canada
Re: Response to letter confirming Environments
support for the Panel review, and request for more
information re Position Paper.

1.4.1 #
81.10 (3)

81.10.08 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.A. Cohen, Deputy Minister
Department of Energy, Mines and Resources
Re: Timetable for department's position paper on
the Beaufort Sea.

1.4.1 #
81.10 (4)

81.10.20 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: F. Williams, President
Labrador Inuit Association
Re: Request for Guidelines to be expanded to
include assessment of impacts south of 60°.

1.4.1 #
81.10 (5)

81.10.22 Panel Index C
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: G.H. Lawler, Director General
Fisheries and Oceans
Re: Representation at the Draft EIS Guideline
meetings.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
81.10 (6)

81.10.27 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
Re: Appreciation of arrangements during Alaska
visit.

To: Distribution:

Mr. Glenn Harrison
Department Natural Resources
Anchorage, Alaska
Mr. R. Brock
Outer Continental Shelf Office
Anchorage, Alaska
Mr. James Slak
General Manager, Pingro Corporation
Anchorage, Alaska
Mr. G.N. Nelson
Vice-President and General Manager
Sohio Ltd
Anchorage, Alaska
Mr. Michael Whitehead
Special Assistant to the Governor
Juneau Alaska
Mr. W. Hopkins
Executive Director
Alaska Oil and Gas Association
Anchorage, Alaska
Mr. Conrad Bagnie
Legal Counsel
North Slope Borough
Barrow, Alaska
Dr. W. Sackinger
Director of Arctic Project Office
Geophysical Institute
University of Alaska
Fairbanks, Alaska
The Honourable Vince O'Reilly
Mayor of the City of Kenai
Kenai, Alaska
The Honourable Stan Thompson
Mayor of Kenai Peninsula Borough
Saldontna, Alaska

FEARO DOCUMENT
1.4.1

1.4.1 #
81.10 (7)

Beaufort Sea Project
Panel Correspondence (direct)

81.10.29 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Honourable Richard Nerysoo,
Minister of Energy
Government of the N.W.T
Re: Participation of the Government of the NWT in
the Panel review.

1.4.1 #
81.10 (8)

81.10.08 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: T. Williamson
Re: Labrador Institute of Northern Studies -
concern over Labrador's inclusion

FEARO DOCUMENT
1.4.1

1.4.1 #
81.11 (1)

Beaufort Sea Project
Panel Correspondence (direct)

81.11.16 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: R.H. Simmonds, Commissioner
Royal Canadian Mounted Police
Re: Timing of position papers.

1.4.1 #
81.11 (2)

81.11.17 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: F. Williams, President
Labrador Inuit Association
Re: Request for expansion of EIS Guidelines to
include assessment of tanker routes south of 60.
Panel's intent to hold a public meeting in Nain -
although mandate given the Panel by the Minister
limits review.

1.4.1 #
81.11 (3)

81.11.17 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: T. Williamson, Executive Director
Labrador Institute of Northern Studies
Re: Plans for a meeting in Nain to hear comments
on draft EIS guidelines

1.4.1 #
81.11 (4)

81.11.17 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Honourable Richard Nerysoo,
Minister of Energy
Government of NWT, Yellowknife
Re: Confirmation of working arrangement re letter
of 81.10.29

FEARO DOCUMENT
1.4.1

1.4.1 #
81.12 (1)

Beaufort Sea Project
Panel Correspondence (direct)

81.12.09 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J. Bourque, President
Metis Association of NWT
Mr. Herb Norwegian, Vice-President
Dene Nation
Re: Response to concluding remarks by R. Hoos
at the general session in Calgary.

1.4.1 #
81.12 (2)

81.12.11 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Clara Michelin, Executive Director
Re: Request for meeting in Goose Bay, Labrador

1.4.1 #
81.12 (3)

81.12.07 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Secretariat
Re: Minutes of meeting with Neil Faulkner,
Assistant Deputy Minister, Northern Programs,
DIAND

FEARO DOCUMENT
1.4.1

1.4.1 #
82.01 (1)

Beaufort Sea Project
Panel Correspondence (direct)

82.01.04 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Tony Williamson, Executive Director
Labrador Institute of Northern Studies
Re: Information sessions in Labrador, and regret
for cancellation of Nain Session, December 6.

1.4.1 #
82.01 (2)

82.01.04 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: F. Williams, President
Re: Response to 81.17.07 telex. Cancellation
of Nain meeting due to decision of Labrador Inuit
Association not to participate in the Panel review
and that there would be no community
representatives in Nain

1.4.1 #
82.01 (3)

82.01.19 Panel Index I
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: George Erasmus, President
Dene Nation
Re: Special Committee of the Senate of Northern
Pipeline and concerns over duplication. Response
by D.W.I. Marshall 82.04.16 attached.

1.4.1 #
82.01 (4)

82.01.22 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. Jim Bourque, President
Metis Association of N.W.T.
Herb Norwegian, Vice-President
Dene Nation
Re: Response to letter of 81.17.09 and
consideration of requests in guideline
deliberation

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #

82.02 (1)

82.02.25 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Paul M. Tellier, Deputy Minister
DIAND

Re: Letter accompanying the "Guidelines for Government Position Papers" and "Request to Initiator".

82.02 (2)

82.02.25 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: R. Nerysoo
Re: Copies of the letter to P. Tellier (82.02.25), the "Guidelines for Government Position Papers", and the "Request to the Initiator" were sent for information purposes.

1.4.1 #

82.02 (3)

82.02.25 Panel Index I

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. L. Kerwin, President
National Research Council

Re: Information concerning the review by the Beaufort Sea Environmental Assessment Panel; background, and enclosing copy of guidelines. Request for mutual exchange of information between the National Research Council and the Secretariat.

1.4.1 #

82.02 (4)

82.02.25 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. J.L. Fry, Deputy Minister
Health and Welfare Canada
Mr. M.A.J. Lafontaine
Assistant Deputy Minister/ Chairman
Employment and Immigration Canada
Mr. John W. Ferbey, Deputy Minister
Department of Intergovernmental Relations
Government of Yukon
Mr. Pierre Juneau, Deputy Minister
Department of Communications
Mr. James Smith, Chairman
Northern Canada Power Commission
Mr. E.G. Lee, Assistant Under-Secretary for
U.S.A. Affairs
Department of External Affairs
Mr. Donald P. Tansley, Deputy Minister
Fisheries and Oceans Canada

Mr. A. Kroeger, Deputy Minister
Transport Canada
Mr. M.A. Cohen, Deputy Minister
Department of Energy, Mines and Resources
Mr. Robert Johnstone, Deputy Minister
Industry, Trade and Commerce
Mr. J.B. Seaborn, Deputy Minister
Department of the Environment
Mr. J.A.H. Mackay, Deputy Minister
Department of Public Works
Commissioner R.H. Simmonds
Royal Canadian Mounted Police

Re: Letter of explanation accompanying the "Guidelines for Government Position Papers" and noting in particular items to be addressed by that Department.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #

82.02 (5)

82.02.25 Panel Index B

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: G.N. Faulkner, Assistant Deputy Minister
Indian Affairs and Northern Development
Re: Copies of the Beaufort Sea Environmental Assessment Panel Guidelines for the Preparation of an Environmental Impact Statement for formal transmittal to principals.

FEARO DOCUMENT
1.4.1

1.4.1 #
82.03 (1)

Beaufort Sea Project
Panel Correspondence (direct)

82.03.19 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: David B. Brooks, Executive Director
Beaufort Sea Research Coalition
Re: Disappointment in the Guidelines issued by
the Panel for Preparation of and Environmental
Impact Statement. Need for a "scoping process".

FEARO DOCUMENT
1.4.1

1.4.1 #
82.04 (1)

Beaufort Sea Project
Panel Correspondence (direct)

82.04.27 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Pierre Juneau, Deputy Minister
Department of Communications
Re: Government Position Statement for the
Beaufort Sea Environmental Assessment Panel. Notice
of intent to participate.

1.4.1 #
82.04 (2)

82.04.06 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Richard Nerysoo, Minister of Energy
Government of NWT, Yellowknife
Re: Response to 82.02.25 (Tener) and assurance
that the Government of NWT will prepare a position
statement.

1.4.1 #
82.04 (3)

82.04.16 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Richard Nerysoo, Minister of Energy
Government of NWT, Yellowknife
Re: Preparation of Position Statement and
community participation in the exercise.

1.4.1 #
82.04 (4)

82.04.27 Panel Index C
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Pierre Juneau, Deputy Minister
Department of Communications
Re: Government Position Statement for the
Beaufort Sea Environmental Assessment Panel will be
prepared.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
82.04 (5)

82.04.27 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: D.J. Gamble, Director
Policy Studies
Canadian Arctic Resources Committee
Re: Concern over suggestions that the panel is
soliciting private briefings and reports.

1.4.1 #
82.04 (6)

82.04.27 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): David Brooks
Beaufort Sea Research Coalition
Re: Correspondence with D.W.I. Marshall re notes
to form working basis to proceed with BSRC's
analysis and information program.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
82.05 (1)

82.05.23 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Honourable John Roberts, Minister
Environment Canada
Re: Submission of the Panel Interim Report for
consideration.

1.4.1 #
82.05 (2)

82.05.21 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Commissioner R.H. Simmonds
Royal Canadian Mounted Police
Re: Acknowledgement of receipt of R.C.M.P.
Position Paper, March 22, 1982.

1.4.1 #
82.05 (3)

82.05.12 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.A. Cohen, Deputy Minister
Energy, Mines and Resources
Re: Scientific and technical commentary on the
EIS and participation in the hearings will be
provided. Information related to energy policy
requested in the Position Paper will be difficult
to provide. Danger of hearings becoming a wide
ranging energy policy review.

1.4.1 #
82.05 (4)

82.05.16 Panel Index B
F.J. Carmichael
Beaufort Sea Environmental Assessment Panel
To: Honourable John Roberts, Minister
Environment Canada
Re: Resignation.

FEARO DOCUMENT
1.4.1

1.4.1 #
82.06 (1)

Beaufort Sea Project
Panel Correspondence (direct)

82.06.08 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. J.L. Fry, Deputy Minister
Health and Welfare Canada
Mr. M.A.J. Lafontaine
Assistant Deputy Minister/ Chairman
Employment and Immigration Canada
Mr. John W. Ferbey, Deputy Minister
Department of Intergovernmental Relations
Government of Yukon
Mr. Pierre Juneau, Deputy Minister
Department of Communications
Mr. James Smith, Chairman
Northern Canada Power Commission
Mr. E.G. Lee, Assistant Under-Secretary for
U.S.A. Affairs
Department of External Affairs
Mr. Donald P. Tansley, Deputy Minister
Fisheries and Oceans Canada
Mr. A. Kroeger, Deputy Minister
Transport Canada
Mr. M.A. Cohen, Deputy Minister
Department of Energy, Mines and Resources
Mr. Robert Johnstone, Deputy Minister
Industry, Trade and Commerce
Mr. J.B. Seaborn, Deputy Minister
Department of the Environment
Mr. J.A.H. Mackay, Deputy Minister
Department of Public Works
Commissioner R.H. Simmonds
Royal Canadian Mounted Police

Re: Dome, Esso and Gulf are to make an oral
presentation on their update scenario in a public
meeting scheduled Calgary 27, 1982.

1.4.1 #
82.06 (2)

82.06.09
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): Murray Coolican
Executive Director
Canadian Arctic Resources Committee
Re: Correspondence to the Honourable John
Roberts, Minister, Environment Canada re: Interim
report of Beaufort EARP Panel, lack of panel
direction, Panel support of Arctic Pilot Project
recommendations, Funding of public participation,
and increasing Panel mandate.

FEARO DOCUMENT
1.4.1

1.4.1 #
82.06 (3)

Beaufort Sea Project
Panel Correspondence (direct)

82.06.09 Panel Index J
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: D.J. Gamble, Director
Policy Studies
Canadian Arctic Resources Committee
Re: Need to follow normal EARP hearing processes
in any information presentation. Objection to
Calgary meeting.

1.4.1 #
82.06 (4)

82.06.11 Panel Index J
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): Don Gamble
Canadian Arctic Resources Committee
Re: Correspondence to G. Harrison, Dome Petroleum
over difficulty in dealing with the Beaufort Sea
EARP.

1.4.1 #
82.06 (5)

82.06.11 Panel Index J
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) Don Gamble
Canadian Arctic Resources Committee
Re: Correspondence to J.W. Lee, Esso Resources
Ltd. re difficulties in dealing with the Beaufort
Sea EARP.

1.4.1 #
82.06 (6)

82.06.11 Panel Index J
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) D.J. Gamble
Canadian Arctic Resources Committee
Re: Correspondence to D. Motyka (Gulf) re
difficulties in dealing with the Beaufort Sea EARP.

1.4.1 #
82.06 (7)

82.06.16 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice-President
Frontier Drilling and Production
Dome Petroleum Ltd
Re: Review of the EIS and suggestions for
shortening the allowed review period.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
82.06 (12)

82.06.23 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister
DIAND
Re: DIAND's situation in preparation of a position
paper and concern over level of information
requested.

1.4.1 #
82.06 (13)

82.06.22 Panel Index J
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) Terry Fenge, Policy Studies
Canadian Arctic Resources Committee
Re: Tarsuit- Beaufort Sea

1.4.1 #
82.06 (14)

82.06.28 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Terry Fenge, Director
Policy Studies
Canadian Arctic Resources Committee
Re: Concerns over "information session" and five
items for which clarification is requested.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
82.06 (8)

82.06.16 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: D.J. Gamble, Director
Policy Studies
Canadian Arctic Resources Committee
Re: Response to telegram 82.06.09 and concerns
for the public meetings scheduled for June 22 in
Calgary.

1.4.1 #
82.06 (9)

82.06.16 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Don Gamble
Canadian Arctic Resources Committee
Re: Response to letter of 82.03.27. Assurance
that they are adhering to their operational
procedures.

1.4.1 #
82.06 (10)

82.06.18 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: E.R. Cherrett, A/Director General
Government, Industry and International
Relations
Transport Canada
Re: Extension of Position paper timing, and
finalization of work after receiving the proponents
proposal description.

1.4.1 #
82.06 (11)

82.06.23 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister
Indian and Northern Affairs Canada
Re: Concern expressed over level of information
requested in the "Guidelines for the Preparation of
Government Position Statements" and the "Request
to Initiator". Role and responsibility for
managing impacts of major hydrocarbon development
projects in the north will be explained in the
DIAND Position Paper, and an appropriate level of
information on other topics will be provided.

FEARO DOCUMENT
1.4.1

1.4.1 #
82.06 (12)

Beaufort Sea Project
Panel Correspondence (direct)

82.06.23 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister
DIAND
Re: DIAND's situation in preparation of a position
paper and concern over level of information
requested.

1.4.1 #
82.06 (13)

82.06.22 Panel Index J
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) Terry Fenge, Policy Studies
Canadian Arctic Resources Committee
Re: Tarsuit- Beaufort Sea

1.4.1 #
82.06 (14)

82.06.28 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Terry Fenge, Director
Policy Studies
Canadian Arctic Resources Committee
Re: Concerns over "information session" and five
items for which clarification is requested.

1.4.1 #
82.06 (15)

82.06.29
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J. Smith, Chairman
Northern Canada Power Commission
Re: Submission of the NCPC Position Statement

FEARO DOCUMENT
1.4.1

1.4.1 #
82.07 (1)

Beaufort Sea Project
Panel Correspondence (direct)

82.06.16 Panel Index J
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) Honourable John Roberts, Minister
Environment Canada
Re: Correspondence with Murray Coolican, CARC, re
concerns about the environmental assessment review
of the proposed oil and gas developments in the
Beaufort Sea. Comments on Minister's relationship
with the Panel, Interim Report, public
participation funding and Panel mandate.

1.4.1 #
82.07 (2)

82.07.08 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister
Indian Affairs and Northern Development
Re: DIAND'S current situation on the preparation
of a Position Paper.

1.4.1 #
82.07 (3)

82.07.08 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Ian Clarke, Secretary General
National Museums of Canada Transport Canada
Re: Inquiry whether National Museums would be
interested in preparing a Position Paper that would
focus on the subject of archaeological and heritage
sites.

82.07 (4)

82.07.08 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Murray B. Todd, Senior Vice-President
Frontier Drilling and Production
Dome Petroleum
Re: Panel will not accept EIS documents in draft
form. Ninety day review will not begin until the
last document has been received.

1.4.1 #
82.07 (5)

82.0.16 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: G.N. Faulkner, Assistant Deputy Minister
Northern Affairs
DIAND
Re: Submission of the Environmental Impact
Statement (EIS) to the Panel. Agreement with the
Panel decision that 90 day review period does not
commence until all the material is available.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
82.07 (6)

82.07.30 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: M.A. Cohen, Deputy Minister
Energy, Mines and Resources
Re: Problem of the Panel review being caught up
in an energy policy review, and assurance that
discussions at public meetings will be carried out
in a responsible manner.

1.4.1 #
82.07 (7)

82.07.09 Panel Index
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice-President
Frontier Drilling and Production
Dome Petroleum Ltd.
Re: Schedule for EIS: Distribution of draft;
commencement of 90 day review; scheduling of
meetings.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
82.08 (1)

82.08.03 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J.A.H. Mackay, Deputy Minister
Department Public Works
Re: Submission of the Impact Statement of the
Department of Public Works.

1.4.1 #
82.08 (2)

82.08.10 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Terry Fenge, Director, Policy Studies
Canadian Arctic Resources Committee
Re: Clarification on the subject of Panel
information sessions.

1.4.1 #
82.08 (3)

82.08.11 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: M.B. Todd, Senior Vice-President
Frontier Drilling and Production
Dome Petroleum Ltd
Re: Points related to the schedule of the EIS.

1.4.1 #
82.08 (4)

82.08.11 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Kit Spence, Special Assistant
Office of the Minister
DIAND
Re: Acknowledgement of receipt of letter
82.08.07.

1.4.1 #
82.08 (5)

82.08.17 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister
DIAND
Re: Departmental position paper and EIS on the
Beaufort Sea Hydrocarbon Development Proposals.
Departmental paper will be sent to Panel shortly.

FEARO DOCUMENT
1.4.1

1.4.1 #
82.08 (6)

Beaufort Sea Project
Panel Correspondence (direct)

82.08.18 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Jacques Gérin
Senior Assistant Deputy Minister
Environment Canada
Re: Receipt of Environment Canada's "Proposed
Response" to Beaufort Sea Hydrocarbon Production

1.4.1 #
82.08 (7)

82.08.18 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: M.J. Smith, Chairman
Northern Canada Power Commission
Re: Receipt of Position Statement for the
Beaufort Sea Hydrocarbon Production Proposal

1.4.1 #
82.08 (8)

82.08.18 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: William C. Taylor, Jr.
Director
National Museum of Man
Re: Receipt of Position Statement on Heritage
matters

1.4.1 #
82.08 (9)

82.08.27 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: J.A.H. MacKay, Deputy Minister
Public Works Canada
Re: Acknowledgement of receipt of the Public
Works Impact Statement on the Beaufort Sea
Hydrocarbon Production Proposal

FEARO DOCUMENT
1.4.1

1.4.1 #
82.08 (10)

Beaufort Sea Project
Panel Correspondence (direct)

82.08.30 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: K.J. Merklinger, Director
U.S. Transboundary Relations Division
External Affairs
Re: Acknowledgement of receipt of External
Affairs Position Statement.

1.4.1 #
82.08 (11)

82.08.05 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: K.J. Merklinger, Director
U.S. Transboundary Relations Division
External Affairs
Re: Submission of Position Statement by the
Department of External Affairs.

1.4.1 #
82.08 (12)

82.08.16 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Arthur Kroeger, Deputy Minister
Transport Canada
Re: Submission of the Canadian Marine
Transportation Administration Position Statement.

FEARO DOCUMENT
1.4.1

BEAUFORT SEA PROJECT
Panel Correspondence (Direct)

1.4.1 #
82.08. (13)

82.08.03 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Secretariat
Re: Notes on Community Fieldworker Workshop.

1.4.1 #
82.08. (14)

82.08.23 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Gaetan Lussier, Deputy Minister
Employment and Immigration Canada

Re: Submission of Position statement entitled:
Impact of Offshore Oil Development n the Beaufort
Sea on the Canada Employment and Immigration
Commission.
Report filed: 2.4 #9

1.4.1 #
82.08. (15)

82.08.26 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.A. Cohen, Deputy Minister
Energy, Mines and Resources
Re: EMR position paper and the question of EMR
representatives commenting on the position paper.

1.4.1 #
82.08 (16)

82.08.06
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Jacques G  rin, Senior Assistant Deputy
Minister, Environment Canada
Re: Submission of the Environment Canada Position
Paper.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence (direct)

1.4.1 #
82.09 (1))

82.09.07 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Arthur Kroeger, Deputy Minister
Transport Canada
Re: Acknowledgement of receipt of the Canadian
Marine Transportation Administration Position
Statement.

1.4.1 #
82.09 (2)

82.09.08 Panel Index E
Dr. J.S. Tener, Chairman (Originally sent to
D.W.I. Marshall)
Beaufort Sea Environmental Assessment Panel
From: John W. Ferbey, Deputy Minister
Intergovernmental Relations and Economic
Development, Government of Yukon
Re: Submission of the Government of Yukon
Position Paper
Report filed: 2.4 #10

1.4.1 #
82.09. (3)

82.09.17 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: John Ferbey, Deputy Minister
Intergovernmental Relations and Economic
Development
Re: Receipt of Government of Yukon Position
Statement

1.4.1 #
82.09. (4)

82.09.17 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Gaetan Lussier, Deputy Minister/Chairman
Employment and Immigration Canada
Re: Receipt of Position Statement

TEXTNAME: corresponden (R)P: 01

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence Direct

1.4.1 #
82.09 (5)

82.09.17 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Alain Gourd, Senior Assistant Deputy Min.
Department of Communications
Re: Submission of the position paper of the
Department of Communications concerning the
Beaufort Sea Hydrocarbon Production Proposal.
Report filed 2.4 #13

1.4.1 #
82.09 (6)

82.09.27 Panel Index E
Dr. J.F. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: R. Nerysoo, Minister of Energy
Govt of the Northwest Territories
Re: Enclosure of the Government of the
Northwest Territories submission to the Beaufort
Sea Environmental Assessment Panel.
Report filed: 2.4 #15

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence Direct

1.4.1 #
82.10 (1)

82.10.18 Panel Index O
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior vice-President
Frontier Drilling and Production
Re: Transmittal of the summary volume
(Volume I) of the Beaufort Sea - Mackenzie Delta
Environmental Impact Statement.

1.4.1 #
82.10 (2)

82.10.15 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: G.C. Vernon, Assistant Deputy Minister
Fisheries and Oceans Canada
Re: Enclosure of the Department of Fisheries
and Oceans' Implications Paper on the Beaufort
Sea Hydrocarbon Production Proposal.
Report filed: 2.4 #14

1.4.1 #
82.10 (3)

82.10.21 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: H.A. Reynolds, Director General
Office of Industrial & Regional Benefits
Re: Submission of a statement on departmental
activities relating to oil and gas production in
the Beaufort Sea from Industry, Trade and
Commerce, and Regional Economic Expansion.
Report Filed: 2.4 #12

1.4.1 #
82.10 (4)

82.10.26 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: A. Kroeger, Deputy Minister
Transport Canada
Re: Submission of the Canadian Air
Transportation Administration's Position
Statement to the Beaufort Sea Panel.
Report filed: 2.4, #11

TEXTNAME: corres-1-4-1 (R)P: 04

FEARO DOCUMENT
1.4.1

1.4.1 #
82.10 (5)

Beaufort Sea Project
Panel Correspondence Direct

82.10.26 Panel Index
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: J.L. Fry, Deputy Minister
Health and Welfare Canada
Re: Enclosure of the position paper of the
Department of National Health and Welfare on the
Beaufort Sea Hydrocarbon Production Proposal.
Report filed: 2.4 #10

1.4.1 #
82.10 (6)

82.10.28 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice President
Frontier Drilling and Production
Dome Petroleum Ltd.
Re: Submission of the Inuktitut version of
Vol. 1 of the EIS and request for confirmation of
starting date for the 90 day review period.

FEARO Document

1.4.1 #
82.11 (1)

Beaufort Sea Project
Panel Correspondence Direct

82.11.22 Panel Index U
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice President
Frontier Drilling and Production
Dome Petroleum Ltd.
Re: November 10, 1982 as starting date of the
90 day review period, and enclosure of the
Panel's Operational Procedures.

1.4.1 #
82.11 (2)

82.11.09 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister
Energy, Mines and Resources
Re: Submission of an EMR paper entitled
"Background Paper to the Environmental Assessment
and Review Panel from the Department of Energy,
Mines and Resources".
Report filed: 2.4 #16

1.4.1 #
82.11 (3)

82.11.09 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.A.J. Lafontaine, Deputy Minister
DIAND
Re: Enclosure of the DIAND Department
Statement to the Beaufort Sea Environmental
Assessment Panel.
Report filed: 2.4 #17

1.4.1 #
82.11 (4)

82.11.25 Panel Index E
J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Secretariat
Re: Beaufort Sea Environmental Assessment
Panel - Panel Member Backgrounds.

1.4.1 #
82.11 (5)

82.11.30 Panel Index E
J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: G.C. Vernon, Assistant Deputy Minister
Fisheries and Oceans
Re: Preliminary examination of the EIS and
identification of shortcomings which could prove
to be substantive.

TEXTNAME: pan-co-1.4.1 (R)P: (p.01) U1

TEXTNAME: Uir-co-1-4-1 (R)P: U6

FEARU DOCUMENT
1.4.1

Beaufort Sea Project
Panel Correspondence - Direct

1.4.1 #
82.11. (6)

82.11.04 Panel Index E
Beaufort Sea Environmental Assessment
Panel
From: Helen Adamache, Secretary Manager,
Coppermine, N.W.T.
Re: Submission of the report
"Environmental & Social Concerns
Coppermine, N.W.T. -Oil & Gas
Explorations, Beaufort Sea Development"
for Panel consideration
File Ref: 2.1 #7

FEARU Document

Beaufort Sea Project
Panel Correspondence Direct

1.4.1 #
82.12 (1)

82.11.07 Panel Index E
J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. John Roberts
Minister of Environment
Re: Intent of Gulf Canada Resources Ltd. to
submit an application for approval-in-principle
for a marine support base at Stokes Point on the
Yukon Coast. Request for delay of decision on
the current Stokes Point proposal until after the
Beaufort Sea Panel has completed its review.

1.4.1 #
82.12 (2)

82.12.09 Panel Index E
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: S. Strasbourg, Dept. Assistant,
Office of Minister of Environment
Re: Acknowledgement of receipt of
letter of 82.12.08 re Gulf Canada
intent to submit an application for a
marine support base.

1.4.1 #
82.12 (3)

82.12.12 Panel Index E
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: Bruce Boyd, Environmental
Co-ordinator, Inuit Tapirisat of Canada
Re: Concern over possibility of Panel
hearings in the spring of 1983 and
request that the Beaufort Sea hearings
be conducted during the Lancaster Sound
Review Phase in the area which will be
affected by both project (Eastern High
Arctic).

TEXTNAME: pan-co-1.4.1 (R)P: (p.01) 03

TEXTNAME: pan-co-1.4.1 (R)P: 06

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Direct Panel Correspondence

1.4.1 #
83.01 (1)

83.01.07 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: Hon. John Roberts, Minister,
Environment Canada
Re: Response to letter of 82.12.07
concerning constraints that an early
approval for Gulf to use Stokes Point as
a marine support facility could have on
the consideration by the Panel of
alternative port sites. The response
stated that the Hon. John Roberts had
already stated his opposition to any
port site being decided upon until the
Beaufort Panel had completed its work,
until a regional plan or a shore zone
plan has been developed for the Beaufort
Sea and until final decisions are made
on the final boundaries and disposition
of the Northern Yukon Park and national
wildlife area.

1.4.1 #
83.01 (2)

83.01.26 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
To: Bruce Boyd, Environmental
Coordinator, Inuit Tapirisat of Canada.
Re: Response to letter of 82.12.12
explaining possible timing of hearings
(fall, if EIS is deficient, spring
otherwise). Hearings in Eastern High
Arctic would be in early April after the
Lancaster Sound Public Review Phase has
been completed.

1.4.1 #
83.01 (3)

83.01.26 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
To: J. Gérin, Deputy Minister,
Environment Canada.
Re: Acknowledgement of receipt of
initial assessment of the Beaufort Sea
EIS.

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Direct Panel Correspondence

1.4.1 #
83.01 (4)

83.01.27 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
To: G.V. Vernon, Assistant Deputy,
Minister, Fisheries & Oceans.
Re: Acknowledgement of receipt of
preliminary comments on the Beaufort Sea
EIS.

1.4.1 #
83.01 (5)

82.12.22 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Review of technical specialists critiques of
the EIS. Four general papers were enclosed.
Copies of new studies relative to the Forties
field in the North Sea and Cook Inlet in Alaska
will be forwarded when received.
Reports filed 1.7.2 #33

TEXTNAME: pan-co-1.4.1 (R)P: 07

TEXTNAME: pan-co-1.4.1 (R)P: (p.01) 01

FEARO DOCUMENT
1.4.1

Beaufort Sea Project
Direct Panel Correspondence

1.4.1 #
83.02 (1)

83.02.04 Panel Index
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: David Brooks, Beaufort Sea
Alliance
Re: Failure of proponents to provide
residents of communities with a summary
in "plain non technical language" and a
translation is limiting ability of
communities to respond to EIS.

1.4.1 #
83.02 (2)

83.02.04 Panel Index
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: R. Grueban, Secretariat
Re: Western Arctic co-ordinator's
activities, and conferences attended.
Regional HTA conference - objection to
development at Stokes Pt. at this time.
Regional Directors Conference -
Opposition to Stokes Pt development
proceeding at this time.
- concern over possibility of hearings
on EIS in a month's time. Felt that
communities were not prepared;
- formation of a Development Impact Zone
Group (DIZ Group) with representatives
from industry, government and the
Beaufort communities.

FEARO Document
1.4.1

1.4.1 #
83.02 (3)

Beaufort Sea Project
Direct Panel Correspondence

83.02.09 Panel Index
Beaufort Sea Environmental Assessment Panel

Re: Interim compendium of written submissions to
the Panel on the Dome, Gulf & Esso Environmental
Impact Statement. February 9, 1983.

The compendium includes 20 submissions. Covering
correspondence is included with the submission, or
in some cases forms the submission. The
individual letters are not filed separately under
category 1.4.1 - Direct Panel Correspondence but
are included in the compendium filed as 2.5.2 #1
(Intervenor Submissions - general comments on the
EIS).

Correspondence to the Panel from:
p. 1 - Dept. of Fisheries & Oceans (G.C. Vernon)

p. 2 - Labrador Institute of Northern Studies
(B.K. Boles)

p. 7 - Environment Canada (Jacques Gérin).

p. 13 - Mr. Wayne Liebau

p. 27 - Beaufort Sea Alliance (David B. Brooks)

p. 49 - Trans North Air (Arden A. Meyer)

p. 53 - Dene Nation (Georges Erasmus)

p. 57 - Canadian Wildlife Federation (Kenneth A.
Brynaert)

p. 84 - Canadian Nature Foundation (Gregg Sheehy)

P. 87 - Councillor, Old Crow Band (Mr. Grafton
Njootli)

P. 139 - Dr. C. Eric Tull

p. 189 - Environment Canada (A. H. Macpherson)

p. 229 - Artic International Wildlife Range
Society (Nancy Russell Leblond)

p. 237 - Mrs. Rita Pasiciel

p. 239 - Metis Association of the Northwest
Territories (Ursula Daniels)

TEXTNAME: pan-co-1.4.1 (R)P: (p.01) 02

TEXTNAME: pan-co-1.4.1 (R)P: (p.01) 03

- p. 275 - Arctic Bay Development Review Committee (G.A. Williams)
- p. 289 - Labrador Inuit Tapirisat of Canada (Judy Rowell)
- p. 295 - Inuit Tapirisat of Canada
- p. 315 - Fisheries & Oceans Canada (G.C. Vernon)
- p. 381 - Department of Indian Affairs and Northern Development (Vol. 1)

1.4.1 #
83.02. (4)

83.02.15
Beaufort Sea Environmental Assessment Panel

Re: Second (final) interim compendium of written submissions to the Panel on the Dome, Gulf & Esso Environmental Impact Statement.

The compendium covers 16 submissions plus 2 attached submissions to the Panel. Any covering correspondence is included with the written submission, or, in some cases constitutes the submission. The Covering letters are not filed under 1.4.1 - Panel Correspondence but are included in the compendium filed as 2.5.2 #2 (Intervenor submissions-general comments on the EIS).

Correspondence from:

- P. 1 - Settlement and Band Councils of Fort Norman (Susan Haley)
- p. 55 - Yukon Conservation Society (Nancy Macpherson)
- p. 61 - Mackenzie Dene Regional Council (Chief Johnnie D. Charlie, Chief Michael Coyen, Chief Freddy Greenland, Chief Cece Mac Cauley)
- p. 67 - Dene Community Council - Fort Good Hope (George Barnaby)
- p. 73 - Government of the Northwest Territories (Richard Nerysoo, Minister)
- p. 95 - North Slope Borough (Eugene Brower, Mayor)
- p. 101 - Archaeological Survey of Canada (Jacques Cinq-Mars)

- p. 115- Energy, Mines and Resources Canada (H.C. Rothschild, Michael J. Berry)
- p. 125- Beaufort Sea Alliance (amendments to earlier submission) (David B. Brooks)
- p. 127- Morten Lindhard
- p. 145- Government of Yukon (J.W. Ferbey)
- p. 159- Baffin Regional Inuit Association
- p. 173 -Department of Indian Affairs & Northern Development (Vol.II) (G.N. Faulkner)
- p. 271- Hamlet of Pond Inlet (Elijah Erkloo)
- p. 281- Town of Inuvik (D. Strelloff)
- p. 283- Employment & Immigration Canada (R.G. Gates)

Attachments:

- Arctic Transportation Ltd. (J.S. Burnett)
- Hamlet Council of Norman Wells (Warren S. Schmitke)

TEXTNAME: 11b-1.4.1 (R)P: (p.01) 04

TEXTNAME: 11b-1.4.1 (R)P: 04

FEARO Document

Beaufort Sea Project

1.4.1 #
83.02 (5)

83.02.10 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: L. Lennie, Chief
Arctic Red River, N.W.T.
Re: Request that the Beaufort Sea Panel include
Arctic Red River in their visit to the Delta
Region.

FEARO
Reference No.

1.4.1 #
83.02 (8)

Beaufort Sea Project
Panel Correspondence (Direct)

83.02.08 Panel Index D
Submission to the Beaufort Sea Panel
From: Dan Brunton, President
Ottawa Field-Naturalists' Club

Re: Comments on the Environmental Impact Statement
concerning hydrocarbon development in the Beaufort
Sea- Mackenzie Delta Region.

File Ref: 2.5.2. # 3

FEARO Document
1.4.1

Beaufort Sea Project
Panel Correspondence (Direct)

1.4.1 #
83.02 (6)

83.02.24 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Felix Kamber, President
Delta Ford Mercury Sales
Inuvik, N.W.T.
Re: Support of the Mackenzie- Beaufort Sea Project
as benefiting all Northerners and Canadians.

1.4.1 #
83.02 (7)

83.02.21 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Kenneth R. Roulgh
Quandra Inc. Ltd.
Norman Wells
Re: Support for the Beaufort Sea hydrocarbon
development proposal taking into account the need
for economic development in the Territories.

FEARO Document

1.4.1
83.02 (9) 83.02.21 Panel Index

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: Chief Freddy Greenland, Aklavik Dene Metis
Council/ Mackenzie Delta Dene Reg Council

Re: Concern over meeting held by Gulf in Aklavik
on Feb. 16/ 83. "Gulf representatives have come
into the community and denied any future plans for
Stokes Point as outlined in the EIS. They did
this by discrediting our fieldworking staff, who
are simply explaining what is in the EIS (which is
no simple task at best) and stating they have no
plans such as those in the EIS for the North
Slope." The question is posed as to why they are
reviewing the EIS if it is not valid or is
industry simply misleading the people.

Enclosures: Letter to Gulf vice president Dan
Motyka re meeting in Aklavik Feb. 16.

EXTNAME: lib-1.4.1 (R)P: (83-02) 02.1 758

FEARO Document

1.4.1 #
83.02 (10) 83.02.25
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: D.R. Motyka, Gulf Canada Resources Inc.

Re: Gulf's requirement for a marine supply base
at Stokes Point, Y.T., to support exploration
activities in the Beaufort Sea.

A review of the purpose of the meetings held in
Aklavik... intended to clarify the present
proposal as distinct from the long-term future
options in the EIS...

<p>FEARU Document 1.4.1</p>	<p>Beaufort Sea Project Panel Correspondence (Direct)</p>	<p>1.4.1 # 83.03. (5)</p>	<p>83.03.14 Panel Index E Dr. J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel From: Kit Spence, Special Assistant Office of the Minister, DIAND Re: Acknowledgement of receipt of letter to the Hon. John C. Munro dated 83.03.08 concerning the Beaufort Sea EIS.</p>
<p>1.4.1 # 83.03 (1)</p>	<p>83.03.16 Panel Index D Dr. J. S. Tener, Chairman Beaufort Sea Environmental Assessment Panel From: Murray B. Todd Dome Petroleum Ltd Re: Confirmation of understanding of the four development scenarios outlined by the Panel in its deficiency statement, purpose of the analysis and assumptions required.</p>	<p>1.4.1 # 83.03. (6)</p>	<p>83.03. 24 Panel Index E Dr. J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel From: (by c.c) Bob Stevenson, President Metis Assoc. of the NWT Re: Submission to Hon. John Munro expressing concern and outrage that consideration is being given to issuing a land use permit for Stokes Point as applied for by Gulf Canada Resources. The letter requests recognition that the application by Gulf is intimately connected to other political processes in the North and should be treated in that context - not as a simple land use permit application.</p>
<p>1.4.1 # 83.03. (2)</p>	<p>83.03.25 Panel Index D Dr. J. S. Tener, Chairman Beaufort Sea Environmental Assessment Panel To: Murray B. Todd, Senior Vice- President Frontier Division, Dome Petroleum Ltd. Re: Response to letter 83.03.16. Interpretation of scenarios is confirmed and acceptance of request to alter the small diameter pipeline to 16" rather than 12". It is also noted that the summary of impacts on a zonal basis should include an indication of bio-physical impacts in addition to those associated with socio-economic considerations.</p>	<p>1.4.1 # 83.03. (7)</p>	<p>83.03.08 Panel index D Dr. J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel To: Hon. John Munro, Minister DIAND Re: Deficiencies in the Environmental Impact Statement for Hydrocarbon Development in the Beaufort Sea - Mackenzie Delta Region : Notification that the Panel has identified certain deficiencies covered in the attached document.</p>
<p>1.4.1 # 83.03. (3)</p>	<p>83.03.10 Panel Index D. Dr. J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel From: Margaret Ugilvy Re: Commendation to the Panel for its Deficiency Statement.</p>		
<p>1.4.1 # 83.03. (4)</p>	<p>83.03.24 Panel Index E Dr. J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel From: L. Lennie, Band Manager Arctic Red River Re: Response to letter requesting that the Panel visit Arctic Red River and confirming that the Panel will visit the community when the community public meetings take place.</p>	<p>1.4.1 # 83.03. (8)</p>	<p>83.03.08 Panel Index D Dr. J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel To: Hon. John Roberts Minister, Environment Canada Re: Panel review of the EIS has been concluded and resulted in the identification of certain deficiencies. These deficiencies must now be addressed by the proponents after which further Panel and public review will be carried out.</p>

TEXTNAME: 11b-1.4.1 (R)P: 05

FEARO
Reference No.

1.4.1 #
83.03 (9)

Beaufort Sea Project

83.03.22 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: R. Gruben, Secretariat

Re: Community visits - Sachs Harbour, Paulatuk,
Coppermine March 14. 15
Dene/Metis Assoc Meeting

Community visits were to inform local leaders of
the deficiency statement. Community leaders were
appreciative of the statement, and the fact that
they now had time to understand the industry's
proposals.

Statement attached from Dene/Metis Assoc.
commending the Panel on the Deficiency Statement.

1.4.1 #
83.03 (10)

83.03.29 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: C. Eric Tull

Re: Concern that the Deficiency Statement issued
by the Panel is not sufficient to obtain the
information required for a proper review of the
proposal. A number of environmental points have
not been covered, and could have been covered in
the time required for the proponents to address
the socio-economic aspects of the deficiency
statement since these require northern
consultation.
Ten environmental problems not covered by the
deficiency statement are listed.

Second point of concern noted deals with the fact
that the deficiency review dealt only with the EIS
and omitted consideration of the government role.

Third point is a request that the review period
following receipt of the proponents response to
the EIS be considered "at least 30 days" and that
the Panel should be prepared to lengthen the
review time according to the volume of material
received and giving consideration to delay in mail
to the North.

TEXTNAME: cat.1.5.3. (R)P: (p.01) 01

FEARO DOCUMENT Beaufort Sea Project

1.4.1#
83.03 (11)

83.03.30 Panel Index E
Dr. J.S. Tener
Chairman, Beaufort Sea Environmental Assessment Panel
From: Georges Erasmus, President, Dene Nation

Re: Beaufort EARP Panel deficiency statement on the
Esso, Gulf and Dome EIS and Procedures for Public
Hearings.

Commendation on the thoroughness and quality of the
Deficiency Statement.

Disappointment in the proposed procedures for community
and general hearings.

- concern that with community hearings being treated
too informally the community people will still have to
travel to general hearings to present their positions
properly and for recording
- concern that proponents are given opportunity to open
hearings, ask questions throughout and to make a final
reply. The final reply in particular should go to the
community
- concern over lack of opportunity to ask questions of
technical experts and government personnel
- concern over time limits in general hearings

Question posed as to action planned by the Panel in
relation to the Gulf application for a land use permit
at Stokes Point

Indication that Polar Gas intends to submit an
application to build a gas pipeline through the
Mackenzie River Valley and a request for clarification
of relationship between Beaufort Panel and Polar Gas

Question as to whether further funding will be
available to cover longer period of time over which the
review will now be carried out.

FEARO DOCUMENT Beaufort Sea Project

1.4.1 #
83.03 (12)

83.03.18 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: forwarded by the Hon. John Roberts
Re: Correspondence received from Mr. Murray B. Todd,
Dome Petroleum Ltd. concerning the Beaufort Sea EIS and
related matters.

Comments on the Beaufort Panel Deficiency Statement:
In general the view is expressed that the deficiencies
b) and c) (assessment of environmental effects and oil
spills) are not deficiencies and could have been
addressed at the hearings; item d), zone summaries,
results from a request for more information than
required by the guidelines; and item a), assessment of
socio-economic effects is then dealt with in detail.
Concerns noted include: information requested is new
and different from guideline requirements; detail
exceeds reasonable level for conceptual proposals;
information requested is more detailed than past
requests for specific projects; information requests
could possible form part of future specific project
applications.

Concern expressed that the Panel ignored the conclusion
of the initiating dept DIAND.

Item 2: Comments on FEARO Employee Statements in Print
Media.
Examples of press statements attributed to FEARO
representatives which the proponents find inappropriate
and irresponsible are noted.

Item 3. Comments on FEARO Environmental Assessment
Process.

Areas of the Beaufort process that have caused the
proponents particular concern and problems are noted in
the hope that their views will improve such processes
in the future. These include concerns with delay in
issuing guidelines; length of time to reach public
hearing phase; lack of means for direct communication
between proponent and Panel; refusal of Panel to accept
draft material; absence of time constraints on the
review; process has gone too far in ensuring fairness
to negative intervenors; request for identification of

deficiencies rather than positive interventions in
review of the EIS; need for industry to comment on
responsibilities of government; three major companies
have prepared the EIS on behalf of all companies with
interests in the Beaufort but there has been no
directions or incentives by government to require these
companies to participate in the funding of the EIS.

1.4.1 #
83.03 (13)

83.03.18 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: A.H. Macpherson, Regional Director General
Western and Northern Region, Environment Canada

Re: Submission of Environment Canada's Technical Review
of the Beaufort Sea Environmental Impact Statement -
Volume II.

Report filed 2.5.2 # 5.

FEARO Document

1.4.1

83.03 (14) 83.03.03 Panel index

Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: George Barnably, Councillor, Coordinator
Resource Development Impact Project
Fort Good Hope Dene Community Council

Re: Meeting held in Fort Good Hope with Esso
representatives. Concern over the overland
pipeline indicated in the EIS to start in 1983 and
to pass closely to their community. At the
indicated meeting the Esso representatives
response was that there was no need for worry at
this time because there was not the proven
resources at this time to make the project
economically feasible. Concern that they are
trying "to allay our fears so they don't have to
deal with our concerns seriously."

FEARO
Reference No.

Beaufort Sea Project

1.4.1 #
83.04 (1)

83.04.15 Panel Index J
Dr. J.S. Tener
Beaufort Sea Environmental Assessment Panel
By c.c.
From: Nancy Russell LeBlond, President
Arctic International Wildlife Range Society

Re: Facilities Siting: Beaufort Sea Shore Zone Study
Comments are enclosed on the Facilities Siting Study undertaken by DIAND. The submission is divided into two parts: review of key points and questions left unanswered.
Other areas of general concern noted included: insufficient time was allowed for a proper review of the study; the time-frame of the study itself was not sufficient; the review did not consider the existence of land claims or the 1978 order-in-council.

Detailed review is attached.

1.4.1 #
83.04 (2)

83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Paul Tellier, Deputy Minister
Dept. Energy, Mines & Resources

Re: EMR Background Paper, 83.11.04
Request for an update to the Background Paper for Sept. 1, 1983 as to EMR's perspective for future hydrocarbon development in Canada's Lands.

1.4.1 #
83.04 (3)

83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: M.A.J. LaFontaine, Deputy Minister
DIAND

Re: Update to DIAND statement to the Panel of 82.10.22

Request for an update re plans to: implement regional planning, north of 60; develop a conservation policy for the north; implement a management plan for Beaufort Sea Production.

Request that a DIAND or COCLA official attend appropriate meetings to address questions of worker safety aboard offshore production platforms and artificial islands.

1.4.1 #
83.04 (4)

84.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: A.W. May, Deputy Minister
Fisheries & Oceans Canada

Re: Request for a statement from F&O which would describe the present knowledge base of the scientific community of the subject of underwater noise and its effect on marine mammals, identify questions which need to be answered and indicate on-going work by the department. Information is requested by August 1, 1983 to allow for circulation.

1.4.1 #
83.04 (5)

83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Jacques Gérin, Deputy Minister, Environment

Request for information re existing and proposed conservation areas in the general area of interest to the Panel, status of the areas and an indication of the criteria used to identify the areas. A map indicating the areas was also requested.

Request for a statement from Environment as to the status of its plans for a national park in north Yukon.

1.4.1 #
83.04 (6)

83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Richard Nerysoo, Minister of Energy
Govt. of Northwest Territories

Re: Request for information re policies or initiatives of the Govt. of N.W.T. that relate to the issue of unions in the north and of any positive or negative effects of unionized labour used on other development projects.

TEXTNAME: cat-1.4.1 (R)P: 03

FEARD DOCUMENT
1.4.1

Beaufort Sea Project

1.4.1 #
83.04 (7)

83.04.26 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. C. Eric Tull

Re: Response to letter of 83.03.29 commenting on the Deficiency Statement indicating that all the points raised were considered in the Panel deliberations. The review period is correctly indicated in the letter as "at least 30 days" and the specific review time will be specified on receipt of the proponents response.

1.4.1 #
83.04 (8)

83.04.15 Panel Index E
Dr. J.S. Tener, Chairman

Beaufort Sea Environmental Assessment Panel

From: M.D. Todd, Senior Vice-President, Frontier Division, Dome Petroleum Ltd.

Re: Response to Beaufort Sea Alliance (83.03.21) - Attached
Reservation concerning the Panel's Procedures for General Sessions are expressed, in particular with the item requiring the proponents to provide written responses to questions from the public at large. This requirement is considered unwarranted and counter-productive. Consideration of dropping this item is requested.

Attachment:
Response to David Brooks, Executive, Director, Beaufort Sea Alliance.

Response indicates that they will be presenting concerns to the Panel over the proposed requirement of responding to questions similar to those raised in their letter.
Point addressed deals with the possible export of oil via Alaska and assessment in the EIS. Response indicates that the FIS addresses the more likely transportation options. If this export became more imminent in the future it would be assessed by the National Energy Board.

TEXTNAME: CAT.1.5.2 (R)P: (p.01) 03

1.4.1 #
83-04 (g)

83.04.27 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. Murray B. Todd, Dome Petroleum Ltd.

Re: Letter to the Minister of Environment of 83.03.18 and forwarded to the Panel.

Due to the wide circulation of the letter the Panel indicates that it feels the need to respond although they feel the Deficiency Statement is clear and stands by itself.

Items noted in response:

- deficiencies may include necessary clarification and elaboration as well as data gaps
- the Panel felt that the additional information was required prior to the hearing stage to allow all participants to constructively discuss this issue.
- need for Zone Summaries is not just in relation to socio-economic impact information

- surprise that the proponents view the requested socio-economic information as new and different from the guideline requests

- more information is required for this review due to the size and magnitude of the proposal

- in order for the Panel to make a complete set of recommendations to the Ministers of Environment and DIAND the information is needed now

- Panel received its Terms of Reference from the Minister of Environment not from DIAND

- the Panel values views of all participants but is not obligated to accept any particular viewpoint

- comments about one of the Technical Specialists is not consistent with the facts

TEXTNAME: cat-1.4.1 (R)P: (p.01) 01

FEARO DOCUMENT
1.4.1

Panel Correspondence

1.4.1 #
83.05 (1)

83.05.05 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: by c.c.
Correspondence from D.R. Motyka, Gulf Canada
Resources to Mr. Peter Burnet, CARC.
Re: Notice that there will be no Gulf
participation at a CARC sponsored workshop in
June. Concern was expressed that participation in
other public hearings prior to the EARP hearings
is inappropriate.

TEXTNAME: cat.1.5.3. (R)P: (p.01) 03

1.4.1.#
83.05 (2)

83.05.25 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

Re: Response to letter from Mr. Georges Erasmus
83.03.30

The Panel expresses its hope that with an opportunity
to see the Procedures for the Community and General
Sessions in practice the initial concern expressed in
the letter will be dispelled. The response then
provides additional information as to why certain
procedures were adopted and addresses in more detail
the concerns raised in the letter.

In response to the question concerning Stokes Point,
the letter notes that the Panel has already expressed
its position to the Minister of Environment and that
letter is enclosed.

The Panel concur with the concern about relationship of
the Polar Gas application to the review but assumes
that no government decision will be made on any aspect
until the Panel review is complete.

Funding concern has been forwarded to FEARO, Ottawa.

1.4.1. #
83.05 (3)

83.05.16 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Hon. R. Nerysoo,
Re: Presentation will be made to the Panel concerning
unions and no prior submission is planned.

1.4.1. #
83.05 (4)

83.05.25 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. R. Nerysoo, Minister, Govt. N.W.T.

Re: Response to letter of 83.05.16
Request by the Panel that the decision not to forward
comments on the issue of unions in the North be
reconsidered. The desire to provide as much
information for review prior to the hearings is
emphasized.

TEXTNAME: CAT.1.5.2 (R)P: (p.01) 04

1.4.1 #
83-05 (5)

83.05.10 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Impact Assessment
From: copy from the Minister of Environment

Re: Response by the Hon. John Roberts, Minister of Environment to Mr. Murray B. Todd, Dome Petroleum Ltd. (letter of 83.03.18)

General response indicates that the Panel deliberated for three weeks and decided more information was required before constructive hearings could be held. Responses to specific items included:

- Terms of Reference are established by the Minister of Environment
- DIAND, as initiating dept, does not have the responsibility of instructing the Panel on its activities
- the media are an important component of a public review, although statements are sometimes taken out of context or overdramalized
- draft guidelines were available early in the process with little later change. Time delays were not as great as indicated.
- the proponents may approach the Panel in writing on any issue. To allow private meetings would contavene well established principles of fairness
- public meetings had never been scheduled and there was no last minute delay in them
- interventions which identify deficiencies are unfairly identified as negative. In many cases, the intervenors simply want to ensure that development proceeds in an environmentally safe manner.

1.4.1 #
83-05 (6)

83.05.10 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: copy form the Office of the Minister of Environment

Re: Correspondence from the Hon. John Roberts to the Hon. Richard Nerysoo, Govt. N.W.T.

Enclosure of a copy of the response to a letter of Mr. Murray B. Todd criticizing the conduct of the Beaufort Sea Environmental Assessment Panel (of which a copy was sent to the NWT authorities).

TEXTNAME: cat.1.5.3. (R)P: (p.01) 04

1.4.1 #
83.05 (7)

FEARO Dist. 83.05.30
83.05.25 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. M.B. Todd, Dome Pet. Ltd.

Re: concern over Procedure for General Session
In terms of concerns over requirement to respond to written questions, the Panel intends to rule those questions irrelevant to the review process as not appropriate for the participant to respond to. Thus only responses to relevant questions will be required.

FEARO Document

1.4.1 #
83.05 (8)

83.05.18 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: David B. Brooks, Beaufort Sea Alliance

Re: Request that Beaufort Sea Environmental Assessment Panel public sessions not be held during the period of Sept. 8 - 17 which is the holiest period in the Jewish calendar.

FEARO Document

1.4.1 #

83.05 (9)

83.05.24 Panel index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: Mr. A.R. Zariwny, Energy and Resource
Development Secretariat, Govt. of N.W.T.

Re: BSEAP Procedures for Public Sessions

Enclosure of recommendations to the procedures as well as requesting clarification of others in the following areas: public file; community hearings; pre-session conference; transcripts; pre-filing; technical specialists; final arguments; oral questions during public sessions; qualifications.

TEXTNAME: cat-1.4.1 (R)P: (p.01) 01

FEARO Document

Beaufort Sea Project

1.4.1 #
83.06 (1)

83.06.02 Panel Index E
Dr. J.S. Tener
Chairman, Beaufort Sea Environmental Assessment Panel
From: Warren S. Schmitke
Development Officer, Norman Wells

Re: Enclosing a submission prepared by Local Government and the Hamlet Council through budget exercises regarding an Impact Capital Request for Community Planning and Development aspects felt to date in Norman Wells.
Report filed 2.1 #14

1.4.1 #
83.06 (2)

83.06.14 Panel Index E
Dr. J.S. Tener
Chairman, Beaufort Sea Environmental Assessment Panel
To: Mr. D. Motyka, Gulf Canda Resources

Re: Appreciation for time spent accompanying the Panel on the tour of the north Yukon coast.

1.4.1 #
83.06 (3)

83.06.14 Panel Index E
Dr. J.S. Tener
Chairman, Beaufort Sea Environmental Assessment Panel
To: Mr. Jim Lee, Esso Resources Canada Ltd.

Re: Appreciation for the field trip of the Norman Wells development activity and the Beaufort Sea exploration activity.

1.4.1 #
83.06 (4)

83.06.14 Panel Index E
Dr. J.S. Tener
Chairmen, Beaufort Sea Environmental Assessment Panel
To: Mr. M.B. Todd, Dome Petroleum Ltd.

Re: Appreciation of field tri p of Beaufort Sea exploration activities.

TEXTNAME: cat1.4.1 (R)P: (p.01) 01

FEARO Document

1.4.1 #
83.06 (5)

83.06.28 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice-President
Frontier Division, Dome Petroleum Ltd.

Re: Submission of the Zone Summaries for the Beaufort Sea-Mackenzie Delta Region, the Mackenzie Valley Region and the Northwest Passage. Consultation with the communities in preparation of these summaries was noted.

1.4.1 #
83.06 (6)

83.06.28 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice-President, Frontier Division
Dome Petroleum Ltd.

Re: Response to Deficiencies - Appendices

Submission of Appendix I - Community Consultation and Appendix II - Mitigative Measures and Action Plans (to response to socio-economic deficiencies).

1.4.1 #
83.06 (7)

83.06.30 Panel Index D
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Dome Petroleum Ltd.

Re: Response to socio-economic issues. Submission of the document which responds to the socio-economic issues covered in the Panel Deficiency Statement. This completes the response to all information deficiencies identified.

FEARO Document

1.4.1 #
83.06 (8)

83.06.23 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: M.A.J. Fontaine, Deputy Minister DIAND

Re: Confirmation that are plans have been made to meet the additional Panel requirements by August 1/83 and that arrangements will be made for an officer of COGLA to consider the matter of workers' safety.

1.4.1 #
83.06 (9)

83.06.28 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: N.H. Richardson, Technical Specialist

Re: Review of the industry's discussion paper #1 on contingency planning and decision that it falls outside his area of expertise.

1.4.1 #
83.06 (10)

83.06.15 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

by c.c.: Correspondence to the Hon. John Roberts from David B. Brooks, Beaufort Sea Alliance

Re: Objection to a statement in the correspondence from Mr. Todd to Dr. Tener and the Hon. J. Roberts which states that the proponent and supporting companies "paid for all the costs of producing the EIS, the subsequent responses to the deficiencies and eventually the hearings". It is noted that "This is not true except in the first instance. Ultimately and in any cash-flow accounting, approximately half these costs are paid for by the Canadian public in the form of reduced corporate income taxes."

FEARO Document

1.4.1 #
83.06 (11)

Panel Index E
Beaufort Sea EARP Panel
by c.c.

Correspondence to Mr. Brian Hill, DIAND, from Mr.
Bob Stevenson, President, Metis Assoc. of N.W.T.

Re: Metis Association concern with the Stoke
Point application.

The Association does not feel that a permit should
be issued because of the implications for the
government decision making processes as well as
Land Claim Negotiations and the Beaufort Sea
EARP. The Association is working through these
processes and does not have the funds or staff to
consult with DIAND on a technical level for this
individual issue. Request to be kept informed on
any progress of this issue.

FEARO Document

1.4.1 #
83.07 (1)

83.07.04 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: Mr. G.N. Faulkner, Assistant Deputy
Minister, DIAND

Re: Formal transmittal from the Initiator to the
Beaufort Sea Panel of material provided by the
proponents in response to the identified
deficiencies in the EIS by the Panel.

1.4.1 #
83.07 (2)

83.07.08 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel

To: Mr. A. Zariwny, Energy and Resource
Development Secretariat, Govt. of N.W.T.

Re: Response to letter of 83.05.24 raising a
number of points on the Beaufort Sea Environmental
Assessment Panel's Procedures for Public Sessions.

Issues addressed included the following:
Public File - Although impossible to maintain a
complete Public File in Yellowknife, a Public File
Index will be located there.

Community sessions. Summary presentation by
Secretariat providing an overview of previously
identified concerns; communities do not need a
formal group presentation with a conclusion, each
participant may have his own conclusion;
participants may raise questions to which the
proponents may apply to the Chairman for an
opportunity to reply. Conditions under which this
will be granted are noted; Community Sessions will
probably begin in the western Arctic; technical
material and witnesses are being brought to the
attention of the community residents. The Panel
Secretariat will make available any other
requested technical information. Any community
resident may participate in the General Sessions
in the same fashion as any intervenor. If a

technical issue arises at a community hearing which the community wishes to explore at a General Session, arrangements will be made.

Pre-session conference: draft schedule will be circulated; submission of "position statements" is not mandatory. Procedures for Public Sessions have been released, however, it is the intent of the Panel to issue occasional "Session Notices" to preserve a certain amount of flexibility with respect to the Panel's Procedures.

Transcripts: Daily transcripts are intended.

Pre-filing: All submissions should be filed two weeks prior to the session at which they are to be discussed, not necessarily prior to the first General Session.

Technical Specialists; there is no rule that Technical Specialists must make presentations or will be precluded from making presentations. Examples of when the Chairman may exercise his discretion to call Technical Specialists are noted; generally the Technical Specialists will carry out their questioning before intervenors in order to make available to the intervenors a broad base of information from which to proceed; Technical Specialists may be subject to questioning by the proponents and Panel members as well as other intervenors.

Final arguments: May be presented in closing statements or in writing after the close of each Session.

Oral questions during public sessions: with the permission of the Panel Chairman, a participant may respond to an oral question with a written response (same procedures used for response as outlined in procedures for written questions).

Qualification: A curriculum vitae submitted with filed material is useful but not mandatory. However, if any expertise is asserted, curriculum vitae will be mandatory.

Also filed with 1.1 # 31

FEARO Document.

1.4.1 #

83.07 (3)

83.07.18 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: N.H. Richardson, Technical Specialist

Re: Comments on Section 4.1 of Socio-Economic
Issues

Report filed 2.5.1 # 14 and 2.5.2 # 8.

1.4.1 #

83.07 (4)

83.07.04 Panel index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel

by: c.c.

Correspondence to Mr. Murray B. Todd, Dome
Petroleum Ltd., from Ms. Nancy MacPherson, Yukon
Conservation Society.

Re: Five items raised in a letter of 83.03.18 to
the Hon. John Roberts.

1. Implied criticism of Ms. Val Walsh, Technical
Expert: comments are viewed as needlessly
unprofessional.
2. Private meetings between the Panel and the
Proponent. Mr. Roberts denial of this request
is fully supported.
3. Soliciting of positive support for the EIS.
intent of the Review is to seek a balanced
blend of data and information.
4. Criticism paid for by the Government and
therefore the Panel being forced into heeding
at least some of it: remark is uncomplimentary
to the Panel and ironic given heavy
subsidization by the Canadian taxpayer of
exploration dollars.
5. Negative intervenors: Aspects of the
development plan may be criticized while still
supporting development that is consistent with
protection of the northern environment, and
positive in terms of social and economic
factors.

FEARO Document

1.4.1 #
83.07 (5)

83.07.11 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: Ms. Nancy MacPherson, Beaufort Sea Alliance
Re: Proposed schedule for fall hearings

An outline of organization of the proposed intervention by the Beaufort Sea Alliance and member organizations in terms of subject areas is indicated. Concern over lack of a general session prior to community hearings is expressed since much of their evidence should be introduced at an opening session. The position that evidence on methodological concerns should be heard before travelling to communities is presented, and reconsideration of the schedule requested.

1.4.1 #
83.07 (6)

83.07.15 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Ms. Nancy MacPherson, Beaufort Sea Alliance

Re: Proposed schedule of fall hearings.

Request for a reconsideration of dates for the pre-session meeting since neither Ms. MacPherson nor David Brooks would be able to attend at these revised dates.

1.4.1 #
83.07 (7)

83.07.27 Panel Index E
Beaufort Sea EARP

By: c.c.
Correspondence to the Editor, News/North from
Georges Erasmus, President, Dene Nation.

Re: Friday, July 15, 1983 News/North
"Environmentalists - hypocrites - EIS Author".

Comments on the above article ranging from amusement that one "southern" group was complaining about the influence another "southern" group might have on the people of the Delta to concern over other comments. Correction of certain "facts" are presented and the reminder that the EARP process is not easy on any and is made more difficult "when faced with immovable attitudes that the north and its resources exist only for the benefit of resource development companies and that those companies have an absolute right to take whatever they want, whenever they want it."

Enclosure: Letter to Dr. Tener from George Barnaby expressing concern over an Esso presentation in Fort Good Hope.

Letter to Dr. Tener from Chief Freddy Greenland expressing concern over a Gulf meeting held in Aklavik.

1.4.1 #
83.07 (8)

83.07.21 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. G. N. Faulkner, Asst. Deputy Minister,
DIAND

Re: Transmittal of an update to the Department's
"Statement to the Beaufort Sea Environmental
Assessment Panel" as requested 83.04.19.

Report filed. 2.4 # 17 (Supplement).

1.4.1 #
83.07 (9)

83.07.20 Panel Index
Beaufort Sea Panel

by:c.c.

Memo to Beaufort Sea Technical Specialists from
D.W.I. Marshall

Re: Preliminary Draft Schedule and Preliminary
Draft Agenda

Circulation of the draft schedule and agenda with
a request for comments.

FEARO Document

1.4.1 #
83.08 (1)

83.08.08 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
from: Hon. John Roberts, Minister Env.

Re: Transmittal of amendments to the Panel's
Terms of Reference which serve to clarify the
original intent.

Correspondence included:

Correspondence to Mr. G.N. Faulkner from W.J.
Jenkins, Asst. Deputy Minister, Sectoral and
Economic Relations, Dept. of External Affairs,
83.07.07,

Re: Proposed expansion of Panel Terms of
Reference and discussion of means to include
non-Canadian participants in the Panel public
hearings (e.g. obtaining bona fides from the local
governments concerned vouchsafing the legitimacy
of qualified potential witnesses). The role of
External Affairs would be to receive official
views on Beaufort from the State Dept or the
Danish Ministry of Foreign Affairs whenever such
views are proffered.

Correspondence to Mr. W.J. Jenkins , Dept.
External Affairs from Mr. G.N. Faulkner, Asst.
Deputy Minister, DIAND, 83.07.15,

Re: Response to letter of 83.07.07 on Terms of
Reference, Beaufort Panel.

Concern that although desirable to ensure
representativeness of any Alaskan or Greenlandic
views, attention must be paid to concerns over
delay of the review process. Concern that the
letter of 83.07.07 leaves some ambiguity on
aspects of sequencing and process, and also leaves
unresolved the weight on legitimacy to be attached
to the views of particular groups within the
countries concerned. Desire indicated that any
change to the Panel's terms of reference should be
framed in a manner sensitive to these concerns.

Correspondence to Mr. G.N. Faulkner, Asst. Deputy Minister, DIAND, from Mr. Raymond M. Robinson, Executive Chairman, FEARO, 83.07.22

Re: Letter of 82.11.15 and other correspondence about suggested amendments to the Beaufort Sea Environmental Assessment Panel's Terms of Reference.

In response to the interest expressed by External Affairs in ensuring that Alaskans and Greenlanders have ample opportunity to express their views on any aspect of the Proposal, and in consideration of correspondence between DIAND and External on this matter, has been recommended to the Minister of Environment that he instruct the Panel to convey any comments it may receive from Alaskans and Greenlanders during its hearings, to him and the Minister of External Affairs in the final Panel Report.

In terms of the issue of exploration activities, the Panel's suggested wording for Amendment 2 has been recommended to the Minister.

Correspondence to the Minister of Environment from Mr. Raymond Robinson, Executive Chairman, FEARO, 83.07.26

Re: Amendments to the Beaufort Sea Panel Terms of Reference. Suggested amendments are enclosed.

Amendments to Terms of Reference:

scope of review..."The Panel shall consider only those exploration activities that would occur concurrently with production and that would add to the total activity in a prescribed production area."

page 2, delete "With project...yet to be decided"

International implications..."The Panel does not have the mandate to hold public meetings or assess environmental impacts outside of Canada. Nonetheless it should be prepared to receive interventions from individuals from Greenland and Alaska and to include their views in its final report."

FEARO Document

1.4.1 #

83.08 (2)

83.08.08 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by: c.c.

Correspondence to the Editor, News/North from Mr.
R. Hoos, Dome Petroleum Ltd.

Re: Story in July 15 issue and letter from
Georges Erasmus. Additional comments indicating
that the headlines were a rather general and
inflammatory statement not borne out by the
context of the interview. Remarks were not
directed at environmentalists in general.

The attitude attributed to industry in Mr.
Erasmus's letter would be difficult for industry
considering amount of Government involvement.
Reference to efforts made by industry during 15
years of exploration are referred to, the support
given by industry to the review process and money
spent on the EIS.

The concern between differences perceived between
what is contained in the EIS and in the internal
planning of individual companies is referred to
(EIS designed for a conceptual plan, specific
plans will follow as dictated by information,
events, findings). Support for community
consultation restated.

FEARO Document

1.4.1 #
83.08 (3)

83.08.08 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: Mr. G.N. Faulkner, Asst. Deputy Minister,
DIAND

Re: the proponents response to the
deficiency statement has been reviewed by the
Department and is considered sufficient to permit
hearings to commence in the Fall.

Comments on the proponents response to the
deficiency statement are filed in Category 2.5.2
8. Covering letters will not be included
separately in this file as correspondence to the
Panel but will be included under 2.5.2 # 8.

EXTNAME: Lib-1.4.2 (R)P: (83-08) 07

FEARO Document

1.4.1 #
83.08 (4)

83.08.10 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by c.c.

Correspondence to Dr. A.H. Macpherson, Env. Canada
from R.A.W. Hoos, Dome Pet. Ltd.

Re: Environment Canada's position on the response
to the deficiency statement. The concern that
Environment has over perceived major deficiencies
which are not reflected in the deficiency
statement is noted. The fact that Environment
feels these may need to be addressed in length at
the hearings is something which the proponents
believe all parties would like to avoid and a list
of their most outstanding concerns is requested
and technical contacts who may be approached to
address these prior to the hearings.

EARO Document

1.4.1 #
83.08 (5)

83.08.22 Panel Index E
Dr. J.S. Tenner, Chairman
Beaufort Sea Environmental Assessment Panel
By c.c.
Correspondence to Ms Nancy MacPherson, President, Yukon
Conservation Society
from R.A.W. Hoos, Dome Petroleum Ltd.

Re: Path Economics Report entitled "An analysis of the
minimum economic scale of developing Beaufort Sea oil
reserves".

Due to some of the proponents' difficulties with the
technical accuracy of this report a statement on this
report is submitted.

Statement also filed with the report File No. 2.1 #
10(A)

1.4.1 #
83.08 (6)

83.08. 11 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson (Technical Specialist)

Re: Interlog proposal for a multi-user Beaufort Sea
support base.
Points to be considered in relation to this proposal
are noted (e.g. at least one base will be needed if
production starts; additional facilities will be needed
by Coast Guard and search and rescue facilities; this
concept might add to location options; one large base
might be less environmentally damaging. Problems
include company opposition and location and timing in
relation to commercial discoveries which have not yet
been made.

Also filed. 2.5.1 # 14

1.4.1 #
83.08 (7)

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. Richard Nerysoo, Minister of Energy, Mines
and Resources, Govt of NWT

Re: Comments on the Proponents' Response to the
Panel's Deficiency Statement.
Comments noted that issues raised in Telex of
83.08.10 can be covered in the forthcoming hearings.

.4.1 #
83.08 (8)

83.08.30 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Ms. Nancy MacPherson, Northern Director, Beaufort
Sea Alliance

Re: Request in letter of 83.07.11 for a general public
opening session on methodology.
Suggestion that this issue can be included in opening
statements at the General Session in Inuvik, or
Whitehorse or Yellowknife. Suggestions by the Panel
for locations at which certain technical information
could be submitted are included.

1.4.1 #
83.08 (9)

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. A.H. Macpherson, Regional Director General,
Western & Northern Region, Environment Canada

Re: Response to the EIS Supplementary Information
prepared by the proponents.
Appreciation for thoroughness of review and response to
concerns raised which included that the Panel had only
required discussion of three species; difficulties of
assessing cumulative and synergistic impacts. The
Panel would welcome DOE's comments upon future research
needs in these areas of concern. In planning agenda,
the Panel is trying to ensure ample opportunity for
discussion of DOE's concerns.

1.4.1 #
83.08 (10)

83.08.30 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. J.V. Wright, Archaeological Survey of Canada
National Museum of Man

Re: Acknowledgement of response to the Beaufort
Sea/Mackenzie Delta EIS Supplementary Information and
for their concern for an archaeological mitigation
program.

.4.1 #
83.08 (11)

83.08 (11) 83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. Thomas Nesbitt, Baffin Region Inuit Assoc.

Re: BRIA's comments on the adequacy of the Proponenet's EIS Supplementary Information. Outstanding concerns in the areas noted are recognized (underwater noise, dispersants, oil spill impacts and socioeconomic impact assessment baseline data for the eastern communitites). Interest in any results of the BRIA Resource Harvesting Study was noted and assurance that at the scheduled meetings sufficient time will be provided to allow everyone the opportunity to speak.

1.4.1 #
83.08 (12)

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. C. Eric Tull

Re: Response to the EIS Supplementary Information provided by the proponents. Appreciation of concerns expressed and hope that these will be reiterated at the general sessions if the proponents have not adequately addressed them.

1.4.1 #
83.08 (13)

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. G.H. Lawler, Director General, Western Region, Fisheries & Oceans Canada

Re: Department's Response to the EIS Supplementary Information submitted by the proponents. The Panel recognizes that Fisheries & Oceans still view the EIS as incomplete and would prefer that certain inadequacies be addressed prior to hearings. The Panel believes that requesting further information from the proponents at this time would not be as effective as proceeding to the hearing forum and public sessions have been scheduled. The Panel shares the departments concerns with issues such as cumulative impacts and mitigation, and with the estimates of clean-up effectiveness. These subjects will be explored at the hearings.

1.4.1 #
83.08 (14)

Panel Index D
Dr. J.S. Tener, Chariman
Beaufort Sea Environmental Assessment Panel
To: Mr. Murray Todd, Dome Petroleum Ltd.

Re: Review of the six discussion papers submitted by the proponents. Although the Panel accepts the papers as being adequate for discussion purposes at the General Public Sessions, it believes that Papers No. 3 and 6 require additional work.
Information requirement noted for Paper 3 included: specific information on the effects of tanker movements through a narrow passage on the ice regime; increased difficulty of ice crossings by people; formation of brash ice and problems encountered.

Information requirements noted for Paper 6 included: more specifics re remedial measures that have been suggested; more information from the Alyeska Pipeline experience re effectiveness of remedial measures implemented and construction and operation problems encountered.

1.4.1 #
83.08 (15)

Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. R.G. Gates, Director General, Alberts/NWT Region, Employment & Immigration Canada

Re: Comments on the EIS Supplementary Information. The Panel notes that the subject of northern residents access to employment and economic benefits will be further pursued at the hearings.

1.4.1 #
83,08 (16)

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. Jack B. Ellis, Prof. Env. Studies, York University

Re: Comments on the EIS Supplementary Information. Acknowledgement of comments and confirmation that the public hearings phase will now begin.

1.4.1 #
83.08 (17) 83.08.30 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. John W. Ferbey, Deputy Minister, Dept. of
Economic Development and Intergovernmental Relations,
Govt. of Yukon.

Re: Response to letter of 83.07.11 and confirmation
that the Panel has determined that there is sufficient
information to proceed to public hearings.

1.4.1 #
83.08 (18) 83.08.09 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. A.W. May, Deputy Minister, Fisheries &
Oceans

Re: Submission to the Panel.
Additional information on underwater noise and its
effect on marine mammals as requested by the Panel is
enclosed in the form of a report entitled "The effects
of vessel traffic in the arctic on marine mammals and
recommendations for future research".

Additional information enclosed: synopsis of current
and proposed research and a copy of a second report
entitled "Assessment of the effects of oil on arctic
marine fish and marine mammals." (Both reports
prepared under the auspices of the Dept's Arctic
Research Directors Committee.)

Report filed: 2.1 # 21 and 2.1 # 22.

1.4.1 #

83.09 (1)

83.09.08 Panel Index B
Beaufort Sea Environmental Assessment Panel
From: D.W.I. Marshall, Executive Secretary

Re: POLARGAS UPDATE

Notice that Polargas has decided to not submit its request to DIAND for an EARP review of its proposal to pipeline gas from the Arctic Islands until after the Beaufort Sea Panel Report is complete. An update of the project will be presented to the Panel at Yellowknife.

1.4.1 #
83.09 (2)

83.09.29 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Ms. Nancy Russell LeBlond, Artic International
Wildlife Range Society

Re: Project Review Group - Yukon's North Slope
Concern over apparent conflict between the Beaufort Sea
EARP and the North Slope Review Group and its terms of
reference requiring "recommendations concerning the
need, establishment and suitable location of shore and
harbour facilities on the North Slope of Yukon...".
These recommendations are to be presented to the
Minister on October 17th. Three critical questions are
noted and the concern about the appearance that DIAND
has deliberately pre-empted the Beaufort Sea EARP in
order to decide on the status of the northern Yukon in
favour of development. A position by the Panel is
requested prior to October 17th.

1.4.1 #
83.09 (3)

83.09.23 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. Paul M. Tellier, Deputy Minister, EMR

Re: Submission of revisions to the Background paper
from the Department of Energy and Resources.

Report filed: 2.4 # 16 S. (Supplementary Information).

1.4.1 #
83.09 (4)

83.09.22 Panel Index E
Beaufort Sea Environmental Assessment Panel
From: R. Hornal, Beaufort Sea Secretariat

Re: Enclosure of excerpts from DOE's reponse to the
Panel's request for listing of conservation areas in
northern Canada and status of park planning north of
60.

1.4.1 #
83.09 (5)

83.09.26 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by c.c.: Correspondence to Mr. Gunther Abrahamson,
North Slope Project Review Group from
Shinners, Director General, Fisheries -
Pacific Region.

Re: North Slope Project Review Group: The short notice provided precludes a written or oral presentation to the Group. Letter notes that the Dept is preparing a position statement for the Beaufort Review and notes that their assessment advises against any harbour development west of Kay Point (including Stokes Point) because of the productive fish habitat in those areas. Also the proliferation of proposals for harbour development is of concern and shared facilities is recommended. Care must be taken in any port construction along the Yukon coast because of the shore orientated anadromous fish migrations.

1.4.1 #
83.09 (6)

83.09.30 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by c.c.: Correspondence to Mr. G.N. Faulkner, DIAND,
from A.R. Zarwiny, Govt. NWT.

Re: Outline of the proposed Govt N.W.T participation for Government Management Issues at Yellowknife and a request for some details about the nature and schedule of DIAND presentations and the names of the officials who will be responding to questions.

1.4.1 #
83.09 (7)

83.09.06 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Dr. A.H. Macpherson, Regional Director General,
Environment Canada

Re: Enclosure of additional documentation dealing with Parks Canada Interest North of 60°. An outline of the submission of Northern Yukon is also included.

Also filed: 2.5.2 # 13

1.4.1 #
83.10 (1)

83.10. Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. G.N. Faulkner, Asst. Deputy Minister,
Northern Affairs, DIAND

Re: Identification of departmental personnel who will
be attending sessions at Resolute.

1.4.1 #
83.10 (2)

83.10.05 Panel Index E
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. John W. Ferbey, Deputy Minister, Dept. of
Economic Development and Intergovernmental Relations,
Yukon.

Re: Outline of intended participation in the Beaufort
Sea Environmental Assessment Review by the Government
of Yukon.

1.4.1 #
83.10 (3)

83.10.17 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. A.W. May, Deputy Minister, Fisheries
and Oceans

Re: Enclosure of list of participants at each of
the general sessions.

1.4.1 #
83.10 (4)

83.10.01 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Ms. Kate Tompkins, K.E.T. Enterprises

Re: Community hearings in Norman Wells.
Disappointment in the submissions presented at
that meeting and the concern that the concerns
were not expressed strongly enough to show the
true feeling behind them. As a result the author
is submitting comments directly to the Panel.

Also filed: 2.5.2 # 14

1.4.1 #
83.10 (5)

83.10.07 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Pane
To: Hon. Charles Caccia, Minister of the
Environment

Re: Enclosure of correspondence between the Panel
and the Hon. John Roberts on the subject of a base
facility on the North Slope. The Panel submits
that its views have not changed since submission
of this correspondence. The Panel notes that the
Project Review Group (DIAND) are reviewing the
Gulf Canada application for an exploration base at
Stokes Point and the Kiewit Mines proposal for a
quarry and that these proposals do not fall within
the mandate of the Panel. However any exploration
base that would lead to a production facility
falls within the Panel's mandate and the Panel
suggests that a decision on the North Slope
development be delayed until the Panel has
completed its review.

1.4.1 #
83.10 (6)

83.10.17 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Mr. R.M. Withers, Deputy Minister,
Transport Canada

Re: Outline of representation planned at the
General Sessions of the review hearings.

1.4.1 #
83.10 (7)

83.10.25 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Mr. G.N. Faulkner, Assistant Deputy
Minister, Indian and Northern Affairs Canada

Re: Response to Panel letter of 83.08.22 and
requesting specific information.
Circulation of the report on the first modelling
workshop for the Beaufort Sea Environmental
Monitoring Project to Panel Secretariat noted.
This item will also be covered by Mr. D. Stone in
a presentation at Inuvik. Comments will also be
provided on the Norman Wells socio-economic
monitoring programs. A list of representatives
from the department will be forwarded shortly.

1.4.1 #
83.10 (8)

83.10.25 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Dr. C. Eric Tull

Re: Enclosure of correspondence between Dr. Tull
and the Hon. John Munro on the topic of Yukon
North Slope development proposals.
Letters from Dr. Tull 83.01.03; 83.03.29; 83.04.11
and response by the Hon. John Munro of 83.05.27.

Letters from Dr. Tull, 83.06.19; 83.09.29;
83.09.29 to the North Slope Review Committee;
concerning both the Stokes Point application and
the Kiewit quarry application. Response from the
Hon. John Munro - 83.10.14.

Letter from Dr. Tull - 83.10.25 - noting the
recommendations of the North Slope Project Review
Group and commenting on inadequacies in the IEE
provided by Kiewit.

1.4.1 #
83.10 (9)

83.10.27 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Dr. Tom Smith, Arctic Biological Station

Re: Enclosure of letter to the Arctic Institute
of North America outlining concerns about the
quality of the refereeing prompted by a paper
published in Arctic and specific comments on the
publication:

Findley, K.R., G.W. Miller, R.A. Davis and W.R.
Koski. 1983. A distinctive large breeding
population of ringed seals (Phoca hispida)
inhabiting the Baffin Bay ice pack....Arctic,
36:162-173.

1.4.1 #
83.10 (11)

83.10.28 Panel File E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
To: A.W. May, Deputy Minister, Fisheries & Oceans
Canada

Re: Request for additional information
1. views of the Dept on the possible acceptability of
each of the two transportation options, including
views on the possible offshore gathering systems
necessary to complete either transportations system

2. a statement of research areas currently being
investigated, identification of data gaps and areas
of research priority.

1.4.1#
83.10 (12)

83.10.28 Panel File E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
To: J. Gérin, Deputy Minister, Environment Canada

Re: Request for additional information as follows:
1. views of the Department on the acceptability of
the two transportation options, including comments on
the offshore gathering systems necessary for either
transportation system.
2. research areas currently being investigated, data
gaps and areas of research priority
3. information relative to research on the use and
applicability of cold water dispersants

1.4.1 #
83.10 (13)

83.10.28 Panel File E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
To: P. Tellier, Deputy Minister, Energy, Mines &
Resources Canada

Re: Request for additional information ..."A statement
by EMR, in general terms, of the research areas that
the department is currently investigating and an
identification of significant data gaps and areas of
research priority would be extremely helpful to the
Panel."

1.4.1 # 83.10.28 Panel Index E
83.10 (14) Dr. J.S Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
To: M.A.J. Lafontaine, Deputy Minister, Indian and
Northern Affairs Canada

Re: Request for additional information ..."A statement
by DIAND Canada, in general terms, of the research
areas that the department is currently investigating
and an identification of significant data gaps and
areas of research priority ..."

1.4.1 # 83.10.28 Panel Index E
83.10 (15) Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
To: R. Withers, Deputy Minister, Transport Canada

Re: Request for additional information related to
research areas that the department is currently
investigating and an identification of significant data
gaps and areas of research priority .

1.4.1 #
83.11 (1)

83.11.02 Panel Index E
Dr. J.S Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Dr. G.H. Lawler, Director General, Western
Region, Fisheries and Oceans Canada.

Re: Revised list of participants for the Inuvik
General Session.

1.4.1 #
83.11 (2)

83.11.02 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Mr. David Kirkwood, Deputy Minister, Health
and Welfare Canada

Re: Participation of the Department of Health and
Welfare in the Beaufort Hearings and identifica-
tion of representatives coordinating representa-
tion for the N.W.T., Yukon and Ottawa.

1.4.1 #
83.11 (4)

83.11.08 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: A.H. Macpherson, Regional Director General,
Western and Northern Region, Environment Canada

Re: Enclosure of a recent multiagency study
carried out to evaluate the relative risks
associated with pipelines and tankers (Cairns
report).

Report filed 2.1 # 35

1.4.1 #
83.11 (6)

83.11.17 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Jacques Gérin, Deputy Minister, Environment
Canada.

Re: The Beaufort Sea Project Office has been
requested to respond to the Panel request for
additional information on alternative
transportation modes, offshore gathering systems,
arctic research priorities and cold-water
dispersants.

1.4.1 #
83.11 (6)

83.11.22 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Paul M. Tellier, Deputy Minister, Energy,
Mines and Resources

Re: Panel's interest in research activities
relative to Beaufort Sea hydrocarbon development.
The Panel is referred to information provided in
the EMR background paper . EMR participants at
Inuvik will be prepared to expand on this during
their presentation.

1.4.1 #
83.11 (7)

83.11.23 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: R.G. Gates, Director General, Employment and
Immigration

Re: Notification of intent to participate in the
general sessions at Yellowknife and to use the
opportunity to discuss Northern Residents Access
to Employment Benefits.

1.4.1 #
83.11 (8)

83.11.25 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: G.N. Faulkner, Asst Deputy Minister, DIAND

Re: Request for information on Beaufort Sea
related research and data gaps, and indication of
intent to address these items at the Ottawa
general session.

1.4.1 #
83.11 (9)

83.11.29 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: F.J.O. Josephson, Director Arctic
Operations, Fisheries & Oceans

Re: Enclosure of a copy of the Department of
Fisheries and Oceans intervention on Government
Management for use by the Panel despite the fact
that it was not formally presented.

Report also filed 2.5.2 # 17

1.4.1 #
83.11 (10)

83.11.29 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: R.M. Withers, Deputy Minister, Transport
Canada

Re: Response to Panel request for information on
arctic - orientated transportation research.

Report filed 2.5.2 # 18.

1.4.1 #
83.11 (12)

83.11.29 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: A.H. Macpherson, Regional Director General,
Western and Northern Region, Environment Canada

Re: Submission of documents related to ice regimes
in response to questions raised at the Inuvik
hearings.

Report filed as Whitehorse submissions Wh 35.

1.4.1 #
83.11 (12)

83.11 (12) Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: John Huckle, Director General, Northern
Policy & Coordination, DIAND

Re: Enclosure of a paper outlining the mangement
aspects of federal coordination for the Norman
Wells project.

Report filed as YK 7 (Yellowknife submission).

1.4.1 #
83.11 (13)

83.11.24 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Paul Greisman

Re: Submission of personal opinions and judgements
on ship traffic; artificial islands and government
management.

Also filed 2.5.2 # 27

1.4.1 #
83.11 (14)

83.11.30 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel.
From: Letha MacLachlan, Legal Counsel, Dene
Nation.

Re: Enclosure of evidence to be presented by the
Dene Nation at the Yellowknife Technical Session.

Reports filed as YK 19 to 24.

1.4.1 #
83.11 (15)

83.11.30 Panel Index E
Panel Members. Beaufort Sea Environmental
Assessment Panel
From: Bob Hornel, Secretariat

Re: Notice that Mr. Mac Eachern, Director, Inuvik
Region, will be unable to attend the Yellowknife
Sessions but will be represented by other
officials.

1.4.1 #
83.11 (16)

83.11.13 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
From: Chief Johnny Charlie, Chairman, MacKenzie Delta
Dene Regional Council

Re: MacKenzie Delta Dene Regional Council's
presentation. Speakers are identified and the issues
that will be discussed are noted.

1.4.1 #
83.12 (1)

83.12.01 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Gary A. Sergy, BIOS Project Manager, EPS,
Environment Canada

Re: Submission of information on the Baffin Island
Oil Spill Project in response to Panel request.
Submission includes one set of "working reports"
available to date and a second partial set of the
most relevant "working reports".

Reports filed 2.5.2 #19

1.4.1 #
83.12 (2)

83.12.02 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: J. Hucker, Director General, Northern Policy
and Coordination, DIAND

Re: List of DIAND representatives who will be
attending the Yellowknife sessions of the Beaufort
Sea Hearings.

1.4.1 #
83.12 (3)

83.12.09 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Paul Greisman, Panel Technical Specialist

Re: Response to question by the LIA "Is it your
opinion that the wind data from BRAVO is
representative of the winds offshore northern
Labrador?"

Also filed 2.5.1 # 19 and 2.5.

1.4.1 #
83.12 (4)

83.12.06 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Dr. G.H. Lawler, Director General ,
Fisheries and Oceans Western Region.

Re: Response to Panel request for additional
information on current DFO research and perceived
research priorities relevant to Beaufort Sea
hydrocarbon development.

Report filed OT 22.

1.4.1 #
83.12 (5)

83.12.06 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: F.C. Boyd, Fisheries & Oceans

Re: Yukon Coast fish sampling information and
submission of a map upon which fish sampling
locations have been marked.

Also filed 2.5.2 # 20

1.4.1 #
83.12 (6)

83.12.15 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd

Re: Response to inquiry concerning the pipeline
rupture - North Sea.

Also filed 2.3.5 # 6

1.4.1 #
83.12 (7)

83.12.12 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: David Brooks, Beaufort Sea Alliance

Re: Response to questions raised at the
Yellowknife hearings and references promised.

Also filed 2.5.2 # 21

1.4.1 #
83.12 (8)

83.12.23
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Hon. Charles Caccia, Minister Environment
Canada

Re: Response to letter of Oct 7, 1983 regarding
the relationship between the Beaufort Sea
Environmental Assessment Panel and DIAND North
Slope Project Review. The intent to concur with
the Panel's advice to defer a decision on North
Slope development until after the Beaufort Sea
Panel has completed its review is noted.

1.4.1 # 83.12.17 Panel Index E
83.12 (9) Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
From: by c.c.
Correspondence to G.N. Faulkner, Asst Deputy Minister,
DIAND from N.H. Richardson, Panel Technical
Specialist.

Re: Letter written on behalf of the Panel raising
several question regarding northern land use planning.

1.4.1 # 83.12.08 Panel Index E
83.12 (10) Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
From: by c.c.
Correspondence to J. Gilmour, Senior Legal Counsel -
Energy, Dept. of Justice and Public Services, GNWT,
from R.A.E. Hoos, Dome Petroleum Ltd.

Re: Response to GNWT Information Request #2 re cost
figures on the total cost of cleaning up the oil spill
resulting from the oil tanker "Arrow". A copy of a fact
sheet related to these costs is included as well as a
second attachment outlining the basic costs associated
with the cleanup of oil form the "Kurdistan."

Also Filed: 2.5.3 # 5

1.4.1 #
83.12 (9)

83.12.05

Dr. J.S Tener, Chairman , Beaufort Sea
Environmental Assessment Panel

From: by c.c.

Correspondence to the Hon John Munro, Minister
DIAND from C.Eric Tull re congratulation on
decision to reject the Gulf Stokes Point
application and the Kiewit quarry application.
Concern is however expressed about rumors that
Kiewit and the Yukon govt have been mounting an
intensive lobbying effort to have the decision
reversed. Information arising from the Beaufort
Sea EARP hearings in Inuvik is presented as
suggesting a further need for caution (bowhead
whale information).

1.4.1 #
84.01 (1)

84.01.16 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
From: by c.c.
Correspondence to J. Rowell, Inuit Tapirisat of Canada,
from M. Taschereau, Canada Oil and Gas Lands
Administration.

Re: Response to Inuit Tapirisat of Canada's proposed
Inuit Arctic Marine Environmental Policy submitted in
the Panel hearings at Resolute Bay. It is noted that
some elements of the policy are being dealt with by
other departments and that the policy paper highlights
the need for Inuit/Government dialogue in order to
achieve an effective management scheme in the North.

Also filed 2.5.2 # 30

1.4.1 #
84.01 (2)

84.01.11 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
From: R. Withers, Transport Canada

Re: Response to Panel request at the Government
Management Session, Ottawa, to respond to the proposed
Inuit Arctic Marine Environmental Policy. Transport
Canada's mandate in certain areas is noted. Concern is
expressed over any proposal that 'compartmentalized'
Arctic waters and over the concept of treating
ice-covered waters as an extension of the closest land.

"In summary, we are interested in, and anxious to
accommodate the concerns and aspirations of ITC, and the
broad thrust of its proposed policies. We are
concerned to ensure that its interpretation or
implementation does not impair Transport's ability to
fulfil its Arctic obligations and are interested in
meeting with ITC to explore further how this might be
accomplished."

1.4.1 #
84.01 (3)

84.01.01 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea Environmental
Assessment Panel
From: G.C. Vernon, Asst. Deputy Minister, Fisheries &
Oceans Canada

Re: Fisheries Data Support for the Yukon Shorebase
Position.

Enclosure of a brief summary of the pertinent data
utilized in the development of the shorebase brief
presented at Whitehorse.

Data filed: 2.5.2 # 32

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
81.05 (1)

81.05.26 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Indexing system for material being sent to
Panel members by the Secretariat.

1.4.2 #
81.05 (2)

81.05.07 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Allen R. Milne, Dome Petroleum Ltd.
Re: Industries preliminary comments on the
Beaufort Sea Development Task Force Report.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
81.06 (1)

81.06.08 Panel Index B
P. Scott, Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Trip to Yellowknife and Inuvik, June 3 & 4,
1981.

1.4.2 #
81.06 (2)

81.06.10 Panel Index C
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: S.P. Mackay, Esso Resources Canada Ltd.
Re: Development of the E.I.S. in a manner that
will not prejudice the Foothills-Dempster proposal
or the Polar Y line, but addresses the issues if
the same corridors are envisaged in Dome, Esso or
Gulf Beaufort scenario. Response to letter of
81.03.10 (attached)

1.4.2 #
81.06 (3)

81.06.22 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel.
From: William Oppen, Government of Yukon Territory
Re: Enclosure - letter to Dr. Loken, DIAND,
concerning industry's outline for the Beaufort
E.I.S.

1.4.2 #
81.06 (4)

81.06.22 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Paul Wolf
Re: Annual Consultation Meeting- Canada/US - June
16, 1981.
Attached: Part Sheet - Selection of area in
Beaufort Sea for development of an environmental
impact statement.
- Department of Interior, Bureau of Land
Management, Alaska Outer Continental Shelf
- U.S. Department of Transportation, Coast Guard
Role in western Arctic, Marine Transportation.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #

81.07 (1)

81.07.06 Panel Index B
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Secretariat visits to Beaufort Sea
Communities.

1.4.2 #

81.07 (2)

81.07.27 Panel Index
R.L. Greyell, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Secretariat visit to Mackenzie Valley
Communities

1.4.2 #

81.07 (3)

81.07.06 Panel Index
Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Memo - Secretariat visits to Beaufort
Communities

1.4.2 #

81.07 (4)

81.07.09 Panel Index B
Roger Gruben, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Beaufort Sea Community tour

1.4.2 #

81.07 (5)

81.07.20 Panel Index
R. Gruben, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Beaufort Sea Community Advisory Committee -
Alaska Mayors and Counsellors study visit to Inuvik
and Tuk

1.4.2 #

81.07 (6)

81.07.28 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: E.F. Roots, Science Advisor
Environment Canada
Re: Beaufort Sea Environmental Assessment Panel's
plan for funding assistance outlined.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #

81.07 (7)

81.07.27 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): John S. Loch
Chairman, ARCOD
Re: Correspondence, John S. Loch to O.H. Loken,
DIAND concerning review of the draft EIS -
Beaufort Sea Hydrocarbon Development

FEARO DOCUMENT
1.4.2

1.4.2 #
81.08 (1)

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

81.08.04 Panel Index B
Panel Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Meeting in Inuvik with COPE and the Inuvik
Town Council.

1.4.2 #
81.08 (2)

81.08.07 Panel Index
Paul F. Scott, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Visit to Qld Crow

1.4.2 #
81.08 (3)

81.08.12 Panel Index B
R. Gruben, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Beaufort Sea Committee meeting with J. Munro

1.4.2 #
81.08 (4)

81.08.19 Panel Index
Panel Secretariat
Beaufort Sea Environmental Assessment panel
To: Panel Members
Re: Glossary of Acronyms

1.4.2 #
81.08 (5)

81.08.28 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Memo re: Community meetings - Beaufort Sea Panel
Secretariat Eastern Arctic Visit. July 31- August
7, 1981.

1.4.2 #
81.08 (6)

81.08.11 Panel Index C
To: D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: K.A. Brynaert, Executive Vice-President
Canadian Wildlife Federation
Re: Comments on the E.I.S. Guidelines and request
for funding information

1.4.2 #
81.08 (7)

81.08.31 Panel Index C
From: D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: K.A. Brynaert
Canadian Wildlife Federation
Re: Response to letter of 81.08.11 re EIS
Guideline comments.

FEARO DOCUMENT
1.4.2

1.4.2 #
81.09 (1)

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

81.09.11 Panel Index
D.W.I. Marshall and Paul Wolf
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Washington visit to brief U.S. Officials on
plans for Beaufort Sea Review (arranged through
External Affairs)

1.4.2 #
81.09 (2)

81.09.24 Panel Index B
Paul Wolf, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Donald D. Tansley, Deputy Minister
Department of Fisheries and Oceans
Re: Guide document for preparation of position
papers is planned.

1.4.2 #
81.09 (3)

81.09.03 Panel Index C
To: David W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Allen R. Milne, Manager
Environmental Impact Assessment
Re: Goals of the EARP for Beaufort Region
Development, and view as to what the Panel
functions are.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #

81.10 (1)

81.10.26 Panel Index B
R. Gruben, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Memo re: Community visits and BSCAC meetings

1.4.2 #

81.10 (2)

81.10.27 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: M.E. Taschereau,
Energy, Mines and Resources
Re: Information exchange meeting - David Marshall
and Phil Paradine, M. Taschereau - concerning
FEARO operations and COGLA operations

1.4.2 #

81.10 (3)

81.10.27 Panel Index B
To: David W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: D.J. Gamble, Director, Policy Studies
Canadian Arctic Resources Committee
Re: Response to request for a statement of
purpose of the draft EIS Guidelines for the
Beaufort Sea Panel Review

1.4.2 #

81.10 (4)

81.10.27 Panel Index
Paul F. Scott, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Memo re: Visit to Inuvik, Fort McPherson and
Aklavik

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #

81.11 (1)

81.11.05 Panel Index C
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Harry Allen, Chairman
Council for Yukon Indians
Re: Telex requesting that public meetings be held
in Old Crow

1.4.2 #

81.11 (2)

81.11.13 Panel Index C
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Messrs. George Almaogak and Fred Buhr
Re: Appreciation for assistance on Panel tour of
Alaska and for comments on Draft Guidelines.

1.4.2 #

81.11 (3)

81.11.19 Panel Index J
To: David W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Katherine A. Graham, Principal Investigator
Eastern Arctic Study, Queen's University
Re: Update on the progress of the Eastern Arctic
Study - mid-point in the study and detailed work on
the impact of alternative land claim settlements
and political developments on local government and
on the interaction between communities and
industrial development concerns in the ITC land
claim area is well under way.

1.4.2 #

81.11 (4)

81.11.30 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Dr. Thomas F. Albert
Science Advisor, North Slope Borough
Re: Appreciation for meeting with Panel in
Alaska, and for Guideline comments.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
81.12 (1)

81.12.21 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Dome/Esso/Gulf Beaufort Sea Production and
Transportation proposal. Refinement to proposal
planned for mid January, 1982.

1.4.2 #
81.12 (2)

81.12.24 Panel Index C
Bob Greyell, Secretariat
Beaufort Sea Environmental Assessment Panel
From: Bill Trotter
Environmental Design Directorate
Re: Personal reactions (not Departmental
comments) on Panel Guidelines.

1.4.2 #
81.12 (3)

81.12.28 Panel Index B
David W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: M.R. Robertson, Manager
Environmental and Regulatory Affairs
Petro Canada
Re: Arctic Pilot Project - up date needed.

1.4.2 #
81.12 (4)

81.12.16 Panel Index C
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Fort Good Hope contact

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.02 (1)

82.02.04 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Beaufort Sea Research Coalition Program,
1981/82. (from meeting with Jennifer Mauro,
consultant for the Coalition.)

1.4.2 #
82.02 (2)

82.02.15 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Follow-up on meeting of February 4/82.
Comments on position papers, and Terms of
Reference.

1.4.2 #
82.02 (3)

82.02.22 Panel Index B
David W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Gregory Thompson, Executive Director
Inuit Tapirisat of Canada
Re: Request for information re Panel timetable,
Government position papers and community workshops

1.4.2 #
82.02 (4)

82.02.25 Panel Index B
Paul F. Srott, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Wayne Liebau
Re: Comments on issues of potential concern to
Panel (letter attached 82.02.13)

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.03 (1)

82.03.04 Panel Index B
Paul F. Scott, Secretariat
Beaufort Sea Environmental Assessment Panel
To: File
Re: Meeting with Yukon Territorial Government,
82.03.02 (Bill Klassen, Bill Oppen, and Tim
McTiernan)

1.4.2 #
82.03 (2)

82.03.04 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: David Martin, Regional Director
Medical Services Branch, Health & Welfare
Re: Request for information re format and
requirements for position papers

1.4.2 #
82.03 (3)

82.03.09 Panel Index B
Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Labrador involvement in Beaufort Sea Review.

1.4.2 #
82.03 (4)

82.03.15 Panel Index B
Paul F. Scott, Secretariat
Beaufort Sea Environmental Assessment Panel
Memo to: File
Re: Tuk Workshop and visit to Inuvik
Attached:
Inuit Planning Task Force - Terms of Reference
Beaufort Sea Environmental Assessment - Inuvik's
concerns
Beaufort Sea Community Advisory Committee -
Beaufort Environmental Assessment Workshop
BSCAC - Beaufort Community Fieldworker Program

1.4.2 #
82.03 (5)

82.03.19 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Enclosure of material requested 82.02.15 and
82.03.10

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.03 (6)

82.03.22 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: C. Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Agencies contacted for Position Statements

1.4.2 #
82.03 (7)

82.03.25 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
from: (by c.c.): Murray Coolican,
Executive Director, CARC
Re: Correspondence to Honourable John Roberts
with respect to the funding of public interest
groups for the Beaufort Sea Environmental
Assessment and Review Process.

1.4.2 #
82.03 (8)

82.03.25 Panel Index B
R. Greyell, Secretariat
Beaufort Sea Environmental Assessment Panel
From: Frances Williams, Labrador Inuit Association
Re: Appreciation for R. Greyell's attendance at
the Annual General Meeting. Confirmation that, at
the present time, the Association intends to
constructively participate in the assessment
process.

1.4.2 #
82.03 (9)

82.03.26 Panel Index C
Paul F. Scott, Secretariat
Beaufort Sea Environmental Assessment Panel
To: David Brooks, Executive Director
Beaufort Sea Research Coalition
Re: Response to letter of 82.03.08. Arrangement
for meeting to discuss other issues raised.

1.4.2 #
82.03 (10)

82.03.26 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Andrew Roman
Public Interest Advocacy Centre
Re: Enclosure of Operation Procedures and Terms
of Reference for discussion at meeting 82.04.19

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.03 (11)

82.03.30 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: C. Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Request for copies of letters to government
departments of 29 June and 17 November, 1981.

1.4.2 #
82.03 (12)

82. April Panel Index C
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
from: Beaufort Sea Research Coalition
Re: Comments on "Guidelines for the Preparation
of an Environmental Impact Statement: the Beaufort
Sea Hydrocarbon Production Proposal" by the
Beaufort Sea Research Coalition.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.04 (1)

82.04.16 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): D.J. Gamble, CARC
Re: News item: Consumer and Corporate Affairs
announces that companies making false claims about
their record in environmental protection could end
up in court

1.4.2 #
82.04 (2)

82.04.16 Panel Index H
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. George Erasmus, President
Dene Nation
Re: Concerns expressed over possible duplication
of effort associated with the interests of the
Special Committee on the Northern Pipeline (letter
82.01.19) attached

1.4.2 #
82.04 (3)

82.04.16 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Gregory Thompson, Executive Director
Inuit Tapirisat of Canada
Re: Response to issues related to the review
process raised 82.02.22 re government position
statements and guidelines for these, the Request to
the Initiator, Panel timetable and community
workshops

1.4.2 #
82.04 (4)

82.04.16 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: C. Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Enclosure of letters sent by the Panel to
government departments as requested. Response to
question re timing of Position Papers.

1.4.2 #
82.04 (5)

82.04.16 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Kenneth G. Taylor, Environmental Programs
Polar Gas
Re: Information survey intent to provide
additional information

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.04 (6)

82.04.19 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): David D. Brooks, Director
Beaufort Sea Research Coalition
Re: Correspondence to Mr. Ed Weick concerning the
submission by Dome Petroleum to the Special
Committee of the Senate on the Northern Pipeline

1.4.2 #
82.04 (7)

82.04.20 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): C. Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Correspondence to R. Hoos, Dome Petroleum as
to source of the reference to "Original CARC
Definitions"

1.4.2 #
82.04 (8)

82.04.22 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.): C. Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Correspondence to R. Hoos concerning the
distance offshore that tankers would remain around
northern Alaska and which U.S. regulatory processes
would apply

1.4.2 #
82.04 (9)

82.04.29 Panel Index B
Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Beaufort Sea Area Community Field Worker
Program. (Material attached from workshop in
Inuvik, April, 21)

1.4.2 #
82.04 (10)

82.04.27 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: David B. Brooks, Executive Director
Beaufort Sea Research Coalition
Re: Notes on meeting with Secretariat, indicating
points of agreement or disagreement

1.4.2 #
82.04 (11)

82.04.28 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: C. Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Proponent development scenarios, Panel's
Terms of Reference, and "Future Assessment

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.05 (1)

82.05.07 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: C. Eric Tull, Research Director
Beaufort Sea Research Coalition
Re: Request for information on Panel technical
advisors.

1.4.2 #
82.05 (2)

82.05.17 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Memo on points raised with Mr. Ewan Cotteril,
Vice-President of Employee Relations and Northern
Policy, Dome Petroleum Ltd. Re status of EIS.

1.4.2 #
82.05 (3)

82.05.18 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: G. Nelson, Dean
Faculty of Environmental Studies
University of Waterloo
Re: Presentation to the Panel and interested
public on experiences of the North Sea and Alaskan
oil and gas developments, especially as they may
relate to the Beaufort Sea.

1.4.2 #
82.05 (4)

82.05.19 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Roger Gruben report on visit to the North
Sea

1.4.2 #
82.05 (5)

82.05.26 Panel Index I
Secretariat
Beaufort Sea Environmental Assessment Panel
From: E. MacDonald
Re: Information Documentation and Associated
Project Information.

1.4.2 #
82.05 (6)

82.05.26 Panel Index H
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Matt Hughes
Matt Hughes Company Ltd.
Re: Media relations requirements

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.05 (7)

82.05.26 Panel Index C
To: David W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Cynthia Hill, Mayor
Town of Inuvik
Re: Work outline for the continued participation
of the Town of Inuvik in the Beaufort Sea
Environmental Assessment Review Process

1.4.2 #
82.05 (8)

82.05.18 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
Memo to: File
Re: Status of EIS and conversation with A. Milne,
Dome Petroleum, May 18, 1982.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.06 (1)

82.06.01 Panel Index B
To: David W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: David B. Brooks, Executive Director
Beaufort Sea Research Coalition
Re: "Approval-in-principle" and the Coalition's
view that no approvals can be recommended or
granted until fully defined proposals have been
reviewed.

1.4.2 #
82.05 (2)

82.06.02 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: E. Tull, Research Director
Beaufort Sea Research Coalition
Re: Critique of Panel Interim Reports

1.4.2 #
82.06 (3)

82.06.10 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Allen R. Milne, Manager
Environmental Impact Assessment
Dome Petroleum Ltd.
Re: Draft Volume 2 of the Beaufort Region
EIS. Seventy copies submitted in draft form.

1.4.2 #
82.06 (4)

82.06.16 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Allen R. Milne, Manager
Environmental Impact Assessment
Dome Petroleum Ltd.
Re: Notification that the Panel will not accept
draft material. The 70 copies of Volume 2
"Development Systems" have been forwarded to DIAND.

1.4.2 #
82.06 (5)

82.06.18
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: List follows

Mr. J.L. Fry, Deputy Minister
Health and Welfare Canada

Mr. M.A.J. Lafontaine
Assistant Deputy Minister/ Chairman
Employment and Immigration Canada

Mr. John W. Ferbey, Deputy Minister
Department of Intergovernmental Relations
Government of Yukon

Mr. Pierre Juneau, Deputy Minister
Department of Communications

Mr. James Smith, Chairman
Northern Canada Power Commission

Mr. E.G. Lee, Assistant Under-Secretary for
U.S.A. Affairs
Department of External Affairs

The Honourable Richard Nerysoo
Minister of Energy
Government of the Northwest Territories

Mr. Donald P. Tansley, Deputy Minister
Fisheries and Oceans Canada

Mr. A. Kroeger, Deputy Minister
Transport Canada

Mr. M.A. Cohen, Deputy Minister
Department of Energy, Mines and Resources

Mr. Robert Johnstone, Deputy Minister
Industry, Trade and Commerce

Mr. J.B. Seaborn, Deputy Minister
Department of the Environment

Mr. J.A.H. Mackay, Deputy Minister
Department of Public Works

Re: Cancellation of public meeting scheduled for
June 22, 1982. Panel has been informed that a
draft of the Proponent's description of oil and gas
development plans is available from DIAND

FEARO DOCUMENT
1.4.2

1.4.2 #
82.06 (6)

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

82.06.25 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: David Brooks, Executive Director
Beaufort Sea Research Coalition
Re: Responding to points raised in letter from
Eric Tull (82.04.28) re proponent's scenario, Panel
Terms of Reference, and "Future Assessment
Requirements"

1.4.2 #
82.06 (7)

82.06.25 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: David Brooks, Executive Director
Beaufort Sea Research Coalition
Re: Beaufort Sea Panel's use of technical
specialists (raised in letter, Tull, 82.05.07)

1.4.2 #
82.06 (8)

82.06.25 Panel Index C
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Cynthia Hill, Mayor
Town of Inuvik
Re: Response to letter of 82.05.06, and
indication of assistance that can be provided
by the Panel Secretariat in the outlined program.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.07 (1)

82.07.08 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Cynthia Hill, Mayor
Town of Inuvik
Re: Request for names of individuals within
organizations currently involved in preparation of
EIS position documents.

1.4.2 #
82.07 (2)

82.07.27 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Cynthia Hill, Mayor
Town of Inuvik
Re: Enclosure of list of names of individuals
within various government departments currently
involved in the preparation of government position
papers

1.4.2 #
82.07 (3)

82.07.16 Panel Index B
Roger Gruben, Secretariat
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Community visits to Coppermine, Holman Island
and Old Crow

1.4.2 #
81.07 (4)

81.07.26 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Diane Erickson
Erickson Associates
Re: Curriculum vitae and comments on the
B.S.C.A.C. Fieldworker Program.

1.4.2 #
81.07 (5)

81.07.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Janet Grand, National Program Director
National and Provincial Parks
Association of Canada
Re: Request for information concerning plans with
regards to parks, recreation and conservation
areas

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
Activity related)

1.4.2 #
82.08 (1)

82.08.061 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Beaufort Sea EIS Supporting Documents

1.4.2 #
82.08 (2)

82.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Janet Grand
National Provincial Parks Association
Re: Outline of efforts made to include parks,
recreation and conservation areas as an integral
component of the Panel review.

1.4.2 #
82.08 (3)

82.08.27 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: E.M. MacDonald
Re: Beaufort Sea Environmental Assessment Panel
Review - Government Position Statements.
Distribution of statements from N.C.P.C., D.P.W.
External Affairs, D.O.E., National Museums and
R.C.M.P.

1.4.2 #
81.08 (4)

81.08.16 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Gay Kennedy
Energy and Resource Development Secretariat
Northwest Territories
Re: Delay in the GNWT position statement.

TEXTNAME: sec-co-1-4-2 (R)P: 01

FEARO DOCUMENT
1.4.2

BEAUFORT SEA PROJECT
Panel Correspondence (Direct)

1.4.2 #
82.09. (1)

82.09.08 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: John W. Ferbey, Deputy Minister
Intergovernmental Relations and Economic
Development, Government of the Yukon
Re: Submission of the Government of Yukon
Position Paper.
Report Filed: 2.4 #10

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretarial Correspondence (General - Panel
activity)

1.4.2 #
82.10 (1)

82.10.21 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) M.B. Todd, Dome Petroleum
Re: Correspondence to G.N. Faulkner, DIAND
transmitting summary volume EIS and requesting
start of 90 day review.

TEXTNAME: sec-co-1-4-2 (R)P: 02

TEXTNAME: sec-co-1-4-2 (R)P: 02

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretarial Correspondence (General - Panel
activity)

1.4.2 #
82.11 (1)

82.11.24 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Wilfred Jackson, Chief
Dene Community Council
Re: Request to include Fort Good Hope in the
public meetings which will be held following the
90-day review period.

1.4.2 #
82.11 (2)

81.11.29 Panel Index
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: T. Fenge, Director of Policy Studies, EARC
Re: Government Position Statements and Panel
rules of procedure.

1.4.2 #
82.11 (3)

82.11.29 Panel Index
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: J.G. Gilmour, Senior Legal Council Energy
Dept of Justice and Public Services
Govt of NWT
Re: Beaufort Sea Environmental Assessment Panel
Hearing Procedures.

1.4.2 #
82.11 (4)

82.11.29 Panel Index
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
To: Ms. Helen Adamache, Hamlet of
Coppermine
Re: Acknowledgement of receipt of
submission from Coppermine
"Environmental & Social Concerns,
Coppermine, N.W.T. - Oil and Gas
Explorations Beaufort Sea Development".
File Ref: 2.5.2.# 2

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretarial Correspondence (General - Panel
activity)

1.4.2 #
82.12 (1)

82.12.14 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Chief Wilfred Jackson
Dene Community Council
Re: Response to letter of 82.11.24 with
assurance that the Panel will include Fort Good
Hope in its schedule.

TEXTNAME: sec-co-1.4.2 (R)P: (p.01) 02

TEXTNAME: sec-co-1.4.2 (R)P: (p.01) 03

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General -
Panel activity)

1.4.2 #
82.12 (2)

82.12.22 Panel Index E
U.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: B.K. Boleš, Memorial University
Re: Deficiencies in the EIS for Beaufort
Sea Development
File Ref: 2.5.2 # 3

1.4.2 #
82.12 (3)

82.12.22 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
To: Key Review Participant Mailing List
Re: Beaufort Sea EIS - Additional
Reference Works. List and location of
additional reference works which have
been made available by the proponents.

1.4.2 #
82.12 (4)

82.12.23 Panel Index E
U.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: C. Eric Tull
Re: Question concerning recommended
changes to the Panel Terms of Reference
(Panel Interim Report)

1.4.2 #
82.12 (5)

82.12.22 Panel Index D
U.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Review of technical specialists
critiques of the EIS. Four general
papers were enclosed. Copies of new
studies relative to the Forties field in
the North Sea and Cook Inlet in Alaska
will be forwarded when received.
Reports filed 1.7.2 #33.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General -
Panel activity)

1.4.2 #
83.01 (1)

83.01.19 Panel Index E
D.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment
Panel
To: C. Eric Tull
Re: Response to letter 82.12.23
indicating that the Panel has not yet
received an acceptance from the Minister
of the Environment on the recommended
three changes to the Panel's Terms of
Reference as outlined in the Interim
Report. The Panel has been notified that
one will soon be forthcoming.

1.4.2 #
83.01 (2)

83.01.03 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: D. Mackay, U. of Toronto
Re: Comment on the Canadian Marine
Transportation Statement and questions
concerning the role of the Coast Guard.
Suggestion that the Coast Guard should
cooperate with Environment Canada and
industry to create an oil spill response
task force. A response by the Coast
Guard to the EIS was encouraged.

1.4.2 #
83.01 (3)

83.01.12 Panel Index F
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: Matt Hughes, APR
Re: Media contact to encourage coverage
of Beaufort Sea Review and Panel
activities.

TEXTNAME: sec-co-1.4.2 (R)P: (p.01) 04

TEXTNAME: sec-co-1.4.2 (R)P: 05

1.4.2. #
83.01 (4)

83.01.19 Panel Index D
U.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment
Panel
To: T. Albert, North Slope Borough
Re: Request for information concerning
the effects of noise on bowhead whales.

1.4.2. #
83.01 (5)

83.01.20
U.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: Mayors of Labrador North Coast
Communities - Nain, Rigolet, Postville,
Hopedale, and Makkovik.
Re: Telex requesting delay in hearings
on the Beaufort Sea Hydrocarbon
Development Proposal because the North
Coast Communities have not been included
in the review process. Request for the
Secretariat to participate in an
information meeting on Jan. 27 as well
as Dome Pet.

FEARO DOCUMENT
1.4.2

Beaufort Sea Project
Secretariat Correspondence (General - Panel
activity)

1.4.2. #
83.02 (1)

83.02.04 Panel Index B
U.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment Panel
From: Larry Wolfe, Consultant to B. Sea Panel
Re: Notes re Beaufort Sea-Mackenzie Delta Regional
Conference (GNWT). January 17-19 (1983). Points
of interest to the Panel are reviewed under two
categories.
A - General discussions
- legislation does not allow communities to enter
into joint ventures with private enterprise;
- community representation
- Dome application for a commercial air licence
and impact on private air carries;
- western Arctic Regional Municipality.
B - Beaufort Sea Discussion
- concern over length of EIS in terms of community
review;
- general questions concerning the review of the
EIS, (e.g. how the panel would evaluate it).
- Stokes Point's questions.

1.4.2. #
83.02 (2)

83.02.09 Panel Index D
U.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Paul Greisman, Technical Specialist
Re: Comments on report by Kay Lemberg, and
alternative method of viewing risk by including
the risk from the wells, in both systems.

1.4.2 #
83.02 (3)

83.02.02 Panel Index D
U.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Acknowledgement of receipt of letter 82.12.22
and enclosed general papers.

TEXTNAME: sec-co-1.4.2 (R)P: 06

TEXTNAME: lib-1.4.2 (R)P: 01

1.4.2. #
83.02 (4)

83.02.11 Panel Index D
D.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment Panel
From: Inuvik Chamber of Commerce.
Re: Information Release noting concern of members
over NWT Government's position calling for a delay
in the public hearings of the Beaufort Sea panel
and noting that a motion had been passed to seek
clarification on this position and explanation of
NWT govt's reasons for claiming EIS deficiencies.

1.4.2. #
83.02 (5)

83.02.02 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
(originally addressed to P.J.B. Duffy)
From: Lorne W. Gold, National Research Council
Re: Dr. Bob Frederking will respond to questions
concerning stress on structures caused by ice that
may arise during the EIS Review. Enclosure of an
outline of current NRC research related to
hydrocarbon development in the Beaufort Sea.

FEARO Document

1.4.2

Beaufort Sea Project
Secretariat Correspondence (General -Panel
Activity Related)

1.4.2 #
83.02 (6)

83.02.09 Panel Index D

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Pet. Ltd.

Re: Environment Canada's letter to Dr. Tener dated
January 7, 1983. Notice that a meeting had been
held with Environment to discuss the items
outlined in the above letter (EIS
comments). Indicated that many difficulties had
been resolved satisfactorily to both parties and
some issues could only be resolved in the future
as specific projects are reviewed through
regulatory mechanisms.

FEARO Document

1.4.2

Beaufort Sea Project
Secretariat Correspondence (General-Panel
activity related)

1.4.2#
83.02 (7)

83.02.23 Panel Index E

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Beaufort Sea Alliance Activities in the
Beaufort Region:

Concern over the activities of the activities
of the Beaufort Sea Alliance in the North
which appear to be aimed at discrediting the
proponents and the FEARO panel and its
review. The proponents believe that some
meetings arranged with communities had been
cancelled as a result of these activities,
and that the negative environment created is
not conducive to any useful information
exchanges.

TEXTNAME: lib-1.4.2* (R)P: (p.01) 01

TEXTNAME: cat-1.4.2 (R)P: 03

FEARO Document
1.4.2

Beaufort Sea Project
Secretariat Correspondence (Panel Activity
Related)

1.4.2 #
83.03 (2)

1.4.2 #
83.03. (1)

83.02.24 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Gregg Sheehy
Canadian Nature Federation
Re: Commendation to the Panel on its Deficiency
Statement.

83.03.11 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Richard A.W. Hoos, Director
Environmental Management Service, Dome Pet.
Ltd.
Re: Submission to the Panel of a report outlining
the policies and programs designed to respond to
the N.W.T. Government's "Resource Development
Policy". Report title - Northern socio-economic /
environmental action plan.1982. Dome Petroleum
Frontier Division.
Report Filed. 2.1 # 12

1.4.2 #
83.03 (3)

83.03.03 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by c.c.
Telex from Mr. R.R. Robinson, FEARO to M.B. Todd,
Dome Petroleum Ltd.

Re: Response to telex of 83.03.02 concerning the
Beaufort Review noting that the message had been
passed on to the Panel Secretariat. The tellex
further notes that it is for the Panel not the
FEARO office to make a judgement on the adequacy
of the EIS.

Tellex attached. Tellex notes that all of the
written submissions have been reviewed and it is
the proponents view that the industry EIS is an
acceptable document with which to proceed to
hearings. Their assessment is that questions
raised can be addressed at the hearings, and notes
that the process could suffer if further delays
were imposed.

1.4.2 #
83-03 (4)

83.03.23 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Bob Stevenson, President
Metis Assoc. N.W.T.

Re: Deficiency Statement and Procedures for Public Sessions
Congratulations to the Panel on a clear, strong and comprehensive Deficiency Statement.

Concern expressed over the incidents in which the proponents have been contradicting sections of the EIS when dealing with communities.

Concern of the Metis Assoc. over Gulf Canada's Application for a Land Use Permit to build a marine supply base at Stokes Point, Y.T.

Procedures:

A general concern that both sets of procedures are more formal and structured than necessary is expressed. In addition certain specific concerns are expressed. These includes concerns that the community does not have an opportunity to question other participants, in particular DIAND; transcripts should be made at all hearings; technical reviews carried out by the communities should be presented in their own communities and the communities should have the right to request the presence of an expert in a particular field; concern over the lead role of the proponents in the technical hearings and the community representative should have the right to the closing statement.

Flexibility in application of these procedures is urged.

TEXTNAME: 11b-1.4.2 (R)P: 03

TEXTNAME: cat-1.4.2 (R)P: 04

FEARO
Reference No.

Beaufort Sea Project

1.4.2 #
83.04 (4)

83.04.20 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

1.4.2 #
83.04 (1)

83.04.05 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: Grafton Njootli, Councillor, Old Crow

Re: Comments of Procedure
Request that transcripts be taken at all sessions
including community sessions.

Concern that all the Panel Members do not plan to
attend all the community sessions.

Re: Zone Summaries and Community Consultation
Drafts of the zone summaries of the three regions
will be completed for the end of April. These will
be distributed to the communities by early May,
and meetings will be held in the communities
during May.

Notice of a meeting of BRIA which the proponents
will attend and at which time a draft summary will
be circulated. Agenda of the meeting attached.

1.4.2 #
83.04 (2)

83.04.26 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

To: Grafton Njootli, Councillor, Old Crow Band

Re: Confirmation that a complete record of what is
said will be taken for all meetings, and that all
Panel Members plan to attend all meetings in all
the scheduled communities.

1.4.2 #
83.04 (5)

83.04.25 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by copy -R.A.W. Hoos, Dome Petroleum Ltd.
Letter to list of northern communities.

Re: Beaufort Sea - Mackenzie Delta EIS - Zone
Summary
Request for help from the communities in preparing
new Zone Summaries. Copies of the draft Zone
Summaries were enclosed for review. The letter
noted that arrangements for meetings with the
communities would be made to discuss these
summaries as well as thoughts on jobs, business
development, training and other ways the project
might affect the people of the community.

1.4.2 #
83.04 (3)

83.04.12 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) Gregg Sheehy, Conservation
Director, Canadian Nature Federation

Re: Correspondence addressed to Hon. John Roberts,
Minister, Environment commending the Beaufort Sea
Panel on its deficiency statement.

TEXTNAME: cat-1.4.2 (R)P: 01

1.4.2 #
83.05 (1)

FEARO Dist. 83.05.24

83.05.09 Panel Index E
D.W.I. Marshall, Executive Chairman
Beaufort Sea Environmental Assessment Panel
From: O.H. Loken, Director
Northern Environmental Protection
Directorate, DIAND

Re: Beaufort Environmental Monitoring Project.
Copy of statement of work for this project is enclosed and request for participation in Workshop by one of the Panel Technical Advisors.
The project title is Application of adaptive environmental assessment to the design of a program of environmental research and monitoring in relation to hydrocarbon development in the Beaufort Sea. The project requires design of a program but does not include research in the field.

1.4.2 #
83.05 (2)

83.05.06 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.)
Correspondence to Dr. A.H. Macpherson, Environment Canada
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Beaufort Sea - Mackenzie Delta EIS Response to Deficiencies.
Further to a meeting of 83.04.23, this letter transmit 5 copies of a draft response to the Environmental and technical deficiencies identified by the Beaufort Panel. A second meeting for May 17 is noted and a suggestion for additional meetings to resolve as many issues as possible prior to the hearings.

1.4.2 #
83.05 (3)

83.05.06 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by c.c.
Correspondence to Mr. Nigel Wilford, DINA from R.A.W. Hoos, Dome Pet. Ltd.

Re: Beaufort Sea-Mackenzie Delta Response to Deficiencies
Further to a meeting with DIAND, copies of advance deficiency response material being submitted to DOE and DFO are enclosed.

1.4.2 #
83.05 (5)

83.05.25 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Bob Stevenson, Metis Assoc. N.W.T.

Re: Response to letter 83.03.23 re Deficiency Statement and Procedures for Public Sessions

Inconsistencies in proponent presentations to the communities have been explained by Gulf Canada and hopefully will not occur again.

The Panel has expressed it's concern with the Stokes Point Application to the Minister of Environment (copy of letter enclosed)

Specific response to concerns expressed with the Procedures are addressed (and assurance that the Chairman will be flexible and responsive to the needs of the participants); communities will be allowed to question other participants and although the proponents are there to permit them to respond to the concerns of the community, the presence of a large number of government officials was felt to be excessive and intimidating; the Community Sessions are to be kept informal and the more formal questioning can occur at the General Sessions; importance of accurate transcripts of community sessions recognized; the General Sessions are considered the best forum for presentation of scientific studies carried out by the communities, both to prevent community hearings from becoming general hearings and to allow fair and full comments on the technical information by other participants; the proponents will not have a leading role at the community hearings although it is an important part of the process to have the proponents reply to concerns of the communities (fairness to both communities and proponents is desired).

Rationale for written procedures presented and confidence expressed that in practice they will prove to be full, fair and non-legalistic.

TEXTNAME: CAT.1.5.2 (R)P: (p.01) 05

1.4.2. #
83.05 (6)

83.05.06 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Jacques Cinq-Mars, National Museums of Canada

Re: Enclosure of background documents referred to in
the original ASC-NMM Heritage Brief to the Panel
A table of problems is enclosed which are illustrative
of what is viewed as essentially a non-approach used by
the proponents with respect to the issue of
archaeological heritage preservation.

In addition, the need for complete reevaluation on the
part of the proponents of their handling of these
problems is stressed.

Report filed 2.5.2 #3

FEARO Document

1.4.2 #
83.06 (1)

83.06.10 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Dr. David Brooks, Beaufort Sea Alliance

Re: Response to letter to Dr. Tener requesting that the Beaufort Sea Environmental Assessment Review public hearings not take place from September 8 to September 17. The earliest date for community sessions that would be possible would be September 12, and general sessions are not anticipated before mid October. Appreciation expressed for bringing this potential problem to the attention of the Panel.

TEXTNAME: cat-1.7.1 (R)P: (p.01) 02

FEARO Document

1.4.2 #
83.06 (2)

83.06.28 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by c.c.
Correspondence to Ms. Gay Kennedy from E.M. MacDonald transmitting a copy of the Beaufort Sea Environmental Assessment Panel Public File Index to be available in Yellowknife.

FEARO Document

1.4.2 #

83.06 (3)

83.06.28 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
by:c.c.

Correspondence to Ms. Gay Kennedy from E.M.
MacDonald

Re: Transmittal and maintenance of a Public File
Index in Yellowknife.

FEARO Document

- 1.4.2 #
83.07 (1) 83.07.07 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
- From: N.A. Harburn, Dome Petroleum Ltd.
- Re: Addenda to Community Consultation/
Information. Circulation of attachment for EIS
Appendix I.
-
- 1.4.2 #
83.07 (2) 83.07.18 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
- To: Beaufort Sea Panel, Technical Specialists,
and Key Participants
- Re: Replacement page 8 for Socio-Economic Effects
Volume of proponents, response to EIS Deficiency
Statement
-
- 1.4.2 #
83.07 (3) 83.07.25 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
- From: Mr. N.H. Richardson, Technical Specialist
- Re: Beaufort Tour
- Comments on discussions with Gulf representatives
indicated a clearer explanation of their needs
than that provided in the EIS. Suggestion that
Gulf might produce a clear, specific written
statement regarding their immediate needs. Noted
need to keep environmental and technical questions
separate from land claims and political issues.
Comments on discussions with GNWT people,
socio-economic discussions in particular.

FEARO Document

1.4.2 #
83.07 (4)

83.07.20 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

To: Captain T.C. Pullen

Re: Addition of Captain Pullen to the Beaufort
Sea Environmental Assessment Panel's team of
Technical Specialists.

1.4.2 #
83.07 (5)

83.07.28 Panel Index E
D.W.I. Marshall, Executive Secretary
Secretariat, Beaufort Sea Environmental Assessment
Panel

To: Ms. Nancy MacPherson, Northern Director,
Beaufort Sea Alliance

Re: Acknowledgement of request that the Panel
schedule a general public session before the
community sessions. Notice that the Panel will
consider this at its next meeting.

1.4.2 #
83.07 (6)

83.07.22 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: Mr. Terry Fenge, CARC

Re: Intent by Peter Kiewit and Sons of Toronto to
apply for a land use permit under the Territorial
Lands Act for a quarrying operation in the
vicinity of Shingle Point, Yukon. The question is
asked whether given the broad scenario of the
operation whether the project falls within the
purview of the Beaufort Sea EARP.

FEARO Document

1.4.2 #
83.07 (7)

83.07.28 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

To: Dr. Tery Fenge, CARC

Re: Response to letter of 83.07.22 re Kiewit Beaufort Quarry Development and relationship to Beaufort Review. Response indicates that if any leaseholders in the Canadian Beaufort plan to use this quarry for construction of offshore production islands, the proposal would fall within the Beaufort EARP review. If it provides a service to Alaska only, it does not fall within Panel mandate. Kiewit and Sons will be informed of the existing status of the Beaufort Panel review. The Panel shall explore this proposal in detail at the public hearings should circumstances warrant such action.

Information circulated to Panel with this letter includes:

Media article titled ..Yukon plan may supplant Gulf base. "A combination sandstone quarry and ocean port has been proposed for the environmentally sensitive north coast of the Yukon and could quash plans by Gulf Canada Ltd. of Toronto for a base in the area says John Munro, Minister of Indian Affairs and Northern Development."

Information Note on application to open a quarry on the North Slope of the Yukon (P. Kiewit and Sons Ltd. application ..KIEWIT/ACZ Beaufort Quarry Development 8 p.)

1.4.2 #
83.07 (8)

83.07.26 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: R. Lemberg, Technical Specialist

Re: Draft Schedule for General Sessions and comments on his participation.

FEARO Document

1.4.2 #
83.08 (1)

83.08.09 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: Dr. G.H. Lawler, Director General, Western
Region, Fisheries & Oceans

Re: Comments on the preliminary draft schedule
and draft agenda for the Panel public hearings.
Minor suggestions for agenda items and questions
to clarify certain points required to allow
preparation for their involvement.

1.4.2 #
83.08 (2)

83.08.04 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: W.R. Bonn, Technical Specialist

Re: Meeting with Dome Petroleum Ltd. concerning
transportation of Beaufort Sea Oil by Arctic
tanker, July 25, 1983.

Meeting convened by Mr. A. Churcher, Dome
Petroleum to discuss critique (Bonn) concerning
transportation of Beaufort oil and to review some
of the material in the EIS Supplement. Areas
discussed are noted and some changes in plans from
that presented in the EIS indicated. The
proponents offered to provide a full written
response to the queries presented in the critique
and during the meeting.

Also filed 2.5.1 # 11.

FEARO Document

1.4.2 #
83.08. (3) 83.08.04 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: W.E. Bonn, Technical Specialist

Re: Preliminary draft schedule and draft agenda.
Question raised as to whether the Inuvik hearings
will consider an alternate route to the west for
tankers.

1.4.2 #
83.08 (4) 83.08.01 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: W. Winston Mair, Technical Specialist

Re: Draft schedule and agenda. Comments enclosed
on previous commitments and sessions that can be
attended.
Report filed under 2.5.1 # 12.

1.4.2 #
83.08 (5) 83.08.02
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Errata - Response to Deficiencies,
Environmental and Technical Issues.

1.4.2 #
83.08 (6)

83.08.18 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Mr. Nigel Wilford, DIAND

Re: In addition to previous department comments on the EIS deficiency statement, the submission that the majority of broader national issues relating to project economics, employment and business do not appear to have been dealt with in the EIS deficiency statement.

1.4.2 #
83.08 (7)

83.08.17 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
By c.c.
Correspondence to R.A.W Hoos, Dome Petroleum Ltd., from Dr. C. Eric Tull.

Re: Acknowledgement of response to request (written questions).
For clarification, it was further noted that Dr. Tull was not involved in preparation of any of the actual impact assessments while employed with LGL.

1.4.2 #
83.08 (8)

83.08.11 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Mr. R. Hornal

Re: Peter Kiewit Sons's Co. Ltd. Quarry Proposal.
Report that Mr. Hornal had met with Mr. Bob Ramsdell and Mr. John Loewen of the North Slope Quarry Project to discuss relationship between their project and the BSEAP.

1.4.2 #
83.08 (9)

83.08.22 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: File
Re: Final Draft Schedule for public sessions Beaufort Sea Environmental Assessment Panel.

1.4.2 #
83.08 (10)

83.08.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R. Lemberg (Technical Specialist)

Re: Summary of meeting held in Calgary at Esso Plaza to review pipeline oil spill risks.

Proponents presented their pipeline design methodology for the Beaufort. Presentation was followed by a discussion of leaks and spills from offshore pipelines and review of leak detection limit. The proponents were requested to include this discussion in their report.

The third discussion dealt with the manner in which pipeline spill statistics may be applied to the Beaufort Sea pipelines. The proponents agreed to estimate the degree to which causes of spills in the world statistics may be applicable to the Beaufort and also to estimate the size of a spill which may occur from their pipelines. Their report including these items is expected in two weeks.

Also filed 2.5.1 # 15

1.4.2 #
83.08 (11)

83.08.31 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Dr. Jack Terhune, Dept. Biology, University of New Brunswick

Re: Invitation to Dr. Terhune to join the Panel's team of technical specialists.

1.4.2 #
83.08 (12)

83.08.10 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd

Re: Canadian Superior Oil. Brief description enclosed noting that they are one of the more recent partners in funding the Beaufort EIS.

.4.2 #
83.08 (13)

83.08.25 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Paul Scott, Manager Panel Operations, FEARO
Vancouver

Re: Memo to File re Discussion with Yukon Communities

Documentation of contacts and telephone conversations made in July/August 1982 with a number of Yukon communities re their participation in the Beaufort Sea Panel review and any information requirements that the communities might have.

1.4.2 #
83.08 (14)

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: R.A.W Hoos, Dome Petroleum Ltd.

Re: Enclosure of DIAND's update to their Government Position Statement; discussion paper entitled "A comprehensive conservation policy and strategy for the Northwest Territories and Yukon"; and proceedings of a Northern Conservation Policy Workshop held in Whitehorse from Feb 27-March 2, 1983.
Reports filed 2.1 # 24 and 25.

1.4.2 #
83.08 (15)

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel and certain technical specialists

Re: Notice that the Dept. of Fisheries and Oceans, in response to the Panel's request for additional information, has provided the following reports.

The effects of vessel traffic in the Arctic on marine mammals.
Filed: 2.1 #21

Research on the effects of underwater noise on marine mammals.
Filed: 2.1 # 22

Assessment of the effects of oil on Arctic marine fish and marine mammals.
Filed: 2.1 # 23

1.4.2 #
83.08 (16)

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Rick Hoos, Dome Petroleum Ltd.

Re: Enclosure of information on underwater noise and
its effect on marine mammals which was submitted to the
Panel by the Dept. of Fisheries and Oceans.

1.4.2 #
83.08 (17)

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members

Re: Attachments to DIAND's Government Position
Statement Update had the following documents attached:

A comprehensive conservation policy and strategy for
the Northwest Territories and Yukon.

Filed: 2.1 # 25

Proceedings of a Northern Conservation Policy Workshop
held in Whitehorse, Feb 27 - March 2, 1983.

Filed: 2.1 #24

.4.2 #
83.09 (1)

83.09.02 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: File

Re: Supply tug boat sinking in Beaufort Sea,
August 31, 1983.
Information related to this incident transmitted by
Roger Grueban by phone noting - vessel on lease to
Esso; not active at time; 180,000 litres of diesel fuel
on board but very little fuel entered the water; Esso
Oil Spill Response Team is standing by; all people on
board were able to abandon ship.

1.4.2 #
83.09 (2)

83.09.07 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel and distribution list.

Re: Human Resources Development Report, Summary
Volume 1, May 1983 is available. Distribution of first
five pages indicated.
Filed: 2.2 # 25

1.4.2 #

83.09 (3)

83.09.08 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Technical Specialists, Beaufort Sea Environmental
Assessment Panel

Re: Dr. J. Terhune has joined the Panel's team of
technical specialist. Curriculum vitae attached.

1.4.2 #

83.09 (4)

Panel Index E

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Technical Specialists

Re: Participation in the Beaufort Sea Hearings,
preparation for presentations and possible questioning.

1.4.2 #
83.09 (5)

83.09.27 Panel Index B
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. David Brooks, Beaufort Sea Alliance

Re: Panel mandate in terms of economics of Beaufort Sea hydrocarbon production and transportation. In "A Short Statement on Where the Panel is Going" the Panel stated that it is not within its mandate to evaluate the need or economic advisability of the economic effects and issues related to the development proposal but that it is willing to accept as background information any views on these matters.

1.4.2 #
83.09 (6)

83.09.08 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: K.G. Taylor, Polargas

Re: Confirmation that Polar Gas plans to send an observer to meetings of the Panel to be held in several Mackenzie Valley communities. Appropriate authorities in each community will also be notified.

1.4.2 #
83.09 (7)

83.09.23 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Terry Fenge, CARC

Re: Panel has communicated its views on the North Slope development in correspondence to the Ministers of Environment and DIAND (correspondence attached). This subject will be reviewed at the Inuvik hearings.

1.4.2 #

83.09. (8) 83.09.12 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Dr. G.H. Lawler, Director General , Western Region,
F&O

Re: Response to questions concerning F&O 's involvement at the general public sessions. Items included opening statements are not necessary by each dept at each general session; questions following a presentation will not be limited to questions of clarification or elaboration; oral replies to written questions will be acceptable to the Panel if acceptable to the questioner; the puposes and objectives of the topic entitled "Government Management" is to allow for and encourage good discussion on the capabilities of all levels of government to control a development proposal of this magnitude were it to proceed; final draft agenda is based on concerns raised by a number of intervenors which includes concern over inadequate time to address the tanker concerns; it is hoped that the significance of impacts will be addressed; the Panel does not feel that the sessions are too rigidly structured; intervenors may decide whether they wish to make a closing statement at each general session.

1.4.2 #
83.09 (10)

83.09.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Proponents
Re: Circulation of a set of definitions used by the
proponents in their Environmental Impact Statement.

Also filed: 2.3 G (2)

83.09.26 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Enclosure of a set of definitions prepared in
response to the Panel request.

Definitions filed: 2.3 G-2

1.4.2 #
83.09 (11)

83.09.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.M. Terhune, (Technical Specialist)

Re: Enclosure of major concerns relating to the EIS
Vol 4. and a few comments on Vol 1. Outline of
intended participation and presentation of talks at
Resolute.

Report filed: 2.5.1 # 16

1.4.2 #
83.09 (12)

83.09.17 Panel Index E
D.W.I. Marshall, Executive Chairman
Beaufort Sea Environmental Assessment Panel
From: E.W. Hayes.

Re: Enclosure of a paper dealing with the National
Health and Welfare Position Paper and with health
services in the Western Arctic. Letter notes that many
of the claims in the Health and Welfare position paper
are untrue, particularly in reference to mental health
and health services in the communities (e.g. Inuvik was
running with only one half the compliment of nurses
claimed by Health and Welfare.) Also a plan for

involvement of the native organizations is noted, with the comment that none of the native organizations have been approached. An offer to address the panel on this matter if they intend to visit Whitehorse is extended.

Report filed: 2.5.2 # 12, and 2.1 # 30

1.4.2 #
83.09 (13)

83.09.15 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson, (Technical Specialist)

Re: Conversation with John Bahen, President of Peter Kiewit Sons Co. re application for a rock quarry and shipping facilities at King Point. The company is bidding for large contracts for the construction of production island in the U.S. Beaufort and is seeking a decision from DIAND by the end of October. Discussions are underway with Gulf as to the possibility of Gulf using Kiewit facilities for its exploration base. Whether the proposal falls within the Panel terms of reference is indicated as unclear..if Kiewit gets their permit they have to be considered a potential supplier in the Canadian Beaufort. If they get their permit and Gulf joins them, then the Panel has to decide whether it has been presented with a fait accompli as far as Gulf's exploration base or whether this brings both proposals within their mandate.

Also filed: 2.5.1 # 17.

1.4.2 #
83.09 (14)

83.09.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Enclosure of a tentative list of experts that the proponents may be calling at the various hearing locations.

TEXTNAME: pub-fil-1.4 (R)P: (p.01) 06

1.4.2 #

83.09 (15)

83.09.26

Panel Index E

D.W.I. Marshall, Executive Secretary Beaufort Sea

Environmental Assessment Panel

by c.c.: Correspondence to R.A.W. Hoos, Dome Petroleum
Ltd., from Jeffery G. Gilmour

Re: Information request No 1 - Government of the
Northwest Territories - BSEARP.

Request filed: 2.5.3 # 2

TEXTNAME: pub-fil-1.4 (R)P: (p.01) 08

1.4.2 #

83.09 (16)

83.09.29

Panel Index E

D.W.I. Marshall, Executive Secretary

Beaufort Sea Environmental Assessment Panel

by c.c.: Correspondence between Gordon E. Beanlands
(Technical Specialist) and Dr. C. Eric Tull.

Re: Information request concerning the Beaufort Sea
EIS.

Correspondence also filed 2.5.3 # 3 (Question and
Answer) Dist. Date: 83.07.10

1.4.2 #
83.10 (1)

83.10.06 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Distribution list

Re: Notice that Dr. Geof Hainsworth will be replacing
Dr. Craig Davis at the Inuvik General Sessions. Resume
attached.

1.4.2 #
83.10 (2)

83.10.13 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. John Ferbey, Deputy Minister, Dept. of
Economic Development and Intergovernmental Affairs,
Yukon.

Re: Acknowledgement of letter advising the Panel on
the timing and nature of the Yukon Govt participation
in the Beaufort Hearings.

1.4.2 #
83.10 (3)

83.10.04 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: A.W. Mansfield, Director, Arctic Biological
Station, F&O

Re: Enclosure of curriculum vitae of Dr. Thomas Smith
who will be acting as a DFO technical expert on marine
mammals at the Resolute hearings.

1.4.2 #
83.10 (4)

83.10.18 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.B. Ellis, York University

Re: Confirmation that the suggested dates for participation at the Inuvik session are suitable.

1.4.1 #
83.10 (5)

83.10.11 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.B. Ellis, York University

Re: Intent to make a submission to the Panel at the Inuvik sessions dealing with population and demographic effects on a community and regional basis, on employment potential and economic spinoffs. Suggested dates for participation noted.

1.4.2 #
83.10 (6)

83.10.17 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Mr. E.R. Caldwell, Esso Resources Canada Ltd

Re: Resumes for James E. Lee; Gerry W. Kalyniuk; Mike C. Arnett; George E. Bezaire.

1.4.2 #
83.10 (7)

83.10.07 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Thomas F. Albert, North Slope Borough

Re: Enclosure of four documents for submission to the Panel. Documents relate to the bowhead whale and oilspills and noise.

Submission filed: 2.5.2 #15

1.4.2 #
83.09 (17)

83.09.30 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
To: General Session Participants

Re: Operating procedures for distribution of
technical presentations in advance of the general
sessions.

- Presentations filed with the Vancouver office one
week in advance of the Session at which it will
be given. Presentation should also be distri-
buted by the intervenor to others interested in
that area as indicated by attached outline.
- or indicate inability to distribute and the
Vancouver office will undertake distribution

Key Participant mailing list attached.

1.4.2 #
83.10 (8)

83.10.25 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
To: Dr. R.W. Butler, Dept. Geography, University
of Western Ontario

Re: Appreciation for agreement by Dr. Butler to
address the Panel with Dr. Nelson at the General
Session in Inuvik on the topic of the "applicabil-
ity of the Scottish Oil and Gas Experience to the
Canadian Beaufort Sea."

1.4.2 #
83.10 (9)

83.11.19 Panel Index E
R. Hornal, Secretariat, Beaufort Sea Environmental
Assessment Panel
From: Dr. R.W. Butler, University of Western
Ontario

Re: Appearance before the Panel in Inuvik to
present material on the social and economic
effects of energy developments in the North Sea.
Resume attached.

1.4.2 #
83.10 (10)

83.10.26 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: Tom Nesbitt, BRIA's EARP Intervention
Consultant

Re: Enclosure of two corrections to the BRIA
submission at the Resolute Session.

Filed with BRIA submission G(R-).

1.4.2 #
83.10 (11)

83.10.28 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R. Lemberg, Technical Specialist

Re: Enclosure of "Amended Version - comments on
"Oil Spill Risk Assessment" dated September 1983
by the Proponents", October 28, 1983.
Appendix A is unchanged and not included.

Report filed: 1.5.1 # 18 A1.

1.4.2 #
83.10 (12)

83.10.24 Panel Index E
R. Hornal, Secretariat, Beaufort Sea
Environmental Assessment Panel
From: Dr. David Brooks, Beaufort Sea Alliance

Re: Request for confirmation on four points
related to their testimony at Inuvik: request
that Dr. Gibson's research be accepted as
background information; re methodology, request
for double allotment of time to cover opening
remarks and methodology; timing request for
certain presentations due to other commitments;
request for change in time allotment for
Dr. Tull's evidence.

1.4.2 #
83.10 (13)

83.10.21 Panel Index E
R. Hornal, Secretariat, Beaufort Sea Environmental
Assessment Panel
From: Dr. David Brooks, Beaufort Sea Alliance

Re: Request for clarification of status of the
subject of National Benefits noting that it was
addressed at length in Vol 2 of the EIS.

1.4.2 # 83.10.07 Panel Index E
83.10 (18) D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
To: N. Russell-LeBlond, Arctic International Wildlife
Range Society

Re: Response to letter to Dr. J.S. Tener, 30 Sept 1983.
Correspondence from the Panel to the Minister of Indian
and Northern Affairs Canada is attached and the belief
noted that the Panel has indicated its views on
industrial development on the Yukon Coast.

1.4.2 # 83.10 Panel Index E
83.10 (19) Secretariat, Beaufort Sea Environmental Assessment
Panel.
To: FEARO , Ottawa and Vancouver.

Re: Brief notes on the community sessions, Beaufort Sea
Environmental Assessment Panel public meetings for:
Pond Inlet; Arctic Bay; Resolute Bay; Pangnirtung;
Frobisher Bay.

1.4.2 #
83.11 (1)

83.11.02 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R. Lemberg, Technical Specialist

Re: Correction to the Amended Version of the
report - Comments on "Oil Spill Risk Assessment"
dated September 1983 by the Proponents.
October 28, 1983.

Report filed as 2.5.1 # 18 A2.

1.4.2 #
83.11 (2)

83.11.01 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd

Re: Enclosure of corrections to Oil Spill Chapter
of the Response to Environmental and Technical
Issues Document. Also included is an explanation
of Tables 1 to 4.

Report Filed 2.3.5 # 3

1.4.2 #
83.11 (3)

83.11.01 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Enclosure of memo on the subject of damage to
tracking buoys by polar bears in the Beaufort Sea.

Report filed 2.3.5 # 4

1.4.2 #
83.11 (4)

83.11.04 Panel Index E
R. Hornal, for Secretariat, Beaufort Sea
Environmental Assessment Panel
To: Dr. David Brooks. Beaufort Sea Alliance

Re: Response to questions raised noting:
acceptance by the Panel of Dr. Gibson's report as
a reference submission; twenty minutes will be
allowed for opening address; attempts will be made
to schedule Dr. Gibson and Dr. Usher on Nov. 19;
Dr. Tull will present his evidence on the quality
of the EIS on November 14 or 15; National Benefits
is not within the Panel mandate but background
information will be accepted, and Ottawa is an
appropriate location.

1.4.2 #
83.11 (5)

83.11.02 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: G. Abrahamson, North Slope Project Review
Group

Re: Enclosure of interim report on Yukon North
Slope developments.

Report filed: 2.1 # 32

1.4.2 #
83.11 (6)

83.11.03 Panel Index E
R. Hornal, Secretariat, Beaufort Sea Environmental
Assessment Panel
To: Panel Members, Technical Specialists,
Proponents, Secretariat

Re: List of speakers and attendees at Inuvik
General Session.

1.4.2 #
83.11 (10)

83.11.03 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: Carol Stephenson, Director, Coast Guard
Northern

Re: Submission of reports on the Polar Icebreaking
Project, the Edgar Jourdain incident, and Coast
Guard Native Employment Initiatives in the Arctic.

Filed 2.5.2 # 23

1.4.2 #
83.11 (11)

83.11.18 Panel Index E
R. Hornal, Secretariat, Beaufort Sea Environmental
Assessment Panel
From: Michael Metz, President, GeoTec Services
Inc.

Re: Enclosure of professional experience listing.
Participation in Yellowknife hearings indicated.

1.4.2 #
83.11 (12)

83.11.30 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: by c.c. Judy Rowell, ITC.

Re: Correspondence to Mr. Tellier, Energy, Mines &
Resources indicating that ITC intends to take
advantage of the Government Management Session of
the Beaufort Sea Hearings to solicit EMR's
response to the proposed Inuit Arctic Marine
Environment Policy developed by ITC.

1.4.2 #
83.12(1)

83.12.09 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel

Re: Request by LIA to respond to comments on the
Labrador Sea related to wind data. List of
material to be presented is included.

Also filed 2.5.2 # 24

1.4.2 #
83.12 (2)

83.12.13 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: Carol Stephenson, Coast Guard

Re: Submission of material requested by the Panel
at Whitehorse.

Filed 2.5.2 #25

1.4.2 #
83.12 (3)

83.12.13 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: Nick L. Nicholaas, Bow Arctic Resources

Re: Submission of more detailed answers to
questions from the Calgary General Session.

Report Filed 2.5.2 # 26

1.4.2 #
83.12 (4)

83.12.12 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: G.N. Faulkner, Asst. Deputy Minister, Indian and
Northern Affairs Canada.

Re: Request by the Honorable Richard Nerysoo, GNWT
Minister of Energy, Mines and Resources and the Hon.
John Munro , Minister DIAND, to make closing statements
to the Panel. A copy of a joint DIAND/GNWT press
release is enclosed. The news releases announce new
approaches designed to improve coordination and enhance
community participation in dealing with their problems.

1.4.2 #
83.12 (5)

83.12.12 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assesment Panel
From: Wayne Greenall, Beaufort-Mackenzie Delta
Development Impact Zone Group

Re: Enclosure of minutes of the September 27-28 , 1983
meeting of the Board of Directors of the
Beaufort-Mackenzie Delta Development Impact Zone.

1.4.2 #
83.12 (6)

83.12.28 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel

From: J.N. Stein, Resource Impact Division, Fisheries &
Oceans Canada

Re: Enclosure of closing statements intended for the
Inuvik and Yellowknife Sessions.

Filed: 2.5.2 # 40 and 41.

1.4.2 #
83.09 (7)

83.09 Panel Index E
Panel Secretariat, Beaufort Sea Environmental
Assessment Panel
To: FEARO office, Ottawa and Vancouver.

Re: Brief notes on the community sessions of the
Beaufort Sea Environmental Assessment Panel public
meetings for : Aklavik; Fort Franklin; Norman Wells;
Fort Good Hope; Fort Norman.

1.4.2 #
83.12 (9)

83.12.12 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: G.N. Faulkner, Asst. Deputy Minister, Indian and
Northern Affairs Canada.

Re: Request by the Honorable Richard Nerysoo, GNWT
Minister of Energy, Mines and Resources and the Hon.
John Munro , Minister DIAND, to make closing statements
to the Panel. A copy of a joint DIAND/GNWT press
release is enclosed. The news releases announce new
approaches designed to improve coordination and enhance
community participation in dealing with their problems.

1.4.2 #
83.12 (10)

83.12.12 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: Wayne Greenall, Beaufort-Mackenzie Delta
Development Impact Zone Group

Re: Enclosure of minutes of the September 27-28 , 1983
meeting of the Board of Directors of the
Beaufort-Mackenzie Delta Development Impact Zone.

1.4.2 # 84.01.09 Panel Index E
84.01 (1) D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: J.G. Gilmour, Sr. Legal Counsel - Energy, GNWT

Re: Enclosure of five GNWT Information Requests and the respective responses to 1,2 and 4. No 3 was answered by way of an oral presentation and the proponents were unable to respond to No. 5.

Also filed: 2.5.3 # 5

1.4.2 # 84.01.05 Panel Index E
84.01 (2) D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: J. Rowell, Labrador Inuit Association

Re: enclosure of the LIA final argument and the ITC final argument. A complete set of ice charts are also enclosed.

Documents filed: 2.5.2 # 33

1.4.2 # 84.01.09 Panel Index E
84.01 (3) D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: D. Bissett, Indian and Northern Affairs Canada,
Public Review Division

Re: Submission in response to commitment made by the Assistant Deputy Minister, Northern Affairs Program, to the Beaufort Sea Environmental Assessment Panel, December 8, 1983. Three reports are submitted:

- 1 Northern Benefits Committee, NWT
- 2 Wildlife monitoring in the Davis Strait, 1979-1982
- 3 1982 Socio-Economic review Raleigh Drilling Program

Submission filed 2.5.2 # 35

1.4.2 #
84.01 (4)

84.01.03 Panel Index E

D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: J.G. Gilmour, Sr. Legal Counsel - Energy,
G.N.W.T.

Re: Offshore workers health and safety. Supplementary
comments on Yellowknife hearing discussion on workers'
health and safety on the offshore installations and
artificial islands and the concern that COGLA
(although having the legislative mandate) does not have
the technical capability to address these issues.

Also filed 2.5.2 # 37

1.4.2 #
84.01 (5)

84.01.09 Panel Index E

D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: N.J. Campbell, Marine Sciences and Information
Directorate, Fisheries & Oceans Canada.

Re: Enclosure of technical analysis relating to the
likelihood of contamination of the Labrador Coast by
oil spills originating north of 60°.

Report filed: 2.5.2 # 38

1.4.2 #
84.01 (6)

84.01.06 Panel Index E

D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: N. Harburn, Dome Petroleum Ltd.

Re: Enclosure of proponents response to the paper "Wind
directions in the Northern Labrador Sea" (OT 12)

Report filed 2.5.2 #39

FEARO DOCUMENT
1.5.1

Beaufort Sea Project
Category 1.5.1 - Development and review of the
Guidelines

1.5.1 # (1)

Document Date: 1981 Panel Index C
Document:
To: D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
Re: Comments on the Draft Guidelines.
All comments on the Draft Guidelines have been
included in the following reports: Compendium of
Written Submissions to the Panel on the Draft
Environmental Impact Statement Guidelines - and the
Additional Compendium - December 18, 1981.

1.5.1 # (2)

Document Date: 81.06.10 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: S.P. Mackay, Esso Resources Canada Ltd.
Re: Development of the E.I.S. in a manner that
will not prejudice the Foothills-Dempster proposal
or the Polar Y line, but addresses the issues if
the corridors are envisaged in Dome, Esso or Gulf
Beaufort scenario.
Response to letter of 81.03.10 (attached)
Filed: 1.4.2# 81.06.02

FEARO DOCUMENT

Beaufort Sea Project
Category 1.5.1 - Development and review of the
Guidelines

1.5.1 # (3)

Document Date: 81.08.31 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary Beaufort Sea
Environmental Assessment Panel
To: Mailing list
Re: Beaufort Sea Environmental Assessment Panel
Review - written Submissions on Draft EIS
Guidelines.

1.5.1 # (4)

Document Date: 81.08.11 Panel Index C
Document:
To: David W.I. Marshall, Executive Secretary
Beaufort Environmental Assessment Panel
From: K.A. Brynaert
Executive Vice President
Canadian Wildlife Federation
Re: Comments on the E.I.S. Guidelines and request
for funding information
Filed: 1.4.2 #81.08.6

1.5.1 # (5)

Document Date: 81.08.31 Panel Index C
Document:
From: David W.I. Marshall, Executive Secretary
Beaufort Environmental Assessment Panel
To: K.A. Brynaert
Canadian Wildlife Federation
Re: Response to letter of 81.08.11 re EIS
Guideline comments
Filed: 1.4.2 #81.08-7

1.5.1 # (6)

Document Date: 81.09.03 Panel Index C
Document:
To: David W.I. Marshall, Executive Secretary
Beaufort Environmental Assessment Panel
From: Allen R. Milne
Manager, Environmental Impact Assessment
Re: Coals of the EARP for Beaufort Region
Development, and view as to what the Panel
functions are
Filed: 1.4.2 #81.09-3

1.5.1 # (7)

Document Date: 81.10.22 Panel Index C
Document: Correspondence
J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: G.H. Lawler, Director General
Fisheries and Oceans
Re: Representations at the Draft EIS Guideline
meetings
Filed: 1.4.1 #81.10-5

FEARO DOCUMENT
1.5.1

Beaufort Sea Panel Project
Category 1.5.1 - Development and Review of the
Guidelines

1.5.1 # (8)

Document Date: 81.11.05 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Harry Allen, Chairman
Council for Yukon Indians
Re: Telex requesting that public meetings be held
in Old Crow
Filed: 1.4.2 #81.11-1

1.5.1 # (9)

Document Date: 81.11.13 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Messrs. George Ahmaogak and Fred Bahar
Re: Appreciation for assistance on Panel tour of
Alaska and for comments on Draft Guidelines
Filed: 1.4.2 #81.11-2

1.5.1 # (10)

Document Date: 81.12.09 Panel Index B
Document:
Correspondence:
I.J. Tener, Chairman
Beaufort Sea Environmental Assessment
From: J. Bourque, President
Mites Association of N.W.T.
Herb Norwegian, Vice President
Dome Nation
Re: Response to concluding remarks by R. Hoos at
Draft Guideline meeting, general session Calgary
Filed: 1.4.1 #81.12-1

1.5.1 # (11)

Document Date: 81.12.16 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members
Re: Fort Good Hope contact
Filed: 1.4.2 #81.12-4

FEARO DOCUMENT
1.5.1

1.5.1 # (12)

82.03 (13)

82.04 (14)

82.03 (15)

82.03 (16)

Beaufort Sea Panel Project
Category 1.5.1 - Development and review of the
Guidelines

Document Date: 81.12.24 Panel Index C
Document:
Bob Greyell, Secretariat
Beaufort Sea Environmental Assessment Panel
From: Bill Trotter
Environmental Design Directorate
Re: Personal reactions (no Departmental comments)
on Panel Guidelines
Filed: 1.4.2 #81.12.2

Document Date: 82.03.26 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: David Brooks, Executive Director
Beaufort Sea Research Coalition
Re: Response to letter of 82.03.08 Arrangement
for meeting to discuss other issues raised.
Filed: 1.4.2 #82.03-9

Document Date: April 1982 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Beaufort Sea Research Coalition
Re: Comments on "Guidelines for the Preparation of
an Environmental Impact Statement: the Beaufort
Sea Hydrocarbon Production Proposal" by the
Beaufort Sea Research Coalition.
Filed: 1.4.2 #82.03.12

Document Date: 82.03.19 Panel Index C
Document:
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: David B. Brooks, Executive Director
Beaufort Sea Research Coalition
Re: Disappointment in the Guidelines issued by the
Panel for Preparation of an Environmental Impact
Statement Need for a "scoping process".
Filed 1.4.1 #82.03-1

Document Date: 82.03.19 Panel Index C
Document:
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: David Brooks,
Beaufort Sea Research Coalition
Re: Disappointment in the Final Guidelines issued
by the Panel.
Filed under: 1.4.1 #82.03-1

FEARO DOCUMENT
1.5.1

Beaufort Sea Panel Project
Category 1.5.1 - Development and review of the
Guidelines

1.5.1 # (17)

Document Date: 82.03.26 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: David Brooks
Beaufort Sea Research Coalition
Re: Panel's Final Guidelines and Coalition
concerns
Filed: 1.4.2 #82.03.09

1.5.1 # (18)

Document Date: April, 1982 Panel Index C
Document:
FEARO (received) 1982.05.07
Re: Comments on Guidelines for the preparation of
an Environmental Impact Statement: the Beaufort
Sea Hydrocarbon Production Proposal" prepared by
the Beaufort Sea Research Coalition, April, 1982.

1.5.1 # (19)

Document Date: 82.05.26 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Cynthia Hill, Mayor
Town of Inuvik
Re: Work outline for the continued participation
of the Town of Inuvik in the Beaufort Sea
Environmental Assessment Review Process.
Filed: 1.4.2 #82.05.07

1.5.1 # (20)

Document Date: 82.06.25 Panel Index C
Document:
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Cynthia Hill, Mayor
Town of Inuvik
Re: Response to letter of 82.05.06 and indication
of assistance that can be provided by the Panel
Secretariat in the outlined program.
Filed 1.4.2 #82.06.08

FEARO DOCUMENT

Beaufort Sea Panel Project

1.5.2

Category 1.5.2 - Material related to the public review of the EIS

1.5.2 # (1)

FEARO Date (dist.): 82.06.10 Panel Index D
 Document Date:
 Document:
 Correspondence: David W.I. Marshall
 Executive Secretary, Beaufort Sea Panel
 From: Allen R. Milne, Manager
 Environmental Impact Assessment,
 Dome Petroleum Ltd.
 Re: Draft Volume 2 of the Beaufort Region EIS.
 Seventy copies submitted in draft form.
 File Ref.: 1.4.2 #82.06-3

1.5.2 # (2)

FEARO Date (dist.): 82.06.16 Panel Index D
 Document Date:
 Document:
 Correspondence: David W.I. Marshall
 Executive Secretary, Beaufort Sea Panel
 To: Allen R. Milne, Manager
 Environmental Impact Assessment
 Dome Petroleum Ltd.
 Notification that the Panel will not accept draft
 material. The 70 copies of Vol. 2 "Development
 Systems" have been forwarded to DIAND.
 File Ref.: 1.4.2 #82.06-4

1.5.2 # (3)

FEARO Date (dist.): 82.06.16 Panel Index D
 Document Date:
 Document:
 Correspondence: J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: M.B. Todd, Senior Vice President
 Frontier Drilling and Production
 Dome Petroleum Ltd.
 Re: Review of the EIS and suggestions for
 shortening the allowed review period.
 File Ref.: 1.4.1 #82.06-7

1.5.2 # (4)

FEARO Date (dist.): 82.07.29 Panel Index D
 Document Date:
 Document:
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: M.B. Todd, Senior Vice President
 Frontier Drilling and Production
 Dome Petroleum Ltd.
 Re: Schedule for E.I.S. - distribution and
 review.
 File Ref.: 1.4.1 #82.07-7

FEARO DOCUMENT

Beaufort Sea Panel Project

1.5.2

Category 1.5.2 - Material related to the public review of the EIS

1.5.2 # (5)

FEARO Date (dist.): 82.07.08 Panel Index D
 Document Date:
 Document:
 D.W.I. Marshall, Executive Secretary
 Beaufort Sea Environmental Assessment Panel
 From: Mayor Cynthia Hill
 Town of Inuvik
 Re: Request for names of individuals within
 organizations currently involved in preparation of
 EIS position documents.
 File Ref.: 1.4.2 #82.07-1

1.5.2 # (6)

FEARO Date (dist.): 82.07.16 Panel Index D
 Document Date:
 Document:
 To: Dr. J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: G.N. Faulkner, Assistant Deputy Minister
 Northern Affairs DIAND
 Re: Submission of the Environmental Impact
 Statement (EIS) to the Panel. Agreement with the
 Panel view that 90 days review period does not
 commence until all the material is available.
 File Ref.: 1.4.1 #82.07-5

1.5.2 # (7)

FEARO Date (dist.): 82.07.08 Panel Index D
 Document Date:
 Document:
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 To: Murray B. Todd, Senior Vice President
 Frontier Drilling and Production
 Dome Petroleum Ltd.
 Re: Panel will not accept EIS documents in draft
 form. 90 day review will not begin until the last
 document has been received.
 File Ref.: 1.4.1 #82.07-4

1.5.2 # (8)

FEARO Date (dist.): 82.07.08 Panel Index D
 Document Date:
 Document:
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: Paul M. Tellier, Deputy Minister
 DIAND
 Re: DIAND'S current situation on the preparation
 of the position paper and Panel needs.
 File Ref.: 1.4.1 #82.09-2

TEXTNAME: Cat-1.5.2 (R)P: 01

FEARO DOCUMENT
1.5.2

Beaufort Sea Project
Material related to the public review of
the EIS.

1.5.2 # (12) FEARO Date (dist.): 82.11.22 Panel Index D
Document Date: 82.10.28
82.11.22
Document: Correspondence between J.S. Tener and
M.B. Todd concerning strat of the 90 day review
period.
File Ref.: 1.4.1 -82.10 (6)
1.4.1 -82.11.(1)

1.5.2 # (13) FEARO Date (dist.): 82.11.22 Panel Index D
Document date: 82.10.21
Document: Correspondence (M.B. Todd to G.N.
Faulkner) re submission of EIS - Summary.
File Ref.: 1.4.2 #82.10 (1)

1.5.2 # (14) 83.01 FEARO Dist.
82.12.22 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Review of technical specialists
critiques of the EIS. Four general
papers were enclosed. Copies of new
studies relative to the Forties field in
the North Sea and Cook Inlet in Alaska
will be forwarded when received.
Reports filed 1.7.2 #33.

TEXTNAME: Cat-1.5.2 (R)P: 02

1.5.2. # (15) 83.01.19 (FEARO Dist.)
83.01.19 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment
Panel
To: T. Albert, North Slope Borough
Re: Request for information concerning
the effects of noise on bowhead whales.
File Ref. 1.4.2 #83.01 (4)

TEXTNAME: Cat-1.5.2 (R)P: 03

TEXTNAME: Cat-1.5.2 (R)P: 04

FEARO DOCUMENT
1.5.2

Beaufort Sea Project

1.5.2 # (16)

83.01.27 (Doc Date) Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
To: G.V. Vernon, Assistant Deputy
Minister, Fisheries & Oceans
Re: Acknowledgements of receipt of
preliminary comments on the Beaufort Sea
EIS.
File Ref. 1.4.1 #83.01 (4)

1.5.2 # (17)

83.01.24 (FEARO Dist. Date)
82.12.22 (Doc Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Review of technical specialists
critiques of the EIS. Four general
papers were enclosed. Copies of new
studies relative to the Forties field in
the North Sea and Cook Inlet in Alaska
will be forwarded when received.
Reports filed 1.7.2 #33
File Ref. 1.4.1 #83.01 (5)

1.5.2 # (18)

83.01 (FEARO Dist.)
83.02.08 Panel Index D
Submission to the Beaufort Sea Panel
From: Dan Brunton, President
Ottawa Field-Naturalists' Club
Re: Comments on the Environmental
Impact Statement concerning hydrocarbon
development in the Beaufort Sea -
Mackenzie Delta Region.
File Ref. 2.5.2 #3

FEARO DOCUMENT

Beaufort Sea Project

1.5.2 # (19)

83.02.15 (FEARO dist.)
83.02.09 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Paul Greisman, Technical Specialist
Re: Comments on report by Ray Lemberg, and
alternative method of viewing risk by including
the risk from the wells, in both systems.
File Ref. 1.4.2 #83.02 (2)

1.5.2 # (20)

83.02.16 (FEARO Dist.)
83.02.02 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Acknowledgement of receipt of letter 82.12.22
and enclosed general papers.
File Ref. 1.4.2 #83.02 (3)

TEXTNAME: Cat-1.5.2 (R)P: 05

TEXTNAME: Cat-1.5.2 (R)P: 07

1.5.2 # (21)

83.02.03 (FEARO dist.)
83.02.11 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment Panel
From: Inuvik Chamber of Commerce.
Re: Information Release noting concern of members
over NWT Government's position calling for a delay
in the public hearings of the Beaufort Sea panel
and noting that a motion had been passed to seek
clarification on this position and explanation of
NWT govt's reasons for claiming EIS deficiencies.
File Ref. 1.4.2 #83.02 (4)

1.5.2 # (24)

FEARO Date: 83.02.18 Panel Index D
Document Date: 83.02.15
Document: Press Release - Dene Nation/
Metis Association of the NWT
Re: Dene/Metis dissatisfaction with
Beaufort Environmental Impact Statement.
Major concerns are listed and a delay in
the holding of Public Hearings is
requested.
File Ref. 1.7.1 #109

TEXTNAME: Cat-1.5.2 (R)P: 08

1.5.2 # (22)

83.02.10 (FEARO Dist.)
83.02.02 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
(originally addressed to P.J.R. Duffy)
From: Lorne W. Gold, National Research Council
Re: Dr. Bob Frederking will respond to questions
concerning stress on structures caused by ice that
may arise during the EIS Review. Enclosure of an
outline of current NRC research related to
hydrocarbon development in the Beaufort Sea.
File Ref. 1.4.2 #83.02 (5)

1.5.2 # (25)

FEARO Date: 83.02.04 Panel Index D
Document Date: 83.02.15
Document: Correspondence from Georges Erasmus,
President, Dene Nation to
Hon. John Munro, Minister, DIAND.
Re: Yukon North Slope. Objection to activities
allowed on the North Slope of the Yukon
Territories.
File Ref. 1.7.1 #112

TEXTNAME: Cat-1.5.2 (R)P: 09

1.5.2 # (23)

83.02 (FEARO dist.)
83.02.09 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Environment Canada's letter to Dr. Tener dated
January 7, 1983. Notice that a meeting has been
held with Environment to discuss the items
outlined in the above letter (EIS comments).
Indicated that many difficulties had been resolved
satisfactorily to both parties and some issues
could only be resolved in the future as specific
projects are reviewed through regulatory
mechanisms.
File Ref. 1.4.2 #83.02 (6)

FEARO Document

1.5.2 # (26)

83.02.24 (FEARO Dist.)
83.02.09 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Pet. Ltd.
Re: Environment Canada's letter to Dr. Tener dated
January 7, 1983. Notice that a meeting had been
held with Environment to discuss the items
outlined in the above letter (EIS comments).
Indicated that many difficulties had been resolved
satisfactorily to both parties and some issues
could only be resolved in the future as specific
projects are reviewed through regulatory
mechanisms.
File Ref. 1.4.2 #83.02 (6)

FEARO Document 1.5.2 Beaufort Sea Project

1.5.2 # (27) 83.03.29 (FEARO Dist.)
83.03.16 (Doc. Date) Panel Index D
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Murray B. Todd
Dome Petroleum Ltd
Re: Confirmation of understanding of the four development scenarios outlined by the Panel in its deficiency statement, purpose of the analysis and assumptions required.
File Ref. 1.4.1 #83.03 (1)

1.5.2 # (28) 83.03.29 (FEARO Dist.)
83.03.25 (Doc. Date) Panel Index D
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Murray B. Todd, Senior Vice- President
Frontier Division, Dome Petroleum Ltd.
Re: Respns to letter 83.03.16. Interpretation of scenarios is confirmed and acceptance of request to alter the small diameter pipeline to 16" rather than 12". It is also noted that the summary of impacts on a zonal basis should include an indication of bio-physical impacts in addition to those associated with socio-economic considerations.
File Ref. 1.4.1 #83.03 (2)

1.5.2 # (29) 83.04.07 (FEARO Dist.)
83.03.10 Panel Index D.
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Margaret Ogilvy
Re: Commendation to the Panel for its Deficiency Statement.
File Ref. 1.4.1 #83.03 (3)

1.5.2 # (30) 83.04.12 (FEARO Dist.)
83.03.08 (Doc. Date) Panel index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. John Munro, Minister
DIAND
Re: Deficiencies in the Environmental Impact Statement for Hydrocarbon Development in the Beaufort Sea - Mackenzie Delta Region : Notification that the Panel has identified certain deficiencies covered in the attached document.
File Ref. 1.4.1 #83.03 (6)

1.5.2 # (31) 83.04.12 (FEARO Dist.)
83.03.08 (Doc. Date) Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. John Roberts
Minister, Environment Canada
Re: Panel review of the EIS has been concluded and resulted in the identification of certain deficiencies. These deficiencies must now be addressed by the proponents after which further Panel and public review will be carried out.
File Ref. 1.4.1 #83.03 (8)

1.5.2 # (32) FEARO Date: 83.04.07 Panel Index D
Document Date: 83.03.21
Document: Correspondence to the Hon. John Roberts from David Brooks, Executive Director, Beaufort Sea Alliance
Re: Release of the Statement of Deficiencies on the Environmental Impact Statement for Hydrocarbon Development in the Beaufort Sea-Mackenzie Delta Region and congratulations for a job well done.
File Ref. 1.7.1 # 126

1.5.2 # (33) 83.04.12 (FEARO Dist.)
83.02.24 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Gregg Sheehy
Canadian Nature Federation
Re: Commendation to the Panel on its Deficiency Statement.
File Ref. 1.4.2 #82.03 (1)

TEXTNAME: Cat-1.5.2 (R)P: 14

TEXTNAME: Cat-1.5.2 (R)P: 17

1.5.2 # (34) FEARO Date: 83.04.15 Panel Index D
Document Date: 83.04.08
Document: Dome Petroleum Correspondence
Re: Summary of EIS presentation to the high schools in
the Territories. Seven post-secondary institutions and
high schools were visited.
File Ref. 1.7.1 # 130

1.5.2 # (35) 83.04.27 (FEARO Dist. Date)
83.03.22 (Doc. Date) Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: R. Gruben, Secretariat
Re: Community visits - Sachs Harbour, Paulatuk,
Coppermine March 14. 15
Dene/Metis Assoc Meeting
Community visits were to inform local leaders of
the deficiency statement. Community leaders were
appreciative of the statement, and the fact that
they now had time to understand the industry's
proposals.
Statement attached from Dene/Metis Assoc.
commending the Panel on the Deficiency Statement.
File Ref. 1.4.1 #83.03 (9)

1.5.2 # (36) 83.04.18 (FEARO Dist.)
83.04.12 (Doc. Date) Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) Gregg Sheehy, Conservation
Director, Canadian Nature Federation
Re: Correspondence addressed to Hon. John Roberts,
Minister, Environment commending the Beaufort Sea
Panel on its deficiency statement.
File Ref. 1.4.1 #83.04 (3)

FEARO DOCUMENT
1.5.2

Beaufort Sea Review
Material relating to public review of the EIS

1.5.2 # (37)

FEARO Dist. 83.05.13
83.05.06 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: (by c.c.)
Correspondence to Dr. A.H. Macpherson, Environment
Canada
From: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Beaufort Sea - Mackenzie Delta EIS Response to
Deficiencies.
Further to a meeting of 83.04.23, this letter
transmit 5 copies of a draft response to the
Environmental and technical deficiencies
identified by the Beaufort Panel. A second meeting
for May 17 is noted and a suggestion for
additional meetings to resolve as many issues as
possible prior to the hearings.
File Ref. 1.4.2 # 83.05 (2)

1.5.2 # (38)

FEARO Dist. 83.05.13
83.05.06 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by c.c.
Correspondence to Mr. Nigel Wilford, DINA from
R.A.W. Hoos, Dome Pet. Ltd.
Re: Beaufort Sea-Mackenzie Delta Response to
Deficiencies
Further to a meeting with DIAND, copies of advance
deficiency response material being submitted to
DOE and DFO is enclosed.
File Ref. 1.4.2 # 83.05 (3)

1.5.2 # (39)

FEARO Dist. 83.05.13
83.05.06 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by c.c. R.A.W. Hoos, Dome Pet. Ltd.
Correspondence to Dr. Red McV. Clarke, Chairman,

TEXTNAME: Cat-1.5.2 (R)P: 18

Arctic Offshore Development Committee, Dept.
Fisheries and Oceans.
Re: Beaufort Sea-Mackenzie Delta EIS Response to
Deficiencies.
Enclosure of two copies of draft responses to the
environmental and technical deficiencies
identified by the Panel, and arrangements for May
meeting.
File Ref. 1.4.2 # 83.05 (4)

1.5.2 # (40)

83.05.16
83.04.20 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.
Re: Zone Summaries and Community Consultation
Drafts of the zone summaries of the three regions
will be completed for the end of April. These will
be distributed to the communities by early May,
and meetings will be held in the communities
during May.
Notice of a meeting of BRIA which the proponents
will attend and at which time a draft summary will
be circulated. Agenda of the meeting attached.
File Ref. 1.4.2 # 83.04 (4)

1.5.2 # (41)

FEARO Dist. 83.05.17
83.03.03 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by c.c.
Telex from Mr. R.R. Robinson, FEARO to M.B. Todd,
Dome Petroleum Ltd.
Re: Response to telex of 83.03.02 concerning the
Beaufort Review noting that the message had been
passed on to the Panel Secretariat. The tellex
further notes that it is for the Panel not the
FEARO office to make a judgement on the adequacy
of the EIS.

Tellex attached. Tellex notes that all of the
written submissions have been reviewed and it is
the proponents view that the industry EIS is an
acceptable document with which to proceed to
hearings. Their assessment is that questions

TEXTNAME: Cat-1.5.2 (R)P: 19

raised can be addressed at the hearings, and notes
that the process could suffer if further delays
were imposed.
File Ref. 1.4.2 # 83.03 (2)

1.5.2 # (42)

FEARO Dist. 83.05.17
83.04.25 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: by copy -R.A.W. Hoos, Dome Petroleum Ltd.
Letter to list of northern communities.
Re: Beaufort Sea - Mackenzie Delta EIS - Zone
Summary
Request for help from the communities in preparing
new Zone Summaries. Copies of the draft Zone
Summaries were enclosed for review. The letter
noted that arrangements for meetings with the
communities would be made to discuss these
summaries as well as thoughts on jobs, business
development, training and other ways the project
might affect the people of the community.
File Ref. 1.4.2 # 83.04 (5)

FEARO DOCUMENT Beaufort Sea Project

1.5.2 # 43

FEARO Dist: 83.05.30
83.03.18 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: forwarded by the Hon. John Roberts
Re: Correspondence received from Mr. Murray B. Todd,
Dome Petroleum Ltd. concerning the Beaufort Sea EIS and
related matters.

Comments on the Beaufort Panel Deficiency Statement:
In general the view is expressed that the deficiencies
b) and c) (assessment of environmental effects and oil
spills) are not deficiencies and could have been
addressed at the hearings; item d), zone summaries,
results from a request for more information than
required by the guidelines; and item a), assessment of
socio-economic effects is then dealt with in detail.
Concerns noted include: information requested is new
and different from guideline requirements; detail
exceeds reasonable level for conceptual proposals;
information requested is more detailed than past
requests for specific projects; information requests
could possibly form part of future specific project
applications.

Concern expressed that the Panel ignored the conclusion
of the initiating dept DIAND.

Item 2: Comments on FEARO Employee Statements in Print
Media.
Examples of press statements attributed to FEARO
representatives which the proponents find inappropriate
and irresponsible are noted.

Item 3. Comments on FEARO Environmental Assessment
Process.

Areas of the Beaufort process that have caused the
proponents particular concern and problems are noted in
the hope that their views will improve such processes
in the future. These include concerns with delay in
issuing guidelines; length of time to reach public
hearing phase; lack of means for direct communication
between proponent and Panel; refusal of Panel to accept
draft material; absence of time constraints on the
review; process has gone too far in ensuring fairness
to negative intervenors; request for identification of
deficiencies rather than positive interventions in
review of the EIS; need for industry to comment on
responsibilities of government; three major companies
have prepared the EIS on behalf of all companies with

interests in the Beaufort but there has been no
directions or incentives by government to require these
companies to participate in the funding of the EIS.

1.5.2 # 44

FEARO Dist. 83.05.30
83.04.27 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. Murray B. Todd, Dome Petroleum Ltd.

Re: Letter to the Minister of Environment of 83.03.18
and forwarded to the Panel.

Due to the wide circulation of the letter the Panel
indicates that it feels the need to respond although
they feel the Deficiency Statement is clear and stands
by itself.

Items noted in response:

- deficiencies may include necessary clarification and
elaboration as well as data gaps
- the Panel felt that the additional information was
required prior to the hearing stage to allow all
participants to constructively discuss this issue.
- need for Zone Summaries is not just in relation to
socio-economic impact information

- surprise that the proponents view the requested
socio-economic information as new and different from
the guideline requests
- more information is required for this review due to
the size and magnitude of the proposal
- in order for the Panel to make a complete set of
recommendations to the Ministers of Environment and
DIAND the information is needed now
- Panel received its Terms of Reference from the
Minister of Environment not from DIAND
- the Panel values views of all participants but is not
obligated to accept any particular viewpoint
- comments about one of the Technical Specialists is
not consistent with the facts

File Ref. 1.4.1 # 83.04 (8)

1.5.2 # 45

FEARO Dist. 83.05.30
83.05.10 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Impact Assessment
From: copy from the Minister of Environment

TEXTNAME: cat1.5.2 (R)P: (p.01) 03

TEXTNAME: cat1.5.2 (R)P: (p.01) 04

Re: Response by the Hon. John Roberts, Minister of Environment to Mr. Murray B. Todd, Dome Petroleum Ltd. (letter of 83.03.18)

General response indicates that the Panel deliberated for three weeks and decided more information was required before constructive hearings could be held. Responses to specific items included:

- Terms of Reference are established by the Minister of Environment
- DIAND, as initiating dept, does not have the responsibility of instructing the Panel on its activities
- the media are an important component of a public review, although statements are sometimes taken out of context or overdramatized
- draft guidelines were available early in the process with little later change. Time delays were not as great as indicated.
- the proponents may approach the Panel in writing on any issue. To allow private meetings would contravene well established principles of fairness
- public meetings had never been scheduled and there was no last minute delay in them
- interventions which identify deficiencies are unfairly identified as negative. In many cases, the intervenors simply want to ensure that development proceeds in an environmentally safe manner.

File Ref. 1.4.1 # 83.05 (5)

1.5.2 # 46

FEARO Dist. 83.05.30

83.05.10 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: copy form the Office of the Minister of Environment

Re: Correspondence from the Hon. John Roberts to the Hon. Richard Nerysoo, Govt. N.W.T.

Enclosure of a copy of the response to a letter of Mr. Murray B. Todd criticizing the conduct of the Beaufort Sea Environmental Assessment Panel and of which a copy was sent to the NWT authorities.

File Ref. 1.4.1 # 83.05 (6)

1.5.2. # 47 FEARO Dist. 83.06.03

83.05.06 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Jacques Cinq-Mars, National Museums of Canada

Re: Enclosure of background documents referred to in the original ASC-NMM Heritage Brief to the Panel
A table of problems is enclosed which are illustrative of what is viewed as essentially a non-approach used by the proponents with respect to the issue of archaeological heritage preservation.

In addition the need for complete reevaluation on the part of the proponents of their handling of these problems is stressed.

File Ref: 1.4.2 # 83.05. (6) and 2.5.2 # 3

1.5.2 # 48

FEARO Dist: 83.05. 30

83.03.15 Panel Index D
Document: Telex from Minister's Office (Environment) to Mr. Al Pluim, President, Inuvik and District Chamber of Commerce, Northwest Territories.

Re: Acknowledgement of receipt of Telex regarding an indefinite delay in the public hearings on the Beaufort Development.

Telex attached which notes:

- concern over indefinite delay in Beaufort public hearings and a request that the Minister's not allow the indefinite delay due to sensitive environment and delicate economy of the region which might not be able to stand further development delays.
- request that the govt refrain from giving interest groups money to oppose the Beaufort Sea Development
- review process is too long for meaningful public participation
- the Panel is reviewing an early stage but requesting specific information
- the Panel's requirements for specific impacts on many communities is misleading in that there is only a slight chance many of them will have an impact.
- the Panel request from more community consultation stems from the southern interest groups, not northern communities
- public hearings should start without delay.

FEARO Document

- 1.5.2 #49 FEARO Dist: 83.06.09
83.03.18 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: A.H. Macpherson, Regional Director General
Western and Northern Region, Environment Canada
- Re: Submission of Environmental Canada's Technical Review of the Beaufort Sea Environmental Impact Statement - Volume II.
File Ref: 1.4.1 # 83.03 (13)
Report Filed 2.5.2 #5
- 1.5.2 #50 FEARO Dist: 83.07.08
83.06.28 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice-President
Frontier Division, Dome Petroleum Ltd.
- Re: Submission of the Zone Summaries for the Beaufort Sea-Mackenzie Delta Region, the Mackenzie Valley Region and the Northwest Passage. Consultation with the communities in preparation of these summaries was noted.
File Ref: 1.4.1 # 83.07.08 (5)
- 1.5.2 #51 FEARO Dist: 83.06.(5)
83.06.28 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Senior Vice-President, Frontier Division
Dome Petroleum Ltd.
- Re: Response to Deficiencies - Appendices
- Submission of Appendix I - Community Consultation and Appendix II - Mitigative Measures and Action Plans (to response to socio-economic deficiencies).
File Ref: 1.4.1 # 83.06 (6)
- 1.5.2 #52 FEARO Dist: 83.07.08
83.06.30 Panel Index D
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: M.B. Todd, Dome Petroleum Ltd.
- Re: Response to socio-economic issues . Submission of the document which responds to the socio-economic issues covered in the Panel Deficiency Statement. This completes the response to all information deficiencies identified.
File Ref: 1.4.1 # 83.06 (7)

FEARO Document

- 1.5.2 #53 Dist. Date: 83.07.07
83.06.28 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
- From: N.H. Richardson, Technical Specialist
- Re: Review of the industry's discussion paper #1 on contingency planning and decision that it falls outside his area of expertise.
File Ref: 1.4.1 # 83.06 (9)
- 1.5.2 #54 Dist. Date: 83.07.11
83.06.15 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
- by c.c.: Correspondence to the Hon. John Roberts from David B. Brooks, Beaufort Sea Alliance
- Re: Objection to a statement in the correspondence from Mr. Todd to Dr. Tener and the Hon. J. Roberts which states that the proponent and supporting companies "paid for all the costs of producing the EIS, the subsequent responses to the deficiencies and eventually the hearings". It is noted that "This is not true except in the first instance. Ultimately and in any cash-flow accounting, approximately half these costs are paid for by the Canadian public in the form of reduced corporate income taxes."
File Ref: 1.4.1 # 83.06 (10)
- 1.5.2 #55 Dist: 83.08.02
83.07.04 Panel index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
- by: c.c.
- Correspondence to Mr. Murray B. Todd, Dome Petroleum Ltd., from Ms. Nancy MacPherson, Yukon Conservation Society.
- Re: Five items raised in a letter of 83.03.18 to the Hon. John Roberts.
File Ref: 1.4.1 # 83.07 (4)

FEARO Document

1.5.2 #56 Dist: 83.08.18
83.08 (3) 83.08.08 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel

From: Mr. G.N. Faulkner, Asst. Deputy Minister,
DIAND

Re: Review of the proponents response to the
deficiency statement has been reviewed by the
Department and is considered sufficient to permit
hearings to commence in the Fall.
File Ref: 1.4.1 # 83.08 (4)

1.5.2 #57 Dist: 83.08.11
83.08.10 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by c.c.

Correspondence to Dr. A.H. Macpherson, Env. Canada
from R.A.W. Hoos, Dome Pet. Ltd.

Re: Environment Canada's position on the response
to the deficiency statement.
File Ref: 1.4.1 # 83.08 (4)

1.5.2 #58 Dist: 83.07.13
83.07.07 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: N.A. Harburn, Dome Petroleum Ltd.

Re: Addenda to Community Consultation/
Information. Circulation of attachment for EIS
Appendix I.
File Ref: 1.4.2 # 83.07 (1)

1.5.2 #59 83.07.18 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

To: Beaufort Sea Panel, Technical Specialists,
and Key Participants

Re: Replacement page 8 for Socio-Economic Effects
Volume of proponents, response to EIS Deficiency
Statement
File Ref: 1.4.2 # 83.07 (2)

FEARO Document

1.5.2 #60 Dist: 83.07.27
83.07.25 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: Mr. N.H. Richardson, Technical Specialist

Re: Beaufort Tour
File Ref: 1.4.2 # 83.07 (3)

1.5.2 #61 Dist: 83.08.11
83.08.09 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: Dr. G.H. Lawler, Director General, Western
Region, Fisheries & Oceans

Re: Comments on the preliminary draft schedule
and draft agenda for the Panel public hearings.
Minor suggestions for agenda items and questions
to clarify certain points required to allow
preparation for their involvement.
File Ref: 1.4.2 # 83.08 (1)

TEXTNAME: cat1.5.2 (R)P: (p.01) 05

Attachment 2.
Response to Telex by the Hon. John Munro.

The response acknowledges the concern about the delay and desire to have public hearings as soon as possible. The delay is noted as not an indefinite delay, and necessary in order to have a meaningful set of hearings.

List of groups which received intervenor fundings is enclosed noting that most intervenors appeared to want development to be socially and environmentally acceptable, and were not simply in opposition to development.

- the need for including social impacts as well as environmental ones is commented upon.

File Ref. 1.7.1 # 135.

Cross Ref:

1.5.2 #62

83.08.30 Panel Index D
Dr J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. Richard Nerysoo, Minister of Energy, Mines
and Resources, Govt. of N.W.T.

Re: Comments on the Proponent's Response to the
Panel's Defficiency Statement.
Comments noted that issues raised in Telex of 83.08.10
can be covered in the forthcoming hearings.
File Ref: 1.4.1 # 83.08 (7)

1.4.1 #63

83.08.30 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Ms. Nancy MacPherson, Northern Director, Beaufort
Sea Alliance

Re: Request in letter of 83.07.11 for a general public
opening session on methodology.
Suggestion that this issue can be included in opening
statements at the General Session in Inuvik, or
Whitehorse or Yellowknife. Suggestions by the Panel
for locations at which certain technical information
could be submitted are included.
File Ref: 1.4.1 # 83.08 (8)

1.5.2 #64

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. A.H. Macpherson, Regional Director General,
Western & Northern Region, Environment Canada

Re: Response to the EIS Supplementary Information
prepared by the proponents.
Appreciation for thoroughness of review and response to
concerns raised which included that the Panel had only
required discussion of three species; difficulties of
assessing cumulative and synergistic impacts. The
Panel would welcome DOE's comments upon future research
needs in these areas of concern. In planning agenda,
the Panel is trying to ensure ample opportunity for
discussion of DOE's concerns.
File Ref: 1.4.1 # 83.08 (9)

1.5.2 #65

83.08.30 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. J.V. Wright, Archaeological Survey of Canada
National Museum of Man

Re: Acknowledgement of response to the Beaufort
Sea/Mackenzie Delta EIS Supplementary Information and
for their concern for an archaeological mitigation
program.
File Ref: 1.4.1 # 83.08 (10)

1.5.2 #66

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. Thomas Nesbitt, Baffin Region Inuit Assoc.

Re: BRIA's comments on the adequacy of the
Proponenet's EIS Supplementary Information.
Outstanding concerns in the areas noted are recognized
(underwater noise, dispersants, oil spill impacts and
socioeconomic impact assessment baseline data for the
eastern communitites). Interest in any results of the
BRIA Resource Harvesting Study was noted and assurance
that at the scheduled meetings sufficient time will be
provided to allow everyone the opportunity to speak.
File Ref: 1.4.1 # 83.08 (11)

1.5.2 #67

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. C. Eric Tull

Re: Response to the EIS Supplementary Information
provided by the proponents. Appreciation of concerns
expressed and hope that these will be reiterated at the
general sessions if the proponents have not adequately
addressed them.
File Ref: 1.4.1 # 83.08 (12)

TEXTNAME: C-1.5.2 (R)P: (crossref) 03

TEXTNAME: C-1.5.2 (R)P: (crossref) 04

1.5.2 #68

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. G.H. Lawler, Director General, Western Region,
Fisheries & Oceans Canada

Re: Department's Response to the EIS Supplementary Information submitted by the proponents. The Panel recognizes that Fisheries & Oceans still view the EIS as incomplete and would prefer that certain inadequacies be addressed prior to hearings. The Panel believes that requesting further information from the proponents at this time would not be as effective as proceeding to the hearing forum and public sessions have been scheduled. The Panel shares the departments concerns with issues such as cumulative impacts and mitigation, and with the estimates of clean-up effectiveness. These subjects will be explored at the hearings.
File Ref: 1.4.1 # 83.08 (13)

1.5.2 #69

Panel Index D
Dr. J.S. Tener, Chariman
Beaufort Sea Environmental Assessment Panel
To: Mr. Murray Todd, Dome Petroleum Ltd.

Re: Review of the six discussion papers submitted by the proponents. Although the Panel accepts the papers as being adequate for discussion purposes at the General Public Sessions, it believes that Papers No. 3 and 6 require additional work. Information requirement noted for Paper 3 included: specific information on the effects of tanker movements through a narrow passage on the ice regime; increased difficulty of ice crossings by people; formation of brash ice and problems encountered.

Information requirements noted for Paper 6 included: more specifics re remedial measures that have been suggested; more information from the Alyeska Pipeline experience re effectiveness of remedial measures implemented and construction and operation problems encountered.
File Ref: 1.4.1 # 83.08 (14)

1.5.2 #70

Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. R.G. Gates, Director General, Alberta/NWT
Region, Employment & Immigration Canada

Re: Comments on the EIS Supplementary Information. The Panel notes that the subject of northern residents access to employment and economic benefits will be further pursued at the hearings.
File Ref: 1.4.1 # 83.08 (15)

1.5.2 #71

83.08.30 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. Jack B. Ellis, Prof. Env. Studies, York
University

Re: Comments on the EIS Supplementary Information. Acknowledgement of comments and confirmation that the public hearings phase will now begin.
File Ref: 1.4.1 # 83.08 (16)

1.5.2 #72

83.08.30 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. John W. Ferbey, Deputy Minister, Dept. of
Economic Development and Intergovernmental Relations,
Govt. of Yukon.

Re: Response to letter of 83.07.11 and confirmation that the Panel has determined that there is sufficient information to proceed to public hearings.
File Ref: 1.4.1 # 83.08 (17)

TEXTNAME: C-1.5.2 (R)P: (crossref) 05

1.5.2 #73

83.08.09 Panel Index D
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. A.W. May, Deputy Minister, Fisheries &
Oceans

Re: Submission to the Panel.
Additional information on underwater noise and its
effect on marine mammals as requested by the Panel is
enclosed in the form of a report entitled "The effects
of vessel traffic in the arctic on marine mammals and
recommendations for future research".

Additional information enclosed: synopsis of current
and proposed research and a copy of a second report
entitled "Assessment of the effects of oil on arctic
marine fish and marine mammals." (Both reports
prepared under the auspices of the Dept's Arctic
Research Directors Committee.)

Report filed: 2.1 # 21 and 2.1 # 22.
File Ref: 1.4.1 # 83.08 (18)

1.5.2 #74

83.08. 18 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Mr. Nigel Wilford, DIAND

Re: In addition to previous department comments on the
EIS deficiency statement, the submission that the
majority of broader national issues relating to project
economics, employment and business do not appear to
have been dealt with in the EIS deficiency statement.
File Ref: 1.4.2 # 83.08 (6).

FEARO DOCUMENT

Beaufort Sea Panel Project

1.5.3

Category 1.5.3 - Material related to the final public review

1.5.3 # (1)

FEARO Date (dist.): Panel Index E
 Document Date: 82.03.26
 Document: Correspondence
 D.W.I. Marshall, Executive Secretary
 Beaufort Sea Environmental Assessment Panel
 To: Mr. Andrew Roman
 Public Interest Advocacy Centre
 Re: Enclosure of Operation Procedures and Terms of Reference for discussion at meeting 82.04.19.
 File Ref.: 1.4.2 #82.03-10

1.5.3 # (2)

FEARO Date (dist.): 82.07.16 Panel Index E
 Document Date: 82.06.23
 Document: Correspondence
 Dr. J.S. Tener, Chairman
 Beaufort Sea Panel
 From: Paul M. Tellier, Deputy Minister
 Indian and Northern Affairs Canada
 Concern expressed over level of information requested in the "Guidelines for the Preparation of Government Position Statements" and the "Request to Initiator". The Department's role and responsibility for managing impacts of major hydrocarbon development projects in the north will be explained in the DIAND position paper, and an appropriate level of information on other topics will be provided.
 File Ref.: 1.4.1 #82.06.11

1.5.3 # (3)

FEARO Date (dist.): Panel Index E
 Document Date: 82.07.16
 Document: Correspondence
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: G.N. Faulkner, Assistant Deputy Minister
 DIAND
 Re: Submission of the Environmental Impact Statement (EIS) to the Panel and review procedure timing.
 File Ref.: 1.4.1 #82.07.05

1.5.3 # (4)

FEARO Date (dist.): Panel Index E
 Document Date: 82.08.03
 Document: Correspondence
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: J.A.H. MacKay, Deputy Minister
 Public Works Canada
 Re: Submission of the Impact Statement of the Department of Public Works.
 File Ref: Document filed Category 2.4 #4
 Letter: 1.4.1 #82.08 (1)

FEARO DOCUMENT

Beaufort Sea Panel Project

1.5.3

Category 1.5.3 - Material related to the final public review

1.5.3 # (5)

FEARO Date (dist.): 82.09.02 Panel Index E
 Document Date: 82.08.27
 Document: Correspondence
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 To: J.A.H. MacKay, Deputy Minister
 Public Works Canada
 Re: Acknowledgement of receipt of the Public Works Impact Statement on the Beaufort Sea Hydrocarbon Production Proposal.
 File Ref: 1-4-1 #82-08 (9)

1.5.3 # (6)

FEARO Date (dist.): Panel Index E
 Document Date: 82.08.06
 Document: Correspondence
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: Jacques Gérin, Senior Assistant Deputy Minister, Environment Canada
 Re: Submission of Impact Statement of the Department of Environment.
 File Ref: Document filed under category 2.4 #6
 Letter: 1.4.1 #82.08 (16)

1.5.3 # (7)

FEARO Date (dist.): Panel Index E
 Document Date: 82.08.17
 Document: Correspondence
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: Paul M. Tellier, Deputy Minister
 DIAND
 Re: Departmental position paper and EIS on the Beaufort Sea hydrocarbon development proposals. Departmental paper will be sent to Panel shortly.
 File Ref.: 1.4.1 #82.08-5

1.5.3 # (8)

FEARO Date (dist.): 82.08.24 Panel Index E
 Document Date: 82.08.18
 Document:
 J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 To: J. Gérin, Senior Assistant Deputy Minister
 Environment Canada
 Re: Receipt of Environment Canada's "Proposed Response" to Beaufort Sea Hydrocarbon Production.
 File Ref: 1.4.1 #82.08 (6)

FEARO DOCUMENT	Beaufort Sea Panel Project	FEARO DOCUMENT	Beaufort Sea Panel Project
1.5.3	Category 1.5.3 - Material related to the final public review	1.5.3	Category 1.5.3 - Material related to the final public review
1.5.3 # (9)	FEARO Date (dist.): 82.08.24 Panel Index E Document Date: 82.08.18 Document: J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel To: M.J. Smith, Chairman Northern Canada Power Commission Re: Submission and Receipt of Position Statement of the Beaufort Sea Hydrocarbon Production Proposal. File Ref: Document filed under category 2.4 Letter: 1.4.1 #82.06 (12) 82.08 (7)	1.5.3 # (13)	FEARO Date (dist.): 82.09.02 Panel Index E Document Date: 82.08.30 Document: Correspondence D.W.I. Marshall, Executive Secretary Beaufort Sea Environmental Assessment Panel From: Janet Grand National and Provincial Parks Association of Canada Re: Outline of efforts made to include parks, recreation and conservation areas as an integral component of the Panel review. File Ref: 1.4.1 #82.08 (2)
1.5.3 # (10)	FEARO Date (dist.): 82.08.24 Panel Index E Document Date: 82.08.18 Document: J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel To: William C. Taylor Jr., Director National Museum of Man Re: Receipt of Position Statement on Heritage. File Ref: 1-4-1 #82.08 (8)	1.5.3 # (14)	FEARO Date (dist.): 82.09.07 Panel Index E Document Date: 82.08.05 82.08.30 Document: Correspondence J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel and K.J. Merklinger, Director U.S. Transboundary Relations Division External Affairs Re: Submission and receipt of External Affairs' Position Statement File Ref.: Statement filed under Beaufort Sea Category 2.4 #5 Letter filed: 1.4.1 #82.08 (10 & 11)
1.5.3 # (11)	FEARO Date (dist.): Panel Index E Document Date: 82.08.16 Document: D.W.I. Marshall, Executive Secretary Beaufort Sea Environmental Assessment Panel From: Gay Kennedy, Socio-Economic Advisor Northwest Territories Energy and Resource Development Secretariat Re: Delay in submission of GNWT position statement. File Ref: 1.4.2 #82.08 (3)	1.5.3 # (15)	FEARO Date (dist.): 82.09.09 Panel Index E Document Date: 82.08.16 abd 82.09.07 Document: Correspondence J.S. Tener, Chairman Beaufort Sea Environmental Assessment Panel and A. Kroeger, Deputy Minister, Transport Canada Re: Submission and receipts of the Canadian Marine Transportation Administration Position Statement. File Ref: Statement filed under category 2.4 #7 Letters filed: 1.4.1 #82.08 (12) and 1.4.1 #82.08 (1)
1.5.3 # (12)	FEARO Date (dist.): 82.09.02 Panel Index E Document Date: 82.07.30 Document: Correspondence D.W.I. Marshall, Executive Secretary Beaufort Sea Environmental Assessment Panel From: Janet Grand, National Program Director National and Provincial Parks Association of Canada Re: Request for information concerning plans with regards to parks, recreations and conservation areas. File Ref: 1.4.2 #82.07 (5)	1.5.3 # (16)	FEARO Date (dist.): 82.09.21 Panel Index E Document Date: 82.08.26 Document: Letter to Dr. Tener from M.A. Cohen (EHR) re Position Paper and questions on other than technical matters at panel meetings.

TEXTNAME: corresponden (R)P: 05

FEARO DOCUMENT	Beaufort Sea Panel Project		
1.5.3	Category 1.5.3 - Material related to the final public review	FEARO DOCUMENT	Beaufort Sea Project
1.5.3 # (17)	FEARO Date (dist.): 82.09.20 Panel Index E Document Date: 82.09.17 82.09.08 Document: Correspondence and Report Government of Yukon Position Statement and related correspondence. File Ref: 2.4 #10 (Document) Letters: 1.4.1 #82.09 (1 and 2)	1.5.3	Category 1.5.3 - Material related to the final public review
1.5.3 # (18)	FEARO Date (dist.): 82.09.28 Panel Index E Document Date: 82.09.10 Document: Memorandum and Report Memorandum from David Brooks, Beaufort Sea Research Coalition Re: A report prepared by the Nepean Development Consultants for the Beaufort Sea Research Coalition entitled "Government Regulatory Capability in the Beaufort Sea" File Ref: 1.7.2 #21	1.5.3 # (19)	FEARO Date (dist.): Panel Index E Document Date: 82.09.27 Document: Government of the Northwest Territories submission to the Beaufort Sea Environmental Assessment Panel. File Ref.: 2.4 #15
		1.5.3 # (20)	FEARO Date (dist.): Panel Index E Document date: 82.09.17 Document: Submission of the position paper of the Department of Communications concerning the Beaufort Sea Hydrocarbon Production Proposal. File Ref.: Report 2.4 #13
		1.5.3 # (21)	FEARO Date (dist.): 82.11.02 Panel Index E Document Date: 82.10.15 Document: Submission of the Department of Fisheries and Oceans Implications Paper on the Beaufort Sea Hydrocarbon Production Proposal. File Ref.: 2.4 #14
		1.5.3 # (22)	FEARO date (dist.): 82.11.23 Panel Index E Document Date: 82.10.26 Document: Submission of the position paper of the Dept. of National Health and Welfare on the Beaufort Sea Hydrocarbon Production Proposal. File Ref.: 2.4 #10
		1.5.3 # (23)	FEARO Date (dist.): 82.11.23 Panel Index E Document Date: 82.10.26 Document: Submission of the Canadian Air Transportation Administration's Position Statement to the Beaufort Sea Panel. File Ref.: 2.4 #11
		1.5.3 # (24)	FEARO Date (dist.): 82.11.23 Panel Index E Document Date: 82.10.21 Document: Submission of a statement on departmental activities relating to oil and gas production in the Beaufort Sea from Industry, Trade and Commerce and Regional Economic Expansion. File Ref.: 2.4 #12
		1.5.3 # (25)	FEARO Date (dist.): 82.11.23 Panel Index E Document Date: 82.11.09 Document: EMR position paper entitled "Background Paper to the Environmental and Assessment Review Panel from the Dept. of EMR File Ref.: 2.4 #16

TEXTNAME: Dir-co-1-5-3 (R)P: 02

FEARO DOCUMENT
1.5.3

Beaufort Sea Project
Category 1.5.3 - Material related to the final
public review

1.5.3 # (26) FEARO Date (dist.): 82.11.23 Panel Index E
Document Date: 82.11.09
Document: The DIAND Statement to the Beaufort
Sea Environmental Assessment Panel.
File Ref.: 2.4 #17

1.5.3 # (27) FEARO Date (dist.): Panel Index E
Document Date: 82.11.24
Document: Correspondence between D.W.I.
Marshall, Beaufort Sea Secretariat and Chief
Wilfred Jackson re request for meetings in Fort
Good Hope.
File Reference: 1.4.2 82.11 (1)
1.4.2 82.12 (1)

1.5.3 # (28) FEARO Date (dist.): Panel Index E
Document Date: 82.11.09
Document: Submission of the Departmental
Statement to the Beaufort Sea Environmental
Assessment Panel.
File Reference: Report 2.4 #17

1.5.3 # (29) FEARO Date (dist.): 82.11.09 Panel Index E
Document Date: 82.11.04
Document: Background paper to the Beaufort Sea
Environmental Assessment and Review Panel from
the Department of Energy, Mines & Resources.
File Reference: Report 2.4 #16

1.5.3 # (30) FEARO Date (dist.): 82.12.01 Panel Index E
Document Date: 82.11.15
Document: Correspondence: Mr. J. Fulton, M.P.
from J. Munro, Deputy Minister, DIAND.
Re: Application from Gulf for approval-in-
principal to proceed with feasibility studies in
respect of a marine support facility at Stokes
Point, North Yukon.
File Reference: 1.7.1 #96

1.5.3 # (31) FEARO Date (dist.): 82.12.01 Panel Index E
Document Date:
Document: Correspondence: Ms. Nancy Russel
LeBlond from J. Gerin, Senior Assistant Deputy
Minister.
Re: Comments on Environment Position Statement
to the Beaufort Sea Environmental Assessment
Panel.
File Reference: 1.7.1 #95

TEXTNAME: Dir-co-1-5-3 (R)P: 03

FEARO DOCUMENT
1.5.3

Beaufort Sea Project
Category 1.5.3 - Material related to the final
public review

1.5.3 # (32) FEARO Date (dist.): 82.12.01 Panel Index E
Document Date: 1982
Document: Dome et al. 1982 (Sept) Uniluk Island
- Single steel drilling caisson ice and
geotechnical research program (1982-1983) 8 p.
File Reference: 1.7.2 #27

1.5.3 # (33) FEARO Date (dist.): 82.12.13 Panel Index E
Document Date: Sept. 1981
Document: Canadian Oil and Gas Lands
Administration, EMR. 1981. Physical
environmental guidelines for drilling programs in
the Canadian offshore. Ottawa, Ontario. 13 p.
File Reference: 1.7.2 #26

TEXTNAME: Cat-1.5.3 (R)P: 01

FEARO DOCUMENT
1.5.3

Beaufort Sea Project

1.5.3 # (34) FEARO Date (dist): R3.01
82.11.04 (Doc. Date) Panel Index E
Beaufort Sea Environmental Assessment
Panel
From: Helen Adamache, Secretary Manager,
Coppermine, N.W.T.
Re: Submission of the report
"Environmental & Social Concerns
Coppermine, N.W.T. -Oil & Gas
Explorations, Beaufort Sea Development"
for Panel consideration
File Ref: 2.1 #7

TEXTNAME: Cat-1.5.3 (R)P: 09

TEXTNAME: Cat-1.5.3 (R)P: 10

1.5.3 # (50)

FEARO Date: 83.01.21 Panel Index E
Document Date: 82.12.24
Document: Correspondence from Peter
Burnet, CARC to Hon. Jean-Luc Pepin,
Minister of Transport.
Re: Enclose of letter to the Hon. John
Munro re Gulf Resources Inc. application
to build a marine base at Stokes Point.
A request to Transport as to whether
they consider it within their
jurisdiction to refer Gulf's application
to FEARO and whether Transport is
prepared to do this.
File Ref: 1.7.1 #104

1.5.3 # (51)

FEARO Date: 83.01.24 Panel Index E
Document Date: 82.12.24
Document: Correspondence from Peter
Burnet, CARC to Hon. Jean Chrétien,
Minister of EMR.
Re: Enclose of letter 82.12.24 to Hon.
John Munro re application of Gulf
Resources Inc. to consider Stokes Point,
Yukon Territory for a marine support
base. Request for meeting to discuss
concern over this application and
relationship to existing land use
planning, land claims negotiations and
Beaufort Sea EARP.
File Ref: 1.7.1 #105

1.5.3 # (52)

FEARO Date: 83.01.24 Panel Index E
Document Date: 82.12.24
Document: Correspondence from Peter
Burnet, Executive Director, CARC, to the
Hon. John Roberts, Minister Environment.
Re: Enclose of letter 82.12.24 to the
Hon. John Munro objecting to any
decision of Gulf Resources Inc.
application for permission to construct
a marine lease at Stokes Point, Yukon.
Endorsement of response given to Mr. J.
Fulton, M.P.
File Ref: 1.7.1 #106

FEARO DOCUMENT

Beaufort Sea Project

1.5.3 # (53)

83.02.11 (FEARO Dist)
83.01.27 Panel Index B
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
To: G.V. Vernon, Assistant Deputy,
Minister, Fisheries & Oceans.
Re: Acknowledgement of receipt of
preliminary comments on the Beaufort Sea
EIS.
File Ref: 1.4.1 #83.01 (4)

1.5.3

(54)

FEARO Date: 83.02.24

Panel Index E

Document Date: 83.02.07

Document: Band Council Resolution

"That the Old Crow Band Council request that no
development in Northern Yukon until land claims is
settled."

File Ref: 1.7.1 #111

TEXTNAME: Cat-1.5.3 (R)P: 02

TEXTNAME: Cat-1.5.3 (R)P: 03

FEARO DOCUMENT
1.5.3

Beaufort Sea Project
Secretariat Correspondence (General -
Panel activity)

1.5.3 # (35)

83.01 (FEARO Dist)
82.12.22 (Doc. Date) Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: B.K. Boles, Memorial University
Re: Deficiencies in the EIS for Beaufort
Sea Development
File Ref: 2.5.2 # 3

1.5.3 # (36)

83.01
82.12.22 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
To: Key Review Participant Mailing List
Re: Beaufort Sea EIS - Additional
Reference Works. List and location of
additional reference works which have
been made available by the proponents.
File Ref: 1.4.2 #82.12 (3)

1.5.3 # (37)

83.01
82.12.23 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: C. Eric Tull
Re: Question concerning recommended
changes to the Panel Terms of Reference
(Panel Interim Report)
File Ref: 1.4.2 # 82.12 (4)

FEARO Document
1.5.3

1.5.3 # (38)

FEARO Date: 82.12.08
82.11.07 (Doc. Date) Panel Index E
J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. John Roberts
Minister of Environment
Re: Intent of Gulf Canada Resources Ltd. to
submit an application for approval-in-principle
for a marine support base at Stokes Point on the
Yukon Coast. Request for delay of decision on
the current Stokes Point proposal until after the
Beaufort Sea Panel has completed its review.
File Ref: 1.4.1 #82.12 (1)

1.5.3 # (39)

83.01.17 (FEARO Dist)
82.12.09 Panel Index E
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: S. Strasbourg, Dept. Assistant,
Office of Minister of Environment
Re: Acknowledgement of receipt of
letter of 82.12.08 re Gulf Canada
intent to submit an application for a
marine support base.
File Ref: 1.4.1 #82.12 (2)

1.5.3 # (40)

83.01.17 (FEARO Dist)
82.12.12 Panel Index E
Dr. J. S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: Bruce Boyd, Environmental
Co-ordinator, Inuit Tapirisat of Canada
Re: Concern over possibility of Panel
hearings in the spring of 1983 and
request that the Beaufort Sea hearings
be conducted during the Lancaster Sound
Review Phase in the area which will be
affected by both project (Eastern High
Arctic).
File Ref: 1.4.1 #82.12 (3)

TEXTNAME: Cat-1.5.3 (R)P: 04

TEXTNAME: Cat-1.5.3 (R)P: 05

FEARO DOCUMENT
1.5.3

Beaufort Sea Project
Secretariat Correspondence (General -
Panel activity)

1.5.3 # (41)

83.01.19 (FEARO Dist)
83.01.19 Panel Index E
D.W.I. Marshall, Executive Secretary,
Beaufort Sea Environmental Assessment
Panel
To: C. Eric Tull
Re: Response to letter 82.12.23
indicating that the Panel has not yet
received an acceptance from the Minister
of the Environment on the recommended
three changes to the Panel's Terms of
Reference as outlined in the Interim
Report. The Panel has been notified that
one will soon be forthcoming.
File Ref: 1.4.2 #83.01 (1)

1.5.3. # (42)

83.01.17 (FEARO Dist)
83.01.03 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: D. Mackay, U. of Toronto
Re: Comment on the Canadian Marine
Transportation Statement and questions
concerning the role of the Coast Guard.
Suggestion that the Coast Guard should
cooperate with Environment Canada and
industry to create an oil spill response
task force. A response by the Coast
Guard to the EIS was encouraged.
File Ref: 1.4.2 #83.01 (2)

1.5.3. # (43)

83.01.24
83.01.20 Index G
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment
Panel
From: Mayors of Labrador North Coast
Communities - Nain, Rigolet, Postville,
Hopedale, and Makkovik.
Re: Telex requesting delay in hearings
on the Beaufort Sea Hydrocarbon
Development Proposal because the North
Coast Communities have not been included
in the review process. Request for the
Secretariat to participate in an
information meeting on Jan. 27 as well
as Dome Pet.
File Ref: 1.4.2 #83.01 (5)

1.5.3 # (44)

83.01.19
83.01.07 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: Hon. John Roberts, Minister,
Environment Canada
Re: Response to letter of 82.12.07
concerning constraints that an early
approval for Gulf to use Stokes Point as
a marine support facility could have on
the consideration by the Panel of
alternative port sites. The response
stated that the Hon. John Roberts had
already stated his opposition to any
port site being decided upon until the
Beaufort Panel had completed its work,
until a regional plan or a shore zone
plan has been developed for the Beaufort
Sea and until final decisions are made
on the final boundaries and disposition
of the Northern Yukon Park and national
wildlife area.
File Ref: 1.4.1 #83.01 (1)

TEXTNAME: Cat-1.5.3 (R)P: 07

TEXTNAME: Cat-1.5.3 (R)P: 08

FEARO DOCUMENT Beaufort Sea Project

1.5.3 # (45)

FEARO Date: 83.01.17 Panel Index G
Document Date: 82.11.22
82.12.15
Document: Correspondence between the
Hon. John Munro, Minister DIAND, and the
Hon. John Roberts, Minister Environment
Canada
Re: Confirmation that the transmittal of
the EIS to the Beaufort Sea Panel was
completed and that the 90 day review
period began on November 10, 1982.
File Ref: 1.7.1 #96

1.5.3 # (46)

FEARO Date: 83.01.24 Panel Index E
Document Date: 83.01.06
Document: Telex to Hon. John Roberts,
Minister of Environment from Project
North
Re: Application from Gulf Canada to
establish a deep water port at Stokes
Point on the Yukon's North Slope.
File Ref: 1.7.1 #97

1.5.3 # (47)

FEARO Date: 83.01.17 Panel Index E
Document Date: 82.12.06
Document: Telex to Hon. John Roberts
from Burchell, Chairman, Sierra Club of
Ontario
Re: Opposition to altering of the 1972
Order-in-Council through which the
Northern Yukon was withdrawn for
National Park and other conservation
purposes.
File Ref: 1.7.1 #98

1.5.3 # (48)

FEARO Date: 83.01.17 Panel Index E
Document Date: 82.11.25
Document: Letter to the Hon. John
Roberts, Minister of Environment, from
B. Peart, Chairman, National and
Provincial Parks Assoc. of Canada.
Re: Concern over the potential
consideration for development of the
Yukon North Slope and the possible
return of the area to unprotected state.
File Ref: 1.7.1 #100

1.5.3 # (49)

FEARO Date: 83.01.21 Panel Index E
Document Date: 82.12.24
Document: Correspondence from Peter
Burnet, Executive Director CARC to Hon.
John Munro, Minister, DIAND
Re: concern over application of Gulf
Resources Inc. for permission to
consider Stokes Point, Yukon Territory,
as a marine base terminal in support of
its Beaufort Sea activities. A delay in
decision was urged until land allocation
in the Beaufort region can be
determined in accordance with the land
claims and land use planning policies,
and the question of marine ports has
been given a public hearing through the
Beaufort Sea EARP or a separate panel.
File Ref: 1.7.1 #103

TEXTNAME: Cat-1.5.3 (R)P: 12

FEARO Document Beaufort Sea Project
1.5.3 Secretariat Correspondence (General -Panel
 Activity Related)

1.5.3 # (55) 83.03.16 (FEARO Dist)
 83.02.23 Panel Index E

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re:Beaufort Sea Alliance Activities in the
Beaufort Region.
Concern over the activities of the activities
of the Beaufort Sea Alliance in the North
which appear to be aimed at discrediting the
proponents and the FEARO panel and its
review.The proponenets believe that some
meetings arranged with communities had been
cancelled as a result of these activities ,
and that the negative environment created is
not conducive to any useful information
exchanges.
File Ref: 1.4.2 #83.02 (7)

TEXTNAME: Cat-1.5.3 (R)P: 13

1.5.3 # (56) 83.03. (FEARO Dist)
Notes and attachments. Panel Index E
1983 Oil Spill Conference Feb. 28 - March 3.
Notes by D. Mackay
Attachments:

Buist, I.A., W.M. Pistruzak, S.G. Potter, N.
Vanderkooy. 1983. The development and
testing of a fireproof boom. Proceedings,
1983 Oil Spill Conference. February 28-March
3, 1983. p. 43-51.

Peabody, C.H. and R.H. Goodman. 1983.
Innovative training: computer assisted
learning. In Proceedings, 1983 Oil Spill
Conference, San Antonio, Texas. 1983:
243-247.

TEXTNAME: Cat-1.5.3 (R)P: 14

FEARO Document Beaufort Sea Project
1.5.3 # (57) FEARO Date: 83.03.16 Panel Index E
 Document Date: 82.12.28
 83.02.11

Document: Correspondence between
MR. T. Beck, Chairman, Canadian Advisory
Council
Hon. J. Roberts, Minister, Environment Canada

Re: Proposed shore base facility at Stokes
Point in the Yukon Territory and suggestion
that any decision should be deferred until
the Beaufort Sea Environmental Assessment
Review is complete.

Attachment: Statement by the Hon. J. Roberts,
(House of Commons, Issue No. 62.) expressing
his unequivocal opposition to any permanent
port site being decided upon until the
Beaufort Sea environmental assessment process
is completed.
File Ref: 1.7.1 #113

1.5.3 # (58) FEARO Date: 83.03.15 Panel Index E
 Document Date: 83.02.25

Document: Correspondence to Mr. Freddy
Greenland, Aklavik Dene-Metis Council,
from D.R. Motyka, Gulf Canada Resources.

Re: Gulf's requirement for a marine supply
base at Stokes Point, V.T., to support
exploration activities in the Beaufort Sea.

Response to concerns over a meeting held in
Aklavik to clarify the distinction between
Gulf's current proposal for a marine supply
base at Stoke Point and the content of the
EIS which outlines a range of long-term
future options for eventual oil and gas
development in the North. Ten points
presented by the Gulf representatives are
listed.
File Ref: 1.7.1 #114

1.5.3 # (59)

FEARO Date: 83.03.15 Panel Index: E
Document Date: 83.03.02

Document: Correspondence
to: Mr. J. Fulton, M.P., House of Commons
from: Hon. J. Roberts, Minister, Environment
Canada

Re: Question concerning Japanese proposal to
export Beaufort Sea oil in Japanese tankers.
Response indicated that "This longer term
alternative of a tanker route around Alaska
is being considered by the Beaufort Sea Panel
as part of its review. However, the Panel
has received no information on and is
therefore not including in its review any
consideration of the specific Japanese
proposal mentioned in your letter."
File Ref: 1.7.1 #115

FEARO
1.5.3

Beaufort Sea Project

1.5.3 # (60)

83.03.16
83.02.04 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: David Brooks, Beaufort Sea
Alliance
Re: Failure of proponents to provide
residents of communities with a summary
in "plain non technical language" and a
translation is limiting ability of
communities to respond to EIS.
File Ref: 1.4.1 #83.02 (1)

1.5.3 # (61)

83.03.16 (FEARO Dist)
83.02.04 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment
Panel
From: R. Grueban, Secretariat
Re: Western Arctic co-ordinator's
activities, and conferences attended.
Regional HTA conference - objection to
development at Stokes Pt. at this time.
Regional Directors Conference -
Opposition to Stokes Pt development
proceeding at this time.
- concern over possibility of hearings
on EIS in a month's time. Felt that
communities were not prepared;
- formation of a Development Impact Zone
Group (DIZ Group) with representatives
from industry, government and the
Beaufort communities.
File Ref: 1.4.1 #83.02 (2)

TEXTNAME: Cat-1.5.3 (R)P: 23

TEXTNAME: Cat-1.5.3 (R)P: 18

FEARO Document

Beaufort Sea Project

1.5.3 # 62

83.03.16
83.02.10 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: L. Lennie, Chief
Arctic Red River, N.W.T.
Re: Request that the Beaufort Sea Panel include
Arctic Red River in their visit to the Delta
Region.
File Ref. 1.4.1 #83.02 (5)

1.5.3 # 63

83.03.16
83.02.24 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Felix Kamber, President
Delta Ford Mercury Sales
Inuvik, N.W.T.
Re: Support of the Mackenzie- Beaufort Sea Project
as benefiting all Northerners and Canadians.
File Ref. 1.4.1 #83.02 (6)

1.5.3 # 64

83.03.21
83.02.21 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Kenneth R. Roulgh
Quandra Inc. Ltd.
Norman Wells
Re: Support for the Beaufort Sea hydrocarbon
development proposal taking into account the need
for economic development in the Territories.
File Ref. 1.4.1 #83.02 (7)

FEARO Document Beaufort Sea Project

1.5.3 # (65)

FEARO Date: 83.03.21 Panel Index E
Document Date: 83.03.02 and 83.01.31
Document: Correspondence between Mr. Jim Fulton, M.P.
and the Hon. John Roberts, Minister of Environment
Re: Announcement that the Science Technology of Japan
has decided to proceed with the study on the
feasibility of extracting crude oil from the Arctic
Ocean seabed by means of artificial islands and which
would see 200,000 ton Japanese tankers in the Beaufort
Sea.
Response by Hon. John Roberts comments on the Beaufort
Sea Review but indicates that the review is not
considering that specific Japanese proposal.
File Ref: 1.7.1 #119

TEXTNAME: Cat-1.5.3 (R)P: 19

1.5.3 # (66)

FEARO Date: 83.04.12 Panel Index E
Document Date: 83.03.23
Document: Correspondence to Hon. John Roberts from
Janet L. Grand, National and Provincial Parks
Association of Canada including a letter sent to
members of the cabinet. The letter is attached and
relates to Gulf Canada's request to develop a marine
support base within an area set aside for national park
process that should provide a framework to all, for
preparing or adjusting policies, strategies and
programs related to lands (including water) and
resources."
The talk further addresses land use planning exercises
to date, problems, participation from native groups,
territorial governments, conservationists, and industry
- all as activities which must be part of the exercise.
Land use planning is presented as a common reference
point and guide for decisions, as defining regional
frameworks, as ensuring involvement of all interest
parties, as an integrator of physical, biological,
economic, social, political, cultural and individual
aspects of life and as a vital process in the sense
that it cannot ignore individual lives.

TEXTNAME: Cat-1.5.3 (R)P: 22

1.5.3 # (68) 83.03.29 Panel Index E
83.03.24
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: L. Lennie, Band Manager
Arctic Red River
Re: Response to letter requesting that the Panel visit
Arctic Red River and confirming that the Panel will
visit the community when the community public meetings
take place.
File Ref. 1.4.1 #83.03 (4)

1.5.3 # (69) FEARO Date: 83.04.14 Panel Index E
Document Date: 83.03.31
Document: Minutes - Special Meeting, Hamlet of Aklavik,
March 31, 1983.
Re: The order of business was Gulf's application for
permit for Stokes Point. The motion proposed and
carried was:
"That the Aklavik Hamlet Council approve and voice no
objections to the Land Use Application for a shore base
facility at Stokes Point submitted by Gulf Canada
Resources Inc. permitting that it does not lead to
duplicate operations along the North Yukon Coastline in
the future."
File Ref: 1.7.1 #129

TEXTNAME: Cat-1.5.3 (R)P: 21

1.5.3 # 70 83.04.06 Panel Index E
83.03.14
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Kit Spence, Special Assistant
Office of the Minister, DIAND
Re: Acknowledgement of receipt of letter to the
Hon. John C. Munro dated 83.03.08 concerning the
Beaufort Sea EIS.
File Ref. 1.4.1 #83.03 (5)

1.5.3 # 71 83.04.06 Panel Index E
83.03.24
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: (by c.c.) Bob Stevenson, President
Metis Assoc. of the NWT
Re: Submission to Hon. John Munro expressing
concern and outrage that consideration is being
given to issuing a land use permit for Stokes
Point as applied for by Gulf Canada Resources. The
letter requests recognition that the application
by Gulf is intimately connected to other political
processes in the North and should be treated in
that context - not as a simple land use permit
application.
File Ref. 1.4.1 #83.03 (6)

TEXTNAME: Cat-1.5.3 (R)P: 24

TEXTNAME: Cat-1.5.3 (R)P: 25

FEARO
Reference No.

Beaufort Sea Project

1.5.3 # (72)

83.04.21 (FEARO Dist)
83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Paul Tellier, Deputy Minister
Dept. Energy, Mines & Resources

Re: EMR Background Paper, 83.11.04
Request for an update to the Background Paper for
Sept. 1, 1983 as to EMR's perspective for future
hydrocarbon development in Canada's Lands.
File Ref: 1.4.1 #83.04 (2)

1.5.3 # (73)

83.04.21
83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: M.A.J. LaFontaine, Deputy Minister
DIAND

Re: Update to DIAND statement to the Panel of
82.10.22

Request for an update re plans to: implement
regional planning, north of 60; develop a
conservation policy for the north; implement a
management plan for Beaufort Sea Production.
File Ref: 1.4.1 #83.04 (3)

1.5.3 # (74)

Request that a DIAND or COGLA official attend
appropriate meetings to address questions of
worker safety aboard offshore production platforms
and artificial islands.

83.04.21
83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: A.W. May, Deputy Minister
Fisheries & Oceans Canada

Re: Request for a statement from F&O which would
describe the present knowledge base of the
scientific community of the subject of underwater
noise and its effect on marine mammals, identify
questions which need to be answered and indicate
on-going work by the department. Information is
requested by August 1, 1983 to allow for
circulation.
File Ref: 1.4.1 #83.04 (4)

1.5.3 # (75)

83.04.21
83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Jacques Gérin, Deputy Minister, Environment

Request for information re existing and proposed
conservation areas in the general area of interest
to the Panel, status of the areas and an
indication of the criteria used to identify the
areas. A map indicating the areas was also
requested.

Request for a statement from Environment as to the
status of its plans for a national park in north
Yukon.
File Ref: 1.4.1 #83.04 (5)

1.5.3 # (76)

83.04.21
83.04.19 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Richard Nerysoo, Minister of Energy
Govt. of Northwest Territories

Re: Request for information re policies or
initiatives of the Govt. of N.W.T. that relate to
the issue of unions in the north and of any
positive or negative effects of unionized labour
used on other development projects.
File Ref: 1.4.1 #83.04 (6)

TEXTNAME: Cat-1.5.3 (R)P: 26

TEXTNAME: Cat-1.5.3 (R)P: 27

FEARO
Reference No.

Beaufort Sea Project

1.5.3 # (77)

83.04.26
83.04.05 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: Grafton Njootli, Councillor, Old Crow

Re: Comments of Procedure
Request that transcripts be taken at all sessions
including community sessions.

Concern that all the Panel Members do not plan to
attend all the community sessions.
File Ref: 1.4.2 #83.04 (1)

1.5.3 # (78)

83.04.26
83.04.26 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

To: Grafton Njootli, Councillor, Old Crow Band

Re: Confirmation that a complete record of what is
said will be taken for all meetings, and that all
Panel Members plan to attend all meetings in all
the scheduled communities.
File Ref: 1.4.2 #83.04 (2)

FEARO DOCUMENT
1.5.3

Beaufort Sea Project

Material related to final public review

1.5.3 # (79)

FEARO Dist. 83.05.02
83.03.29 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: C. Eric Tull

Re: Concern that the Deficiency Statement issued
by the Panel is not sufficient of obtain the
information required for a proper review of the
proposal. A number of environmental points have
not been covered, and could have been covered in
the time required for the proponents to address
the socio-economic aspects of the deficiency
statement since these require northern
consultation.

Ten environmental problems not covered by the
deficiency statement are listed.

Second point of concern noted deals with the fact
that the deficiency review dealt only with the EIS
and omitted consideration of the government role.

Third point is a request that the review period
following receipt of the proponents response to
the EIS be considered "at least 30 days" and that
the Panel should be prepared to lengthen the
review time according to the volume of material
received and giving consideration to delay in mail
to the North.

File Ref. 1.4.1 # 83.03 (10)

1.5.3.# (80)

FEARO Dist. 83.05.02

83.04.26 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Dr. C. Eric Tull

Re: Response to letter of 83.03.29 commenting on
the Deficiency Statement indicating that all the
points raised were considered in the Panel
deliberations. The review period is correctly
indicated in the letter as "at least 30 days" and
the specific review time will be specified on
receipt of the proponents response.

File Ref. 1.4.1 # 83.04 (7)

1.5.3. # (81)

FEARO Dist. 83.05.24

83.05.09 Panel Index E
D.W.I. Marshall, Executive Chairman
Beaufort Sea Environmental Assessment Panel
From: O.H. Loken, Director
Northern Environmental Protection
Directorate, DIAND
Re: Beaufort Environmental Monitoring Project.
Copy of statement of work for this project is
enclosed and request for participation in Workshop
by one of the Panel Technical Advisors.
The project title is Application of adaptive
environmental assessment to the design of a
program of environmental research and monitoring
in relation to hydrocarbon development in the
Beaufort Sea. The project requires design of a
program but does not include research in the
field.

File Ref: 1.4.2 # 83.05 (1)

1.5.3 # (82)

FEARO Dist. 83.05.17

83.03.11 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Richard A.W. Hoos, Director
Environmental Management Service, Dome Pet.
Ltd.
Re: Submission to the Panel of a report outlining
the policies and programs designed to respond to
the N.W.T. Government's "Resource Development
Policy". Report title - Northern socio-economic /
environmental action plan.1982. Dome Petroleum
Frontier Division.
Report Filed. 2.1 # 12

File Ref. 1.4.2 # 83.03 (2)

FEARO DOCUMENT Beaufort Sea Project

1.5.3 # 83 FEARO Dist. 83.05.30

83.03.30 Panel Index E
Dr. J.S. Tener
Chairman, Beaufort Sea Environmental Assessment Panel
From: Georges Erasmus, President, Dene Nation

Re: Beaufort EARP Panel deficiency statement on the
Esso, Gulf and Dome EIS and Procedures for Public
Hearings.

Commendation on the thoroughness and quality of the
Deficiency Statement.

Disappointment in the proposed procedures for community
and general hearings.

- concern that with community hearings being treated
too informally the community people will still have to
travel to general hearings to present their positions
properly and for recording

- concern that proponents are given opportunity to open
hearings, ask questions throughout and to make a final
reply. The final reply in particular should go to the
community

- concern over lack of opportunity to ask questions of
technical experts and government personnel

- concern over time limits in general hearings

Question posed as to action planned by the Panel in
relation to the Gulf application for a land use permit
at Stokes Point

Indication that Polar Gas intends to submit an
application to build a gas pipeline through the
Mackenzie River Valley and a request for clarification
of relationship between Beaufort Panel and Polar Gas

Question as to whether further funding will be
available to cover longer period of time over which the
review will now be carried out.

File Ref. 1.4.1 # 83.03 (11)

1.5.3 # 84

FEARO Dist. 83.05.30

Panel Index E
Dr. J.S. Tener, Chairman

Beaufort Sea Environmental Assessment Panel

From: M.D. Todd, Senior Vice-President, Frontier Division, Dome Petroleum Ltd.

Re: Response to Beaufort Sea Alliance (83.03.21) - Attached
Reservation concerning the Panel's Procedures for General Sessions are expressed, in particular with the item requiring the proponents to provide written responses to questions from the public at large. This requirement is considered unwarranted and counterproductive. Consideration of dropping this item is requested.

Attachment:
Response to David Brooks, Executive Director, Beaufort Sea Alliance.

Response indicates that they will be presenting concerns to the Panel over the proposed requirement of responding to questions similar to those raised in their letter.

Point addressed deals with the possible export of oil via Alaska and assessment in the EIS. Response indicates that the EIS addresses the more likely transportation options. If this export became more imminent in the future it would be assessed by the National Energy Board.

File Ref. 1.4.1 # 83.04 (8)

1.5.3.# 85

FEARO Dist. 83.05.30

83.05.25 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel

Re: Response to letter from Mr. Georges Erasmus 83.03.30
The Panel expresses its hope that with an opportunity to see the Procedures for the Community and General Sessions in practice the initial concern expressed in the letter will be dispelled. The response then provides additional information as to why certain procedures were adopted and addresses in more detail the concerns raised in the letter.

In response to the question concerning Stokes Point, the letter notes that the Panel has already expressed its position to the Minister of Environment and that letter is enclosed.

The Panel concurs with the concern about relationship of the Polar Gas application to the review but assumes that no government decision will be made on any aspect until the Panel review is complete.

Funding concern has been forwarded to FEARO, Ottawa.

File Ref. 1.4.1 # 83.05 (2)

1.5.3. # 86

FEARO Dist. 83.05.30

83.05.16 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Hon. R. Nerysoo,
Re: Presentation will be made to the Panel concerning unions and no prior submission is planned.

File Ref. 1.4.1. # 83.05 (3)

1.5.3. # 87

FEARO Dist. 83.05.30

83.05.25 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Hon. R. Nerysoo, Minister, Govt. N.W.T.

Re: Response to letter of 83.05.16
Request by the Panel that the decision not to forward comments on the issue of unions in the North be reconsidered. The desire to provide as much information for review prior to the hearings is emphasized.

File Ref. 1.4.1 # 83.05 (4)

1.5.3 # 88

FEARO Dist. 83.05.30

83.05.25 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
To: Mr. M.R. Todd, Dome Pet. Ltd.

Re: concern over Procedure for General Session
In terms of concerns over requirement to respond to written questions, the Panel intends to rule any questions irrelevant to the review process as not appropriate for the participant to respond to. Thus only responses to relevant questions will be required.

File Ref. 1.4.1 # 83.05 (5)

TEXTNAME: cat-1.5.3 (R)P: 05

TEXTNAME: cat-1.5.3 (R)P: 05

FEARO DOCUMENT Beaufort Sea Project

1.5.3 # 90 FEARO Dist: 83.05.30

83.03.23 Panel Index D
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Bob Stevenson, President
Metis Assoc. N.W.T.

Re: Deficiency Statement and Procedures for Public Sessions
Congratulations to the Panel on a clear, strong and comprehensive Deficiency Statement.

Concern expressed over the incidents in which the proponents have been contradicting sections of the EIS when dealing with communities.

Concern of the Metis Assoc. over Gulf Canada's Application for a Land Use Permit to build a marine supply base at Stokes Point, Y.T.

Procedures:

A general concern that both sets of procedures are more formal and structured than necessary is expressed. In addition certain specific concerns are expressed. These includes concerns that the community does not have an opportunity to question other participants, in particular DIAND; transcripts should be made at all hearings; technical reviews carried out by the communities should be presented in their own communities and the communities should have the right to request the presence of an expert in a particular field; concern over the lead role of the proponents in the technical hearings and the community representative should have the right to the closing statement.

Flexibility in application of these procedures is urged.

File Ref: 1.4.2 # 83.03 (4)

1.5.3 # 91 FEARO Dist: 83.05.30

83.05.25 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Bob Stevenson, Metis Assoc. N.W.T.

Re: Response to letter 83.03.23 re Deficiency Statement and Procedures for Public Sessions

Inconsistencies in proponent presentations to the communities have been explained by Gulf Canada and hopefully will not occur again.

The Panel has expressed it's concern with the Stokes Point Application to the Minister of Environment (copy of letter enclosed)

Specific response to concerns expressed with the Procedures are addressed (and assurance that the Chairman will be flexible and responsive to the needs of the participants): communities will be allowed to question other participants and although the proponents are there to permit them to respond to the concerns of the community, the presence of a large number of government officials was felt to be excessive and intimidating: the Community Sessions are to be kept informal and the more formal questioning can occur at the General Sessions; importance of accurate transcripts of community sessions recognized; the General Sessions are considered the best forum for presentation of scientific studies carried out by the communities, both to prevent community hearings from becoming general hearings and to allow fair and full comments on the technical information by other participants; the proponents will not have a leading role at the community hearings although it is an important part of the process to have the proponents reply to concerns of the communities (fairness to both communities and proponents is desired).

Rationale for written procedures presented and confidence expressed that in practice they will prove to be full, fair and non-legalistic.

File Ref: 1.4.2 # 83.05 (5)

FEARO Document Beaufort Sea Project

1.5.3 #92 FEARO Dist: 83.05.18 Panel Index E
 Dr. J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel
 From: David B. Brooks, Beaufort Sea Alliance

Re: Request that Beaufort Sea Environmental Assessment Panel public sessions not be held during the period of Sept. 8 - 17 which is the holiest period in the Jewish calendar.
 File Ref: 1.4.1 # 83.05 (8)

1.5.3 #93 FEARO Dist: 83.06.14
 83.06.02 Panel Index E
 Dr. J.S. Tener
 Chairman, Beaufort Sea Environmental Assessment Panel
 From: Warren S. Schmitke
 Development Officer, Norman Wells

Re: Enclosing a submission prepared by Local Government and the Hamlet Council through budget exercises regarding an Impact Capital Request for Community Planning and Development aspects felt to date in Norman Wells.
 Report filed 2.1 #14
 File Ref: 1.4.1 # 83.06 (1)

1.5.3 #94 FEARO Dist: 83.06.17
 83.06.14 Panel Index E
 Dr. J.S. Tener
 Chairman, Beaufort Sea Environmental Assessment Panel
 To: Mr. D. Motyka, Gulf Canda Resources

Re: Appreciation for time spent accompanying the Panel on the tour of the north Yukon coast.
 File Ref: 1.4.1 # 83.06 (2)

1.5.3 #95 FEARO Dist: 83.06.17
 83.06.14 Panel Index E
 Dr. J.S. Tener
 Chairman, Beaufort Sea Environmental Assessment Panel
 To: Mr. Jim Lee, Esso Resources Canada Ltd.

Re: Appreciation for the field trip of the Norman Wells development activity and the Beaufort Sea exploration activity.
 File Ref: 1.4.1 # 83.06 (3)

FEARO Document

1.5.3 #96 FEARO Dist: 83.06.17
 83.06.14 Panel Index E
 Dr. J.S. Tener
 Chairmen, Beaufort Sea Environmental Assessment Panel
 To: Mr. M.B. Todd, Dome Petroleum Ltd.

Re: Appreciation of field triip of Beaufort Sea exploration activities.
 File Ref: 1.4.1 # 83.06 (4)

1.5.3 #97 FEARO Dist: 83.06.13
 83.06.10 Panel Index E
 D.W.I. Marshall, Executive Secretary
 Beaufort Sea Environmental Assessment Panel
 To: Dr. David Brooks, Beaufort Sea Alliance

Re: Response to letter to Dr. Tener requesting that the Beaufort Sea Environmental Assessment Review public hearings not take place from September 8 to September 17. The earliest date for community sessions that would be possible would be September 12, and general sessions are not anticipated before mid October. Appreciation expressed for bringing this potential problem to the attention of the Panel.
 File Ref: 1.4.2 # 83.06 (1)

1.5.3 #98 FEARO Dist: 83.07.08
 83.06.28 Panel Index E
 D.W.I. Marshall, Executive Secretary
 Beaufort Sea Environmental Assessment Panel
 From: by c.c.
 Correspondence to Ms. Gay Kennedy from E.M. MacDonald transmitting a copy of the Beaufort Sea Environmental Assessment Panel Public File Index to be available in Yellowknife.
 File Ref: 1.4.2 # 83.06 (2)

FEARO Document Beaufort Sea Panel

1.5.3 #99 FEARO Dist: 83.06.22
 83.05.03 Panel Index E
 83.06.09
 Document: Correspondence between Hon. John Munro,
 Minister, DIAND
 and Hon. John Roberts, Minister, Environment

Re: 83.05.03 Letter from Hon. John Munro expressing
 concern with the Beaufort Sea environmental assessment
 review and the expanded information
 requirements. (Letters from Mr. M.B Todd, Dome Petroleum
 Ltd. attached).

Concern was expressed that the review has passed from a
 conceptual review of preliminary development plans as
 referred by the initiator to a more detailed scrutiny
 without full consultation with the initiator.

Concern over the time elapsed since referral and the
 open-ended review process

Terms of Reference to the Panel continue to pose a
 problem to the initiator on matters of scope and
 interpretation relating to exploration and Greenland.

Attachments already filed 1.4.1 # 83.03 (7); 1.4.1 #
 83.03 (12)

83.06.09 Response by Hon. John Roberts, Minister
 Environment.

Response indicated that the letters from Mr. Todd had
 already been responded to (Responses attached
 -previously filed 1.4.1 # 83.04. (9); 1.4.1 # 83.05
 (5)).

In response to concerns over time of the Beaufort Sea
 review process, additional time requirements have not
 been entirely the fault of the process. The desire for
 the review process to be completed as soon as possible
 is shared, but not at the expense of an incomplete
 review.

Regret expressed that concern still exists with the
 Terms of Reference and meetings will be arranged to
 discuss issues involving exploration and Greenland
 concerns.
 File Ref: 1.7.1 #136

FEARO Document

1.5.3 #100 Dist: 83.07.13
 83.05.24 Panel index E
 Dr. J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel

From: Mr. A.R. Zariwny, Energy and Resource
 Development Secretariat, Govt. of N.W.T.

Re: BSEAP Procedures for Public Sessions

Enclosure of recommendations to the procedures as
 well as requesting clarification of others in the
 following areas: public file; community hearings;
 pre-session conference; transcripts; pre-filing;
 technical specialists; final arguments; oral
 questions during public sessions; qualifications.
 File Ref: 1.4.1 # 83.05 (9)

1.5.3 #101 Dist. Date 83.07.07
 83.06.23 Panel Index E
 Dr. J.S. Tener, Chairman
 Beaufort Sea Environmental Assessment Panel

From: M.A.J. Fontaine, Deputy Minister DIAND

Re: Confirmation that are plans have been made to
 meet the additional Panel requirements by August
 1/83 and that arrangements will be made for an
 officer of COGLA to consider the matter of
 workers' safety.
 File Ref: 1.4.1 # 83.06 (8)

1.5.3 #102 Dist Date: 83.07.13
 Panel Index E
 Beaufort Sea EARP Panel
 by c.c.

Correspondence to Mr. Brian Hill, DIAND, from Mr.
 Bob Stevenson, President, Metis Assoc. of N.W.T.

Re: Metis Association concern with the Stoke
 Point application.

The Association does not feel that a permit should
 be issued because of the implications for the
 government decision making processes as well as
 Land Claim Negotiations and the Beaufort Sea
 EARP. The Association is working through these
 processes and does not have the funds or staff to
 consult with DIAND on a technical level for this
 individual issue. Request to be kept informed on
 any progress of this issue.
 File Ref: 1.4.1 # 83.06 (11)

FEARO Document

- 1.5.3 #103 Dist: 83.07.18
83.07.04 Panel Index D
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
- From: Mr. G.N. Faulkner, Assistant Deputy
Minister, DIAND
- Re: Formal transmittal from the Initiator to the
Beaufort Sea Panel of material provided by the
proponents in response to the identified
deficiencies in the EIS by the Panel.
File Ref: 1.4.1 # 83.07 (1)
- 1.5.3 #104 Dist Date: 83.07.13
83.07.08 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
- To: Mr. A. Zariwny, Energy and Resource
Development Secretariat, Govt. of N.W.T.
- Re: Response to letter of 83.05.24 raising a
number of points on the Beaufort Sea Environmental
Assessment Panel's Procedures for Public Sessions.
File Ref: 1.4.1 # 83.07.07 (2)
- 1.5.3 #105 Dist. 83.08.02
83.07.11 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
- From: Ms. Nancy MacPherson, Beaufort Sea Alliance
Re: Proposed schedule for fall hearings
File Ref: 1.4.1 # 83.07 (5)
- 1.5.3 #106 Dist. 83.08.02
83.07.15 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Ms. Nancy MacPherson, Beaufort Sea Alliance
- Re: Proposed schedule of fall hearings.
- Request for a reconsideration of dates for the
pre-session meeting since neither Ms. MacPherson
nor David Brooks would be able to attend at these
revised dates.
File Ref: 1.4.1 # 83.07 (6)

FEARO Document

- 1.5.3 #107 Dist: 83.08.02
83.07.27 Panel Index E
Beaufort Sea EARP
- By: c.c.
Correspondence to the Editor, News/North from
Georges Erasmus, President, Dene Nation.
- Re: Friday, July 15, 1983 News/North
"Environmentalists - hypocrites - EIS Author".
File Ref: 1.4.1 # 83.07 (7)
- Enclosure: Letter to Dr. Tener from George
Barnaby expressing concern over an Esso
presentation in Fort Good Hope.
- Letter to Dr. Tener from Chief Freddy Greenland
expressing concern over a Gulf meeting held in
Aklavik.
- 1.5.3 #108 Dist: 83.08.09
83.07.21 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. G. N. Faulkner, Asst. Deputy Minister,
DIAND
- Re: Transmittal of an update to the Department's
"Statement to the Beaufort Sea Environmental
Assessment Panel" as requested 83.04.19.
- Report filed. 2.4 # 17 (Supplement).
File Ref: 1.4.1 # 83.07 (8)
- 1.5.3 #109 Dist: 83.08.08
83.08.08 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
from: Hon. John Roberts, Minister Env.
- Re: Transmittal of amendments to the Panel's
Terms of Reference which serve to clarify the
original intent.
- Correspondence included:
Correspondence to Mr. G.N. Faulkner from W.J.
Jenkins, Asst. Deputy Minister, Sectoral and
Economic Relations, Dept. of External Affairs,
83.07.07,

FEARO Document

Correspondence to Mr. W.J. Jenkins, Dept. External Affairs from Mr. G.N. Faulkner, Asst. Deputy Minister, DIAND, 83.07.15,

Re: Response to letter of 83.07.07 on Terms of Reference, Beaufort Panel.

Correspondence to Mr. G.N. Faulkner, Asst. Deputy Minister, DIAND, from Mr. Raymond M. Robinson, Executive Chairman, FEARO, 83.07.22

Re: Letter of 82.11.15 and other correspondence about suggested amendments to the Beaufort Sea Environmental Assessment Panel's Terms of Reference.

Correspondence to the Minister of Environment from Mr. Raymond Robinson, Executive Chairman, FEARO, 83.07.26

Re: Amendments to the Beaufort Sea Panel Terms of Reference. Suggested amendments are enclosed.

1.5.3 #110

Dist. 83.08.11
83.08.08 Panel Index E
Dr. J.S Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by: c.c.

Correspondence to the Editor, News/North from Mr. R. Hoos, Dome Petroleum Ltd.
File Ref: 1.4.1 # 83.08 (2)

1.5.3 #111

Dist. 83.07.08
83.06.28 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
by:c.c.

Correspondence to Ms. Gay Kennedy from E.M. MacDonald

Re: Transmittal and maintenance of a Public File Index in Yellowknife.
File Ref: 1.4.2 # 83.06 (3)

FEARO Document

1.5.3 #112 Dist. 83.08.02
83.07.20 Panel Index E
D.W.I.Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

To: Captain T.C. Pullen

Re: Addition of Captain Pullen to the Beaufort Sea Environmental Assessment Panel's team of Technical Specialists.
File Ref: 1.4.2 83.07 (4)

1.5.3 #113

Dist: 83.08.02
83.07.28 Panel Index E
D.W.I.Marshall, Executive Secretary
Secretariat, Beaufort Sea Environmental Assessment Panel

To: Ms. Nancy MacPherson, Northern Director, Beaufort Sea Alliance

Re: Acknowledgement of request that the Panel schedule a general public session before the community sessions. Notice that the Panel will consider this at its next meeting.
File Ref: 1.4.2 # 83.05 (5)

1.5.3 #114

Dist: 83.08.02
83.07.22 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: Mr. Terry Fenge, CARC

Re: Intent by Peter Kiewit and Sons of Toronto to apply for a land use permit under the Territorial Lands Act for a quarrying operation in the vicinity of Shingle Point, Yukon. The question is asked whether given the broad scenario of the operation whether the project falls within the purview of the Beaufort Sea EARP.
File Ref: 1.4.2 # 83.07 (6)

FEARO Document

1.5.3 #115 Dist: 83.08.02
83.07.28 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

To: Dr. Tery Fenge, CARC
File Ref: 1.4.2 # 83.07 (7)

1.5.3 #116 Dist: 83.08.02
83.07.26 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: R. Lemberg, Technical Specialist

Re: Draft Schedule for General Sessions and
comments on his participation.
File Ref: 1.4.2 # 83.07 (8)

1.5.3 #117 Dist: 83.08.09
83.08.04 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: W.R. Bonn, Technical Specialist

Re: Meeting with Dome Petroleum Ltd. concerning
transportation of Beaufort Sea Oil by Arctic
tanker, July 25, 1983.
File Ref: 1.4.2 # 83.08 (2)
Also filed 2.5.1 # 11.

1.5.3 #118 Dist: 83.08.09
83.08.04 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: W.E. Bonn, Technical Specialist

Re: Preliminary draft schedule and draft agenda.
Question raised as to whether the Inuvik hearings
will consider an alternate route to the west for
tankers.
File Ref: 1.4.2 # 83.08 (3)

1.5.3 #119 Dist: 83.08.09
83.08.01 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel

From: W. Winston Mair, Technical Specialist

Re: Draft schedule and agenda. Comments enclosed
on previous commitments and sessions that can be
attended.
Report filed under 2.5.1 # 12.
File Ref: 1.4.2 # 83.08 (4)

1.5.3 #120 FEARO Date: 83.07.13

Document Date: 83.06.07 Panel Index J

Document: Minutes, Regular Meeting of Hamlet of
Aklavik

Subjects: Outline and mandate of the Development
Impact Zone Group as detailed in the Resource
Development Policy of the Govt. of NWT.
File Ref: 1.7.1 # 138

TEXTNAME: c1.5.3 (R)P: 01

TEXTNAME: c1.5.3 (R)P: (crossref) 02

Cross Ref.

1.5.3 #121

83.08. 22 Panel Index E
Dr. J.S. Tenner, Chairman
Beaufort Sea Environmental Assessment Panel
By c.c.
Correspondence to Ms Nancy MacPherson, President, Yukon
Conservation Society
From: Mr. R.A.W. Hoos, Dome Petroleum Ltd.

Re: Path Economics Report entitled "An analysis of the
minimum economic scale of developing Beaufort Sea oil
reserves".

Due to some of the proponents' difficulties with the
technical accuracy of this report a statement on this
report is submitted.

Statement also filed with the report File No. 2.1
#10(A)

File Ref: 1.4.1 # 83.08 (5)

1.5.3 #122

83.08.11 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson (Technical Specialist)

Re: Interlog proposal for a multi-user Beaufort Sea
support base.

Points to be considered in relation to this proposal
are noted (e.g. at least one base will be needed if
production starts; additional facilities will be needed
by Coast Guard and search and rescue facilities; this
concept might add to location options; one large base
might be less environmentally damaging. Problems
include company opposition and location and timing in
relation to commercial discoveries which have not yet
been made.

Also filed. 2.5.1 # 14

File Ref: 1.4.1 # 83.08 (6)

FEARO Document

1.5.3 #123

83.08.17 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
By c.c.
Correspondence to R.A. W. Hoos, Dome Petroleum Ltd.,
from Dr. C. Eric Tull.

Re: Acknowledgement of response to request (written
questions).

For clarification, it was further noted that Dr. Tull
was not involved in preparation of any of the actual
impact assessments while employed with LGL.

File Ref: 1.4.2 # 83.08 (7)

1.5.3 #124

83.08.11 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Mr. R. Hornal

Re: Peter Kiewit Sons's Co. Ltd. Quarry Proposal.
Report that Mr. Hornal had met with Mr. Bob Ramsdell
and Mr. John Loewen of the North Slope Quarry Project
to discuss relationship between their project and the
BSEAP.

File Ref: 1.4.2 # 83.08 (8)

1.5.3 #125

83.08.22 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: File

Re: Final Draft Schedule for public sessions Beaufort
Sea Environmental Assessment Panel.

File Ref: 1.4.2 # 83.08 (9)

1.5.3 #126

83.08.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R. Lemberg (Technical Specialist)

Re: Summary of meeting held in Calgary at Esso Plaza
to review pipeline oil spill risks.

Proponents presented their pipeline design methodology
for the Beaufort. Presentation was followed by a
discussion of leaks and spills from offshore pipelines
and review of leak detection limit. The proponents
were requested to include this discussion in their
report.

The third discussion dealt with the manner in which
pipeline spill statistics may be applied to the Beaufort
Sea pipelines. The proponents agreed to estimate the
degree to which causes of spills in the world
statistics may be applicable to the Beaufort and also
to estimate the size of a spill which may occur from
their pipelines. Their report including these items is
expected in two weeks.
Also filed 2.5.1 #15
File Ref: 1.4.2 # 83.08 (10)

1.5.3 #127

83.08.31 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Dr. Jack Terhune, Dept. Biology, University of New
Brunswick

Re: Invitation to Dr. Terhune to join the Panel's team
of technical specialists.
File Ref: 1.4.2 # 83.08 (11)

1.5.3 #128

83.08.10 Panel Index J
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd

Re: Canadian Superior Oil. Brief description enclosed
noting that they are one of the more recent partners in
funding the Beaufort EIS.
File Ref: 1.4.2 # 83.08 (12)

1.5.3 #129

83.08.25 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Paul Scott, Manager Panel Operations, FEARO
Vancouver

Re: Memo to File re Discussion with Yukon Communities

Documentation of contacts and telephone conversations
made in July/August 1982 with a number of Yukon
communities re their participation in the Beaufort Sea
Panel review and any information requirements that the
communities might have.
File Ref: 1.4.2 # 83.08 (13)

1.5.3 #130

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: R.A.W Hoos, Dome Petroleum Ltd.

Re: Enclosure of DIAND's update to their Government
Position Statement; discussion paper entitled
"A comprehensive conservation policy and strategy for
the Northwest Territories and Yukon"; and proceedings
of a Northern Conservation Policy Workshop held in
Whitehorse from Feb 27-March 2, 1983.
Reports filed 2.1 # 24 and 25.
File Ref: 1.4.2 # 83.08 (14)

1.5.3 #131

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel and certain technical specialists

Re: Notice that the Dept. of Fisheries and Oceans, in
response to the Panel's request for additional
information, has provided the following reports.

The effects of vessel traffic in the Arctic on marine
mammals.
Filed: 2.1 #21
Research on the effects of underwater noise on marine
mammals.
Filed: 2.1 # 22
Assessment of the effects of oil on Arctic marine fish
and marine mammals.
Filed: 2.1 # 23

TEXTNAME: c1.5.3 (R)P: 05

TEXTNAME: c1.5.3 (R)P: 06

1.5.3 #132

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. Rick Hoos, Dome Petroleum Ltd.

Re: Enclosure of information on underwater noise and its effect on marine mammals which was submitted to the Panel by the Dept. of Fisheries and Oceans.
File Ref: 1.4.2 # 83.08 (16)

1.5.3 #133

83.08.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel Members

Re: Attachments to DIAND's Government Position Statement Update had the following documents attached:

A comprehensive conservation policy and strategy for the Northwest Territories and Yukon.
Filed: 2.1 # 25

Proceedings of a Northern Conservation Policy Workshop held in Whitehorse, Feb 27 - March 2, 1983.
Filed: 2.1 #24
File Ref: 1.4.2 # 83.08 (17)

1.5.3 #134

83.09.02 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: File

Re: Supply tug boat sinking in Beaufort Sea, August 31, 1983.
Information related to this incident transmitted by Roger Grueban by phone noting - vessel on lease to Esso; not active at time; 180,000 litres of diesel fuel on board but very little fuel entered the water; Esso Oil Spill Response Team is standing by; all people on board were able to abandon ship.
File Ref: 1.4.2 # 83.09 (1)

1.5.3 #135

83.09.07 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Panel and distribution list.

Re: Human Resources Development Report, Summary Volume 1, May 1983 is available. Distribution of first five pages indicated.
Filed: 2.2 # 25
File Ref: 1.4.2 # 83.09 (2)

1.5.3 #136

Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Technical Specialists

Re: Participation in the Beaufort Sea Hearings, preparation for presentations and possible questioning.
File Ref: 1.4.2 # 83.09 (4)

1.5.3 #137

83.09.08 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: K.G. Taylor, Polargas

Re: Confirmation that Polar Gas plans to send an observer to meetings of the Panel to be held in several Mackenzie Valley communities. Appropriate authorities in each community will also be notified.
File Ref: 1.4.2 # 83.09 (6)

TEXTNAME: c1.5.3 (R)P: 07

TEXTNAME: c1.5.3 (R)P: 08

1.5.3 #138

83.09.12 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Dr. G.H. Lawler, Director General, Western
Region, F&O

Re: Response to questions concerning F&O 's involvement at the general public sessions. Items included opening statements are not necessary by each dept at each general session; questions following a presentation will not be limited to questions of clarification or elaboration; oral replies to written questions will be acceptable to the Panel if acceptable to the questioner; the purposes and objectives of the topic entitled "Government Management" is to allow for and encourage good discussion on the capabilities of all levels of government to control a development proposal of this magnitude were it to proceed; final draft agenda is based on concerns raised by a number of intervenors which includes concern over inadequate time to address the tanker concerns; it is hoped that the significance of impacts will be addressed; the Panel does not feel that the sessions are too rigidly structured; intervenors may decide whether they wish to make a closing statement at each general session.
File Ref: 1.4.2 # 83.09 (8)

1.5.3 #139 Dist. Date: 83.08.26 Panel Index E
Doc. Date: 83.08.02
Document: Press Releas by Dene Nation.

"Munro omits Dene from committee to consider Yukon North Slope developments."
Concern expressed that the Dene people of the Delta communities depend on the caribou from the Porcupine herd, ducks, geese and other forms of wildlife that stage and feed on the North Slope. Concern expressed that the findings of the committee will not be very comprehensive due to limited time frame, limited scope, and lack of independence (chaired by DIAND which is encouraging development in the area.
File Ref: 1.7.1 #144

FEARO Document

1.5.3 #140

83.08.11 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson (Technical Specialist)

Re: Interlog proposal for a multi-user Beaufort Sea support base.
Points to be considered in relation to this proposal are noted (e.g. at least one base will be needed if production starts; additional facilities will be needed by Coast Guard and search and rescue facilities; this concept might add to location options; one large base might be less environmentally damaging. Problems include company opposition and location and timing in relation to commercial discoveries which have not yet been made.
File Ref: 2.5.1 #14

1.5.3 #141

83.08.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R. Lemberg (Technical Specialist)

Re: Summary of meeting held in Calgary at Esso Plaza to review pipeline oil spill risks.

Proponents presented their pipeline design methodology for the Beaufort. Presentation was followed by a discussion of leaks and spills from offshore pipelines and review of leak detection limit. The proponents were requested to include this discussion in their report.

The third discussion dealt with the manner in which pipeline spill statistics may be applied to the Beaufort Sea pipelines. The proponents agreed to estimate the degree to which causes of spills in the world statistics may be applicable to the Beaufort and also to estimate the size of a spill which may occur from their pipelines. Their report including these items is expected in two weeks.
File Ref: 2.5.1 #15

1.5.3 #142

83.09.29 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Ms. Nancy Russell LeBlond, Arctic International
Wildlife Range Society

Re: Project Review Group - Yukon's North Slope
Concern over apparent conflict between the Beaufort Sea
EARP and the North Slope Review Group and its terms of
reference requiring "recommendations concerning the
need, establishment and suitable location of shore and
harbour facilities on the North Slope of Yukon...".
These recommendations are to be presented to the
Minister on October 17th. Three critical questions are
noted and the concern about the appearance that DIAND
has deliberately pre-empted the Beaufort Sea EARP in
order to decide on the status of the northern Yukon in
favour of development. A position by the Panel is
requested prior to October 17th.
File Ref: 1.4.1 # 83.09 (2)

1.5.3 #143

83.09.23 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Mr. Paul M. Tellier, Deputy Minister, EMR

Re: Submission of revisions to the Background paper
from the Department of Energy and Resources.

Report filed: 2.4 # 16 S. (Supplementary Information).
File Ref: 1.4.1 # 83.09 (3)

1.5.3 #144

83.09.22 Panel Index E
Beaufort Sea Environmental Assessment Panel
From: R. Hornal, Beaufort Sea Secretariat

Re: Enclosure of excerpts from DOE's reponse to the
Panel's request for listing of conservation areas in
northern Canada and status of park planning north of
60.
File Ref: 1.4.1 # 83.09 (4)

1.5.3 #145

83.09.26 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by c.c.: Correspondence to Mr. Gunther Abrahamson,
North Slope Project Review Group from
Shinners, Director General, Fisheries -
Pacific Region.

Re: North Slope Project Review Group: The short
notice provided precludes a written or oral
presentation to the Group. Letter notes that the Dept
is preparing a position statement for the Beaufort
Review and notes that their assessment advises against
any harbour development west of Kay Point (including
Stokes Point) because of the productive fish habitat in
those areas. Also the proliferation of proposals for
harbour development is of concern and shared
facilities is recommended. Care must be taken in any
port construction along the Yukon coast because of the
shore orientated anadromous fish migrations.
File Ref: 1.4.1 # 83.09 (5)

1.5.3 #146

83.09.30 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
by c.c.: Correspondence to Mr. G.N. Faulkner, DIAND,
from A.R. Zarwiny, Govt. NWT.

Re: Outline of the proposed Govt N.W.T participation
for Government Management Issues at Yellowknife and a
request for some details about the nature and schedule
of DIAND presentations and the names of the officials
who will be responding to questions.
File Ref: 1.4.1 # 83.09 (6)

1.5.3 #147

83.09.06 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Dr. A.H. Macpherson, Regional Director General,
Environment Canada

Re: Enclosure of additional documentation dealing with
Parks Canada Interest North of 60°. An outline of the
submission of Northern Yukon is also included.

Also filed: 2.5.2 # 13
File Ref: 1.4.1 # 83.09 (7)

TEXTNAME: Index-1.5.3 (R)P: 04

TEXTNAME: Index-1.5.3 (R)P: 05

1.5.3 #153

83.09.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Proponents
Re: Circulation of a set of definitions used by the
proponents in their Environmental Impact Statement.

Also filed: 2.3 G (2)
File Ref: 1.4.2 # 83.09 (10)

1.5.3 #154
83.09 (11)

83.09.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.M. Terhune, (Technical Specialist)

Re: Enclosure of major concerns relating to the EIS
Vol 4. and a few comments on Vol 1. Outline of
intended participation and presentation of talks at
Resolute.

Report filed: 2.5.1 # 16
File Ref: 1.4.2 # 83.09 (11)

1.5.3 #155

83.09.17 Panel Index E
D.W.I. Marshall, Executive Chairman
Beaufort Sea Environmental Assessment Panel
From: E.W. Hayes.

Re: Enclosure of a paper dealing with the National
Health and Welfare Position Paper and with health
services in the Western Arctic. Letter notes that many
of the claims in the Health and Welfare position paper
are untrue, particularly in reference to mental health
and health services in the communities (e.g. Inuvik was
running with only one half the compliment of nurses
claimed by Health and Welfare.) Also a plan for
involvement of the native organizations is noted, with
the comment that none of the native organizations have
been approached. An offer to address the panel on this
matter if they intend to visit Whitehorse is extended.

Report filed: 2.5.2 # 12, and 2.1 # 30
File Ref: 1.4.2 # 83.09 (12)

1.5.3 #156

83.09.15 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson, (Technical Specialist)

Re: Conversation with John Bahen, President of Peter
Kiewit Sons Co. re application for a rock quarry and
shipping facilities at King Point. The company is
bidding for large contracts for the construction of
production island in the U.S. Beaufort and is seeking a
decision from DIAND by the end of October. Discussions
are underway with Gulf as to the possibility of Gulf
using Kiewit facilities for its exploration base.
Whether the proposal falls within the Panel terms of
reference is indicated as unclear..if Kiewit gets their
permit they have to be considered a potential supplier
in the Canadian Beaufort. If they get their permit and
Gulf joins them, then the Panel has to decide whether
it has been presented with a fait accompli as far as
Gulf's exploration base or whether this brings both
proposals within their mandate.

Also filed: 2.5.1 # 17.
File Ref: 1.4.2 # 83.09 (13)

1.5.3 #157

83.09.30 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Enclosure of a tentative list of experts that the
proponents may be calling at the various hearing
locations.
File Ref: 1.4.2 # 83.09 (14)

EXTNAME: Index-1.5.3 (R)P: 06

TEXTNAME: Index-1.5.3 (R)P: 07

1.5.3 #158

83.09.26 Panel Index E
D.W.I. Marshall, Executive Secretary Beaufort Sea
Environmental Assessment Panel
by c.c.: Correspondence to R.A.W. Hoos, Dome Petroleum
Ltd., from Jeffery G. Gilmour

Re: Information request No 1 - Government of the
Northwest Territories - BSEARP.

Request filed: 2.5.3 # 2
File Ref: 1.4.2 # 83.09 (15)

1.5.3 #159

83.09.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
by c.c.: Correspondence between Gordon E. Beanlands
(Technical Specialist) and Dr. C. Eric Tull.

Re: Information request concerning the Beaufort Sea
EIS.

Correspondence also filed 2.5.3 # 3 (Question and
Answer) Dist. Date: 83.07.10

File Ref: 1.4.2 # 83.09 (16)

1.5.3 #160

83.10.06 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Distribution list

Re: Notice that Dr. Geof Hainsworth will be replacing
Dr. Craig Davis at the Inuvik General Sessions. Resume
attached.

File Ref: 1.4.2 # 83.10 (1)

1.5.3 #161

83.10.13 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
To: Mr. John Ferbey, Deputy Minister, Dept. of
Economic Development and Intergovernmental Affairs,
Yukon.

Re: Acknowledgement of letter advising the Panel on
the timing and nature of the Yukon Govt participation
in the Beaufort Hearings.

File Ref: 1.4.2 # 83.10 (2)

1.5.3 #162

83.10.04 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: A.W. Mansfield, Director, Arctic Biological
Station, F&O

Re: Enclosure of curriculum vitae of Dr. Thomas Smith
who will be acting as a DFO technical expert on marine
mammals at the Resolute hearings.

File Ref: 1.4.2 # 83.10 (3)

1.5.3 #163

83.10.18 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.B. Ellis, York University

Re: Confirmation that the suggested dates for participation at the Inuvik session are suitable.
File Ref: 1.4.2 # 83.10 (4)

1.5.3 #164

83.10.11 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.B. Ellis, York University

Re: Intent to make a submission to the Panel at the Inuvik sessions dealing with population and demographic effects on a community and regional basis, on employment potential and economic spinoffs. Suggested dates for participation noted.
File Ref: 1.4.2 # 83.10 (5)

1.5.3 #165

83.10.17 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Mr. E.R. Caldwell, Esso Resources Canada Ltd

Re: Resumes for James E. Lee; Gerry W. Kalyniuk; Mike C. Arnett; George E. Bezaire.
File Ref: 1.4.2 # 83.10 (6)

1.5.3 #166

83.10.07 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Thomas F. Albert, North Slope Borough

Re: Enclosure of four documents for submission to the Panel. Documents relate to the bowhead whale and oilspills and noise.

Submission filed: 2.5.2 #15
File Ref: 1.4.2 # 83.10 (7)

1.5.3 # 168

Dist Date: 83.10.13 Panel Index E
Doc Date: 83.10.05 Document: Correspondence between Mr. Don R. Harker, Interlog Ltd. and Mr. G.N. Faulkner, Asst Deputy Minister, Northern Affairs, DIAND

Re: Application for permission to develop a Beaufort Sea Supply Base/Port development at King Point, Yukon Territory. The response to the application refers this proposal to the Beaufort Sea Review. This proposal is viewed as designed as a major facility geared mainly to serve the needs of industry during the production phase of oil and gas development. This is noted as being in contrast to the Stokes Point proposal which is being considered by DIAND but which is considered a small facility in support of the exploration program. The Kiewit proposal which is also being considered is in response to a defined market and timetable which requires the assessment to be completed in the next few months. This is in response to the argument by Interlog that a play at "semantics" is involved..that all supply bases start as exploration bases (examples given) ...and that Kiewit should be heard by the Project Review Committee.

File Ref: 1.7.1 # 150

1.5.3 #169

83.09.23 Panel Index E
Submitted to the Beaufort Sea Environmental Assessment Panel
by: Energy, Mines & Resources.
Revisions to section 4 and 5 of the Background Paper from the Department of Energy, Mines and Resources. These sections have been amended to reflect current estimates of hydrocarbon resources and continued uncertainty of pricing for oil on the international market, and the effect this is likely to have on oil supply/demand balance.

Section 4. Major Events since NEP - Current views on Supply / Demand.
This section provides a recap to "The National Energy Program: Update 1982" and presents a summary of trends and events to August 1983.

5. Perspective for Future Hydrocarbon Development in the Canada Lands.

File Ref: 2.4 # 16-S

1.5.3 #170 83.09.25 Panel Index E

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.M. Terhune (Technical Specialist)

Terhune, J.M. 1983. Comments on Vol. 4, E.I.S.
(Biological and physical effects).

Abstract: (from report)

"In addition to a number of lesser concerns, I have a number of comments which I think should be more fully addressed. I believe that the calculations of the zones of influence of underwater noise (pages 2.40 & 2.41) are incorrect. Possible damaging effects of loud noises are mentioned (page 2.31) but not discussed. The cumulative effect of many loud sources (Tables 2.3-7 and 2.3-9) are not fully discussed. The endangered status of the bowhead whale is often mentioned but, again, not fully discussed, especially with regard to the Bering Sea stock and the other pressures this stock is facing. The possible cumulative effects of various minor impacts on a species are not discussed. Sound propagation and ambient noise levels in the Beaufort Sea (pages 2.30 and 2.31) should have been measured under a variety of conditions (1981 workshop, page 338)."
File Ref: 2.5.1 #16

1.5.3 #171 83.09.15 Panel Index E

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson (Technical Specialist)

Re: Conversation with John Bahen, President, Peter Kiewit Sons Co. re Kiewit's application to DIAND for a rock quarry and shipping facilities at King Point.
File Ref: 2.5.1 #17

1.5.3 #172

83.09.17 Panel Index E
Submitted to the Beaufort Sea Environmental Assessment Panel
by: E.W. Hayes, Whitehorse, Yukon.

Covering letter puts forth the position that many of the claims in the Health and Welfare Position Paper are untrue (e.g. the Inuvik Region was running with only one half the compliment of station nurses indicated in the paper; the program for community based mental health programs including involvement of native organizations has not yet approached any of the native organizations).
File Ref: 2.5.2 # 12

1.5.3 #173

83.09.06 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Dr. A.H. Macpherson, Regional Director
General, Environment Canada.

Re: Response to Panel Request for listing of conservation areas in Northern Canada and Status of park planning north of 60.

Submission includes:

1. Summary of current status of areas north of 60 assigned to the Minister of Environment - Parks Canada Areas of Interest
2. Current status of action on national park proposals north of 60°.
3. Proposed outline for submission on the Northern Yukon to the Beaufort Sea Environmental Assessment Panel.
4. Supporting documentation:
Canada's Special Places in the North: An Environment Canada Perspective for the '80's.
(Filed 2.1 # 30)

Areas of interest to the the Canadian Wildlife Service (within the Beaufort Sea hydrocarbon production zone and associated transportation corridors). Filed 2.1 # 31.

File Ref: 2.5.2 # 13

1.5.3 #174 83.09.02 Panel Index E
Question from: Dr. C. Eric Tull

To: Dr. Gordon E. Beanlands

This information request is posed since the agenda does not list Dr. Beanlands as attending any of the General Sessions. Information requested:

- evaluation of the Beaufort Sea EIS in terms of the extent it agrees with the intent of his recommendations concerning establishment of a sound ecological framework for environmental impact assessment in Canada.
- Request to indicate which of the recommendations the proponents could fairly have been expected to comply with.

File Ref: 2.5.3 #3 (Q)

1.5.3 #175 83.09.30 Panel Index E

From: Dr. Gordon Beanlands
To: Dr. C. Eric Tull

Response indicates that Dr. Beanlands will be attending hearings in both Resolute and Inuvik as a technical advisor to the Panel. "At the hearings in Resolute and Inuvik I will be pursuing some of the ideas and implications for impact assessment arising from our report, as they may apply to the Beaufort Sea development."

File Ref: 2.5.3 # 3 (A)

1.5.3 #176 83.10.17 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Mr. R.M. Withers, Deputy Minister,
Transport Canada

Re: Outline of representation planned at the
General Sessions of the review hearings.
File Ref: 1.4.1 # 83.10 (6)

1.5.3 #177 83.10.25 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Mr. G.N. Faulkner, Assistant Deputy
Minister, Indian and Northern Affairs Canada

Re: Response to Panel letter of 83.08.22 and
requesting specific information.
Circulation of the report on the first modelling
workshop for the Beaufort Sea Environmental
Monitoring Project to Panel Secretariat noted.
This item will also be covered by Mr. D. Stone in
a presentation at Inuvik. Comments will also be
provided on the Norman Wells socio-economic
monitoring programs. A list of representatives
from the department will be forwarded shortly.
File Ref: 1.4.1 # 83.10 (7)

1.5.3 #178 83.10.25 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Dr. C. Eric Tull

Re: Enclosure of correspondence between Dr. Tull
and the Hon. John Munro on the topic of Yukon
North Slope development proposals.
Letters from Dr. Tull 83.01.03; 83.03.29; 83.04.11
and response by the Hon. John Munro of 83.05.27.

Letters from Dr. Tull, 83.06.19; 83.09.29;
83.09.29 to the North Slope Review Committee;
concerning both the Stokes Point application and
the Kiewit quarry application. Response from the
Hon. John Munro - 83.10.14.

Letter from Dr. Tull - 83.10.25 - noting the
recommendations of the North Slope Project Review
Group and commenting on inadequacies in the IEE
provided by Kiewit.
File Ref: 1.4.1 # 83.10 (8)

TEXTNAME: Index-1.5.3 (R)P: 14

TEXTNAME: Index-1.5.3 (R)P: 15

1.5.3 #179

Dist. 83.11.01
83.10.27 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Dr. Tom Smith, Arctic Biological Station

Re: Enclosure of letter to the Arctic Institute of North America outlining concerns about the quality of the refereeing prompted by a paper published in Arctic and specific comments on the publication:

Findley, K.R., G.W. Miller, R.A. Davis and W.R. Koski. 1983. A distinctive large breeding population of ringed seals (*Phoca hispida*) inhabiting the Baffin Bay ice pack....Arctic, 36:162-173.
File Ref: 1.4.1 # 83.10 (9)

1.5.3 #180

83.11.02 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Dr. G.H. Lawler, Director General, Western
Region, Fisheries and Oceans Canada.

Re: Revised list of participants for the Inuvik General Session.
File Ref: 1.4.1 # 83.11 (1)

1.5.3 #181

83.11.02 Panel Index E
Dr. J.S. Tener, Chairman, Beaufort Sea
Environmental Assessment Panel
From: Mr. David Kirkwood, Deputy Minister, Health and Welfare Canada

Re: Participation of the Department of Health and Welfare in the Beaufort Hearings and identification of representatives coordinating representation for the N.W.T., Yukon and Ottawa.

File Ref: 1.4.1 # 83.11 (2)

1.5.3 #182

Dist: 83.10.26
83.09.30 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
To: General Session Participants

Re: Operating procedures for distribution of technical presentations in advance of the general sessions.
-Presentations filed with the Vancouver office one week in advance of the Session at which it will be given. Presentation should also be distributed by the intervenor to others interested in that area as indicated by attached outline.
-or indicate inability to distribute and the Vancouver office will undertake distribution

Key Participant mailing list attached.
File Ref: 1.4.2 # 83.09 (17)

1.5.3 #184

83.10.25 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
To: Dr. R.W. Butler, Dept. Geography, University of Western Ontario

Re: Appreciation for agreement by Dr. Butler to address the Panel with Dr. Nelson at the General Session in Inuvik on the topic of the "applicability of the Scottish Oil and Gas Experience to the Canadian Beaufort Sea."

File Ref: 1.4.2 # 83.10 (8)

1.5.3 #185

83.11.19 Panel Index E
R. Hornal, Secretariat, Beaufort Sea Environmental Assessment Panel
From: Dr. R.W. Butler, University of Western Ontario

Re: Appearance before the Panel in Inuvik to present material on the social and economic effects of energy developments in the North Sea. Resume attached.

TEXTNAME: Index-1.5.3 (R)P: 16

TEXTNAME: Index-1.5.3 (R)P: 17

1.5.3 #186

83.10.26 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: Tom Nesbitt, BRIA's EARP Intervention
Consultant

Re: Enclosure of two corrections to the BRIA
submission at the Resolute Session.

Filed with BRIA submission G(R-).
File Ref: 1.4.2 # 83.10 (10)

1.5.3 #187

83.10.28 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R. Lemberg, Technical Specialist

Re: Enclosure of "Amended Version - comments on
"Oil Spill Risk Assessment" dated September 1983
by the Proponents", October 28, 1983.
Appendix A is unchanged and not included.

Report filed: 1.5.1 # 18 A1.
File 1.4.2 # 83.10 (11)

1.5.3 #188

83.10.24 Panel Index E
R. Hornal, Secretariat, Beaufort Sea
Environmental Assessment Panel
From: Dr. David Brooks, Beaufort Sea Alliance

Re: Request for confirmation on four points
related to their testimony at Inuvik: request
that Dr. Gibson's research be accepted as
background information; re methodology, request
for double allotment of time to cover opening
remarks and methodology; timing request for
certain presentations due to other commitments;
request for change in time allotment for
Dr. Tull's evidence.

File Ref: 1.4.2 # 83.10 (12)

1.5.3 #189

83.10.21 Panel Index E
R. Hornal, Secretariat, Beaufort Sea Environmental
Assessment Panel
From: Dr. David Brooks, Beaufort Sea Alliance

Re: Request for clarification of status of the
subject of National Benefits noting that it was
addressed at length in Vol 2 of the EIS.

File Ref: 1.4.2 # 83.10 (13)

TEXTNAME: Index-1.5.3 (R)P: 18

1.5.3 #190

83.11.02 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R. Lemberg, Technical Specialist

Re: Correction to the Amended Version of the
report - Comments on "Oil Spill Risk Assessment"
dated September 1983 by the Proponents.
October 28, 1983.

Report filed as 2.5.1 # 18 A2.
File Ref: 1.4.2 # 83.11 (1)

1.5.3 #191

83.11.01 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd

Re: Enclosure of corrections to Oil Spill Chapter
of the Response to Environmental and Technical
Issues Document. Also included is an explanation
of Tables 1 to 4.

Report Filed 2.3.5 # 3
File Ref: 1.4.2 # 83.11 (2)

1.5.3 #192

83.11.01 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: R.A.W. Hoos, Dome Petroleum Ltd.

Re: Enclosure of memo on the subject of damage to
tracking buoys by polar bears in the Beaufort Sea.

Report filed 2.3.5 # 4
File Ref: 1.4.2 # 83.11 (3)

TEXTNAME: Index-1.5.3 (R)P: 19

1.5.3 #193

83.11.04 Panel Index E
R. Hornal, for Secretariat, Beaufort Sea
Environmental Assessment Panel
To: Dr. David Brooks, Beaufort Sea Alliance

Re: Response to questions raised noting:
acceptance by the Panel of Dr. Gibson's report as
a reference submission; twenty minutes will be
allowed for opening address; attempts will be made
to schedule Dr. Gibson and Dr. Usher on Nov. 19;
Dr. Tull will present his evidence on the quality
of the EIS on November 14 or 15; National Benefits
is not within the Panel mandate but background
information will be accepted, and Ottawa is an
appropriate location.

File Ref: 1.4.2 # 83.11 (4)

1.5.3 #194

83.11.02 Panel Index E
D.W.I. Marshall, Executive Secretary, Beaufort Sea
Environmental Assessment Panel
From: G. Abrahamson, North Slope Project Review
Group

Re: Enclosure of interim report on Yukon North
Slope developments.

Report filed: 2.1 # 32

File Ref: 1.4.2 # 83.11 (5)

1.5.3 #195

83.11.03 Panel Index E
R. Hornal, Secretariat, Beaufort Sea Environmental
Assessment Panel
To: Panel Members, Technical Specialists,
Proponents, Secretariat

Re: List of speakers and attendees at Inuvik
General Session.

File Ref: 1.4.2 # 83.11 (6)

TEXTNAME: Index-1.5.3 (R)P: 20

1.5.3 #196

Sept 1983 Panel Index E
Beaufort Sea Environmental Assessment Panel.

Lember, R. 1983. Comments on "Oil spill risk assessment" dated September 1983 by the Proponents. Submitted to the Beaufort Sea Environmental Assessment Panel.

File Ref: 2.5.1 #18

1.5.3 #197

Submitted to the Beaufort Sea Environmental Assessment Panel

October 28, 1983 and November 2, 1983.

By: R. Lemberg, Technical Specialist

Lemberg, R. October 1983.
Amended version - Comments on "Oil Spill Risk Assessment" dated September 1983 by the Proponents. Prepared for the Beaufort Sea Environmental Assessment Panel. 19 p.
(Corrections for pages 7, 9, 16, 17 attached).

File Ref: 2.5.1 # 18 A1 and A2

FEARO Beaufort Sea Project
DOCUMENT
1.7.1 #1 FEARO date: Panel Index J
Document date: 81.05.15
Document type: Correspondence
Hon. J. Munro, Minister DIAND
From: Al Plum, Inuvik & District, Chamber of Commerce
Re: Request for action on 5 items.

1.7.1 #2 FEARO date: Panel Index J
Document date:
Document type: Correspondence
D.W.I. Marshall, Executive Secretary
Beaufort Sea Assessment Panel
From: John U. Bayly, Dene Nation
Re: Request for copy of Terms of Reference

1.7.1 #3 FEARO date (rec'd): 81.06.23 Panel Index J
Document date:
Document type: Memo
Beaufort Sea Environmental Assessment Panel
From: Panel Secretariat
Re: Copy of Bill C-48: Canada Oil and Gas Act.

1.7.1 #4 FEARO date: Panel Index J
Document date:
Document type: Submission to the Lancaster Sound Regional
Study by Transport Canada, Arctic Marine Services

1.7.1 #5 FEARO date: Panel Index J
Document date: 81.04.15-16
Document: Minutes BSCAC Meeting No. 81-2
Aklavik 15-16, April 1981

FEARO Beaufort Sea Project
DOCUMENT
1.7.1 #6 FEARO date (rec'd): 81.06.24 Panel Index J
Document date: 81.06.12
Correspondence:
From: O.H. Loken, Head, Task Force on Beaufort Sea
Development
To: A. Milne, Dome Petroleum Ltd.
Re: Review of the draft EIS for the Beaufort Sea Development
project.

1.7.1 #7 FEARO date (rec'd): 81.07.25 Panel Index J
Document date: 81.06.12
81.06.17
Correspondence: between W.E. Richards, Dome Petroleum Ltd.,
and the Hon. John Roberts, Minister of the Environment
Re: acquisition by Dome Petroleum of Davie Shipbuilding of
Lauzon, Quebec. Enclosed: Press release of announcement
including marine requirements generated by Beaufort Sea
scenario.

1.7.1 #8 FEARO date: Panel Index J
Document date:
Re: DIAND's Senior Policy Committee on Northern Resource
Development Projects. Enclosures: Original Terms of
Reference; expanded Terms of Reference; and a proposed
action plan for the Beaufort Sea Office.

1.7.1 #9 FEARO date: 81.07.20 Panel Index J
Document date: 81.06.19
Re: Edited manuscripts of presentations to the Senior Policy
Committee on Northern Resource Development Projects by J.G.
Nelson and the Arctic Pilot Project.

1.7.1 #10 FEARO date: 81.07.28 Panel Index J
Document date: 81.06.15
Re: Letter to the Hon. John C. Munro from G.R. Harrison,
Dome Petroleum Ltd. outlining his view of five prerequisites
in the Mackenzie Delta/Beaufort region to the production of
oil and gas in an acceptable manner.

FEARO Beaufort Sea Project

DOCUMENT

- 1.7.1 #11 FEARO date: 81.08.31 Panel Index J
Document date: Released by DIAND 81.07.30
Re: DIAND's Land Use Planning System. - An outline of the three basic components: a policy framework, a planning process and an organizational structure.
- DIAND's Press Release.
- Norman Wells pipeline approved with a further one year delay.
- Two year activity delay put on new Petro-Canada exploration agreements in Mackenzie Valley.
- Northern Land Use Policy announced.
- 1.7.1 #12 FEARO date circ: Panel Index J
Document Date: 81.07.07
Document: File Memo
Re: Notes of visit of B. Speirs, Scottish Development Department.
- 1.7.1 #13 FEARO date circ: Panel Index J
Document date: 81.08.11
Document: Correspondence
To: E.F. Roots
From: Murray Coolican, CARC
Re: Funding Application Deadline
- 1.7.1 #14 FEARO date circ: Panel Index J
Document date: 81.08.04
Document: FEARO Memo - Douglas Parkinson to John Herity
Re: Media visits
- 1.7.1 #15 FEARO date (rec'd): 81.08.17 Panel Index J
Document date: 81.08.10
Document: Correspondence to J.S. Loch (Chairman, ARCOD, DFO, Winnipeg) from Olav H. Loken (Head, Beaufort Sea Office, DIAND)
Re: Review of the draft EIS - Beaufort Sea Hydrocarbon Development.

FEARO Beaufort Sea Project

DOCUMENT

- 1.7.1 #16 FEARO date: Panel Index J
Document Dated: 81.06.07
Document: Correspondence
Beaufort Sea Advisory Committee
From: Rose Marie Kamas, Dome Pet. Ltd.
Re: Barry Clarkson announced as new representative of Beaufort Sea Advisory Committee
- 1.7.1 #17 FEARO date (rec'd): 81.08.24 Panel Index J
Document date: 81.08.10
Document: Correspondence from Dirk Hill BSCAC Coordinator to BSCAC Members.
Re: funding for public participation in the Beaufort Sea Environmental Assessment Review.
- 1.7.1 #18 FEARO date: 81.08.25 Panel Index J
Document date:
Document: Memo
To: Panel members, Beaufort Sea Panel from Panel Secretariat
Re: Ministerial Briefing on Beaufort Sea Panel Activities
- 1.7.1 #19 FEARO date: Panel Index J
Document date: 81.08.26
Document: Memo to File - P. Wolf, Beaufort Sea Secretariat
Re: Organization of Inuit Tapirisat of Canada (ITC)
- 1.7.1 #20 FEARO date (rec'd): 81.10.09 Panel Index J
Document date: 81.06.17
Re: Draft presentation by Dome Canada Ltd., Esso Resources Canada Ltd., and Gulf Oil Canada Ltd., to Assistant Deputy Minister of the Federal Government, including Question and Discussion Period.
- 1.7.1 #21 FEARO date:
Document date: April 81
Document: Minutes of Meeting, April 28, Senior Policy Committee, Northern Resource Development Projects.

FEARO Beaufort Sea Project
DOCUMENT
1.7.1 #22 FEARO date: Panel Index J
Document date: 81.09.23
Document: Update to Senior Assistant Deputy Minister from
B.W. Melbourne
Re: Beaufort Sea Status

1.7.1 #23 FEARO date: Panel Index J
Document date: 81.09.06
Document: Correspondence
To: D.W.I. Marshall, Ex. Secretary, Beaufort Sea Panel
From: Michael Amarook, Inuit Tapirisat of Canada
Re: Beaufort Sea Panel Activities

1.7.1 #24 FEARO date: 81.10.14 Panel Index J
Correspondence:
From: D.W.I. Marshall
To: Michael Amarook, Inuit Tapirisat of Canada
Re: Response to letter of 81.09.06 re Beaufort Sea Panel
Activities.

1.7.1 #25 FEARO date: Panel Index J
Document:
Beaufort Sea Oil and Gas Development
Dome Petroleum Ltd. July 26/1981

1.7.1 #26 FEARO date: Panel Index J
Document date: 81.09.29
Document: Correspondence
To: G.H. Lawler
L. de March
B. Smiley
R. Paterson
K. Yuen
J. Stein
From: J. Loch
Re: Meeting with FEARO, Executive Secretary
Attachment: Position Paper on Beaufort Sea Development
81.09.16

FEARO Beaufort Sea Project
DOCUMENT
1.7.1 #27 FEARO date: Panel Index J
Document date: 81.08.04
Document: Correspondence
To: E.R. Cotterill, Exec. Chairman, FEARO
From: E.F. Roots, Science Advisor
Re: Fund Applications Review Committee for Environmental
Assessment Review of Beaufort Sea Hydrocarbon Production
Proposal.

1.7.1 #28 FEARO date: Panel Index J
Document date: 81.09.27
Document: Correspondence
To: D.W.I. Marshall, Exec. Secretary, Beaufort Sea Panel
From: G. Cosgrove
Re: News release covering industrial benefits

1.7.1 #29 FEARO date: Panel Index H
Document date:
Document: Notes FEARO/COGLA information meeting
Attachment: Letter of agreement respecting COGLA
relationship with policy and operational activities
undertaken by other units.
To: D.W.I. Marshall, Exec. Secretary, Beaufort Sea Panel
From: M.G. Taschereau

1.7.1 #30 FEARO date: Panel Index J
Document date: 81.10.15
Document: Correspondence
To: Mr. J. Loch
From: Olav H. Loken
Re: Response to Memo of July 27 and Oct. 2 (attached) re
review of Beaufort EIS

1.7.1 #31 FEARO date: Panel Index J
Document date: 81.09.01
2: 81.10.02
Documents: correspondence between G.N. Faulkner & E.
Cotterill
Re: Timing and review of EIS

FEARO Beaufort Sea Project
DOCUMENT

1.7.1 #32 FEARO date (rec'd): 81.12.07 Panel Index J
Document: DIAND Communique
Notes for remarks by the Honourable John C. Munro, Indian Affairs and Northern Development to the Standing Committee on Indian Affairs and Northern Development, Dec. 1, 1981.

1.7.1 #33 FEARO date: 81.11.19 Panel Index J
Document: Correspondence
To: D.W.I. Marshall, Exec. Secretary, Beaufort Sea Panel
From: Katherine A. Graham, Queen's University
Re: Eastern Arctic Study Status report
Filed under: 1.4.2 # 81-11-3

1.7.1 #34 FEARO date: Panel Index J
Document date: 81.12.18
Document: Correspondence
To: Hon. J. Roberts, Ministry of Environment Canada
From: Senator Earl A. Hastings, Special Committee of the Senate
Re: Committee to study Arctic Marine transportation.

1.7.1 #35 FEARO date: Panel Index J
Document date: 81.12.17
Document: Action Plan for Vocational Education, Inuvik Region 181

1.7.1 #36 FEARO date: 81.08.18
Document date: Aug. 6, 1981
Document: Minutes of the Fourth Meeting of the Senior Policy Committee

1.7.1 #37 FEARO date: 81.12.11 Panel Index J
Document date: June 16/81
Document: U.S. Department of Transportation/Coast Guard Role in Western Arctic Marine Transportation, Annual Beaufort Sea Consultations with Canada, 16 June 1981

1.7.1 #38 FEARO date: 81.11.09
Document date:
Document: Background information package on Beaufort energy development and major issues by G. Fitzsimmons, Beaufort Sea Office, Env. Canada

FEARO Beaufort Sea Project
DOCUMENT

1.7.1 #39 FEARO date (dist): 81.12.03
Document: Discussion Paper
Title: Northern Land Use Planning
Indian Affairs and Northern Development
Object: "The purposes of the paper are:
a) to review the federal government's present approach to land use management in the North, and to explain why it is no longer adequate to cope with current and emerging northern land use conflicts, a number of which have national significance; and
b) to outline an alternative approach for managing competing land uses, based on land use planning, for purposes of defining a Northern Land Use Planning Policy"

1.7.1 #40 FEARO date: Panel Index J
Document date: Jan. 1982
Document: Minutes, BSCAC Meeting No 82-1, Coppermine
21-22 January 1982.

1.7.1 #41 FEARO date: Panel Index J
Document date 1) 81.12.16
2) 82.02.22
Document: Correspondence between Mr. John Amagoolik, President, Inuit Tapirisat of Canada and the Hon. John Munro, Minister, DIAND
Re: Beaufort Sea EARP review, timing of review, adequate scrutiny of transportation modes.

1.7.1 #42 FEARO date: 82.03.16 Panel Index J
Document date: Feb/82
Document: Graph
Boards, Committees and Agencies Involved in Policy Development and Regulatory Approvals for Beaufort Region Hydrocarbon Exploration and/or Production.

1.7.1 #43 FEARO date: Panel Index J
Document date 1) 82.01.21
2) 82.02.18
Document: Correspondence between Her Worship, Mayor Martine Johnson, Frobisher Bay, N.W.T. and D.W.I. Marshall, Exec. Secretary, Beaufort Sea Panel.
Re: Translation of documents into Inuktitut

FEARO Beaufort Sea Project

DOCUMENT

1.7.1 #44 FEARO date (distributed): 82.02.12 Panel Index J
Document date: January 1982
Title: Beaufort Status Report for the Joint meeting of the Tuktoyaktuk Council and Hunters and Trappers Association by Gulf Canada Resources.
Review of: Background of Gulf Canada
- Gulf's Beaufort project
- conical drill unit
- mobile arctic caisson
- supply vessels and icebreakers
- Gulf's northern supply bases (the marine base and the land base)
- cost
- socio-economic
- attached maps and figures

1.7.1 #45 FEARO date: 82.02.05 Panel Index J
Document date: 82.01.25
Document: Correspondence to R. Robinson, Exec. Chairman, FEARO from G.N. Faulkner, Assistant Deputy Minister, DIAND.
Re: Terms of Reference - Beaufort Sea Assignment to Barry Carin.
"The purpose of the assignment is to collect, analyze and array pertinent information on the alternative transportation modes - pipeline and marine - for development of Beaufort Sea Oil resources".

1.7.1 #46 FEARO date (rec'd): 81.11.06 Panel Index J
Document date: 81.09.14
Document1: Correspondence to Hon. John Munro, Minister, DIAND, Hon. John Roberts, Minister, Environment
From: Cynthia C. Hill, Mayor, Inuvik
Re: Concern with the propose Guidelines for the Beaufort Sea assessment and in the method that it is being carried out.
Document2: Correspondence to Her Worship Mayor Cynthia C. Hill, Inuvik
From: Hon. John Roberts, Minister, Environment
Re: Response to letter 81.09.14 expressing concerns with the Environmental Assessment Review Process of the Beaufort Sea Oil and Gas Development Proposal.

FEARO Beaufort Sea Project

DOCUMENT

1.7.1 #47 FEARO date: 81.12.14 Panel Index J
Document: Memo to File - P. Wolf, FEARO
Re: Arctic oil - The Destruction of the North, by John Levingston pub. by CBC.

1.7.1 #48 FEARO date (rec'd): 82.01.28
Document date: 82.01.28
Document: Press Release by Beaufort Sea Research Coalition announcing the coalition of five of Canada's environmental organization to undertake research relating to the federal environmental assessment and review of proposed oil and gas development in the Beaufort Sea.
Attachment: Excerpts from the comments on the Draft Guidelines for the Beaufort Sea Hydrocarbon Production Proposal.

1.7.1 #49 FEARO date (rec'd): 82.01.28
Document (1) date: 81.12.31
(2) date: 82.01.22
Document (1): Correspondence to Hon. John C. Munro, Minister, DIAND, Hon. John Roberts, Minister, Environment.
From: Sam Raddl, President Cope
Re: Dissatisfaction with proposed funding allocations re Beaufort Sea Review.
Document (2): Response to above correspondence by Hon. John Roberts.

1.7.1 #50 FEARO date (rec'd): 82.05.25
Document date: 82.05.19
Re: Correspondence from William E. Rees, University of British Columbia to D.W. Marshall (Director, Vancouver Regional Office, FEARO) enclosing May 12th addition of U.B.C. reports with article on the Donner Canadian Foundation grant for a study on Beaufort Sea hydrocarbon/B.C. Northeast Coal mega-project development and their community impacts.

1.7.1 #51 FEARO date (rec'd): 82.05.24
Document date: 82.03.12
Re: Review and Legal Analysis of Dome and Beaufort Communities Support Services Partnership Proposal: Executive Summary.
Prepared by Fraser & Beatty for the Inuvik Town Council.

FEARO Beaufort Sea Project
DOCUMENT

1.7.1 #52 FEARO date: Panel Index H
Document date: 82.03.19
Document: Correspondence
To: Raymond R. Robinson, Executive Chairman, FEARO
From: D. Brooks, CARC
Re: Funding

1.7.1 #53 FEARO date (rec'd): 82.03.29 Panel Index H
Document date: 82.03.25
Correspondence from Murray Coolican, Exec. Director, CARC to
Hon. John Roberts, Minister of Environment.
Re: Funding of public interest groups for the Beaufort Sea
Environmental Assessment and Review Process.

1.7.1 #54 FEARO date: Panel Index H
Document date: 82.04.06
Document: Correspondence
To: R.M. Robinson, Exec. Chairman, FEARO
From: Cynthia C. Hill, Mayor, Inuvik
Re: Funding

1.7.1 #55 FEARO date: Panel Index H
Document date (1): 82.04.16
(2): 82.01.11
Document: Correspondence between D.W.L. Marshall, Exec.
Secretary, Beaufort Sea Panel and Georges Erasmus, Dene
Nation
Re: Special Committee of the Senate on the Northern
Pipeline - Offshore Transportation Study.

1.7.1 #56 FEARO date: Panel Index H
Document date: 82.04.29
Document: Correspondence
To: Mr. Garrett Ruben, Beaufort Sea Community Advisory
Committee
From: R.M. Robinson, Exec. Chairman, FEARO
Re: Concern over lack of funds for BSCAC

1.7.1 #57 FEARO date (rec'd): 82.05.26 Panel Index J
Document date: 82.05.19
Document: Correspondence
To: D.W. Marshall, Exec. Secretary, Beaufort Sea Panel
From: N.A. Harburn, Coordinator, Environmental Impact
Assessment Dome Pet. Ltd.
Enclosing copies of February EIS status report, and flows
chart of government approvals to production as presented to
the Senate Committee.

FEARO Beaufort Sea Project
DOCUMENT

1.7.1 #58 FEARO date (rec'd): 82.05.12 Panel Index J
Document date: 82.05.06
Correspondence
From: W.M. Pistruzak (Dome) to D. Gamble (CARC)
Document date: 82.04.14
Correspondence
From D. Gamble (CARC) to W.M. Pistruzak (Dome Pet. Ltd.)
Re: Publication "Ice is Nire"

1.7.1 #59 FEARO date (rec'd): 82.05.13 Panel Index J
Document date: 82.05.10
Re: Correspondence to R. Hoos (Dome Pet. Ltd.) from C. Eric
Tull, Beaufort Sea Research Coalition - Request for
documentation as to why Dome Petroleum needs development in
the northern Yukon.

1.7.1 #60 FEARO date: Panel Index J
Document dates (1): 82.04.22
(2): 82.04.20
(3): 82.03.30
Document: Correspondence between R. Hoos, Dome Petroleum
and C. Eric Tull, Beaufort Sea Research Coalition.
Re: Tanker routes and reference to "Original Care
Definitions"

1.7.1 #61 FEARO date
Document date: 82.04.19
Document: Correspondence
To: George Bezaire, Esso Resource
From: David D. Brooks, Beaufort Sea Research Coalition.
Re: Submission to the Special Committee of the Senate.

1.7.1 #62 FEARO date
Document date: 82.03.12
Document: Correspondence
To: Hon. John Roberts, Minister, Environment
From: Raymond M. Robinson, Exec. Chairman, FEARO
Re: Visit of Mr. Jonathan Matzfeld, Prime Minister of
Greenland.

1.7.1 #63 FEARO date (dist.): 82.04.26
Document date: Dec. 1981
Title: Northwest Territories Association of Municipalities
"What are we".
Contents: History, structure, funding, membership and
on-going activities.

FEARO Beaufort Sea Project

DOCUMENT

- 1.7.1 #64 FEARO date: 82.04.20 Panel Index J
Document date: 82.04.16
Document: Correspondence
To: R. Hoos, Dome Pet. Ltd.
From: D.I. Gamble, CARC
- 1.7.1 #65 FEARO date: Panel Index J
Document date:
Document: DIAND
Beaufort Sea Scheduling for Northern Organization and Operational Programs and Processes, Draft February 1982.
Appendix A: Preliminary checklist of committees with a major role in the regulatory approvals process for Beaufort Sea Hydrocarbon exploration/production.
Appendix B: Committees and Working Groups with a less direct role in the Beaufort Sea Hydrocarbon Production.
- 1.7.1 #66 FEARO date (rec'd): 82.06.08 Panel Index J
Re: International Conference on Oil and the Environment: Program and Registration Information.
- 1.7.1 #67 FEARO date (cirr): 82.07.16 Panel Index J
Document date: 82.06.22
Document: Correspondence
To: Maurice Taschereau, COGLA
From: Terry Fenge, CARC
Re: Tarsuit - Beaufort Sea and concern over approval of continued use of the island for drilling.
- 1.7.1 #68 FEARO date (cirr): 82.07.16 Panel Index J
Document Date: 82.07.05
Correspondence to Neil Faulkner, Assistant Deputy Minister, Northern Affairs, DIAND from David B. Brooks, Exec. Director, Beaufort Sea Alliance.
Re: Appropriate character of research by environmental groups and disagreement on the focus of research on two points:
- The appropriate breadth of the term "environment" as used in EARP hearings.
- The appropriateness of bringing alternatives into such hearings.
- 1.7.1 #69 FEARO date (dist.): 82.04.26 Panel Index J
Document date: 82
Content: BSRC barrel No. 1 published by the Beaufort Sea Research Coalition.
Articles include: Taking a closer look
Guidelines fall short
You lose some...and some you lose.
Projects are varied (list of coalition research studies)
Coalition members

FEARO Beaufort Sea Project

DOCUMENT

- 1.7.1 #70 FEARO date (dist): 82.06.21 Panel Index J
Document date: 82.06
Document: BSRC barrel, published by the Beaufort Sea Research Coalition No. 2
Contents: Coalition Disbands, June 7.
The Final Guidelines - A critique
Esso Thinks Small - re suggestion for a small buried pipeline.
The Panel's Interim Report - Disappointing and Alarming
(Information Program)
Other Studies
Ice-Breaking Problems (re request from Ikajutit Hunters and Trappers Association of Arctic Bay that shipping be banned in spring (until August)).
- 1.7.1 #71 FEARO date (rec'd): 82.07.28 Panel Index J
Document dates (1): 82.07.20
(2): 82.06.10
Document: Correspondence
(1) Hon. John Roberts, Minister, Environment Canada
To: D. Gamble, CARC
Re: Concerns over Calgary Panel meeting (Response to 2)
(2) D. Gamble to Hon. John Roberts
Re: Expressing concern over Beaufort Sea EARP.
- 1.7.1 #72 FEARO date: 82.06.10 Panel Index J
Document: DIAND News Release
Government of Canada and Esso Resources Announce Plans for Beaufort Sea Exploration.
Attached: Statement by the Hon. John C. Munro, Minister of Indian Affairs and Northern Development to the Federal/Provincial/Territorial Conference on Indian Issues, Fredericton, N.B., May 4, 1982.
- 1.7.1 #73 FEARO date: 82.07.14 Panel Index J
Document dates (1): 82.07.28
(2): 82.06.09
Document: Correspondence between the Hon. John Roberts, Minister Environment and Murray Coolican, Executive Director, CARC.
Re: Concern about the environmental assessment review of proposed oil and gas developments in the Beaufort Sea.

FEARO Beaufort Sea Project

DOCUMENT

- 1.7.1 #74 FEARO date: 82.06.16 Panel Index J
Document dates (1): 82.08.05
(2): 82.06.09
Document: Correspondence between the Hon. John Roberts, Minister of Environment Canada and Jennifer Mauro, Yukon Conservation Society
Re: Response to the paper by the Yukon Conservation Society on "Beaufort Sea Development: Issues Addressed to Environment Canada" which was presented at the ENGO Conference.
- 1.7.1 #75 FEARO date: 82.09.02 Panel Index J
Document dates (1): 82.06.24
(2): 82.07.30
Document:
(1) DIAND Communique re Approval of IBP Ecological Site of Polar Bear Pass on Bathurst Island, NWT.
(2) Notes for remarks on the announcement of Polar Bear Pass National Wildlife Area by the Hon. John C. Munro, Minister of Indian and Northern Affairs - Pond Inlet, NWT, July 30/82.
- 1.7.1 #76 FEARO date: Panel Index H
Document date: 82.05.26
Document: Correspondence
D.W.I. Marshall, Executive Secretary, Beaufort Sea Environmental Assessment Panel
From: Matt Hughes, Matt Hughes Company Ltd.
Re: Media relations requirements
File Reference: 1.4.2 #82.05-6
- 1.7.1 #77 FEARO date: Panel Index I
Document date: 82.05.26
Document: Correspondence
Secretariat from E. MacDonald
Re: Information Documentation and Associated Project review.
File Reference: 1.4.2 #82.05-5
- 1.7.1 #78 FEARO date: Panel Index J
Document date: 82.06.09
Document: Correspondence
Hon. John Roberts, Minister, Environment
From: Murray Coolican, Executive Director, CARC
Re: Interim report of Beaufort EARP Panel, lack of panel direction, Panel support of Arctic Pilot Project recommendations, Funding of public participation, and increasing Panel mandate.
File Reference: 8.4.1 #82.06-2

FEARO Beaufort Sea Project

DOCUMENT

- 1.7.1 #79 FEARO date: Panel Index J
Document Date: 82.06.11
Document: Correspondence
G. Harrison, Dome Petroleum Ltd.
From: D. Gamble, CARC
Re: Difficulty in dealing with the Beaufort Sea EARP
File Reference: 1.4.1 #82.06-4
- 1.7.1 #80 FEARO date: Panel Index J
Document date: 81.06.11
Document: Correspondence
J.F. Lee, Esso Resources
From: D.J. Gamble, CARC
Re: Difficulties in dealing with the Beaufort Sea EARP
File Reference: 1.4.1 #82.06-5
- 1.7.1 #81 FEARO date: Panel Index J
Document date: 82.06.11
Document: Correspondence
D. Motyka (Gulf)
From: D. Gamble, CARC
Re: Difficulties in dealing with the Beaufort Sea EARP
File Reference: 1.4.1 #82.06-6
- 1.7.1 #82 FEARO date: Panel Index J
Document date: 82.06.22
Document: Correspondence
Maurice Tashereau, COCLA
From: Terry Fenge, CARC
Re: Tarsuit - Beaufort Sea
File Reference: 1.4.1 #82.06-13
- 1.7.1 #83 FEARO date: Panel Index J
Document date: 82.07.27
Document: Correspondence
Murray Coolican, CARC
From: Hon. John Roberts, Minister Environment
Re: Concerns about the environmental assessment review of the proposed oil and gas developments in the Beaufort Sea comments on Minister relationship with Panel, Interim Report, public participation funding, and Panel mandate.
File Reference: 1.4.1 #82.07-1

TEXTNAME: Uir-co-1-7-1 (R)P: 01

FEARO Beaufort Sea Project
DOCUMENT

- 1.7.1 #84 FEARO date: 82.09.09 Panel Index J
Document Date: 82.08.11
Document: Correspondence
Mr. Garrett Ruben, Chairman, Beaufort Sea Advisory Cttee.
From: Honourable Marc Lalonde, Minister, EM&R
Re: Role of EMR vis-a-vis the proposed Hudson Bay Oil and
Gas Advisory Committee
- 1.7.1 #85 FEARO date: 82.09.09 Panel Index J
Document date: 82.07.02
Document: Notes on Hearings of the Senate Committee on the
Northern Pipeline: by John C. Hollins, Environment Canada.
(DIAND Presentation, and EMR presentation).
File Reference:
- 1.7.1 #86 FEARO date: 82.09.30 Panel Index J
Document Date: 82.07.30
Document: Information on the Arctic Ocean Program (CARC).
File Reference
- 1.7.1 #87 FEARO date: 82.10 Panel Index J
Document Date: 82.05.20
Document: Letter to Neil Faulkner, Assistant Deputy
Minister, Northern Program (DIAND) from Robert B. Gibon,
Innis College Environmental Studies Program, University of
Toronto, and response.
Re: Questions concerning potential role of "concept state"
assessment in the design and evaluation of major projects
and its application to the Beaufort Sea Proposal.
- 1.7.1 #88 FEARO date: (circ) 82.10.13 Panel Index J
Document Date: 82.09.28
Document: Correspondence: D.W.I. Marshall from P.D.
Atkinson, Department of Energy, London.
Re: Receipt of background material on EARP.
- 1.7.1 #89 FEARO date: (circ) 82.10.03 Panel Index J
Document Date:
Document: Review on publication: Polynyas in the Canadian
Arctic. Edited by Ian Stirling and Holly Cleator. Ottawa.
Canadian Wildlife Service. 1981. Occasional Paper No.45.
Cat. No. CW 69 - 1/45E.
File Reference

FEARO DOCUMENT
1.7.1

1.7.1 # (90)

1.7.1 # (91)

1.7.1 # (92)

1.7.1 # (93)

1.7.1 # (94)

Beaufort Sea Project
Category 1.7.1 - Panel Material - General
Information (letters, memos and
other documents).

FEARO Date: 82.11.22 Panel Index I
Document Date:
Document: Summary Curriculum Vitae
All technical specialist

FEARO Date: 82.11.16 Panel Index I
Document Date: 82.10.15
Document: Correspondence
To: Hon. J. Chretien, Minister, EMR
From: David B. Brooks, Exec. Director,
Beaufort Sea Alliance
Re: Request for release of the Barry Carin
report.

FEARO Date: 82.11.08 Panel Index J
Document Date: 82.10.19
Document: Correspondence: Mr. Jacques Gerin,
Senior Assistant Deputy Minister, Environment
Canada, from Nancy Russel LeBlond, Arctic
International Wildlife Range Society.
Re: Environment Canada's proposed response to
Beaufort Sea hydrocarbon development.

FEARO Date: 82.12.01 Panel Index J
Document Date: 82.10.13
Document: Memo to J.F. Herity, FEARU from
P. Wolf, FEARO.
Re: Norman Wells, boom-town effects. A research
follow up opportunity.

FEARO Date: 82.12.01 Panel Index E
Document Date:
Document: Correspondence to Ms. Nancy Russel
LeBlond from J. Gerin, Senior Assistant Deputy
Minister, Environment.
Re: Comments on the Environment Position
Statement to the Beaufort Sea Environmental
Assessment Panel.
Attachment:

TEXTNAME: Dir-co-1-7-1 (R)P: 02

TEXTNAME: lib-1.7.1 (R)P: (p.01) 01

FEARO DOCUMENT
1.7.1

Beaufort Sea Project
Category 1.7.1 - Panel Material - General
Information (letters, memos and
other documents).

1.7.1 # (95)

FEARO Date: 82.12.01 Panel Index t
Document Date: 82.11.15
Document: Correspondence: Mr. Jim Fulton, M.P.
from J. Munro, Deputy Minister, DIAND.
Re: Application from Gulf for approval-in-
principal to proceed with feasibility studies in
respect of a marine support facility at Stokes
Point, North Yukon.

FEARO DOCUMENT
1.7.1

Beaufort Sea Project
Panel Material-General Information

1.7.1 # 96

FEARO Date: 83.01.17
Document Date: 82.11.22
82.12.15
Document: Correspondence between the
Hon. John Munro, Minister DIAND, and the
Hon. John Roberts, Minister Environment
Canada
Re: Confirmation that the transmittal of
the EIS to the Beaufort Sea Panel was
completed and that the 90 day review
period began on November 10, 1982.

1.7.1 # 97

FEARO Date: 83.01.24 Panel Index E
Document Date: 83.01.06
Document: Telex to Hon. John Roberts,
Minister of Environment from Project
North
Re: Application from Gulf Canada to
establish a deep water port at Stokes
Point on the Yukon's North Slope.

1.7.1 # 98

FEARO Date: 83.01.17 Panel Index E
Document Date: 82.12.06
Document: Telex to Hon. John Roberts
from Burchell, Chairman, Sierra Club of
Ontario
Re: Opposition to altering of the 1972
Order-in-Council through which the
Northern Yukon was withdrawn for
National Park and other conservation
purposes.

1.7.1 # 99

FEARO Date: 83.01.17 Panel Index J
Document Date: 83.01.03
Document: Correspondence to R. Robinson,
FEARU from David Brooks, Beaufort Sea
Alliance
Re: Support for the proposal submitted by
the Canadian Nature Foundation in that
it focuses on the physical and
biological aspects of the review and the
Beaufort Sea Alliance plans to focus on
social and economic aspects.

- 1.7.1 # 100 FEARO Date: 83.01.17
 Document Date: 82.11.25
 Document: Letter to the Hon. John Roberts, Minister of Environment, from B. Peart, Chairman, National and Provincial Parks Assoc. of Canada.
 Re: Concern over the potential consideration for development of the Yukon North Slope and the possible return of the area to unprotected state.
- 1.7.1 # 101 FEARO Date: 83.01.21 Panel Index J
 Document Date: 82.11.27
 Document: Notes for an address by the Honourable John C. Munro, P.C., M.P., Minister of Indian Affairs and Northern Development - Legislation Assembly, Whitehorse, Yukon.
- 1.7.1 # 102 FEARO Date: 83.01.21 Panel Index J
 Document Date:
 Document: Notes from Journal of Canadian Petroleum re: Research team investigating impact of Norman Wells expansion and pipeline.
 "A geography research team at the University of Saskatchewan is providing the basis for monitoring the social and economic impact of a major industrial project on four northern communities". (Norman Wells, Fort Norman, Wrigley and Fort Simpson)
- 1.7.1 # 103 FEARO Date: 83.01.21 Panel Index E
 Document Date: 82.12.24
 Document: Correspondence from Peter Burnet, Executive Director CARC to Hon. John Munro, Minister, UIAND
 Re: concern over application of Gulf Resources Inc. for permission to consider Stokes Point, Yukon Territory, as a marine base terminal in support of its Beaufort Sea activities. A delay in decision was urged until land allocation in the Beaufort region can be determined in accordance with the land claims and land use planning policies, and the question of marine ports has been given a public hearing through the Beaufort Sea EARP or a separate panel.

- 1.7.1 # 104 FEARO Date: 83.01.21 Panel Index E
 Document Date: 82.12.24
 Document: Correspondence from Peter Burnet, CARC to Hon. Jean-Luc Pepin, Minister of Transport.
 Re: Enclose of letter to the Hon. John Munro re Gulf Resources Inc. application to build a marine base at Stokes Point. A request to Transport as to whether they consider it within their jurisdiction to refer Gulf's application to FEARO and whether Transport is prepared to do this.
- 1.7.1 # 105 FEARO Date: 83.01.24 Panel Index E
 Document Date: 82.12.24
 Document: Correspondence from Peter Burnet, CARC to Hon. Jean Chrétien, Minister of EMK.
 Re: Enclose of letter 82.12.24 to Hon. John Munro re application of Gulf Resources Inc. to consider Stokes Point, Yukon Territory for a marine support base. Request for meeting to discuss concern over this application and relationship to existing land use planning, land claims negotiations and Beaufort Sea EARP.
- 1.7.1 # 106 FEARO Date: 83.01.24 Panel Index E
 Document Date: 82.12.24
 Document: Correspondence from Peter Burnet, Executive Director, CARC, to the Hon. John Roberts, Minister Environment.
 Re: Enclose of letter 82.12.24 to the Hon. John Munro objecting to any decision of Gulf Resources Inc. application for permission to construct a marine lease at Stokes Point, Yukon. Endorsement of response given to Mr. J. Fulton, M.P.
- 1.7.1 # 107 FEARO Date: 83.01.31 Panel Index J
 Document Date: 83.01.16
 Document: SARB Secretariat Discussion Paper re: Northern hydrocarbon strategy (NUGAP) update.

1.7.1 # 108 FEARO Date: 83.02.10 Panel Index J
Document Date: 83.01.07
Document: Correspondence from Hon. John
Roberts, Minister Environment to Bob
Peart, Chairman, National and Provincial
Parks Assoc. of Canada, British Columbia
Chapter.
Re: Response to letter of 82.11.25 in
support of Environments efforts to
ensure adequate protection for the
significant resources of Northern
Yukon. Response indicates that
Environment is in the process of
"updating the departmental position and
supporting material relating to the
Northern Yukon for submission to the
Beaufort Sea Environmental Assessment
Panel."

1.7.1 # 109 FEARO Date: 83.02.18 Panel Index D
Document Date: 83.02.15
Document: Press Release - Dene Nation/
Metis Association of the NWT
Re: Dene/Metis dissatisfaction with
Beaufort Environmental Impact Statement.
Major concerns are listed and a delay in
the holding of Public Hearings is
requested.

1.7.1 # 110 FEARO Date: 83.02.16 Panel Index J
Document Date:
Document: Report on the First
International Conference on Social
Impact Assessment - "Advancing the State
of the Art".

FEARO Document

1.7.1 #111 Beaufort Sea Project
FEARO Date: 83.02.24 Panel Index L
Document Date: 83.02.07
Document: Band Council Resolution
"That the Old Crow Band Council request that no
development in Northern Yukon until land claims is
settled. "

1.7.1 #112 FEARO Date: 83.02.04 Panel Index D
Document Date: 83.02.15
Document: Correspondence from Georges Erasmus,
President, Dene Nation to
Hon. John Munro, Minister, DIAND.
Re: Yukon North Slope. Objection to activities
allowed on the North Slope of the Yukon
Territories.

FEARO Document

Beaufort Sea Project

1.7.1 # 113

FEARO Date: 83.03.16
Document Date: 82.12.28
83.02.11

Panel Index E

Document: Correspondence between
MR. T. Beck, Chairman, Canadian Advisory
Council
Hon. J. Roberts, Minister, Environment Canada

Re: Proposed shore base facility at Stokes
Point in the Yukon Territory and suggestion
that any decision should be deferred until
the Beaufort Sea Environmental Assessment
Review is complete.

Attachment: Statement by the Hon. J. Roberts,
(House of Commons, Issue No. 62.) expressing
his unequivocal opposition to any permanent
port site being decided upon until the
Beaufort Sea environmental assessment process
is completed.

1.7.1 # 114

FEARO Date: 83.03.15
Document Date: 83.02.25

Panel Index E

Document: Correspondence to Mr. Freddy
Greenland, Aklavik Dene-Metis Council,
from D.R. Motyka, Gulf Canada Resources.

Re: Gulf's requirement for a marine supply
base at Stokes Point, Y.T., to support
exploration activities in the Beaufort Sea.

Response to concerns over a meeting held in
Aklavik to clarify the distinction between
Gulf's current proposal for a marine supply
base at Stoke Point and the content of the
EIS which outlines a range of long-term
future options for eventual oil and gas
development in the North. Ten points
presented by the Gulf representatives are
listed.

1.7.1 # 115

FEARO Date: 83.03.15
Document Date: 83.03.02

Panel Index: E

Document: Correspondence
to: Mr. J. Fulton, M.P., House of Commons
from: Hon. J. Roberts, Minister, Environment
Canada

Re: Question concerning Japanese proposal to
export Beaufort Sea oil in Japanese tankers.
Response indicated that "This longer term
alternative of a tanker route around Alaska
is being considered by the Beaufort Sea Panel
as part of its review. However, the Panel
has received no information on and is
therefore not including in its review any
consideration of the specific Japanese
proposal mentioned in your letter."

1.7.1 # 116

FEARO Date: 83.03.16
Document Date: 83.02.25

Panel Index J

Document : Correspondence
to: Mr. A.T. Davidson, Assistant Deputy
Minister, Parks Canada Program
from: G.N. Faulkner , Assistant Deputy
Minister, DINA

Re: Enclosure of a letter to Mr. Dan Motyka,
Vice-President, Gulf Canada Resources.
Although alternative sites are being
assessed, Stokes Point is indicated as a
front runner. The fact that Gulf's rights to
the use of land in the area can be limited
and that any land temporarily disposed to
Gulf's use can revert to the Crown for use as
a park, etc. is emphasized. The cooperation
of Environment Canada "to ensure the long
term integrity of any recommended site in
relation to its future use as a park "is
encouraged.

Attachment: Correspondence, Mr. D.R. Motyka
from G.N. Faulkner requesting confirmation of
certain points:

- facilities on the Beaufort Coast are for
exploration activities only
- a land tenure in the form of a lease or
licence of limited duration is acceptable
- an all weather road link is not required
- the use of any borrow, granular or bedrock
materials from an inland source is not
required, including the use of rock from
Mount Sedgewick.

1.7.1 #117

FEARO Date: 83.03.16 Panel Index: J

Document Date: 83.02.28
83.02.25
83.02.23

Document: Correspondence from Hon. J.C. Munro, Minister, DINA to Mr. John M. Gillett, National and Provincial Parks Association of Canada; Ms. Cynthia Llewellyn, Project North; Ms. Aileen Harmon

Re: Response to letters regarding the status of lands in the northern Yukon withdrawn from disposal by Order in Council, and relationship to Gulf application for Stokes Point harbour site. The letters note that while the Beaufort Sea Hydrocarbon Production proposal was referred to FEARO for review, exploration activities fall outside the mandate of the FEARO Beaufort Sea Environmental Assessment Panel, and will be decided by UINA. The questions of changes to the Order in Council withdrawing the lands in the North Yukon is indicated as premature until the Facilities Siting Study has been completed.

1.7.1. # 118

FEARO Date: 83.03.16 Panel Index: J
Document Date: 83.02.14

Document: Correspondence from Hon. John Roberts, Minister, Environment to Ms. Cynthia Llewellyn, Project North.

Re: Response to letter regarding the proposal by Gulf Canada to establish a marine supply base at Stokes Point, and noting his opposition to the current proposal.

FEARO Document Beaufort Sea Project

1.7.1 # 119

FEARO Date: 83.03.21 Panel Index E

Document Date: 83.03.02 and 83.01.31

Document: Correspondence between Mr. Jim Fulton, M.P. and the Hon. John Roberts, Minister of Environment
Re: Announcement that the Science Technology of Japan has decided to proceed with the study on the feasibility of extracting crude oil from the Arctic Ocean seabed by means of artificial islands and which would see 200,000 ton Japanese tankers in the Beaufort Sea.

Response by Hon. John Roberts comments on the Beaufort Sea Review but indicates that the review is not considering that specific Japanese proposal.

1.7.1 # 120

FEARO Date: 83.03.21 Panel Index J

Document Date: undated

Document: Statement of interest: A program for monitoring cumulative socioeconomic impacts in the Beaufort Region.
By Cornerstone Planning Group Limited.

Abstract. The proposal addresses the need for monitoring (adequate base case data, required outline of purposes of proposed research) and discusses the problems with cumulative impact monitoring under the following headings:
- geographic orientation- project orientated and site specific rather than regional.
- timing of assessment - impact assessment monitoring concentrates on pre-project phases.
- intangible impacts - impact of resource developments on local communities and Inuit lifestyle which are difficult to measure.
- organizational questions- past attempts at monitoring have been unsuccessful because of lack of attention to organizational questions.

- mitigation and significance of impacts- it takes an agency with a regional - cumulative perspective to assess the significance of the information, and to recommend mitigation activities or compensation (DIAND suggested).

"What is proposed here is the development of an organizational and methodological framework for socio-economic impact monitoring for the Beaufort region." A research framework is outlined and research tasks listed. Briefly, some of the tasks included definition of departmental and other objectives, establishment of a small project review panel, issue analysis, exploration of relevant criteria for assessing significance of issues, selection of impacts which should be monitored, provision of means of linking indirect impacts, determination of socio-economic indicators, development of an organizational framework, and a study of the relationship between the monitoring program and potential mitigation and compensation procedures.

1.7.1 # 121

FEARO Date: 83.03.21 Panel Index J
Document Date: 82.12.06
Document: Notes for remarks by the Hon. John Munro, Minister of Indian & Northern Affairs at the 6th Biennial Joint Canada/United States Meeting on Science and Technology, Ottawa, October 26, 1982.

The speech notes that the needs and aspirations of northerners and the maintenance of environmental quality must be the prime consideration in the course of development of northern resources. The role of science in the assessment role is emphasized, the role of EARP noted, the establishment of the Environmental Studies Revolving Funds included as examples of the role of science in the planning of major projects.

1.7.1 # 122

FEARO Date: 83.03.26 Panel Index J
Document Date: 83.03.10
Document: Address by: the Honourable Richard Nerysoo to the Banff School of Management Land Use Policy and Planning Seminar, evening of March 10, 1983, Banff Centre.

- The speech addresses the broader issue of resource decision making rather than specifically focusing on land use planning. The split in the jurisdiction and responsibilities between the Federal and Territorial Governments is discussed, and the resulting problems indicated. The Resource Development Policy is reviewed in terms of purpose and primary elements of the Policy. Elements discussed include the designation and prioritization of Development Impact Zones, a Territorial Assessment and Review Process which will lead to a set of terms and conditions under which a project would receive GNWT support, and the third element identifies requirements for monitoring resource development activities. Land use planning is important and must be consistent with the Resource Development Policy if it is to be effective.

1.7.1 # 123

FEARO Date: 83.03.28 Panel Index J
Document Date: 82.11.24
Document: North of 50 - Statement
Statement of Commissioner J.E.J. Fahlgren
Presented in the Town of Sioux Lookout
Re: Explanation on a ruling dealing with the nature of the inquiry and the appropriate place and purpose of cross-examination by parties of submitters.

1.7.1 # 124

FEARO Date: 83.03.28 Panel Index J
Document Date: March 1983
Document: Report by Canadian Superior Oil Ltd. describing the company, wells drilled, production volumes, Beaufort Sea interests, principle officers and directors, and history.

1.7.1 # 125

FEARO Date: 83.04.12 Panel Index E
Document Date: 83.03.23
Document: Correspondence to Hon. John Roberts from Janet L. Grand, National and Provincial Parks Association of Canada including a letter sent to members of the cabinet. The letter is attached and relates to Gulf Canada's request to develop a marine support base within an area set aside for national park

purposes. Items noted in this letter include :

- A 1978 Order-in-Council withdrew from disposition an area in northern Yukon for a national park
- a report from Environment Canada identifies the Northern Yukon as one of the most significant areas of interest and concern to their department
- a Gulf Canada report "concludes that construction and operation of the base including ship, vehicle and aircraft movements would have adverse effects on the vegetation, the caribou herd, arctic fox, snow geese and other birds, ringed seals, fish and other marine life. This does not include the potentially catastrophic effects of an oil spill."
- The Agreement-in-Principle signed by Canada and COPE in 1978 set that area aside for a National Wilderness Park and further provided that certain lands, including Stokes Point, "in the event that they are withdrawn from the wilderness park, will become Inuvialuit lands, with fee simple absolute title".

The letter notes that DIAND has recently acquired a legal opinion that the Minister may permit the proposed development without amending the Order-in-Council and the cabinet is urged to take a firm position against such a decision.

1.7.1 # 126

FEARO Date: 83.04.07 Panel Index D
 Document Date: 83.03.21
 Document: Correspondence to the Hon. John Roberts from David Brooks, Executive Director, Beaufort Sea Alliance
 Re: Release of the Statement of Deficiencies on the Environmental Impact Statement for Hydrocarbon Development in the Beaufort Sea-Mackenzie Delta Region and congratulations for a job well done.

1.7.1 # 127

FEARO Date: 83.04.13 Panel Index J
 Document Date: 83.03.08
 Document: Speech by Yvon Dubé, Director General, Northern Environment, DIAND.
 Re: The wonders and pitfalls of land use planning in the northern regions of Canada.

Priorities for northern development as a result of the Berger Report are noted. The provision of the Constitution of Canada for special status for native peoples which does not require the imposition of existing political and administrative patterns on northern and implications of this are noted. The existing acts for managing land and resources in the north are listed with the conclusion that these activities, individually or collectively, do not constitute a land use planning system.
 "It can be said, briefly, that land use planning is a

process that should provide a framework to all, for preparing or adjusting policies, strategies and programs related to lands (including water) and resources."

The talk further addresses land use planning exercises to date, problems, participation from native groups, territorial governments, conservationists, and industry - all as activities which must be part of the exercise. Land use planning is presented as a common reference point and guide for decisions, as defining regional frameworks, as ensuring involvement of all interest parties, as an integrator of physical, biological, economic, social, political, cultural and individual aspects of life and as a vital process in the sense that it cannot ignore individual lives.

1.7.1 # 128

FEARO Date: 83.04.13 Panel Index J
 Document Date: 83.02.28
 Document: Speech by Yvon Dubé, Director General, Northern Environment, DIAND delivered at a "Conservation Workshop" in Whitehorse.
 Re: "Toward a conservation policy for northern Canada"
 - A talk addressing problems and general needs in addressing the problem of achieving a realistic, workable and effective conservation policy for the North"....
 "...DIAND's role in conservation is to lead and coordinate the many agencies responsible for conservation; it is not to do the job for them. You may use different words, but, essentially, DIAND must be a prudent, active and progressive land manager and co-manager."

1.7.1 # 129

FEARO Date: 83.04.14 Panel Index E
 Document Date: 83.03.31
 Document: Minutes - Special Meeting, Hamlet of Aklavik, March 31, 1983.
 Re: The order of business was Gulf's application for permit for Stokes Point. The motion proposed and carried was:
 "That the Aklavik Hamlet Council approve and voice no objections to the Land Use Application for a shore base facility at Stokes Point submitted by Gulf Canada Resources Inc. permitting that it does not lead to duplicate operations along the North Yukon Coastline in the future."

TEXTNAME: lib-1.7.1* (R)P: (p.01) 05

1.7.1 # 130 FEARO Date: 83.04.15 Panel Index D
Document Date: 83.04.08
Document: Dome Petroleum Correspondence
Re: Summary of EIS presentation to the high schools in
the Territories. Seven post-secondary institutions and
high schools were visited.

TEXTNAME: lib-1.7.1* (R)P: 06

FEARO Beaufort Sea Project
Reference No.

1.7.1 # 131 FEARO Date: 83.04.18 Panel Index J
Document Date: 83.04.07
Document: Notification of distribution of the Lancaster
Sound Atlas.

1.7.1 # 132 FEARO Date: 83.05.17 Panel Index J
Document Date: 83.04.14
Document: Correspondence from Hon. John Roberts,
Minister Environment to His Worship Mayor Anderson,
Nain.
Re: Resolution prepared by the Town Council of Nain and
the Community Council of Hopedale, Makkovik, Postville
and Rigolet on the subject of the Panel review of the
Beaufort EIS. Letter notes that the Panel will now
include effects of the project on the north coast of
Labrador resulting from tanker traffic in Davis Strait,
and encourages their participation in the review
process.

1.7.1 # 133 FEARO Date: 83.05.17 Panel Index J
Document Date: 83.02.25
Document: Correspondence to Hon. John Roberts,
Minister, Environment from William H. Rompkey, Minister
of State, Small Business and Tourism.
Re: Enclosure of resolution received from Nain,
Labrador calling for a review of the EIS in order to
include all areas South of 60 relevant to the project
and to ensure that environmental regulations are
enacted for areas south of the 60th parallel.
Appropriate action requested.
Resolution attached.

TEXTNAME: cat-1.7.1 (R)P: (p.01) 01

1.7.1 # 134 FEARO Dist: 83.06.08 Panel Index J
Doc. Date:
Document: Briefing Notes - Beaufort Environmental
Monitoring Workshop I

DIAND and DOE have initiated a program entitled the
Beaufort Environmental Monitoring Project (BEMP). The
goal of this project is to provide DIAND with
recommendations for a comprehensive and defensible
research and monitoring program for the Beaufort Sea
area. The BEMP consists of two workshops six months
apart which will attempt to construct a simulation
model of the Beaufort Sea. The briefing notes describe
the process and preliminary results of the first
workshop held May 1983. Appendices provide a description
of the Beaufort Environmental Monitoring Program
Project and a description of Adaptive Environmental
Assessment.

The briefing notes include:

- Definition of adaptive environmental assessment and
management technique (involves the construction of a
simulation model from submodels that are developed in
workshops by interdisciplinary groups of experts).
- definition of monitoring and valued ecosystem
components
- Workshop description
- Preliminary research and monitoring needs - derived not
from testing of the model but from professional
opinions of those involved).

TEXTNAME: cat-1.7.1 (R)P: (p.01) 01

TEXTNAME: CAT.1.5.2 (R)P: (p.01) 06

1.7.1 # 135

83.03.15 Panel Index D
Document: Telex from Minister's Office (Environment) to Mr. Al Plum, President, Inuvik and District Chamber of Commerce, Northwest Territories.

Re: Acknowledgement of receipt of Telex regarding an indefinite delay in the public hearings on the Beaufort Development.

Telex attached which notes:

- concern over indefinite delay in Beaufort public hearings and a request that the Minister's not allow the indefinite delay due to sensitive environment and delicate economy of the region which might not be able to stand further development delays.
- request that the govt refrain from giving interest groups money to oppose the Beaufort Sea Development
- review process is too long for meaningful public participation
- the Panel is reviewing an early stage but requesting specific information
- the Panel's requirements for specific impacts on many communities is misleading in that there is only a slight chance many of them will have an impact.
- the Panel request from more community consultation stems from the southern interest groups, not northern communities
- public hearings should start without delay.

Attachment 2.

Response to Telex by the Hon. John Munro.

The response acknowledges the concern about the delay and desire to have public hearings as soon as possible. The delay is noted as not an indefinite delay, and necessary in order to have a meaningful set of hearings.

List of groups which received intervenor fundings is enclosed noting that most intervenors appeared to want development to be socially and environmentally acceptable, and were not simply in opposition to development.

- the need for including social impacts as well as environmental ones is commented upon.

FEARO Document Beaufort Sea Panel

1.7.1 # 136 83.05.03 Panel Index E

83.06.09

Document: Correspondence between Hon. John Munro, Minister, DIAND and Hon. John Roberts, Minister, Environment

Re: 83.05.03 Letter from Hon. John Munro expressing concern with the Beaufort Sea environmental assessment review and the expanded information requirements. (Letters from Mr. M.B Todd, Dome Petroleum Ltd. attached).

Concern was expressed that the review has passed from a conceptual review of preliminary development plans as referred by the initiator to a more detailed scrutiny without full consultation with the initiator.

Concern over the time elapsed since referral and the open-ended review process

Terms of Reference to the Panel continue to pose a problem to the initiator on matters of scope and interpretation relating to exploration and Greenland.

Attachments already filed 1.4.1 # 83.03 (7); 1.4.1 # 83.03 (12)

83.06.09 Response by Hon. John Roberts, Minister Environment.

Response indicated that the letters from Mr. Todd had already been responded to (Responses attached -previously filed 1.4.1 # 83.04. (9); 1.4.1 # 83.05 (5)).

In response to concerns over time of the Beaufort Sea review process, additional time requirements have not been entirely the fault of the process. The desire for the review process to be completed as soon as possible is shared, but not at the expense of an incomplete review.

Regret expressed that concern still exists with the Terms of Reference and meetings will be arranged to discuss issues involving exploration and Greenland concerns.

LEXNAME: cat-1.7.1 (R)P: (p.01) 01

FEARO Document

1.7.1 # 137 FEARO Dist. 83.07.08 Panel Index J

Beaufort Sea annual Canada / USA consultations , Ottawa
June 30, 1983. A discussion paper.

Paper proposing a format for future meetings and
proposing that the meetings continue.

1.7.1 # 138 FEARO Date: 83.08.09

Document Date: 83.07.21 Panel Index E

Document: DIAND Communique

Re: Munro seeks comprehensive agreement on North Slope.

A comprehensive package development on the Yukon's North Slope is intended to be finalized by the fall. This will determine the response to Gulf's Stokes Point application and to the proposal by Peter Kiewit and Sons to develop a large quarry. Optimism over land claim negotiations was expressed. Four elements in addition to land claim settlement are identified. The proposal for a special Project Review Group to assess the Stokes Point proposal and the quarry application was noted with all parties agreeing that this approach was acceptable.

FEARO Document

1.7.1 # 139 FEARO Date: 83.07.21
Document Date: 83.07.05 Panel Index J
Document: Minutes on regular meeting of Hamlet of
Aklavik
Re: Discussion of liquor control

1.7.1 # 140 FEARO Date: 83.07.08
Document Date: 83.05.03 Panel Index J
Document: Correspondence between Andrew R.
Thompson, U.B.C., and the Hon. John Munro,
Minister, DIAND
Re: Development of an Action Plan for Northern
Conservation and the consensus reached on this at
the Workshop held in Whitehorse. Confirmation
that the proposal to establish a task force has
been accepted.

1.7.1 # 141 FEA83.07.10
Document Date: 83.06.20 Panel Index J
Document: Telex to Mr. D. Lowing, Asst. Deputy
Minister, Dept. Local Govt., Govt N.W.T., from
Mr. Warrem Schmitek, Development Officer, Norman
Wells, NWT,
Re: Expression of Hamlet Council displeasure with
the agencies issue of a development permit
involving the oil pipeline construction in the
Norman Wells BLT area without the standard local
council approval prior to this issue. Concern is
with the purity and security of the potable water
supply.

1.7.1 # 142

FEARO Date: 83.07.13

Document Date: 83.06.07 Panel Index J

Document: Minutes, Regular Meeting of Hamlet of
Aklavik

Subjects: Outline and mandate of the Development
Impact Zone Group as detailed in the Resource
Development Policy of the Govt. of NWT.

1.7.1
#143

Dist. Date: 83.08.25 Panel Index J
Doc. Date: 83.08.04
Document: Press Release by Mackenzie Delta Dene
Regional Council

Re: Conclusions drawn by the Dene from the findings of a recent socio-economic planning study by the Regional Council are "We are being denied our human rights to participate as equals with other Canadians..."

Statistics on income, social assistance, education, and health show that the Dene on the MacKenzie Delta continue to occupy a position of severe economic and social disadvantage."

1.7.1
#144

Dist. Date: 83.08.26 Panel Index E
Doc. Date: 83.08.02
Document: Press Release by Dene Nation.

"Munro omits Dene from committee to consider Yukon North Slope developments."
Concern expressed that the Dene people of the Delta communities depend on the caribou from the Porcupine herd, ducks, geese and other forms of wildlife that stage and feed on the North Slope. Concern expressed that the findings of the committee will not be very comprehensive due to limited time frame, limited scope, and lack of independence (chaired by DIAND which is encouraging development in the area.

1.7.1 # 145 Dist. Date: 83.09.13
Doc. Date: 83.08.10 Panel Index J
Document: Minutes of the DIZ Group meeting, June
21-22, 1983.

Minutes include comments on the DIZ Group constitution and bylaws; application to register the group as a Society; motions by community councils to join the DIZ Group (these include Aklavik, Inuvik, Fort MacPherson, Sachs Harbour, Holman, and Coppermine), visits to communities to obtain work plan ideas, work plans for 1983.

Esso and Gulf both reported that the companies had decided to cooperate with the DIZ Group but that the companies still wanted to maintain direct contact with the communities.

Concerns about the Beaufort development raised included:

- . the current and future methods of reviewing oil companies' operations;
- . the companies employment policies;
- . the need for proper training facilities and guaranteed jobs upon completion of training;
- . business opportunities especially matters such as their availability and the mechanics of how to become involved.

The possibility of making a presentation to the Beaufort Sea Environmental Assessment Panel was discussed with plans discussed re travel to the communities to collect community concerns about action plans and development matters for presentation to the DIZ Group and the Panel.

A presentation on GNWT's concerns about Beaufort Development provided the Directors with an advance look at items expected to be presented to the Panel.

1.7.1 # 147 Dist Date: 83.09.19
Doc. Date: 83.09.13
Document: Communique DIAND

Re: Task Force on northern conservation announced.
"The establishment of a Task Force on Northern Conservation was announced today by Indian and Northern Affairs Minister John Munro. It will make recommendations to the Minister respecting a comprehensive conservation policy for the Northwest Territories and Yukon as well as a strategy for its implementation together with conservation targets which could be met over the next two years." Terms of Reference are attached and a list of members of the Task Force.

1.7.1 # 148 Dist Date: 83.09.19 Panel Index J
Document Date: 83.09.02
Document: Memo to Deputy Minister, Environment Canada
from the Assistant Deputy Minister, Planning, Regional
Director General, W&NR

Re: Third Assembly of the Inuit Circumpolar Conference
July 25 - 31, 1983, Frobisher Bay.
A number of resolutions of relevance to Env Canada were
passed at this conference and are summarized briefly
under the headings:

- migratory bird convention
- wildlife agreement-in-principle with Tungavik
Federation of Nunavut
- North Slope Yukon
- marine environment cooperation agreement
- circumpolar environment pollicy
- arctic policy
- oil spill response standards and technology
- nuclear position
- energy
- subsidence rights
- science and research
- U.N. consultative status.

The recommendation proposed is to give strong support
to the sponsering body of these recommendations and to
support the ICC's requests in certain areas.

1.7.1 # 149

Dist Date: 83.10.13 Panel Index E
Doc Date: 83.10.05 Document: Correspondence between
Mr. Don R. Harker, Interlog Ltd. and Mr. G.N. Faulkner,
Asst Deputy Minister, Northern Affairs, DIAND

Re: Application for permission to develop a Beaufort Sea Supply Base/Port development at King Point, Yukon Territory. The response to the application refers this proposal to the Beaufort Sea Review. This proposal is viewed as designed as a major facility geared mainly to serve the needs of industry during the production phase of oil and gas development. This is noted as being in contrast to the Stokes Point proposal which is being considered by DIAND but which is considered a small facility in support of the exploration program. The Kiewit proposal which is also being considered is in response to a defined market and timetable which requires the assessment to be completed in the next few months. This is in response to the argument by Interlog that a play at "semantics" is involved..that all supply bases start as exploration bases (examples given) ...and that Kiewit should be heard by the Project Review Committee.

1.7.1 # 150

Dist. Date: 83.10.18 Panel Index E
Doc. Date: 83.10.14
Document: Correspondence to Mr. Robert B. Gibson,
Director, Canadian Environmental Law Association
From: Hon. John Munro, Minister DIAND

Re: Gulf Canada's application to construct facilities at Stokes Point. The letter notes that DIAND is not predisposed to locating a marine support base at Stokes Point or any other North Slope location. However it is noted that after granting exploration rights to the company, DIAND cannot impose unreasonable operating conditions which limit's their exercise of these rights. The review and selection process is then outlined. The letter notes that a decision need not await the results of the Beaufort Sea Environmental Assessment Review Process. When DIAND referred hydrocarbon production for review, exploration activity was specifically excluded from consideration by the Panel. Initial environmental assessment of Gulf's application indicates that environmental impacts can be maintained within acceptable limits. Other planning activities (Parks Canada's amendments to the National Parks Act, Canada/COPE negotiations) are noted as indication of DIAND's commitment to the general objective of conservation for the area.

1.7.1 # 152

Dist Date: 83.12.01
Doc. Date: 83.11.09
Doc: Memo to members of the Senior Management
Committee from J. Gérin, Deputy Minister,
Environment Canada

Re: North Slope Task Force

The departmental position concerning the Yukon North Slope is reaffirmed and summarized. The purpose of the North Slope Task Force is identified as "to pull under a single responsibility all of the department's efforts directed at the policy" and the objectives are listed. Membership, initiatives and time frame are also covered, with a final note on initiatives possible to the department in order to ensure the proper disposition of the North Slope.

1.7.1 # 153

Dist. Date: 83.12.01
Doc. Date: 83.10.31
Doc: Correspondence to the Hon. Charles Caccia, Minister of the Environment, from Margie Gibson, Friends of the Earth concerning decisions related to the Yukon North Slope..."We respectfully urge any consideration for other than conservation purposes await resolution of COPE, CYI, and Dene land claims, a final recommendation by the Beaufort Sea Environmental Assessment & Review Panel, and the preparation of a proper regional land use plan.

1.7.1 # 154
83.12.07

Dist Date: Panel Index J
Doc. Date: 83.11.30
Doc: Correspondence to the Hon. John A. Fraser from the Hon. John Munro concerning questions in the House re Stokes Point raised May 5 and subsequent letter of May 20. Letter notes that the Minister does not consider DIAND's consideration of Gulf's request for temporary exploration support facilities premature and presents reasons for this position. Steps taken during review of this proposal are noted with the final decision "that we are too close to agreements on land claims to jeopardize the substantial progress that has been made. I therefore have decided against allowing these projects to proceed for the time being. "

1.7.1 # 155

Panel Index B

Dist. Date: 84.01.03

Doc. Date: 83.12.06

Doc: Correspondence to the Hon. John Munro from the Hon. Pierre DeBané, Minister of Fisheries & Oceans re proposed developments for the Yukon North Slope. Letter presents three general conclusions (opposition to the development of a harbour site west of Kay Point; preference for no more than one harbour site; site selection should be based upon a carefully conducted land use planning exercise).

FEARO Beaufort Sea Project
DOCUMENT

- 1.7.2 #1 FEARO date: 81.05.26 Panel Index J
Memo to: Panel Members
Beaufort Sea Environmental Assessment Panel
From: Panel Secretariat
Enclosures: Background Papers by Ross Mackay on offshore
permafrost, ice-wedges and pingos.
- 1.7.2 #2 Panel Date: (circ.) Panel Index J
Reference:
Johannson, B.M. and J.T. Stubb, 1980
The development of an environmentally safe Arctic Tanker.
Dome Petroleum Ltd. Calgary. Presented at Fairmont, B.C.
1980
- 1.7.2 #3 FEARO date: 81.05.29 Panel Index J
Memo to: Panel Members
From: Panel Secretariat
Enclosures: Copies of the four Beaufort Sea Project Overview
reports and a list of the Beaufort Sea Project Technical
Reports

1.7.2 #3.1 Blood, Donald A. 1977. Birds and marine mammals:
The Beaufort Sea and the search for oil. Beaufort
Sea Project Overview Report. Dept. Fisheries and
Environment, Victoria, B.C. 124 p.

Joint funding from governments and petroleum
companies enabled the establishment of the Beaufort
Sea Project. Forty-five studies were designed to
produce information on the wildlife, marine life
oceanography, meteorology, sea ice, and oil spill
counter measures of the Beaufort Sea Area. Animal
populations and the northern ecosystems of which
they are a part are slow to recover from damage
inflicted by man. Impacts of oil contamination on
wildlife varies from season to season depending on
susceptibility to damage, and the number present.
Potential damage is greatest with diving sea birds,
the oil reducing the insulative quality of their
feathers. Seals were found to suffer from
psychological stress, poisoning, and irritation of
sensory glands. Polar bears were thought to suffer
from soiled coats and reduced hunting mobility,
serious detriments to their survival. Mortality
would be greatest in sea bird and bear populations.
Cleanup of oil damage would be easier than the
dispersal of wildlife. Susceptible waterfowl have
been dispersed with some success but larger mammals
have tended to resist efforts. As a last resort
rehabilitation of stricken wildlife could be
attempted but in the event of a major spill most
waterfowl would have to be destroyed. Sufficient
knowledge is now available to safely say that large
or premature industrial development could have
catastrophic environmental consequences.

A reasonable account of when, where and why some birds or mammal populations may be vulnerable to oil pollution in the Beaufort Sea was presented.

Autumn (September/October). Many animals have left the southeastern Beaufort Sea at this time. However up to one-half million snow-geese, white fronted geese and brant use the mudflats and marshes of the Mackenzie delta as a staging ground at this time. Oil fouling would be an immediate threat to the birds and would affect plant growth and overall health of the marshes.

WINTER (November/April) Bearded seals rely on offshore leads for overwintering and would be most vulnerable, although polar bear, fox and seals would all encounter oil in offshore leads.

SPRING (May/June) Winter residents are still present, the pupping and nursing of seals is underway and the annual molt is soon to start, all increasing susceptibility to oil contamination. A spring oil spill would take its heaviest toll in waterfowl. Migrating whales would also be susceptible at this time.

SUMMER (July/August) White whales in the Beaufort Sea seem to use only the Mackenzie River estuary as calving grounds. If access was prohibited in successive years, the survival of the population would be at risk. A summer oil spill could damage the coastal areas, salt marshes and mud flats used as nesting grounds for thousands of colonial birds such as terns, gulls and geese. Chronic damage to nesting, feeding and staging site would be worse than the actual mortality to seabirds.

In the event of a major oil spill, some species are more vulnerable than others due to physiology, behaviour, diet or habitat selection. The specific vulnerability of birds, whales, polar bears and seals are discussed.

Certain unknowns were identified: lack of knowledge about overwintering range of bowhead and white whales, need for longer term data on distribution and abundance of seals and polar bears, lack of biological knowledge of the Arctic fox, and importance of open water leads to seabirds.

Abstract: CENV with additions

1.7.2 #3.2 Milne, A. Oil, ice and climate change: The Beaufort Sea and the search for oil. Beaufort Sea Project Overview Report. Dept. of Fisheries and Oceans, Victoria, B.C. 103 p.

Ramifications of possible oil spills during initial drilling or extraction and transport stages of the petroleum recovery process are examined, in particular, effects of an undersea oilwell blowout, or a major spill from a submerged pipeline or tanker ship in ice-cluttered waters. The fate of this oil, its role in possible destruction of the ice in the Arctic Ocean and how it intermixes with ice of the Beaufort Sea are subjects of this review.

Chapters are devoted to the following subjects: Concerns - Costs, dependency on arctic oil and rapid development of technology; oceanic pollution and concern that small amounts may have damaging effects through accumulation in the biological system or modification of behavioural patterns; tanker transportation and concern over obsolete charts; possible supertanker or submarine tanker use; safety procedures now in use. Under current conditions, the worst emergency would be an unstoppable oil blowout with insufficient time to drill a relief well.

Sea Ice - Ice growth, types and zones; drilling sites and seasons; blowout countermeasures.

Subsea Blowout - Simulations of a subsea blowout have been studied, and blowout in open water, in ice-infested seas, under landfast ice, under the seasonal pack ice, and in the polar pack ice are discussed.

Spread of Oil - Oil under ice, oil and gas under ice, encapsulation, upward migration and weathering and burning are discussed.

Immediately after oil emerges, there will be a few days when it may be burned. A burnoff does not mean that all the oil has been eliminated, usually several burn-offs are required. Burnoff residues create problems themselves, and chances of burning off oil in melt pools is low. Oil that gets into the ice from a blowout will eventually circulate with the ice of the Beaufort Gyre.

Climate, Sea Ice and Oil: The question of whether a large oil spill into the Arctic Ocean could change the world's climate was addressed. Under the assumptions made to estimate size of spills, frequency and effect on sea ice, the ice area lost each year will remain small compared to natural variations and should not have a perceptible effect on global (or local) climate.

1.7.2 #3.3 Milne, A.R. and R.H. Herlinneaux. Crude oil in cold water. The Beaufort Sea and the search for oil. Beaufort Sea Project Overview Report. Dept. of Fisheries and Ocean, Victoria, B.C. 119 p.

Part of the information from the Beaufort Sea Project Technical Report Series has been used in this report to develop an oil spill scenario and assess impact on the environment. The following description was given in the Introduction to the report, p. 10.

The southern Beaufort Sea is a huge estuary where the Mackenzie River meets with the Arctic Ocean. Oil spilled in this estuary would be moved by the flows of these intermixing waters in the summer. In winter, it would drift with the sea ice. The purpose of this book is to trace the drift of oil flowing unchecked from an imaginary offshore blowout through the seasons of the year. No mathematical models of oilspill trajectories will be developed. Mathematical representations of sea, wind and ice interactions in the Beaufort Sea lie beyond our present abilities.

Much of the text is devoted to the oceanography of the Beaufort Sea and features such as sediments, storm surges and sea ice. Diagrams near the end of the book show the possible spread of oil from a blowout for the spring, summer and winter. These predictions show where and when the oil is most likely to appear but do not forecast its actual drift; this cannot be done with any more accuracy than next summer's weather can be foretold.

The message is implicit: if an oilwell blowout did occur on the continental shelf of the Beaufort Sea, the paths the spilled oil might take, its eventual fate, and possible effects on marine wildlife, are to a large degree unknown and unpredictable.

- 1.7.2 #3.4 Ross, S.L., W.J. Logan and W. Rowland. 1977 Oil Spill Countermeasures. The Beaufort Sea and the search for oil. Beaufort Sea Project Overview Report, Dept. Fisheries and the Environment, Ottawa, Ontario. 67 p.

This is a report on the state of the art in locating, containing and cleaning up oil released in the event of a blowout offshore in the Beaufort Sea. It is based on Beaufort Sea project technical reports 31A and 31B and on studies by consultants who were contracted by Fisheries and Environment Canada to examine specific aspects of the problem. It must be emphasized that much of the technical information, particularly in those sections dealing with containment and cleanup techniques, is necessarily speculative due to limited research data and operating experience. 10 fig.
Source: CENV

Factors covered in this review which relate to the environmental restriction on oil spill countermeasures are discussed under the headings: Dynamics of sea ice; Interactions of Oil with Sea Ice; Locating and tracking oil; Containment and cleanup at sea; and cleanup on the beaches.

In terms of cleanup at sea, only on landfast zones does there seem to be promise of containing oil within manageable boundaries. Only on landfast ice will it be possible to burn off any significant portion of the spilled oil, but a great deal of unburnt oil residue will remain. Most of this will be dispersed in open water with the ice breakup.

In terms of beach cleanup, the arctic environment imposes restrictions on almost every cleanup technique developed in temperate zones. Cleanup is likely to be effective only in the case of sand and possible shingle beaches (about half of the total shoreline). No cleanup would be feasible in areas of cliffs, tundra, or mud flats.
Abstract: CENV with additions

- 1.7.2 #4 FEARO date: 81.06.21 Panel Index J
Document date:
Document: Correspondence
To: J. Gerin, Senior Assistant Deputy Minister
Environment Canada
From: D.J. Gamble, CARC
Re: "Risk Analysis. One Chance in a Million". A paper presented at the Fourth Annual Technical Seminar of AMOP. 1981

- 1.7.2 #5 FEARO date: (circ) Panel Index J
Reference:
Rees, William E. 1981. EARP at the Crossroads:
Environmental Assessment in Canada. EIA Review 114. p. 305

- 1.7.2 #6 Panel Index J
Reference:
Bowhead Whales in the Beaufort. October, 1980 (Extracts).
L.C.L. Ecological Research Associates.

- 1.7.2 #7 FEARO date: 82.03.04 (distributed) Panel Index K
Documents: Memo to Panel members from Secretariat informing of the addition to the library of two interim reports on physical oceanographic data inventories for portions of the Canadian Arctic.

FEARO Beaufort Sea Project

DOCUMENT

1.7.2 #8

FEARO date: 81.05.26

Panel Index K

Reference:

Braham, Howard W., Fraher, M.S., and B.D. Krogman. 1980. Spring migration of the Western Arctic population of Bowhead Whales. Marine Fisheries Review. September, October. pp.36-46.

1.7.2 #9

Panel Date: 82.02.09 (Distribution)

Panel Index J

Reference:

J.N. Koblanski. 1981. Oil spill removal in the marine environment utilizing acoustic energy. The Journal of Canadian Petroleum. July - September. pp. 92-96
Location: Binder.

1.7.2 #10

FEARO date: 82.01.29

Panel Index J

Document: Memo to Panel Members form Secretariat informing of availability of four papers relating to North Sea Oil Development:

- Labour migration and Oil
 - North Sea Oil and Aberdeen Economy
 - Way of Life and Identity
 - Social Changes in Dunrossness - A Shetland Study
- Location: Shelf 1.7.2 #10.1, 10.2, 10.3 and 10.4

1.7.2 #11

Panel date:

Panel Index J

Document:

San Diego Workshop on the Interactions between man-made noise and vibration and Arctic marine wildlife. 25-29 February, 1980. Report and Recommendations. Acoustical Society of America

1.7.2 #12

Report:

Panel Index K

Nelson, J. Gordon. 1981. (A seminar with J. Gordon Nelson). Managing petroleum development in the Shetland Islands, Alaska's North Slope, and Canada's Beaufort Sea: Human Settlement Issues. Occasional Papers 19.

1.7.2 #13

Information Document

Panel Index K

Liquified Natural Gas by the Arctic Pilot Project.

1.7.2 #14

Report: Alaska Highway Gas Pipeline Routing Alternatives. Report of the Environmental Assessment Panel. Federal Environmental Assessment and Review Panel. Reports No. 17.

1.7.2 #15

DIAND.

Panel Index K

Review of the 1980 Beaufort Sea Drilling Program. Published under authority of Honourable John C. Munro. Minister of Indian and Northern Affairs. Ottawa 1981.
QS-8277-000-EE-A1.

File Reference: Beaufort Sea Project 3.1 #6

Objective:

As directed by Cabinet in May 1976, and confirmed by Cabinet in Spring, 1980, Dome Petroleum Ltd.'s Beaufort Sea Drilling program conducted by Canadian Marine Drilling Co. (CANMAR) has been subjected to an annual comprehensive review. This report informs Cabinet of the findings from a review of social-economic-cultural matters, environmental impact and technical aspects of Dome Petroleum/CANMAR's 1980 operations in the region of the Beaufort.

1.7.2 #16

Report

Panel Index K

McNamee, Peter J., and M.J. Stanley and R. Hilborn. 1981. Report of a simulation modelling workshop on the environmental consequences of Beaufort Sea hydrocarbon development. A report for the Department of the Environment Vancouver, B.C.

Summary (from report):

A four day workshop, sponsored by the Department of Fisheries and Oceans, was held at the University of British Columbia on March 16-19, 1981, on the environmental consequences of Beaufort Sea hydrocarbon production. The workshop was held to expose uncertainties and issues concerning the response of the biophysical system in the Beaufort Sea region to possible industrial development for oil and gas. The workshop was conducted using the methodology of Adaptive Environmental Assessment and Management and had the following specific objectives:

(a) identify key issues of environmental concern relating to Beaufort Sea oil and gas development;

(b) identify critical uncertainties about the environmental consequences of Beaufort Sea oil and gas development; and

(c) identify features of Beaufort Sea development that could be modified to reduce detrimental environmental effects.

To meet these objectives, the workshop focused on the construction of a numerical simulation model which integrated the hypotheses of workshop participants on the dynamics of the natural biophysical system and the effects of development on that system.

- 1.7.2 #17 Report: Panel Index K
Jacobs, Peter. 1981. People, resources and the environment. Public Review Phjase. Lancaster Sound
- 1.7.2 #18 FEARO Date 81.06.18 Panel Index K
Draft Report: (not formally accepted by the Panel)
Draft Scenario, Hydrocarbon Development Beaufort Sea - Mackenzie Delta. Dome, Esso and Gulf
- 1.7.2 #19 Report: Panel Index K
Dirschl, H. (Project Manager). 1982. Green Paper. The Lancaster Sound Region: 1980-2000. Issues and options on the use and management of the Region. Lancaster Sound Regional Study.

News Release.
- 1.7.2 #20 FEARO Date 81.10 Panel Index K
Reference:
Council of Yukon Indians. 1982. Land use planning, environmental assessment and land ownership in Yukon. A discussion paper. The Council of Yukon Indians, Whitehorse, Y.T. 12 pp.

Note:
A discussion paper on land use planning and environmental assessment in Yukon, proposing three principles:
- a comprehensive, decentralized, formal planning process - fully integrated with community planning process.
- environmental impact assessment of all proposed undertakings in Yukon that would have a significant impact on the social, economic and/or material environment
- guaranteed participation for Yukon Indian people in the planning and environmental assessment process.

A mechanism for a planning structure implementation and for the plans is outlined. Due to the special concern with the Northern Yukon, special measures are proposed for that area including -

- protection of the social and economic environment of the community of Old Crow
- protection of the natural environment on which the people of Old Crow depend
- conservation and sound management of the Porcupine Caribou Herd
- development of the Northern Yukon in a manner that respects the first three priorities and provides economic opportunities for the local residents.

Issue of land ownership is discussed. A body for interim land use planning is proposed, made up of Yukon Indians, Territorial Government and Federal Government representatives.

- 1.7.2 #17 Report: Panel Index K
Jacobs, Peter. 1981. People, resources and the environment. Public Review Phjase. Lancaster Sound
- 1.7.2 #18 FEARO Date 81.06.18 Panel Index K
Draft Report: (not formally accepted by the Panel)
Draft Scenario, Hydrocarbon Development Beaufort Sea - Mackenzie Delta. Dome, Esso and Gulf
- 1.7.2 #19 Report: Panel Index K
Dirschl, H. (Project Manager). 1982. Green Paper. The Lancaster Sound Region: 1980-2000. Issues and options on the use and management of the Region. Lancaster Sound Regional Study.

News Release.
- 1.7.2 #21 FEARO Date (Dist.) 82.09.28 Panel Index E
Reference:
Nepean Development Consultants. 1982. Government regulatory capability in the Beaufort. Prepared for Beaufort Sea Research Coalition. Ottawa, Ontario. 67 pp.
- 1.7.2 #22 FEARO Date (Dist.) 82.10.13 Panel Index G
Reference:
Northern Perspectives. Volume 10. No. 4. June - August, 1982. Published by the Canadian Arctic Resources Committee.

Activities include:
- Tourism on Ellesmere: What's inside the package
- A question of principle: Beaufort Sea Research Coalition disbands
- 1.7.2 #23 FEARO Date (Dist) 81.10.07 Panel Index J
Reference:
Beaufort Outlook. A Newsletter from the Northern Office of the Beaufort Sea Alliance.
Contents:
"Outlook Looks at Beaufort Issues.

Location 1.7.2 - Binder J

TEXTNAME: Dir-co-1-7-2 (R)P: 01

TEXTNAME: Uir-co-1-7-2 (R)P: 02

FEARO DOCUMENT
1.7.2

Beaufort Sea Project
Category 1.7.2 - Panel Material - General
Information (Papers &
Publications)

1.7.2 # (24)

FEARO Date: 82.11.22 Panel Index J
Reference: Sheridan, W. 1982. Canadian
petroleum requirements for the year 2000. Nepean
Development Consultants for Beaufort Sea Research
Coalition. Ottawa, Ont. 10 pp.
Summary from report attached:

1.7.2 # (25)

FEARO Date: 82.11.22 Panel Index J
Reference: Thomas, W.C. and M.E. Thomas, 1982.
Public policy and petroleum development: the
Alaskan case. 1982, Arctic 35(3): 349-357.
"Present and potential petroleum development in
Alaska is directly related to public policy
issues.
....Actual pipeline construction was dependent on
settlement of land claims with Alaska's
indigenous peoples and the development of
environmental safeguards. However, implicit in
the U.S. congressional decision to build the
pipeline was acceptance that expanded human
activity would impinge on northern Alaska's
pristine wilderness and that there was probable
risk of environmental damage....."(Au.)

1.7.2 # (26)

FEARO Date (dist.): 82.12.13 Panel Index J
Reference: Canadian Oil and Gas Lands
Administration, EMR 1981. Physical environmental
guidelines for drilling programs in the Canadian
offshore. Ottawa, Ontario. 13 p.
Abs. Guidelines issued in connection with the
Canada Oil and Gas Drilling Regulations.

1.7.2 # (27)

FEARO Date (dist.): 82.12.01 Panel Index E
Reference: Dome et al. September 1982. Uviluk
Island - Single steel drilling caisson ice and
geotechnical research program (1982-83). 8 p.
Abstract: A description of the new caisson
system for exploration drilling from a subsea
term developed by Dome is provided. This system,
the Single Steel Drilling Caisson, will be
located at "Uviluk" for 1982-83 and the unique
feature, of this artificial island are outlined.
An advanced ice and geotechnical monitoring
program has been developed which will produce
spin off technology and ice and geotechnical data
useful in design of future artificial islands. A
description of the caisson system and the
environmental conditions at Uviluk is presented.

FEARO DOCUMENT
1.7.2

Beaufort Sea Project
Category 1.7.2 - Panel Material - General
Information (Papers &
Publications)

1.7.2 # (20)

FEARO Date (dist.): 83.01.05 Panel Index
Reference: Notice to Panel and Technical Special
re Arctic Date Compilation and Approval Reports.

The following reports are available (some in
draft) in the Vancouver Library.

1. Arctic Date Compilation and Appraisal -
Volume 1 - Beaufort Sea: Physical Oceanography -
Temperature, Salinity, Currents and Water Levels;
2. Arctic Date Compilation and Appraisal -
Incomplete Draft - Beaufort Sea: Biological
Oceanography - Bowhead and White Whales;
3. Arctic Date Compilation and Appraisal -
Incomplete Draft - Beaufort Sea: Biological
Oceanography - Marine Associated Fishes;
4. Arctic Date Compilation and Appraisal - Draft
- Northwest Passage: Physical Oceanography -
Temperature, Salinity, Currents and Water Levels.

TEXTNAME: lib-1.7.2 (R)P: (p.01) 01

TEXTNAME: library-1.2 (R)P: (p.01) 04

FEARO DOCUMENT 1.7.2	Beaufort Sea Project Panel Material -General (Papers and Publications)	FEARO 1.7.2	Beaufort Sea Project Panel Material- General Information (Papers & Publications).
1.7.2 # 29	FEARO Date: Panel Index K Index to FEARO Library Holdings (Ottawa) Some annotations. Prepared for the Secretariat, Beaufort Sea Environmental Assessment Panel by E.M. MacDonald.1982-	1.7.2 #33	83.01.24 Panel Index B
1.7.2. #30	FEARO Date: 82.12.01 Executive Summary of Draft Discussion Paper on A Comprehensive Conservation Policy and Strategy for the Northwest Territories and the Yukon Territory <u>-DIAND</u> Contents: The history of past proposals to establish conservation and recreation areas north of 60 is reviewed. DIAND'S mandate in the area of conservation and recreation programs is outlined, and a conservation policy statement proposed. An implementation mechanism is discussed.	33.1	Notice to Panel that Dome Petroleum had sent four general papers as general Reference Documents. Guice, C. AND J. Hendricks. 1981. Gulf of Mexico outer continental shelf oil and gas development and environmental overview. Ninth Environmental Workshop on Offshore Hydrocarbon Development . May 1981. Fairmont , B.C. p. 19-33.
1.7.2. # 31	FEARO Date: 83.01.10 Document Date: November 1982 White, P. M. 1982. The essential elements of social impact assessment. Prepared for the Beaufort Sea Alliance, November 1982. 69p. Introduction from report follows, and Format outline.	33.2	Battelle Pacific Northwest Laboratories. Summary report on effects of oil discharges, domestic and industrial wastewaters on the fisheries of Lake Maracaibo, Venezuela. Prepared by Battelle Pacific Northwest Laboratories, Richland, Washington for Creole Petroleum Corporation, Caracas, Venezuela.
1.7.2. # 32	FEARO Date: 82.12.17 Document Date: Sept. 1982 Summers, T.J. 1982. Criteria and considerations for the implementation and conduct of regional planning in Northern Canada: a discussion paper. Prepared for Lands Directorate, Environment Canada, Vancouver, B.C.	33.3	Geraci, J.K. and D.J. St. Aubin.(University of Guelph). 1982. Study of the effects of oil on cetaceans. Final report. Prep. for U.S. Department of the Interior, Bureau of Land Management, Washington, D.C.
		33.4	Cowles, C.J., Hansen, D.J. and J.D. Hubbard. 1981. Types of potential effects of offshore oil and gas development on marine mammals and endangered species of the northern Bering Sea and Arctic Ocean. United States Department of the Interior, Bureau of Land Management, Alaska Outer Continental Shelf Office, Technical Paper Number 9. December 1981. 23 p. File Reference: Reports filed under 2.2 (General Lit. submitted to Panel) #15 to 18.

- FEARO Beaufort Sea Project
Panel Material - General Information (Papers &
Publications).
- 1.7.2 #34 FEARO Date: 83.01.31 Panel Index J
Reference:
Dickerson, M.O. 1982. Commentary: The Drury
Report and political development in the North.
Artic 35(4):457-464 .
The commentary presents review of the Drury Report
in order to determine how well the suggestions
address problems faced by people in the north.
- 1.7.2 #35 FEARO Date: 83.02.18 Panel Index J
Reference:
Abele, F. and E.J. Dosman. 1981. Interdepartmental
coordination and northern development. Canadian
Public Administration/Administration Publique du
Canada. 24 (3) : 428-451.
Abstract. (from report)
This paper examines the relationship of past and
current federal structures for northern policy
development to existing federal northern policy
requirements. Current policy-making machinery,
arguably appropriate to an earlier era of northern
development, now serves neither the interests of
any constituency - native or non-native
northerners or the northern resource development
industry - nor the national interest. On the
basis of a critical analysis of present
arrangements, available institutional options for
reform are identified and assessed. Far-reaching
structural reforms are recommended including the
abolition of the Department of Indian Affairs and
Northern Development (DIAND).
- 1.7.2 #36 FEARO Date: 83.02.10 Panel Index J
Reference:
Gulf Canada Resources. Response to
challenge. (Pamphlet)

Abstract. Pamphlet on Beaufort Sea operations including Canadian contribution, benefits to Canadians, staging and start-up.

1.7.2 #37 FEARO Date: 83.02.10 Panel Index J

Reference:

Esso Resources Canada. 1983. Mackenzie Delta-Beaufort Sea exploration agreement.

Folder containing pamphlets on :

Mackenzie Delta - Beaufort Sea Exploration Agreement

Employment Opportunities

Business Opportunities.

This catalogue is intended to provide details on business opportunities, Esso contracts, and instruction on how to get on Esso's Bidders List. An alphabetical listing summarizing business opportunities and timing for tenders is included and supplier/contractor information record, business opportunity plan, program status and a glossary of terms.

1.7.2 #38 FEARO Date: 83.02.23 Panel Index J

Reference:

Northern Perspectives. Published by the Canadian Arctic Resources Committee. Volume 7, Number 6, November-December 1982.

The theme of the issue is archaeology in the Northwest Territories.

1.7.2 #39 FEARO Date: 83.02.23 Panel Index F

Also filed Category 1.3 -Media clippings.

Russell, Don. Threats to northern habitats - the Dempster Highway and the Porcupine Caribou herd. 83.01.06

Transcripts of a program on the effects of the Dempster highway on the Porcupine herd.

TEXTNAME: lib-1.7.2 (R)P: (p.01) 01

TEXTNAME: lib-1.7.2* (R)P: (p.01) 01

1.7.2 # 40

Notes and attachments. Panel Index E

1983 Oil Spill Conference Feb. 28 - March 3.
Notes by U. Mackay
Attachments:

Buist, I.A., W.M. Pistruzak, S.G. Potter, N. Vanderkooy. 1983. The development and testing of a fireproof boom. Proceedings, 1983 Oil Spill Conference. February 28-March 3, 1983. p. 43-51.

Peabody, C.H. and R.H. Goodman. 1983. Innovative training: computer assisted learning. In Proceedings, 1983 Oil Spill Conference, San Antonio, Texas. 1983: 243-247.

FEARO Document

Beaufort Sea Project
Panel Material - General (Papers and Publications)

1.7.2 # 41

FEARO Date: 82.11.23 Panel Index J

1978. Inuvialuit Land Rights Settlement Agreement in Principle. 31-10-78.

1.7.2 #42

FEARO Date: 81.08.17 Panel Index J

Alaska Highway Gas Pipeline Environmental Assessment Panel. 1979. Alaska Highway Gas Pipeline Project - Yukon public hearings. Report of the Environmental Assessment Panel. Federal Environmental Assessment Review Office, Ottawa, Ontario. 61p.

Abstract: The report of the environmental assessment panel on the Yukon public hearings includes a review of the proposal; a review of the panel procedures, e.g. the review of the EIS and the public hearing phase; and identification of general concerns. Section IV identifies information required by the Panel for completion of the Panel review. The Panel information needs are discussed under the general categories of physical and engineering concerns, biological concerns, route alternatives, alternative modes, scheduling alternatives, and other issues (aesthetics, associated projects, recreational land use, noise, water use, waste water treatment and disposal, solid waste management, toxic and hazardous materials, fuels and contingency planning).

... "The Panel has concluded that information requirements outlined in this report, in the 1977 Interim Report and in the guidelines, should be provided in a revised Environmental Impact Statement to be prepared by the Proponent. This will permit the Panel to complete the environmental review of outstanding issues associated with a buried gas pipeline passing through areas containing permafrost. With regard to this last item, the Panel has requested that the Proponent prepare a detailed plan of study of the frost heave and thaw settlement problem, and that this plan be submitted to the Panel well before the technical hearings are reconvened.".... Au. p.56

1.7.2 #43 FEARO Date: 81.07.02 Panel Index J

----- 1981. Review of the 1980 Beaufort Sea drilling program. Published by Department of Indian and Northern Affairs, Ottawa, Ontario. QS-8277-000-EE-A1.

Abstract. "This report informs Cabinet of the findings from a review of social-economic-cultural matters, environmental impact and technical aspects of Dome Petroleum/CANMAR's 1980 operations in the region of the Beaufort."

The report provides background information on the drilling permits indicating the conditions or changes in conditions attached to these in 1976, 1978, 1979, and 1980.

Points noted as major findings of the review include fleet size, Dome expenditures, artificial island construction started, projects undertaken to improve efficiency of the overall exploration venture, and drilling activities at 7 wells. A technical summary, an environmental summary and a social-cultural-economic summary are included with recommendations arising from these reviews listed.

1.7.2 # 44 FEARO Date: 82.12.13 Panel Index J

----. Statistics Quarterly. Northwest Territories, Canada. Vol. 4, No.3 . 23p.

Statistics in this report are presented on a monthly, quarterly or annual basis and include: population; education; health; social services; alcohol; law enforcement; employment and income; prices; business activity; transportation and communication; oil and gas; mining; renewable resources.

1.7.2 # 45 FEARO Date: 82.06.24 Panel Index J

1982. Brief to the Special Committee of the Senate on the Northern Pipeline from the Department of Indian Affairs and Northern Development. Topic: development and transportation of hydrocarbons from offshore areas north of the 60th parallel. June 1982.

Abstract: The role of the Department of Indian Affairs and Northern Development is described, and its organizational make-up outlined. The general policies for northern development are indicated, and DIAND programs and activities outlined. Industry activities are noted.

The planning activities of DIAND are reviewed under:

- A. Coordination - DIAND has the statutory responsibility for coordinating all federal government policies and programs north of 60°.
- B. Policy Development - a list of existing policy statements is provided.
- C. Land Claims - "should the production and transportation of hydrocarbons commence prior to final land claims settlements, the government will look to other ways of ensuring opportunities for participation by native people along with protection of their interests."
- D. Land Use Planning
- E. Regional Environmental and Socio-economic Assessment (Role of EARP)
- F. Regulations

Appendices include:

- legislation under DIAND responsibility
- COGLA Agreements
- environmental studies revolving fund.
- industry activities (ongoing exploration activities, production and transportation: - Norman Wells, Artic Pilot Project, Dempster Lateral Gas Pipeline, Beaufort Sea "Demonstration" oil pipeline, Polar Gas Pipeline, Ellef Ringes Island LNG Project, Artic Synfuels Project.)
- Regulation-Specific requirements include the exploration agreement; technical aspects of exploration, drilling and production; use of Artic waters; use of surface land; transportation; related legislative provisions.

1.7.2 # 46 FEARO Date: 82.07.14 Panel Index J

1982. Notes for remarks by the Honorable John C. Munro, Minister of Indian Affairs and Northern Development to the Canadian Club, Edmonton, Alberta, June 17, 1982. Communiqué Indian and Northern Affairs Canada.

Abstract: The speech deals with the government's strategy for the development of oil and gas north of 60, the role for Edmonton and Alberta in reaching goals of self-sufficiency and security of supplies, opportunities for business partnerships and joint ventures in the development of northern resources. The policy framework for northern development is discussed, and the five-year research and planning program coordinating the efforts of DIAND, EMK, Environment, Employment and Immigration, Fisheries & Oceans, Transport, Public Works, National Museums of Canada, and the Governments of the Northwest Territories and the Yukon Territory. Initiatives for the next couple of year include a northern energy policy, amendments to the Artic Waters

Pollution Prevention Act, review of the environmental framework in the north, policy for the protection of archaeological sites in the north, an integrated Beaufort Sea Management program, green paper dealing with environmental protection in the ecologically sensitive Lancaster Sound region, research in the north including impact of artificial islands, minimizing oil spills and how to deal with them.

One aspect of the new policy is a phased approach to hydrocarbon development in the north. The Beaufort Sea offers a variety of opportunities for demonstration projects.

The framework for the exploration and development strategy is contained in the National Energy Policy and in the Canada Oil and Gas Act which establishes ground rules as to how and by whom exploration and development will take place. New agreements will correct previous unsatisfactory levels of Canadian ownership and participation.

1.7.2 # 47

FEARU Date: Panel Index J

Panel 6A- Prepared Testimonies before the National Energy Board in the matter of an application by Arctic Pilot Project. Phase II. Panel 6A - Noise.

Prepared evidence of Panel consisting of : N. Brown; D. Bruchet; R. Davis; W. Evans; J. Heine; L.J. Leggat; C. Revill; M. Robertson; G. Sinclair.

Abstract. The prepared testimony for each is in the form of question and answers. The first questions address background and qualification of individuals appearing and their involvement or knowledge of the Arctic Pilot Project.

Neal A. Brown. Research scientist in hydrodynamics and underwater acoustics with Bolt, Beranek and Newman Inc. This firm has been retained by APP to advise them on possible underwater acoustic aspects of APP ship operations (review previous work, estimate independently noise characteristics of the APP carrier design, to develop a comprehensive noise exposure model to aid in assessment of possible acoustic effects on marine mammals, to assist in the development of a plan of research in these areas over the life of the APP, and to coordinate other contributions to the development of this plan.)

The origin of underwater noise from ships are identified, with propellers identified as the most

significant. Process by which this noise is produced is described. Comments on the underwater noise workshop were presented indicating that numerical values presented were too high and unsupported and lack of appreciation of the source strengths and the way they were applied. Proposed APP noise source levels are reviewed and compared to the workshop values and to noise estimates for ice breakers. The noise estimates for the APP ships are close to the measured values for the icebreaker Louis St. Laurent. The method of estimating source levels of the ships is described and accuracy estimates indicated. The noise of icebreaking is not considered significant in comparison with the cavitation of the icebreaker.

B. Bruchet. Panel 6A - Noise chairman. No presentation.

K.A. Davis. Animal ecologist and President of LGL Ltd. Comments on the effect of new acoustic information on the evaluation of biological impact in the Integrated Route Analysis. The conclusion is presented that the area or zone in which the marine mammal might be impacted as a result of LNG carrier transits is substantially reduced from that originally projected. Information on the distribution of marine mammals along the shipping routes is reviewed. Difficulties in assessing noise effects on animals is noted and research studies in the Beaufort referred to. LGL is presently providing input to the design of a research program to document the effects of the APP ships and underwater noise along the route.

W. E. Evans. Marine Biologist, Director of Hubbs-Sea World Research Institute. Topic of discussion - biology of marine mammals and their various responses to and use of underwater sounds. Marine mammals studied appear to have sensitive hearing and are extremely vocal. The use of noise to keep mammals away from fishery activities have been poor or temporary. Examples where habituation to ship sound may be taking place are presented. Examples were also presented where certain types of cetacean display active avoidance of particular ships creating a specific threat.

John Charles Heine. Senior technical staff member of Bolt, Beranek and Newman, Inc. "Under the sponsorship of the Arctic Pilot Project (APP), I am developing predictions for the changes, due to APP LNG carrier operation, in the ambient noise field in water masses in which carriers will operate. Specifically, I will testify as to predictions of received, carrier-induced noise as a function of receiver location and time of year, and as to how these

levels compare with typical ambient noise levels existing under the same conditions."

Topics addressed included: significant technical issues to be considered, significant characteristics of the carrier for determining induced noise at a receiver, significant acoustic transmission characteristics which effect noise, general features of sound transmission, spreading loss, attenuation loss, volumetric absorption, reflection losses, effect of source and receiver depths, impact of bathymetry on transmission loss, ambient noise definition and causes, typical ambient noise levels in Baffin Bay and range in Baffin Bay at which the received level from the LNG carrier will equal 50% noise level for summertime operations.

L.J. Leggat, Defense Scientist and Group Leader of the Applied Hydrodynamics Group at the Defense Research Establishment Atlantic (DREA) (Department of National Defense).

"I am able to provide you with information concerning noise generation mechanisms in ships, calculation and measurement of ship noise source levels, and typical levels for various types of vessels."

Golin Revill.

"I am here to answer questions on the following aspects of the development of vessel design as it relates to acoustics: hydrodynamic design, propeller design, model tests, vessel operating profile."

(Testimony not included)

George W. Sinclair: "I am here as Project Manager to deal with matters of project coordination involving an interface between this panel and other panels which have been heard previously."

(Testimony not included).

FEARO Document Beaufort Sea Project
1.7.2 Panel Material - General (Papers and Publications)

1.7.2 # 48 FEARO Date: 83.03.28 Panel Index J
Reference:

Three articles from "Industry and Environment".

—. 1982. Petroleum transportation and the environment. UNEP Industry and Environment. 5 (3):1-2.

Introductory article briefly identifying advantages and disadvantages of each mode of transport.

Angelo, Joseph J. 1982. The recent US coast guard role in tanker pollution. UNEP Industry and Environment. 5 (3) : 4 , 7.

Larminie, F.G. 1982. Environmental aspects of submarine pipelines - the North Sea experience. UNEP Industry and Environment. 5 (3): 23-25.

Patterson, George R. 1982. Loading from offshore oil and gas installations. UNEP Industry and Environment. 5(3):32, 35.

1.7.2 # 49 FEARO Date: 83.04.06 Panel Index J
Reference.

Pole, Ken. —. Airships: key to Canada's frontier. Canadian Geographic. p.10-16. (no volume ref or date included).

Among suggested usages for airships is one for transportation of freight to the Beaufort Sea Region.

TEXTNAME: 11b-1.7.2* (R)P: 08

TEXTNAME: 11b-1.7.2* (R)P: 09

FEARU Beaufort Sea Project
Reference No.

1.7.2 # 50 FEARU Date: 83.04 Panel Index J

Reference:

Waddell, K. Bruce. 1981. A survey of public review hearings in Northern Canada. Major Projects Assessment Branch, Dept. of Indian Affairs and Northern Development, Ottawa, Ontario. 78p.
QS-8289-000-EE-A1
Catalogue No. R72-171/1981
ISBN 0-662-11756-5

Abstract.

"The information contained in this report was researched and compiled by the author to provide a general guide to public review hearings conducted in northern Canada and, using selected parameters, to attempt to ascertain any developing trends. ...Public hearings have been extensively used in northern Canada during the 1970s (Cruikshank, undated). The factors surrounding the establishment and operation of these hearings, the development of various types of hearings and emerging trends for northern public review hearings are discussed in this paper."...Au.

Topics covered in the report include:

- General review of public participation, public hearings, the study area, and northern public review hearings.
- Sponsors of northern public hearings: six federal departments and agencies - the Canadian Radio-television and Telecommunications Commission (CRTC), the Canadian Transport Commission (CTC), the Department of Indian Affairs and Northern Development (DIAND), the Federal Environmental Assessment Review Office (FEARO), the National Energy Board (NEB), and the Northern Pipeline Agency (NPA).
- Review of hearings by agency.
- Developments in northern public review hearings.
- Conclusions : regulatory, advisory hearings, and future hearings.

1.7.2 # 51 FEARU Date: 83.04
Reference:

Indian and Northern Affairs Canada. 1981. In all fairness: a land claims policy. Department of Indian Affairs and Northern Development, Ottawa. 30p.
QS-5158-000-EE-A1

Abstract.

"..The purpose of this book is to set out for the consideration of all Canadians what the government proposes as the way forward....
...What this statement contains above all,.....is a formal re-affirmation of a commitment: that commitment is to bring to a full and satisfactory conclusion, the resolution of Native land claims....
...Essentially what is being addressed here are claims based on the concept of "aboriginal title" - their history, current activities surrounding them, and our proposals for dealing with them in the future....."
Au.

1.7.2 # 52 FEARU Date: 83.04
Reference:

Rogers, Golden & Harpen. 1983. A process for siting hydrocarbon facilities on the Canadian Arctic Coast. Prepared by Rogers, Golden & Halpern, Philadelphia, PA for Environment Protection Service, Environment Canada, Ottawa, Ontario. (EPS 3-ES-83-1). 118p.

Abstract. (from report).

A facility siting process is presented which is intended to involve participants from industry, government and the public, in a type of advocacy approach to the choice of development sites. The process outlines a series of decisions to be made by these representatives, in an attempt to make the assumptions and decisions of siting both explicit and systematic.
Criteria developed for use in the siting process include environmental considerations only, though economic, social, engineering and other considerations would also be of importance in any siting decision. An important part of this process is that the participants develop or adopt their own criteria for assessment of siting decision. Au.

Summary and conclusions from the report follow.

SUMMARY AND RECOMMENDATIONS

This report presents a methodology for siting facilities related to hydrocarbon resource development in the Canadian Arctic. The methodology draws from current US siting practices for major coastal energy facilities but recognizes the special context for siting in Canada. The criteria developed for use in siting are limited to "environmental" considerations, per the terms of reference for the study. These environmental criteria were developed based on readily available data for northern Canada and analogous parts of Alaska. Economic and engineering considerations would have to be included as well in an actual siting study. The siting process allows for incorporation of economic, facility engineering, and miscellaneous criteria in addition to those related to the natural and socio-cultural environments.

Environment Canada, because of its role in environmental assessments, and the Department of Indian and Northern Affairs, because of its mandate to control land use in northern Canada, were the principal government departments involved in this study. A more broadly composed steering committee and other reviewers assisted these departments in providing perspective on current oil and gas activities, particularly in the Beaufort Sea region, and on the applicability of the siting process and criteria to current and projected areas of exploration.

The proposed process, is structured to lead a participant to ask appropriate questions and make choices while proceeding from the initial decision to build a facility to a specific decision on a preferred site.

The five basic steps in the siting process are:

1. define the siting problem;
2. translate regional screening issues to spatial preferences;
3. select candidate areas;
4. select candidate sites from candidate areas; and
5. select preferred site(s).

The method allows technical inputs to be separated from policy inputs. In practice, the technical aspects of the siting process are performed or facilitated by a project manager and support personnel (the siting team). The decision-making participants generally provide only policy inputs in accordance with their objectives, criteria, and preferences among various trade-offs. A unique feature of the siting process

is that individual participants focus on their own objectives in a type of advocacy approach, where each participant is assured that one of the potential sites evaluated will reasonably represent his or her point of view. Consideration of diverse issues is thus insured.

The environmental criteria developed in this report fall into eight categories:

1. Terrestrial Ecology;
2. Aquatic/Marine Ecology;
3. Socio-cultural Resources;
4. Subsistence Economy Effects;
5. Hydrologic Effects;
6. Climatology;
7. Non-renewable Resources; and
8. Terrain/Land Classification.

These categories are used to organize the discussion of criteria and their application. Example criteria are listed by category in Appendix III. An important aspect of the siting process is that in an actual siting effort the participants develop or adopt their own criteria. The criteria presented in this report are suggestions that would only be used if accepted by a participant as reflecting his or her objectives. It is expected that additional criteria may also be identified by each participant.

The siting process and environmental criteria developed in this report are essentially draft or working versions at this time. They have benefited from critical review by a limited audience. Exposure to a wider audience, including the public and industry, would serve to improve the process and criteria and bring forth other issues or concerns not previously discussed.

It is recommended that the method be jointly exercised by the government and industry in an actual siting effort and that a handbook then be developed explaining the method and its use. The practical use of the method should be demonstrated and then reported. The actual application of the method would require generation of the additional criteria needed for siting but not developed in this study. These include socioeconomic, engineering, and similar criteria.

It became clear during this study that a mechanism for wider involvement in facility siting is essential to insure adequate consideration of diverse social, political, economic, and environmental concerns. Although a systematic siting process presupposes

that there are effective ways for the government and other interests to participate in selection, no such mechanism is currently available. The Environmental Assessment & Review Process (EARP), granting of permits, and Northern land use planning do not establish the direct involvement of the government in siting. These are review processes concerned with a final proposal, not mechanisms for participating in the site selection process itself.

It is recommended that a study be made of what institutional mechanisms exist or would have to be created to permit the government to more effectively involve itself in the selection of sites for key facilities.

TEXTNAME: 11b-1.7.2* (R)P: 10

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FEARO Beaufort Sea Project
Reference No.

1.7.2 # 53 Panel Date: 83.04 Panel Index J
Reference:

Four information reports relating to offshore hydrocarbon development in the North Sea.

53.1 Occidental North Sea Group. 1981. The Flotta story: the development of an oil handling terminal. Public Affairs Dept., Occidental of Britain, Inc. 21p.

One of a series of educational publications, this report records the preparation and steps that were taken by the Group to develop the terminal without harming the Orkney environment and social structure.

53.2 British National Oil Corporation. Undated. Beatrice. The British National Oil Corporation, Glasgow.

General information booklet dealing with the Beatrice oilfield and its associated developments under following headings: construction offshore, operations offshore, Nigg oil terminal, the environment, data.

53.3 British National Oil Corporation. Undated. The Beatrice project: environmental monitoring project. Published by BNOG on behalf of the Beatrice Partnership.

The report outlines the objectives of the environmental monitoring program, the scope of its investigations and the survey and analytical procedures that have been incorporated throughout. Studies reviewed include the intertidal study, the orthinological study, the sublittoral study, and the environmental quality study.

53.4 ----. 1983. The offshore challenge. Prepared as an information brief for companies of the Royal Dutch/Shell Group. Shell Briefing Service No. 1., 8p.

This report examines the importance of offshore oil production and describes some of the new equipment being developed to meet the challenge of moving into deeper waters. Discussion includes exploration, production, subsea development and costs.

FEARO Beaufort Sea Project
Reference No.

1.7.2 # 54 Fearo Date: 83.04 Panel Index J
Reference:

Copies of three presentations to the June 1982 Canadian Public Health Association Conference held in Yellowknife.

54.1 Smith, D. 1982. Arctic housing by Arctic residents. Presented at the Canadian Public Health Conference, Yellowknife, June 1982.

Review of how the Inuit Non-Profit Housing Corporation has been successful in involving the members of local boards, citizens and affected occupants in the total design process of living accommodation. More involvement of Arctic residents in terms of housing requirements and design needs is advocated.

54.2 Hok Lin Leung. 1982. Housing and development. Presented at the 73rd. Annual Conference of the Canadian Public Health Association, Yellowknife, June 1982.

A review of the introduction of public housing in the North, the development of housing associations and benefits of involvement of the housed in participatory decision making.

#54.3 Hodes, H. and W.E. Neil Taylor. 1982. Employee mental health in the Arctic environment: experiences with federal government employees in Inuvik Zone. Presented at the 73rd. Annual Conference of the Canadian Public Health Association, Yellowknife, June 1982.

The report addresses employee mental health in the Arctic environment. Concern is noted over the number of psychological and substance abuse problems. Possible causes and preventative measures are discussed.

TEXTNAME: lib-1.7.2* (R)P: 12

TEXTNAME: cat-1.7.2 (R)P: (p.01) 01

FEARO Beaufort Sea Project
Reference No.

1.7.2 # 55 FEARO Date: 83.05 Panel Index K

Reference:

Ito, H. 1982.
Sea ice atlas of northern Baffin Bay. Dept. of
Geography, Swiss Federal Institute of Technology,
Zurich, Switzerland. 142p.

Abstract.

Using data obtained from Landsat, the sea ice
conditions in the northern part of Baffin Bay and its
adjacent area were investigated and this atlas presents
the results in graphic form.

FEARO DOCUMENT Beaufort Sea Project

1.7.2 # 55* FEARO Date: 83.05.16

Esso Resources Canada Ltd., Dome Petroleum Ltd., Gulf
Canada Resources Inc. 1983. The 1982 white whale
monitoring program Mackenzie Estuary.

Part I - Migration, distribution and abundance of
whales and effects of industry activities on whales.
Prepared by P.N. Fraker, LGL Ltd, environmental
research associates, Sidney, B.C. 54P.

Part II - Report on ice, whales and whaling camp
visits, June - August 1982. Prepared by Randy Pokiak,
Tuk Tuk Tours and Services and Doug Irish, Northern
Employment Counsellor, Esso Resources, Inuvik. 19p.

Part I.

Summary (except from report summary).
Because of the potential for activities in the
Mackenzie estuary associated with oil and gas
exploration to affect the distribution and abundance of
white whales and to interfere with Inuit whaling, an
annual monitoring program was initiated in 1972 and has
been continued since. Part I of this report gives the
results of the scientific part of the 1982 field
program. The emphasis of the scientific program in
1982 was on documenting the arrival, and initial
distribution and abundance of white whales in the
estuary (the period when maximum numbers typically
occur) and on detecting any interference by industry
activities with the whale hunt by making camp visits.
Fisheries and Oceans Canada monitored the white whale
harvest in 1982. The 1982 maximum estimate equalled
the 1979 maximum estimate which was the highest
recorded estimate since the survey areas were
standardized (1976). The span between the date when
whales first entered the estuary and the date of the
survey(s) giving the maximum estimate was greater in
1982 than in the years 1977 to 1981.

Small-scale differences in the areas within the estuary
utilized by large numbers of whales have been observed
from year-to-year.

Most of the survey effort was expended on Kugmallit Bay
since this is the nearshore area with the highest
intensity of both industry activities and hunting
activities. No obvious relationship was found between

the relative amount of industry activity and the maximum number of whales estimated using either all of the estuary or Kugmallit Bay during the periods of observation in 1980 to 1982. The number of whales landed daily from Kugmallit Bay was more closely correlated with the estimated number of whales present than with the number of passes by industry vessels along either the southern or the eastern or both shipping channels in Kugmallit Bay in 1982.

Part II.

The report covers the landfast ice conditions and the artificial islands, observations on time and condition of the break-up, observations on migration of whales, impact on whale harvesters by industry and number of whales landed. Main impact occurred when a hunting party was disrupted by a boat and helicopter placing markers at an escape reef. Also, employees of industry had problems in that their time off wasn't timed right for the hunt or the weather wasn't right in their time off.

1.7.2 # 56

FEARO Date: 83.05.17 Panel Index G

-----, 1983. Northern Decisions. Canadian Arctic Resources Committee, Ottawa, Ontario.
Vol. 1, No. 1.15 April 1983.
Vol. 1, No. 2.

Points of interest to Beaufort Review:

p. 3- Gulf Canada land use permit application for marine support base in Yukon Territory

p.4 - a company owned by the Denendeh Development Corporation and the Métis Development Corporation signed a interim agreement on 23 March 1983 with Esso Resources that is expected to lead to a joint venture in drilling at Norman Wells.

p.8 - a site-facilities report for the Beaufort Sea region was released by DIAND in March covering the evaluation of 10 potential medium to deep draft exploration shore-based facility sites on the Beaufort Coast

p.9 - Beaufort Sea Environmental Assessment Panel has completed its review of industry's EIS

p.9 - The Hamlet of Pangnirtung has applied to EPS for an ocean dumping permit to dispose of scrap metal in Pangnirtung Fiord.

Lancaster Sound Regional Study - workshop rescheduled for June and final report expected by the end of the summer of 1983.
Consolidex Magnorth Oakwood Joint Venture is preparing a proposed management plan

Volume 1, Number 2. 28 April 1983.

Points of interest to Beaufort Review:

p.2 - Announcement that decision on the application by Gulf for a land use permit for Stokes Point will be delayed for a few weeks

p.3 - Environmental studies revolving funds initiated

p.4 - the Tungavik Federation of Nunavut and the federal government signed two documents that will guide the process of land selection in the Inuit land claims settlement

p.5 - Liard hydroelectric project delayed

p.7 - socio-economic impact study of proposed marine support base at Stokes Point released by DIAND

p.8 - release of report on onboard self-help oil spill countermeasures for arctic tankers

1.7.2 # 57

FEARO Date: 82.11.22

Draft Report. Land use planning in northern Canada. 1982.

"This publication represents DIAND's proposed approach to northern land use planning. It is based upon the Northern Land Use Planning Policy approved by Cabinet

in July , 1981, and upon research and extensive discussions with many people....

There are several purposes for this publication; these are:

- to identify what DIAND sees as the scope, objectives and fundamental characteristics of northern land use planning;
- to outline DIAND's proposals for the northern land use planning organization, including an identification of the parties and structures involved, their roles and responsibilities, and their inter-relationships;
- to enumerate those components of the northern land use planning process which are anticipated to be common to the development of all land use plans; and
- to provide a brief overview of the North - its people, the environment, the resources and the resource-use issues - and thereby to provide a perception of the context for northern land use planning.

Northern Land Use Planning is an organized process for determining the uses of land and related resources, based upon cooperative decision making by governments, groups and individuals, according to their various needs and desires and to the limitations imposed by the environment.

FEARO DOCUMENT Beaufort Sea Project

1.7.2 # 58

FEARO Dist: by this update

S.L. Ross Environmental Research Ltd. 1983. A study of on-board self-help oil spill countermeasures for Arctic tankers. Prepared for Environment Canada, Ottawa, Ontario. 107p. DRAFT.

Summary from report attached.

In the event of an accident involving a tanker in Canadian Arctic waters the use of land-based oil spill countermeasures systems would be severely restricted. This report discusses an alternative approach: oil spill control systems for Arctic tankers using equipment stored on the tanker itself and operated by the ship's crew. The results of a worldwide survey conducted for the study indicate that although considerable work has been undertaken on preventing tanker oil spills little has been done on on-board self-help countermeasures. No tanker presently in use carries on-board equipment capable of responding to a large oil spill from the vessel.

The unique design of the Arctic tankers proposed for the shipment of Beaufort Basin crude oils to market offers the possibility of equipping the vessel with novel systems for oil spill response. These systems can be placed in two categories: "inboard" countermeasures to reduce oil losses from cargo tanks in the event of an accident; and "outboard" countermeasures to deal with oil once it has escaped the confines of the tanker.

The inboard countermeasures found to be potentially effective and worthy of further consideration are: restricted tank venting, a special dump valve and portable emergency pumps.

The restricted tank venting operates by sealing all air vents of the damaged cargo tank thereby allowing a partial vacuum to build-up in the tank as oil leaks out. This slows and eventually stops the outflow of oil. A special dump valve mounted in each cargo tank could be opened in the event of damage to drain the tank contents to a safe compartment elsewhere in the tanker. Emergency pump systems could be used to reduce oil outflow from small leaks and would be necessary to recover oil floating in damaged cargo and wing tanks. The general system specifications and applicability of these inboard countermeasures are summarized in Table 1. The combination of these three inboard countermeasures has the potential to reduce the volume of oil lost from a breached cargo tank by 85 - 99 percent for the damage situations investigated.

Only one outboard countermeasure was found to be potentially effective for large spills, namely burning of crude oil spilled on or amongst ice. By carrying 5,000 igniters and a helicopter aboard the tanker much of the spilled oil could be ignited and burned. Burning of crude oil on water could also be an effective on-board self-help countermeasure since the oil would be fresh and in thick slicks. Further research is required to evaluate this potential open water countermeasure.

In order to be able to have a capability to deal with small spills from the vessel, consideration should be given to placing on board the tanker a package of booms, a skimmer, a small workboat, pumps, small storage bladders, a small amount of dispersant and helicopter or vessel-mounted dispersant application equipment.

TABLE 1

RECOMMENDED ON-BOARD SELF-HELP OIL SPILL
COUNTERMEASURES FOR ARCTIC TANKERS

<u>Countermeasure</u>	<u>General System Specifications</u>	<u>Spill Type</u>	<u>Applicability Environment</u>
Restricted Tank Venting	<ul style="list-style-type: none"> - vacuum relief valves on tank deck vents - pressure sensor in tank ullage space controlling inert gas system - tank capable of holding partial vacuum 	damage to cargo tank(s)	any
Dump Valve	<ul style="list-style-type: none"> - large diameter (1m) pipe located at centreline bulkhead leading to bottom ballast tank - valve controlled from bridge 	damage to cargo tank(s)	any
Emergency Pumps	<ul style="list-style-type: none"> - portable, self-powered deepwell pumps capable of insertion into any cargo tank or wing ballast tank - 1000 m³/hr capacity - special airtlock for insertion into tank under partial vacuum 	damage to cargo tank(s)	any
Burning Oil in Ice	<ul style="list-style-type: none"> - 5000 air droppable oil slick igniters - small or medium size helicopter - four tracking buoys 	damage to cargo tank(s)	oil on or amongst complete ice cover
Containment and Recovery	<ul style="list-style-type: none"> - small workboat, lightweight containment boom (1.5 shiplengths), small skimmer, pump, hose and storage bladder(s) 	small loading/unloading/spills	sheltered open water
Dispersants	<ul style="list-style-type: none"> - 10 m³ dispersant concentrate - helicopter spray bucket or spray gear for workboat 	small spills offshore	open water with waves

1.7.2 # 59 FEARO Dist: by this update.

S.L. Ross Environmental Research Ltd. 1983. DRAFT.
Igniter requirements for a major oil spill from a
vessel in the Canadian Arctic. Prepared for
Environmental Protection Service, Environment Canada,
Ottawa, Ontario. 51p. Appendix. DRAFT.

Summary from Report attached.

Summary

An estimate of the number of oil spill igniters needed to successfully burn the oil released in ice from a major tanker accident in the Arctic has been made. For oil discharged from a tanker that remains stationary after the accident, about 2,500 igniters will be required. However, up to 30,000 igniters may be needed to burn the oil spilled from a moving tanker. It thus seems appropriate for oil spill control purposes that a damaged vessel remain stationary when possible while oil is being spilled.

A survey of 10 explosive manufacturers was conducted to assess their willingness and ability to produce both or either of the "DREV" and "Dome" igniters, products recently designed and developed to the prototype stage. Half of the companies contacted expressed an interest in producing one or both of the igniters. The production capacities of these companies varied but some common production problems emerged from the survey.

1) It will generally be necessary to fund a pre-production effort some 3 to 12 months prior to the establishment of a full-production capability.

2) The delivery of raw chemicals for the production of the solid propellant components of the igniters would likely take 2 to 3 months. This eliminates the possibility of producing even a small number of igniters on short term notice unless raw materials are purchased beforehand and stockpiled.

3) Once the raw materials are on hand the igniter production rate is controlled by the specialized mixing and curing stages of the propellant formulation process. The number of igniters which can be produced per batch is controlled by the limited size of the available mixers. The best production rates quoted were 6000 per month for the Dome igniter and 3000 per month for the DREV unit.

It is evident from the results of the survey that immediate igniter demands cannot be met unless stockpiles are kept of either the raw materials or the finished product. Even with raw materials on hand and more than one manufacturer involved, large quantities of igniters (up to 30,000) will take several months to produce. If a spill were to occur late in the winter, time would not be available to manufacture the igniters prior to spring break up.

Even if igniters are available the success of a land-based operation is not guaranteed. The limited range of the helicopters suitable for the deployment of igniters may not permit them to reach the spill site from a land base. This is of particular concern off Baffin Island where the shipping lanes are far offshore and in Viscount-Melville Sound where suitable operations bases are not plentiful. The use of a suitably equipped vessel as a base of operations for the helicopters should be investigated for those instances where land bases are not viable.

1.7.2 # 60 S.L. Ross Environmental Research Ltd. 1983. DRAFT. A review of countermeasures for a major oil spill from a vessel in Arctic waters. Prepared for Environmental Protection Service, Environment Canada, Ottawa, Ontario. 89p.

Abstract for report attached.

The existing capability to deal with a major tanker oil spill in the Arctic is presented. A particular emphasis is placed on the government's role and state of preparedness.

First, a review of the countermeasures utilized at past major tanker spills throughout the world is performed. This is followed by summaries of the northern environmental setting and the oil shipment operations that are proposed for the Arctic. A comparison between historical southern spills and those which could occur in the Arctic is then made.

Best-practicable oil spill control technologies for the north are identified through a group of hypothesized accident scenarios and response strategies. The government's present organizational structure, contingency plans and major equipment supplies for a northern oil spill response are reviewed, and the likely success of a government response to the hypothesized spills is discussed. Research and development of new equipment, equipment acquisitions and the planning activity needed to improve this capability are then recommended.

In general, it is felt that the government's ability to deal with an oil spill on open water in the Arctic is not too different from its capability in the south. However, a review of international responses to oil spills in offshore waters has revealed that these techniques are generally not very successful even in southern climates. The complete ice cover setting which exists in the Arctic for much of the year provides the best opportunity for a successful countermeasures operation. Oil spilled under these conditions would be contained and preserved by the ice. If adequate incendiary devices were available in the spring thaw a high percentage of the released oil could be removed by burning. At present, methods are not available which can deal effectively with spills that occur in a partial ice

cover situation.

Countermeasures operations in general could be improved if the damaged tanker were to be used as a work platform. Studies are required to determine the feasibility of this concept.

1.7.2 # 61 FEARO Dist. by means of this update.

Cornford, A.B., D.D. Lemon, D.B. Fissel, H. Melling,
B.D. Smiley, R.H. Herlinveaux and R.W. Macdonald.
1982. Arctic data compilation and appraisal. Volume 1.
Beaufort Sea: Physical oceanography - temperature,
salinity, currents and water levels. Can. Data Rep.
Hydrogr. Ocean Sci. 5: 279

Abstract from report.

iv

ABSTRACT

Cornford, A.B., D.D. Lemon, D.B. Fissel, H. Melling, B.D. Smiley,
R.H. Herlinveaux and R.W. Macdonald. Arctic Data Compilation and Appraisal.
Volume 1. Beaufort Sea: Physical Oceanography - Temperature, Salinity,
Currents and Water Levels.
Can. Data Rep. Hydrogr. Ocean Sci. 5: 279 p

This volume is one of a group of catalogues designed to compile and appraise marine data sets for the Canadian Arctic. For user convenience, the group has been organized with its subject matter divided into three general disciplines: physics, chemistry and biology. The Arctic has been arbitrarily divided into seven geographical areas incorporating, where possible, major oceanographic regions. The format throughout has been structured to facilitate comparison among subjects and regions. With such a large undertaking it is not possible to provide all reports at once. Therefore catalogues at present available in the series are indicated on the inside back cover of each volume.

Data collection is a continuing process and further updates of the catalogues are planned. Readers are requested to submit corrections and additions by writing the issuing establishment. Such corrections will be incorporated in on-line computerized data set listings and will be continuously available upon request.

TEXTNAME: cat-1.7.2 (R)P: 08

1.7.2 # 62 Thomas, D.J., R.W. Macdonald and A.B. Cornford. 1982.
Arctic data compilation and appraisal. Volume 2.
Beaufort Sea: Chemical Oceanography. Can. Data Rep.
Hydrogr. Ocean Sci. 5: 243pp.

Abstract from report.

ABSTRACT

D.J. Thomas, R.W. Macdonald and A.B. Cornford. Arctic Data Compilation and Appraisal. Volume 2. Beaufort Sea: Chemical Oceanography.

Can. Data Rep. Hydrogr. Ocean Sci. 5: 243 pp.

This volume is one of a group of catalogues designed to compile and appraise marine data sets for the Canadian Arctic. For ease of reference, the group has been organized with its subject matter divided into three disciplines: physics, chemistry and biology. The Arctic has been arbitrarily divided into seven geographical areas to include, where possible, major oceanographic regions. The format has been structured to facilitate comparison between subjects and regions. With such a large undertaking it is not possible to provide all reports at once. Therefore catalogues which are presently available in the series are indicated on the inside back cover of each volume.

Data collection is a continuing process and further updates of the catalogues are planned. Readers are invited to submit corrections and additions by writing the issuing establishment. These corrections will be incorporated in on-line computerized data set listings; they will be continuously available upon request.

1.7.2 # 63 FEARO Dist: 83.06.03 Panel Index J

Industry/Government Steering Committee and Working Group. 1982.
Report on offshore oil and gas drilling fluid disposal in the Canadian North. Prepared for Arctic Petroleum Operators' Association, Canada Dept. Indian Affairs & Northern Development, Canada Dept. of Environment, Canada Dept. of Fisheries & Oceans. 8p. plus Technical Reports.

Summary.

The project addressed two issues - whether there is an environmental problem with the disposal of offshore drilling fluids and whether environmental limits need to be set on drilling products. The Steering Committee concluded that the disposal of waste drilling fluids in arctic waters is not seen as posing an environmental problem warranting Canadian environmental standards at this time.

"...using present drilling systems and products for drilling depths of greater than 20 meters, acute lethality does not pose a problem as natural dispersion will render any potential environmental toxicant to be non-injurious by way of dilution.

This report is divided into three sections. The first section is a historical review of the project. The second section is the position of the Steering Committee relating to the above questions as defined by their Terms of Reference. The third section deals with the Technical Reports, or Background Documents, authored by members of the Working Group.

As a result of this project, the Steering Committee makes the following recommendations:

1. A reproducible method of analysis for oil and grease levels for drilling fluids should be developed.
2. The science of sub-lethal testing must be advanced so as to provide definitive answers on long term effects of drilling fluid disposal.
3. An assessment of environmental impacts should be undertaken where extensive drilling takes place which will result in deposition of large quantities of drilling wastes in localized areas. ..."

1.7.2 # 64 FEARO Dist: with this update Panel Index K

DPA Consulting Ltd. 1983. Overview of potential socioeconomic impacts associated with the marine support base proposed by Gulf. Prepared for Northern Affairs Program, Dept. Indian Affairs & Northern Development, Ottawa, Ontario.

Summary:

The purpose of this study is to provide an overview of the regional socioeconomic implications of the construction of a medium to deep draught marine support base on the Beaufort Coast. Gulf Canada Resources Inc. has proposed the establishment of a marine support base at Stokes Point in the Yukon Territories.

The primary objectives of the study are to:

- Provide order of magnitude estimates of the main socioeconomic implications of constructing the support base, with emphasis on the employment and business opportunities for northern residents.
- Comment on how these implications might differ depending on which site is selected, including differences in both the size of the impacts and their distribution, e.g., the origin of the work force may be different for different sites.

The study method included interviews with federal and territorial officials in Whitehorse and Yellowknife to secure information on worker availability, business capability, traditional Native activities, and relevant policies and programs of the federal government and the two territorial governments. Our consultations identified a number of key issues which needed to be addressed in this analysis.

The identification of these issues helped to focus our analysis of possible impacts and in, many cases, provided sub-headings for Chapter 3 of this report. The remainder of this document is structured as follows. Chapter 2 outlines the project profile, as developed in conjunction with Gulf Resources personnel, and the major characteristics of the ten sites, based on our review of previous documentation. Chapter 3 analyzes the potential socioeconomic effects of the marine support base. Chapter 4 reviews the relevant

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1.7.2 # 65 FEARO dist: 83.06.10 Panel Index J

1.7.2 # 64 FEARO Dist: with this update Panel Index K

policies and programs of Gulf and the two governments, as well as offering our views regarding their feasibility and adequacy and additional actions which may be needed. Chapter 5 summarizes our conclusions and recommendations regarding the preferred site and the measures required of governments and Gulf to maximize northern Benefits and minimize the negative effects of the project.

Crook, John Frazer. 1983.

The effects of icebreaking and artificial islands on marine hunting and trapping near Tuktoyaktuk NWT. Research project submitted in partial fulfillment of the requirements for the degree of Master of Natural Resources Management. Report 11. Simon Fraser University, B.C.

Abstract.

"...This study reviews the ice, wildlife and social-economic factors which support furbearer hunting and trapping on the ice through review of existing literature, and interviews with community leaders knowledgeable about a the seal, polar bear and arctic fox hunt. The natural and historical factors maintaining marine fur harvesting are then examined against scenarios for offshore hydrocarbon development to determine how icebreaking and island developments interact with hunting and trapping activity. This study only reviews a small aspect of the potential impact of hydrocarbon development on norther lifestyles.

In conclusion, offshore development-hunter interactions vary in intensity with the season, location and particular operation, but icebreaking and island operation can be tailored to accommodate the relatively small group of coastal hunters. Some related ice and wildlife environmental studies require long-term analysis and monitoring to better determine if significant changes associated with offshore development, could occur in the marine environment which supports hunting and trapping. Meanwhile offshore activities are progressing in increments which enable constant monitoring for possible problems, and design or operational modification if necessary....." (Au).

2 # 6.6

1.7.2 # 66 FEARO Dist: With this update

- 2 -

-----1983
Facilities siting: Beaufort Sea shore zone study.
Part I. Group I Report as part of a study requested by
the Interdepartmental Environmental Review
Committee(I.E.R.C.).

Summary (from report)

1.0 INTRODUCTION

This report is part of a study requested by the Interdepartmental Environmental Review Committee (I.E.R.C.) following its review of the Gulf Canada Resources Inc. application for a medium to deep draft exploration shore-based facility at Stokes Point, Y.T. The study has been undertaken in two parts, by two separate groups and is made up of two separate reports. Group I, did not evaluate potential sites whereas Group II was essentially an evaluation group utilizing the information and parameters provided by Group I.

This report is in four sections entitled "Need", "Facility Profile", "Site Selection" and "Summary Data Sheets by Site". There are three appendices, "A", the original IERC outline for the study, "B", the terms of reference and composition of the study group and, "C", background information related to the preparation of the summary data sheets.

Although there is work ongoing in regard to item "D" in the terms of reference, none was available for inclusion in this report.

It should be noted that this is an overview utilizing existing information; there was no intention to generate new data through this work. In reading this report, it

should be borne in mind that its purpose is to help Government make a decision on Gulf's need for a support base on the Beaufort Coast. The scope of the study was limited to the matters outlined above as they relate to offshore oil and gas operation. Other resource sectors, community or territorial requirements were not taken into account. It is therefore not a comprehensive coastal facilities planning study nor was it intended to be one.

2.0 SUMMARY

This report, Part I, provides the context and parameters within which the evaluation of sites (Part II) was carried out. In determining "industry's" need for a new medium to deep draft exploration shore-based facility, the existing facilities, work programs and proposed operations of Esso, Dome and Gulf, the major offshore operators in the area under consideration, were examined. It is apparent that because of a commitment to a new generation of drilling equipment (Conical Drilling Unit or CDU and Mobile Arctic Caisson or MAC) and their support vessels, Gulf requires a base from which to operate since neither Tuktoyaktuk or McKinley Bay will currently accept this fleet. Both Dome and Esso can operate from their existing facilities, at least until 1988/89. A "floating base" has been identified by Gulf as a contingency for 1983, if supplemented, it may be suitable for the 1984 season as well.

This latter proposal can be considered only a temporary solution and therefore the need for a shore-based facility

172 #11

can be met in one of two ways. Either Tuk or McKinley Bay can be expanded to meet the requirement or a new facility will have to be established. In addition, there are implications in regard to the future requirement for a 20 metre draft support facility in Mackenzie Bay. Such a facility could only be located in the King Point/Babbage Bight area, as none of the locations in the Herschel Basin could fulfill this requirement.

A facility profile was developed as a basis for systematically evaluating a number of potential sites. The profile was made up of four major elements: location; access; harbour and channel; and land. Numerical values were developed for some of the elements and sub-elements and a distance of 250 kilometres was adopted as a workable maximum from the assumed centre of Beaufort operations to an acceptable site.

The following potential sites were selected for evaluation from previous studies:

1. "Floating Base", Herschel Basin
2. Pauline Cove, Herschel Island, Y.T.
3. Roland Bay, Y. T.
4. Stokes Point, Y. T.
5. King Point, Y. T.
6. McKinley Bay, N.W.T.
7. Tuktoyaktuk, N. W. T.
8. Clapperton Island, N. W. T.
9. Wise Bay, N. W. T.
10. Letty Harbour, N. W. T.

The bulk of this report is made up of summary data sheets by site. These sheets were compiled on the basis of some 12 data groups utilizing the facility profile and other factors. The background and assumptions on which the summary data sheets are based can be found in Appendix "C". Each data sheet is preceded by a map of the site in question.

1.7.2 # 66 FEARO Dist: With this update

----.1983

Facilities siting: Beaufort Sea shore zone study. Part II. Group II report. As part of a study requested by the Interdepartmental Environmental Review Committee (I.E.R.C.).

"...This report presents the results of an evaluation of 10 potential sites in three zones, the Yukon Coast, Tuktoyaktuk Peninsula and Parry Peninsula, in summary form. The 1978, 39 000 sq m land withdrawal in the North Yukon for a "national park and other conservation uses" and the land claims interests, both COPE and CYI, were not a restriction in the selection of sites for this study nor were either of these issues a factor in this evaluation. ..." Au.

Summary attached.

2.0. SUMMARY

This report presents the results of an evaluation of ten potential medium to deep draft exploration shore-based facility sites on the Beaufort Coast. The sites are located in three zones - the Yukon Coast - the Tuktoyaktuk Peninsula; and the Parry Peninsula. It has been conducted in the context of an established facility profile using existing data. Five sites: Pauline Cove, Herschel Island, Y.T.; Tuktoyaktuk, N.W.T.; Wise Bay, N.W.T.; Clapperton Island, N.W.T.; and Letty Harbour, N.W.T. - were not considered to meet the requirements of that profile. Roland Bay, Y.T. is located very close to Stokes Point and is inferior to it in many respects. The "floating

base", though considered feasible as a temporary solution, clearly does not meet the requirements of a "shore-based" facility.

Stokes Point, King Point and McKinley Bay were considered feasible. Since McKinley Bay is well within the 10 metre isobath a long approach channel must be dredged. The cost of this dredging as well as the magnitude of maintenance dredging and problems associated with ice rubble freezing in the approach channel should be further studied before a decision on the selection of this alternative is made.

Stokes Point has several natural advantages over King Point in meeting the requirements of the facility profile. It lends itself to immediate development since some infrastructure already exists and it is within the Herschel basin which protects it from heavy pack ice. Access, however, is limited to vessels with a draft of 12-13 metres. King Point, on the other hand, can readily accommodate vessels of 20 metre draft.

It is therefore a question of whether to utilize King Point now in anticipation of a future requirement to accommodate 20 metre draft vessels or whether in fact Stokes Point can be utilized, at least until 1988/89, to support a minimum (2-rig) operation.

FEARO Document

1.7.2 # 67

Document Date: 83.06.09
Document: Correspondence - Mr. Brett Moore , Env
Canada, from A.C. Churcher for Canmar.

Re: Confirmation of a meeting to discuss enclosed
Discussion Document .

F.G. Bercha and Associates Ltd. 1983.
A discussion paper on the critiques and
interventions tabled on the Dome, Gulf, and Esso
Beaufort Sea Mackenzie Delta EIS. Submitted by
F.G. Bercha and Associates to Canadian Marine
Drilling Ltd., Calgary, Alberta.

This report presents a review and comments on some
of the critiques of the risk analytical aspects of
the Dome, Gulf, Esso EIS .

"....In this report, following this brief introduction, Section 2 gives a detailed review of the Lemberg Critique. Following general remarks on its approaches and use of statistical data, a simple calculation using the approach of the Lemberg Critique is performed to illustrate that a range of conclusions may be obtained with potentially unreasonable results. Section 3 presents a review on the Cohen Critique. Since no numerical results are calculated in this critique, contents of the review are restricted to a discussion of significant points and recommendations made within that critique. Next, Section 4 presents the recommendations based on the Cohen and Lemberg Critiques. Calculations presented in Section 5 fulfill a portion of the recommended program for assessment in an unambiguous manner of Arctic oil spill risks and serve to partially respond to comments of the Cohen Critique. Finally, Section 6 presents general conclusions and recommendations based on this preliminary response and investigation of generally acceptable risk analytic estimates:..... " From Report.

FEARO Document

1.7.2 # 68 Dist: by this update Panel Index K
Document Date: 83.07.16
Document: News Release, Minister of Environment

Re: Environment Canada and the North.

Release of the above discussion paper announced.
"The paper sets out Environment Canada's perceptions, roles and policies concerning the other federal departments, interested organizations and citizens to review and comment on Environment Canada's northern policies and program activities...." from press release.

Ref.

----- 1983.
Environment Canada and the north: the perceptions, roles and policies of the Department of the Environment regarding development north of 60°. Environment Canada, Ottawa, Ontario. 74 p.

1.7.2 # 69 83.07.11 Panel Index J
Document Date: 83.05
MacLachlan, Letha. 1983.
Legal opinion re: Yukon North Slope. Prepared for the Dene Nation, May 1983. 17p.

Note to readers

"... This legal opinion discusses only the narrow issue of whether a withdrawal order passed under s. 19 (a) of the Territorial Lands Act applies to the issuing of land use permits within the area which is subject to the withdrawal. It concludes that the Regional Engineer has no jurisdiction to issue such permits...." Au.

FEARO Document

1.7.2# 70 Dist Date: by this update
 Birch, J.R., D.B. Fissel, D.D. Lemon, A.B.
 Cornford, R.A. Lake, B.D. Smiley, R.W. MacDonald
 and R.H. Herlinveaux. 1983.

Arctic data compilation and appraisal. Volume 3.
Northwest Passage: physical oceanography -
temperature, salinity, currents and water levels.
Can. Data Rep. Hydrogr. Ocean Sci. 5: (Vol. 3)
262 p.

Abstract from Report:

ABSTRACT

J.R. Birch, D.B. Fissel, D.D. Lemon, A.B. Cornford, R.A. Lake, B.D. Smiley, R.W. Macdonald and R.H. Herlinveaux. Arctic Data Compilation and Appraisal. Volume 3. Northwest Passage: Physical Oceanography - Temperature, Salinity, Currents and Water Levels. Can. Data Rep. Hydrogr. Ocean Sci. 5: (Vol. 3) 262 p.

This volume is one of a group of catalogues designed to compile and appraise marine data sets for the Canadian Arctic. For user convenience, the group has been organized with its subject matter divided into three general disciplines: physics, chemistry and biology. The Arctic has been arbitrarily divided into seven geographical areas incorporating, where possible, major oceanographic regions. The format throughout has been structured to facilitate comparison among subjects and regions. With such a large undertaking it is not possible to provide all reports at once. Therefore catalogues which are presently available in the series are indicated on the inside back cover of each volume.

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FEARO Document

1.7.2 # 71 Dist Date: by this update
Fenco Consultants Ltd. 1983.

A safety and reliability analysis of arctic petroleum production and transportation systems - a preliminary study. Vol. 1 and 2 (Appendices A and B). Prepared for the Environmental Impact Control Directorate, Environment Canada.

Abstract from report:

ABSTRACT

Three areas of the Canadian Arctic hold great potential for petroleum resource development. These areas: the southern Beaufort Sea, the Arctic Islands and the Labrador Shelf represent extreme challenges in their severe physical environment. Ice, waves and storms constrain all development activities and are necessitating new production systems, new ice breaking technology and new ice resistant production carriers.

In this environment, the reliability of the systems and the production and transportation operations are of essential concern. The risk of accidental hydrocarbon discharges which may result in environmental damage must be minimized.

This report has been prepared to present the results of a preliminary study to assess the potential risks from petroleum production and transportation activities on the Arctic environment. The study provides safety and reliability analyses of the systems being considered for use by the industry.

The results of the analyses have been developed in a form which identifies the type and probable magnitude of the risks. Recommendations for improvements in safety and the requirements for further research are presented.

1.7.2 # 72 Dist Date: 83.08.30 Panel Index J

Birch, J.R., D.B. Fissel, D.D. Lemon, A.B. Cornford,
R.H. Herlinveaux, R.A. Lake and B.D. Smiley.
Arctic data compilation and appraisal. Volume 5. Baffin
Bay: physical oceanography - temperature, salinity,
currents and water levels. Can. Data Rep. Hydrog.
Ocean Sci. 5: (Vol. 5) 372 p.

Abstract from report :

ABSTRACT

J.R. Birch, D.B. Fissel, D.D. Lemon, A.B. Cornford, R.H. Herlinveaux,
R.A. Lake, and B.D. Smiley.
Arctic Data Compilation and Appraisal.
Volume 5. Baffin Bay: Physical Oceanography - Temperature, Salinity,
Currents and Water Levels.
Can. Data Rep. Hydrogr. Ocean Sci. 5: (Vol. 5) 372 p

This volume is one of a group of catalogues designed to compile and appraise marine data sets for the Canadian Arctic. For user convenience, the group has been organized with its subject matter divided into three general disciplines: physics, chemistry and biology. The Arctic has been arbitrarily divided into seven geographical areas incorporating, where possible, major oceanographic regions. The format throughout has been structured to facilitate comparison among subjects and regions. With such a large undertaking it is not possible to provide all reports at once. Therefore catalogues which are presently available in the series are indicated on the inside back cover of each volume.

Data collection is a continuing process and further updates of the catalogues are planned. Readers are requested to submit corrections and additions by writing the issuing establishment. Such corrections will be incorporated in on-line computerized data set listings and will be continuously available upon request.

1.7.2 # 73 Dist Date: With this update

----.1983. Beaufort Sea hydrocarbon exploration - a federal perspective. Northern Resources and Economic Planning Branch, Dept. Indian Affairs and Northern Development, Ottawa, Ontario. 28p.

Preface from report:

PREFACE

The following report should be viewed as a working document which provides a brief overview of hydrocarbon exploration undertaken in the Beaufort region, describes the environmental and socio-economic milieu, and cites federal accomplishments in introducing and administering environmental legislation and monitoring oil and gas activities. In addition, it sets forth some broad objectives and guidelines intended to facilitate hydrocarbon exploration, and to ensure that it can proceed in a socially and environmentally responsible manner.

It should be noted that the guidelines are not intended to be binding; they simply suggest good practices that should be followed by anyone exploring for oil and natural gas in the Beaufort region and other parts of northern Canada. They are, in large measure, based on current industrial practices.

The petroleum industry has gone to considerable effort and expense to ensure that its activities are not disruptive to northerners. By voluntarily complying with the guidelines proposed here, companies active in the Beaufort will help to ensure that the unique heritage of the Beaufort Sea can be properly safeguarded. DIAND also hopes these guidelines will serve to alert Canadians to the tremendous challenges and opportunities which northern oil and gas exploration poses.

1.7.2 #74 Dist Date: by this update Panel Index K

----- 1983.
Environmental Studies Revolving Funds. Update Vol
I(1).

Abstract: Eight Program Study Committees have been
formed based on identified priorities. The newsletter
contains the detailed Priority Subjects for which
study proposals are being solicited.

1.7.2 # 75 Dist. Date: by this update. Panel Index K

----. 1981.
Research Program 1981/1982. National Research Council
of Canada Division of Building Research.

Research related to the Beaufort:
DBR is participating in studies of ice around the
Issungnak artificial island with a view to developing
an improved model.

- 1.7.2 #76 Reeves, R., D. Ljungblad and J.T. Clarke. 1983. Report on studies to monitor the interaction between offshore geophysical exploration activities and bowhead whales in the Alaskan Beaufort Sea, Fall 1982. Report prepared for Minerals Management Service, Alaska OCS Region, Interagency Agreement No. 41-12-0001-29064.

Abstract from report follows:

ABSTRACT

Out of concern about the potential effects of marine acoustic geophysical survey work on westward-migrating bowhead whales (Balaena mysticetus), the U.S. Minerals Management Service (MMS), in consultation with the U.S. National Marine Fisheries Service (NMFS), implemented a program for monitoring and regulating such work in the Alaskan Beaufort Sea during 1981 and 1982. In 1982 a twin-turbine, high-wing aircraft was used to survey systematically blocks covering approximately 1,400 km² near actively "shooting" seismic survey vessels. Direct visual observation was supplemented by the use of sonobuoys to listen to and record underwater sounds made by vessels, airguns, and whales. In addition to the systematic surveys, sustained behavioral observations of bowheads were made on an opportunistic basis, with the objective of identifying possible differences in behavior between whales exposed to seismic sounds and whales not exposed to seismic sounds. Daily summaries of field observations were reported to the MMS and NMFS; these were used for decision-making relative to regulation of seismic activities.

A total of 34 survey flights were initiated from August 27 to October 4, 1982. Although bowheads had been seen in the Alaskan Beaufort Sea as early as August 2 in other surveys, our first sighting was on September 14. By October 4, all seismic survey activity in the Alaskan Beaufort Sea had ended due to a combination of regulatory area closures and deteriorating ice conditions. Feeding behavior was observed as late as September 28, by which time westward migratory movements had also been observed.

No major changes in whale behavior (e.g. flight reactions) were observed which could unequivocally be interpreted as responses to seismic noise. A possible exception is the "huddling" behavior observed on September 14-15; our field interpretation of this behavior was that it may have been caused by the onset of seismic sounds. Tests of statistical significance were applied to data on number of blows per surfacing, mean blow interval per surfacing, surface times, and dive times. The mean surface time of "adults" (i.e. all whales other than cows and calves) in the presence and absence of seismic sounds was $1.67 \pm \text{s.d. } 0.85$ min. and $1.36 \pm \text{s.d. } 0.59$ min., respectively. This difference is statistically significant ($t = 1.988$, $df = 89$, $p < .05$). No statistically significant differences were detected for other behavioral

parameters in the presence and absence of seismic sounds. Animals compared in these tests were observed at essentially similar water depths (15-40 m). However, for our sample of observations, "adult" bowheads surfaced for longer periods, on average, in "deep" water (greater than 27.45 m) than in "shallow" water (27.45 m or less).

Although our results suggest some changes in behavior related to seismic sounds, the possibility that unquantified factors could be correlative dictates caution in attempting to establish causative explanations from these preliminary findings. Since dive and surfacing characteristics may vary seasonally, geographically, and annually, observed differences should, at present, be considered an indication of the need for additional studies and larger sample sizes, for specific comparisons. The biological significance of observed differences in behavior remains unknown.

1.7.2 # 77 FEARO Dist: 83.10.18 Panel Index J

Document:

Dubé, Yvon. 1983. Requirements for successful land use planning. Presented at the Alaska Science Conference, Whitehorse, Septmeber 30, 1983.

Abstract: Definition of Northern Land Use Planning is presented, and sequence of events in implementation outlined. "Land" in the context of Northern Land Use Planning is defined and major elements for consideration in land use planning noted. Six fundamental aspects which are requirements for successful land use planning are listed. The program planned by DIAND is then outlined.

1.7.2 # 78 FEARO Dist: 83.10.27 Panel Index J

Document:

Interprovincial Pipeline (NW) Ltd. DRAFT: Wildlife Harvesting Policy.

Abstract:

"The purpose of this paper is to provide a clear understanding of the objectives, policies and programs of Interprovincial Pipeline (NW) Ltd. which affect the relationship between the Norman Wells Pipe Line project and trappers who pursue their livelihood in the vicinity of the pipeline route..."Au.

Summary of Trapper Participation Program Wildlife Harvesting Policy. (from report):

2#78 (cont):

INTERPROVINCIAL PIPE LINE (NW) LTD.

**Summary of
Trapper Participation Program
Wildlife Harvesting Policy**

1. Interprovincial Pipe Line (NW) Ltd. wants good relations with trappers to avoid problems
2. IPL will try to resolve problems quickly and fairly
3. IPL will pay compensation for fur losses based on negotiated amounts and Edmonton auction prices
4. In addition to compensation, IPL will pay to relocate a trapping cabin which is too close to the pipeline
5. IPL will hire one trapper from each designated area for five weeks each year for four years for the environmental monitoring program
6. IPL will pay compensation for trapline damages by its employees or its contractors
7. IPL will encourage a training program through the H.T.A.s for young people wishing to learn resource harvesting

1.7.2 # 79

Dist: 83.11.04

Panel Index J

Orvik, Nils.

Northern development: northern security.
Northern Studies Series 1-83, Centre for
International Relations, Queen's University,
Kinston, Ontario. 196 p.

Circulation of Table of contents and notice to
Panel Members that the book is available on loan
form FEARO , Vancouver.

1.7.1 # 151

Dist Date: 83.11.14

Doc. Date: 83.10.11

Doc: Memo to Mr. J. Gérin, Deputy Minister, Env Canada
from Dr. A.H. Mac Pherson, Regional Director General.

Re: Managing Canada's North: 16th National IPAC
Semina , Minaki Lodge, Ont., 28-30 September, 1983.

Comments are included and two of the conference papers
are attached:

Moore, M. and G. Vanderhaden. Northern problems or
Canadian opportunities.

Cotterhill, E.M. 1983. The Territorial North.

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BEAUFORT SEA PROJECT

2.1 #1

Folder

October, 1980

Submissions to the Secretariat, Beaufort Sea
Environmental Assessment Panel re: Issue Identification
for the Calgary Seminar (FEARO) November 13, 1980.

Contents

Correspondence from Greenpeace - Patrick Moore
Letter (with concerns noted) plus report:
Oil Drilling in the Beaufort Sea, Greenpeace policy
Statement and Research Report - July 21, 1980, 19 p.

Energy, Mines & Resources - R.A. Edwards - Letter
Canadian Nature Foundation - Richard Pratt - Letter
Canadian Wildlife Federation - K.A. Brynaert - Letter
Fisheries & Oceans - K.B. Yuen - Letter & Attachments
Govt. of Yukon - W. Oppen - Letters Attachment
Environment Canada - A.C. Macpherson - Letter &
Attachment
External Affairs - K.J. Merklinger - Letter

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BEAUFORT SEA PROJECT

2.1 #2

Report - Proponent

Received by Secretariat, November 13/81 at Calgary
Seminar.

November 1980

BEAUFORT SEA/MACKENZIE DELTA DEVELOPMENT PLAN prepared by
Dome Petroleum Ltd., Esso Resources Canada Ltd, and Gulf
Canada Resources Inc.

Contents

Presentation by the proponents at the Calgary Seminar,
November 13 (FEARO) - including reproductions of slides
used during presentation.

Section 1 - Outline of exploration history of the area,
and an indication of some of the systems currently used.
Section 2 - Review of recent estimates of Canadian supply
and demand for hydrocarbons and a description of the
hydrocarbon potential of the Beaufort Sea/Mackenzie Delta
area. An estimate of expenditures and associated
benefits expected to accrue to Canada are presented. The
principal oil and gas development systems that have been
considered and designed for use in the area are
presented.

Section 3 - Icebreaker tankers are proposed as one mode
of transportation and new technological achievements in
this area indicated. Plans for a weather system,
navigational system are being developed. Pipeline
transport is proposed as an alternative with most of the
technology already developed.

An outline of the proposed infrastructure required to
support exploration and production activity is provided.

The conclusion presented was a recommendation that
development can proceed without causing serious negative
social or environmental impact.

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BEAUFORT SEA PROJECT

2.1 #3

Report (Proponent)
Submitted to Beaufort Sea Environmental Assessment Panel

June 1981

HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA/MACKENZIE
DELTA REGION

28pp.

Dome Petroleum Ltd.
Esso Resources Canada Ltd.
Gulf Canada Resources Inc.

Abstract

The proponents view of the EIS and background to the submission is presented (including information about the principal operators, history of petroleum activity in the region, need for oil and potential of the Beaufort region).

Oil development scenarios are presented for 1981-1985 (pre-production); 1986-1990 (early production), and 1900-2000 (long-term production) with some of the required activities described for each.

The price of gas and markets for it will influence production scenarios. Transportation by either Dempster-Foothills or Polar Gas-Y or by Tanker identified as possible.

A description of major components of production include floating platforms; offshore production platforms; artificial islands; dredging requirements; transportation by tanker (design concepts presented) and pipeline (design requirements, construction timing and personnel requirements reviewed); and shorebase facilities.

The socio-infrastructure and major changes from development to production described and the need for planning identified. Changes in the Transportation infrastructure could include tanker transport, increased Dempster highway traffic and possible additional roads.

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DOCUMENT:

BEAUFORT SEA PROJECT

2.1 #4

Report - FEARO

COMPENDIUM OF WRITTEN SUBMISSIONS TO THE PANEL ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT GUIDELINES

October 27, 1981

Beaufort Sea Environmental Assessment Panel

Abstract

This report contains submissions resulting from a request by the Beaufort Sea Environmental Assessment Panel for public and government input to the development of guidelines for the preparation of the environmental impact statement. Submissions from the following groups are included: Metis Association of the N.W.T.; North Slope Borough; Government of Yukon; Government of Northwest Territories; Arctic Biological Station; Employment and Immigration Canada; Department of Energy, Mines and Resources; Environment Canada; Department of Indian Affairs and Northern Development; Fisheries and Oceans Canada; Transport Canada - Marine; Dome Petroleum Limited.

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BEAUFORT SEA PROJECT

2.1 #5

Report (by Panel)

ADDITIONAL COMPENDIUM OF WRITTEN SUBMISSIONS TO THE PANEL
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

December 1, 1980

Beaufort Sea Environmental Assessment Panel

Abstract

This Compendium of Written Submissions supplements the earlier Compendium dated October 27, 1981. Most of the submissions contained in this Compendium were received by the Panel during the course of its public meetings held between November 4 and December 4, 1981, to discuss its draft Environmental Impact Statement (EIS) Guidelines. Together these contain all the written submissions received by the Panel on the draft EIS Guidelines as of December 18, 1981.

FEARO Document

Beaufort Sea Project

2.1#7

Report

Submitted to the Beaufort Sea Environmental Assessment Panel

February 1983

Usher, P.J. 1982. Assessing the impact of industry in the Beaufort Sea Region. Prepared by P.J. Usher Consulting Services for the Beaufort Sea Alliance, Ottawa, Ontario. December 1982. 98pp.

Abstract. Section 1 deals with the economy and society in the Beaufort Sea Region. The first analysis deals with native employment and income. The importance of wage employment in the local economy is recognized, with the question raised as to whether it is the main focus of economic life or rather a means to another end. If this is the case, there may be the interest to see that employment opportunities do not fall below a certain level, but at the same time they do not reach the level that interferes with other aspects of life such as the ability to obtain a substantial proportion of income from the land. This raised the possibility that present levels of income may not be far removed from a more or less ideal level in terms of the existing economic structure in the region.

The second analysis deals with the social organization and ideology of economic activity among native people.

The evidence of a fundamentally different economy lies not only with the distinctive structure of employment and income but with the social relations on which economic activity is organized, and in peoples ideas about those relations. Although there is anthropological evidence about these relations in Beaufort Sea communities there is little contemporary documentation, and extensive field research would be required to obtain it. An alternative approach of deducing a hypothetical account from theory and analogy was presented. A simplified account of the recent social relations of production in the Inuit and Dene communities around the Beaufort Sea. A scenario of things expected to come about as the northern economy is transformed from a merchant set of socio-economic relations to an industrial set is presented. The question is raised as to whether native people really have adopted the industrial 'work culture'. The conclusion presented is that while seeking the benefits

TEXTNAME: lib-2.5.2 (R)P: (p.01) 01

FEARO
Reference
No.

Beaufort Sea Project

2.1

Proposal specific reports submitted to the Panel.

2.1 #6

Submitted to the Beaufort Sea Environmental Assessment Panel

82.11.04

by:

Hamlet of Coppermine

Adamache, H. 1982

Environmental & social concerns, Coppermine, N.W.T.: oil & gas explorations, Beaufort Sea development. A case study compiled by H. Adamache and S. Atatahak for Coppermine Hamlet Council, October 1982. 3p.

or 'goodies' from wage employment the people appear to reject in considerable measure the necessary social obligations which these entail.

Chapter 2 examines the probable effects of change in two specific economic spheres: harvesting activities and social expenditures. This is done by examining the validity of what appears to be the prevailing views on the issue and then, using the analysis in Chapter One as background, proposing some alternative or additional hypotheses.

Some suggestions included: although there is a rise in per capita income through wage employment there is no concomitant rise in productive investment or household well-being.

- the hypothesis that wage income from industrial employment finances the harvesting sector remains to be tested.

- there is the question of whether heavy cash injections are truly necessary to the long term survival of the traditional sector or whether they entrain tendencies which undermine the long term viability.

- problems associated with capitalization of harvesting activities

- household expenditure and debt patterns arising from wage employment may become incompatible with traditional harvesting activities.

- taxation may become a burden on harvesting activities

- increasing capitalization may lead to effective but less efficient harvesting of resources.

Other factors arising directly from the larger process of industrialization which are already placing native people's traditional access to and control over fish and wildlife resources in question:

- demands by non-native immigrants and visitors for access to these resources for recreational purposes.

- management strategies can be expected to result in major alterations in the concepts and systems of land tenure and resource access

- devices for limiting entry, licences, quota allocation, will lead to a loss of flexibility and diversity in hunting capacity.

Cumulative impacts could be to drive out the small producer.

The impact of wage employment on social expenditures: The assumption in the case of the Beaufort Sea region is that its economy is sick because of the high level of social welfare expenditures and that major projects will remedy this. The author proposes that rather than an inverse relationship between wage employment and social welfare expenditures there seems to be a direct one. The loss of individual and household self-sufficiency and of the institutions of community solidarity and mutual aid leads to households becoming a state responsibility when they cannot meet their own needs. It is proposed that social welfare expenditures will increase to cope with the casualties of change, to cope with the inevitable periodic downturns in the economy, and due to an expansion of public expenditures based on changing perceptions of well being.

Chapter 3 examines the implications of the discussion for social impact assessment. "SIA conventionally measures personal and social well-being on the basis of indices of consumption. A more balanced view requires a consideration of well-being based on a perspective of production, and on the nature of social relations engendered by the process of production, distribution and exchange. It is concluded that the regional economy is not inevitably converging with the southern industrial economy, and that SIA must take into account both the locally desired and the probable futures of the regional socio-economic system. This expanded view of SIA could provide us with a means toward the rational, conscious and democratic direction of our future."

FEARU Document

Beaufort Sea Project

- 2.1 #8 Submitted to Beaufort Sea Environmental Assessment Panel, February 1983.

DPA Consulting Ltd. 1982. Beaufort Sea/Mackenzie Delta planning appraisal. Prepared by UPA Consulting Ltd. in association with ESL Environmental Sciences Ltd., Outcrop Ltd. for Dept. of Indian and Northern Affairs. July 1982. 73p.

Abstract.

"The purpose of this report is to present a land use planning appraisal of the Beaufort Sea/Mackenzie Delta region....

The report provides a brief overview of the characteristics of the region, current and possible future development activities and events which may affect a planning process in the region. Major land use conflicts and issues, and planning process issues are identified based on the perceptions of various interest groups about the future of the region. Through examination of the activities and events associated with resource exploration and development several planning options and land use scenarios are identified. Guidelines are recommended for establishing terms of reference for a land use planning process for the region. An action plan is also recommended and resource requirements are indicated based on the guidelines for the planning process and an analysis of the current situation and the available background data and other resources.

The policy context for this planning appraisal is basically set by two factors: the regional planning initiative of UINA resulting from the Federal Cabinet approval of the "Northern Land Use Planning Discussion Paper" (NLUPP); and, the now urgent requirement to respond to industry sponsored initiatives and requests for approvals to proceed with exploration and development activities in the Beaufort Sea...." Au.

FEARU Document

- 2.1 #9 Report Submitted to the Beaufort Sea Environmental Assessment Panel

Panel Index J

March 1983

Chamberlain, J.E. 1983. Native land claims and northern hydrocarbon development in the Beaufort Sea - Mackenzie Delta region. Prepared for the Beaufort Sea Alliance, Ottawa, Ontario. January 1983. 44 pp.

Abstract: "...It is simply to say that the prerogatives of native land claims require a definition independent of the prerogatives of hydrocarbon development, and that this independence presumes an acknowledgment of their differences, and of their sometimes conflicting priorities. One sign of this is antagonism between them. It is not the only sign, nor necessarily the most desirable, but in the absence of a serious and thoroughgoing consideration of the nature and the extent of their differences, it may be the most enduring one. This is the challenge facing the Beaufort Sea Environmental Assessment Panel; and I suggest that it should meet the challenge in several ways.

1. The Beaufort Sea Environmental Assessment Panel should accept its responsibility to provide for the fullest possible expression and consideration of native land claims, inviting rather than ignoring awkward issues, and intensifying rather than obscuring their distinctive and autonomous character.....
2. The Beaufort Sea Environmental Assessment Panel should advise the federal government to approach constitutional issues with regard to the native people in the north as a framework for political development as well as a protection for certain rights; and as a context for northern development consistent with native priorities, as well as a guarantee of federal energy prerogatives.....
3. The Beaufort Sea Environmental Assessment Panel should direct the hydrocarbon developers to attend to the idea of community which informs native land claims in the north, and direct the government to attend to the needs for diversified regulatory control and jurisdictional autonomy that will sustain the life and livelihood of communities within the framework of comprehensive planning.....
4. Finally, the Beaufort Sea Environmental Assessment Panel should address the concept of risk-taking as it applies to hydrocarbon development ventures, and include within the notion of risk not just capital risk but community risk, which should allow to the risk-takers a similar range of rewards and controls as

those allowed to, or more precisely insisted upon by, the financial backers of these projects....." Au.

The first part of the report deals with the general issues arising from the conjunction of native land claims and proposals for hydrocarbon development in the Beaufort Sea-Mackenzie Delta region. The second part of the report deals with more specific issues in terms of typical kinds of conflicts that arise. These conflicts are seen as the result of the assumption that the interests of the native people are assumed to exist only within the contexts defined by the interests of government and industry. The author proposes that this must be reversed and that the contexts proposed by native land claims be established as the premise for development. "And I suggest that the coexistence of native interests and hydrocarbon development depends before all else upon an acknowledgement of their differences, and that any reconciliation of these differences must begin with the general premises of native land claims rather than with those of hydrocarbon development proposals, and with a specific recognition of the autonomous interests represented by particular land claims. Insofar as this does not happen, native land claims will be subverted and their settlements compromised for central to native land claims is the principle that northern development begins here."

General issues in Part I are discussed under the following topics: the recognition of native land claims; taking native land claims seriously; the autonomy of native interests; the sense of community; northern affairs; constitutional affairs.

Part II covers specific native land claims of Committee for Original People's Entitlement, Dene Nation and Metis Association of the Mackenzie Valley. Specific background includes context of the claims, government policy regarding northern development, Mackenzie Valley Pipeline Inquiry, and Norman Wells Project. The general historical background covers native affairs and national affairs since World War II and native land claims in the north. Final sections deal with the Council for Yukon Indians and the Inuit Tapirisat of Canada. In relation to the ITC proposals the author notes "...The proposition that seems to be gaining ground --that the decision to be made is which of pipelines or tanker would be the better transportation mode--is precisely the sort of proposition that provides an inadequate context for a consideration of the relationship between native land claims and

northern development, since it begs the question of pipelines and tankers. Furthermore, approval-in-principle of the hydrocarbon development proposal now before the Beaufort Sea Environmental Assessment Panel would compromise the ITC proposal, by preempting the development of responsible regulatory structures in areas of interest to the Inuit. Insofar as it would do this--and I suggest it would do this to a very large extent-- it would undermine the premises of ITC land claims. It might also, of course, obliterate a lot of sea life; but in any case it would compromise the people's ability to make things happen, and interfere with the ways in which this ability finds an image in cultural structures, in social, economic and political arrangements, and in constitutional relationships. The Beaufort Sea Environmental Assessment Panel has an obligation not just to consider this, but to make it plainly understood by all."

FEARO Document
Beaufort Sea Project

2.1 # 10 Report
Submitted to the Beaufort Sea Environmental Assessment
Panel

March 1983

Path Economics Ltd. 1983. An analysis of the minimum economic scale of developing Beaufort Sea oil reserves. Prepared by Path Economics, Calgary, Alta. for the Beaufort Sea Alliance, Ottawa, Ontario. February 1983. 67pp.

Abstract. "The purpose of this study is to estimate the minimum economic scale at which Beaufort Sea-Mackenzie Delta oil reserves can be developed and delivered to Southern Canada..."

The minimum scale is useful in terms of estimating minimum reserves required for development and indicates minimum scale for demonstration projects. Since smaller scale options may reduce environmental and social impacts, the economic viability of this scale should be known. The minimum scale evaluation will indicate the upper economic bound for per unit costs.

The general approach outlined included evaluation of the economics of a minimum technically feasible scenario for each of the two transportation modes - pipelines and tankers. The test of economic viability involved a comparison of revenue to costs. Costs were direct costs and did not include wider costs dealing with environmental, social and economic concerns.

"The minimum economic scale for the development and delivery of Beaufort Sea-Mackenzie Delta oil reserves to southern Canada is identified in this study as a 400 millimetre (mm) pipeline (16 inch) delivering oil from a shallow off-shore field such as Issungnak plus as many as five on-shore and near-shore fields to Zama, Alberta where the oil would enter the existing pipeline network for delivery to Montreal..."

Connecting the pipeline only to the Issungnak off-shore field meets the test of economic viability. The advantage of adding production from five on-shore and near-shore fields is that the economics improve considerably, permitting greater protection from the project becoming uneconomic due to cost increases or price decreases...

Even at the five percent real discount rate which is the minimum return required on private capital, there is little margin remaining for government taxes, cost

overruns, and decreases in the selling price...

The study found that the minimum economic scale for the marine alternative was a larger project than the minimum economic scale for the pipeline alternative... ..this alternative accesses the same reserves as the P-3 pipeline alternative where all six fields are producing. Five on-shore and near-shore fields are connected to the Issungnak off-shore field where an off-shore loading and storage facility serves tanker transportation of the oil to southern Canada...

While recognizing that the minimum economic scale marine alternative is a larger and more expensive project than the minimum economic scale pipeline alternative, it is important to recognize that the marine alternative has perhaps a higher degree of flexibility.....per unit costs or the supply price will tend to fall over a certain range of output due to the higher capacity utilization of the terminal.."

From Summary and Conclusion section.

FEAKU
Reference
No.

Beaufort Sea Project

2.1

Proposal specific reports submitted to the Panel.

2.1 #11

Submitted to the Beaufort Sea Environmental Assessment Panel.
September 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and
Gulf Resources Inc.

on behalf of all land-holders in the Beaufort Sea-Mackenzie Delta Region.

1982. Environmental Impact Statement for hydrocarbon development in the Beaufort Sea-Mackenzie Delta region.
File Ref: See Category 2.3 for EIS and support documentation.

2.1 # 12

Submitted to the Beaufort Sea Environmental Assessment Panel
83.03.11

Dome Petroleum Ltd. 1982. Northern socio-economic/environmental action plan - Dome Petroleum Frontier Division 1982. Dome Petroleum Ltd., Calgary, Alberta. 31p.

"The purpose of the Action plan is to provide policy direction to Dome Managers in the conduct of their Northern planning and operational activities and to apprise governments of Dome's commitment to social, economic and environmental programs."
This Action Plan includes environmental programs and is structured to respond to the N.W.T. Government's 'Resource Development Policy' which highlights nine principles devoted to maximizing opportunities and participation for northerners and minimizing the negative effects of resource development projects. The G.N.W.T. resource development policies are listed and addressed in terms of Dome's policy and programs under the following categories: northern employment; northern training and development; business development; energy benefits (energy benefits, energy supply and self-sufficiency); environmental protection (environmental protection and renewable resource protection); cultural protection; consultation and information; native interests; social and economic impacts (assessment and mitigation); community planning (development impact zones, community infrastructure support, community planning); resource revenue.

2.1 # 13

Submitted to the Beaufort Sea Environmental Assessment Panel
83.05.19 by: R.A.W. Hoos

Beaufort Weather and Ice Office. 1982. Beaufort Weather and Ice Office 1982 report. Satellite and Beaufort Office, Forecast Operations, Western Region, Atmospheric Environment Service, Environment Canada.

"The Beaufort Weather and Ice Office (BWIO) was established in 1976 to provide, under contract, a forecast service and an ice observation and analysis service in support of offshore exploration in the Beaufort Sea.

This, the 1982 Report, is written to describe the wind, wave, weather and ice - forecast and actual - for the 1982 Beaufort season and 1982 operation of the Beaufort Weather and Ice Office."

2.1 # 14

Submitted to the Beaufort Sea Environmental Assessment Panel.
83.06.02 By: Warren Schmitke, Norman Wells

Submission regarding an Impact Capital Request for Community Planning and Development. Prepared by Local Government and the Hamlet Council.

Substantiations for the following projects are presented indicating the direct relationship to resource development (impact felt to date):

- D.O.T. Lake subdivision
- community hall expansion
- skating rink
- utilidor construction
- staff house
- Mackenzie Drive upgrading
- quarry road relocation
- water treatment plant
- road to 4-R
- utilidor to 4-R
- dumpsite improvements
- macerator upgrading
- streetlights
- sidewalks
- sewage treatment plant
- quarry relocation

FEARO Document

2.1 # 15

Submitted to the Beaufort Sea Environmental Assessment Panel

Dome Petroleum Ltd. 1983
The Canada benefits of the Beaufort exploration program 1982-1987. Dome Petroleum Ltd., Clagary, Alberta. 59p.

"This report outlines Dome Petroleum Limited's (Dome's) commitments to maximize the Canada benefits arising out of drilling activity under the terms of the Exploration Agreements for the Beaufort Sea region. The report reviews the policies and procedures that have resulted since it started drilling offshore in the Beaufort in 1975, and outlines the benefits that will be derived in the future from the proposed exploration program...."
Au.

The exploration agreements involved are noted and industrial benefits discussed under the following headings:

- corporate policy
- objective to support and develop Canadian industry by giving preference to domestic suppliers with a high Canadian content
- Dome's record: Canadian technological development in icebreaking technology; deepwater dredging; island building and drilling technology (development of subsea BOP, drilling through offshore permafrost, development of procedures for handling highly overpressured reservoirs); drillship fleet with under-hull mooring systems, specialized mooring systems with rapid disconnect, ice deflection systems, systems and procedures to drill in three feet of ice, systems for detecting various types of hazardous ice, improved oil spill cleanup systems for open water and new oil spill cleanup systems construction for ice.
- manufacturing capability: Arctic ship construction; Arctic concrete caisson

FEARO Document

2.1 # 16 Submitted to the Beaufort Sea Environmental Assessment Panel

White, Pamela M. 1982.
Beaufort Sea Alliance Report: The essential elements of social impact assessment. Prepared for the Beaufort Sea Alliance. 70 p.

Introduction and Format from report attached:

Introduction

The purpose of the Beaufort Sea Alliance position paper on Social Impact Assessment is to discuss the requisites of an adequate Impact Statement and of a good Social Impact Assessment. The paper reviews the social impact literature and then focuses on seven essential socio-economic impact issues. These issues are: development and on-going change, land claims, role of government, public participation, alternative patterns of development, local business and the boom/bust cycle, and amelioration/mitigation strategies. It is hoped that the social impact discussion of these seven impact issues will centre the debate and thus prove to be of assistance to the Panel in its assessment and evaluation of the proponent's Impact Statement and other evidence presented at the EARP hearings.

Format of the Paper

The paper will take the following format: Section 1 is a discussion the Social Impact Assessment (SIA) literature. Section 2 presents the seven essential impact issues. Annex A to G contain a more detailed examination of social impact assessment and the seven impact issues.

Section 1 and 2 are a complete review of SIA and the seven issues. It will not be necessary to read each Annex, nonetheless, the discussion contained in each Annex complements and elaborates upon the points raised in Sections 1 and 2. "

FEARO Document

2.1 # 17 Submitted to the Beaufort Sea Environmental Assessment Panel

Gibson, Robert B. 1982.
Values, interests and preferences: non-factual considerations in the work of the Beaufort Sea Environmental Assessment Panel. A report prepared for the Beaufort Sea Alliance. 51 p.

Table of contents attached.

CONTENTS

Preface.	v
<u>1.0 Introduction</u>	1
1.1 Factual and non-factual considerations in project evaluation.	1
1.2 The Beaufort hydrocarbon production case.	2
<u>2.0 Non-factual Considerations in Project Evaluation</u>	4
2.1 Process and content considerations.	4
2.2 The place of environmental assessment in overall project evaluation.	5
(a) The larger context of planning and policy	5
(b) Preliminary design and detailed proposal stage environmental assessments	6
2.3 General considerations relating to the contents and approaches of environmental assessment proceedings.	8
(a) Research.	8
(b) Analysis.	9
(c) Evaluation and presentation of conclusions.	9
<u>3.0 Beaufort Region Oil Production: Context and Proposals</u>	13
3.1 Exploratory drilling.	13
3.2 Reserves.	13
3.3 Production and transportation proposals	14
<u>4.0 The Beaufort Sea Environmental Assessment Panel: Process Limitations and Uncertainties.</u>	17
4.1 Establishment and terms of reference of the Panel	17
4.2 Intended role of the Panel.	18

<u>5.0</u>	<u>The Panel's Information Base</u>	21
5.1	Information required of the proponents.	21
	(a) The proposal, alternatives and associated projects.	21
	(b) The existing environment.	23
	(c) Impacts and related measures.	24
5.2	Information requested of governments, departments and agencies.	26
5.3	Government departments' and agencies' reviews of the proponents' environmental impact statement.	27
5.4	The burden on public intervenors.	27
<u>6.0</u>	<u>Areas of Ignorance and Uncertainty</u>	31
6.1	Ecological uncertainties.	31
6.2	Technical uncertainties.	32
6.3	Socio-economic uncertainties.	33
<u>7.0</u>	<u>Questions of Desirability, Acceptability and Preference.</u>	38
7.1	Need for the project.	38
	(a) Demand for oil.	39
	(b) Economic benefits.	40
7.2	The acceptability of ill-defined risks.	41
<u>8.0</u>	<u>Conclusions.</u>	45
8.1	Non-factual considerations in the Beaufort case.	45
8.2	Recommendations for the Panel.	47
<u>Appendix:</u>	<u>Principles for Proper Application and Treatment of Values, Interests and Preferences in Project Assessment.</u>	49

FEARO Document

2.1 # 18 Submitted to the Beaufort Sea Environmental
Assessment Panel

Cooke, W.G.

A review of transcript evidence and implications
for icebreaking oil tankers proposed for Beaufort
Sea operations. A report prepared for the
Beaufort Sea Alliance. 60 p.

Abstract.

"This paper.....attempts to review and summarize
the evidence on proposed icebreaking LNG carriers
as presented at the National Energy Board's
hearings on the Arctic Pilot Project in 1982. ...

FEARO Document

2.1 # 19

Submitted to the Beaufort Sea Environmental Assessment Panel

Nepean Development Consultants. 1982.
Government regulatory capability in the Beaufort.
A report prepared for the Beaufort Sea Alliance.
67 p.

Abstract.

"Nepean Development Consultants of Ottawa has prepared for the Beaufort Sea Research Coalition a forty page report entitled "Government Capability in the Beaufort " which examines the capability of government to respond effectively to possible recommendations from the Beaufort Sea Environmental Assessment Panel, and to potential hydrocarbon developments in the Beaufort Sea region. The report includes a synopsis of current development options for the Beaufort Sea, a review of the existing framework, a discussion of some comparative case-studies and problems pertaining to government regulatory capability in the Beaufort and some recommendations to rectify those problems...." From report.

FEARO Document

2.1 # 20 Submitted to the Beaufort Sea Environmental Assessment Panel

Sheridan, W. 1982.
Canadian petroleum requirements for the year 2000. A report prepared for the Beaufort Sea Alliance by Nepean Development Consultants. 10 p.

Summary from report.

" Forecasts of petroleum supply and/or demand for Canada in the year 2000 have recently been forthcoming from a number of reputable sources. These provide the basis for a comparison of production potential and consumer requirements. Each of these forecasts has been accepted as given. Only two of these forecasts (those from Energy, Mines and Resources Canada, and the National Energy Board's high case) anticipate the possibility of northern frontier (Beaufort Sea) production. In both instances however, such production possibilities exceed the demand projections from the respective forecasters. None of these forecasters anticipate that Beaufort Sea petroleum production will be needed to supply Canadian domestic demand in the year 2000. Given the declining nature of recent forecasts, the absolute reduction in petroleum demand appears to constitute a continuing trend. " Au.

2.1 # 21

Submitted to the Beaufort Sea Environmental Assessment Panel

83.08.09

By: Department of Fisheries and Oceans Canada

Johnson, L. 1983.

Assessment of the effects of oil on arctic marine fish and marine mammals. Can. Tech. Rep. Fish. Aquat. Sci. .57p.

"The Arctic Offshore Development Committee (ARCOD) of the Department of Fisheries and Oceans asked the Arctic Research Directors Committee (ARDC) for advice on the probable effects of oil on Arctic marine fish and marine mammals. ARDC convened a working group.....

...in a second stage of the study, the working group as a whole was given a set of questiona to which the ARDC wished to have the best answers possible.....

...This report embodies the working group's answers to those questions. In addition, there is an executive summary, a concluding statement, and recommendations for further study..." from preface.

The questions addressed to the working group follow:

1. What are the probabilities of accidental release of oil as a consequence of oil exploration, production or transportation in Arctic waters? Give separate consideration to release in open water, in polynyas, under shore-fast ice or under pack ice.
2. What concentrations of oil fractions might be expected to occur in open water, under ice, in the plankton and in the benthos as a result of such releases and what would be the expected rate of change in these concentrations?
3. What would be the physiological and ecological consequences of such oil concentrations for fish and marine mammals that were in the area at the time?
4. Which stocks of fish and marine mammals are vulnerable to oil spills in the Arctic? Which stocks are especially sensitive for one or more of the following reasons: i) they are heavily exploited; ii) at some stage in their life history they occupy cirtical habitats e.g. breeding grounds or feeding grounds that might be impacted by oil; and iii) the species exhibits some critical physiological or behavioural sensitivity to oil?

5. Which stocks should D.F.O. seek to protect by requesting particular areas or types of habitat (e.g. polynyas, areas of permanent shore-fast ice) be protected from oil-related activities?
6. What kinds of observational programs would be required to detect: i) deleterious effects on marine fish or mammal stocks, and ii) the recovery of the ecosystem from the effects of an oil spill?
7. What kinds of preventive measures or counter measures would be appropriate in respect of: i) chronic low-level pollution, ii) major spills, or iii) blowouts? In the event of a major spill or blowout, should D.F.O. seek to halt oil operations in the area until the system has fully recovered? If not what action is called for?

2.1 # 22

Submitted to the Beaufort Sea Environmental Assessment Panel

83.08.09

By: Department of Fisheries and Oceans Canada

Mansfield, A.W. 1983.

The effects of vessel traffic in the arctic on marine mammals and recommendations for future research. Can. Tech. Rep. Fish. Aquat. Sci. 1186. x + 97p.

The Arctic Research Directors Committee convened a working group chaired by Dr. A. Mansfield who prepared the report. The report addresses the questions posed to the working group. These questions were:

1. What is the scale and frequency of vessel traffic expected from the development and exploitation of mineral and hydrocarbon resources in the arctic in the foreseeable future (considered to be the year 2000)?
2. What are the most likely effects of this increased traffic on the marine biota (especially marine mammals)?
3. What is the likelihood of such effects causing changes in the behaviour and productivity of the marine biota, and how could this be distinguished from natural variability?
4. What kinds of research will need to be undertaken to answer the more important problems implied in the above questions?

Abstract from report follows.

The proposed development of arctic offshore hydrocarbon resources will lead to a marked increase in vessel traffic, particularly in the southeastern Beaufort Sea and in the Northwest Passage from Amundsen Gulf to Davis Strait. This increase is best exemplified by the projected use of supertankers, which will cause unprecedented levels of disturbance from their year-round icebreaking activities and by the very high levels of sound produced underwater, principally by propeller cavitation.

The possible effects of such disturbance on the marine mammals that occur along the proposed tanker route are discussed, and recommendations are made for appropriate scientific research that will help to predict the outcome of such interactions.

..1 # 23

Submitted to the Beaufort Sea Environmental Assessment Panel

83.08.09

By: Department of Fisheries and Oceans

Department of Fisheries and Oceans. 1983.

Research on the effects of underwater noise on marine mammals. Submitted to the Beaufort Sea Environmental Assessment Panel, August 1983. 4 p.

Research in the following areas is noted:

Marine arctic transportation: sound physics and the response of marine mammals

Effects of disturbance on bearded seal vocalizations

Vocalizations of beluga

Seismic exploration

U.S Beaufort Sea studies

Research is proposed in the following areas: effects of vessel traffic on arctic marine mammals; narwhal acoustics; underwater detection.

2.1 # 24

Submitted to the Beaufort Sea Environmental Assessment
Panel
83.08.03
By: Department of Indian Affairs and Northern
Development

----. 1983. Proceedings of a Northern Conservation
Policy Workshop, February 27 - March 2, 1983,
Whitehorse, Yukon.

Proceedings include:

- copy of letter to the Hon. John Munro forwarding a
resolution which was adopted at the workshop;
- opening address by Mr. Neil Faulkner
- Toward a conservation policy - Yvon Dubé
- Setting the context - Andrew Thompson
- Action plan for northern conservation
- list of participants.

2.1 # 25

Submitted to the Beaufort Sea Environmental Assessment Panel
83.07.21
By: Dept. Indian Affairs and Northern Development

Northern Environment Directorate. 1982.
A comprehensive conservation policy and strategy for the Northwest Territories and Yukon. A draft discussion paper. Northern Environment Directorate, Northern Affairs Program, DIAND.

Table of contents follows.

EXECUTIVE SUMMARY	i
INTRODUCTION	1
Conservation Interests North of 60°	1
DIAND Policy on Conservation since 1960	4
Obstacles to Progress	8
ROLES AND RESPONSIBILITIES OF DIAND IN CONSERVATION AND RECREATION	16
NORTHERN CONSERVATION POLICY	19
Principles	24
Scope	26
Components of the National Estate in Australia	27
A COMPREHENSIVE CONSERVATION STRATEGY	30
Conservation Issues in the Lancaster Sound Regional Study Area	30
IMPLEMENTATION OF A COMPREHENSIVE CONSERVATION STRATEGY	45
Advisory Groups on Specific Conservation Programs	45
Conservation Program - Northern Environment Directorate - ADM's Committee on Conservation	47
Circumpolar Council for Environmental Conservation and Canadian Council of Resource and Environment Ministers	49
DRAFT POSITION PAPER - NATIONAL PARKS	53
The Number of Parks	59
Relationship of National Parks to Other Conservation and Recreation Proposals	61
The Size of Northern Parks	64
DIAND's Strategy for National Parks North of 60°	65
DRAFT POSITION PAPER - ECOLOGICAL RESERVES	68
Interim Measures	75
APPENDIX	
A. Environment Canada and the North: A Statement on Environment Canada's Roles and Goals in Canada's North. <u>Draft</u>	77
B. General Principles for Development of Lancaster Sound Region and Protection of its Environment.	82

2.1#25

C.	Regional Planning - Basic Assumptions Government of the Northwest Territories. -----	87
D.	A Wildlife Policy for Canada. <u>Draft</u> -----	90
E.	Northern Land Use Planning Discussion Paper. -----	92
F.	ITC Land Claim - Wildlife Provisions of an Agreement-in-Principle. -----	95
G.	Inuvialuit Land Rights Settlement - Agreement-in-Principle. -----	97

LIST OF TABLES

1.	Conservation Interests in the Yukon and Northwest Territories -----	3
2.	Ecological Sites in or Adjoining the Lancaster Sound Regional Study Area -----	36
3.	Natural Regional and Parks Representation North of 60° Parks Canada -----	55

LIST OF FIGURES

1.	Scheme for Conserving the National Estate in Australia -	28
2.	Parks Canada's Areas of Interest : Lancaster Sound Regional Study -----	33
3.	Ecological/Sites (IBP): Lancaster Sound Regional Study -----	34
4.	Mechanism for the Implementation of a Comprehensive Conservation Strategy -----	46

LIST OF MAPS

1.	Status - National Parks, Terrestrial Natural Regions -----	56
2.	Status - National Parks, Marine Natural Regions -----	57
3.	Existing New National Park Interests -----	58

2.1 # 26

Submitted to the Beaufort Sea Environmental Assessment
Panel
1983

----.Ice is nice. Dome Petroleum Ltd., Calgary,
Alberta.

Summary information of oil spill research and countermeasures for the Beaufort Sea covering briefly: drilling in the Beaufort Sea; the major concern; blowout behaviour in the Beaufort; summer open water clean-up; new developments; fall freeze-up and winter ice; spring breakup-insitu burning; and conclusions. "It is not intended to leave the impression that oil spill clean-up in the Beaufort Sea is easy or that there would be no environmental damage in the event of a major spill. Rather, the purpose is to demonstrate that during the past six years of operation in the Beaufort Sea much has been learned about the Arctic and that this knowledge has been incorporated in the oil spill countermeasures program. This has resulted in an enhanced oil spill clean-up capability in the Arctic..." From report.

2.2 # 25

Submitted to the Beaufort Sea Environmental Assessment Panel 1983.

----.1983.
Human resources development final report. Summary volume (Vol. 1). Presented by the Joint Needs Assessment Committee.

Recommendations from the report follow:

The principle recommendations are as follows. We wish to state that these recommendations are sequential only and all are considered top priority.

RECOMMENDATION NO. 1

In planning future training programs in the north the Government of the Northwest Territories, industry and local communities must encourage local program delivery with academic upgrading being one of the major areas of emphasis. ✓

RECOMMENDATION NO. 2

In order for northern communities, industry and government to work together closely in determining training needs, communities should be given the authority to form Human Resource Training Committees whose main responsibility would be to give direction and focus regarding training needs and delivery. Each committee would have community representatives and members from government and industry.

RECOMMENDATION NO. 3

Provisions for new program delivery include a strong student support component through such areas as:

- daycare facilities
- adequate training allowances
- proper career counselling
- family relocation counselling and financial assistance

Provisions of this type are crucial to student success whether the programs are local or at a formal institution such as Thebacha College. Family support is often necessary to overcome feelings of discouragement and loneliness. A counselling service, sensitive to native northerners' needs, will do much to prevent students from dropping out of their program.

RECOMMENDATION NO. 4

Each community should have adequate adult education facilities staffed by skilled instructors who are highly sensitized to the needs of native northern learners. The main focus of these centres would be the provision of academic and vocational programs.

RECOMMENDATION NO. 5

The Government of the Northwest Territories should expand to deliver technical and vocational training to local communities through such vehicles as mobile and multipurpose facilities. The delivery of training programs should use state of the art technology such as teleconferencing, Telidon and other high technology delivery methods to deliver training programs to remote, widely scattered communities.

RECOMMENDATION NO. 6

The Government of the Northwest Territories establish a department with the sole responsibility for advanced education and human resource development.

RECOMMENDATION NO. 7

The Government of the Northwest Territories and/or the Federal Government ensure that employment and training information contained in this report be kept up-to-date and publicly available.

RECOMMENDATION NO. 8

The present Joint Needs Assessment Committee membership be retained and its terms of reference changed to include the planning, coordinating, monitoring and assessing the implementation of the recommendations contained in this report.

We look forward to your comments and release of the designated funds for implementation of these recommendations.

FEARO

Ref. No.

- 2.3.4 Additional Reference Works Update 83.10.01
- C-2 Kapel, F.O. 1977.
Catch of belugas, narwhals and harbour porpoises in
Greenland, 1954-1975, by year, month and region.
Rep. Int. Whal. Comm. 27: 507-520.
- O-2 Seargeat, D.E. 1981
On permissible exploitation rates of Monodontidae.
Rep. Int. Whal. Comm. 31: 583-588.
- O-5 Geraci, J.R. and D.J. St. Aubin. 1980.
Offshore petroleum resources development and marine
mammals: a review and recommendations. Mar. Fish.
Rev. 42 (11): 1-12
- S-4 Davis, R.A., W.J. Richardson. S.R. Johnson and W.E.
Renaud. 1978.
Status of the Lancaster Sound narwhal population in
1976. Rep. Int. Whal. Comm. 28: 209-215.
- T-4 Gun, A., F.L. Miller and D.C. Thomas. 1981.
The current status and future of peary caribou
Rangifer tarandus pearyi on arctic islands of Canada.
Bio. Conserv. 19:283-296.

Update to

FEARO
Ref. No.
2.3.4

Additional Reference Documents

(83 10.06)

D-6

Fraker, M.A., W.J. Richardson and B. Wursig. 1982.
Disturbance responses of bowheads. In: W.J.
Richardson (ed). Behaviour, disturbance resposnes and
feeding of bowhead whales Balaena mysticetus in
Beaufort Sea, 1980-81. Unpubl. Rep. by LGL Ecological
Research Associates, Inc., Bryan, TX, for U.S. Bureau
of Land Management, Washington. 456 p.

T-3

Cowles, C.J., D.J. Hansen and J.D. Hubbard. 1981.
Types of potential effects of offshore oil and gas
development on marine mammals and endangered species
of the northern Bering Sea and Arctic Ocean.
Techical Paper No. 9. U.S. Dept. of the Interior,
Bureau of Land Management, Alaska Outer Continental
Shelf Office. 23 p.

I-3(b)

Bunch, J., F. Dugr e and T. Cartier. 1983.
Issungnak Oceanographic Survey. Part C:
Microbiology. x + 39p. A report prepared for Esso
Canada Resources Ltd., Gulf Canda Resources Inc. and
Dome Petroleum Ltd., Calgary, Alberta.

FEARO Document

2.5.1 #14

83.08. 11 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson (Technical Specialist)

Re: Interlog proposal for a multi-user Beaufort Sea support base.

Points to be considered in relation to this proposal are noted (e.g. at least one base will be needed if production starts; additional facilities will be needed by Coast Guard and search and rescue facilities; this concept might add to location options; one large base might be less environmentally damaging. Problems include company opposition and location and timing in relation to commercial discoveries which have not yet been made.

2.5.1 #15

83.08.29 Panel Index E
D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: R. Lemberg (Technical Specialist)

Re: Summary of meeting held in Calgary at Esso Plaza to review pipeline oil spill risks.

Proponents presented their pipeline design methodology for the Beaufort. Presentation was followed by a discussion of leaks and spills from offshore pipelines and review of leak detection limit. The proponents were requested to include this discussion in their report.

The third discussion dealt with the manner in which pipeline spill statistics may be applied to the Beaufort Sea pipelines. The proponents agreed to estimate the degree to which causes of spills in the world statistics may be applicable to the Beaufort and also to estimate the size of a spill which may occur from their pipelines. Their report including these items is expected in two weeks.

2.5.2 #9 Submitted to the Beaufort Sea Environmental Assessment
Panel
83.08.16
by: DIAND

Observations and comments on the Beaufort Sea- Mackenzie
Delta Environmental Impact Statement Supplementary
Information 1983. Environmental Issues.

2.5.2 #10 Submitted to the Beaufort Sea Environmental Assessment
Panel
83.09.
by: Grafto Njootli, Old Crow Indian Band

Submission to the Beaufort Sea Environmental Assessment
Panel. September 1983. Presented by Grafton Njootli
for Old Crow Indian Band.

2.5.2 #11 Submission to the Beaufort Sea Environmental Assessment
Panel
83.09.21
by: Ernest Firth, Fort MacPherson.

Firth, E. 1983.
Notes of Oral Brief to Panel at Fort MacPherson.

Index to the Public File of Beaufort Sea Environmental Assessment
Panel Material (Public File Index).

- Preface -

The Beaufort Sea Environmental Assessment Panel established a public file of Panel material at three locations: the Beaufort Sea Panel Office, Inuvik; the Federal Environmental Assessment Review Office, Vancouver; and the Federal Environmental Assessment Review Office, Ottawa. This public file includes copies of all correspondence to or by the Panel, all documents produced by or for the Panel, and all documents submitted to the Panel.

This Index to the Public File provides an annotated listing to material available in the Panel's Public File under two main categories.

Category 1 of the Public File Index includes the following general Panel material: documents produced by or for the Panel; news releases and information bulletins; media related material (not annotated); Panel correspondence (direct and by secretariat); other general information or publications received by the Panel.

Category 2 of the Public File Index covers documents formally submitted to the Panel as part of the review process as follows: proposal related publications; general literature; environmental impact statement documentation*; government position statements; general submissions and interventions.

*Note: Although not part of the formal EIS submission, the Public File Index includes a listing of documents referenced in the "Environmental Impact Statement for Hydrocarbon Development in the Beaufort Sea/Mackenzie Delta Region" which are available for viewing at the Federal Environmental Review Office, Ottawa, or by request through the other Public File locations. These documents are also available to participants on a limited loan basis.

2.1 # 27 Submitted to the Beaufort Sea Environmental Assessment Panel
Oct 1983
by the proponents.

Stubbs, J.T., K.K. Tue-Fee and A.J. Keinonen. 1983.
Advances in arctic icebreaker design. Paper presented to
the symposium on Science and Arctic Hydrocarbon
Exploration: The Beaufort Experience. Whitehorse, Yukon.
September 29-30, 1983.

Abstract: (from report).

1. SUMMARY

The economics of resource exploration and production in the Arctic regions dictate the need for cost effective icebreaker vessel support. Recent developments and extensive full scale performance evaluations show convincingly that the introduction of innovative design features are effective in meeting this need. As a result, the power requirements for an icebreaker with year-round Arctic operational capabilities are being reduced considerably by actual demonstrations of icebreaking performance of the following two ships, the Canmar Kigoriak and the Robert LeMeur.

In this paper, the authors discuss the novel design features of the Canmar Kigoriak, industry's first purpose-built Arctic icebreaker, specifically; hull form, ice management systems, manoeuvrability, propulsion requirements and resultant performance.

On the basis of the very successful full scale performance results of the Canmar Kigoriak, a second generation Arctic icebreaker, the Robert LeMeur, has been designed, built and evaluated. The systematic variations from the Kigoriak proven design features incorporated within the Robert LeMeur are outlined.

The Kigoriak and Robert LeMeur Research Programs were specifically aimed at evaluating and assessing features of these two ships in actual Arctic conditions and provide unique full scale knowledge for the development of future operations of polar class vessels.

Future developments based upon research results are presented in concept form for a polar icebreaker and icebreaker/oil tanker.

2.1 # 28 Submitted to the Beaufort Sea Environmental Assessment Panel
83.09.23
by: Dome Petroleum Ltd.

Danielwicz, B.W., E. Pessah and S. Cornett. 1983.
Field investigations of tracks left by icebreaking
vessels. Dome Petroleum Ltd., Calgary, Alberta.

Abstract (from report), Conclusions and Recommendations.

Field investigations of tracks left by an ice breaker were carried out three times in McKinley Bay between late November and early June in 1981-82. The ease and safety with which the tracks could be crossed on foot, by snowmobile, and with a laden sled were considered. The elapsed times between the track creation and the crossings were noted. The ice build-up in the track as a result of ship passages was measured. The rate of refreezing of freshly broken ice rubble was obtained over a six day period.

5.0 CONCLUSIONS

Field investigations of tracks left by an ice breaker in McKinley Bay during the winter of 1981-82 indicated that the tracks will probably not represent serious obstacles to over ice travel.

The track was crossed on foot one hour after the ships passage in late November.

It was found that a native sled loaded to 600 kilograms could be towed across a two hour old track in late November by snowmobile. Fracturing in the young track during this crossing was observed but the sled remained supported by the buoyancy of the underlying ice mass.

Because of the greater ice thickness, track crossings in March could be made almost anywhere beyond the range of the ship's propeller wash.

Track crossings during June could also be made immediately after the vessel passage but the crossings were delayed by two hours to allow the water to drain from the surface slush pools. After this delay, there was less surface water on the track surface than on the surrounding level ice which was in the early stages of spring break-up.

2.1 #28 (con't):

While the ice in the track was thicker later in the winter, it was also noticeably rougher. The time required to prepare a snowmobile route across the track ranged from zero early in the winter to about 15 minutes in June. In all of the trials, the roughness of the track was found to be less than that of naturally occurring sea ice ridges.

6.0 RECOMMENDATIONS FOR FURTHER STUDY

The McKinley Bay field trials have shown that there are no significant problems associated with crossing Kigoriak's tracks in that area. Similar trials will have to be carried out in new locations, under different environmental conditions, and with other vessels.

Because ship's tracks are an issue of mutual interest to northerners and to industry, future investigations should continue to be carried out as co-operative ventures.

Future trials should include investigations of the warning systems proposed by northerners in their report (Appendix A).

2.1 # 29 Submitted to the Beaufort Sea Environmental Assessment Panel
83.09
by: Proponents (Also filed 2.3.4 I-3(b))

Bunch, J.N., F. Dungré and T. Cartier. 1983.
Issungnak Oceanographic Survey. Part C: Microbiology. A
report prepared for Esso Canada Resources Ltd., Gulf
Canada Resources Inc. and Dome Petroleum Ltd., Calgary,
Alberta. x + 39 p.

Abstract (from report):

During 1981-82, three stations located in the south Beaufort Sea in the vicinity of the artificial island, Issungnak 0-61, were occupied sporadically across a one year period. Complete sample collections were made on two occasions by the microbiology component of the survey to assess bacterial abundance and activity. Partial collections by other personnel produced sufficient microbiological data to allow some elaboration of the seasonality of chemical and microbiological parameters.

During the open water season, the influence of the Mackenzie River was seen at the stations through strongly stratified water columns with vertical gradients of temperature and salinity and nutrient-depleted surface waters. Primary production, assessed by the measurement of chlorophyll a, appeared to be restricted to the upper part of the water column. Organic carbon concentrations and distributions corresponded closely to chlorophyll a. Dissolved organic carbon (DOC) ranged from 3.2 mg L⁻¹ in open water during July to 1.2 mg L⁻¹ in bottom water during April. A high value of 4.3 mg L⁻¹ was observed immediately under the ice in April. Particulate organic carbon (POC) increased from a low of 25 µg L⁻¹ under ice to a maximum of approximately 1600 µg L⁻¹ during July.

Heterotrophic activity, expressed as the maximum velocity (V_{max}) of glutamic acid uptake, was higher in surface waters where organic carbon was more abundant than in deeper waters. Values ranged from a mean of 4.89 µg L⁻¹ d⁻¹ in surface waters in July to 0.07 µg L⁻¹ d⁻¹ in bottom water in April. A twelvefold difference in total counts of bacteria ranging from 0.7 to 8.4 X 10⁷ cells L⁻¹ was observed in seawater samples between April and July. Colony-forming units (CFU) determined from a single collection in July ranged from about 10⁵ to 10⁶ colonies L⁻¹.

2.1 # 30 Submitted to the Beaufort Sea Environmental
Assessment Panel
83.09.06
by: Environment Canada

Environment Canada. 1982.
Canada's special places in the north: an
Environment Canada perspective for the '80's.
Environment Canada. Ministry of Supply and
Services Cat. No. En72-10/1982E.
Ottawa, Ontario. 11p. + Map.

Introduction (from Report)

Yukon and the Northwest Territories, most of which lie north of the 60th parallel of latitude, represent approximately 40 percent of Canada's land mass. Popularly known as the "Canadian North" and "North of 60", this large region falls under the management and administration of the Department of Indian and Northern Affairs (DINA) with the exception of those lands assigned to other federal departments or to the respective Territorial Governments.

Environment Canada has a vital interest and a major role to play in the Canadian North. It has a general concern for the environmentally-sensitive terrain and ecosystems of the North, and a role in monitoring and advising on major, federally-initiated development projects. The Department, through Parks Canada and the Canadian Wildlife Service (CWS), also operates land resource conservation programs there. These programs currently incorporate sixteen Migratory Bird Sanctuaries (NWT only), the northern portion of Wood Buffalo National Park, and three National Park Reserves. Land withdrawals for future National Parks on the East Arm of Great Slave Lake, in Northern Ellesmere, and in the northern Yukon for National Park and other conservation purposes have been established by Order-in-Council. Nineteen commemorative plaques recognizing significant historical events or locations

the National Historic Parks and Sites program.

Recognizing that rapidly accelerating development activities in the North might alter key environmental components of the natural resource base, the Minister of the Environment instructed officials of Environment Canada early in 1980 to expedite ongoing inventories of unprotected significant areas in Northern Canada.

The information to follow has been generated from the Department's Northern Conservation Land Inventory (NCLI) undertaken in compliance with the Minister's request. A number of new environmentally and historically significant areas worthy of further study have been uncovered during this inventory. Data generated or compiled for each of them are expected not only to assist Environment Canada in selecting those areas of direct interest to its respective conservation land programs, but should also contribute to other federal, territorial and industrial land use planning initiatives.

The inventory has been aided by the existence of extensive data generated in the 1970's by the northern panels of the International Biological Program (IBP) and by the Canadian Arctic Resources Committee (CARC). As well, both Territorial Governments contributed data and advice as these inventories were underway. The end result represents Environment Canada's 1981 perspective on significant conservation

2.1 # 31 Submitted to the Beaufort Sea Environmental
Assessment Panel
83.09.06
by: Environment Canada

Dickson, H.L., T.W. Barry , K.J. McCormick and
R.W. Prach. 1983.
Areas of special interest to the Canadian Wildlife
Service (within the Beaufort Sea hydrocarbon
production zone and associated transportation
corridors). prepared by the Beaufort Sea Resource
Team, Canadian Wildlife Service, Western and
Northern Region. Submitted to the Beaufort Sea
Environmental Assessment Panel. 222p.

Introduction and Table of Contents from report
follow:

INTRODUCTION

This report has been prepared in response to the request, by the Beaufort Sea Project Office of Environment Canada, for the Canadian Wildlife Service (CWS) to identify and prepare a report on the areas of interest within the Beaufort Sea hydrocarbon production zone and associated transportation corridors (study region; see Figure 1) which may potentially be affected by large scale developments in the Beaufort Sea as announced by Beaufort Sea Environmental Assessment and Review Panel (EARP).

Upon being assigned this task, the CWS formed a team (Beaufort Sea Resource Team) of biologists and scientists to carry out the work.

The areas defined in this report have been selected primarily on the basis of their importance to birds or mammals, although a few areas are of botanical importance. Four additional sites which CWS has noted as areas of historical interest or as areas possessing a number of rare plants have been included.

The CWS has not attempted in this report to define which aspects of the Beaufort Sea Hydrocarbon Production Proposal could affect a site or its resources, or what the effects might be. The CWS has prepared this report for the purpose of identifying those areas within the study region which are of interest to the CWS and for which care should be taken to avoid damage to the sites or their resources. Thus this document is not intended to be, and should not be interpreted as, a document defining all of the areas of biological, historical or botanical interest, etcetra; but rather only as a flagging mechanism to industry to areas within the study region which the CWS knows are of importance and which could be affected. Industry should take care to avoid or in some cases utilize with care, during any future development within the study region.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	1
INTRODUCTION.....	1
METHODS.....	3
FORMAT.....	5
MACKENZIE RIVER VALLEY REGION.....	9
1. Mackenzie River Islands - Camsell Bend.....	10
2. Plains of Abraham.....	14
3. Mackenzie River Islands - Redstone River to Patricia Island.....	18
4. Brackett-Kelly Lakes.....	23
5. Coral Peaks.....	30
6. Point Separation Islands.....	32
7. Sans Sault Rapids.....	34
8. The Ramparts Plain.....	37
9. Mackenzie River Islands - Manitou Island to Tree River.....	41
10. Rengleng Plain/Travaillant Lake.....	45
11. Rat River/Mount Goodenough.....	49
12. Campbell Lake Hills.....	54
13. Caribou Hills.....	62
14. Kugaluk River Estuary - Campbell Island.....	74
BEAUFORT SEA REGION.....	78
15. Northern Yukon.....	79
16. Herschel Island.....	84
17. Phillips Bay (King Point to Stokes Point).....	88
18. Shoalwater Bay (Shingle Point to Tent Island).....	91
19. Old Crow Flats.....	94

	Page
20. Outer Mackenzie Delta.....	102.
21. Toker Point.....	105
22. Hutchison Bay.....	109
23. Wood Bay (Anderson River Delta and Mason River Delta).....	111
24. Harrowby Bay (Old Horton River Bed), Smoking Hills and Ikpisugyut Bay.....	118
25. Cape Parry (Booth Islands).....	121
26. West Side of Banks Island (Cape Kellet to Gore Islands) including Banks Island Migratory Birds Sanctuary #1.....	124
27. Berkeley Point (Ramsey Island to Deans Dundas Bay and Princess Royal Islands).....	127
28. Investigation Islands (Prince Albert Sound, Victoria Island)....	129
NORTHWEST PASSAGE AND CANADA'S EAST COAST NORTH OF 60° LATITUDE	
REGION.....	131
29. Bailey Point, Melville Island.....	132
30. Creswell Bay, Somerset Island.....	135
31. Cunningham Inlet, Somerset Island.....	137
32. Prince Leopold Island and Cape Clarence, Somerset Island.....	139
33. Baillarge Bay, Baffin Island.....	142
34. South Coast of Devon Island.....	144
35. Buchan Gulf, Baffin Island.....	147
36. Bylot Island.....	149
37. Scott Inlet, Baffin Island.....	151
38. East Coast of Baffin Island (Merchants Bay to Cape Dyer).....	153
39. Hantzsch Island, Resolution Island Group.....	155

	Page
40. Button and Knight Island Groups, Hudson Strait.....	157
41. Akpatok Island, Ungava Bay.....	159
42. Canoe Lake.....	161
43. Winton Bay - Beekman Peninsula.....	164
44. Ogac Lake.....	167
45. Fort Anderson.....	169
REFERENCES.....	172
APPENDIX I: Mackenzie River Valley: Peregrine Falcons.....	195
APPENDIX II: Snow Geese.....	200
APPENDIX III: Caribou.....	207
ADDENDUM:	216
46. Browne Island.....	218
47. Batty Bay.....	220

2.1 # 32

Submitted to the Beaufort Sea Environmental
Assessment Panel
November 2, 1983
By: G. Abrahamson, North Slope Project Review
Group

-----, 1983

North Slope Review Group recommendations -
consolidation.

Recommendations by the COPE and CYI members and
recommendations by the YTG members are presented
with their rational for the following topics:
need - economic considerations; environmental
considerations; social considerations; previous
decisions.

- location of a single port
- timing
- need for adequate planning
- Gulf Canada's application
- Peter Kiewit application

2.1 # 33

Submitted to the Beaufort Sea
Environmental Assessment Panel
October 1983.

M.J. O'Conner & Associates Ltd. 1980.
Development of a proposed model to account for the
surficial geology of the southern Beaufort Sea.
Geological Survey of Canada, Open File Report 954.
Prepared under contract to Atlantic Geoscience
Centre, Geological Survey of Canada, EMR
(scientific authority: Steve Blasco) Dartmouth,
Nova Scotia 128 p.

Summary and table of contents from report follow:

A generalized model of the surficial geology of the southern Beaufort Sea continental shelf has been developed from a review of recent scientific studies conducted mainly by the Geological Survey of Canada. The proposed model consists of three basic geologic units whose individual properties and thicknesses may vary over the shelf.

Unit A is a horizontal sequence of fine grained marine sediments which were deposited on the shelf following the last sea level rise. The base of Unit A grades into Unit B, a transgressive sequence of sand, silt and clay comprising deltaic, lagoonal and littoral sediments deposited in the complex transitional environment which existed during the last sea level rise. Unit B rests unconformably on Unit C, a much older sequence consisting primarily of coarse grained sediments derived from former continental (glacial, fluvial, eolian) and transitional (deltaic, littoral) environments. In some parts of the shelf the unconformity is thought to represent a significant period of subaerial exposure and erosion, resulting in the widespread occurrence of overconsolidated sediments and relic permafrost below this boundary.

An attempt was made to test the proposed model by examining seismic records collected by the GSC during the period 1970 to 1978. It was concluded that acoustic identification of specific geologic units appears to be possible, except where ice scouring, permafrost and/or the presence of shallow gas interfere with the acoustic stratigraphy. No acoustic evidence contradicting the model was encountered. The seismic review also resulted in the identification of glacial sediments, possible massive ice occurrences, relic thermokarst depressions and pingo-like features underlying the seafloor.

An examination of seismic information pertaining to the morphology of the shelf edge was also undertaken. It demonstrated that the shelf edge is presently stable east of 132° longitude, but that the stability decreases in a westerly direction to approximately 137°, where recent faulting or slumping of the shelf edge appears to have occurred. The western (Mackenzie Canyon) edge is also unstable, but the responsible geologic mechanisms along this boundary are somewhat different.

The acoustic evidence suggests that the submarine environment may be every bit as complex as the adjacent permafrost-affected land. If such is the case, then a thorough knowledge of the active and potentially active geologic processes is warranted before extensive resource development can be undertaken safely.

TABLE OF CONTENTS

		<u>PAGE NO.</u>
1.0	THE PROPOSED GEOLOGIC MODEL	1
2.0	SCIENTIFIC EVIDENCE RELATING TO THE GEOLOGIC MODEL	3
2.1	Borehole Investigations	3
2.2	Ice Scouring	5
2.3	Sediment Dispersal and the Geologic Model	10
2.4	Thickness of Recent Soft Sediments	15
2.5	Permafrost	19
2.6	Shallow Gas	22
3.0	ACOUSTIC EVIDENCE AND ITS RELATIONSHIP TO THE MODEL	26
3.1	Acoustic Stratigraphy	26
3.2	Ice Scouring	40
3.3	Shallow Gas	50
3.4	Permafrost	61
3.5	Relationship Between Permafrost and Shallow Gas	70
3.6	Special Features	77
	3.6.1 Thermokarst Topography	80
	3.6.2 Massive Ice	85
	3.6.3 Glacial Sediments	87
	3.6.4 Pingo-Like Features	89
4.0	DESCRIPTION OF THE SHELF EDGE MORPHOLOGY	95
4.1	The Outer Shelf Edge	95
4.2	The Mackenzie Canyon Edge	114
4.3	Discussion	119
5.0	UNRESOLVED ASPECTS OF THE MODEL	120
6.0	CONCLUSIONS	123
7.0	RECOMMENDATIONS	124
8.0	REFERENCES	126



Submitted to the Beaufort Sea Environmental
Assessment Panel
October 1983

M.J. O'Conner & Associates Ltd. 1981.
Distribution of shallow permafrost in the Canadian
Beaufort Sea. Geological Survey of Canada, Open
File Report 953. Prepared under contract to
Atlantic Geoscience Centre, Geological Survey of
Canada, EMR (scientific authority: S.M. Blasco),
Dartmouth, Nova Scotia. 72p.

Summary and table of contents from report follow:

In 1980 the Geological Survey of Canada, EMR, initiated a synthesis of the geological, geophysical and geotechnical information collected in the southern Beaufort Sea. The present report, which examines some of the available seismic information relative to the distribution and occurrence of shallow acoustic permafrost, forms the fourth in a series of studies designed to address specific components of the synthesis in detail.

Four types of shallow acoustic permafrost (APF) can be recognized on the high resolution reflection records collected by the GSC during the period 1970-1980. These are hummocky APF islands, continuous APF, stratigraphically controlled APF and ice lenses. The presence of a fifth type, massive ice, has not yet been confirmed on any seismic sections, but has been reported in certain GSC drill holes and is suspected to occur in the core of some PLF's.

Both the reflection and refraction data suggest that acoustic permafrost underlies a substantial portion of the continental shelf, especially east of 135° longitude. Marginal ice-bonding may also be present at some locations between the Mackenzie Canyon and the MacAulay Line. The acoustic permafrost comprises two distinct layers. A shallow, somewhat discontinuous, layer extends from the seafloor to a depth of 50 to 90 m below seafloor, depending on the water depth. It appears to be underlain by a non-ice-bonded (NIB) zone, approximately 13 m thick, of unknown origin. Beneath the NIB zone, a thicker, more continuous zone of deep acoustic permafrost is also evident. The lateral distributions of the two layers are not equivalent, although both appear to occur in virtually all water depths.

Most of the shallow acoustic permafrost underlying the nearshore areas is believed to be relic in origin. Shallow APF underlying deeper water has probably formed as a result of the present negative seafloor temperatures. At some locations this modern APF may also be associated with some relic permafrost and the growth on pingo-like-features on the seafloor.

A preliminary map showing the distribution of observed shallow acoustic permafrost on the continental shelf has been prepared at a scale of 1:250000. Additional studies are required to incorporate the geotechnical borehole and high resolution seismic data currently available from the major petroleum operators.

TABLE OF CONTENTS

	<u>Page No.</u>
1.0 INTRODUCTION.....	1
1.1 Scope.....	1
1.2 Authorization.....	2
1.3 Report Organization.....	2
2.0 ACOUSTIC CHARACTERISTICS OF SUBSEA PERMAFROST.....	4
3.0 DISTRIBUTION OF SHALLOW ACOUSTIC PERMAFROST.....	33
3.1 Refraction Data.....	33
3.2 Reflection Data.....	42
4.0 DISCUSSION.....	53
4.1 Limitations of the Study.....	53
4.2 Correlation with Borehole Data.....	55
4.3 Correlation with Other Studies.....	55
4.4 Correlation with Shelf Geology.....	56
4.5 Origin of the Non-Ice-Bonded (NIB) Zone.....	61
4.6 Implications of the Data.....	63
5.0 CONCLUSIONS.....	66
6.0 RECOMMENDATIONS.....	68
7.0 CLOSURE.....	69
8.0 ACKNOWLEDGEMENTS.....	70
9.0 REFERENCES.....	71

2.1 # 35

Submitted to the Beaufort Sea Environmental Assessment
Panel
December 1983.
by DIAND

Carin. B., K. Bouey and R. MacKay. 1982.
Beaufort Sea oil transportation alternatives.
Prepared for Energy, Mines and Resources Canada and
Indian and Northern Affairs Canada. various paging.

Purpose and Table of Contents from report follows:

TABLE OF CONTENTS

CHAPTER 1	Purpose
2	Scenario Selection
3	Unit Costs
4	Financial Costs - Tariffs
	- "Levelled" Tariffs
	- Tax Analysis
	- Need for Government Intervention
5	Socioeconomic Impacts
6	Environmental Impacts
7	Industrial Benefits

CHAPTER 1

PURPOSE

The purpose of the assignment was to analyze the relative merits of pipeline vs icebreaking tanker for future delivery of Beaufort Sea oil. "Relative merits" were to be described in terms of characteristics of unit costs (from an economic perspective, resource or supply price), financial costs (incorporating debt, equity and taxes), taxation implications, environmental impacts and socio-economic impacts.

The assignment was to be accomplished in a very short time and, therefore, was not intended to be definitive. Indeed it would be foolish to attempt a definitive study in the absence to date of any detailed proposals by proponents of a transportation system. The issue of transportation is especially premature in the absence of information on Beaufort reserves and the timing of commercial production. The design of transportation proposals will depend critically on the volumes to be transported.

The intended objective of the assignment was to obtain a preliminary indication of the nature of the crucial elements of each transportation mode and to highlight areas where subsequent analysis should be focussed.

Due to the preliminary nature of the exercise, as well as the constraints on time, no consultation was undertaken with any public interest groups outside the government. The assignment was undertaken independently of the two sponsoring departments (DIAND and EMR) by Barry Carin of Treasury Board's Temporary Assignment Pool, Kathy Bouey of EMR and Rob MacKay of DIAND. The original terms of reference are appended as Annex 1.

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2.2 #1

Beaufort Sea Category 2.2
Publication

Remscan (remote sensing, communication and navigation); ice force sensors;

-research and development activities: pure ice research; ice, wave and current interaction; ice island research; seismology research; geotechnical work; ice sensing by satellite and sonar methods; Arctic oil spill research; ecological research - baseline and impact studies.

-national hiring policies: hires from across Canada

-marketing technology in world markets: new program intended to develop markets abroad for Canadian companies using new Canadian technology

-supply gaps identified

-regional economic development (purchases in Northern communities reviewed.

Commitments to future industrial benefits outlined.

The Manpower Plan is reviewed covering existing policies and future commitments to manpower and training.

Community liaison and consultation policy, past performance and future commitments are outlined.

Social and cultural affairs policy outlined, its past performance (leave of absence for hunting and trapping, a dry camp, a Donations program, a banking service, courses in home management and life skills, Day Care support, and various recreational programs. Future commitments outlined.

Submitted to the Beaufort Sea Environmental Assessment Panel Guideline review meetings Nov 17-Nov 27, 1981

Government of Yukon
October 1980

Northern Yukon Resource Management Model

Abstract (excerpts from Document):

The resource management model described for northern Yukon embraces the concerns of existing and potential resource users, and of those of agencies charged with resource management. The model can be implemented under current legislation. It will provide a much needed set of parameters to guide the use and development of the resources in this important area of Yukon. The model makes provision for the undertaking of those actions required for the long-term protection of valued resources. It also addresses those issues related to present and future uses of resources through the establishment of an integrated resource management regime.

The project regime for the northern portion of Yukon would:

1. provide for the protection of critical wildlife populations and habitat;
2. allow those native people who currently use the area to hunt and trap under the laws of general application;
3. provide opportunities for native people who traditionally used and currently use the area to participate in the management regime;
4. provide for access to the Beaufort Sea and reservation of important potential harbour sites along the Yukon coast required for transportation and oil and gas exploration in the Beaufort Sea;
5. provide for the protection of sites of historic significance;
6. provide for a public consultation process respecting development activities in northern Yukon.

Appendix A is a paper on the "Government of Yukon Position on Northern Yukon and COPE Agreement in Principle".

22 #1

22 #1

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2.2 #2

Beaufort Sea Category 2.2
Publication

Submitted to the Beaufort Sea Environmental
Assessment Panel during Guideline review meetings
Nov 17-Nov 27/81

Leblond, Nancy Russell
1979
Porcupine Caribou Herd

Canadian Arctic Resources Committee, Research
Monograph Three, Yukon Series 1979 Publishing
Programme, 156 p.

TABLE OF CONTENTS

	<u>Page</u>
I INTRODUCTION	1
II NORTHERN YUKON RESOURCE MANAGEMENT MODEL	3
Resource Management Zones	4
1. Zone "A" Northwest Portion, National Park	4
2. Zone "B" Herschel Island Territorial Historic Park	8
3. Zone "C" Central and Northeastern Portion Special Resource Management Zone	11
Northern Yukon Resource Management Advisory Committee	16
III SUMMARY	20
APPENDICES	
Appendix "A" - Government of Yukon Position Paper	
Appendix "B" - Selected References	

Abstract (including excerpts from Introduction p.
7-9)

The study focuses on key elements of a proposed
international migratory caribou convention between
Canada and the United States. The geographic area is
the northern Yukon encompassing the region north of
Dawson. The potential caribou convention is one of
an array of proposals for the northern Yukon and the
scope of the study was broadened to comprehensive
land use planning and management. Given the
assumptions that - conservation values of the
northern Yukon's land and resources are of primary
importance and industrial potential of secondary
importance to the Government of Canada; and some form
of international agreement will be realized between
Canada and the United States on migratory caribou and
the ecosystem of which they are part - the objectives
of the study were:

- Develop an analytical framework to approach the
problem of an international migratory caribou
agreement, with emphasis on overall land use planning
and resource management issues;
- Propose a schedule of essential elements that must
be included in any eventual agreement if the multiple
socio-economic-ecological principles of such an
agreement are to be observed.

The paper is divided into several sections. It
begins with a brief sketch of the development of the
concept of an international wildlife range and the
subsequent myriad of proposals for the northern
Yukon. A discussion of the biological
characteristics of the Porcupine caribou herd
follows, drawing upon past research and interviews

with caribou biologists who have worked with the herd. Social, conservation, and industrial issues are then outlined in the context of land and resources planning and management. Special reference is made here to the role of native peoples and their use of the land and resources for traditional purposes, as well as their involvement in long-term planning and management. Existing international wildlife agreements are then critically evaluated according to a set of principles and criteria. The study concludes with possible elements of an international agreement and a critique of the most recent draft Convention between the United States of America and Canada for the Conservation of Migratory Caribou and their Environment.

Contents

List of illustrations	4
I Introduction	7
II Historical sketch of the proposed Arctic International Wildlife Range	11
A. The early years	11
B. Oil and gas discoveries and conservation initiatives	12
C. The Berger Inquiry	13
D. Native proposals	16
E. Government studies and task forces	18
F. Caribou convention	25
G. Inuvialuit Land Rights Settlement: Agreement in Principle	26
H. Additional proposals	26
I. Conclusion	30
III The Porcupine caribou herd	33
A. Why be concerned?	33
B. Ranges and migration routes	35
C. Population characteristics	45
1. Size and composition	45
2. Predation and mortality factors	48
D. Management	50

IV	The socio-economic context for conservation and development concerns	55
A.	Social and conservation issues	55
	1. Native concerns	55
	2. Archaeological potential	59
	3. Conservation and recreation concerns	60
B.	Industrial concerns	62
	1. The Dempster Highway and lateral pipeline	63
	2. Oil, gas, and mineral exploration	70
C.	Caribou, renewable resources, and development planning	74
V	Elements for an international convention on the conservation and management of the Porcupine caribou herd and its ecosystem	77
A.	Conservation	78
B.	Regulation	79
C.	Management	80
D.	Research	81
E.	Native use	83
F.	Other environmental concerns	84
G.	Review	86
VI	Critique of the Draft Convention for the Conservation of Migratory Caribou and their Environment	89
A.	Overview	89
B.	Conservation of lands	90
C.	Management and regulation	92
D.	Co-ordinated research	93

E.	Native use and involvement	94
F.	Compatible/incompatible land uses and activities	95
G.	Review	96
H.	Conclusion	
Appendix I	Review of selected international wildlife conventions	99
Appendix II	Convention between the United States of America and Canada for the Conservation of Migratory Caribou and their Environment - Canadian Draft, 14 May 1979	135
Notes		143
Acknowledgements		156

Submitted to the Beaufort Sea Environmental
Assessment Panel during course of guideline meetings
Nov 17-Nov 27

Hunt, Constance, Rusty Miller and Donna Tingley,
1979

LEGISLATING ALTERNATIVES FOR THE ESTABLISHMENT OF A
WILDERNESS AREA IN THE NORTHERN YUKON

Canadian Arctic Resources Committee Research
Monograph Two, Yukon Series, CARC 1979 Publishing
Programme, 130 p.

Abstract (includes excerpts from Introduction p.
7-8)

This report is a product of a research project to
undertake a case study of legislative mechanisms that
might be utilized to establish the proposed Yukon
park.

"The objective of this study is to review existing
legislation in Canada under which lands in the
northern Yukon might be protected for conservation or
related purposes. Specific problems of concern in
the northern Yukon, such as native rights and mineral
potential, receive attention in the legislative
review."

"The report is divided into several sections. It
begins with a brief background statement, which
reviews the natural resources found in the study
area, and the recent history of proposals made in
relation to the area. A discussion of the notion of
"wilderness" follows, drawing upon legislative and
administrative experience from jurisdictions in
Canada and the United States. Legislative mechanisms
for the establishment of conservation areas in
northern Canada are critically evaluated, focusing
upon the suitability of each for the purposes of a
wilderness area. Special reference is made to the
interrelationships between native people and a Yukon
wilderness area, particularly in the context of land
claims. Existing and potential mineral claims in the
study area, and their ramifications for a wilderness
area, are discussed. Recent developments in the

United States with regard to the Arctic Wildlife
Range are analyzed, and potential problems associated
with an international caribou treaty or other
treaties are touched upon. The report concludes with
recommendations".

International:
Canadian Committee for the International Biological Programme
Man and the biosphere
Convention concerning the Protection of World
Cultural and Natural Heritage

Conclusion:

107 "It has been shown that there is, at present,
no legislation in Canada ideally suited for
the designation of the northern Yukon as a
wilderness area. Instead there are a variety
of tools, each appropriate in some ways and
inappropriate in others. These legislative
mechanisms could be used individually or in
combination. Alternatively, new legislation,
or amendments to existing legislation, could
be contemplated.

List of illustrations	5
I Introduction	7
II Background review	9
A. A description of the study area	9
B. Recent proposals for the establishment of a conservation area in the northern Yukon	13
III The notion of wilderness	21
A. The rationale for protecting wilderness	21
B. The U.S. Wilderness Act; the Alberta Wilderness Act	24
C. A proposed working definition for a wilderness area in the northern Yukon	26
IV Review of current legislation	31
A. Federal legislation	32
1. The National Parks Act	32
a) Conservation	34
b) Native use	36
c) Other uses	40
d) Administrative and management issues	44
e) Political considerations	44
f) Conclusions	44

2. The Canada Wildlife Act	46
a) Conservation	46
b) Native use	48
c) Other uses	49
d) Administrative and management issues	51
e) Political considerations	52
f) Conclusions	52
3. The Migratory Birds Convention Act	54
a) Conservation	54
b) Native use	55
c) Other uses	56
d) Administrative and management issues	57
e) Political considerations	58
f) Conclusions	58
4. The Territorial Lands Act	58
5. The Fisheries Act	60
B. Territorial legislation	61
1. The Yukon Game Ordinance	61
a) Conservation	61
b) Native use	62
c) Other uses	64
d) Administrative and management issues	64
e) Political considerations and conclusions	64
2. The Area Development Ordinance	64
C. International mechanisms	65
1. Canadian Committee for the International Biological Programme	66
2. Man and the Biosphere	70
3. Convention Concerning the Protection of the World Cultural and Natural Heritage	71
V Wilderness areas and native peoples	75
A. Parks and native peoples elsewhere	75

1. Australia	75
2. The United States	77
B. Recent Canadian developments	79
C. Possible options for resolving native rights issues in a northern Yukon wilderness area	85
1. Hunting rights	85
2. Decision-making procedures	86
3. Landholding arrangements	87
VI Resource development prospects and issues	89
A. Oil and gas	90
B. Mining	95
VII Recent American developments, and problems of future co-operation	101
VIII Conclusions and recommendations	105
Notes	115

Submitted to the Beaufort Sea Environmental
Assessment Panel during Guideline review meetings
Nov 17-Nov 27, 1981.

MacLeod, William G. 1979.
THE DEMPSTER HIGHWAY

Canadian Arctic Resources Committee, Research
Monograph Number One, Yukon Series, CARC 1979
Publishing Programme, 58 p.

Abstract

This report presents an analysis of the construction
of the Dempster Highway in terms of planning
(Pipeline Planning and Public Participation in
Planning); environmental impacts; social and economic
impacts.

In terms of public participation in planning, native
involvement was limited. Consultation with the
public increased throughout the years. The Dempster
Highway has not had a thorough public assessment of
its environmental, social, and economic impacts.
Environmental problems related to caribou, Dall's
sheep, grizzly bear, birds, fish and archaeology are
noted with most information provided by pipeline
studies.

Social impact are discussed in terms of native
economy and way of life; socio-cultural impact of the
highway; benefits to native people; native land
claims and impact on the white community. Economic
benefits are discussed. The final analysis concluded
"there was insufficient study to identify the
potential environmental and social impacts, and to
see that effective steps were taken to deal with
them". As a result, without a formal public
assessment and planning procedure regulating highway
development, the social and environmental issues were
not brought home to those planning the highway until
it was almost completed. Even then the various
problems were chiefly revealed as a result of the
pipeline inquiries. Efforts to deal with social and
environmental issues have necessarily been rendered
"after the fact" and accordingly less effective.

The Dempster Highway

2 - #4

Contents

1	The Road to Resources: 1957-1968
3	Early History of Roads in the Yukon
5	The Conservative Government of 1957
7	The Northern Vision of 1958
8	Industry Support for the Highway
8	Surveys and Early Construction
9	Construction Slows Down
10	The 1965 Programme of Highway Construction
13	The Years of Pipeline Planning: 1966-1977
18	Public Participation in Planning
18	The 1967 Fact-finding Committee
19	The 1975 Fact-finding Committee
21	Community Meeting in Arctic Red River
21	The Mackenzie Valley Pipeline Inquiry
22	The Yukon Conservation Society Dempster Highway Seminar
22	Consultations regarding the Management Plan for the Highway
23	The Alaska Highway Pipeline Inquiry
23	The Environmental Assessment Panel Hearings
23	Analysis
25	Environmental Impacts
25	Studies of the Environment
26	The Schultz Environmental Study
28	The Tywonluk-Inglis Environmental Overview
28	Pipeline-related Studies
29	Environmental Problems
	Caribou
	Dall's Sheep
	Grizzly Bear
	Other Mammals
	Birds
	Fish
	Archaeology
	Terrain Stability
34	Controlling the Impact of Construction
37	Managing the Impact of the Highway — The Dempster Highway Management Plan
40	Yukon - Northwest Territories Dempster Highway Committee
40	Analysis

Submitted to the Beaufort Sea Environmental Assessment Panel during Guideline review meetings, Nov 17-Nov 27, 1981.

Theberge, John B., J.G. Nelson and T. Fenge, 1980.

ENVIRONMENTALLY SIGNIFICANT AREAS OF THE YUKON TERRITORY.

Canadian Arctic Resources Committee, Yukon Series, research monograph four. CARC 1980 Publishing Programme, 134 p.

Abstract (Section A, Objective from report p 1-2). "In this report (or proposal), land areas in the Yukon have been identified that are worthy of some degree of protection and/or preservation. These lands are referred to in the report as Environmentally Significant Areas (ESAs). Legislation and institutional arrangements that could be used to designate a system of ESAs are examined, and recommendations designed to establish such a system in the Yukon are made.

This proposal, if accepted and properly implemented, will ensure the protection of representative examples of the biophysical variety, wilderness, and beauty of the Yukon. A comprehensive conservation strategy is needed to counterbalance the incremental loss of developments. This strategy, by protecting areas that are representative of the diverse ecosystems in the territory, will help to preserve the large Porcupine caribou herd, scattered bands of mountain or woodland caribou, Dall's sheep, large mammalian and avian predators, waterfowl, and furbearers. It will also help to protect rare and disjunct flora and significant geomorphological features and processes. In the absence of a comprehensive outlook, a unique and most valuable heritage will, by increments, be lost to all Canadians. The development and use of a system of ESAs should complement the careful exploitation of minerals and other resources. These development activities should be conducted primarily on lands that are not designated as ESAs.

41	Social Impacts
41	Social Impact Studies and Planning
42	Native Economy and Way of Life
42	Socio-cultural Impact of the Highway
44	Benefits of the Highway to Native People
45	Native Land Claims
45	Impact on the White Community
47	Economic Impact
47	Economic Development Policy
48	Economic Benefits of the Dempster Highway
49	Comparative Freight Costs
49	Road Closures
49	Maintenance Costs
51	Analysis
51	Conclusion
51	Acknowledgements
51	Footnotes and References

Illustrations

Tables

14	1. Dempster Highway Construction Status and Costs
38	2. The Dempster Highway and Territorial Caribou Hunting Regulations
42	3. Populations of Communities Affected by the Dempster Highway
50	4. Break-up and Freeze-up Dates — Peel and Mackenzie (Arctic Red) River Cross of the Dempster Highway
50	5. Estimated Annual Maintenance Costs for the Dempster Highway

Figures

2	1. The Dempster Highway
12	2. Northern Roads
17	3. Proposed Pipeline Routes
31	4. The Porcupine Caribou Herd and the Dempster Corridor
46	5. Native Claims in Canada

2.2 #5

Although we have proposed that a system of thirty-five ESAs be designated and managed in the Yukon, additional ecological inventories would undoubtedly result in modifications to the proposal. Consequently, this report should be viewed as a working document. Both additions and deletions will have to be made as new knowledge is gained.

Basically, this report is offered as a model and as a catalyst to develop the co-operation and co-ordination that is needed among government and private groups in order to build a sound environmental and resource management strategy in the Yukon. This report advocates "ecodevelopment". Many of the ESA proposals are, in our view, required regardless of land ownership and should be compatible with fair and reasonable land claim settlements with native people."

List of Illustrations	xii	9 Wernecke Mountains	34
Acknowledgements	xiii	10 Tombstone Mountain	35
I Introduction	1	11 Hunker Creek	36
A. Objectives	1	12 Mayo Swampland	37
B. Background to the proposal	2	13 Macmillan Pass	38
C. An ecological statement	6	14 Willow Hills	40
D. Indigenous hunting, fishing, and trapping	7	15 McArthur Game Sanctuary and Extensions	41
II Identification of a system of environmentally significant areas	11	16 Pelly Mountains	43
A. Northern ecosystems	11	17 Frances Lake	44
B. Analysis and results	12	18 Nisling River	46
C. Information sources and data limitations	20	19 Kluane North	47
D. Proposed site reports	24	20 Aishihik Lake	48
1 Northern Yukon	24	21 Semenov Hills	50
2 Bear Cave Mountain	26	22 Kluane National Park	51
3 Northeast Dempster	27	23 Mount Cairnes	52
4 Dempster Highway	28	24 Dalton Post	53
5 Peel River Game Preserve	29	25 Kusawa Lake	54
6 Upper Snake River	30	26 Primrose River	55
7 Southern Ogilvie	31	27,28,29 Bennett Lake/Carcross Dunes/Tagish Lake	56
8 Southwest Dempster	32	30 Wolf Lake	58
		31 Coal River Springs	60
		32 Beluga Whale Sanctuary	61
		33 Sifton Range	62
		34 Big Salmon River	63
		35 Streak Mountain	64
		E. Discussion	66
		III Management and legislative proposals for establishing selected ESAs	69
		A. Legislation analysis	69
		National Parks Act	70
		Canada Wildlife Act	71
		Migratory Birds Convention Act	73
		Territorial Lands Act and Land Use Regulations	74
		Northern Inland Waters Act	75
		Yukon Game Ordinance	76
		Yukon Area Development Ordinance	76
		Yukon Parks Ordinance	77
		B. Agency analysis	78
		Parks Canada	79
		Northern Affairs Program	81
		Canadian Wildlife Service	85
		Wildlife Branch, Department of Renewable Resources, Government of Yukon	86

United Nations Education, Scientific, and Cultural Organization (UNESCO)	87
Heritage Canada Foundation	88
C. Proposed designations for ESAs	88
D. ESAs, other land uses, and comprehensive management	92
Appendices	
Appendix A Reviews of ESA selection	97
Appendix B Rare plant species and their locations in the Yukon	105
Appendix C Analytical framework and results of the legislation analysis	113
Notes	126
Bibliography	128

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DOCUMENT
2.2 #6

Beaufort Sea Category 2.2
Book

Submitted to the Beaufort Sea Environmental Assessment Panel during Guideline review meetings, Nov 17-Nov 27, 1981.

Brooks, David B, 1981. Zero energy growth for Canada, McClelland and Stewart Ltd., Toronto, Canada, 304 p.

Submitted to the Beaufort Sea Environmental Assessment Panel during Guideline review meetings, Nov 17-Nov 27, 1981.

Dunbar, M.J. 1979.

**MARINE TRANSPORTATION AND HIGH ARCTIC DEVELOPMENT:
POLICY FRAMEWORK AND PRIORITIES.**

Symposium Proceedings, 21-23 March 1979, Montebello, Quebec. Canadian Arctic Resources Committee 1979. Publishing Programme, 271 p.

Abstract

Proceedings of a symposium held as part of CARC's Arctic Seas Project on marine transportation. "The Arctic Seas Project" had three main goals:

- 1) To anticipate some of the major developments in marine transportation in northern Canada, with a view to avoiding the crisis of confrontation that has plagued so many earlier proposals.
- 2) To educate the Canadian public on the compromises that will be required if northern development is to proceed, particularly in the presence of major environmental and native land claim difficulties.
- 3) To attempt to develop a climate within which each development, as it comes forward can be looked at in terms of a national industrial strategy rather than in the narrow context of an examination of only the individual proposal itself."

The purpose of the symposium was "to assess broad policy options and the framework within which arctic marine transportation of the future will develop".

The subjects covered are indicated in the attached Table of contents. The following conclusion was presented (p. 264):

"Geography and the advanced state of offshore drilling in the Canadian High Arctic have given this country a responsibility to develop leadership in its own waters and to take a leading role in circumpolar relations. However, it will be necessary to have an adjustment of national priorities to recognize the High Arctic as a significant region

demanding national attention. In forming this constituency, CARC's "Arctic Seas Project" had developed a vehicle to raise consciousness at every level and to help ensure that his challenge is met. Fortunately, Canada has the time to develop the necessary expertise to ensure that the stated priorities can be maintained. Nevertheless, no time should be lost ensuring that the necessary programmes are put in place."

The concluding remarks are attached which list the broad framework issues and the points of convergence. (p. 259-264).

Introduction

The discussion has been wide-ranging and has gone well beyond marine transportation and even marine systems. This is as it ought to be, for the purpose of this gathering has been to assess broad policy options and the framework within which arctic marine transportation of the future will develop.

In looking over the discussion and the papers, it is appropriate to address the following questions: What points of convergence appeared? What recommendations emerged? What lessons are there for future work? In other words, the formation of this High Arctic marine constituency is a first step only; we now need to proceed in a logical order with addressing policy options.

The overwhelming theme of the symposium related to the new threshold being reached in the circumpolar North as a whole. The culprit here is technology. The ability of marine systems to penetrate ice-covered waters has affected the entire circumpolar region and all aspects of development in the Canadian High Arctic. The process appears irreversible: as the technology required for year-round navigation and for environmentally acceptable offshore drilling proceeds, the High Arctic will increasingly become an area of activity and therefore an area requiring decisive action at both the national and the international levels. The High Arctic is becoming a vacuum of power in which international rivalries will progressively emerge: Canada must now relate to it as a territorial frontier, a third coastline.

Some symptoms of a change in attitude are already evident. To begin with, international disputes involving Greenland and the Beaufort Sea have emerged. One by-product of these disputes is the development of coherent structures for bilateral relations between Canada and Greenland on the one hand, and Canada and the United States on the other. For example, there is a boundary conflict in offshore delineation, reflecting the belief that significant hydrocarbon deposits may exist in the disputed zone. Second, the strategic importance of the High Arctic will inevitably increase if

and when substantial reserves of oil and natural gas are discovered. Third, the issue of native land claims is becoming increasingly significant in High Arctic development, not only nationally, but also internationally, as native peoples of the circumpolar region gradually develop increased political consciousness. In this regard the granting of home rule to Greenland, although the process is as yet quite limited, will inevitably be reflected in similar demands for autonomy and cultural safeguards in the eastern Arctic. Fourth, as the waters of the Canadian Arctic archipelago and the Northwest Passage become amenable to shipping, it will be increasingly important for Canada to be consistent in its approach towards issues of navigation at the Law of the Sea conferences. On the one hand Canada is demanding exclusive control over the Northwest Passage, yet at the same time the shipping route most appropriate for the area closely follows the coastline of Greenland.

Perhaps the symptom of greatest importance is the emergence now of many national dilemmas regarding the High Arctic - energy, industrial strategy, native people, and environmental protection. The danger is that, confronted by these problems - which basically reflect the choice of options - Canada will fail to recognize the opportunity for both northerners and all Canadians in the rational, safe development of the High Arctic. Currently the federal government has adopted an essentially schizophrenic approach, which is most evident in its icebreaking programme. Although all eyes grow moist in Ottawa at the mention of the Arctic, we have permitted our icebreaking programme to lag very much behind national requirements in these waters. The bulk of the effort and indeed authorization for construction has proceeded as if the High Arctic did not exist. The haunting scenario of the High Arctic is that Canada will fail to make decisions and permit delay and inaction to continue; then, confronted by a genuine emergency, we will engage in a crash programme that would be disastrous for northerners, the environment, and Canada as a whole.

Framework Issues

There would appear to be two different levels of recommendations which flowed from the papers and the discussion. First, there were the broad framework issues which appeared at every turn and which now must be addressed.

- 1) There was an overwhelming consensus on the concept of partnership with native northerners in the economic development of the region. There was full agreement that, although it would be difficult to implement, both wisdom and practical consideration now make a new approach to industrial development in the Arctic essential. Moreover, the concept is already embodied in federal priorities as set out in *Canada's North, 1980-1990*. One task of this group at Montebello is to ensure that substantial progress is made in achieving this basic requirement of satisfactory High Arctic development.
- 2) There was consensus on the crucial need to develop arctic marine capabilities. Here again, government policy is not ambiguous; what is ambiguous is the will and determination to ensure that it is implemented. Year-round navigational experience is now essential, and a stepped-up R and D programme is a fundamental priority which must be pressed at every level of government and in co-operation with the affected constituencies. It goes without saying that environmentally safe exploration for hydrocarbons in the Arctic Islands and offshore will depend on accurate knowledge of the area. What we require is a national commitment commensurate with national need. Appropriate planning will benefit the national economy and, as pointed out, has immense potential for Canada.
- 3) Much of the discussion concerned the relationship between the development of marine capabilities on the one hand and the timing of industrial activities on the other. Attention needs to be focused on the construction of a regulatory process and a structure which will permit a fair and legitimate assessment of options. One can expect in a democracy that this process is time-consuming, and that there will be different points of view. At the same time, such a regulatory structure must somehow ensure that, when a decision emerges, it carries a national consensus.

However, the timing of these activities must not jeopardize the development of marine capabilities, for this latter task requires major national programmes to be set in motion right away. A polar icebreaker programme is particularly significant in this regard, for without this basic tool many facets of navigation in ice-covered waters will not and cannot be tested. Moreover, the development of appropriate safeguards to minimize risks in offshore drilling and to ensure adequate clean-up operations must not be permitted to fall

victim to cuts in government spending in the interests of less important but more politically visible activities in southern Canada. Again, what is required is a sense of national purpose in the High Arctic in an environment where there are few votes and which is therefore politically weak.

- 4) There was consensus that a central focus for policy is required at the federal level. The lack of co-ordination and the multiplicity of interdepartmental structures was perceived to be an obstacle to coherence in national programmes. In this regard, something like an ACND system - perhaps with a different name, but containing a genuine secretariat for the development of planning papers and by which all federal programmes could be evaluated - was seen as urgent.

Points of Convergence

Turning now to specific points of convergence, a consensus emerged on certain items.

- 1) As regards science policy and R and D, the improvement of data retrieval was considered important. Max Dunbar's bibliographic index will be circulated shortly, and it became apparent that CARC now confronts a major research task in this area in consultation with the Marine Transportation R and D Advisory Board, the Canadian Marine Transportation Centre at Dalhousie, the Arctic Institute, the University of Toronto/York University Joint Program in Transportation, and other agencies, in order to develop alternatives.
- 2) Greater consistency is required at the federal level to ensure high-level research in the marine field. Both Robert Dick and Gordon Harrison referred to this point, and there were interesting supporting comments from observers from Norway and Finland.
- 3) Baseline studies in the High Arctic should be liberated from the short-term impact statements currently demanded of industry preparatory to an application. Instead, they should be funded by the Government of Canada in recognition of the broader national interest in knowing and understanding one's own territory. In any case, effective marine studies require a long-term commitment, well beyond the short-term research that is involved in impact statements.

- 4) In support of the objective of year-round navigation in arctic waters, it is essential to develop navigational data as well as support for navigational systems, including training and research vessels. George Leach pointed out that, until we have these tools at our disposal, we simply do not have key information relevant to year-round navigation, and the user-charge principle is outmoded for the performance of these national tasks.
- 5) An oceans technology corporation to provide a national focus for this increasingly important area was accepted as an essential requirement. A.E. Pallister, in reviewing COTRA, indicated that it was an idea whose day had come.
- 6) On the socio-environmental side, C.F. Roots made a plea for the broadest possible analysis of regional impacts preparatory to further work in the High Arctic area. He underlined his skepticism regarding the applicability of southern technology and technological transfers to this unique environment. Tagak Curley and Enoch Obeg presented specific recommendations designed to begin operationalizing the concept of "homeland" as opposed to "frontier" in High Arctic resource development. Tagak Curley argued that science policy must be made accountable to northern people as well as southern Canadians, and that industrial initiatives must involve native people at the outset. Guidelines for research are not enough in themselves; rather, they should be established in co-operation instead of mere consultation with native people, and preferably outside government. Enoch Obeg stated also that native people can no longer be treated as mere observers in developments which endanger their habitat and their way of life.
- 7) Regarding regulatory structures and process, the analysis remained extremely general. In fact, CARC - recognizing the importance of this issue and also its extreme difficulty - intends to devote an entire symposium to this subject. The paper by Alastair Lucas was supplemented by discussion from the floor, particularly by Edgar Gold who spoke specifically to the marine component. It became apparent that there was a consensus on the need for adjustments and perhaps important changes in the existing regulatory framework. Sorting out the existing regulatory situation is a necessary prelude to planning High Arctic development in accordance with national priorities.
- 8) At the international level, there was a consensus that greater interchange was required among the circumpolar

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Submitted to the Beaufort Sea Environmental
Assessment Panel during Guideline review meetings,
Nov 17-Nov 27, 1981.

Dunbar, M.J. 1980

MARINE TRANSPORTATION AND HIGH ARCTIC DEVELOPMENT: A
BIBLIOGRAPHY
Scientific and Technical Research Relevant to the
Development of Marine Transportation in the Canadian
North.

Canadian Arctic Resources Committee, 1980 Publishing
Programme, 162 p.

Contents

p 1-24 - A report on the state of scientific and
technological research necessary for the rational and
safe development of marine transportation in the
Canadian Arctic and Subarctic.

A discussion of the fields indicated in the attached
Table of contents is presented with the accompanying
bibliography pages 25-162. The bibliography provides
an indication of how much work has been done in the
various fields with emphasis on Canadian literature.
p. 23-24. Report Summary Attached.

Summary

According to this analysis, the gaps in scientific research and
the points at which pressure and effort should be applied are as
follows:

- Physical and biological oceanography of arctic channels
and sounds, in particular Lancaster Sound, Jones Sound,
and Nares Channel (including Smith Sound and the North
Water); more detailed work in physical oceanography
than has been done hitherto in Hudson Bay, Baffin Bay,
and Hudson Strait. This would be an expensive, long-
term programme, requiring ships and winter stations,
but it is an immediate Canadian responsibility, both
economically (with respect to transport development)
and nationally (with respect to sovereignty).
- Chemical oceanography, including concentrations of
specific elements and their distribution, and the study
of dissolved organic matter relating to biological
productivity.
- Sedimentology, with particular reference to the behaviour
and abundance of suspended matter and the part it plays
in the capture of oil; the behaviour of oil in sediments
and its effects on the benthic fauna and flora.
- The study of ecosystems and ecological processes. Such
study would encompass primary and secondary production
in both the benthos and the plankton, the production of
in-ice flora and associated fauna, and their inter-
relation with the planktonic production.
- The effect - if any - of ice biota on the mechanical
strength of sea ice, which is at present a subject of
controversy.
- The constant monitoring of wildlife populations, with
special reference to those species which may be endangered.
- Methods of ice forecasting.
- The interaction between oil and ice.
- More work on the direct effects of oil on animals and
plants, the mechanism of bacterial degradation of oil
in cold water, and the biological transfer of oil in
the food webs.
- Pollutants other than oil - their present concentrations
and their possible biological effects in the Arctic.
- Climatic change and the methods of predicting it.
- Much greater understanding of the human problems and,
in particular, the native viewpoint.
- The education of northern native peoples without preju-
dice and without preconceived ideas, with full co-
operation and planning by the people themselves, and
with a sense of urgency.

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Beaufort Sea Category 2.2
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Submitted to the Beaufort Sea Environmental
Assessment Panel during Guideline review meetings,
Nov 17-Nov 27, 1981.

Pimlott, Douglas H, D. Brown and K.C. Sam, 1976.

OIL UNDER ICE

Canadian Arctic Resources Committee, 1976 Publishing
Programme, 178 p.

Abstract (excerpts from chapter 1)

Table of Contents attached.

"The role of public-interest organizations in
informing the public about social and environmental
aspects of resource development programmes, and about
the programmes themselves, is one of the themes of
this book." p. 1.

"Industry and government secrecy was paralleled by
failure to establish research programmes to provide
the basis for assessment of the environmental impact
of offshore operations, the understanding to minimize
the effect of operations, and the know-how to deal
with the oil spills which will inevitably occur".
p. 1.

"The adequacy of jurisdictional and administrative
arrangements for protecting Arctic marine
environments is questioned in almost every chapter of
this book". p. 2.

"Several chapters in this book conclude with
questions about the wisdom of drilling offshore wells
in situations where oil might blow out into the
Arctic Basin for as long as a year before it could be
stopped" p. 5.

"Besides considering alternative ways of developing
petroleum resources for energy purposes there are the
long-term aspects of environmental degradation which
must be, but have not been, examined...". p. 5.

"The native Inuit culture of the Arctic is deeply
rooted in the ways of the animals, the land and the
sea..... - But their interests should weigh heavily
in the balance when options for development of oil
and gas are being pondered".

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Beaufort Sea Category 2.2
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Submitted to the Beaufort Sea Environmental
Assessment Panel during Guideline review meetings,
Nov 17-Nov 27, 1981.

Roots, E.F., Editor, 1979.

LANCASTER SOUND: ISSUES AND RESPONSIBILITIES

Environmental Science Workshop for the Lancaster
Sound Region. Kananaskis, Alberta, 6-8 November
1979. Canadian Arctic Resources Committee, 1980
Publishing Programme, 110 p.

Abstract

Proceedings of a workshop organized by CARC with the
objective of bringing together, early in the process
of making decisions about Lancaster Sound, a small
group of experts to focus on the environmental
significance of the region and its relationship to
pending social and economic changes. Consideration
was to be given to the respective responsibilities of
government and industry for research, data-gathering
and monitoring. Participants were asked to assess
"what is now known, and what needs to be known, in
order to provide a satisfactory basis for policy and
management decisions in Lancaster Sound".
Geographical areas of critical environmental
importance were considered in view of their
distinctive characteristics and required management
criteria.

The following general principles for development of
the Lancaster Sound region and protection of its
environment were agreed upon:

- Maintenance of biological productivity and
environmental quality.
- Integrated environmental management.
- Interrelationships between biological, technical
and social concerns.
- Rights and responsibilities of northern residents.
- Protection of special areas.
- Regional and long-term management.
- Accident prevention and mitigation of environmental
damage.

Submitted to the Beaufort Sea Environmental
Assessment Panel during Guideline review meetings,
Nov 17-Nov 27, 1981.

Alaska Highway Pipeline Panel

IMPACT OF THE DEMPSTER CORRIDOR ON THE MACKENZIE
DELTA

Abstract (Table of Contents attached)

A report on the results of a workshop held by the
Alaska Highway Pipeline Panel to identify and
appraise the likely impacts of the proposed pipeline
from the Delta to Whitehorse along the Dempster and
Klondike Highways. The goals were to evaluate the
severity of the potential impacts of the pipeline and
its associated activities, and to narrow
consideration of the potential effects of the
pipeline to those factors most important in the
national decision-making process regarding the
Dempster pipeline.

Important points noted in attached report to
"Information Survey: - Kinds and Sources - for the
Environmental Assessment Review Process: Beaufort
Sea Hydrocarbon Production and Transportation
Proposal". Project Information Sheet 24.

2.2 #1

Project Information Sheet:

24

Project: WORKSHOP ON THE IMPACT OF THE DEMPSTER CORRIDOR ON THE
MACKENZIE DELTA.

Geographic
Area: Yukon and Mackenzie Delta.

Objectives: The purpose of the workshop was to identify and appraise the
likely impacts of the proposed pipeline from the Delta to
Whitehorse along the Dempster and Klondike Highways.

Approach
Progress: The Panel considered the pipeline, gas plants, compressor
stations, oil and gas exploration and the consequential
support activities. The workshop was conducted in 1979 and
some important points can be taken from it:
1) In accessing socio-economic impacts, the people following
the native mode and those following the industrial mode cannot
be lumped together because the impacts are often opposite.
2) In the category of what we called "Management" which
includes various government and native organizations, the
service conventionally being provided to the residents will
break down and become inadequate and, to a lesser degree, this
will apply to the infrastructure.
3) One of the most serious biophysical effects is the
reduction of land in its natural state and the native
residents feeling that they are no longer in control of their
destiny - that they are only pawns in an activity controlled
from outside. We discuss this under "Ownership".
4) Despite the fact that some definite project activities
will not be built on land, the big impacts will be caused by
what we term as "Consequential Support Activities".
5) Without a comprehensive land and water use plan, it is
almost impossible to control the activities.

Reports: Impact of the Dempster Corridor on the Mackenzie Delta.
Report Workshop held by the Alaska Highway Pipeline Panel.

Undertaken
By: Alaska Highway Pipeline Panel
Chairman: C.H. Templeton

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Nelson, J.G. and Sabine Jessen, 1981.

THE SCOTTISH AND ALASKAN OFFSHORE OIL AND GAS
EXPERIENCE AND THE CANADIAN BEAUFORT SEA
Canadian Arctic Resources Committee, 1981 Publishing
Programme, and Faculty of Environmental Studies,
University of Waterloo, 155 p.

Abstract

Table of contents attached.

A report on a study of the Scottish and Alaskan
experience in relation to guidance on management of
potential Beaufort Sea petroleum development.

A management assessment model was used for this
report consisting of: agency, planning,
implementation, and general guides or
characteristics. This management model is applied
through chapters two to five to the Alaskan and
Scottish management experiences. Chapters six and
seven focus on the Shetlands. Chapter eight contains
a summary and recommendations for the Canadian
Beaufort Sea:

- Strengthen and improve local government.
- Improve the permit or project approval system.
- Allocate land to the native people and to the
territorial and local governments.
- Establish a Beaufort Sea-Mackenzie Delta shore zone
planning commission.
- Create an Arctic Environmental Forum.
- Improve Canada's shore zone co-ordination system.

22 #12

Contents

Acronyms	xi
Summary	xiii
Acknowledgements	xix
Chapter I: Introduction	1
Beaufort Sea development	1
Impacts	1
The Scottish experience	3
The Alaskan experience	3
Analytical framework	3
Research plan and schedule	5
Report organization	6
Chapter II: Agencies	9
Introduction	9
Scotland	9
Local government	9
Senior government	12
New agency: Shetland Oil Terminal Environmental Advisory Group (SOTEAG)	15
Industry	16
Voluntary and other organizations	16
Alaska	17
Local government	17
Senior government	18
Federal	19
State	20
Industry	21
Voluntary organizations	21
Chapter III: Planning	25
Introduction	25
Strategic planning	25
Scotland	25

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Quotation with appropriate credit is encouraged.

Nelson, J.G. (James Gardiner), 1982.

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4. Energy development — Scotland — Shetland Islands.
5. Energy development — Alaska — North Slope.
6. Energy development — Beaufort Sea region.
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Ian K. MacNeil and Parla Canada.

Local government	25	Scotland	55
Senior government	26	Local government	55
Industry	27	Senior government	56
Voluntary organizations	28	SOTEAG	57
Alaska	30	Industry	58
Local government	30	Voluntary organizations	58
Senior government	30	Alaska	59
Federal	30	Co-ordination	61
State	32	Scotland	61
Inventories	33	Alaska	63
Scotland	33	Economic incentives	68
Alaska	34	Scotland	68
Land classification	35	Alaska	69
Scotland	35	Information access	70
Especially significant areas	35	Scotland	70
Scotland	35	Alaska	71
Alaska	35	Management process monitoring	72
Evaluation	36	Scotland	72
Scotland	36	Alaska	72
Local government	36		
Senior government	36		
Industry	38		
Voluntary organizations	39		
Alaska	39		
Chapter IV: Implementation	43	Chapter VI: Managerial environments in the Shetlands, North Slope Borough, and Canadian Beaufort Sea	77
Introduction	43	Modelling management strategies	77
Approvals	43	Similarities among the Shetlands, North Slope Borough, and Canadian Beaufort Sea	78
Scotland	44	Differences among the Shetlands, North Slope Borough, and Canadian Beaufort Sea	89
Alaska	45		
Construction and operation	46	Chapter VII: Effectiveness of the oil development, resource, and environmental management system in the Shetlands	93
Scotland	46	Population: forecasting and changes	93
Senior government	47	Housing and related services	94
SOTEAG	48	Transportation facilities	95
Industry	49	Pipelines	96
Voluntary organizations	50	Fishing industry	96
Alaska	51	Tourism	97
		Oil spills	97
		Tanker ballast and related problems	98
		Coastal management and the harbour authority	99
Chapter V: General guides or characteristics	55		
Introduction	55	Comments	121
Research	55	Point of clarification	121
Financing coastal management	101		
Regional and related planning pressures and needs	101		
Chapter VIII: Summary and recommendations	103	Appendix 2: Response to questionnaire from the Canadian Arctic Resources Committee	123
Summary of basic principles	105	Agency	123
Recommendations	107	Planning	123
1. Strengthen and improve local government	107	Strategic planning	123
2. Improving the permit or approval system	107	Inventories (Biophysical)	124
3. Allocate land to the native people and to territorial and local governments	107	Land classification	125
4. Establish a Beaufort Sea-Mackenzie Delta shore zone planning commission	108	Especially significant areas	125
5. Create an Arctic Environmental Forum	110	Evaluation	125
6. Improve Canada's shore zone co-ordination system	110	Implementation	126
		Approvals	126
		Construction and operation	127
		Monitoring	127
		Enforcement	128
		Modification	128
		General guides or characteristics	129
		Research	129
		Co-ordination	129
		Economic incentives	130
		Information access	131
		Management process monitoring	131
		Comments	131
Appendix 1: Questionnaire or interview guide on applicability of the Scottish shore experience to Canadian Beaufort Sea development	113		
Agency	114	Appendix 3: Interviewees and respondents: Scotland, Canada, and the United States	133
Planning	114	A. Major consultations regarding Scotland, 1980	133
Strategic planning	114	B. List of questionnaire respondents: Canada	134
Inventories (Biophysical)	114	C. List of U.S. and Alaskan respondents	135
Inventories (Social)	115	Washington, D.C. interviews	135
Land classification	115	Alaska interviews	135
Especially significant areas	115		
Evaluation	115	References	137
Implementation	116		
Approvals	116	Index	151
Construction and operation	116		
Monitoring	117		
Enforcement	117		
Modification	118		
General guides or characteristics	118		
Research	118		
Co-ordination	119		
Economic incentives	119		
Information access	120		
Management process monitoring	120		

Contents

ii Preface

iii Introduction

I Opening Plenary Session

- 1 Chairman's Opening Remarks
Andrew R. Thompson
- 5 Approaches to Native Land Settlements and Implications for Northern Land Use and Resource Management Policies
Constance D. Hunt
- 42 Development and Planning North of 60°: Past and Future
William E. Rees
- 63 Northern Land Use Law and Policy Development: 1972-78 and the Future
A.R. Lucas and E.B. Peterson
- 94 Discussion

II Native Land Claims Plenary Session

- 99 Chairman's Opening Remarks
George Manuel
- 99 Council for Yukon Indians
Joe Jack
- 100 Indian Brotherhood of the Northwest Territories
Steve Kakfwi
- 102 Union of B.C. Indian Chiefs
Stan Napoleon
- 103 Metis Association of the Northwest Territories
Joe Mercredi
- 104 Inuit Tapirisat of Canada
Peter Itluuar

- 106 Chairman's Concluding Remarks
George Manuel
- 107 Discussion

III The Working Groups

Science in the North

- 113 Introduction
- 115 Working Group Report
- 119 Science and the North: An Essay on Aspirations
Peter Larkin
- 128 The Berger Report Sets An Important Precedent in Assessing Technology's Effects
Lewis Auerbach
- 132 The Role of Science in the North
L.C. Bliss
- 137 Science for the North
W.N. Irving

Land Use Planning for Frontier Regions

- 139 Introduction
- 141 Working Group Report
- 144 Philosophical and Technical Principles for Identifying Environmental Planning and Management Strategies
R.S. Dorney

Renewable Resource Development

- 150 Introduction
- 152 Working Group Report
- 154 Renewable Resource Development in Northern Canada
Peter J. Usher
- 163 An Overview of the Economic Potential of Wildlife and Fish Resources in the Canadian Arctic
B.F. Friesen and J.G. Nelson

- 255 Working Group Report
- 259 Priorities for the North.
Northwest Territories Legislative Assembly
- 265 "Metro Proposal"
Dene National Assembly
- 267 First Report of the Standing Committee on Constitutional Development for Yukon
Yukon Legislative Assembly
- 269 Second Report of the Standing Committee on Constitutional Development for Yukon
Yukon Legislative Assembly
- 275 Special Government Representative for Constitutional Development in the Northwest Territories
Office of the Prime Minister
- 277 Political Development in the Northwest Territories
Office of the Prime Minister
- 284 Native Claims: Policy, Processes, and Perspectives
Office of Native Claims
- 294 An Analysis of Prime Minister Trudeau's Paper on Political Development in the Northwest Territories
Peter H. Russell
- 299 The Carrothers Commission Revisited
Garth M. Evans
- 306 Directions and Tendencies of the Council of the Northwest Territories with regard to Native Claims: January 1972-May 1977
Wayne Haimila
- 314 Political Development in the Northwest Territories
Richard Laing, Peter Puxley, C. Gerald Sutton, and Wilf Bean
- 322 The Development of Government in Canada's North
Garth M. Evans
- 329 Implications of the Report of the Mackenzie Valley Pipeline Inquiry, Volume II, for Political Development in the Northwest Territories
Mel Watkins

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Peterson, E.B. and J.B. Wreight

NORTHERN TRANSITIONS, VOLUME I. NORTHERN RESOURCE
AND LAND USE POLICY STUDY.
Canadian Arctic Resources Committee, Ottawa,
Ontario.

Abstract

This volume covers two phases of a Northern Resource
and Land Use Policy Study by CARC. The first phase
was to analyze past resource decisions that had
influenced northern development while the second
phase identified situations in which resource use
conflicts were likely in the future and how to avoid
them.

Contents

- vi Preface
- vi Introduction
Kitson M. Vincent

Phase I Case Histories of Decisions for Major Northern Projects

- 3 Analysis
Couchiching Study Group
- 21 The Portage Mountain Hydro-electric Project
James E. Howell
- 65 The Pine Point Mine
Janet E. Macpherson
- 111 The Cyprus Anvil Mine
Janet E. Macpherson
- 151 Kluane National Park
John B. Theberge
- 191 The Dempster Highway
William G. MacLeod

Phase II Northern Resources: A Study of Constraints, Conflicts, and Alternatives

- 253 Northern Resources
A Study of Constraints, Conflicts, and Alternatives
D.M. Dickinson

Appendices

- 319 I Members of the Canadian Arctic Resources
Committee 1978
- 320 II Acknowledgements

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Beaufort Sea Category 2.2
Publication

Submitted to the Beaufort Sea Environmental
Assessment Panel during Guideline review meetings,
Nov 17-Nov 27, 1981.

Keith, R.F. and J.B. Wright

NORTHERN TRANSITIONS, VOLUME II. SECOND NATIONAL
WORKSHOP ON PEOPLE, RESOURCES, AND THE ENVIRONMENT
NORTH OF 60. (20-22 February 1978).
Canadian Arctic Resources Committee, Ottawa,
Ontario.

Abstract

Table of Contents attached.
Northern Transitions, Volume I presented case
historics of major projects in the Canadian North,
and an extended analysis of methods for prediction of
resource use conflicts in the North. This report
contains proceedings of a workshop held to provide an
integrative force to the study in Volume I. It was
to provide a forum for "discussion of current issues,
and the future of the people, the resources and the
environment of the North".

- 181 Synopsis of Aquatic Renewable Resources of the Canadian Arctic
J.G. Hunter
- 187 The Report of the Mackenzie Valley Pipeline Inquiry, Volume I: a Socio-Economic Critique
J.C. Stabler
- 199 A Reply to J.C. Stabler
Peter J. Usher
- 202 Renewable Resource Development
Ernie Sieber
- 204 Renewable Resource Use Options in Northern Canada
Roger C. Suffling
- 206 Some Comments on Hydro-electricity and Northern Renewable Resource Developments
R.J. Turkheim, K.C. Bridger, J.C. Day, and S.E. Peet
- 209 Renewable Resource Development
Erik Val
- Caribou: Management of a Vital Resource**
- 210 Introduction
- 212 Working Group Report
- 217 Caribou: Management of a Vital Resource
Lorraine Allison
- Parks and Scientific Preserves**
- 226 Introduction
- 228 Working Group Report
- 230 Announcement of Polar Bear Pass IBP Site
- 231 National Wilderness Parks North of 60°
National Parks Branch, Parks Canada
- 237 The International Biological Programme in Subarctic and Arctic Regions of Canada
Richard D. Revel
- 251 Old Crow Proposal
- Political Development in the Territories**
- 252 Introduction

- 311 An Analysis of the Land Claims Position of the Metis Association of the Northwest Territories
Peter H. Russell
- 315 Political Development in the Northwest Territories
R.D. Sparham
- Northern Communities**
- 319 Introduction
- 311 Working Group Report
- 315 Northern Communities: Issues for Discussion
Edward R. Weick
- Arctic Seas: Marine Transport**
- 318 Introduction
- 350 Working Group Report
- 354 Arctic Seas: Marine Transport
Edgar J. Dosman
- 368 The AML: The World's Most Powerful Icebreaker
Dome Petroleum Limited
- 375 Arctic Gas from the High Arctic Islands via the Marine Mode
Stuart S. Peters
- Water Resource Development**
- 381 Introduction
- 383 Working Group Report
- 387 Water Resources North of 60°: Problems, Issues, and Alternatives
Irving K. Fox and William MacLeod
- 395 Impact of Community Planning on Quality of Life in the North
Jack Grainge
- 402 Canada's Wild Rivers: Have They a Future?
Thomas L. Perry, Jr.
- 406 Rivers North of 60° Surveyed by Parks Canada
- The Pipeline Authority: Structure and Powers**
- 407 Introduction

- 409 Working Group Report
- 414 The Pipeline Regulatory Authority
J.E. Chamberlin
- 422 Preliminary Thoughts on Institutional Design for Implementation of Programmes Associated with Pipeline Construction in the Yukon Territory
Irving K. Fox
- 431 Excerpts from an Overview Study for the Alaska Pipeline Office, U.S. Department of the Interior
Einar Skinnarland

IV Concluding Plenary Session

- 447 Identifying the Issues
William A. Fuller
- 452 Discussion
- 461 Chairman's Concluding Remarks
Andrew R. Thompson

V Appendices

- 465 I Registered Participants
- 469 II Members of the Canadian Arctic Resources Committee 1978
- 470 III Acknowledgements

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2.2

Beaufort Sea project.
General Literature - Submitted to the Panel as part of the review process.

2.2 #15

Submitted to the Secretariat, Beaufort Sea Environmental Assessment Panel as a general reference document. 83.01.24

Guice, C. and J. Hendricks. 1981. Gulf of Mexico outer continental shelf oil and gas development and environmental overview. Ninth Environmental Workshop on Offshore Hydrocarbon Development. May 1981. Fairmont, B.C. p. 19-33.

Abstract (re Beaufort Review)

The report presents data on the oil and gas lease sale history in the Gulf of Mexico, new wells started by year, and additional general information. A table of OCS operations inspection results, annual pollution events, and a listing of the criteria utilized for review and approval of operational plans are provided. Presently established long-term impacts are indicated as those more physically obvious, e.g. presence of platforms, pipelines, socio-economic impacts. "No significant long-term impact has been identified on the OCS. Fishery catches have been maintained, and the multiple use concept has been preserved." Special lease stipulated monitoring programs are being carried out as well as special environmental studies. "However, the isolation of significant impacts is complicated by the extremely dynamic biological, chemical, geological, and physical processes taking place in the Gulf of Mexico, such as the tremendous volumes of discharge from the Mississippi River with its load of organic and inorganic pollutants which tend to overshadow other inputs."

Beaufort Sea Project
General Literature - Submitted to Panel as part of review process.

#16

83.01.24
Submitted to the Secretariat, Beaufort Sea Environmental Assessment Panel as a general reference document.

Battelle Pacific Northwest Laboratories. Summary report on effects of oil discharges, domestic and industrial wastewaters on the fisheries of Lake Maracaibo, Venezuela. Prepared by Battelle Pacific Northwest Laboratories, Richland, Washington for Creole Petroleum Corporation, Caracas, Venezuela.

Abstract

...This program, sponsored by Creole Petroleum Corporation, was designed to study the effects of oil discharge on the fishery resources of Lake Maracaibo, Venezuela. Although the assessment of the impact of the effects of oil was of primary concern, the design also included an evaluation of the potential problems associated with the discharge of domestic and industrial wastewaters.....Au.

Prologue of report attached.

2.2 #16

PROLOGUE

The study to which this report refers was the first major ecological and pollution investigation conducted south of the straits of Lake Maracaibo in Venezuela. Thousands of samples of lake water, sediments and biota were subjected to laboratory experiment and analysis over a period of three years, 1971-1974. The most important conclusions of this research program are the following:

- There is no question that significant discharges of oil and oil compounds incidental to the production of petroleum in the Lake Maracaibo Basin have occurred over the last four decades in addition to the discharges from natural seeps.
- Examination of the limited fisheries data available does not suggest that the resources are being depleted.
- The data obtained during the course of this program from both laboratory and field studies indicate that the present petroleum operations have not caused discernible damage.
- The rapid loss, in a few hours, of light hydrocarbons from surface films of oil to the atmosphere was shown to reduce the toxicity to organisms significantly.
- Consideration of the potential impact of nonpetroleum wastes, both domestic and industrial, indicates that nonpetroleum materials are contributing to the degradation of the water quality which consequently may reduce the biological resources of the lake.
- The low concentrations of oil measured in lake water have not contributed to a detectable buildup of hydrocarbons in the muscle tissue of selected commercial species.
- The occurrence of bituminous residues in the sediments, particularly in the production areas, suggests that the natural processes of volatilization, biodegradation and sedimentation are the major mechanisms for removing weathered oil from the biologically productive zone.

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2.2 #17

Beaufort Sea project
General Literature - Submitted to the Panel as part of the review process.

83.01.24
Submitted to the Secretariat, Beaufort Sea Environmental Assessment Panel as a general reference document.

Geraci, J.R. and D.J. St. Aubin. (University of Guelph). 1982. Study of the effects of oil on cetaceans. Final report. Prep. for U.S. Department of the Interior, Bureau of Land Management, Washington, D.C.

Only Summary and conclusions available, not the entire report. 16 p.

The summary briefly indicates results of review of existing observations of cetaceans and oil. Components of the study of the effects of oil on cetaceans and results of these studies are briefly reviewed and included:

- studies to determine if bottlenose dolphins can detect oil and the limits within which they would be able to do so.

- oil avoidance by captive bottlenose dolphins

- a study to determine if gray whales detect oil

- a retrospective analysis of three Tursiops exposed to oil on the surface of the water

- the effect of oil on cetacean skin including grossly observable changes associated with surfact contact and biochemical and physiological effects

- effects of inhalation of petroleum vapors

- oil ingestion and bioaccumulation

- baleen fouling

- oil spill response

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Beaufort Sea project
General Literature - Submitted to the Beaufort Sea
Environmental Assessment panel as part of the
review process.

2.2 #18

83.01.24
Submitted to the Secretariat, Beaufort Sea
Environmental Assessment panel as a general
reference document.

Cowles, C.J., Hansen, D.J. and J.D. Hubbard.
1981. Types of potential effects of offshore oil
and gas development on marine mammals and
endangered species of the northern Bering Sea and
Arctic Ocean. United States Department of the
Interior, Bureau of Land Management, Alaska Outer
Continental Shelf Office, Technical Paper Number
9. December 1981. 23p.

Abstract.
...Technical Paper No. 9 summarizes information on
types of potential effects on marine mammals,
endangered species, and rare plants which may be
associated with oil and gas lease sale pending
for the northern Bering Sea and arctic
regions...Au.

The first section addresses factors affecting
nonendangered marine mammals: short-term, direct
oilspill effects; long-term and chronic, direct
oilspill effects; indirect oil pollution effects;
noise and disturbance effects (airborne and
underwater noise); natural gas and gas condensate
effects; and other factors.

Section III addresses potential factors affecting
endangered cetaceans (including grey whale,
bowhead whale, humpback whale, and fin whale).
Effects are discussed by direct and indirect oil
and gas pollution effects; noise and disturbance
effects; and other factors.

Section IV deals with potential factors affecting
endangered birds and rare plants. Two endangered
avian species known to occur or which have
occurred in arctic Alaska noted were the Peregrine
Falcon and the Eskimo curlew. The latter is now
considered absent from Alaska and only the
Peregrine Falcon is addressed. Rare plants (but
not officially endangered) includes walpole poppy,
an arctic sage, Andersen sedge.

Beaufort Sea Project
General Literature - Submitted to the Panel as
part of the review process.

#19

FEARO Date: Feb. 1983 Panel Index:

Sent to J.R. Mackay, Beaufort Sea Environmental
Assessment Panel

Reference:

Marko, J.R. and S. Oberski. 1982. An examination
of the utility of digitally-enhanced NOAA & TIROS
satellite imagery in the southeastern Beaufort
Sea. Arctic Sciences Ltd., 1986 Mills Road, R.F.
#2, Sidney, B.C. 22p. Fig.

Abstract.
This report presents the results of a preliminar
examination of NOAA and Tiros satellite imagery
in their digital computer-compatible tape (CCT)
forms with regard to their utility for
quantitative studies of the turbidity and surface
temperature distributions on the southeastern
Beaufort Sea.....Following a description
(Section 2) of the procedures used for image
selection and processing, the main products of
this assessment are detailed in Section 3 in the
form of comparisons of enhanced images recorded
over the 1979 and 1980 summer seasons. A summary
of results and recommendations for further
exploitation of this considerable data resource
are given in a concluding Section 4...Au.

#20

FEARO Date: February 1983

Sent to: J.R. Mackay, Beaufort Sea Environmental
Assessment Panel

Reference:

Marko, J.R. and S. Bannerman. 1982. Comparison
of observed and simulated ice floe drift and
relevance to oil spill modelling accuracy. Prep
by Arctic Sciences Ltd., Sidney, B.C. for Ocean
Information Division, Institute of Ocean Science
Sidney, B.C. 40 p.

Abstract.

...The present report explores an alternative approach to modelling evaluations applicable in Arctic regions where large masses of ice flow drift data are available through an accumulated satellite imagery record. The geographical locale chosen for the study, the southeastern Beaufort Sea (Figure 1), is particularly appropriate both in view of the imminent review of proposals for the area's development and because of the largely wind-dominated nature of the regional surface circulation. The latter circumstance increases the likelihood of accounting for the time - dependent wind measurements and model results.....Methods for extending the ice drift results to the corresponding oil drift situation are suggested by the basic similarities of the methods used to model or simulate the movements of the two different materials.....The methodologies of the satellite imagery analysis and trajectory modelling are described in the following section 2. The main results of the study consisting of approximately 250 observed and simulated trajectory comparisons are given in Section 3 along with statistical evaluations and a discussion of the implications for modelling accuracy. The model utilized in the simulated comparisons was previously used in the recent Beaufort Sea Environmental Impact Assessment.....Conclusions and recommendations for further research are given in the closing Section 4.Au.

2.2 # 21 Submitted to the Beaufort Sea Environmental Assessment Panel.

Petro-Canada. 1982.
Offshore Labrador: initial environmental evaluation.
Prepared by the Environmental and Social Affairs and
Offshore Engineering Sections of Petro-Canada on behalf of
the Labrador Group of Companies. various pages.

1.2 ENVIRONMENTAL STUDIES IN THE LABRADOR SEA

The Labrador Group of Companies initiated the OLABS Program in 1978. OLABS (Offshore Labrador Biological Studies) was an attempt to gather baseline biological data that would assist an ecological assessment of the potential impacts that exploratory drilling and hydrocarbon production might have on the physical and biological environment of the Labrador Shelf. Studies conducted under OLABS included work on shoreline sensitivity, meteorology, physical and chemical oceanography, and surveys of marine mammals, seabirds, waterfowl, benthic organisms, zooplankton, phytoplankton, fisheries and the socio-economic conditions in Labrador.

This Initial Environmental Assessment is a summary and synthesis of the data that have been collected under the OLABS program. This assessment also draws on data that have been collected for engineering design, improved navigation, and fisheries enhancement by a wide variety of consulting firms, research institutes, government agencies, and researchers from foreign nations. The assessment attempts to evaluate the impact that petroleum exploration might have on the environment and the people of Labrador.

1.6 ENVIRONMENTAL IMPACTS AND MITIGATING MEASURES

1.6.1 The Nature of Impact Assessment

This Initial Environmental Assessment recognizes two main classes of impact that could arise from exploratory drilling off Labrador. The first class consists of impacts that unavoidably arise from routine drilling operations, such as the disposal of drilling fluids, the use of aircraft, or vessel movements. These impacts have a relatively predictable frequency and intensity, and thus may be relatively easy to control. The second class of impact is catastrophic and unpredictable in time or place, and could include an oil blowout or a tanker spill. Because the second class of impact is less predictable, adverse impacts may be less easy to mitigate. The impact assessment in this IEA concentrates on the second class of impact, and devotes more attention to ecologically dominant, economically important, ecologically sensitive and very rare species.

FEARO Document

2.2 # 22 Submitted to the Beaufort Sea Environmental Assessment Review Panel

Gulf Canada Resources Inc. 1982.
Marine support base, Stokes Point, Y.T. Prepared by Gulf Canada Resources, Calgary, Alberta. 252 p.

A number of sites are evaluated against specified engineering, operational, economic, environmental and socio-economic criteria with the result that Stokes Point has been selected as the marine base location that best meets the requirements. Permission is being sought to establish a base at this location to provide facilities in support of the drilling operations in the Beaufort Sea.

"...A marine support base is also required to support our offshore drilling operations. It will be our major facility for storing and transferring fuel and drilling consumables (casing, tubing, barite, cement and chemicals) to the drilling units. Accommodation will be provided for an estimated 100 personnel. The base will also contain some repair and maintenance facilities for the marine fleet and drilling units. An airport capable of handling medium to large aircraft will eventually be required as well as deep water harbouring..."

The size of support facilities would have to be increased for the development and production phase. Of four possible scenarios for a support base presented in the EIS, one is used as an example in this report.

"...In applying for approval to establish a marine base, our intention is that it be used to support our exploratory and possibly development drilling programs. It may or may not be a suitable candidate for a terminal when oil production eventually commences..."

Three sites considered are Roland Bay, Stokes Point and King Point. The physical environment around the three is similar and is described.

A summary environmental assessment is presented (details Presented in appendix).
Caribou - "The potential for any major impact on caribou will be subjective and will depend on the numbers in the area, and for this reason will probably be minor in nature. Disturbance to caribou will be reduced through aircraft flight restrictions.

Arctic fox - potential for impact due to den disturbance and becoming pests at camp sites. These can be handled through personnel awareness.

Birds - effect would be minor considering number of areas and yearly variation

Fish and benthos - studies indicate that potential impact from development operations are generally insignificant and of short duration.

Mammals - Significance of potential impact on seals considered minor. Whales appear along the Yukon coast but further studies required to establish importance of this area to migrating whales.

Vegetation- vegetation types most likely to be disturbed are considered sensitive but not rare in the area of interest.

Oil Spill Contingency Plans are being developed according to COGLA Guidelines.

Socio-economic Assessment:
Should have a positive effect on the economy of the Yukon. Existing claims affect portion of the coast and these are noted. On socio-economic aspects only, King Point is preferred but this factor is out-weighted by operational factors favoring Stokes Point.

Site selection analysis ..."This section provides an Overview of the process and criteria by which Gulf's preferred marine support base location was selected."

2.2 #23

Jakimchuk, R.D., L.G. Sopuck and C.D. Shick. 1982. Distribution, abundance and movements of the Porcupine Caribou herd along the Yukon Coast: A summary for the period 1970-1982. Prepared by Renewable Resource Consulting Services Ltd. for Gulf Canada Resources Inc. Calgary, Alberta. Submitted June 1983.

ABSTRACT:

Distribution of the Porcupine caribou herd along the Yukon North Slope varies seasonally and geographically. The overall annual movement patterns for the herd have been quite consistent between 1971 and 1982 although significant annual variations in calving and winter distribution have occurred.

The major utilization of the Yukon North Slope by the calving component of the herd in some years is primarily from the Babbage River to the Alaska-Yukon border. This distribution may extend from the foothills inland to the Beaufort sea coast. Although some calving may occur as far east as the Blow River, the aforementioned area involves the heaviest calving concentrations for these years when calving takes place in the Yukon between late May and June 15.

2 # 23

The second major utilization of the coastal plain is by the adult bull component of the herd which may number from 40,000 to 50,000 animals. Their distribution prior to calving, during calving and in westward post calving movements involves much of the coastal plain from Shingle Point to the Alaska-Yukon border. Although specific concentration areas are not well documented the bull distribution for the above period extends over a large geographic area.

The coastal plain is not highly utilized by the herd during the period of summer movements (late July) August dispersal or fall migration (September/October) although some use of the southern coastal plain/foothills area may occur during summer movements eastward from Alaska.

Wintering on the coastal plain occurs periodically from Herschel Island to the Mackenzie delta by small groups of the herd. This utilization is neither frequent nor extensive.

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#24

Marko, J.R. and S. Oberski. 1982.
Open-water oilspill trajectory modelling in the
southeastern Beaufort Sea 1969-1978. Prepared by Artic
Sciences Ltd. Sidney, B.C. for Gulf Canada Resources Ltd.,
Calgary, Alberta. 63 p. Submitted June 1983.

1. INTRODUCTION

The development of contingency plans appropriate to an accidental release of oil into the southeastern Beaufort Sea requires the best possible estimates of alternative oil movements and their relative probabilities. The present report represents an attempt to provide such estimates for a continuously running spill or "blowout" originating at 70°00'N latitude and 133°30'W longitude on the basis of a relatively simple oil trajectory model previously used in the area (Marko and Foster, 1981a,b). The meteorological input to the model was derived from a slightly modified version of the regional wind fields produced by MEP Ltd., under contract to Esso Resources Canada Ltd., for the July 15 to October 30 portions of the years 1969-1978. To the extent that the included ten summer and fall seasons are representative of the open water exploration drilling period, the trajectory results can be expected to display the ranges and relative likelihoods of typical oil contamination events within the accuracy of the modelling assumptions.

The details of the trajectory model and the assumed oil spill parameters are summarized in the next section of this report prior to the presentation and discussion of the simulated impact results (Section 3 and Appendix).

2.2 # 26 Submitted to the Beaufort Sea Environmental Assessment Panel
83.10

Cameron, R.D. 1983.

Issue: caribou and petroleum development in arctic Alaska.
Arctic 36 (3) : 227 - 231.

Issue (from report):

Key words: caribou, petroleum development, disturbance, Alaska

ISSUE

Intensive petroleum-related development on Alaska's Arctic Slope is not always compatible with the habitat requirements of barren-ground caribou (*Rangifer tarandus granti*). Surface alteration can result in displacement of caribou from previously occupied components of range. Although, to date, losses of habitat have been localized, apparently with no adverse effects on herd productivity, uncontrolled or improperly planned future development on state and federal lands could remove large areas of caribou habitat, with potentially serious consequences to all of the arctic herds. Caribou represent a valuable recreational and subsistence resource. State and federal land management agencies must fully acknowledge the potential conflicts associated with industrial activity and adopt conservative policies of subsurface leasing and surface development.

2.2 # 27

Submitted to the Beaufort Sea Environmental Assessment Panel, 83.10.07
by: Thomas F. Albert, North Slope Borough Conservation and Environmental Protection Office

Reeves, R., D. Ljungblad and J.T. Clarke. 1983. Report on studies to monitor the interaction between offshore geophysical exploration activities and bowhead whales in the Alaskan Beaufort Sea, Fall 1982. Report prepared for Minerals Management Service, Alaska OCS Region under Interragency Agreement No. 41-12-0001-29064.

Abstract: (from report)

Out of concern about the potential effects of marine acoustic geophysical survey work on westward-migrating bowhead whales (Balaena mysticetus), the U.S. Minerals Management Service (MMS), in consultation with the U.S. National Marine Fisheries Service (NMFS), implemented a program for monitoring and regulating such work in the Alaskan Beaufort Sea during 1981 and 1982. In 1982 a twin-turbine, high-wing aircraft was used to survey systematically blocks covering approximately 1,400 km² near actively "shooting" seismic survey vessels. Direct visual observation was supplemented by the use of sonobuoys to listen to and record underwater sounds made by vessels, airguns, and whales. In addition to the systematic surveys, sustained behavioral observations of bowheads were made on an opportunistic basis, with the objective of identifying possible differences in behavior between whales exposed to seismic sounds and whales not exposed to seismic sounds. Daily summaries of field observations were reported to the MMS and NMFS; these were used for decision-making relative to regulation of seismic activities.

A total of 34 survey flights were initiated from August 27 to October 4, 1982. Although bowheads had been seen in the Alaskan Beaufort Sea as early as August 2 in other surveys, our first sighting was on September 14. By October 4, all seismic survey activity in the Alaskan Beaufort Sea had ended due to a combination of regulatory area closures and deteriorating ice conditions. Feeding behavior was observed as late as September 28, by which time westward migratory movements had also been observed.

No major changes in whale behavior (e.g. flight reactions) were observed which could unequivocally be interpreted as responses to seismic noise. A possible exception is the "huddling" behavior observed on September 14-15; our field interpretation of this behavior was that it may have been caused by the onset of seismic sounds. Tests of statistical significance were applied to data on number of blows per surfacing, mean blow interval per surfacing, surface times, and dive times. The mean surface time of "adults" (i.e. all whales other than cows and calves) in the presence and absence of seismic sounds was $1.67 \pm \text{s.d. } 0.85$ min. and $1.36 \pm \text{s.d. } 0.59$ min., respectively. This difference is statistically significant ($t = 1.988$, $df = 89$, $p < .05$). No statistically significant differences were detected for other behavioral parameters in the presence and absence of seismic sounds. Animals compared in these tests were observed at essentially similar water depths (15-40 m). However, for our sample of observations, "adult" bowheads surfaced for longer periods, on average, in "deep" water (greater than 27.45 m) than in "shallow" water (27.45 m or less).

Although our results suggest some changes in behavior related to seismic sounds, the possibility that unquantified factors could be correlative dictates caution in attempting to establish causative explanations from these preliminary findings. Since dive and surfacing characteristics may vary seasonally, geographically, and annually, observed differences should, at present, be considered an indication of the need for additional studies and larger sample sizes, for specific comparisons. The biological significance of observed differences in behavior remains unknown.

2.2 # 28. Submitted to the Beaufort Sea Environmental Assessment Panel.
83.10.07
by: Thomas F. Albert , North Slope Borough Conservation & Environmental Protection Office.

Braithwaite, L.F., M.G. Aley and D.L. Slater.
1983. The effects of oil on the feeding mechanism of the bowhead whale (Final report). Report prepared for U.S. Dept. of the Interior under Contract No. OQ851-CT0-55.

Abstract (from report):

ABSTRACT: Research was designed to determine the effect of crude oil on the filtration efficiency of bowhead whale (Balaena mysticetus) baleen. An experimental apparatus was constructed with temperature-controlled, circulating sea water moving through a chamber containing mounted baleen plates. All circulating water of the apparatus flowed over and through the hair-fringed stratum of the baleen plates. Efficiency of filtration of living plankters was measured and compared for various kinds and levels of petroleum fouling.

The filtering efficiency of the baleen plates decreased when the plates were fouled with Prudhoe Bay crude oil. Crude oil mixed with a chemical, oil-spill dispersant also reduced filtration capabilities of the baleen, as did diesel fuel #2, but neither to the extent caused by crude oil alone. Water soluble fractions from Prudhoe Bay crude oil had no effect on the filtering capabilities of the baleen.

2.2#29

Submitted to the Beaufort Sea Environmental Assessment
Panel

December 1983.
by DIAND

Adam, K.M. 1978.

Building and operating winter roads in Canada and
Alaska. Environmental Studies No. 4?. Northern
Environmental Protection and Renewable Resources
Branch, Indian and Northern Affairs Canada, Ottawa.

p.

Introduction from report follows.

INTRODUCTION

This manual is a synthesis of techniques for building and operating winter roads based on the literature and established practices in Alaska and Canada. It was prepared for those who work with winter roads, whether as designers, researchers, planners, builders, operators, or inspectors.

The manual is divided into three parts. The first part deals with the nuts and bolts of winter road work -- route selection, road construction, use, maintenance, and closure. Trails, and roads of snow and ice, are dealt with under these headings in terms of procedures, methods, and equipment. The second part of the manual offers guidance and suggestions including contingency plans and a hypothetical example, for those who are involved in the planning of all aspects of winter roads. The third part summarizes information gathered from interviews with persons in Alaska and Canada who have had first-hand experience with winter roads. It includes descriptions of roads and trails that have been built across Canada and in Alaska, and is replete with practical suggestions and ideas.

The information is presented in a manner that may be understood by those who have not had previous experience with winter roads; but it is complete enough to satisfy the more experienced road builders and operators. Readers who want more detail on engineering design or research in connection with winter roads will find references to more technical material in the "Literature Cited" and "Further Reading" sections at the end of the manual.

2.2 # 29 cont

The text has been organized so that readers can, in most cases, turn to any category of winter road and read straight through without having to refer to other sections. A certain amount of overlap has been inevitable as a result, because several of the procedures apply to more than one kind of road. To avoid excessive repetition, readers are referred to earlier sections in cases where an entire procedure is the same.

Recently, winter roads have been proposed for protecting sensitive terrain during pipeline construction. This has led to extensive research into various types of roads made of snow and ice. The effectiveness of these special roads for northern pipeline construction over sensitive terrain has now been established, as for example on the Alyeska project where short sections of pipeline were built from snow roads. Despite the importance of these special types of roads, winter trails are still the most common type of winter road, comprising over 90 percent of all winter roads built in Canada. Winter trails are also the cheapest

type of road to build, costing about one quarter as much as snow roads and one twentieth as much as aggregate ice roads, the newest type of winter road. Yet, in terms of their ability to protect the environment, winter trails are at the bottom of the list. In view of this, and in recognition of the trend toward environmental protection, particularly in the North where winter roads are destined to play such a key role in the construction of pipelines, roads of snow and ice have been covered in the same detail as winter trails. Construction practices for achieving environmental protection in permafrost areas have also been stressed throughout the manual for the same reasons.

The winter roads personnel interviewed for the manual were accustomed to expressing themselves in imperial units when discussing ice thicknesses, truck speeds, gross vehicle weights, tire pressures, right-of-way widths, and so on. Quantities in the text have therefore been presented in imperial units first, followed by metric equivalents in brackets. In most cases, the metric equivalents have been rounded off in the interests of comprehension.

Opinions expressed in the interviews are generally those of persons we talked to and are not necessarily in keeping with my own views and opinions.

Submitted to the Beaufort Sea Environmental
Assessment Panel

December 1983.

Alexander, V. and K. Van Cleve. 1983.
The Alaska pipeline: a success story. *Ann. Rev.
Ecol. Syst.* 14:443-63.

Introduction from report follows:

INTRODUCTION

The construction of the trans-Alaska pipeline was a milestone not only in the history of Alaska, but also in the history of arctic development and construction. The pipeline crosses 1250 km in a state that is one fifth the size of the contiguous states, but which has a population of less than one-half million and the largest remaining wilderness in the United States. The associated haul road for the portion of the pipeline north of the Yukon River was constructed over an area that previously had been largely untraversed by surface transportation and that stretches 577 km from the Yukon River in interior Alaska to the arctic coast at Prudhoe Bay (Figure 1). It crosses four major physiographic provinces and much of the route is underlain by permafrost. The environmental challenges were tremendous and in this review we will examine some of the associated scientific successes and failures.

2.2#31

Submitted to the Beaufort Sea Environmental Assessment Panel

December 1983.

by W. R. Rees as supplementary information to submission at the Ottawa General Session, Beaufort Sea Panel public meetings.

Rees, W.R. 1983.

Northern land use planning - in search of a policy. Draft Background Paper, 3rd. National Workshop on People, Resources & the Environment North of 60°, Yellowknife, 1-3 June 1983. Canadian Arctic Resources Committee, Ottawa, Ontario. 39p.

Filed as 2.5.2 # 27.

Introduction from report follows:

In October 1982, the Department of Indian and Northern Affairs (DIAND) circulated to a privileged few a draft policy document on Land Use Planning in Northern Canada.¹ This deceptively heavy volume was the culmination of three years' gestation within the mother department, and its release was well attended by a veritable coterie of anything but disinterested midwives. Indeed, an atmosphere of palpable anxiety permeated the crowded delivery room - government agencies, private corporations, native organizations, and public interest groups were all aware of the potential impact of land use planning in the North. Simply put, a robust program could well transform permanently the context for resource and related socioeconomic development north of 60°.

Within days of the document's release, however, anxious anticipation had given way to resigned disappointment. It was clear that the new policy had come into the world with severe functional handicaps. Consequently northern organizations from native groups to territorial governments were forced to reject DIAND's proposal in a rare display of near unanimity.²

None of these organizations was opposed to the principle of land use planning. On the contrary, most had long pressed for more rational approaches to land and resource development in the north, and remained strongly supportive of DIAND's having finally taken the initiative. The problem lay in the specific structure proposed for Land Use Planning in Northern Canada. Most observers saw the program as cumbersome yet incomplete, sweeping in effect yet politically unbalanced - in a word, unworkable. In the ensuing weeks, other federal departments and southern based interest groups also expressed varying degrees of reservation about the long-awaited policy.³ DIAND planners had hoped to have their final text ready for approval in January. Instead, in mid-February 1983, they found themselves at the bargaining table, negotiating a fresh approach with the government of the Northwest Territories.

The purpose of this paper is to outline some of the essential requirements for land use planning in the North and to compare these with the product of DIAND's recent prolonged labour. These should explain why Land Use Planning in Northern Canada succumbed so early to the rough and tumble of northern political ecology, and provide some direction for future initiatives. Before contemplating these complex questions, however, we should be clear about the focus of our discussion.

2.2#32

Submitted to the Beaufort Sea Environmental Assessment
Panel

83.11.03

by Carol Stephenson, Director, Coast Guard Northern.

Emergency Planning Canada.

The Edgar Jourdain incident: narrative of events.
Prepared by Emergency Planning Canada with the
assistance of Transport Canada (Canadian Coast
Guard), Environment Canada and Indian and Northern
Affairs Canada, Ottawa. 9p.

Filed as 2.5.2 # 23.

Chronicle of events and actions taken from September
20, 1980 when the vessel Edgar Jourdain ran aground
until December 14, 1982.

2.2#33

Submitted to the Beaufort Sea Environmental Assessment
Panel

83.11.03

by C. Stephenson, Director, Coast Guard Northern

Leslie, I.K. 1982.

The Polar Icebreaker Project and its impact on the
Canadian shipbuilding and allied industries.
Presented at the Annual Technical Conference,
Canadian Shipbuilding and Ship Repairing Association,
2 March 1982. 18p.

Abstract from report follows:

The paper discusses the role of a government owned
Polar icebreaker in support of expected year-round
marine activity in Canada's Arctic.

The Polar 8 icebreaker, now in the design phase, is
described with an indication of some of the
features and facilities being incorporated in this
vessel.

The impact and economic benefits of Polar
icebreaker development on the shipbuilding and
allied industries, and the opportunity for
developing Canadian expertise in Arctic marine
technology is also discussed.

2.2 # 34

Submitted to the Beaufort Sea Environmental Assessment
Panel
December 1983.
by Rolph Davis, LGL Ltd., Toronto, Canada.

Richardson, W.J. (ed.) 1981.
Behavior, disturbance responses and feeding of
Bowhead whales in the Beaufort Sea, 1980.
Unpublished report to U.S. Bureau of Land Management,
Washington. 273p.

This report consists of five reports as follows:

Richardson, W.J. and M.A. Fraker. 1981.
Project rationale and design. p. 1-20 In: (above
report)

Introduction from report follows:

INTRODUCTION

The imminence of offshore exploration for oil and gas in the Alaskan part of the Beaufort Sea has raised concerns about the potential for disturbance of bowhead whales. The bowhead, Balaena mysticetus, is a baleen whale inhabiting cold northern waters. Historically, five substantial populations existed: western arctic, Davis Strait, Hudson Bay, Okhotsk Sea, and Spitsbergen. The western arctic stock inhabits the Bering, Chukchi and Beaufort Seas off the shores of Alaska, the U.S.S.R., and Canada. All five populations were heavily exploited by commercial whalers, and all are now seriously reduced. Only the western arctic population continues to be of substantial size, yet even it is considered to be rare and endangered under U.S. legislation, in Canada, and by the International Whaling Commission. The 'best estimate' of the size of the western arctic stock is 2264 individuals (Braham et al. 1979, 1980b).

2.2 # 34
cont.

Wursig, B., C.W. Clark, E.M. Dorsey, M.A. Fraker and R.S. Payne. 1981.

Normal behavior of bowheads. p. 21-90. In: W.J. Richardson (ed.), Behavior, disturbance responses and feeding of bowhead whales in the Beaufort Sea, 1980. Chapter by New York Zool. Soc. in Unpubl. Report from LGL Ecol. Assoc. for U.S. Bureau of Land Management, Washinton. 273.

Abstract (from report):

The normal behavior of bowhead whales was observed from an aircraft during 16 flights on 3-31 August 1980 off the Tuktoyaktuk Peninsula and Mackenzie Delta, N.W.T. The predominant activity seen was feeding, and five types of behavior definitely or possibly associated with feeding are described: water-column feeding, bottom feeding, skim feeding, mud-tracking, and underwater blows. Social interactions--nudges, pushes, chases, and close proximity--were observed less often than feeding, and no obviously sexual interactions were seen. A tendency was noted for different bowheads, sometimes spread over tens of km², to synchronize their types of activities, the timing of surfacings and dives, and their orientations, even when apparently not migrating. A few individuals were recognizable by distinctive features such as unusual white pigmentation and, in one case, a harpoon line. One group consisting of two distinctively marked large whales and a calf was resighted after 2 weeks.

2.2#34
cont

Fraker, M.A., C.R. Greene and R. Würsig. 1981.
Disturbance responses of bowheads and characteristics
of waterborne noise. p. 91-195. In: W.J. Richardson
(ed.), Behavior, disturbance responses and feeding
of bowhead whales in the Beaufort Sea, 1980. Unpubl.
Report by LGL Ecological Research Associates, Inc.
for U.S. Bureau of Land Management, Washington.
273p.

ABSTRACT

Studies of the behavioral responses of bowhead whales to activities associated with offshore oil and gas exploration and development were begun in 1980 in the eastern (Canadian) Beaufort Sea; this is the interim report of the first season in a planned two-year study.

Both experimental and observational approaches to studying the behavioral responses of the bowheads were used. Noise is believed to be the by-product of normal industrial operations that may affect whales most severely. Hence, we recorded and analyzed the underwater sounds from several vessels, dredging and drillship operations, aircraft, and seismic exploration. Most of the energy contained in sounds from the above sources was below 2000 Hz, as is most energy in sounds made by bowheads (see companion report by Würsig et al. 1981).

Bowheads responded to boats in two ways. At a range of 3.7 km, in response to a stationary 16 m boat with its engines idling, bowheads altered their surfacing pattern by decreasing the time at the surface and the number of blows per surfacing, and by increasing the variability of these behavioral characters. When boats (16 and 60 m length) closed to within about 1 km, the whales, in addition to the above responses, swam away from the boat and scattered. None of the boat disturbances that we observed resulted in the whales' leaving the particular locale; however, the effects of more frequent boat disturbance are unknown.

Bowheads typically dove in response to our aircraft when it circled above the whales at <305 m above sea level (a.s.l.), but not at >457 m.

Bowheads frequently were seen <5 km from an artificial island that was under construction; LGL personnel saw bowheads as close as 800 m from the operation, and industry personnel reported that one bowhead came as close as 16 m from a barge. Sounds from the operation were well above ambient levels and almost certainly audible to bowheads within 5 km.

Seven bowheads were observed about 13 km from an active seismic vessel. Their behavior was similar to that of whales observed nearby on the preceding and following day, despite the fact that the underwater sound from the seismic impulses was at least 135 dB//($1 \mu\text{Pa}^2$) at 300 Hz at the location of the whales. The seismic survey signals received at 13 km range were no longer impulses but had been spread by dispersive propagation to a measured duration of 200 ms.

2.2#34
cont

Griffiths, W.B. 1981.

Characteristics of bowhead whale feeding areas.
p.197-264. In: W.J. Richardson (ed.), Behavior,
disturbance responses and feeding of bowhead whales
in the Beaufort Sea, 1980. Unpubl. Report by LGL
Ecological Research Associates, Inc. for U.S Bureau
of Land Management, Washington. 273p.

Abstract from report:

Physical and biological characteristics of bowhead whale feeding areas in the southeastern Beaufort Sea were studied during August and early September, 1980--the first field season of a two-year study. Physical measurements revealed two distinct water layers in the nearshore shallow water region where bowheads were feeding during August--(1) a warm and brackish surface layer above (2) a colder and more saline layer. Within the general feeding area, no differences were evident between the temperature and salinity profiles in locations where bowheads were and were not seen. Vertical zooplankton hauls taken off Richards Island, N.W.T., and King Point, Y.T., showed that hydrozoans and copepods were the dominant groups, in terms of biomass, in the water column (range for total biomass: 1302-12 mg/m³ wet wt). Five species of hydrozoans (Halitholus cirratus, Euphysa flammea, Sarsia princeps, Aglantha digitale, Aeginopsis laurentii) and five species of copepods (Calanus hyperboreus, C. glacialis, Limnocalanus macrurus, Pseudocalanus minutus, Derjuginia tolli) accounted for most of the biomass. The limited results to date suggest that bowhead whales tend to occur at locations with a significantly higher biomass of copepods than present in surrounding areas. Drop net samples of epibenthos collected at King Pt., Y.T., suggest that mysids (Mysis litoralis), isopods (Saduria entomon) and to a lesser extent copepods and hydrozoans comprised almost all the biomass on or near the bottom (range: 1313-424 mg/m² wet wt.).

The average zooplankton biomass found in areas where bowheads were observed was 0.56 g/m³ wet weight. If bowheads are to consume their estimated daily caloric requirement each day, they must feed on aggregations of zooplankton that contain a somewhat larger average biomass. Observations during this study ('Normal Behavior' section, Würsig et al. 1981) suggest that bowheads get portions of their daily food requirement (1) from the water column and surface waters, (2) near the bottom, and possibly (3) from infauna. The abundance of hydromedusae within the areas where bowheads feed suggests that these animals are an important part of the bowhead diet even though they have not been reported in bowhead stomach contents.

2.2#34
cont

Fraker, M.A. and W.J. Richardson. 1981.
Summary of preliminary findings. p. 265-273. In:
W.J. Richardson (ed.), Behavior, disturbance
responses and feeding of bowhead whales in the
Beaufort Sea, 1980. Unpubl. Report for LGL
Ecological Associates, Inc. for U.S. Bureau of Land
Management. Washington. 273p.

Introduction from report:

SUMMARY OF PRELIMINARY FINDINGS

This section summarizes the main findings of the first field season of a two-year study of the **Behavior, disturbance responses and feeding of bowhead whales in the Beaufort Sea**. The work is being conducted for the U.S. Bureau of Land Management by LGL Ecological Research Associates, Inc., with subcontract assistance from the New York Zoological Society (principally Drs. Roger Payne and Bernd Würsig) and Polar Research Laboratory, Inc. (principally Dr. Charles Greene). This report presents results from the 1980 field season and is in the form of a progress report.

The project consists of three complementary tasks: studies of (1) normal behavior, (2) disturbance responses and characteristics of underwater sound, and (3) characteristics of feeding areas. The 1980 studies were based at Tuktoyaktuk, N.W.T., and were carried out from aircraft, boats and shore-camps from early August to mid September. During the first season, emphasis was placed on gaining as much information as possible on normal behavior, because a knowledge of normal behavior is required to adequately understand responses to disturbance. Significant information relating to the other tasks was also obtained.

SUMMARY OF PRELIMINARY FINDINGS*

By

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Table of Contents

	Page
Normal Behavior of Bowheads	266
Disturbance Responses of Bowheads and Characteristics of Waterborne Noise	268
Characteristics of Bowhead Feeding Areas	271

* Fraker, M.A. and W.J. Richardson. 1981. Summary of preliminary findings. p. 265-273 In: W.J. Richardson (ed.), Behavior, disturbance responses and feeding of bowhead whales in the Beaufort Sea, 1980. Unpubl. Rep. by LGL Ecol. Res. Assoc., Inc., Bryan, TX, for U.S. Bureau of Land Management, Washington. 273 p.

SUMMARY OF PRELIMINARY FINDINGS

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Normal Behavior of Bowheads

This section is a summary of the preceding report of the same title by B. Würsig, C.W. Clark, E.M. Dorsey, M.A. Fraker and R.S. Payne.

1. Various types of behavior of the bowhead whale on its summer range in the eastern Beaufort Sea were observed during the 1980 field season. These behaviors included surface blows, underwater blows, defecation, tail beats, pre-dive flex, dive, aerial activity (breaching, lunge-breaching, tail slapping, flipper slapping), head slamming, pushing, possible chases, adult-calf behavior, and feeding behavior (water column feeding, bottom feeding, skim feeding, and mud tracking). Feeding was apparently the main activity engaged in by the whales on their summer range. In many respects the behavior of the bowhead closely resembles that of southern right whales,

- which have been studied in more detail. However, the detection of bottom feeding by bowheads has no known parallel in right whales.
2. Frequently there was a high degree of synchrony of behavior among different whales. Whales in small groups and even those in several groups separated by several kilometers sometimes surfaced and dove at nearly the same time. Typically, the whales in one general area at any given time were all engaged in the same general behavior (e.g. water column feeding, skim feeding, etc.).
 3. A small number of bowheads possessed individually distinguishing marks. Some marks were so striking that we felt that we could subsequently reidentify the individual when it was seen elsewhere on other days. Others could be readily told from nearby individuals during a single observation period, but not during subsequent flights. A trio consisting of two distinctively marked adults plus a calf were sighted on two occasions separated by about 2 wk and 100 km.
 4. One bowhead was distinctly marked in that a harpoon line was attached to the animal. This whale was apparently behaving abnormally.
 5. Patterns of surfacing and respiration were studied in some detail, partly because of their potential usefulness in quantitatively measuring the responses of bowheads to possible disturbing stimuli. The mean interval between blows was 12.6 s, and this character remained relatively constant over the entire study period. The surface time per surfacing and the number of blows per surfacing varied consistently during the study period. Mean surface times per surfacing were about 60-90 s during the first and last weeks of August, but decreased to about 30-60 s during 20-23 August. The number of blows per surfacing showed a similar pattern; the means were about 4.5-7.0 blows/surfacing early and late in August, but were near 3.0 or below during 20-22 August. The apparent variation in these times during the season suggests that, in an examination of

short-term effects of disturbance, the respiration and surfacing behavior of disturbed animals should be compared to the behavior of undisturbed animals during the same day or during adjacent days, and not to the overall mean. The variability also needs to be taken into account during attempts to correct aerial survey results for the number of submerged bowheads that were missed by the observers.

6. Bowheads produced several types of underwater sounds; these can be put into two categories: blow sounds and phonations. Most phonations were tonal and frequency-modulated (FM) calls, but some were pulsive. Most of the sound energy was below 500 Hz. From a comparison with sounds produced by southern right whales, it appears that most sounds were being used to maintain or establish contact between distant individuals.
7. Based on observations during this study and a concurrent LGL study in the same area for Dome Petroleum Ltd., calves (young of the year) comprised only 3.3% of the bowheads in the eastern Beaufort Sea during mid and late summer of 1980. This percentage is similar to that recorded near Point Barrow in spring.

Disturbance Responses of Bowheads and Characteristics of Waterborne Noise

This section is a summary of the preceding report of the same title by M.A. Fraker, C.R. Greene and B. Würsig.

1. Responses of bowheads to boats were studied on 19, 23, 24, 26 and 27 August. The whales quickly moved away from approaching boats after they came within a certain range, which varied from approximately 0.8 to 1.0 km. Some bowheads appeared to try to outrun the boats. When this failed, whales that were overtaken changed course to move perpendicularly away from the boat's track. Disturbed whales also spent significantly less time at the surface and blew fewer times during each surfacing; in some cases the disturbed whales blew only once. During disturbance the bowheads became more widely separated. The whales did not continue to move away after the vessel passed, and

the disturbance apparently did not cause whales to vacate any specific areas. However, the increased inter-animal distances and any social disruption that this may have caused did persist for at least an hour, and possibly for several hours.

2. The sound from a stationary boat, with engines idling but propellers disengaged, produced more subtle effects on the bowheads' behavior. Whales tended to orient away from the boat and surface times were reduced.
3. Boat noise is probably the most widespread type of waterborne industrial sound in the Beaufort Sea. Most of the sound energy transmitted into the water by the 16-m crew boat 'Imperial Adgo' was below 2000 Hz, but apparently appreciable energy was present up to 4000 Hz. The strongest tone from the 'Adgo' was at 90 Hz [107.5 dB/(1 μ Pa²)/Hz measured as the boat cruised at full speed past the sonobuoy at a range of about 200 m]. From 1000 to 4000 Hz, the sound pressure levels were about 20-30 dB above quiet ambient. A large supply ship, the 'Canmar Supplier VIII', also recorded at a range of about 200 m, produced its strongest tone at 56 Hz [116 dB/(1 μ Pa²)/Hz]. The 'Supplier VIII' at a range of 200 m produced sounds 30-40 dB above quiet ambient levels throughout the spectrum up to at least 8000 Hz.
4. The response of bowheads to aircraft was studied opportunistically while carrying out observations of normal behavior. Whales being circled by our Britten-Norman Islander at an altitude of 305 m a.s.l. nearly always dove, and those circled at lower altitudes invariably dove almost immediately. There was no apparent response by bowheads that were circled at an altitude of 457 m or greater.
5. We found that, at least on a calm day, considerable aircraft noise entered the water and was received by our hydrophone. Tonal sounds at frequencies corresponding to the revolution rate of the propeller blades and the cylinder firing rate were prominent in the received spectrum. When the aircraft was flown over the sonobuoy at an

altitude as high as 610 m, sound levels received at the hydrophone were as loud as 97 dB// $1 \mu\text{Pa}^2$ at 70 Hz; this and sounds at other low (<1000 Hz) frequencies were well above quiet ambient levels.

6. A group of seven bowheads near a seismic exploration vessel were observed briefly. Despite the pulses of loud sound [minimum of 135 dB//($1 \mu\text{Pa}^2$) at 300 Hz] that were received by a sonobuoy near the whales, the whales were not behaving in any obviously disturbed way. Respiration and surfacing characteristics were not statistically different from those observed on adjacent days, although they were somewhat different from values on other days. Observations of these whales before and after seismic disturbance were not possible, and caution must be exercised in interpreting this single observation.
7. Bowheads were observed frequently near an artificial island construction operation. During six systematic surveys by LGL personnel of the area around the island, bowheads were seen as close as 800 m from the operation. In addition, bowheads were also frequently reported by industry personnel working near the island; one bowhead reportedly approached within 16 m of a stationary barge. Several of these bowheads were seen within the region where underwater sounds were loud and almost certainly audible to the whales. There was no obvious indication that bowheads avoided the island construction operation or that those nearby were particularly disturbed.
8. Composite sounds from island construction operations (dredge, tugs, barge camp, etc.) were well above ambient levels to a range of at least 4.6 km north (into deeper water) of the Issungnak construction site. Sounds received at a distance of 1.2 km were 20-50 dB//($1 \mu\text{Pa}^2$)/Hz above quiet ambient levels up to 8000 Hz; the dredge 'Beaver Mackenzie' was operating during this period. At another island construction site (Alerk), the 'Beaver Mackenzie' dredge plus auxiliary equipment was producing received levels of 90-100 dB//($1 \mu\text{Pa}^2$)/Hz at 1000 Hz and below. Most of the remaining energy was below 2000 Hz.

Characteristics of Bowhead Feeding Areas

This section is a summary of the preceding report of the same title by W.B. Griffiths.

1. Bowhead feeding areas that we studied were within the region where water characteristics are heavily influenced by the Mackenzie River. Over much of the study area warm (5.9-9.9°C) brackish (9-18 ppt) surface waters overlie the colder (0°) and more saline (30 ppt) marine waters. This surface layer was about 2-5 m thick within the area studied. These surface waters result from a combination of (1) the outflow of warm fresh water from the Mackenzie River and (2) solar warming and ice melt.
2. The major groups of zooplankton (in terms of biomass) collected in areas where bowheads had been observed feeding were hydromedusae (jelly fish), ctenophores (comb jellies), and copepods. Jelly fish and comb jellies dominate the zooplankton in terms of both wet weight and energy content. Copepods are widely believed to be major constituents of the diet of the bowhead, but jelly fish and comb jellies have never been reported from bowhead stomachs. There is evidence from feeding studies of birds that these latter two groups are quite fragile and may not survive long in a recognizable form in stomachs. Hydrozoan species comprising most of the biomass were Halitholus cirratus, Euphysa flammea, Sarsia princeps, Aglantha digitale, and Aeginopsis laurentii. The dominant copepod was Calanus hyperboreus; also common were C. glacialis, Limnocalanus macrurus grimaldi, Pseudocalanus minutus, and Derjuginia tolli. Mysids and euphausiids, which have been reported as important food items in the stomachs of some bowheads taken in the Alaskan Beaufort Sea, were not common in our plankton samples.
3. The zooplankton sampling program was too limited to provide much information about the patchiness of the zooplankton. However, there were significant among-station differences in zooplankton biomass.

4. Previous studies of bowhead stomach contents show that epibenthic animals sometimes constitute part of the diet of bowheads, but their importance to bowheads is uncertain. Isopods, mysids, copepods, and hydrozoans were common in the samples taken of animals on and near the bottom near the Yukon coast. The mysid Mysis litoralis was the most important in terms of biomass; the isopod Saduria entomon was next in importance. Copepods and hydrozoans were less important near the bottom.
5. Benthic infauna was not studied, but previous work suggests that polychaete worms and pelecypod molluscs are common. The mean biomass of infaunal organisms per square meter greatly exceeds that of epibenthic organisms.
6. Meagre information from previous years suggests that bowheads may feed near the bottom along the Yukon coast; in the present study (see 'Normal Behavior of Bowheads' section) bottom feeding was seen on two days in one location north of Richards Island. It is not known what proportion of the bowhead diet is contributed by bottom-dwelling fauna, nor are the relative contributions of inbenthic and epibenthic fauna to the bowhead diet known.
7. A consideration of theoretical food requirements of bowhead whales was undertaken. Given the average zooplankton biomass observed in this study (560 mg/m³), an estimate of food requirements, and an estimate of the water-straining ability of bowheads, it was concluded that (1) the zooplankton supply in the eastern Beaufort Sea far exceeds the annual requirements of the present bowhead population, but that (2) it would be impossible for a bowhead to subsist indefinitely on the average density of zooplankton that we found in the Beaufort Sea. Therefore, bowheads apparently must feed preferentially in parts of the Beaufort Sea where plankton are concentrated. However, the calculations suggest that bowheads may be less dependent on such concentrations than are certain other whales (e.g. fin whale). Also, during the concurrent study of 'Normal Behavior', bowheads were not observed to concentrate their

feeding in areas with conspicuous 'patches' of densely concentrated zooplankton.

It was also noted that in the Bering Sea where the western arctic population of bowheads spends the winter, primary (and presumably secondary) productivity is about an order of magnitude greater than in the southeastern Beaufort Sea. Nonetheless, bowheads apparently migrate to the Beaufort Sea to feed. The reasons for the evolution and persistence of this life history strategy are, at present, unknown.

II. INDEX TO: BEAUFORT SEA ENVIRONMENTAL IMPACT STATEMENT, SUPPORT DOCUMENTS, REFERENCE WORKS, AND ADDITIONAL REFERENCE DOCUMENTS

FEARO

Reference No.

- 2.3.1 Beaufort Sea Environmental Impact Statement
- 2.3.2 Beaufort Sea Environmental Impact Statement Support Documents
- 2.3.3 Beaufort Sea Environmental Impact Statement Reference Works
- 2.3.4 Beaufort Sea Environmental Impact Statement Additional Reference Documents

Copies of the Beaufort Sea Environmental Impact Statement, the Support Documents and the Reference Works are available for viewing at the:

Arctic Institute of North America
11th Floor, Library Tower
University of Calgary
2500 University Drive N.W., Calgary

Federal Environmental Assessment Review Office
13th Floor, Fontaine Building
200 Sacré-Coeur Blvd.
Hull, Quebec K1A 0H3

Copies are also available on a limited loan basis (from the FEARO office).

Copies are available for purchase from:

Pallister Resource Management
Bay 105, 4116 - 64th Avenue S.E.
Calgary, T2P 1P4
Telephone: (403) 236-2344

Copies of the Additional Reference Documents are available for viewing or on a limited loan basis from the:

Federal Environmental Assessment Review Office
13th Floor, Fontaine Building
200 Sacré-Coeur Blvd.
Hull, Quebec K1A 0H3

FEARO Beaufort Sea Project
Reference
No.

2.3 G-1 BEAUFORT E.I.S. BIBLIOGRAPHY

Howard, L.M. and C.R. Goodwin, Editors. 1983. Beaufort Sea - Mackenzie Delta environmental impact statement bibliography. Artic Institute of North America. ASTIS Occasional Publication No. 9. Calgary, Alberta. 66p.

Scope of the Bibliography;

The bibliography contains all publications concerning the Beaufort Sea Environmental Assessment Review received on or before Feb. 28, 1983, a total of 198 documents. The following reports are included:

Environmental Impact Statement	9
Support Documents	36
Reference Works	117
Other Company Publications	1
Government Position Statements	17
Technical Specialist Reports	8
Other Panel Publications	10

NAME: 101-00-20-01 (A) 1. 01

INDEX TO: Beaufort Sea Environmental Impact Statement, Support Documents, Reference Works and Additional Reference Documents.

FEARO
Reference No.

2.3.1 ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION. 1982.

- Volume 1: Summary
- Volume 2: Development systems
- Volume 3A: Beaufort - Delta setting
- Volume 3B: Northwest Passage setting
- Volume 4: Biological and Physical effects
- Volume 5: Socio-economic effects
- Volume 6: Accidental spills
- Volume 7: Research and monitoring

Prepared by: Dome Petroleum Ltd., Esso Resources Canada Ltd. and, Gulf Canada Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta Region.

Submitted to the Beaufort Sea Environmental Assessment Panel. August - October 1982.

FEARO Library Beaufort Sea Project

Document No.
2.3.1 Environmental Impact Statement- submitted to the Beaufort Sea Environmental Assessment Panel. October 1982.

Vol. 1 by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION

Volume 1: SUMMARY

Following abstracts from the Arctic Science and Technology System. (ASTIS) (Citations and Abstracts Beaufort Sea Environmental Impact Statement)

ASTIS

9354E

This volume provides an overview of the main body of the Environmental Impact Statement contained in Volumes 2, 3A, 3B, 3C, 4, 5, 6 and 7. It begins with a BRIEF REVIEW, intended to capture the essence of this volume and some of the major issues related to Beaufort development. CHAPTER 1 describes the need for oil, the development plan proposed to extract the oil and the possible Canadian benefits which would result. CHAPTER 2 examines the Beaufort Sea-Mackenzie Delta region, the principal area where the ongoing exploration and production related activities would take place. This chapter provides a brief description of its regional features, followed by a summary of possible environmental and socio-economic impacts in the region. CHAPTER 3 considers the Northwest Passage region, the area through which Arctic tankers would travel to deliver Beaufort Sea oil to eastern Canadian markets. CHAPTER 4 focuses on the Mackenzie Valley region, the area which would be most affected by an overland pipeline, another transportation option to deliver oil. At the end of this volume, an APPENDIX outlines the companies involved in the preparation of the Environmental Impact Statement and describes how it was produced.
(Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.1 Environmental Impact Statement- submitted to the Beaufort Sea Environmental Assessment Panel. September, 1982.

Vol. 2

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION

Volume 2: DEVELOPMENT SYSTEMS

Following abstracts from the Arctic Science and Technology System. (ASTIS) (Citations and Abstracts Beaufort Sea Environmental Impact Statement)

ASTIS

9E342

Development of the potentially huge oil and gas reserves in the Beaufort Sea-Mackenzie Delta Region will involve a coordinated pool of manpower, equipment, materials and support services. This will require considerable advance planning to ensure that all logistical, technological and environmental concerns associated with development in this Arctic region of Canada are addressed. Volume 2 ... identifies and quantifies the separate components, activities and potential environmental disturbances associated with

development in this region. ... The essential elements of this volume are: an explanation of the need for energy and a summary of the development plan to produce oil and gas over the next twenty years; a description of the proposed production and transportation systems and the construction activities required for their development, including specific details of the individual components of these systems and the construction and design modifications required to make them functional in an Arctic setting; and the expected Canadian benefits to be derived from this project. (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.1 Environmental Impact Statement- submitted to the Beaufort Sea Environmental Assessment Panel. August, 1982.

Vol. 3A

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION

Volume 3A: BEAUFORT - DELTA SETTING

Following abstracts from the Arctic Science and Technology System. (ASTIS) (Citations and Abstracts Beaufort Sea Environmental Impact Statement)

ASTIS

92207

Volume 3A of the Environmental Impact Statement covers the marine region extending from the Bering Strait in the west through the Beaufort Sea to Amundsen Gulf in the east, and the onshore coastal area from the Yukon-Alaska border through the Mackenzie Delta to Cape Parry. The various aspects of the marine and terrestrial physical environments and marine and terrestrial plants and animals are discussed, presenting an overview of the ecology of this region. (ASTIS)

FEARO Library Beaufort Sea Project

Document No.

2.3.1 Environmental Impact Statement- submitted to the Beaufort Sea Environmental Assessment Panel. August, 1982.

Vol. 3B

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION

Volume 3B NORTHWEST PASSAGE SETTING

Following abstracts from the Arctic Science and Technology System. (ASTIS) (Citations and Abstracts Beaufort Sea Environmental Impact Statement)

ASTIS

92215

Volume 3B of the Environmental Impact Statement provides the environmental setting for the marine shipping corridor which lies to the east of the Beaufort Sea. The region extends from approximately Banks Island through Viscount Melville Sound, Lancaster Sound, Baffin Bay and Davis Strait, to 60 degrees north latitude in the Labrador Sea. Emphasis has been placed on those subjects deemed to be most relevant for the purposes of assessing possible impacts of shipping operations on the environment
(Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.1 Environmental Impact Statement- submitted to the Beaufort Sea Environmental Assessment Panel. August, 1982.

Vol. 3C

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION

Volume 3C MACKENZIE VALLEY SETTING

Following abstracts from the Arctic Science and Technology System. (ASTIS) (Citations and Abstracts Beaufort Sea Environmental Impact Statement)

ASTIS

92223

Volume 3C of the Environmental Impact Statement provides the environmental setting for the Mackenzie River Valley pipeline corridor. The 'Mackenzie Valley corridor' extends from the Mackenzie Delta to the Northwest Territories-Alberta border. It includes the Mackenzie River and lands on the adjacent east bank generally 30 to 100 km wide.... The 'Mackenzie River Valley' is generally used to describe lands drained by the Mackenzie River. Emphasis has been placed on those subjects deemed most relevant for the purposes of assessing possible impacts of pipelining operations on the environment (Au)

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FEARO Library Beaufort Sea Project

Document No.
2.3.1 Environmental Impact Statement - submitted to the
Beaufort Sea Environmental Assessment Panel. October
1982.

Vol. 4 by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-
Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON
DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA
REGION

Volume 4: BIOLOGICAL & PHYSICAL EFFECTS

Following abstracts from the Arctic Science and
Technology System. (ASTIS) (Citations and Abstracts
Beaufort Sea Environmental Impact Statement).

ASTIS

The purpose of this volume is to assess the possible physical and biological impacts associated with proposed Beaufort Sea-Mackenzie Delta hydrocarbon developments Major emphasis is placed on examining the possible impacts of developing the first four offshore oil fields (assumed to be Tarsiut, Koakoak, Issungnak and Kopanoar) and two onshore oil fields (Adgo and Atkinson). ... To transport the oil from the region to markets, two modes of transportation, namely icebreaking tankers and overland pipelines, are under active consideration. Since both have merit, and eventually both may actually be employed, the possible impacts of each are examined. As suggested in the Environmental Assessment and Review Panel (EARP) guidelines, this volume discusses the potential impacts by region ...: the Offshore Beaufort Sea Production Region (Chapter 2), the Onshore Mackenzie Delta Production Region (Chapter 3), the Northwest Passage Transportation Region (Chapter 4) and the Mackenzie Valley Overland Pipeline Region (Chapter 5). ... (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.1

Environmental Impact Statement- submitted to the Beaufort Sea Environmental Assessment Panel. August, 1982.

Vol. 5

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION

Volume 5 SOCIO-ECONOMIC EFFECTS

Following abstracts from the Arctic Science and Technology System. (ASTIS) (Citations and Abstracts Beaufort Sea Environmental Impact Statement)

ASTIS

92266

The objectives of the volume are: to clarify and predict the possible magnitude and nature of oil and gas generated growth and development in the northern territories; to demonstrate how such growth may affect northern populations, economic structures and social institutions; and to recommend policies that would enhance the positive and beneficial aspects of oil and gas development and mitigate the negative aspects. (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.1

Environmental Impact Statement- submitted to the Beaufort
Sea Environmental Assessment Panel. August, 1982.

Vol. 6

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie
Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON
DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA
REGION

Volume 6 ACCIDENTAL SPILLS

Following abstracts from the Arctic Science and Technology
System. (ASTIS) (Citations and Abstracts Beaufort Sea
Environmental Impact Statement)

ASTIS

92231

The purpose of this volume of the Environmental Impact Statement is to describe the potential for and the fate, cleanup and effects of accidental spills of oil and hazardous materials. The geographical regions addressed in this volume are within Canadian lands and waters north of 60 degrees N latitude, and include the Beaufort Sea - Mackenzie Delta region, the Mackenzie Valley and the Northwest Passage, the regions potentially involved in hydrocarbon development The focus in this volume is on large crude oil spills, as these are perceived to be a potential major impact associated with the proposed development. Smaller, minor spills of other refined and waste oils and spills of hazardous materials are also discussed at the end of the volume. (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.1 Environmental Impact Statement- submitted to the Beaufort Sea Environmental Assessment Panel. September 1982.

Vol. 7

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

1982: ENVIRONMENTAL IMPACT STATEMENT FOR HYDROCARBON DEVELOPMENT IN THE BEAUFORT SEA - MACKENZIE DELTA REGION

Volume 7 RESEARCH AND MONITORING

Following abstracts from the Arctic Science and Technology System. (ASTIS) (Citations and Abstracts Beaufort Sea Environmental Impact Statement)

ASTIS

96369

The main purpose of this volume of the Environmental Impact Statement is to bring together and present in summary form, the activities (both environmental and socio-economic) being conducted or envisaged to satisfy the research and monitoring needs identified in Volumes 2, 3, 4, 5 and 6. [The geographical regions addressed in this volume are primarily] the Beaufort Sea - Mackenzie Delta region, the Northwest Passage, and the Mackenzie Valley - the regions potentially involved in Arctic hydrocarbon development. ... Chapter 1 addresses topics related to the division of responsibility for conducting studies; the relevance of studies to development needs and to the assessment of development effects; and the means for reviewing and modifying current and future studies in a manner satisfactory to both industry and regulatory authorities. ... Chapter 2 ... describes the major relevant programs carried out over the past approximately 25 years in the Canadian Arctic. ... Chapter 3 begins by outlining the types of existing environmental operating conditions (EOCs) placed on the various facilities and operations in the Beaufort Sea region by government. Many of these EOC's include research and monitoring programs. This discussion is followed by descriptions of present and future environmental projects being undertaken or proposed by the proponents in conjunction with associated companies, government agencies or other groups. These include physical, biological, spill clean-up and socio-economic programs. Chapter 4 consolidates, by field of study, the proposed future programs as envisaged by the proponents at this time. ... (Au)

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FEARO Number Beaufort Sea Project

2.3.1 EIS -Additional Information

Information Leaflets

Distributed to the Beaufort Sea Environmental Assessment Panel - 83.03.21

Beaufort Sea/Mackenzie Delta Environmental Impact Statement (EIS).

-The Mackenzie Valley Region

-The Beaufort Region

-The Northwest Passage Region

FEARO Document

2.3.1 S-1 Submitted to the Beaufort Sea Environmental Assessment Panel, May 1983.

-----1983.

Beaufort Sea - Mackenzie Delta environmental impact statement supplementary information: environmental and technical issues. Prepared by Dome Petroleum Ltd., Esso Resources Canada Ltd., and Gulf Canada Resources Inc., Calgary, Alberta.

This document responds to the deficiencies identified by the Beaufort Sea Environmental Assessment Panel in the areas of :

- 2 - assessment of environmental effects
- 3 - oil spills
- 5 - discussion papers.

The following discussion papers are included:

- #1. Industry and government contingency planning for hydrocarbon development in the Beaufort Sea
- #2. The possible effects of icebreaking ships on ice and traditional activities
- #3. The possible effects of icebreaking on the ice regime of Prince of Wales Strait
- #4. Ice behavior patterns around artificial islands.
- #5. Sharing shorebase facilities to support offshore activities in the Beaufort Sea.
- #6. Ice wedges and pipelines.

FEARO Document

2.3.1 S-2 Submitted to the Beaufort Sea Environmental Assessment Panel, May 1983

-----, 1983.

Beaufort Sea - Mackenzie Delta environmental impact statement supplementary information 1983: environmental and technical issues. Prepared by Dome Petroleum Ltd., Esso Resources Canada Ltd., and Gulf Canada Resources Inc., Calgary, Alberta.

This document responds to the deficiency in the area of assessment of socio-economic effects as identified by the Beaufort Sea Environmental Assessment Panel in the review of the EIS. The Panel outlined specific questions under the following general headings: impact assessment methods and analysis; mitigation and monitoring; compensation; and special concerns.

In responding to the socio-economic deficiencies, the proponents were asked to identify and compare the socio-economic issues associated with four different transportation scenarios as follows:

- A 16" pipeline transporting about 100,000 barrels of oil per day
- two 200,000 ton tankers transporting about 100,000 barrels of oil per day
- a combination of the above two scenarios
- a 42" pipeline transporting about 1,200,000 barrels of oil per day by the end of the century.

Chapter 1 provides a description of the first three scenarios. The last scenario is described in the original EIS.

"Chapter 2 of the document provides extensive Baseline Data which will be used in subsequent chapters to assess possible impacts. Much of the information in Chapter 2 has been revised and updated from that presented in EIS Volume 5 and some new information is presented. This is followed by two chapters which describe the kinds of effects which may occur as a result of considering the four development scenarios identified by the Panel. Chapter 3 examines the possible effects of the development scenarios on Manpower and Population considerations, while Chapter 4 provides the main Social Impact Assessment. Both Chapters 3 and 4 respond to Panel deficiency Item "A".

The Panel identified two Special Concerns (Panel item "D") which they felt deserved specific consideration: Native Traditional Lifestyle and Culture and Northern Resident Access to Employment and Economic Benefits. Panel Item "D" is addressed in Chapter 5 along with a case study of the socio-economic effects of petroleum development in Alaska.

Chapter 6 responds to Panel deficiency item "B" by describing the kinds of Mitigation and Monitoring programs that the proponents already have in place or which are felt to perhaps be needed as development proceeds. Chapter 7 addresses Panel Item "C", the issue of Compensation.

The socio-economic volume is accompanied by two appendices which will be of interest to the Panel and some interveners. Appendix I contains a summary of community consultation efforts and results from E.I.S. consultations undertaken prior to, and more recently in response to the deficiency letter. It also includes a summary of community consultations undertaken by each company related to on-going Beaufort-Delta exploration activity and those undertaken by Esso Resources in relation to the Norman Wells project. Appendix II contains a collection of excerpts from exploration agreements, socio-economic action plans and operational reviews which together detail the specific socio-economic policies, plans and procedures presently being implemented by the proponents in the north.

We would like to make the observation that EIS interventions and deficiency letters focussed on the adverse consequences of development proposals. As a result, this response to EIS deficiencies addresses negative impacts. There is limited reference to the positive effects of development which will occur in the region. Thus, for those interested in this topic, we would ask that they also examine Volume 5 which outlines some of the benefits of petroleum development in the Beaufort Sea-Mackenzie Delta region..." From Report Introduction.

FEARO Document

2.3.1 S-3 Submitted to the Beaufort Sea Environmental Assessment Panel, 83.06.28

----, 1983.

Beaufort Sea - Mackenzie Delta environmental impact statement supplementary information 1983: zone summary - Beaufort Sea Region. Prepared by Dome Petroleum Ltd., Esso Resources Canada Ltd., and Gulf Canada Resources Inc., Calgary, Alberta. 76 p.

This document responds to the deficiencies in the EIS identified by the Beaufort Sea Environmental Assessment Panel in the area of zone summaries.

"A seven-volume Environmental Impact Statement was published by the three companies in 1982. It contains the research collected by the oil companies and covers the ways oil could be recovered and transported in the northern setting. It also includes highly technical examinations of the three main areas in the north which would be most directly affected by oil development.

Predictions of what could happen in each area or region, in terms of the environment and the people, are discussed in detail in the Environmental Impact Statement. In addition, there are thoroughly prepared studies of what might happen in the case of accidents such as oil spills. The last volume outlines the plans the oil companies would put into action for continuing research and monitoring of their activities once oil production became a reality.

To ensure that everyone can participate successfully in the community discussions, a summary for each region or zone studied in the statement has been prepared, in clear, non-technical language. The summary versions contain all the information needed to understand the main issues and concerns raised by possible development of the Beaufort oil. Anyone who wishes to obtain more technical details should consult the main volumes of the Environmental Impact Statement.

This report is the summary for the Beaufort Sea-Mackenzie Delta region or zone." From Report. (Au).

Document

S-4 Submitted to the Beaufort Sea Environmental Assessment Panel, 83.06.28

----, 1983.

Beaufort Sea - Mackenzie Delta environmental impact statement supplementary information 1983: zone summary - Mackenzie Valley Region. Prepared by Dome Petroleum Ltd., Esso Resources Canada Ltd., and Gulf Canada Resources Inc., Calgary, Alberta. 68 p.

This document responds to the deficiencies in the EIS identified by the Beaufort Sea Environmental Assessment Panel in the area of zone summaries.

"A seven-volume Environmental Impact Statement was published by the three companies in 1982. It contains the research collected by the oil companies and covers the ways oil could be recovered and transported in the northern setting. It also includes highly technical examinations of the three main areas in the north which would be most directly affected by oil development.

Predictions of what could happen in each area or region, in terms of the environment and the people, are discussed in detail in the Environmental Impact Statement. In addition, there are thoroughly prepared studies of what might happen in the case of accidents such as oil spills. The last volume outlines the plans the oil companies would put into action for continuing research and monitoring of their activities once oil production became a reality.

To ensure that everyone can participate successfully in the community discussions, a summary for each region or zone studied in the statement has been prepared, in clear, non-technical language. The summary versions contain all the information needed to understand the main issues and concerns raised by possible development of the Beaufort oil. Anyone who wishes to obtain more technical details should consult the main volumes of the Environmental Impact Statement.

This report is the summary for the Mackenzie Valley region or zone." From Report. (Au).

FEARO Document

2.3.1 S-5 Submitted to the Beaufort Sea Environmental Assessment Panel, 83.06.28

-----, 1983.

Beaufort Sea - Mackenzie Delta environmental impact statement supplementary information 1983: Northwest Passage Region. Prepared by Dome Petroleum Ltd., Esso Resources Canada Ltd., and Gulf Canada Resources Inc., Calgary, Alberta. 94 p.

This document responds to the deficiencies in the EIS identified by the Beaufort Sea Environmental Assessment Panel in the area of zone summaries.

"A seven-volume Environmental Impact Statement was published by the three companies in 1982. It contains the research collected by the oil companies and covers the ways oil could be recovered and transported in the northern setting. It also includes highly technical examinations of the three main areas in the north which would be most directly affected by oil development.

Predictions of what could happen in each area or region, in terms of the environment and the people, are discussed in detail in the Environmental Impact Statement. In addition, there are thoroughly prepared studies of what might happen in the case of accidents such as oil spills. The last volume outlines the plans the oil companies would put into action for continuing research and monitoring of their activities once oil production became a reality.

To ensure that everyone can participate successfully in the community discussions, a summary for each region or zone studied in the statement has been prepared, in clear, non-technical language. The summary versions contain all the information needed to understand the main issues and concerns raised by possible development of the Beaufort oil. Anyone who wishes to obtain more technical details should consult the main volumes of the Environmental Impact Statement.

This report is the summary for the Northwest Passage region or zone." From Report. (Au).

FEARO Document

2.3.1 S-6 Submitted to the Beaufort Sea Environmental
Assessment Panel, 83.06.28

----, 1983.

Beaufort Sea - Mackenzie Delta environmental
impact statement supplementary information 1983:
Appendix I - Community Consultation. Prepared by
Dome Petroleum Ltd., Esso Resources Canada Ltd.,
and Gulf Canada Resources Inc., Calgary, Alberta.

"Appendix I is a compilation of summary sheets and
other material documenting the northern community
information/consultation activities and
initiatives of Dome, Esso and Gulf jointly with
respect to the E.I.S. and as individual companies
with respect to their exploration and development
operations. The summary sheets are based on
minutes, letters and other material in the company
files documenting these visits..."

- 2.3.1 S-7 Submitted to the Beaufort Sea Environmental Assessment Panel, 83.06.28

----, 1983.

Beaufort Sea - Mackenzie Delta environmental impact statement supplementary information 1983: Appendix II - Mitigative Measures and Action Plans. Prepared by Dome Petroleum Ltd., Esso Resources Canada Ltd., and Gulf Canada Resources Inc., Calgary, Alberta.

Table of Contents follows:

APPENDIX II

MITIGATIVE MEASURES AND ACTION PLANS

- 2.1 Comparison of Beaufort Policies in COGLA Exploration Agreements of Dome, Esso and Gulf.
- 2.2 Dome Petroleum - Northern Socio-Economic/ Environmental Action Plan - 1982
- 2.3 Dome Petroleum - Canada Benefits of the Beaufort Exploration Program 1982-1987 (- supplementary to 2.3 and includes Sections 5 - Manpower Plan
6 - Community Liaison and Consultation
7 - Social and Cultural Affairs
8 - Northern Benefits Summary
9 - The Monitoring Process)
- 2.4 Dome Petroleum - 1982 Beaufort Sea Operations Evaluation (includes Section 4 - Socio-Economic Review)
- 2.5 Esso Resources Beaufort Mackenzie Exploration Agreement - Northern Benefits Action Plan
- 2.6 Esso Resources Beaufort Mackenzie Exploration Agreement - Northern Benefits Action Plan Performance Evaluation - 1982 (includes Sections 4 - Employment and Training
5 - Northern Benefits, and
6 - Monitoring Program... of the Canadian Benefits Annual Report)

- 2.7 Esso Resources - Socio-Economic Annual Report
- 12982 - Norman Wells Project

- 2.8 Gulf Canada - Canada Benefits Associated with
Beaufort Sea Exploration Agreement - 1982
(includes Sections 5 - Human Resources
6 - Northern Benefits
7 - Appendix - (Selected
Extracts)
7.4.1 - Coppermine Case
Study
7.5.7 - Terms of
Employment and
Consent to Search
Form)

2.3.2 BEAUFORT SEA ENVIRONMENTAL IMPACT STATEMENT - SUPPORT DOCUMENTS.

Submitted to the Beaufort Sea Environmental Assessment Panel by the proponents August - November 1982. (Pallister Resources Management Order No follows reference as BEISSD number.)

- #1 Harrison, R.J. and I.T. Gault, December 1981. Jurisdiction in arctic waters - Canada's claims and their international context. Canadian Institute of Resource Law, University of Calgary, for Dome Petroleum Ltd, Calgary, Alberta. 40 p. (BEISSD 7)
- #2 Brown, R.J. & Associates, 1981. Pipeline installation protection and repair feasibility study, Beaufort Sea-Mackenzie Delta. Prepared for Dome Petroleum Limited, Esso Resources Canada Ltd, Gull Canada Inc, Calgary, Alberta. (BEISSD 22)
- #3 Montreal Engineering Co. Ltd., November, 1979. Identification and delineation of impactors of shorebase and support activities. Prepared for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 4)
- #4 Canuck Engineering Ltd., October 1981. Mackenzie Delta-Beaufort Sea development plan - overland crude oil pipeline system. Description of the system for an environmental impact statement. Prepared for Esso Resources Canada Ltd, Calgary, Alberta. (BEISSD 26)

- #5 Canuck Engineering Ltd., June 1982. Mackenzie Delta-Beaufort Sea development plan - project description of an onshore gathering system. Prepared for Esso Resources Canada Ltd., Calgary, Alberta. 15 p. (BEISSD 23)
- #6 LGL Ltd. and ESL Environmental Sciences Ltd., May 1982. Biological overview of the Beaufort Sea and NE Chukchi Sea. Prepared for Dome Petroleum Ltd., Calgary, Alberta. 356 p. (BEISSD 11)
- #7 LGL Ltd., May 1982. Biological overview of the Northwest Passage, Baffin Bay and Davis Strait. Prepared for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 8)
- #8 Woodward-Clyde Consultants, February 1981. Coastal analysis of Alaska and the Northwest Passage. Prepared for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 9)
- #9 Meteorological and Environmental Planning Ltd., September 1981. Compilation of climatological data for Beaufort Sea, Chukchi Sea, Parry Channel, Baffin Bay, Davis Strait and Bering Sea regions. Prepared for Dome Petroleum Ltd., Calgary, Alberta. 247 p. (BEISSD 10)
- #10 M. Lowings and E. Banke, June 1982. Ice-edge break-up in Lancaster Sound. Prepared by Martec Ltd., for Dome Petroleum Ltd., Calgary, Alberta. (Pallister no BEISSD 24)
- #11 LGL Limited, P.N. Fraker and M.A. Fraker, April 1982. The 1981 white whale monitoring program, Mackenzie Estuary. Prepared for Esso Resources Canada Ltd., Dome Petroleum Ltd., Gulf Canada Resources Inc., Calgary, Alberta. 74 p. (BEISSD 32)
- #12 LGL Limited. Dome Petroleum Ltd. Environmental Impact Statement oil spill scenario 4: tanker collision in Lancaster Sound. Prepared for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 15)
- #13 ARESCO Ltd., June 1981. Eastern Arctic tanker route: an archaeological resources overview. Prepared for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 20 (report), BEISSD 20A (maps).)

- #14 Fedirchuk, G.J., November 1981.
Heritage resources impact assessment: Beaufort Sea coastal region, Volume 4. Prepared by Fedirchuk McCullough & Associates Ltd. for Esso Resources Canada Ltd., Calgary, Alberta. 35 p. (BEISSD 2)
- #15 Fedirchuk, G.J., December 1981.
Heritage resources impact assessment: Mackenzie River pipeline corridor, Volume 4. Prepared by Fedirchuk McCullough & Associates Ltd. for Esso Resources Canada Ltd., Calgary, Alberta. 43 p. (BEISSD 3)
- #16 Fedirchuk, G.J. and Millar, J.F.V., May 1981.
Heritage resources overview, coastal onshore area Beaufort Sea-Mackenzie Valley development project. Volume 1A. Prepared by Fedirchuk McCullough & Associates Ltd. for Hardy Associates (1978) Ltd., Calgary, Alberta. 33 p. (BEISSD 5)
- #17 Fedirchuk, G.J. and J.F.V. Millar, May 1981.
Heritage resources overview, transportation corridor: Beaufort Sea-Mackenzie Valley development project, Volume 11A. Prepared by Fedirchuk McCullough & Associates Ltd. for Hardy Associates (1978) Ltd., Calgary, Alberta. various p. (BEISSD 6)
- #18 Mackay, D., K. Hossain and W.Y. Shiu, February 1980.
Analyses of Beaufort Sea and Prudhoe Bay crude oils. Dept. of Chemical Engineering and Applied Chemistry. University of Toronto., Toronto, Ontario. (BEISSD 25)
- #19 Goodwin, R.J., W.P. Warlick, P. Teymourian, W.F. Krieger.
Analysis of accidents in offshore operations where hydrocarbons were lost. Prepared by Houston Technical Services Centre, Gulf Research and Development Company at request of Gulf Canada Resource Inc. 111 p. (BEISSD 19)
- #20 ESL Environmental Services Ltd., March 1982.
Biological impacts of three oil spill scenarios on the Beaufort Sea. Prepared for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 12)
- #21 Bercha, F.G. and Associates Ltd., April 1981.
Final report on arctic tanker risk analysis. Report to Canadian Marine Drilling Ltd., Calgary, Alberta. (BEISSD 21)
- #22 Marko, J.R. and C.R. Foster, April 1981.
Oilspill simulations in the southeastern Beaufort Sea 1969-1978. Prepared by Arctic Sciences Ltd. for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 14)
- #23 Marko, J.R., L.E. Cuypers, J.R. Birch, D.B. Fissel and D.D. Lemon, April 1981.
Oilspill simulations in the southeastern Beaufort Sea and along the proposed eastern tanker route. Report D-81-2. Prepared by Arctic Sciences Ltd. for Dome Petroleum Ltd., Calgary, Alberta. 67 p. (BEISSD 17)
- #24 Marko, J.R., L.E. Cuypers, J.R. Birch, D.B. Fissel, and D.D. Lemon, April 1981.
Oilspill trajectory data bases for Beaufort Sea and tanker route simulations. Report D-81-1. Prepared by Arctic Sciences Ltd. for Dome Petroleum Ltd., Calgary, Alberta. 99 p. (BEISSD 16)
- #25 Duval, W.S., L.C. Martin and R.P. Fink, December 1981.
A prospectus on the biological effects of oil spills on marine environments. Prepared by ESL Environmental Sciences Ltd. for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 13)
- #26 Larsen, G.P., K. Bratas, E. Skaug and J.E. Kärlen.
Tanker oil spill study. Prepared by Det Norske Veritas for Canadian Marine Drilling Ltd., Calgary, Alberta. 175 p. (BEISSD 18)
- #27 ESL Environmental Sciences Limited, July 1982.
The biological effects of hydrocarbon exploration and production related activities, disturbances and wastes on marine flora and fauna of the Beaufort Sea region. Prepared for Dome Petroleum Ltd., Calgary, Alberta. 450 p. (BEISSD 1)
- #28 Lemon, D.D., M.A. Wilson and L.E. Cuypers, July 1981.
Measurements of wind, ice and surface layer drift in Viscount Melville Sound, summer 1980. Volume 2- Data appendices. Prepared by Arctic Sciences Ltd. for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 28)
- #29 Lemon, D.D., M.A. Wilson and L.E. Cuypers, July 1981.
Measurements of wind, ice and surface layer drift in Viscount Melville Sound, summer 1980. Volume 1. Prepared by Arctic Sciences Ltd. for Dome Petroleum Ltd., Calgary, Alberta. (BEISSD 27)
- #30 Fissel, D.B., June 1981.
An analysis of current meter data obtained at Canmar drillships 1976-1979. Prepared by Arctic Sciences Ltd. for Dome Petroleum Ltd., Calgary, Alberta. 126 p. (BEISSD 29)
- #31 Dickens (D.F.) Engineering Consulting, June 1979.
Study of ice conditions along a year round shipping route from the Bering Strait to the Canadian Beaufort Sea. Prepared for Canadian Marine Drilling Ltd., Calgary, Alberta. (BEISSD 30)

- #32 Albery, Pullerits, Dickson & Associates, November 1978.
Study of ice conditions in navigational channels -
Viscount Melville sound to southern Beaufort Sea.
Prepared for Dome Petroleum Ltd., Calgary, Alberta.
(BEISSD 31)
- #33 Dome Petroleum, 1981.
1982 Beaufort planning model. Sponsors, Dome Petroleum
Ltd. Esso Resources Canada Ltd., Gulf Canada Resources
Inc., Calgary, Alberta. (BEISSD 33)
- #34 LGL Limited, June 1982.
An evaluation of the effects on terrestrial wildlife and
freshwater fish of the proposed development of a
shorebase support facility, a rocky quarry and
associated roads on the Yukon north slope. Prepared for
Dome Petroleum Ltd., Calgary, Alberta. 95 p. (BEISSD
34)
- #35 Swan Wooster Engineering Co. Ltd., August 1982.
Dome-Esso-Gulf environmental impact statement - Beaufort
Sea production structures. Submitted to Esso Resources
Canada Ltd., Calgary, Alberta. (BEISSD 35)
- #36 Thomas, D.J., October 1982.
A compilation of chemical oceanographic data used in the
preparation of the Beaufort Sea-Mackenzie Delta EIS.
Prepared by Arctic Laboratories Ltd. for Dome Petroleum
Ltd., Calgary, Alberta. (BEISSD 36)
- #37 Esso Resources Canada Ltd., 1982.
Additional environmental data, Mackenzie Valley and
Beaufort Sea regions: submitted to the Beaufort Sea
regions: submitted to the Beaufort Sea Environmental
Assessment Panel. Esso Resources Canada Ltd., Calgary,
Alberta. 240 p.

FEARO Library Beaufort Sea Project

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#1

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Harrison, R.J. and I.T. Gault, December 1981.
Jurisdiction in Arctic Waters - Canada's Claims and their International Context.
Canadian Institute of Resource Law, University of Calgary, for Dome Petroleum Ltd. 40p.

Following excerpt from Arctic Science & Technology Information System (ASTIS). (Citations and Abstracts)

ASTIS

89273

... Sovereignty over the territorial sea has long been established, but since the end of the second world war, coastal states have sought to exercise jurisdiction over a variety of offshore activities beyond this limit. In the present context, two particular claims are of primary importance: first, exclusive jurisdiction over the natural resources of the seabed and subsoil of the continental shelf for the purposes of regulation and control of exploration and development; and second, the right to take measures to protect the marine environment and the coastline from oil pollution damage. ... Canada is currently implementing the new regime for the control of offshore exploration and development outlined in the National Energy Program. This regime will apply to the Canadian Arctic, islands and offshore alike. The need to exercise proper control over aspects of offshore operations, especially in the environmentally sensitive northern waters, will compel Canada to define her offshore jurisdictional claims with greater precision than has hitherto been required. Similarly, the rules of international law against which the validity of these claims must be tested will hopefully be determined following the successful conclusion of the Law of the Sea Conference. (Au)

Guideline Reference Index: 1.3.1 (Legislation and Mandate)

FEARO Library Beaufort Sea Project

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#2

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Brown, R.J. & Associates, 1981.
Pipeline Installation Protection and Repair Feasibility Study, Beaufort Sea-Mackenzie Delta.
Prepared for Dome Petroleum Limited, Esso Resources Canada Limited, Gulf Canada Inc.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - Citations and Abstracts).

ASTIS

87599

Pipeline installation protection and repair feasibility study, Beaufort Sea - Mackenzie Delta / Brown (R.J.) and Associates. Dome Petroleum Limited [Sponsor]. Esso Resources Canada Limited [Sponsor]. Gulf Canada Resources Inc. [Sponsor]. [Calgary: Dome Petroleum Limited], 1981. 1 v. (various pagings) : ill., figures (some folded), tables : 28 cm. (Beaufort E.I.S. support document)
References.
Pallister order no. BEISSD22.
ACU

Hydrocarbon discoveries in the southern Beaufort Sea have prompted the petroleum industry to seek approval for offshore pipeline development within the Mackenzie Delta Region. The objective of this study is to review the representative offshore development scenario ... and to demonstrate the feasibility of pipeline design and installation in this area. ... The development scenario which has been selected for evaluation consists of trunklines and inter-island gathering lines (flowlines) which represent typical development of the fields at Tarsiut, Kopanoar and Issungnak. ... (Au)

Guideline Reference Index:

2.2.1 (2.2.1.1, 2.2.1.2, 2.2.1.3, 2.2.1.4, 2.2.1.5)

The Proposed (Logant Construction, Operation and Maintenance, Environmental Hazard Prediction Systems Abandonment.

Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#3

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Montreal Engineering Co. Ltd., November 1979.
Identification and Delineation of Impactors of Shorebase and Support Activities.
Prepared for Dome Petroleum Ltd. Calgary, Alberta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - Citations and Abstracts).

ASTIS

92037

The proposed development plan and associated heritage resources programme can contribute positively to heritage resource conservation. Systematic survey and inspection of proposed development areas will ensure that sites currently exposed and endangered by erosion, unregulated animal and human traffic and other unregulated activities will be identified and evaluated as to potential significance in reconstructing past lifestyles and environments. On that basis, appropriate action can be taken to ensure that significant sites will be adequately preserved or recovered. ... the heritage resource investigations associated with the proposed development plan can potentially contribute significantly to the state of knowledge on prehistoric environments and correlative cultural adaptation and development in the Mackenzie Valley area. (Au)

Guideline Reference Index:

2.4. Impact Analysis (2.4.14, 2.4.1.5., 2.4.2.3)

Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#4

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Canuck Engineering Ltd., October 1981.
Mackenzie-Delta-Beaufort Sea Development Plan - Overland Crude Oil Pipeline System.
Description of the System for an Environmental Impact Statement.
Prepared for Esso Resources Canada Ltd.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

This report contains the results of a study for a pipeline project which consists of the construction and operation of an oil pipeline system from the northern tip of Richards Island in the Northwest Territories to Edmonton, Alberta ... Since a considerable portion of the line must be constructed in terrain containing permafrost, it has been designed to accommodate conditions not normally encountered in more southern climates. The project includes a design for the northern areas in which the maximum flowing temperature of the crude oil will be limited to 27 degrees C (80 degrees F). ... In ice-rich soils where thawing resulting from the presence of a buried warm pipeline might cause loss of structural support due to excessive settlement, the pipe will be supported aboveground on steel piles and insulated. ... The pipeline route and major facilities are shown ... (Au)

Guideline Reference Index:

2.2.1 The Proposal (all items - 2.2.1.1 to 2.2.1.5)

FEARO Library Beaufort Sea Project

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#5

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Canuck Engineering Ltd. June 1982.
Mackenzie Delta-Beaufort Sea Development Plan -
Project Description of an Onshore Gathering System.
Prepared for Esso Resources Canada Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - Citations and Abstracts).

ASTIS

92100

Crude oil discoveries have been made in the nearshore and onshore regions of the Mackenzie Delta and Tuktoyaktuk Peninsula. These discoveries ... are relatively small in size compared to the potential of offshore reservoirs. ... The oil from these fields will be shipped to either an overland large diameter pipeline system or to a central terminal such as North Point for subsequent delivery via subsea pipeline to offshore tanker loading facilities ... Based on existing discoveries, it is estimated that approximately 300 km (180 miles) of small diameter buried pipelines would be required in the Mackenzie Delta and Tuktoyaktuk regions. It is expected that additional onshore discoveries will be made over the next 20 years, however, their locations are unknown at this time. Prudent planning of the onshore pipeline network will ensure that future discoveries will be connected into the system via the shortest possible route to minimize disturbance of the sensitive tundra. ... Within the framework of the total development plan, it is expected that onshore production facilities and associated pipeline systems from known reservoirs will be constructed in the late 1980's. (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#6

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

LGL Ltd. and GSL Environmental Sciences Ltd. May 1982.
Biological Overview of the Beaufort Sea and NE Chukchi Sea.
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - Citations and Abstracts).

ASTIS

89303

Full-scale development of oil and gas reserves in the Canadian Beaufort Sea will be a major industrial undertaking with definite implications for the biological and physical environment. In addition, transportation of oil and gas from the Beaufort Sea to distant markets greatly expands the potential zone of influence of the project. As the first step in the process of evaluating the environmental implications of such a project, Dome Petroleum Ltd. has commissioned a series of background studies to document the resources of the areas that might be affected by developmental activities. The purpose of the present report is to provide an overview of the biological resources of the Beaufort and northeastern Chukchi seas. (Au)

Document No.

2.3.2

#7

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

LGL Ltd. May 1982.

Biological Overview of the Northwest Passage, Baffin Bay and Davis Strait.

Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (

Citations and Abstracts). ASTIS

89290

The purpose of the present report is to provide an overview of the biological resources in the Northwest Passage (Viscount Melville Sound through Lancaster Sound), Baffin Bay and Davis Strait (south to 60 degrees N lat.) sections of the potential transportation route. The scope of the review is restricted to marine and coastal portions of this area. Also, the purpose of the review is to describe the characteristics of the major biological components in this area; this document does not evaluate the potential impacts of the transportation plan on the biological system. This report is based entirely on published and unpublished literature and reports. No original field research has been conducted as part of this project. ... (Au)

Document No.

2.3.2

#8

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Woodward-Clyde Consultants, February 1981.

Coastal Analysis of Alaska and the Northwest Passage.
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - Citations and Abstracts).

ASTIS

87521

The coasts of the Northwest Passage are considered in terms of the bedrock geology, physical shoreline processes, shore-zone sediments, coastal morphology, and the stability of the shorelines. The coastal geological character and the physical processes of the entire Northwest Passage from the Bering Sea to Baffin Bay are described systematically on a unit-by-unit basis, and the primary shoreline types are mapped at a scale of 1:1,000,000. The coasts of the Bering and Chukchi Seas are a series of structurally controlled embayments that are composed of continuous barrier beaches, bedrock outcrops, or tundra cliffs. By comparison, the coasts of the Beaufort Sea are low-energy environments characterized by unstable barrier beaches, deltas, and rapidly eroding tundra cliffs. The third unit, the Canadian Arctic Archipelago, is a complex environment of bedrock outcrops and short fetch areas. This coastal environment is dominated by fjords and by relatively high wave-energy levels during the open-water season in eastern sections adjacent to Baffin Bay. ... The characteristics of arctic shore-zone processes are described in detail as these processes control both the rates of sediment transport and the rates of shoreline changes. ... This study has identified the relative paucity of information that is available on coastal processes and on the coastal character of much of the Canadian Arctic. The only sections where the data base is considered adequate are the coasts adjacent to the Mackenzie Delta. ... (Au)

FEARO Library Beaufort Sea Project

Document No.
2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#9

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Meteorological and Environmental Planning Ltd. September 1981.
Compilation of Climatological data for Beaufort Sea, Chukchi Sea, Parry Channel, Baffin Bay, Davis Strait and Bering Sea Regions.
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - Citations and Abstracts).

ASTIS

92061

This is a source document which includes all material used to prepare the summary document for the climatological sections of the EIS. Information on temperature, precipitation, visibility, wind, waves and structural icing for the areas of the Beaufort, Bering, Chukchi seas, Parry Channel and Baffin Bay-Davis Strait are included. (ASTIS)

FEARO Library Beaufort Sea Project

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#10

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Martec Ltd., M. Lowings and E. Banke, June 1982.
Ice-edge Break-up in Lancaster Sound.
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92118

This report will investigate some of the factors that currently determine the position of the landfast ice edge in Lancaster Sound, and more importantly, other factors likely to influence its position in the future. These include ice dam formation, export of multi-year ice, ship traffic, and climatic change over the next several decades. The significance of possible ship-related displacement compared to natural advance and retreat, and break-up, of the ice edge will be addressed. Scenarios that detail the season-to-season, ship-related disruption of the local ice conditions will be presented. The more probable effects of ships crossing the ice edge will also be mentioned. A summary of relevant ice, climatic, and oceanographic information will precede these assessments of future interactions. The very high natural variability of ice and climatic conditions in the Arctic Archipelago will be emphasized in this regard. These regional characteristics will likely determine the significance of increasing ship traffic on the future location and integrity of the landfast ice edge in Lancaster Sound. ... (Au)

Document No.

2.3.2

#11

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

LGL Limited, P.N. Fraker and M.A. Fraker, April 1982.
The 1981 White Whale Monitoring Program, Mackenzie Estuary.
Prepared for Esso Resources Canada Ltd., Dome Petroleum Ltd. Gulf Canada Resources Inc., Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS
92177

Vessel traffic and other activities associated with hydrocarbon exploration in the Mackenzie estuary and offshore regions have the potential to adversely affect white whales and Inuit whale hunting. To ensure that negative interactions are minimized, a monitoring program was started in 1972; this is the tenth yearly report and is concerned primarily with activities occurring during the 1981 field season. ... During the ten years of study there have been major variations in the distribution of whales within the estuary. These variations appear to have been primarily the result of the timing of the ice break-up in the two concentration areas relative to the timing of the whale migration. Most of the 1981 field effort focused on Kugmallit Bay -- the area which had most of the industry traffic and which sustained much of the whale harvest. ... The 1981 catch of 149 whales was the largest harvest since 1976 and was well above the nine year average of 131. ... There were five situations in which concerns were expressed about possible industry interference with whales and/or whaling in 1981. ... (Au)

Document No.

2.3.2

#12

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

LGL Limited.
Dome Petroleum Ltd.
Environmental Impact Statement Oil Spill Scenario 4:
Tanker Collision in Lancaster Sound.
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92096

The scenario described in this report is one of a series of

descriptions of potential effects of oil spilled under specified circumstances in various areas in the Beaufort Sea and Northwest Passage. In the particular scenario discussed in this report ... an oil-carrying tanker is assumed to be involved in a collision at 74 degrees N 84 degrees W in central Lancaster Sound. ... The following sections describe first the fate of the oil during 21 days from August 20 to September 10 and then the potential effects of this oil on flora and fauna of Lancaster Sound. The trajectory of the oil slick is based on wind and current data collected in 1978. ... (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#13

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

ARESCO Ltd. June 1981.
Eastern Arctic Tanker Route: An Archaeological Resources Overview.

Prepared for Dome Petroleum Ltd, Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

87530

An archaeological study area of 19 Borden blocks is defined in the Arctic Archipelago between the Beaufort Sea and Baffin Bay. The study area canvases likely alternatives of an Eastern Arctic Oil Tanker Route. From various file sources 747 [recorded] sites were found ... [to be] representative of an archaeological record extending back 3,000 years. From base sample projections of two intensively resurveyed areas it was estimated that there may be 17,000 sites in the study area. Most of these sites will be found 2 m above sea level. ... (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#14

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Fedirchuk McCullough & Associates Ltd. Fedirchuk, G.J., November 1981.
Heritage Resources Impact Assessment,
Beaufort Sea Coastal Region, Volume 4.
Prepared for Esso Resources Canada Ltd., Calgary, Alta.
November 1981.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92010

... Heritage resource investigations to date in the Beaufort Sea coastal region are characterized by limited, sporadic and unsystematic survey and data recovery. As a result, good information on site distribution, site types and uses is generally lacking. Because of the general paucity of excavated sites, a good documented sequence of prehistoric occupation, cultural development and resource exploitation is not available. Information concerning palaeoenvironmental conditions and changes is also lacking. The heritage resource studies associated with the proposed development plan can potentially significantly contribute to the current state of knowledge on prehistoric environments and cultural adaptations in the Beaufort Sea coastal region. (Au)

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Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#15

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Fedirchuk McCullough & Associates Ltd. Fedirchuk, G.J.,
December 1981.

Heritage Resources Impact Assessment,
Mackenzie River Pipeline Corridor, Volume 4,
Prepared for Esso Resources Canada Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology
Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92029

The proposed development plan and associated heritage resources programme can contribute positively to heritage resource conservation. Systematic survey and inspection of proposed development areas will ensure that sites currently exposed and endangered by erosion, unregulated animal and human traffic and other unregulated activities will be identified and evaluated as to potential significance in reconstructing past lifestyles and environments. On that basis, appropriate action can be taken to ensure that significant sites will be adequately preserved or recovered. ... the heritage resource investigations associated with the proposed development plan can potentially contribute significantly to the state of knowledge on prehistoric environments and correlative cultural adaptation and development in the Mackenzie Valley area. (Au)

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Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#16

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Fedirchuk McCullough & Associates Ltd. Fedirchuk, G.J.,
and Millar, J.F.U. May 1981.

Heritage Resource Overview, Coastal Onshore Area Beaufort
Sea-Mackenzie Valley Development Project.
Prepared for Hardy Associates (1978) Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology
Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92045

... The general objectives of this study are to assemble a current data base on the heritage resources in the study area which can serve as a framework for future assessment of the possible impact of development related to terrain disturbance. The specific terms of reference can be summarized as follows: 1. To conduct a literature review of historical, ethnohistorical, ethnological, archaeological and palaeontological work in the study area and to prepare a concise synthesis of the pertinent data. 2. Based on this review, to prepare a set of land use models that could be applied to the terrain and circumstances of the specific onshore developments. (Au)

FEARO Library Beaufort Sea Project

Document No.
2.3.2
#17
Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.
by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Fedirchuk McCullough & Assoc. Ltd., Fedirchuk, G.J. and J.F.V. Millar, May 1981.
Heritage Resource Overview Transportation Corridor, Beaufort Sea-Mackenzie Valley Development Project Vol. A.
Prepared for Hardy Associates (1978) Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92053

... The general objectives of this study are to assemble a current data base on the heritage resources in the study area to serve as a framework for future assessment of the possible impact of development related terrain disturbance. The specific terms of reference can be summarized as follows: 1. To conduct a literature review of historical, ethnohistorical, ethnological, archaeological and palaeontological work in the study area and to prepare a concise synthesis of the pertinent data. 2. Based on this review, to prepare a set of land use models that could be applied to the terrain and circumstances of the specific corridor to be traversed by the pipeline. (Au)

FEARO Library Beaufort Sea Project

Document No.
2.3.2
#18
Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.
by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Mackay, D., K. Hossain and W.Y. Shiu, February 1980.
Analyses of Beaufort Sea and Prudhoe Bay Crude Oils.
Dept. of Chemical Engineering and Applied Chemistry.
University of Toronto, Toronto, Ontario.

Following Excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

87572

When crude oil is spilled on water it is subject to physical, chemical and biological processes which control the oil's location, area, thickness, and the extent of transfer to the atmosphere by evaporation and into the water column by dissolution and dispersion. ... In this paper we address the question of which properties should be measured, how they should be measured, and provide some illustrative data for selected crude oils. ... Three oils were studied; an oil from Prudhoe Bay used in the 1980 Beaufort Sea Experimental Spills at McKinley Bay; a sample of Kopanoar crude oil supplied by Canmar in late 1979 and a sample of Kopanoar crude oil supplied earlier and believed to be contaminated with an unknown amount of other oils, possibly diesel fuel. The latter oil, referred to here as the "Kopanoar mixture", was not subjected to the same degree of analysis because of its uncertain history. (Au)

Document No.

2.3.2

#19

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Gulf Research and Development Company, Goodwin, R.J., W.P. Warlick, P. Teymourian, W.F. Krieger.
Analysis of Accidents in Offshore Operations where Hydrocarbons were lost.
Houston Technical Services Centre, Gulf Research and Development Company, at request of Gulf Canada Resource Inc.

Following excerpt from Artic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS
87564

Data for 2,501 worldwide offshore operational accidents (1955 to mid-1980) were analyzed in order to establish causes for the accidents and to identify methods to prevent such accidents in future development and production operations in the Beaufort Sea. The majority of information used in this report comes from the U.S. Gulf of Mexico - Outer Continental Shelf ... the North Sea - United Kingdom ... and Alaska State Waters The data are presented in 103 graphical plots and the text contains a separate discussion for each plot. Appendix A contains a description of each of 46 accidents, an analysis of the causes for each accident, and the methods that might have prevented each accident. ... Development and production operations in the Beaufort Sea will parallel the same operations carried out in other parts of the world. Even though the Beaufort Sea environment will present special problems

Document No.

2.3.2

#20

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

ESL Environmental Services Ltd., March 1982.
Biological Impacts of Three Oil Spill Scenarios in the Beaufort Sea.
Prepared for Dome Petroleum Ltd. Calgary, Alberta.

Following excerpt from Artic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS
92070

The following sections discuss the potential local and regional impacts of a hypothetical tanker collision on the marine resources of the southeastern Beaufort Sea. Information regarding the marine flora and fauna which could be affected by an oil spill in this area was obtained from LGL and ESL (1981), volume 3A (Chapter 3.0) as well as original literature cited in these overviews. Primary sources of information regarding the biological effects of petroleum were a recent summary and evaluation of 100 oil spill case histories ... and several reviews of laboratory research concerning the effects of petroleum hydrocarbons. ... (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2

#25

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

ESL Environmental Sciences Limited, Duval, W.S., L.C. Martin and R.P. Fink. December 1981.

A Prospectus on the Biological Effects of Oil Spills on Marine Environments.

Prepared for Dome Petroleum Ltd., Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92088

... One of the best predictive tools for analysis of the biological consequences of oil spills are the case histories and followup studies associated with past spills. This study examines the documented effects of oil spills as a function of the circumstances surrounding past spills and the biological resources affected. The overall purpose of this investigation was to summarize our current state of knowledge regarding the biological effects of oil spills on coastal marine environments. Literature sources and methods used during the completion of this study are described in Section 1.3. An overview of the location, season, type and size of spills that have occurred during the last two decades is presented in Section 2, while Section 3 discusses the documented or suggested biological effects of past spills as a function of oil type, size of spill, time of year, type of environments affected, cleanup response and latitude. Section 3 also discusses the long-term impacts of oil spills and subsequent recovery of various community types, where this information is available. The text of the report is concluded with a summary which identifies dominant biological effects of oil spills (Part 4), as well as probable impacts of spills or blowouts on arctic marine ecosystems (Part 5). Oil spill case history summary data sheets are provided in Appendix A and B, respectively. (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2

#26

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Det Norske Veritas. Larsen, G. P. Larsen, K. Bratas, E. Skaug and J.E. Karlen.

Tanker Oil Spill Study.

Prepared for Canadian Marine Drilling Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

87602

As a part of the underlying material for consideration by Canadian Marine Drilling Ltd. when designing an arctic oil tanker, DnV has carried out a study of past tanker oil spill incidents. These are incidents recorded in the period between January 1967 and December 1978, incorporating spills larger than 200 tons. The first phase of the study is mainly an investigation of past tanker incidents in the period given in order to find any trends behind the incidents, whereas in phase two, the study is focusing on a number of the better documented of the incidents treated in phase 1. This is done in detail as was felt necessary in order to establish the correct sequence of events leading to the various incidents, and also the resulting damages and the amount of oil spilled. The results are used to recommend operational procedures, installation of equipment and constructional features on the planned arctic tanker. (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#23

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Artic Sciences Limited, Marko, J.R. L.E. Cuypers, J.R. Birch, D.B. Fissel, and D.D. Lemon. April 1981.
Oilspill Simulations in the Southeastern Beaufort Sea and along the Proposed Eastern Tanker Route.
Report D-81-2
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Artic Science & Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

87580

This report presents the results of 10 annual simulations (1969-1978) of the fate of oil discharged from a continuously running blowout in the southeastern Beaufort Sea. The periods simulated ran from July 15 to October 30 and the blowout site was chosen as (70.3 degrees N, 135 degrees W). These results supplement and expand the statistical basis of an earlier simulation of the August 1-September 30, 1978 period (Marko and Foster, 1981), utilizing the same surface current configurations, spreading assumptions, dissipation and wellhead data, and calculational procedures (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#24

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Artic Sciences Limited, Marko, J.R. L.E. Cuypers, J.R. Birch, D.B. Fissel, and D.D. Lemon. April 1981.
Oilspill Trajectory Data Bases for Beaufort Sea and Tanker Route Simulations.
Report D-81-1
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Artic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

87556

As part of the documentation required in support of its proposal for oil production in the Beaufort Sea, Dome Petroleum Ltd. has assessed the potential impact of the project upon the environment in terms of a finite number of specific spill scenarios in which oil enters the marine environment from accidental events such as production-well blow-outs and tanker explosions and groundings. ... The present report is intended to provide a detailed description of the methods used to calculate the movements and distributions of the spilled oil masses. The description is divided into two main components, namely: the underlying oil trajectory model ... and the specific configurations of wind, current and ice chosen for each of the scenario calculations In each case indications are given of the accuracy of both the calculational assumptions and the representations of the acting environment. In the latter instance justifications are also provided for our particular choices of "typical" environmental conditions. (Au)

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Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#23

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Arctic Sciences Limited, Marko, J.R. L.E. Cuypers, J.R. Birch, D.B. Fissel, and D.D. Lemon. April 1981.
Oilspill Simulations in the Southeastern Beaufort Sea and along the Proposed Eastern Tanker Route.
Report D-81-2
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science & Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

87580

This report presents the results of 10 annual simulations (1969-1978) of the fate of oil discharged from a continuously running blowout in the southeastern Beaufort Sea. The periods simulated ran from July 15 to October 30 and the blowout site was chosen as (70.3 degrees N, 135 degrees W). These results supplement and expand the statistical basis of an earlier simulation of the August 1-September 30, 1978 period (Marko and Foster, 1981), utilizing the same surface current configurations, spreading assumptions, dissipation and wellhead data, and calculational procedures (Au)

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Document No.

2.3.2 Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#24

by: Dome Petroleum Ltd.,
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Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Arctic Sciences Limited, Marko, J.R. L.E. Cuypers, J.R. Birch, D.B. Fissel, and D.D. Lemon. April 1981.
Oilspill Trajectory Data Bases for Beaufort Sea and Tanker Route Simulations.
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87556

As part of the documentation required in support of its proposal for oil production in the Beaufort Sea, Dome Petroleum Ltd. has assessed the potential impact of the project upon the environment in terms of a finite number of specific spill scenarios in which oil enters the marine environment from accidental events such as production-well blow-outs and tanker explosions and groundings. The present report is intended to provide a detailed description of the methods used to calculate the movements and distributions of the spilled oil masses. The description is divided into two main components, namely: the underlying oil trajectory model ... and specific configurations of wind, current and ice chosen for each of the scenario calculations In each case indications are given of the accuracy of both the calculational assumptions and the representations of the acting environment. In the latter instance justifications are also provided for our particular choices of "typical" environmental conditions. (Au)

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#27

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

ESL Environmental Sciences Limited, July 1982.
The Biological Effects of Hydrocarbon Exploration and Production Related Activities, Disturbances and Wastes on Marine Flora and Fauna of the Beaufort Sea Region.
Prepared for Dome Petroleum Limited, Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92002

This report summarizes existing information on the potential biological effects of activities, disturbances and wastes associated with petroleum hydrocarbon exploration and production. Since this is a supporting document to the Dome/Esso/Gulf Environmental Impact Statement for Beaufort Sea Hydrocarbon Production, primary emphasis has been placed on the biological resources of this region as well as the activities, wastes and disturbances which may be associated with this development. Major sections of the report discuss the biological effects of (1) common disturbances, activities and wastes, (2) wastes and disturbances associated with both exploration and production drilling, (3) production, storage and transportation-related sources of disturbance, and (4) environmental emergencies including gas blowouts, crude oil spills or blowout, and refined fuel spills. A separate section describing the biological effects of chemically dispersed oil has been included within the discussion of environmental emergencies since this cleanup measure, if approved and undertaken, could result in significantly different biological effects than those which may be associated with crude or refined oils alone. ... (Au)

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#28

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Arctic Sciences Limited, Lemon, D.D., M.A. Wilson and L.E. Cuypers, July 1981.
Measurements of Wind, Ice and Surface Layer Drift in Viscount Melville Sound, Summer 1980. Volume 2 - Data Appendices.
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92134

... The lack of information concerning surface currents in Viscount Melville Sound and Prince of Wales Strait during the summer season had been identified as a major gap in the oceanographic data available along the projected tanker route from the Beaufort Sea to the Atlantic Ocean. The 1980 summer program was designed as a first step toward filling that gap. ... the chief purpose of the study was to provide surface current information ... the measurement program was designed around air-droppable satellite-tracked drifters and ice followers. The devices were deployed in both Viscount Melville Sound and Prince of Wales Strait. Anemometers and air-pressure sensors were deployed around the boundaries of Viscount Melville Sound and were operated throughout most of the measurement program. The data from these instruments were used to derive the surface wind field over Viscount Melville Sound and an approximation of the locally wind-forced surface circulation. ... Ice motion was monitored with a small number of ice trackers and with NOAA and LANDSAT satellite imagery. Correlations between the wind field and the ice motion were examined. (Au)

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Document No.

2.3.2

#29

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Arctic Sciences Limited, Lemon, D.D., M.A. Wilson and L.E. Cuypers, July 1981.

Measurements of Wind, Ice and Surface Layer Drift in Viscount Melville Sound, Summer 1980. Volume 1 - Submitted to Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92134

... The lack of information concerning surface currents in Viscount Melville Sound and Prince of Wales Strait during the summer season had been identified as a major gap in the oceanographic data available along the projected tanker route from the Beaufort Sea to the Atlantic Ocean. The 1980 summer program was designed as a first step toward filling that gap. ... the chief purpose of the study was to provide surface current information ... the measurement program was designed around air-droppable satellite-tracked drifters and ice followers. The devices were deployed in both Viscount Melville Sound and Prince of Wales Strait. Anemometers and air-pressure sensors were deployed around the boundaries of Viscount Melville Sound and were operated throughout most of the measurement program. The data from these instruments were used to derive the surface wind field over Viscount Melville Sound and an approximation of the locally wind-forced surface circulation. ... Ice motion was monitored with a small number of ice trackers and with NOAA and LANDSAT satellite imagery. Correlations between the

wind field and the ice motion were examined. (Au)

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Document No.

2.3.2

#30

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Arctic Sciences Limited - Fissel, D.B. June 1981.
An Analysis of Current Meter Data obtained at Canmar Drillships 1976-1979.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92142

... Canadian Marine Drilling Ltd. has been engaged in offshore drilling for oil in the S.E. Beaufort Sea since 1976. During the course of the drilling operations, measurements of nearsurface and subsurface currents have been routinely collected from the drilling ships along with measurements of other environmental factors including meteorological and wave data. These data were acquired to provide an improved understanding of environmental factors both as they relate to the effect of the environment on offshore operations and the possible impact of offshore drilling on the natural environment. The currents were measured at hourly intervals at up to three depths ... Gaps occur in the records due to instrument failures, the presence of severe sea-ice conditions or to preparations for moving the ship. ... In this report, we present the results of a more thorough analysis of the 1976 to 1979 data than has previously been available. (Au)

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2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#31

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Dickens, D.F., Engineering Consulting. June 1979.
Study of Ice Conditions along a Year Round Shipping Route from the Bering Strait to the Canadian Beaufort Sea.
Prepared for Canadian Marine Drilling Ltd., Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92150

Ice conditions along a 1,700 kilometer year round marine shipping route, from the Bering Strait to the Canadian Beaufort Sea, are evaluated using over 400 satellite images, all available ice charts, and published data. 1975 is discussed as an extreme year, and compared with probability statistics. The study concludes that for at least nine years out of ten, multi-year ice will not be a significant factor in hindering vessel transit, but in an extreme year, may entail delays in the order of 40 to 70 hours on any given shipment. ... Ice pressure is the least understood ice condition, and could cause additional delays over the route section between Point Barrow and Barter Island. ... Partially offsetting the negative aspect of pressure, is the encouraging presence of distinct leads along the route throughout the winter period. If utilized efficiently, these leads offer opportunities for much greater block speeds than could otherwise be achieved through level first-year ice. Recommendations are made for further field and analytical studies required for a definitive route assessment. (Au)

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Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#32

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Albery, Pullerits, Dickson & Associates. November 1978.
Study of Ice Conditions in Navigational Channels - Viscount Melville Sound to Southern Beaufort Sea.
Prepared for Dome Petroleum Ltd. Calgary, Alta.

Following excerpt from Arctic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92169

The following summaries of sea ice and surface weather were prepared as the first phase of a study to evaluate the economic feasibility of shipping oil from Tuktoyaktuk in the Beaufort Sea to Bridport Inlet on Melville Island. The principal objective of the ice analysis was to generate parameters which could be used in assessing ship transit times and establishing vessel design criteria. A full explanation is provided of how this emphasis on shipping was applied in interpreting historical ice data. ... Ice conditions in the Beaufort Sea have been covered by a number of researchers These reports provide detailed results of LANDSAT and NOAA imagery interpretation, laser surface profiles, historical summaries, and low level aerial photo coverage. Major conclusions and summaries are presented here (Au)

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Document No.
2.3.2

#33

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Dome Petroleum, 1981
1982 Beaufort Planning Model.
Sponsors, Dome Petroleum Limited,
Esso Resources Canada Limited,
Gulf Canada Resources Inc.

Following excerpt from Artic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92371

The Beaufort Sea Planning Model was developed ... to assist in analyzing the development options available for the Beaufort Sea-Mackenzie Delta Region. ... The model allows planners to test various assumptions related to development which assist in narrowing down scenarios to a small group of feasible schemes. ... final selection of a development plan for the Beaufort Sea-Mackenzie Delta Region will still be based on discovery rates, operational practicality, technical and economic feasibility as well as social and environmental concerns. The planning model is not intended to predict a specific development plan but rather to indicate the requirements (within a reasonable order of magnitude) necessary to attain different levels of activity. ... Some of the requirements indicated by the output are: dredge volumes, number of islands, number of drill rigs, manpower, steel tonnage, machinery, ships, capital flow and transfer payments. ... The main factors considered in the model which control the timing of development are the construction of production islands offshore and the construction of onshore production facilities. (Au)

FEARO Library Beaufort Sea Project

Document No.

2.3.2

#34

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

LGL Limited June 1982.

An Evaluation of the Effects on Terrestrial Wildlife and Freshwater Fish of the Proposed Development of a Shorebase Support Facility, a Rock Quarry and Associated Roads on the Yukon North Slope.

Prepared for Dome Petroleum Limited, Calgary, Alta.

Following excerpt from Artic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

92428

A "King Point Development Zone" consisting of 70 square km is considered for development by Dome Petroleum Ltd. This zone is located within the Northern Yukon Park Wilderness Area which, in 1978, was withdrawn from further development by an Order-in-Council. The wilderness area includes a segment of the calving grounds of the Porcupine caribou herd, and the lowlands coastal waters are used by hundreds of thousands of migrating and staging waterfowl. Current plans for the King Point area include two separate developments: 1. a quarry site and transportation

facilities for providing the large quantities of rock required for armour in off-shore islands, 2. the establishment of a major shorebase support facility. ... This report provides a preliminary assessment of the potential impacts of activities associated with the quarry site and the shorebase developments on the terrestrial wildlife and freshwater fish in these areas. ... (Au)

Document No.

2.3.2

Environmental Impact Statement- Support documents submitted to the Beaufort Sea Environmental Assessment Panel. August 1982.

#35

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mackenzie Delta region.

Swan Wooster Engineering Co. Ltd. August 1982.
Dome-Esso-Gulf Environmental Impact Statement - Beaufort Sea Production Structures.
Submitted to Esso Resources Canada Limited, Calgary, Alta.

Following excerpt from Artic Science and Technology Information System (ASTIS) - (Citations and Abstracts).

ASTIS

96377

... This EIS will address production and shipment aspects, particularly related to oilfield development, as well as matters more commonly referred to as "environmental", and will be based on input provided from various consultancy organizations as well as from the Participants themselves. ... Swan Wooster Engineering Co. Ltd. was invited to provide technical back-up to the Participants in matters relating to the conceptual design of support structures for production, storage and marine terminal facilities. ... The intention [of this study] has not been to undertake detailed designs but to develop the concepts in sufficient detail to be reasonably confident of their construction and operational feasibility and to be able to assess the likely problems associated with each. This has required basic analysis of structural, geotechnical and slope protection aspects using relatively standard and known techniques. It will be seen that the feasibility and economics of most of the schemes are largely a function of the ice and wave loading, which are themselves a function of structure type and location, and the degree of protection required for the various elements of the system. At this stage basic philosophical problems still exist on the definition of ice force magnitudes likely to be encountered, their return periods, and the protection or mitigating factors required for the different types of structure. Ice force criteria have been developed largely by the Participants with input from Swan Wooster, and it should be emphasized that any major change from the ice load philosophy put forward in this study could have a significant effect on the conclusions. Difficulties have also occurred in the development of the wave criteria. ... Potential solutions in these areas are addressed only in a very general manner, and will have to be the subject of a separate study. ... (Au)

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Document No.
2.3.2

Environmental Impact Statement - Support documents
submitted to the Beaufort Sea Environmental Assessment
Panel. October 1982.

37

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-
Mackenzie Delta region.

Esso Resources Canada Limited, 1982.
Additional Environmental Data - Mackenzie Valley and
Beaufort Sea Regions.
Submitted to Beaufort Sea Environmental Assessment
Panel.

Following excerpt from Arctic Science and Technology
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ASTIS

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Document No.
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Environmental Impact Statement- Support documents subm
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#36

by: Dome Petroleum Ltd.,
Esso Resources Canada Ltd. and,
Gulf Resources Inc.

on behalf on all land-holders in the Beaufort Sea-Mack
Delta region.

Artic Laboratories Limited, D.J. Thomas, October 1982.
A Compilation of Chemical Oceanographic Data used in t
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Prepared for Dome Petroleum Limited, Calgary, Alta.

ASTIS

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Information System (ASTIS) - (Citations and Abstracts)

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1981 McKinley Bay program description and environmental assessment. 15p.
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BEAUFORT SEA ENVIRONMENTAL
IMPACT STATEMENT
OVERVIEW OF COMMERCIAL
OFFSHORE FISHERIES EXPLOITATION

2.3.4 B-2

For:

Dome Petroleum Limited

MARTEC LIMITED
1526 Dresden Row
Halifax, Nova Scotia

April, 1981



TABLE OF CONTENTS

	<u>Page</u>
Letter of Transmittal	
Table of Contents	
1.1 Introduction	1
2.1 Eastern Tanker Route	4
3.1 Western Tanker Route	10
3.1.1 Offshore Fisheries	10
3.1.2 Inshore Fisheries	16
4.1 Summary	18
Literature Reviewed	20
Personal Communications	22



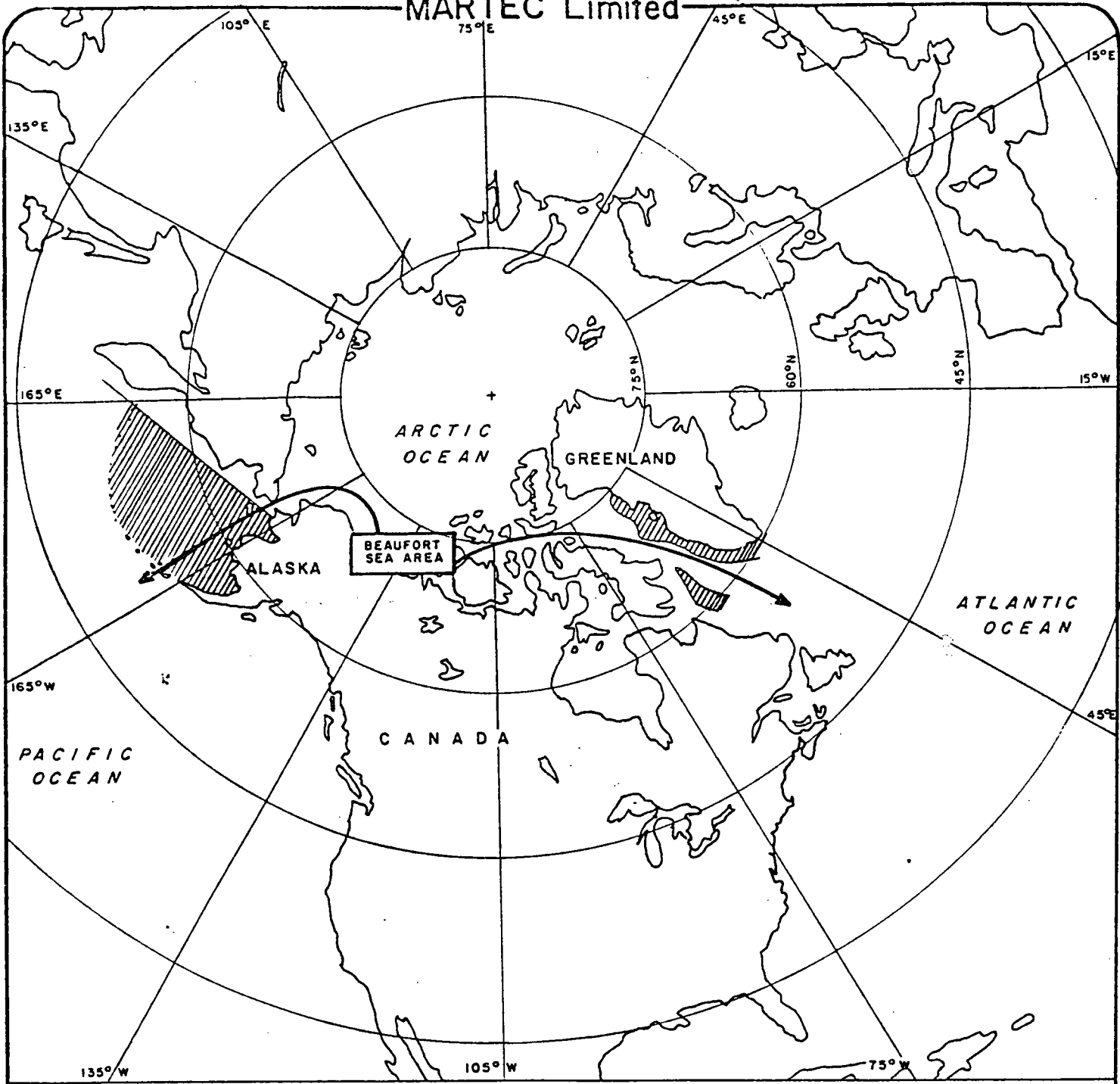
1.1 Introduction

Dome Petroleum Limited is preparing an Environmental Impact Statement covering the exploitation and transportation of the hydrocarbon resources currently being developed in the Beaufort Sea. Part of this program includes the identification and assessment of potential environmental concerns associated with tankers transporting oil or liquefied natural gas from the Beaufort Sea to markets in eastern and western North America.

Sections of the shipping routes pass through areas that support important seasonal commercial fisheries (Figure 1.1) and a concern has been expressed that the tanker operations may interact with some of these activities. The objective of this report is to identify the seasonal patterns of large scale commercial fisheries along the eastern and western tanker routes north of 60°N. On the eastern route, the commercial fisheries are confined to Baffin Bay-Davis Strait, while on the western route, the major commercial fishery is confined to the Bering Sea. Information on the fisheries is presented in sufficient detail to indicate the general character and present status of these fisheries. Detailed discussions are not considered necessary for the purposes of the Environmental Impact Statement. The material has been written for inclusion in volume 3 of the Impact Statement, and will serve as background material for assessing the effects of normal tanker operations which will be included in volume 4.

The data used in this review have been assembled from available fishing vessel and catch statistics. Data for the Baffin Bay-Davis Strait areas have been obtained from summary reports compiled by the North Atlantic Fisheries Organization, formerly ICNAF, supplemented by information supplied by the surveillance section of Fisheries and Oceans Canada. Information on the Bering Sea fisheries has been assembled from data summaries and reports prepared by the International North Pacific Fisheries Commission. Data supplied by the United States National Marine





KEY:

← TANKER ROUTES

 AREAS OF COMMERCIAL FISHERIES

FIGURE 1.1

AREAS SUPPORTING COMMERCIAL FISHERIES NORTH OF 60° N



Fisheries Service and the Alaska Department of Fish and Game have been used to fill out the data base.

In the following sections of this document, overviews of the commercial fisheries along the eastern and western tanker routes are presented separately. For each region, the locations of fishing activity and the distribution of seasonal fishing effort are defined, and the relative distribution of fishing effort is presented. The size distribution of the vessels participating in the fisheries in each subdivision of the areas of interest are also presented. At the end, a short section comparing the fisheries in the two regions is presented.

The review is limited to major offshore commercial fisheries and does not consider the inshore fisheries carried on by Inuit in the Mackenzie Delta, eastern Amundsen Gulf, or Lancaster Sound or along eastern Baffin Island. These fisheries are very small, are highly seasonal, and are conducted in the coastal waters adjacent to the communities. Therefore, it is very unlikely that normal tanker operations will interfere with these activities.



4.1 Summary

The data presented in Sections 2 and 3 indicate that the Bering Sea fishery is substantially larger than the one carried out in Baffin Bay-Davis Strait. The Bering Sea fishery is more diverse and is conducted over a much wider area (see Figure 1.1). The vessels involved in the offshore fishing effort in the Bering Sea are on the whole substantially larger than those operating in Baffin Bay-Davis Strait, and tend to operate in groups of factory ships and trawlers.

The fishing effort in the Bering Sea appears to be more evenly distributed on an annual basis than is apparent in Baffin Bay-Davis Strait. The distributions shown in Figures 2.2 and 3.3 may be an artifact of the larger statistical areas used in the Bering Sea but the trends are still apparent.

As far as normal tanker operations on the eastern and western routes are concerned, it is evident that potential interactions with fishing activities will be limited to areas in the Bering Sea, and possibly along the Greenland coast depending upon the routing option selected. Inuit fisheries in the Beaufort Sea-Amundsen Gulf and in Lancaster Sound and along Baffin Island will not be affected by normal operations because these fisheries are inshore and are remote from the vessel routes.

In the Bering Sea, interactions may occur between fisheries that rely on fixed gear or drifting nets set near the surface. The salmon fisheries near the Aleutian Islands as well as the crab fisheries in the vicinity of Norton Sound and Bristol Bay are two that immediately become apparent. The high seas fishery conducted by the Japanese could be a potential source of concern because of the very long surface drift sets used but the bulk of this fishery appears to occur west of the probable tanker route.



In Baffin Bay-Davis Strait, the area where potential interference might occur is in the waters east of Cape Dyer and south of Disko Island where the northern prawn fishery is concentrated. However, this fishery uses mid-water trawls which are not susceptible to interference from other vessel traffic unless the vessels are very close.

Based on the available data, it appears that the concentration of offshore fishing vessels along the tanker routes north of 60°N should not present a major concern for tanker operations other than the normal vigilance when moving through an area where other vessels are operating.





010-001

BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION: INDEX

SUBJECT: TABLE OF CONTENTS

- 010 INDEX
 - 001 TABLE OF CONTENTS
- 020 INTRODUCTION
 - 001 PURPOSE OF MANUAL
 - 002 SPECIFIC OIL SPILL RESPONSE PLAN
 - 003 UPDATES AND REVISIONS
 - 004 COMPANY POLICIES
 - 005 RESOURCES AVAILABLE
- 030 ESSO OIL SPILL ORGANIZATION
 - 001 RESPONSE LEVELS
 - 002 COMMAND CENTRES
 - 003 LEVEL I SPILL TEAM
 - 004 LEVEL II SPILL TEAM
 - 005 LEVEL III SPILL TEAM
 - 006 ESSO TECHNICAL SUPPORT
- 040 INITIAL ACTION ALL SPILLS
 - 001 FIRST PERSON ON SCENE
 - 002 INITIAL RESPONSE BY SUPERVISOR
- 050 OIL SPILL REPORTING
 - 001 INTERNAL NOTIFICATION SEQUENCE
 - 002 INTERNAL SPILL REPORTING
 - 003 GOVERNMENT SPILL REPORTING
 - 004 GOVERNMENT SPILL REPORT FORM
 - 005 ESSO SPILL REPORT FORM
- 060 EXTERNAL CONTACTS
 - 001 KEY GOVERNMENT AGENCIES/CONTACTS
 - 002 SCIENTIFIC/TECHNICAL
- 070 EQUIPMENT INVENTORY
 - 001 BEAUFORT AREA CONTACTS
 - 002 OTHER NORTHERN CONTACTS
 - 003 NATIONAL, INTERNATIONAL CONTACTS
 - 004 ESSO TUK BASE INVENTORY
 - 005 BEAUFORT OIL SPILL CU-OP INVENTORY
 - 006 DOME/CANMAR INVENTORY
 - 007 GULF/BEAUDRIL INVENTORY
 - 008 COAST GUARD TUK BASE INVENTORY



BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION: INTRODUCTION

SUBJECT: PURPOSE OF MANUAL

THE PURPOSE OF THIS MANUAL IS TO PROVIDE GENERAL OIL SPILL RESPONSE PLANS WHICH FORM THE BASIS FOR MORE SPECIFIC LOCATION OR FUNCTIONAL PLANS FOR ALL ESSO RESOURCES CANADA LTD. (ESSO) OPERATIONS IN THE BEAUFORT AREA.

- o This manual provides the basic Esso oil spill organization, contacts, reporting, and types of responses under different environmental conditions to handle various sizes and severity of spills in the southern Beaufort Sea and Mackenzie Delta areas where Esso carries out drilling and support activities for oil and gas exploration.
- o It is intended primarily for Esso supervisors and management, government agencies, and other parties as their prime Esso reference document for oil spills in the Beaufort area.
- o The response plans contained in this manual are based on the latest information and experiences within Esso and external sources of a practical and realistic nature dealing with oil spill countermeasures; and takes into account the physical and biological environment of the Beaufort area, the equipment available, its effectiveness and limitations, the broad and extensive experiences of Esso personnel operating in the area, and the importance of safety.



BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION: INTRODUCTION

SUBJECT: SPECIFIC OIL SPILL
RESPONSE PLANS

- o In addition to this manual, site specific oil spill response plans are regularly prepared by Esso for all drilling sites, and support operations in the Beaufort area having any potential for oil or product spill.
- o Each site specific oil spill response plan contains:
 - specific response strategies for that site, taking into account local physical and biological environmental conditions
 - specific equipment/materials required for above response strategies
 - oil spill trajectories using local input data
 - sensitivity maps/data as appropriate to assist in prioritizing cleanup effort.
- o These site specific plans are intended as internal documents which will assist Esso personnel involved in any spill response and will be prepared prior to commencement of drilling at any location.



020-003

BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION: INTRODUCTION

SUBJECT: UPDATES AND REVISIONS

- o It is the intent of Esso to update this manual on a regular basis. The Esso oil spill response organization charts and contacts will be updated on a frequent basis as people and telephone numbers change. Revisions of the other sections; on types of responses under summer, winter, land and offshore situations, equipment lists, reporting, etc., will be made as new information or oil spill countermeasure technology becomes available and is incorporated into Esso's oil spill response plans.



BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION: INTRODUCTION

SUBJECT: COMPANY POLICIES

ENVIRONMENTAL
PROTECTION:

Esso Resources Canada Limited regards environmental protection as vital to the conduct of its day to day business and future developments.

- o Ensure that hazards to public health and damage to the environment, attributable to company activities, are minimized.
- o Comply with all applicable laws, regulations and standards.
- o Provide additional environmental protection beyond that required by law, when the benefits to society justify the costs.
- o Audit the impact of company operations on the environment and provide stewardship at a senior management level to ensure that effective environmental protection measures are maintained.
- o Ensure that employees understand and accept responsibility for monitoring and protecting the environment.
- o Repair in a timely fashion environmental damage attributable to company activities.
- o Provide for future environmental protection requirements in design and long range planning.
- o Work with others toward improvement and development of environmental standards and the understanding of environmental issues.
- o Encourage, support and conduct environmental research.
- o Inform employees, the public, and government regarding company environmental protection activities and actively respond to concerns of local residents and the general public.

OIL SPILL RESPONSE:

Esso Resources Canada Limited shall be responsible for initiating an oil spill response where, in the opinion of its management, Esso or any Esso contractor is associated with the spilled oil.

DATE: SEPT. 1983

PAGE: 1

BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION: INTRODUCTION

SUBJECT: RESOURCES AVAILABLE

- o Esso has access to many sources of assistance, in the way of manpower, expertise, and equipment in the event of an oil spill in the Beaufort area.
- o This manual details, under the sections on Esso organization and external contacts, manpower and expertise available within the company and outside in government agencies, private consulting firms and other oil companies.
- o It is not the intent of this manual to describe the extensive information base on the Beaufort physical and biological environment and oil spill countermeasure technology which is available for use in the event of a spill. Esso has ready access to such information on an ongoing basis. As well the company employs full time technical personnel to obtain, maintain and retrieve such data as needed.
- o Further, Esso has access to company owned oil spill equipment and materials, jointly owned equipment through the Beaufort Sea Oil Spill Co-op & Canadian Coast Guard equipment in the Beaufort area, as well as other stockpiles owned by Imperial Oil and company Co-ops in Canada, and equipment in Alaska and internationally through Exxon.
- o The greatest resource asset available to Esso in the Beaufort area is its work force and supervisory personnel, their extensive knowledge of working in the area and their ongoing training in oil spill countermeasures.



BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION: ESSO OIL SPILL RESPONSE
ORGANIZATION/CONTACTS

SUBJECT: RESPONSE LEVELS

- o Oil spill categories and the response effort necessary to deal with them are classified more on the basis of the capability to cope with the situation rather than on a rigidly defined "volume spilled" basis.

LEVEL I

- o A spill which can be handled by on-site Esso personnel using locally available equipment and materials and which is totally contained within the work site or lease area.

LEVEL II

- o A spill in which local resources and manpower are inadequate and additional Esso personnel are required from the area. It may involve the potential for environmental damage off the work site or lease area.

LEVEL III

- o A spill in which extensive resources and manpower will be required from within Esso and possibly from external sources. It has a high potential for environmental damage off the work site or lease area.

The following Esso oil spill response organization charts are based on these 3 levels of spill.



030-002

BEAUFORT AREA
OIL SPILL RESPONSE PLAN

SECTION:
ESSO OIL SPILL RESPONSE
ORGANIZATION/CONTACTS

SUBJECT:
COMMAND CENTRES

o For Level I and Level II spills:

Esso's Tuktoyaktuk Base Camp

Phone: 403-977-7500

Telex: 034-44506

o For Level III spill:

FIELD COMMAND CENTRE

Esso's Tuktoyaktuk Base Camp

Phone: 403-977-7500

Telex: 034-44506

CALGARY COMMAND CENTRE

Room: 3276

Phone: 237-2144 (for command centre)*

237-3737 (for building)

* Set up at time of spill

DATE:

SEPT. 1983

PAGE:

1

DOME PETROLEUM
BEAUFORT SEA EXPLORATION
LONG-TERM SUPPLY STUDY
BEAUFORT SEA LIBRARY

for

Canadian Marine Services
Calgary, Alberta

Prepared by:

The DALCOR Group
Suite 612, Lancaster Building
304 - 8th Avenue, S.W.
Calgary, Alberta T2P 1C4

Project No. C067

May 31, 1979

LONG-TERM SUPPLY STUDY
REPORT CONTENTS

	<u>Page</u>
List of Figures	ii
Summary	iv
1. Supply Cargoes for Beaufort Sea Exploration	
1.1 The 1979 Supply Pattern	1
1.2 Demand Forecast 1980-1985	3
2. Supply Route Alternatives	9
2.1 Mackenzie River Tug/Barge Transport System	9
2.2 Dempster Highway Route	13
2.3 Point Barrow Route Ocean Going Barges	15
2.4 Northwest Passage Icebreaking Tanker	18
3. Marine Terminal Development	20
4. Alternative Bulk Fuel Supply Points	24
5. Analysis of Bulk Fuel Supply Routes for 1985 Level Traffic	27
6. Supply of Dry Cargoes	40
7. Impact of Other Northern Projects	43
Appendix: Transportation Cost Components for Alternative Routes to Tuktoyaktuk	

LONG-TERM SUPPLY STUDY
LIST OF FIGURES

<u>Figure No.</u>		<u>Page</u>
1	Dome/Canmar Supply Study 1979 Exploration Program Supply & Transport Prices	2
2	Forecast of Supply Cargo Demand	3
3	Beaufort Sea Exploration Canmar Vessel Fleet 1980-1985	5
4	Beaufort Sea Exploration Canmar Drilling Program 1980-1985	6
5	Beaufort Sea Exploration Program Forecast of Cumulative Demand for Bulk Fuels 1980-1985	7
6	Beaufort Sea Exploration Program Forecast of Cumulative Demand for Dry Cargoes 1980-1985	8
7	Transport Routes and Modes	10
8	Comparison of Transport Costs to Tuktoyaktuk Over Mackenzie River and Dempster Highway Routes	14
9	Estimated Transport Cost Ocean Going Tug/Barge Vancouver - Cape Parry via Point Barrow	17
10	Estimated Transport Cost Class 7 Icebreaking Tanker Montreal - Cape Parry Via Northwest Passage	19
11	Comparison of Bulk Fuel Supply Alternatives - 1985 Traffic Level	28
12	Year 1985 Bulk Fuel Supply and Inventory With Mackenzie River Barge Transport	29
13	Year 1985 Bulk Fuel Supply and Inventory With Point Barrow Ocean Going Barges and Mackenzie River Barge Transport	30
14	Year 1985 Bulk Fuel Supply and Inventory With Class 7 Icebreaking Tanker and Mackenzie River Barge Transport	31

LIST OF FIGURES - Continued

15	Bulk Fuel Supply Comparative Annual Costs With and Without Price Escalation	34
16	Bulk Fuel Supply Comparative Annual Costs With Increased Voyage Charter Time	36
17	Comparative Unit Transport Costs vs. Bulk Fuel Demand	39
18	Dempster Highway and Mackenzie River Transport Costs	40
19	Bulk Products Container System	42

SUMMARY1. Supply Cargoes for Beaufort Sea Exploration

The 1979 season supply contract prices and applicable Mackenzie River barge transport costs ex Hay River are presented in Figure 1 for the liquid bulk fuel, dry bulk products, drilling casing and box chemical commodity groupings.

A forecast of demands for the above commodities as required for the exploration program 1980-1985 is presented in Figure 2. Based on expected fleet mix and utilization, liquid bulk fuel consumption is forecast to increase from 27,000 tonnes in 1980 to reach a level of 75,700 tonnes by 1985. Footage drilled in 1985 is forecast to be 110,980 feet or almost double the expected 1980 level of 56,720 feet. Dry cargo consumption is directly related to footage drilled and is forecast to increase from 22,100 tonnes in 1980 to 43,100 tonnes in 1985. Seventy percent of the dry cargoes are barite and cement shipped as bulk products.

2. Supply Route Alternatives

The Mackenzie River tug/barge transport system forms the existing supply cargo route from Hay River to Tuk base. The transport system operates over the four month summer navigating season utilizing shallow draft barge trains. The Mackenzie waterway has proven to be a reliable transport route and the outlook is for continuation of the seasonal transport services with no major improvements in navigating conditions or tug/barge size. The river carriers have existing capacity to easily meet the forecast 1985 Canmar shipping demands.

The Dempster Highway linking Dawson to Inuvik will offer an alternative inland transport route to the Beaufort Sea. The road

will be subject to seasonal operating constraints due to adverse northern environmental conditions. In summer, barge shipments from Inuvik would be required to make deliveries to the Tuk base, while in winter a direct route to Tuk is available over difficult winter road conditions.

Expected transport costs over the Dempster Highway route are high when compared with costs for shipments over the Mackenzie River route. From Edmonton, supplies delivered over the Dempster route would cost about three times the rates paid over the Mackenzie; by comparison, Vancouver origin shipments would move at rate multiples of less than two to one.

Ocean going barge deliveries to the Beaufort Sea are feasible in August using the route from Vancouver around Point Barrow, Alaska. Typical configuration for these movements is a 16,000 DWT barge towed by a 5,000 hp tug. Seaspan estimates the cost to deliver fuel/dry cargo over the route to be \$120 per ton, not including the costs of ice surveillance and icebreaker support. An independent estimate by the Consultants gives a unit cost of \$100 per tonne as detailed on Figure 9.

The alternative of delivering fuel by icebreaking tanker through the Northwest Passage from Montreal was investigated. A 36,000 DWT tanker with Arctic Class 7 capability was selected for study purposes. With the tanker alternative, fuel deliveries to the Beaufort would be feasible up to the end of November. Unit transport cost for fuel delivered from Montreal is estimated to be \$102.75 per tonne as detailed on Figure 10. The above cost is based on a 40 day time charter and assumes the tanker is utilized for other purposes when not delivering fuel to the Beaufort.

3. Marine Terminal Development

Tuktoyaktuk is presently classed as a shallow draft harbour with an entrance channel restricted to a depth of four metres. Tuk could be upgraded to function as a medium draft harbour by dredging the entrance channel to a depth of six metres. The dredging program is estimated to cost \$25 million.

A medium draft harbour would not be capable of accepting future deep draft vessels including the AML X6, the Ice Drilling Barges or the proposed icebreaking tanker.

Cape Parry, 225 miles to the east of Tuk, offers deepwater sites for future harbour development. The report describes the necessary site surveys for port development, describes the construction method for development for a deep draft berth, and estimates the capital cost of such a facility to be \$5 million if a suitable site can be confirmed at Wise Bay.

4. Alternative Bulk Fuel Supply Points

Price quotations received for diesel fuel supply from Gulf are \$161.75 per tonne at Hay River, \$149.25 at Vancouver, and \$145.50 at Montreal.

By comparison, the supply price from the ARCO refinery at Prudhoe Bay is estimated to be equivalent to \$300 per tonne.

The output from the Imperial refinery at Norman Wells is allocated to supply the communities of the Mackenzie Valley. It is unlikely that the uncertain demands of the exploration program would be sufficient to justify the required investment to expand the capacity of the Norman Wells refinery.

The possibility of purchasing fuel supplies from offshore international sources was studied. The present and five year term forecast of high price levels for light fuels suggest a preference to continue with purchases from domestic Canadian sources.

5. Analysis of Bulk Fuel Supply Routes for 1985 Level Traffic

The comparative annual costs of supplying fuel at the forecast 1985 traffic level is presented in Figure 11. The comparison includes the differing supply costs at the Hay River, Montreal and Vancouver origin points, the transport costs using the Mackenzie River, Point Barrow and Northwest Passage routes, and the storage facility and fuel inventory holding costs at the Beaufort Sea terminal.

The results of the analysis indicate a preference for the continued use of the Mackenzie River transport system. The sensitivity of the results to forecast escalation of fuel prices reduces the preference for the Mackenzie route as reported in Figure 15 but does not change the results of the analysis. An increased voyage charter time of the deepsea alternatives involving the ocean going barges or icebreaking tanker would increase the margin in favour of the Mackenzie route as illustrated by the comparative costs presented in Figure 16.

The sensitivity of the fuel supply alternatives to greatly increased levels of fuel demand was also studied by comparing the Mackenzie River barge system with a scheme that would make all fuel deliveries by icebreaking tanker. The resulting unit cost curves on Figure 17 demonstrate the basic cost trade-offs when the capital-intensive tanker system is compared with the established river barge system over the applicable range of annual fuel demand. The tanker system unit costs decrease with increased vessel utilization until a breakeven point is reached at a demand level of 220,000 tonnes of fuel per year. Thus, an all tanker supply system would be economic only if fuel demands increase to approximately three times the level forecast for 1985.

6. Supply of Dry Cargoes

The Mackenzie River transport system will also continue to offer the most economic route for shipment of dry cargoes. With continued use of the river system, dry cargoes simply move as deck loads on the barges used to deliver fuel shipments. A comparison of river system with the Dempster Highway route indicates a rate premium of about 2.5 to one for movements using the overland route.

The possibility of shipping dry bulk products by intermodal containers was briefly investigated. The container shipping method would reduce handling costs and provide flexibility in the choice of carrier modes; however, these advantages would be gained at a high cost of providing container units estimated to be \$50 per tonne-year given the relatively low utilization of containers in Arctic operations.

7. Impact of Other Northern Projects

Up to the year 1985 there are ^{no} major northern projects identified which would have a significant impact on the capacity of the Mackenzie River tug/barge transport system. After 1985, the construction of the Dempster lateral to the Alaska Highway Gas Pipeline and the associated gas processing and gathering facilities in the Mackenzie Delta could have a significant impact on the capacity of the Mackenzie River transport system.

2.3.4
D-8

DOME/CANMAR
BEAUFORT SEA OPERATIONS

An Economic Analysis
1976-1980

An examination of the
economic impacts, particularly
the impacts on the communities
of Tuktoyaktuk and Inuvik.

Prepared by:
Outcrop Ltd.
Yellowknife, NWT

in association with
DPA Consulting Limited
Vancouver, B.C.

June, 1981

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	i
1.0 INTRODUCTION.....	1
1.1 Study Objectives and Major Issues.....	1
1.2 Conduct of the Study.....	3
1.3 Study Limitations.....	4
1.4 Organization of the Report.....	6
1.5 Glossary of Terms.....	6
2.0 CONTEXT FOR CANMAR ANALYSIS.....	10
2.1 Outline of Canmar Activity in the Beaufort Sea.....	10
2.2 Overview of NWT and Regional Economies.....	11
2.3 Impact Methodology and Rationale.....	15
3.0 DIRECT ECONOMIC IMPACTS.....	17
3.1 Direct Employment.....	18
3.1.1 Northern Project Positions.....	18
3.1.2 Northern Hires.....	23
3.1.3 Man Year Equivalents.....	23
3.1.4 Turnover.....	25
3.2 Direct Income.....	29
4.0 INDIRECT (SUPPLIER RELATED) ECONOMIC IMPACTS.....	33
4.1 Overview of Canmar's Purchases by Region.....	34
4.2 Concentration of Northern Purchases.....	41
4.3 Measurement of Indirect Impacts.....	41
4.3.1 Survey and Methodology.....	42
4.3.2 Supplier Related Economic Impacts.....	43
5.0 INDUCED ECONOMIC IMPACTS AND MULTIPLIER ANALYSIS.....	51
5.1 NWT Income Responding Effects by NWT Residents.....	52
5.2 NWT Income Responding Effects by Non Residents.....	54
5.3 Multiplier Income Analysis.....	56
6.0 SUMMARY OF ECONOMIC IMPACTS.....	59
6.1 Summary of Employment Impacts.....	60
6.1.1 Employment Impacts on the NWT in General.....	61
6.1.2 Employment Impacts in Tuktoyaktuk.....	63
6.1.3 Employment Impacts in Inuvik.....	66
6.1.4 Employment Impacts on Other NWT Communities...	67
6.2 Summary of Wages and Salaries Impacts.....	71
6.2.1 Summary of Impacts in Tuktoyaktuk.....	73
6.2.2 Summary of Impacts in Inuvik.....	73

Table of Contents (continued)

6.3	General Effects on the Economy.....	79
6.3.1	Effects on the Industrial Economy.....	79
6.3.2	Effects on the Traditional Economy.....	82
6.3.3	Effects on Transfer Payments.....	85
6.4	Demand - Pull, Cost - Push Inflationary Impact of Dome/Canmar Expenditures.....	91
7.0	RECOMMENDATIONS.....	92

APPENDICES

A.	Materials Reviewed.....	a-1
B.	Memorandum of Understanding (pertinent sections only).....	a-2
C.	Summary: Canmar Employees Survey.....	a-17
D.	D.1 Detailed Description of Local Business Survey and Methodology Used to Assess Indirect Impacts.....	a-23
	D.2 Southern Suppliers Telephone Survey.....	a-29
	D.3 Estimation of First Stage Supplier Impacts due to Canmar Purchases from Local Firms.....	a-31
E.	Calculation of Respending Effects.....	a-41

List of Tables

3.1	Canmar Direct Employment of NWT Residents - 1980.....	19
3.2	Positions Held by Northerners as a Percentage of Total Positions and Northern Targets.....	21
3.3	Canmar Direct Employment of NWT Residents 1976 - 1980 by number of Hires, Home Community, Skill Levels and Duration...	24
3.4	Canmar Employees from the NWT by Duration of Employment- Measured in Man Year Equivalents - 1980.....	27
3.5	Canmar Employees from the NWT, by Duration of Employment- Measured in Man Year Equivalents - 1976 - 1980.....	28
3.6	Canmar Earnings by Home Community - 1976 - 1980.....	31
3.7	Comparison of Resident and Non Resident Direct Canmar Income, 1976 - 1980.....	32
4.1	Canmar Expenditures on Beaufort Sea Operations, 1976 - 1980.....	36
4.2	Canmar Purchases from Northern Businesses, 1976 - 1980.....	46
4.3	Indirect Impact, Canmar Purchases from the NWT - 1980 Local Companies and Northern Branches/Southern Suppliers.....	47
4.4	Northern Value Added in Relation to Sales, Total NWT 1976-1980..	48
4.5	Purchases/job Creation/Northern Value Added Ratios.....	49
4.6	Summary of Indirect Impacts, 1976 - 1980.....	50
5.1	Responding Impacts of Labour Income Generated by Canmar Expenditures Related to Beaufort Sea Exploration 1976 - 1980....	55
5.2	1980 Estimated Economic Impacts of Canmar Beaufort Sea Exploration by Type of Impact and Region.....	57
5.3	Expenditure Multipliers Related to Canmar Activity - 1980.....	58
6.1	Summary - Employment, NWT Residents 1976 - 1980 (Resulting from Canmar Operations).....	69
6.1.1	Man Years of Employment, Tuktoyaktuk, Inuvik, 1980.....	70
6.2	Summary - Wages and Salaries, NWT Residents, 1976 - 1980 (Resulting from Canmar Operations).....	75
6.2.1	Canmar Related Income as Percentage of Total NWT Income...	76
6.2.2	Breakdown of Tuk Income, 1980.....	77
6.2.3	Breakdown of Inuvik Income, 1980.....	78

List of Tables Continued

6.3 Northern Value Added from Canmar Operations, 1976-1980.....	87
6.3.1 Fur Income Statistics, 1977-1980.....	88
6.3.2 A Comparison of Fur Income and Direct Canmar Income, 1977-1980.....	89
6.3.3 Summary of UIC and Social Assistance Payments, Inuvik and Tuktoyaktuk.....	90
D.1 1980 Purchases from Local Businesses by Type of Purchase and Location of Business.....	a-24
D.2 1980 Canmar Purchases by Location of Business.....	a-25
D.3 Canmar Purchases by Level of Purchase, 1980.....	a-25
D.4 Estimated Northern Impact of Canmar Related Sales to Inuvik Businesses - 1980 Survey of Firms.....	a-26
D.5 Estimated Northern Impact of Canmar Related Sales to Tuktoyaktuk Businesses - 1980 Survey of Firms....	a-27
D.6 Indirect Impacts - Local Companies (1st and 2nd Stages) 1980.....	a-36
D.7 Indirect Impacts - Northern Branches and Southern Suppliers (1st and 2nd Stages) 1980.....	a-38
E.1 Leakage Factors by Region for the Calculation of Responding Income Impacts on the Total NWT.....	a-43
E.2 Proportion of Consumption Expenditure Spent in the NWT.....	a-44
E.3 Responding Effects of NWT Residents by Region of Impact - 1980.....	a-45
E.4 Responding Effects of NWT Residents by Region of Impact - 1976 - 1980.....	a-46
E.5 Summary: Non Resident Responding Effects, 1980.....	a-49

SUMMARY

Introduction

The purpose of this study is to examine and quantify the economic impacts of Dome/Canmar's drilling operations in the Beaufort Sea on the economy of the NWT in general, and more specifically on the economies of Tuktoyaktuk and Inuvik.

This study was conducted during a five month period from mid December to mid May, 1981. The field work which involved visits to Calgary, Inuvik, and Tuktoyaktuk was conducted in January and February. Interviews were held with major NWT suppliers to Dome/Canmar, as well as with Canmar personnel and individual residents of NWT communities.

The main emphasis of the report is on the northern income and employment generated by Canmar activities. The report also examines the "northern value added" of the project. These are examined in detail in three categories: direct employment by Canmar of NWT residents. employment and income generated through Canmar's purchases of goods and services from northern businesses, and employment and income generated as a result of respending of earnings from either direct employment or employment with a supplying company.

Since data for 1980 was more readily available, the report provides a detailed analysis for that year. The analysis for previous years is based on 1980 data, prorated where necessary to previous years.

Overview of Dome/Canmar Activity

Dome Petroleum has completed five year's of operation in the Beaufort Sea, including four summer drilling seasons. Over the years 1976-1980, total capital expenditures and operating costs have exceeded \$700 million. Of this amount an estimated \$73.5 million (10.5%) was expended in the Northwest Territories in direct employment of NWT residents, purchases of goods and services from local NWT companies or northern branches of companies with headquarters outside the NWT. Considering respending

effects as well, Dome/Canmar's northern expenditures provided an estimated \$23.7 million dollars in wages and salaries to NWT residents from 1976 to 1980 inclusive.

NWT participation in the Canmar operation has increased greatly over the years, as more NWT residents are working for Canmar, more residents are starting or expanding businesses in response to increased Canmar purchases in the NWT and more NWT residents are being trained for a wider range of jobs.

Over the years, the economies of the two main communities in the region have expanded in direct relation to the increased Canmar activity. As the company expanded activity in its Beaufort Sea program, and implemented and emphasized northern hiring and purchasing programs, the economy of the area improved. Many new businesses opened. Social assistance payments for economic reasons decreased, and available jobs in the delta region increased. Today as a result of Canmar activities, Tuktoyaktuk has an active business community providing many specialized services to the company and relies heavily on Canmar for employment and income.

Inuvik supplies a larger proportion of goods and services to Canmar than does Tuktoyaktuk. Although these sales make up a significant portion of the annual volume of many local businesses, the Inuvik business community as a whole is not entirely dependent on Canmar. However some businesses, as in Tuktoyaktuk, are based almost exclusively on Canmar.

Other communities in the region feel some impact from Canmar's activities. This impact is felt mainly in direct wage employment of community residents who work at the Beaufort Sea operations on a rotational basis.

Indirect Economic Impacts

Indirect economic impacts are measured in the employment and income of NWT residents generated as a result of Canmar's purchases in the NWT.

In the first five years of Canmar's operation in the Beaufort Sea, the company purchased approximately \$65 million in goods and services in the NWT. Of this amount, \$29 million was in purchases from local businesses and \$36 million was in purchases from northern branches of southern companies.

In turn, these purchases generated over 600 man years of employment and approximately \$12 million in wages and salaries. In addition to wages and salaries, an additional \$3 million was retained in the NWT in gross return to capital (see glossary, page 7).

Simply stated, close to 25 percent or 25 cents of every dollar spent by Canmar on northern purchases was retained in the NWT. This included purchases from both local companies and northern branches.

An analysis of the two sectors, local companies and northern branches, showed that the northern value added was much higher for purchases from local companies, while the leakage was much higher from northern branch purchases. In the case of local companies (companies owned in the NWT), for every dollar spent, approximately 40 cents was retained in the NWT. For purchases from northern branches, on the other hand, a lesser 12 cents of every dollar spent was retained in the NWT. The fact that there is no gross return to capital, likely a lower number of resident employees, and an estimated lower level of NWT purchasing (second round purchasing) account for the estimated lower impact of purchases from northern branches of southern firms operating within the NWT.

In 1980 Canmar purchased \$22.6 million in supplies and services from NWT businesses. Of this amount, \$13.5 million was purchased from locally owned business, and the rest from northern branches of southern suppliers. The combined purchases from local businesses and northern branches resulted in over 200 man years of employment for NWT residents and wages and salaries of close to \$4.4 million.

The distribution of these indirect impacts has changed over the years, with Inuvik and Tuktoyaktuk gaining as the beneficiaries of these purchases. In 1976 Inuvik and Tuktoyaktuk combined had 37% of the total jobs generated as a result of Canmar purchases. By 1980, jobs generated in Inuvik and Tuktoyaktuk combined accounted for 70% of the total number of jobs generated via Canmar purchases.

This reflects the rapid growth of the business community in Tuktoyaktuk, and the expansion of the business community in Inuvik. At the same time, it should be noted that purchases from NWT businesses in other communities increased in dollar value over the years, although these purchases decreased as a percentage of the total Canmar purchases.

In 1980, for the first time in Canmar's five years of operation, purchases from locally owned businesses surpassed those from northern branches of southern companies.

In all five years of operation, Canmar's purchases of goods and services have provided more man years of employment and higher total wages to NWT residents than that provided by direct jobs with Canmar for NWT residents. In the first two years of operation, Tuktoyaktuk felt more impact from direct employment, but as businesses developed, the indirect impact in Tuktoyaktuk from sales to Canmar has surpassed the direct economic impact of Canmar wage employment.

In total dollar value, indirect impacts are more than double the direct impacts for the NWT, pointing out the importance of Canmar purchases to the NWT economy. Northern expenditures by Canmar are particularly strong in a number of categories; equipment rentals, (including marine transportation) maintenance and supplies and air transportation.

In 1980, Canmar purchases from local businesses in Inuvik and Tuktoyaktuk, accounted for 84% of total Canmar purchases from locally owned businesses, compared with 42% in 1976 and 51% in 1977.

Induced Economic Impacts

Induced impacts are measured by the respending effects of income earned by direct Canmar employment or employment generated via Canmar purchases of goods and services.

The induced or respending effect of Canmar related income, as would be expected, was lower than the direct or indirect impacts, but nonetheless made a significant contribution to the economy. During the five years of operation, respending by NWT residents, and to a much lesser degree, by rotational employees and employees of southern suppliers, generated 234 man years of employment and close to \$4 million in wages and income.

As the direct and indirect wages and salaries increased over the years for NWT residents, naturally the respending effect also increased. In 1980, induced employment accounted for 22% of all Canmar related employment, up from 17% in 1977. At the same time induced income was 16.5% of total wages and salaries in both years. This reflects the lower wage levels for people in sectors such as hospitality, retail stores, craft production, etc. compared with the salaries of direct Canmar employees or employees of supplying companies.

Simply stated, for every dollar earned by a direct Canmar employee, or by an employee of a supply company, an additional 22 cents in income is generated in the NWT via consumer or household respending of income.

Summary Conclusions and Recommendations

During its first five years of operation, Canmar's Beaufort Sea drilling project has made a significant contribution to the economy of the NWT, particularly to the communities of Inuvik and Tuktoyaktuk.

Over the years it has provided a total of about 1,150 many years of employment, has provided an estimated \$23.6 million in wages and salaries to NWT residents and has generated \$28.5 million in northern value added to the Northwest Territories.

The contribution to Tuk has been close to 400 man years of employment, \$7.4 million in wages and salaries and \$9 million in northern value added. In Inuvik, the employment generated was estimated at 283 man years. Wages and salaries were estimated at \$6.3 million and northern value added in Inuvik was approximately \$8 million.

Canmar has consistently met or surpassed its northern employment projections and has increased the number of northerners in skilled or semi-skilled positions. Canmar training programs appear to be working since NWT employees are moving into more skilled positions, but in order to fill increasing manpower needs with NWT residents in the future, it is likely that both recruiting and training programs will have to be expanded.

In 1980 NWT residents made up 16 percent of the total Canmar labour force on the project. To maintain this percentage, could be a Canmar goal, but to achieve this, with the limited labour supply in the region, will require more emphasis on employment from the smaller communities in the region, where employment opportunities are few.

The seasonal nature of Canmar's operations from 1976 to 1980 created highs and lows in the economy, with near full employment (particularly in Tuk) of local residents in the summer, and high unemployment in the winter. In order to overcome this, as the season is extended, NWT residents should be trained specifically for the longer term jobs which will not only extend their period of employment, but will add to the positive economic impact of the project.

Canmar purchases from northern businesses have increased steadily over the five years of operation, with significant increases being in purchases from local businesses. NWT purchases now account for 29 percent of total Canadian purchases, up from 19 percent in 1976. In 1980, purchases from local businesses surpassed those from northern branch operations, accounting for 54 percent of northern purchases. This indicates that Canmar is not only making every effort to utilize local businesses, but in some area is also encouraging development of new businesses to meet Canmar needs, or is assisting in the growth of existing businesses.

The business sector in Tuktoyaktuk has undergone rapid expansion over the past five years due to Canmar purchases, but at the same time appears to have developed a dependence on Canmar for survival. Although Canmar is the main client of many Tuk businesses, some are actively pursuing other clients, while others appear content to rely mainly on Canmar for their business. Inuvik companies, with longer backgrounds in business, appear to be more concerned about their dependence on Canmar, and in some cases have attempted to regulate the Canmar level of their business, while actively servicing existing clients and seeking new clients. Also in Inuvik, there appears to be a more aggressive move to diversify in order to fill a wider range of needs of both government and other operators in the region.

In summary, it is difficult to fault Canmar on performance of its economic obligations to delta region communities or the NWT in general. The social implications of Canmar's activities are beyond the scope of this study.

We have identified some new initiatives which would tend to increase the positive economic impact of Dome/Canmar and other large scale operations on the NWT economy. These recommendations are outlined below and explained in more detail in section 7 of this report.

Recommendations:

1. Upgrading/training programs should be expanded to improve regional participation in the Dome/Canmar work force.
2. A manpower information system should be developed within the study region.
3. An increased effort should be made to determine the reasons for northern staff turnover, and to further reduce northern turnover rates at Canmar's operation.
4. Economic planning for potential development in the region should start immediately.
5. The NWT Government should have a policy on future hydrocarbon development in the NWT
6. A regional Dome/Canmar office should be established in the Northwest Territories
7. Incentive programs for corporate headquarters relocations to the NWT should be investigated.

8. The NWT Government and industry should investigate ways in which the private sector can develop and expand in response to Canmar needs and the needs of other hydrocarbon exploration activity.
9. Canmar should be encouraged to use local suppliers rather than in-house services where they are available and competitive.
10. Government agencies and Canmar should place more emphasis on business development in smaller NWT communities, in order to extend the economic benefits to more communities.

2.3.4
D-9

DOCUMENTATION AND USER'S GUIDE FOR
MODIFIED VERSION OF AES OIL SPILL MODEL

PREPARED FOR
DOME PETROLEUM LIMITED
CALGARY, ALBERTA

2.3.4 D-9
REVISION HISTORY

Prepared by
Atmospheric Dynamics Corporation
Woodridge Place, R.F. 7
Victoria, B. C.

1: DESCRIPTION OF THE MODEL: This is a deterministic model for predicting the motion of an oil slick over open waters. This model is an adaptation of the Battelle Pacific model (Ahlstrom, Dec., 1975). It is assumed that the predominant driving force is the wind driven surface water currents.

This model can handle both instantaneous or continuous spills. The basic procedure is to break up the spill into a discrete number of parcels. The computer algorithm then keeps track of these parcels. Any parcel which hits a shoreline is removed from the computational procedure. The oil slick is allowed to evaporate and disperse into the water column.

1.1: THEORY: Since oil is less dense than water, the oil slick floats over it. It is generally assumed that the oil slick will be advected by the water currents present in the spill area. The basic transport equation then can be written as:

$$\begin{array}{ccccccc} \bar{U}_{oil} & = & \overline{A * U}_{sfc} & + & \bar{U}_{residual} & + & \bar{U}_{tidal} & (1) \\ (i) & & (ii) & & (iii) & & (iv) & \end{array}$$

OFFSHORE DISTRIBUTION AND
NUMBERS OF WHITE WHALES IN THE
EASTERN BEAUFORT SEA AND AMUNDSEN GULF,
SUMMER 1981

87



environmental research associates

FOR

- | | |
|---|-------------------------------|
| SOHIO ALASKA PETROLEUM CO. (CO-MANAGER) | PHILLIPS PETROLEUM COMPANY |
| DOME PETROLEUM LIMITED (CO-MANAGER) | SHELL OIL COMPANY |
| ARCO ALASKA, INC. | STATE OF ALASKA |
| BP ALASKA EXPLORATION, INC. | ESSO RESOURCES CANADA LIMITED |
| CHEVRON U.S.A., INC. | GULF CANADA RESOURCES, INC. |
| EXXON COMPANY, U.S.A. | |

DECEMBER 1982

OFFSHORE DISTRIBUTION AND
NUMBERS OF WHITE WHALES IN THE
EASTERN BEAUFORT SEA AND AMUNDSEN GULF,
SUMMER 1981

by

Rolph A. Davis
C. Robert Evans

LGL Limited,
environmental research associates,
Toronto, Ontario

for

- | | |
|---|-------------------------------|
| Sohio Alaska Petroleum Co. (Co-Manager) | Phillips Petroleum Company |
| Dome Petroleum Limited (Co-Manager) | Shell Oil Company |
| ARCO Alaska, Inc. | State of Alaska |
| BP Alaska Exploration, Inc. | Esso Resources Canada Limited |
| Chevron U.S.A., Inc. | Gulf Canada Resources, Inc. |
| Exxon Company, U.S.A. | |

December 1982

TABLE OF CONTENTS

	PAGE
LIST OF TABLES	v
LIST OF FIGURES	vii
ACKNOWLEDGEMENTS	x
ABSTRACT	xii
INTRODUCTION	1
METHODS	3
Systematic Aerial Surveys	3
General Survey Design	3
Survey Procedures	6
Incidental Aerial Surveys	9
RESULTS	11
Distribution and Movements	11
18-25 July 1981	11
26 July-4 August 1981	15
5-17 August 1981	17
19-29 August 1981	27
7-14 September 1981	29
Estimation of Numbers	33
18-25 July 1981	38
5-17 August 1981	41
19-29 August 1981	45
7-14 September 1981	45
Biases and Complicating Factors	45

	PAGE
Submerged Animals	50
Unseen Surfaced Animals	51
Effects of Transect Width	52
Effects of Survey Elevation	55
Effects of Sea State	56
Incomplete Survey Coverage	58
DISCUSSION	59
Spring Migration	59
Mackenzie Estuary	60
18 July-4 August 1981	63
5-17 August 1981	65
Reproductive Status	66
Population Size	68
Fall Migration	71
LITERATURE CITED	73
APPENDIX 1. Beaufort Scale of Sea States	76

ABSTRACT

This report presents new information on the distribution, abundance, and movement patterns of white whales in the Canadian Beaufort Sea and Amundsen Gulf between mid July and mid September 1981. Information on white whales was collected during four large-scale systematic aerial surveys designed to census bowhead whales (Davis et al. 1982). The survey techniques were also suitable for observations of white whales. The study area (Canadian Beaufort Sea south of 72°N and Amundsen Gulf) was divided into five blocks; from west to east these are the Yukon, Delta, Tuktoyaktuk Peninsula, West Amundsen Gulf and East Amundsen Gulf blocks. Transect lines, oriented north-south, were spaced evenly across these blocks. Coverage of these lines varied with each survey period. Supplementary data from a variety of opportunistic surveys also were obtained.

During the first systematic survey (18-25 July) large numbers of white whales were distributed widely in small groups from the east half of the Yukon block through the West Amundsen block. Largest numbers were found in the offshore waters off the Mackenzie estuary and off Cape Parry (excluding a single large herd in the East Amundsen block). It was apparent that white whales must have been present in the nearshore waters (<5 m deep) and among the offshore pack ice north of the surveyed area.

Results of the second systematic survey on 5-17 August indicate that there had been a major influx of white whales into Amundsen Gulf. There, groups of white whales, including several large herds, were found in offshore waters over 200m deep. Another major concentration occurred among the offshore pack ice in the northern Delta block. There was a substantial

movement of white whales into the study area from the north in early August. However, it is likely that some white whales remained north of the study area during this period.

Survey coverage was quite intensive in the western three blocks during the 19-29 August survey but few white whales were observed. Most of these were in offshore waters off the Mackenzie estuary. Coverage was very limited in Amundsen Gulf thus, it is not known whether large numbers of white whales still remained there during this period.

Relatively few white whales were seen during survey 4 on 7-14 September and virtually all of these were moving rapidly to the west in the northernmost parts of the Tuk. Pen. and West Amundsen blocks. Although surveys were not conducted in the East Amundsen block during this period, results suggest that most white whales had left this area. It is evident that the majority of the population migrated west through offshore waters remote from the coast.

The largest numbers of white whales were found in the study area during the 5-17 August survey. An estimated 11,500 white whales were present in the surveyed area (which excluded the Yukon block and the northwest corner of the Delta block). This estimate is substantially larger than previous estimates of white whales occupying the Mackenzie estuary. The estimation procedures that we used involved a modified strip transect methodology. We consider the total of about 11,500 white whales to be a conservative estimate of the size of the population. Several biases affecting the estimates are discussed and data are presented on the influence of transect width, survey elevation, and sea state on the detectability of white whales.

INTRODUCTION

The Mackenzie estuary stock of the white whale or beluga (Delphinapterus leucas) winters in the Bering Sea and summers in the Canadian Beaufort Sea region (Fraker 1979, 1980; Braham et al. 1981). In spring the white whales pass Point Barrow, Alaska, from late April to early June. Early migrating whales then pass far offshore through leads in the pack ice of the Canadian Beaufort Sea. They arrive off Banks Island and in Amundsen Gulf by mid May. Numbers in Amundsen Gulf by mid June have been estimated at 3000 (Fraker 1979). The white whales begin to leave Amundsen Gulf in late June; they travel west along the Tuktoyaktuk Peninsula to the Mackenzie River estuary. Some late migrating white whales apparently move directly into the Mackenzie estuary from the west (Fraker 1979, 1980).

The use of the Mackenzie estuary by white whales has been studied since 1972 when Esso Resources Canada Limited began a continuing, long-term monitoring program (see Fraker and Fraker 1979, 1981 and 1982 for details). In general, white whales arrive in the Mackenzie estuary in late June with the precise dates determined by ice conditions; peak numbers usually occur in the first half of July. The numbers of white whales using the Mackenzie estuary have been estimated to range between 3500 and 7000 in the six years from 1976 to 1981. The number of whales in the estuary declines in the last half of July and by early August few remain (Fraker 1980; Fraker and Fraker 1981, 1982).

Prior to 1981, there were very few data on the distribution of white whales in offshore waters after they leave the Mackenzie estuary. The

available unsystematic observations have been summarized by Sergeant and Hoek (1974) and Fraker et al. (1978). In 1981, we conducted large scale, systematic aerial surveys of bowhead whales (Balaena mysticetus) in the Canadian Beaufort Sea and Amundsen Gulf from mid July to mid September (Davis et al. 1982). These surveys resulted in new information on the distribution, abundance and movement patterns of white whales. This report presents this information.

Update to Category 2.3.4 83.10.14

2.3.4

- B-2 Martec Limited. 1981.
Beaufort Sea environmental impact statement
- overview of commercial fisheries
exploitation. Report prepared by Dome
Petroleum by Martec, Halifax, April 1981.
- D-7 Dalcor Group. 1979.
Dome Petroleum Beaufort Sea exploration
long-term supply study. Report prepared
for Canadian Marine Services, Calgary.
- D-8 GNWT Outcrop Ltd. 1981.
"Dome/Canmar Beaufort Sea operations: an
economic analysis 1976-1980. An
examination of the economic impacts,
particularly the impacts on Tukoyaktuk and
Inuvik." Yellowknife.
- D-9 Atmospheric Dynamics Corp. 1980.
Documentation and user's guide for modified
version of AES oil spill model. Report to
Dome Petroleum Limited, Calgary.
- O-5 Davis, R.A. and C.R. Evans. 1983.
Offshore distribution and numbers of white whales in
the eastern Beaufort Sea and Amundsen Gulf, summer 1981.
Prepared by LGL, environmental research associates,
Toronto, Ontario for Sohio Alaska Petroleum Company,
Anchorage, Alaska and Dome Petroleum Limited,
Calgary, Alberta. 76p.
- B-6 Esso Resources Canada Ltd. 1983.
Oil spill response plan Beaufort Area. Esso
Resources Canada Limited, Calgary, Alberta.

Update to Category 2.3.4 (83.11.23)

2.3.4

D-10

Informetrica. 1982.

Description of the Informetrica Model. Informetrica,
Ottawa, Canada.

FEARO
Category
2.3.5

Responses to EIS questions or Panel information requests:

2.3.5 #1

Submitted to the Beaufort Sea Environmental Assessment Panel
83.09
by: Proponents

In response to request by Panel Secretariat of
83.08.31

Definitions.

2.3.5 # 2

Submitted to the Beaufort Sea Environmental Assessment Panel
September 1983
by: Proponents (prepared to respond to questions and interventions raised to the EIS)

F.G. Bercha and Assoc Ltd., Lavalin Offshore Inc.-FENCO Consultants Ltd. September 1983.
Oil spill risk assessment - Final Report.
Prepared in conjunction with Dome Petroleum Ltd., Esso Resources Canada Ltd. and Gulf Canada Resources Inc., Calgary, Alberta.

2.3.5 # 3

Submitted to the Beaufort Sea Environmental
Assessment Panel

By: R.A.W. Hoos, Director, Environmental
Management Services, Dome Petroleum Ltd.

November 1, 1983.

Corrections to Oil Spill Chapter of the Response
to Environmental and Technical Issues Document.

Corrected pages are included as well as an
explanation for the column headings for Tables 1
to 4 and a brief description of the fate of oil as
predicted in the model used to generate the
tables.

2.3.5 # 4

Submitted to the Beaufort Sea Environmental Assessment
Panel

83.11.01

by: Proponents (correspondence from R.A.W. Hoos)

Hill, Chris. 1983

Argos buoy polar bear damage. Internal
Correspondence, Dome Petroleum Ltd., Calgary,
Alberta. 2p.

2.3.5 # 5 Submitted to the Beaufort Sea Environmental Assessment Panel, Resolute General Sessions (RB-14).

By: Dome Petroleum Ltd.

Churcher, A. and W. Jolles. Sept. 1983.
Response to significant issues raised by W. Bonn.
Submitted to the Beaufort Sea Environmental Assessment Panel by Dome Petroleum Ltd., Calgary, Alberta.

Introduction from report follows.

.0 INTRODUCTION

The objective of the report is firstly to answer the questions raised by Warren Bonn in his critique of the EIS and secondly, to clarify areas, which, in discussion with Warren Bonn, were found to be ambiguous in the original EIS submission.

Section 2 deals with a design summary and reviews the principal dimensions of the tanker in light of the recent experience gained by the Robert LeMeur ice breaking supply ship in operation in the Beaufort Sea. The Robert LeMeur is a four to one scale model of the tanker and information gained from this has influenced some of the choices of dimensions of the vessel. These are summarized in this section.

In Section 3, all the additional safety precautions taken for the arctic tanker in excess of those required by regulatory bodies are summarized and these are of particular interest since they were also used in the risk analysis [1] and contribute to the overall increase in safety of the arctic tanker.

In Section 4, the specific questions asked by Warren Bonn are answered.

Finally, in Section 5, a detailed break down of the trials program proposed for this vessel is given. This trials program will be the key in determining and verifying operational safety levels for the vessel.

2.3.5 # 6 Submitted to the Beaufort Sea Environmental Assessment Panel, Inuvik General Sessions (In-4)

By: Dome Petroleum Ltd.

Potter, Stephen. January 1983.
Dome oil spill trajectory. Oil Spill Research Group,
Dome Petroleum Ltd., Calgary, Alberta.

Summary: This report was submitted to the Panel in response to a request for information on Dome's oil spill trajectory model.

"This is a deterministic model which can be used to predict the motion of oil slicks over open water. It is based on the Atmospheric Environment Service (AES) oil spill model which was developed by Neralla and Jarvis in 1980.

Section 2.1 describes the currents used in the model.... ...the model uses wind driven surface currents as the major driving force, and does not consider tidal and residual currents." from covering letter.

Model Description attached.

1. MODEL DESCRIPTION

The Dome Oil Spill Trajectory model is a deterministic model which can be used to predict the motion of an oil slick over open water. The model is based upon the Atmospheric Environment Service (AES) oil spill model (Neralla and Jarvis, 1980 after Ahlstrom, 1975). These particular models have been used to accurately simulate the processes which affect an oil slick, and the present version is especially useful since it will predict an oil spill trajectory without an inordinate degree of model complexity.

At present the model has only been run using historical environmental data; however, trajectories can also be predicted using forecasted meteorological data or simulated conditions.

The basic approach of the model is to treat the oil slick as a series of discrete parcels, each of which is acted upon independently by the various driving forces. In the case of an instantaneous discharge, the oil spill is divided into a number of parcels of arbitrary size, the values of which are specified by the operator. For a continuous spill such as a blowout, the rate and size of parcel release are specified, such that a parcel is discharged at the start of each timestep.

A model flowchart is shown in Figure 1. This diagram outlines the series of operations that are performed for each parcel at each timestep. Descriptions of each unit operation are detailed in the following sections.

2.3.5#7 Submitted to the Beaufort Sea Environmental Assessment Panel
83.11.15
by: Proponents. R.A.W. Hoos, Dome Petroleum Ltd.

Clarification statement on oil spill experiment dispersant slide. Dome Petroleum Ltd., Calgary, Alberta.

Filed as Invik submission IN-51.

2.3.5 # 8 Submitted to the Beaufort Sea Environmental Assessment Panel
Resolute General Session
by: Proponents ..Kenn Harper, Consulatant (Dome)

Harper, K. 1983.
Socio-economic impacts. Prepared for Dome Petroleum Ltd., Calgary, Alberta. Submitted to the Beaufort Sea Environmental Assessment Panel
Resolute Submission : RB-21

2.3.5 # 9 Submitted to the Beaufort Sea Environmental Assessment Panel
83.12.15
by Proponents: Dome Petroleum Ltd.

Submission of information regarding the pipeline rupture - North Sea. 2p.

Filed 2.5.2 #28.

2.3.5 # 10 Submitted to the Beaufort Sea Environmental Assessment Panel

by proponents: Dome Petroleum Ltd.

Underwater noise charts.

Filed as Resolute Submission: RB-20

FEARO library Beaufort Sea Project
Document No.

2.4. Government Position Statements

2.4 #1 Submitted to the Beaufort Sea Environmental
Assessment Panel: 82.03.22

Royal Canadian Mounted Police. 1982.

Position Statement on the Beaufort Sea Hydrocarbon
Production Proposal.

Abstract:

The first portion of the report provides the frame of
reference for describing the expected impacts and
includes:

- Identification of the main portions of the proposal
from an R.C.M.P. perspective
- an outline of the characteristics of the R.C.M.P.,
mandate, composition, objectives, responsibilities and
activities in the N.W.T.
- an overview of the demographic, social and economic
conditions evident in the N.W.T. today

Development planning has not reached the point whereby the
R.C.M.P. can forecast the impact on their programs.
Critical factors which will influence the impact are
discussed.

Review: (Guideline Reference Index)

Legislation and mandate:

Formal objective "to enforce laws, prevent crime, maintain
peace, order and security" - sub-objectives listed.
Operational responsibilities in N.W.T. include enforcement
of Federal Statutes (primarily Narcotic Control Act,
Bankruptcy Act, Immigration Act and Revenue Service) and
provision of police services (enforcement of Criminal Code
and Territorial Ordinances).

"Actual and planned development has not progressed to the
point whereby the R.C.M.P. can realistically forecast its
impact on law enforcement in the N.W.T.". Factors which
will influence the impact and a discussion of these are
presented. (e.g. speed of development, location of
development, produce transportation routes, security
posture of proponents, hiring practices of proponents,
transportation modes). Until decisions with respect to these
factors are taken, the impact on the Force is difficult to
assess.

Plans - New initiatives

Decision are required in certain areas of the development
plan before the Force can establish resource needs to meet
increased demands on its services.

2.4. Government Position Statements

2.4 #2 Submitted to the Beaufort Sea Environmental
Assessment Panel: 82.06.29

Northern Canada Power Commission. 1982.

Position Statement on the Beaufort Sea Hydrocarbon
Production Proposal.

Abstract:

The Northern Canada Power Commission is essentially an electrical utility operating on a commercial basis. Areas of concern in relation to the Beaufort Sea activities include the effect on demand for electricity whether for production or to serve the community; and the availability of fuel supply for the Commission's operations. The position paper lists areas served by the Commission, by various systems (utility system, electrical generation/transmission) reviews the mandate of the Commission, and the legislation and existing policies.

Review: (Guideline Reference Index):

Legislation and Mandate

"The Northern Canada Power Commission is a Federal Crown Corporation concerned with the construction and operation of utility systems, principally electrical, on a self-sustaining, commercial basis in Yukon, Northwest Territories and, with the approval of the Governor-in-Council, elsewhere in Canada".

The NCPC Act requires the commission to be financially self-sustaining. Proponents of an industrial installation would be required to make a capital contribution or agree to underwrite the cost of the facilities in order to satisfy Treasury Board on the security of the loan to NCPC. Existing policy statements for north of 60° - "All new generation and transportation facilities north of 60° would be by NCPC. Distribution franchises would continue to be a matter of local option".

Impact: Possible impact on NCPC by providing an alternate source of fuel for some of the Commission's generating stations

- installation of permanent facilities will increase requirements for building heating and electricity at Tuk and Inuvik, requiring increase in staff and generating activities

- where facilities are installed for a single consumer, the consumer or the Government of Canada must underwrite the cost of the installations.

New plans:

Two years of advance notice is required if the Commission is to be involved in the provision of electricity for the project; four to five years required for obtaining approvals from regulating authorities for construction of a generating station and transmission facilities.

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Document No.

Beaufort Sea Project

2.4. Government Position Statements

2.4 #3 Submitted to the Beaufort Sea Environmental
Assessment Panel: 82.07.26

National Museum of Man. 1982.

Beaufort Sea Project Position Statement on Heritage
Matters: PREHISTORIC AND PROTOHISTORIC ARCHAEOLOGY

Review (Guideline Reference Index):

Legislation/Mandate:

"The National Museum of Man is indentified as the sole federal agency responsible for prehistoric archaeology in areas of federal jurisdiction (with the exception of National Parks)". The National Museum of Man participates in the review process of permit and license applications to carry out archaeological work in both Territories, is involved in a number of inventory, impact assessment and research archaeology projects in the Territories, acts as the main repository for archaeological collections gathered in the Territories, and is involved in data gathering, organization and dissemination of information.

Impact:

Beaufort Sea Project - related, land based activities are certain to have a destructive impact on a wide array of cultural resources at some time or another.

The Beaufort Sea Project will have impact on the operations of the Archaeological Survey of Canada in terms of increased need to process the archaeological information. These demands will be placed on the researchers; on the advisory, supervisory, monitoring and administrative workload of the Research Archaeology Programme; on the Physical Anthropology Programme; in the Interdepartmental Committee in terms of permit applications; on handling of scientific documents; on the National Inventory of Prehistoric sites; on the Curatorial Section, reporting and in field support.

The impact of the ASC/NMM involvement in the Beaufort Sea Project would be to strengthen the federal impact to archaeology and cultural resource management in the Yukon and Northwest Territories, and allow for input from various levels of archaeological expertise. The Beaufort Sea Project - related archaeological investigations would be strengthened if undertaken with the National Museum of Man acting as one of the field participants as well as a principal coordinator between the Y.T.C. and the N.W.T.C. and the private sector.

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Beaufort Sea Project

2.4. Government Position Statements

2.4 #4 Submitted to the Beaufort Sea Environmental
Assessment Panel: 82.08.23

Public Works Canada. 1982.

Beaufort Sea Hydrocarbon Production Proposal - Impact
Statement: PUBLIC WORKS CANADA

Abstract:

Public Works Canada is a common service area which responds to requests from client departments for the services it provides. Thus departmental planning for the Beaufort development is dependent upon the planning of its client departments. The departmental mandate is defined and certain recent policy decisions presented.

Guideline Reference Index Review:

Legislation and mandate:

"The mission of the Department of Public Works is to manage real property for the Government of Canada, and to provide planning, design, construction and realty services to government institutions, departments and agencies while contributing to the achievement of the Government's wider social, economic and environmental objectives".

Recent policy decisions clarifying the role of Public Works are included (the Common Service Policy, transfer of Marine Program responsibility to Transport Canada, and confirmation of PWC's roles as the provider of marine engineering and related services, and Cabinet approval in principle for PWC to a revenue dependent mode.)

Impact:

"Impact of Beaufort Sea development on Public Work programs and activities is impossible to assess without a more precise delineation of the timing and role of development in the Beaufort Sea Region and a more accurate assessment."

Summary (from report)

The impact of Beaufort Sea development on Public Works activities will consist mainly of an increase in the demands made for accommodation, marine and transportation services from other government departments and agencies in support of their activities.

This will mean that PWC could receive requests for upgrading and extension of northern highways, for dredging and marine facilities, for northern housing and for Government of Canada buildings as well as for design, construction, technology and research services related to the above.

The extent of the impact on this department will be determined by:

- the timing and rate of development of the Beaufort Region
- the activities of other government departments
- the activities of the proponents and the transportation mode that is chosen
- the timing and rate of development of other hydrocarbon projects (e.g., Hibernia and/or Sable Island).

Plans/Initiatives:

As a common service agency responding to requests from other departments, plans or new initiatives by Public Works is dependent upon activities of other departments.

2.4.

Government Position Statements

2.4 #5

Submitted to the Beaufort Sea Environmental
Assessment Panel: 82.08.05

Department of External Affairs. 1982

Department of External Affairs: Position Statement on the
Beaufort Sea Oil and Gas Proposal.

Abstract:

The Department of External Affairs is the Canadian government agency responsible for the conduct of Canada's relations with foreign countries in the field of foreign policy and trade under a broad mandate. Canadian activities associated with oil and gas development in the Beaufort could have an impact on Alaska and Greenland, and as such "necessitating that these activities be brought to their attention and that their legitimate interests be taken into account in Canadian considerations".

Impacts:

The proposal has an impact in terms of: environmental relations with the U.S. (need to review the Canada-U.S. Joint Oil Spills Contingency Plan, impact on shared resources such as migratory birds and caribou, impact on U.S. Arctic Wildlife Refuge).

- environmental relations with Denmark (negotiation of a Marine Environmental Cooperation Agreement).
- multilateral environmental impacts and international obligations pursuant to certain wildlife conventions e.g. Polar Bear Convention
- External Affairs is the agency which must officially inform a government of the proposal and official views of foreign authorities must go through them.

Plans/Initiatives:

Considerations in ways of obtaining directly the views of Alaskans or Greenlanders (could attend hearings as private individuals but any official views must be passed through External).

2.4. Government Position Statements

2.4 #6 Submitted to the Beaufort Sea Environmental
Assessment Panel: August, 1982

Environment Canada. 1982

Environment Canada's Proposed Response to Beaufort Sea
Hydrocarbon Production

Abstract:

Environment Canada's perspective on the problem was presented under the topic of industrial plans, the arctic environment and environmental issues. Eight issues were identified as follows: major oil spills, major chemical spills, protection of significant resources, cumulative impacts, interaction with atmospheric/ice/sea state regime, research and monitoring, and government preparedness.

Environment Canada's role and responsibilities in relation to Beaufort Sea development is reviewed in terms of the federal governments approach to environmental affairs and its administrative arrangements in the North, and to the public policies that govern the course of northern development. Appendices provide more detail on mandate and programs of Environment Canada; northern environmental legislation and administering agencies; proposed Interdepartmental Northern Conservation Strategy Working Group; Environment Canada's Northern Conservation Lands Inventory and Environment Canada's proposal for the conservation of the Northern Yukon.

Review: Guideline Reference Index

Legislation/mandate:

Mandates and programs are outlined in detail in Appendix C.

Environment Canada's roles and responsibilities are presented in relation to the Federal Government's approach to environmental affairs and its administrative arrangement in the North, and to the public policies that govern the course of northern development. e.g., - all federal departments and agencies are made accountable for environmental consequences of their actions, through Acts of Parliament and also through EARP Terms of DOE Act presented Objectives of the Department listed. Appendix D lists Acts and ordinances that pertain to environmental and resource management in the north (approx 30 federal acts). Text highlights some of the management structures.

Policy statements relevant to Northern develop reviewed. ("resource development in the North must be environmentally sound and must result in relevant benefits for northerners").

Impacts - plans/policies and the Beaufort Sea:

Principles guiding Environment Canada's approach to northern environmental management are outlined. Seven objectives have been developed to guide and focus its response to the Beaufort Sea production. These objectives are listed and the strategies adopted by Environment Canada to meet these objectives discussed under Conservation strategy; Protection Strategy; Management Strategy and Implementation. A review of each strategy is presented.

Conservation strategy involves the biophysical data base, the conservation area network and environmental quality guidelines.

Protection strategy covers six elements: meteorological, sea state and ice services; environmental design and operating guidelines; regulation; advisory services; environmental monitoring network; and environmental emergencies coordination.

Management strategy consists of four components: management systems; public consultation; science programs; and environmental advocacy. In terms of implementation, the Department's commitments in other parts of the nation must be considered, and its success in the above strategies will be dependent upon timing and pace of development, transportation modes, cooperative and cost sharing agreements with other agencies and industry; and financial constraints.

The impact discussion is mainly how Environment will deal with impacts of the Beaufort Sea proposal and the changes made to enable them to respond to demands made by the proposal. General items noted: timing and rate of development could strain Department's resources; tanker mode would have a significantly greater impact on the Department's programs, selection of both modes would put the greatest strain on resources, especially in combination with the proposed timing and pace of development (unmanageable); spin-off effects represent an unknown that could seriously impact the Department's programs (e.g., development of a Mackenzie Valley highway).

Plans/Initiatives:

Environment Canada's position statement deals with objectives and strategies in place developed to deal with Beaufort Sea development. Most of the report could fall under "new plans and initiatives". The section on Effective Management deals with coordination mechanisms required to make the Departmental strategies most effective, and reviews those in place as well as proposing other coordinating mechanisms for consideration. Environment Canada's proposed response to Beaufort development has been designed to lend support to the outlined management structure, with particular attention to land use planning.

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Beaufort Sea Project

2.4

Government Position Statements

2.4 #7

Submitted to the Beaufort Sea Environmental Assessment Panel: 82.08.16

Department of Transport - Canadian Marine Transportation Administration. 1982

Position Statement to the Beaufort Sea Environmental Assessment Panel

Abstract:

The mandate of the Department of Transport is to attend to the development and operation of a safe and efficient national marine transportation system that contributes to the achievement of government objectives, and to operate specific elements of this system. The plans by industry for year round operations in the Arctic will require that the department increase its Arctic capabilities by a quantum step. This report outlines the existing mandates and responsibilities of the department, describes the policies and programs for Arctic transportation development and responds to specific concerns identified by the panel.

Legislation:

The statutes of Canada which apply to shipping include, the British North America Act, Constitution Act, the Financial Administration Act, the National Transportation Act, the Transport Act, the Department of Transport Act, the National Harbours Board Act, the St. Lawrence Seaway Act, the Water Carriage of Goods Act, the Government Harbours and Piers Act, the Harbour Commissions Act, the Pilotage Act, the Canada Shipping Act, the Arctic Waters Pollution Prevention Act and the Navigable Waters Protection Act. Of these, the latter three are the most important with respect to Arctic shipping, and are discussed in more detail.

The Department provides an advisory role to other agencies including COGLA (by agreement the Coast Guard will assess or inspect installations, structures, vessels or support craft used in energy exploration and development not otherwise inspected under the Canada Shipping Act); Department of Fisheries and Oceans (support to Hydrography through Coast Guard); Environment - Ice Reconnaissance and Meteorological Service; Department of National Defence - Search and Rescue (the Coast Guard role is to control and conduct marine SAR operations within the designated Canadian Area of responsibility and under coordination by DND); Government of N.W.T. - Marine Pollution Emergencies (Arctic Marine Emergency Plan sets out the Coast Guard's response mechanism for marine incidents in Arctic waters under their operational responsibility, and the Arctic Seas Contingency Plan is an organizational Plan designed to cover all non-ship spills).

Policies and Programs include:

Arctic Marine Services Policy intended to provide for an appropriate level of service and regulation in support of marine transportation and related activities in the north. Canadian Coast Guard - Current and Planned Operation Program - includes icebreaking and escorting services; ship and port safety; northern resupply; navigational aids; maritime mobile communications; vessel traffic management - NORDREG; search and rescue - SAR; pollution countermeasures; pilotage; hydrography; ice reconnaissance; Arctic Shipping Control Authority (role will be to monitor and manage Arctic shipping and ship routes in the interests of ship safety, the efficient movement of ships and the protection and preservation of the Arctic environment); proposed Coast Guard Northern Region (organization; roles and objectives are outlined); training; satellites (communication, navigation, surveillance and search and rescue).

Impacts:

The Arctic Marine Services Policies and the programs stemming from this are intended to meet the requirements of marine traffic generated by Arctic hydrocarbon development - and will be implemented when required.

- Transportation infrastructure is planned to be neutral and not influence timing or magnitude of the Beaufort sea proposal
- The impact of the Beaufort Sea development on each program is not analyzed. If no production occurs, current services and normal growth service will be continued.
- Transport's Marine Administration has developed estimated spending requirements through 1986-87 to prepare for year round shipping - on assumption that services would not be required until 1987-88.

Plans and New Initiatives:

- The Canadian Shipping Act is being updated, and revisions to the Arctic Waters Pollution Prevention Act are being prepared.
- Transport is reacting to indicated needs with policies and practices that are designed to meet transportation so that areas requiring mitigative actions are reduced.
- Transport is engaged in discussions with a view to obtaining pollution contingency agreements with U.S.A. and Denmark. Some involvement in land claims where new Transport initiatives impact the areas of interest - work with EMR on the Polar 8 Icebreaker.

The remainder of the report addresses specific transport issues under topics raised by the Panel and repeats some of the material provided in the body of the paper. Issues discussed include:

- Transport plans to evaluate design effectiveness of icebreaker tankers
- Transport plans to control year round tanker traffic - Arctic Shipping control Authority and Vessel Traffic Management
- Transport plans to assess the short and long term effects of year round tanker traffic (Environmental Advisory Committee to the Control Authority)
- Transport mechanisms in place or planned to evaluate possible impacts of tanker traffic south of 60° (TERMPOL Code)
- Transport search and rescue procedures including allowance for stand-by vessels
- Transport plans for aircraft support and surveillance for tankers
- Transport plans to provide an adequate navigational aid system for tankers.

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Beaufort Sea Project

2.4

Government Position Statements

2.4 #8

Submitted to the Beaufort Sea Environmental Assessment
Panel: 82.08.23

Canada Employment and Immigration Commission

Impact of offshore development in the Beaufort Sea on the
Canada Employment and Immigration Commission

Abstract:

"The CEIC position paper on the Beaufort Sea Hydrocarbon Production Proposal will review the Commission's existing legislation, mandates and responsibilities and describe some of the programs and services of the Commission as they relate to hydrocarbon development in the North. To the extent possible, the effects of the Beaufort Sea oil and gas production in the Commission's current and planned programs, policies and activities will be catalogued, and vice versa. Finally, attached as appendices 1, 2 and 3, is information concerning the new National Training Act, which will be the cornerstone of the federal government's future involvement in the Canadian labour market."

Review (Guideline Reference Index):

Legislation and Mandate

Comment:

Six acts were listed which might apply in a direct or a "second order" way to hydrocarbon production in the Beaufort Sea. Excerpts from the Acts and Regulations and a description of how they might apply are presented.

Acts:

- Unemployment and Immigration Reorganization Acts S.C.
- National Training Act and Regulations
- Immigration Act 1976 S.C.
- Labour Mobility and Assessment Regulations SOR/77-54 and Manpower Mobility Regulations SOR/72-14
- Regional Development Incentives Act R.S.C. 1970

Mandate: The objectives and sub-objectives of the programs administered by the Commission are listed:

Employment and Insurance

"To further the attainment of national economic and social goals by realizing the full productive potential of Canada's human resources, while supporting the initiatives of individuals to pursue their economic needs and, more generally, their self-fulfillment through work."

Immigration (as impacts on Beaufort Sea Development)

"To administer the admission of immigrants and non-immigrants in accordance with the economic, social and cultural interests of Canada."

Policies and Programs

"The top priority of Canada's employment service and principal activity of Canada Employment Centres is to help employers find suitable workers and job seekers to find work."

Points of service in the N.W.T. are listed and the programs and services offered in the N.W.T. listed:

- information on available jobs
- recruitment of workers, both local and Canada-wide
- referral of qualified workers to available jobs
- counselling workers on employment and related matters, including how to look for their own jobs
- counselling and other services for women, Natives, the handicapped and special needs persons
- specialized services for students
- aptitude, interest, skill and ability assessment
- referral to diagnostic services
- referral to training
- mobility and relocation assistance
- collection and dissemination of labour market information
- itinerant service to outlying communities
- support of community efforts to meet local labour market needs
- provide temporary income support to workers in between jobs

Some specific programs and policies through which CEIC administers its mandate in the N.W.T. include: (descriptions provided in text)

National Job Bank
CEIC Client Counselling
Mobility and Training Program
Manpower Mobility
Employment Training
Institutional Training
Critical Trade Skills Training (CTST)
Canada Community Development Projects
Canada Community Services Project
Summer Canada
Native People
Manpower Consultative Service
Outreach Program
Affirmative Actions

Impact

Comment

The projected activities will impact directly on the CEIC, necessitating additional support services for the labour market in certain areas:

- client services - to help prepare the northern labour force
- Business development will require increased emphasis on assistance to improve Northern entrepreneurial capabilities
- Internal effects on CEIC will include increased resource requirements and increased training and development of CEIC personnel

Major effects and areas where a need for a significant increase in effort is anticipated includes:

- new office in Tuk with two counsellors (minimum)
- additional staff at Inuvik
- counselling services - Hay River
- Norman Wells - a full service CEC
- additional staff for Yellowknife CEC and Directorate office
- a Northern Employment Coordinator for the Western Arctic
- increase in use of training programs
- possible need for several industrial consultants and analysts in the North
- additional Employment Development staff and project officers
- expanded Outreach Program
- immigration impact will depend on recruitment practices of the companies
- loss of qualified and trained CEIC staff to oil companies and businesses expanding in the north

"In summary, the actual and planned development has not progressed to the point where a detailed assessment on the impact on CEIC programs and policies, and vice versa, can be made."

Plans/ New Initiatives

Plans include:

- 1) new National Training Act
- 2) interdepartmental and intergovernmental committees such as Senior Policy Committee on Northern Hydrocarbon Development, Committee on Megaprojects Industrial and Regional Benefits (C.M.I.R.B.) and in Central Agency coordination of major projects.
 - working relationships with other departments and project specific management committees
 - the Commission and Government N.W.T. co-chair the Manpower Needs Committee
 - CEIC is intended to participate in the future Economic Development Agreement with G.N.W.T. and DIAND
- 3) Private Sector Initiatives/Human Resource Planning: Need for coordination of public and private sector initiatives in the North discussed including: Commission's Major Project Guidelines for Preparation of a Human Resource Plan and Joint CEIC/GNWT Guidelines on Human Resource Planning; purpose of the Commission's human resource planning activities; role of the CEIC in human resource planning in the public sector and in the private sector.

2.4

Government Position Statements

2.4 #9

Submitted to the Beaufort Sea Environmental Assessment
Panel: 82.09.08

Government of Yukon. 1982.

Government of Yukon position of Beaufort Development
Proposals

Review (Guideline Reference Index):

Legislation and Mandate

Policy

Three government policy papers are referenced and reviewed:

- The Northern Yukon Resource Management Model
- Beaufort Development: The Yukon Perspective
- Land: A Yukon Resource

Mandate

"The Yukon Act vests the responsibility for socio-economic and wildlife concerns in Yukon with the Government of Yukon. These responsibilities are reflected in legislation covering matters such as municipal affairs, education, public health, highways, labour standards, workers compensation, wildlife, and area development."

Legislation:

A list of Regulations and Acts relevant to exploration and development are presented in Appendix A.

In addition to matters over which it has direct jurisdiction, there are other issues over which the government represents the concerns of the people - land claims, land use, land ownership and resource management.

Impacts

Comment

Impacts are discussed in terms of the Yukon position on aspects of the Beaufort Sea Development.

Social and Political objectives dealing with jobs, training and business opportunities for Yukoners; settlement of land claims; planning for development must take into consideration the Yukon population both native and non native; share in resource revenues by Government of Yukon; utilization of Beaufort hydrocarbons to service Yukon's energy needs; full participation of Yukon Government re intergovernmental discussions relevant to Yukon; co-operation between industry and the Yukon Government.

Level of Preparedness and Knowledge Gaps:

- Data on wildlife in Northern Yukon is incomplete and inventories are needed on sheep, moose, wolf and fur bearing populations
- Research needed on birds of prey and location of polar bear maternity dens.
- Mapping of critical habitat of coastal plain grizzly bear
- Management regimes needed for raptors and caribou
- An updated inventory of historic and archaeology sites required
- Update for potential sites for territorial parks

Appendix B lists the preliminary identification (in detail) of some intergovernmental and external information requirements for the Government of Yukon to take an effective role in Beaufort development.

Socio-Economic:

- Recruitment of Yukon residents
- early identification of job requirements to allow training
- government and industry have responsibilities in training
- major operators are expected to disseminate confirmation about job opportunities
- rotation of workers from a community supported
- proponents should facilitate employment of native Yukoners and women and develop work schedules to allow for traditional pursuits of hunting, fishing, trapping.

Business

- Proponents should give consideration to local Yukon suppliers and service contractors
- design of bid documents should reflect the structure and capabilities of Yukon's business community
- northern based transportation services should be utilized.
- Government of Yukon is committed to work with the major companies, local business interests and federal government to develop business opportunities for local companies.

Energy:

The Government of Yukon is committed to finding ways to ameliorate energy costs and is anxious to participate in any study regarding the feasibility of supplying Beaufort hydrocarbons to local communities.

Transportation:

Government of Yukon supports the use of transportation routes through Yukon and extension of these routes (in a manner that will mitigate adverse environmental effects) and is prepared to participate in discussions regarding transportation infrastructure.

Community Development:

The Government of Yukon encourages the Beaufort operators to locate their permanent employees in existing Yukon communities and supports the use of Yukon centres as rotation points. The Government of Yukon is committed to upgrading school, health and general municipal services in existing communities. The Government of Yukon will need to be involved in planning exercises to cope adequately with the impact of Beaufort development on Yukon communities.

Social policy and community liaison

"The Government of Yukon holds that the proponents of Beaufort Sea development should develop a community liaison plan outlining a mechanism for the regular dissemination of project information to Yukoners". Community liaison programs can help reduced undesired consequences and maximize positive outcomes of development.

Wildlife and Environment Positions:

The Government of Yukon is resolved to establish a resource management region for Northern Yukon to address wildlife concerns and minimize the impact of development. Details of the resource management scheme cannot be finalized until additional information is available on density, distribution, movements or habitat of certain species such as North Slope moose, wolves and other fur bearers north of Porcupine River; North Slope raptors; plan bear maternity dens; Dall Sheep and their movements.

Management Issues:

Management zones will be established. Proposed zones and management plans are discussed in more detail.

Land Use:

The Government of Yukon has proposed three types of management and land use zones for Northern Yukon. The Government advocates a national park for the western most portion of the British Mountains and coastal plain; a territorial historic park for Herschel Island; a resource management zone in Northeastern Yukon; and plans for protection of significant historic sites.

Plans/ New Initiatives

Issues were discussed in terms of the Yukon's position on aspects of Beaufort development and much of the discussion dealt with their plans or their issues.

The Government of Yukon has developed two planning perspectives:

Land Use Planning - Land use policy outlined April 1982. This involves a planning strategy involving "the development of legislation, the creation of a Yukon Land Use Planning Board and Land Use Planning Committees, the decision of Yukon into planning districts, and the transfer of land from federal to territorial jurisdiction as land plans are adopted"

Regional Socio-Economic Planning:

"In order to cope with the anticipated impacts and opportunities of Beaufort activities the Government of Yukon has taken a broad regional planning approach to development proposals that essentially telescopes Yukon communities with the Beaufort Sea". In adopting this planning approach the Government is committed to obtaining the maximum benefits from development for Yukon residents and to reducing undersirable impacts.

Current Activities include:

- Government of Yukon's Beaufort Working Group (interdepartmental group co-ordinated through the Department of Economic Development and Intergovernmental Relations)
- Intergovernmental and Government-Industry activities.
- Fiscal and staffing implications - Need has been assessed and negotiations are underway with the federal government for funds to conduct research regarding the impact of Beaufort development on Yukon.

Other

Development options having environmental implications include construction of shore bases, the identification of transportation corridors, quarrying and granite mining, and induced activities such as increased use of Dempster highway and increased mineral exploration.

Socio-economic implications of interest to the Yukon Government discussed include business opportunities, employment opportunities, training opportunities, housing and infrastructure requirements, project information dissemination, and the provision of government services of an increased and widely dispersed workforce. Other issues include resource revenue sharing, worker residency and use of Beaufort energy in Yukon.

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2.4 #10
Assessment

Beaufort Sea Project

Government Position Statement

Submitted to the Beaufort Sea Environmental

Panel: 82.10.26

Distribution Date: 82.11-04

Health and Welfare Canada, 1982
Position Paper of the Department of National Health and Welfare on Beaufort Sea Hydrocarbon Production Proposal.

Abstract.

The principal concerns of the Department relate to socio-economic and psycho-social impacts. The mandate and organization of the Medical Services Branch is outlined as they apply to the Inuvik zone. The present level of care and services in the Inuvik zone is described - mental health services, environmental health responsibilities, public service health program, and dental services. Facilities include the Inuvik Health Centre, Inuvik General Hospital, Inuvik Alcohol Centre, Tuktoyaktuk Nursing Station and stations at Aklavik and Fort MacPherson. Existing acts and regulations are listed. Impacts on existing policy, programs and activities as a result of the Beaufort Sea proposal are clearly outlined. Changes required or anticipated changes and financial and human resources involved are discussed for each program. Plans and new initiatives are outlined by plan, discussion of alternatives, agencies involved and timing aspects.

Attachment: Review (Guideline Reference Index)

Summary (from Report).

The mandate of Medical Services Branch of the Department of Health & Welfare and existing services are briefly outlined as they apply to the Inuvik Zone of N.W.T. Region. Existing relevant ordinances are listed.

The impact of oil and gas development will affect the following programs;

1. Mental Health, community based programs and community development.

The major negative effects of oil and gas development will be seen in these areas.

Community based and managed preventive programs need to be developed now in order to be effective when development proceeds. There is a need for such programs even if the proposed development is cancelled.

2. Primary care and treatment services at Inuvik General Hospital, Tuktoyaktuk, and Fort McPherson.
3. Environmental Health & Surveillance.
4. Occupational Health and Safety.
5. Emergency measures.

The roles of the Federal and Territorial governments, and the various departments within these governments need to be clearly defined. Regulatory and fiscal responsibilities need clarification. A broad policy statement recognizing the future development of the Beaufort Sea area needs to be forthcoming from both federal and territorial governments.

A coordinating group of representatives of the various agencies should be formed in the Inuvik Zone to prevent duplication of effort and to clarify the direction of planning. The main objectives of such a group would be to develop five (5), ten (10), and twenty (20) year plans to fit the scenarios of no development, delayed development or development within five (5) years. At this point it is impossible to predict which of these three (3) will occur. The most likely would appear to be delayed development.

Review (Guideline Reference Index):

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2.4 # 10

Beaufort Sea Project

Government Position Statement

Health and Welfare Canada

Legislation and Mandate

Comments:

The Medical Services Branch of the Department of National Health and Welfare has the mandate to provide health services for several client groups: -

- Indian & Inuit population of Canada
- All residents of Yukon and N.W.T.
- Civil Aviation Personnel
- Disaster Victims
- Immigrants, refugees and temporary residents
- The physically handicapped
- Federal Public Servants
- International travellers

Twelve existing acts and regulations of the relevant GNWT ordinances applicable to the role of MSB and the Beaufort Sea proposal are identified.

Impact

Comments

Six policies, programs and activities that will be affected by the Beaufort Sea Proposal are identified and discussed including:

1. Mental Health and Community Development

Based on North Slope Alaska and Greenland experience, changes required to the existing program include:

- increased community and native involvement
- training programs for native workers in the Mental Health field and social sciences
- life skills programs
- cultural orientation programs
- treatment facilities
- intergovernmental and other agencies relationships
- Both financial and human resource requirements are commented upon.

2. Primary Care and Treatment Services

Increased needs at both Tuktoyaktuk and Inuvik because of population increase and increased social problems. Changes necessary could include expansion at Tuk requiring major construction and new staff accommodations. Possible increased staff requirements at Inuvik dependent upon permanent resident staff members. Intergovernmental services require definition. Financial and human resources commented upon.

3. Occupational Health and Safety is discussed under the headings:

- regulatory - responsibilities need to be clearly defined
- pre-employment screening - should be done by a qualified occupational health physician. Families coming north should be screened.
- on-site hazards, noise, chemicals, hypothermic diving, sour gas (possible in future extraction processes) and visual.
- water, sewage and garbage disposal.
- communicable disease control
- social psychology - rotating nature of work reduces stress for southern workers. Twelve hour shifts create problems for northern workers, women in particular.
- emergency measures.

The effects of the programs on existing MSB programs, the oil companies and government services are summarized with emphasis on:
need for clearly defined responsibility and review of company programs;
stress on working relationship between the companies and H&W personnel through increased number of workers;
need for pre-employment screening.

4. Environmental Health Services and Environmental Protection

Tuktoyaktuk and Inuvik will be affected. The effects on each are discussed, with implications identified:

- water, sewage and solid waste disposal requirements to be established
- increased manpower requirement for EHOs
- upgrading of knowledge and skills of EHOs and medical officers of health in environmental contaminants in relation to oil and gas development.
- logistical problems will affect occupational health and safety inspections during construction of pipelines.

Increased demands on financial and human resources.

5. Emergency measures

Five areas requiring updated contingency plans are identified

- increase air traffic
- increased Dempster highway traffic
- power failure
- major oil spill

6. Government Services: - overlapping and poorly defined responsibilities with cumbersome communication lines exist in some health areas and needs to be changed.

Appendix 1

Recommendations from report on Tuktoyaktuk Water Supply, Sewage and Solid Waste Disposal Study

Appendix 2

Inuvik - Existing and alternative facilities for treatment and disposal of sewage

Plans/New Initiatives

Comments

- 1) Refined or New Legislation requirements identified:
- 2) Alternative Plans or Actions required are identified for the following:
 - #1 Community based and managed mental health programs in all settlements (no alternatives). Timing - presently in preliminary stages.
 - #2 Reconstruction or renovation of Tuktoyaktuk nursing station alternatives outlined
 - #3 Creation of native positions in mental health and environmental health
 - #4 Development of training programs for the trainees which are portable, have nation-wide recognition and a definite career ladder
 - #5 Expand Fort MacPherson nursing stations
 - #6 Additional CHR for Inuvik
 - #7 Implementation of Peal-Marwick recommendations for Inuvik General Hospital
 - #8 Expansion of Inuvik Health Centre to five nurses
 - #9 Develop a coordinating group under the Department of Health.

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2.4 #11
Assessment

Beaufort Sea Project

Government Position Statement

Submitted to the Beaufort Sea Environmental

Panel: 82.10.26

Transport Canada, 1982
Position Statement to the Beaufort Sea
Environmental Assessment Panel by the Canadian Air
Transportation Administration.

The Beaufort Sea - Mackenzie Delta Hydrocarbon
Production Proposal and the Canadian Air
Transportation Administration.

Summary from Report follows.
Attachment 1: Review (Guideline Reference Index).

Summary

This document has provided an outline of the position of the Air Administration in relation to the Beaufort Sea Proposal. After describing the mandate, structure and operation of the Air Transportation Program, the paper expanded upon Air Administration policies and activities in the North. This led to a review of possible demands for air facilities and services generated by the Beaufort Sea Proposal over the next twenty years and the conclusion that, while the present mandate and legislation of the Minister of Transport is sufficient to respond to development of the civil air transportation system in the Western Arctic, the questions of funding priorities and national benefits have not been resolved. Additionally, further information and industry commitment to specific production levels and precise scheduling are required before the impact on the Air Administration program can be fully evaluated and appropriate requirements identified. ¶ 11

Review (Guideline Reference Index):

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2.4 #11

Beaufort Sea Project

Government Position Statement

Department of Transport
Canadian Air Transportation Administration

Legislation and Mandate

Comments

The National Transportation Act and the Aeronautics Act are the two main statutes involved. The role of the Air Administration is: "To attend to the development and operation of a safe and efficient national civil air transportation system that contributes to the achievements of government objectives, and to operate specific elements of this system". Objectives of the Administration are outlined and a listing of a number of specific responsibilities provided.

The development of national, regional and site-specific aviation forecasts is commented upon although application to the north is tentative.

Airports across Canada are ranked by the Air Administration under a National Airport Classification System. Application of this system to northern airports is under consideration.

Planning systems include strategic planning, operational/implementation planning and program planning.

Arctic Air Transportation Policy - discussed under headings "Arctic Air Facilities Policies" and "Aviation Safety". Under the Arctic Air Facilities Policy, Transport Canada has provided funding for construction, operation and maintenance of airport facilities at three types of airports (jet operations, medium propeller-driven aircraft, light twin aircraft.) This Policy expires in 1983 and is under review.

Impact

Comments

Environmental impacts are a result of land use, facilities construction and services at or around airports, of noise from aircraft operations at

airports, and from aircraft overflying wildlife. "The incremental environmental effects of aviation in support of the Beaufort Sea development are expected to be minimal."

Resources for the air transportation system and allocation of these are commented upon.

"Where Transport Canada expenditures are directly related to and required by Arctic oil and gas development and provide direct benefits to the oil companies, it is expected that the companies would fund or contribute a major share of the funding for the provision or expansion of airports and services"

The potential effect on the Air Administration of three scenarios of oil in the Beaufort Sea, i.e. no production, minimal production and full production, will be measured by air service demands and impacts.

The planning and implementation of many projects require five years lead time before facilities are operational.

New program initiatives relate to technological improvements for the Beaufort Sea area.

Plans/New Initiatives

Comments

The current air-service demand is reviewed, with projected growth of air service demand indicated.

Airport Facilities - Areas requiring (over the next twenty years) expanded or new airport facilities are reviewed.

Air Navigation Services¹¹ and improvements required at Inuvik, Tuktoyaktuk and area needs are noted.

The need to provide regulatory and aviation safety promotion services will require increased staffing.

Planning considerations - The Air Administration plans the following Arctic Master Plans:

- 1983 - Beaufort Sea - Mackenzie Delta Area Master Plan
- Tuktoyaktuk Airport Site Land Development Plan
- 1983 - Summary Arctic Area Aviation
- 1983 - Norman Wells Airport Site Master Plan
- 1986 - Eastern Arctic Area Master Plan
- 1988 - Inuvik Airport Site Master Plan

New Air Transportation program initiatives relate to technological improvements for the Beaufort Sea Area.

Coordination and cooperative agreements with other government departments are listed.

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Government Position Statement

2.4 #12
Assessment

Submitted to the Beaufort Sea Environmental

Panel: 82.10.21
Distribution Date: 82.11-04

Industry, Trade and Commerce, 1982

Beaufort Sea Hydrocarbon Production Proposal -
Department of Regional Industrial Expansion
Position Paper.

Summary from Report follows.
Attachment: Review - Guideline Reference Index.

I INTRODUCTION AND SUMMARY

From the perspective of the Department of Regional Industrial Expansion (DRIE), the importance of the development of Beaufort Sea hydrocarbons lies in the contribution it can make to industrial and regional development in Canada.

Development of the Beaufort Sea's hydrocarbon potential is, however, only one of a number of major resource based projects which offer opportunities for Canadian industry to strengthen its underlying productive capabilities. Recognizing the importance of these opportunities, the government has adopted a number of measures to ensure that Canadians have full, fair and competitive access to the jobs and markets associated with major projects in Canada. Among these are an industrial benefits policy for major projects announced by the Minister of Industry, Trade and Commerce in August, 1981. This policy outlines the federal government's view of the industrial development objectives and guidelines which should be followed by major project sponsors in carrying out their projects in Canada. At the same time, the Minister announced the establishment of a Committee on Megaproject Industrial and Regional Benefits (C-MIRB) to act as a focal point for discussions with major project sponsors and the creation of the Office of Industrial and Regional Benefits (OIRB) to support and guide the activities of the Committee. A description of the origins of the government's industrial and regional benefits policy for major projects, the guidelines for major project sponsors, and the responsibilities of OIRB and C-MIRB is contained in the attached briefing for the Special Committee of the Senate on the Northern Pipeline.

In addition to these measures, the Canada Oil and Gas Act (C-48) was enacted in March 1982 making the government's industrial benefits policy with respect to megaprojects obligatory for owner/sponsors carrying out projects on Canada Lands like those in the Beaufort Sea.

Taken together, these measures provide a comprehensive framework for ensuring that Canadian industry has full and fair access to major projects in Canada and they should, therefore, be sufficient to guide the formulation of an industrial and regional benefits program for Beaufort Sea hydrocarbon development. In these circumstances, it is not envisaged that existing industrial and regional benefits policy will require modification to accommodate Beaufort Sea development.

Review (Guideline Reference Index):

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Beaufort Sea Project

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Government Position Statement

2.4 #12

Industry, Trade and Commerce

Mandate and Legislation

Comments

Two pieces of legislation have a bearing on DRIE'S responsibilities with respect to development of Beaufort oil and gas.

Bill C-123 - This act established a new Department of Regional Industrial Expansion. North of 60 the responsibilities outlined in this bill are undertaken by DRIE in cooperation with the governments of the Yukon and Northwest Territories.

Bill C-48 - Canada Oil and Gas Act. This Act is the major legislative and regulatory lever available to the federal government to ensure that Canadians benefit from major projects taking place within federal jurisdictions. Working relationships under these acts with DIAND and COGLA are presented.

The DRIE Office of Industrial and Regional Benefits takes the lead role in terms of industrial benefits required of project sponsors. The office also supplies analytical and administrative support for the Committee on Megaproject Industrial and Regional Benefit. This committee provides a focal point for consultation between interested governments and project sponsors on issues related to industrial benefits.

- Brief Submitted to the Special Committee of the Senate on the Northern Pipeline

- Summary of the objectives and operational arrangements of the Office of Industrial and Regional Benefits.

Listing of Industrial Benefits Objectives and Guidelines

Mandate of the Office of Industrial and Regional Benefits (OIRB) and for the Committee on Megaproject Industrial and Regional Benefits (C-MIRB)

The Objectives/Focus and Functions of the OIRB and C-MIRB operations.

OIRB relationship with COGLA and other Federal Agencies.

Impact - Policies Programs and the Beaufort Proposal

Comments

The present interaction of the OIRB with the Dome, Gulf and Esso undertakings are reviewed, with encouraging results indicated from the initial efforts of the companies. The impact on DRIE is linked to the speed at which development proceeds and the transportation mode. DRIE is currently conducting an in-depth analysis of the project including alternative transportation modes to better identify the project's potential industrial and regional benefits opportunities.

Additional programs are not anticipated and the Beaufort Sea Project has been included in planned staff requirements.

Plans - New Initiatives

Comments

Bills C-48 and C-123 are considered as being sufficient federal legislation to meet requirements from an industrial and regional development perspective. The establishment of OIRB/C-MIRB provides the organizational and procedural method required. No new plans.

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2.4

Government Position Statement

2.4 #13
Assessment

Submitted to the Beaufort Sea Environmental

Panel: 82.09.17

Distribution Date: 82.11-04

Department of Communications. 1982

Beaufort Sea Hydrocarbon Production Proposal -
Department of Communications Position Paper.

Abstract

The legislation, mandate, policies and programs of the Department of Communications are outlined. A description of the policies, and programs which might be affected by the proposal is presented. Increased demands for business communications, public telephone and entertainment services can be anticipated. Full production will create increased demand for human and financial resources for some programs but these can probably be met through normal planning procedures. The Department needs to be kept informed of the projected communications requirements of the proposal, particularly for systems design of the MSAT program. Cooperative planning of communication facilities with Territorial and Federal Government users of the communications services is required (and increase use due to the Beaufort proposal).

Attachment: Review (Guideline Reference Index)

Summary (from Report)

If the current activity in the Beaufort Sea leads to full scale oil and gas production, a demand for telecommunications services, which would be significant in relation to the existing level and range of services, is likely to be created. The telephone companies operating in areas affected by the project, and the Department of Communications, must be closely associated with the proponent's activities from the advance planning stages through to project implementation and operation. This will ensure that communications facilities can be provided at the appropriate times to that project demands do not adversely effect texisting services to the public but, rather, serve as a

means of permanently enhancing the level and range of services offered. Furthermore, the peak construction period requirements of the project can, through this process, be segregated from the long-term demand increase, and supported fully by the proponents. The degree to which all necessary project services can be provided on one common system operated by a telephone company should be established in a manner which minimizes spectrum demand. to facilitate comprehensive planning for an operational MSAT system, the demand for such services should be established through continued liaison between the Department and the proponents.

An aggregatio of demand will permit the Department to examine the level of subsidization which will be available to support services to new or very small communities. The need for and feasibility of Federal Government assistnace for the provision of communications facilities, as in the Northern Communications Assistance Program, can then be assessed. Aggregate demand figures will also facilitate a determination of the extent to which departmental internal resources will have to be increased in order to meet additional demands for licensing and enforcement as well as specific program management activities. Without reasonably firm aggregate demand figures, an increase of two to three person-years plus directly associated funds is the best estimate that can be offered at this time. As has been indicated earlier, the existing programs are not liekly to need additional resources. New programs and the associated resources would have to be developed as their needs are established.

The Department of Communications maintains liaison with telephone companies and with oil and gas industry organizations as part of its regular activities. Nevertheless, in view of the potential of the Beaufort Sea hydrocarbon production proposal for having an adverse impact on the leve and quality of public communications provided to northern residents, and the significance of an extended telecommunications network to matters of sovereignty and jurisdiction in coastal and Arctic Island areas, it is feld that the total communications requirement including that engendered by hydrocarbon production should be critically assessed. to this end, it is suggested that conditions be attached to any approval given to Beaufort Sea hydrocarbon production or pre-production activity. A proposed condition respecting communications is attached to

Review (Guideline Reference Index):

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Document No.

Beaufort Sea Project

2.4

Government Position Statement

2.4 #13

Department of Communications

Legislation/Mandate

Comments

The Department of Communications is established under the Department of Communications Act, R.S.C. 1970,C24 and is responsible for administering the Radio Act, R.S.C. 1970,C.R.-1.

Mandate: The objective is to foster orderly development and operation of communications for Canada in domestic and international spheres. The elements of the Department's mandate which are particularly relevant to the Beaufort Sea Proposal are listed.

Policies, Programs and activities which could be affected by the Beaufort Sea Proposal are reviewed and include:

- Northern Communications Assistance Program (NCAP)
- Mobile Satellite Communications Program (MSAT)
- Direct Broadcasting Satellite System (DBS)
- Licensing and Enforcement Activities.
- Common System Objective

Impact - Policies, Programs and the Beaufort Proposal

Comments

Outline of Policies or Programs which could be affected.

Impact of Full Production Proposal and Attendant Resource Requirements

NCAP - Northern Communications Assistance Program. An increased demand in service from communities in this program could be expected but should be manageable. Single industry towns (or new communities) are usually provided with service by the company. Federal assistance would be assessed on an individual or a program basis.

MSAT Communications Program - the demonstration/interim operational stage will take place from 1987-1994. In

case of a follow on commercial MSAT system, the Department of Communications would have to be kept informed of Beaufort proposal and projected communications requirements.

DBS program - minimal impact from Beaufort proposal.

Licensing and Enforcement - Increased demand for human and financial resources on Pacific and Central Regions.

Common Systems objective - the Department would work towards aggregating demands and supplying them by means of one telephone operated system.

Plans and New Initiatives

Comments

Full hydrocarbon production does not create a need for new legislation, or new resource requirements. Increase in human and financial resources anticipated can probably be met through normal planning and budgeting.

A number of Federal Government departments make use of the communications service and should be involved in cooperative planning of communications facilities.

Review (Guideline Reference Index):

FEARO Library
Document No.

Beaufort Sea Project

2.4 Government Position Statement

2.4 #13 Department of Communications

Legislation/Mandate

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Review (Guideline Reference Index):

FEARO Library
Document No.

Beaufort Sea Project

2.4 Government Position Statement

2.4 #14 Department of Fisheries and Oceans

Mandate and Legislation

Comments

The Department of Fisheries and Oceans' mandate through the Department of Fisheries and Oceans Act, 1979, is defined.

The specific legislation basis for the management and protection of fish and marine mammals and their habitats is the Fisheries Act which contains provisions to control the harvesting of various species and to protect them and their habitats from the effects of human disturbances.

The Department's Ocean Sciences mandate is derived from the Department of Fisheries and Oceans Act, 1979, and the Resources and Technical Surveys Act, 1966.

The Department has a national responsibility for the provision of hydrographic charts and related nautical productions.

Departmental Legislation - The statutes of the Fisheries Act most relevant to the Beaufort Sea proposal are reviewed, including:

- management of fish and marine mammal resource
- protection of fish and marine mammal resources and habitat.
- use of explosives in water.

The department administers 10 other statutes.

Other legislation and mechanisms: in relation to the Beaufort Sea Hydrocarbon Production Proposal, DFO participates with other departments and industry on committees, boards and panels. These contacts and committees are listed. Legislation of other departments for which these groups stipulate conditions required for protection of fish and marine mammal resources include:

- Arctic Waters Pollution Prevention Act
- Ocean Dumping Control Act
- Northern Inland Waters Act

- Territorial Lands Act
- Public Land Grants Act, Canada Shipping Act and Navigable Water Protection Acts.

Programs and Policies

DFO has conducted major programs in the Canadian Arctic - gathering of biological information upon which to base resource management and habitat requirements, oceanographic research in relation to industrial proposals, resource management and the protection of the arctic marine environment, and nautical charting in support of arctic shipping.

Many of DFO's programs are designed to provide information required by government and industry for making decisions related to hydrocarbon development and transportation. Program objectives reflecting this are listed and past major involvement of the department with Arctic hydrocarbon developments cited (Mackenzie Valley Pipeline Study, Beaufort Sea Project, Arctic Islands Pipeline Study, Beaufort Sea Coast Fish Resources, Hydrography, Physical Oceanography, Chemical Oceanography, Marine Ecology, Fisheries Research, Lancaster Sound Regional Study, Arctic Hydrocarbon Development Proposals, Oil Spills).

Present programs relevant to the Beaufort Sea hydrocarbon development and transportation are reviewed under general headings. Fisheries programs; Oceanography programs; Hydrography programs; Instrumentation; Data Management and Assessment; Departmental Policies and Legislation. The latter includes review of national policies and their specific application in the arctic, review of the whale protection regulations, examining the most effective ways of controlling impact of coastal zone development in fish, marine mammals and their habitat, and preparing a national fish habitat management policy.

Impact

Comments

"the early production of Beaufort Sea hydrocarbon resources will place major additional demands on DFO programs to provide information and advice to regulatory agencies, industry and other clients". Program requirements include

- to accelerate activities related to the management and protection of fish, marine mammals and their habitat;

- to accelerate the pace, and expand the geographical coverage of fisheries and oceanographic research programs including ocean climate research;
- to expand and accelerate support to federal arctic marine services, particularly in the areas of sea-ice research and hydrographic charting;
- to provide major inputs into emerging regional land use planning processes; and
- to develop and implement strategies in environmental monitoring.

Plans/New Initiatives

Comments

Future plans and policies

Early production of Beaufort Sea hydrocarbons will place major additional demands on DFO programs. The major program requirements are outlined. Additional resources are required for these programs.

The Northern Oil and Gas Activity Paper (NOGAP) identifies a number of priority requirements in fisheries, oceanography and hydrography.

Ocean Information Services submission provides for the acquisition, processing, archiving and interpretation of available marine data for dissemination to user groups.

Federal Ice Information Services - a proposal outlined in a joint paper with Atmospheric Environment Service.

Ocean Climate Program submission outlines the need for coupled ocean/atmospheric modelling to enhance climate prediction.

Arctic Fisheries and Marine Mammal Management - Additional financial resources to meet the challenge of development and implementation of sound fish and marine mammal management practices in the rapidly evolving social and economic environments in the arctic.

Energy Research and Development Programs - relate to transport of conventional energy commodities and the development of hydrographic and oceanographic instrumentation and techniques as they apply to marine transport in the north.

FEARO Library
Document No.

2.4

2.4 #15
Assessment

Beaufort Sea Project

Government Position Statement

Submitted to the Beaufort Sea Environmental
Panel: 82.09.27

Government of the Northwest Territories. 1982

Submission to the Beaufort Sea Environmental
Assessment Panel on the Beaufort Sea Hydrocarbon
Production and Transportation Proposal.

Abstract

The report is divided into three main sections. The first provides an overview of the structure of the Government of the Northwest Territories (GNWT). Mandate, legislation and programs are presented by Department. General policy statements of significance to the Beaufort Sea Development are presented. The second section deals with the impacts anticipated from the development-community impacts, community government impacts, job training and business opportunities, environmental impacts and demands for services of GNWT. The third section provides a brief description of current GNWT initiatives concerning resource development, constitutional and political development, social and cultural development and economic development.

Attachment: Review (Guideline Reference Index)

Review (Guideline Reference Index):

FEARO Library
Document No.

Beaufort Sea Project

2.4

Government Position Statement

2.4 #15

Government of the Northwest Territories

Legislation/Mandate

Comments

"This section provides an overview of the structure and mandate of the Government of the Northwest Territories (GNWT). Departmental responsibilities related to the proposed development are briefly described and policy statements of significance to the Beaufort Sea development are reviewed."

Mandate. Legislation and Programs are outlined for the following Departments.

Department of Economic Development and Tourism
Department of Education
Department of Local Government (Community governments system outlined)
Department of Social Services
Department of Health
Department of Renewable Resources
Department of Justice and Public Services
Department of Government Services
Department of Public Works
Department of Personnel
Department of Information
Department of Finance
Northwest Territories Housing Corporation

Impact - Plans/Policies and Beaufort Developments

Comments

Position Statements: GNWT

ABORIGINAL RIGHTS

The GNWT's position will be that any resource development in the Western Arctic region must conform to the terms and conditions of the COPE Agreement-in-principle.

"The GNWT recognizes and supports the concerns expressed by native organizations that claims based upon aboriginal rights to land in the NWT may be

prejudiced if large-scale resource development is allowed to proceed before substantial progress has been made toward a settlement."

ARCTIC PILOT PROJECT

The GNWT position is one of support with conditions. The conditions are presented:

Devolution to communities policy. The GNWT supports and encourages the devolution of responsibility for the delivery of government programs and services to the community level (certain requirements listed).

Energy Strategy

"GNWT has taken the position that hydrocarbon development projects must provide energy benefits to neighbouring communities."

Staff Accomodation Policy

"The Government of the Northwest Territories supports the development of private housing markets in communities in NWT".

This section broadly identifies the types of impacts the GNWT will be directly concerned with.

COMMUNITY IMPACTS

GNWT will be affected by problems associated with major resource developments in rapidly growing and changing small centres - instability, unbalanced demographic structures, isolation, housing, social, racial and cultural problems. Specific concerns of Inuvik listed.

COMMUNITY GOVERNMENT IMPACTS -

Seeking increased control over resource development issues which affect their community.

OPPORTUNITIES FOR JOBS, VOCATIONAL TRAINING AND BUSINESS DEVELOPMENT.

increasing opportunities, tourism, northern and native participation in business, training opportunities, decreasing dependence on traditional life style.

ENVIRONMENTAL IMPACT - Loss of habitat, disturbance and potential hazardous events. Indirect pressure on wildlife. Sufficient data required for impact monitoring, and research conducted to develop predictive environmental impact assessment techniques.

Issues to be addressed are listed.

The GNWT will be affected by increasing demands for infrastructure, programs and services.

Plans and New Initiatives

Comments

"This section provides a brief description of current GNWT initiatives. Activities concerning resource development, constitutional and political development, social and cultural development and economic development are outlined. Broad anticipations about future needs are also identified."

Initiatives concerning resource development:

A Resource Development Policy has been approved. The objectives and principles of this policy are presented. (Project must have net benefit to the people of NWT). Elements of this policy include: designation and prioritization of development impact zones in NWT, the implementation of a territorial assessment and review process, and finally, the GNWT wants to improve and expand its monitoring capabilities.

Socio economic action plans: The intent of these plans are to outline and identify activities and programs of resource developers that are used to maximize northern benefits. Topics covered in the plans are tested.

Joint Needs Assessment Committee: Terms of Reference are included

Resource Revenue Sharing Proposal: The GNWT is seeking an agreement with the federal government.

Compensation Policy: to address loss or reduction of commercial or recreational harvesting activities.

Initiatives concerning Political and Constitutional Development:

The Constitutional Alliance will be seeking a commitment from the federal government on the principle of division.

Preliminary discussions concerning the Western Arctic Regions Municipality noted.

Initiatives on Education include
- Special Committee on Education
- Vocational Certification Program

Initiatives concerning Economic Development include the Manpower Training Agreement, Surety Bond Guarantee Assistance, Five Year Tourism Marketing Strategy and Campell Hills Park Developments.

Initiatives concerning health -
- Health Review of legislation
- Task Force on Health Services Planning and Policy Co-ordination
- Contractual arrangements leading to transfer
- review of insurance benefits
- Health auxiliaries

The Department of Social Services has initiated several activities in an effort to strength local communities and settlements capacities to identify both problem areas and mitigative measures to deal with problems.

Initiatives concerning renewable resources entail environmental assessment and monitoring, environmental protection and wildlife management programs. Various programs indicated.

Initiatives in the area of local government will be centered on strengthening ability of community governments to deal with impacts that may arise from Beaufort development. Possible support programs noted.

FEARO Beaufort Sea Project
Ref. No.

2.4 Government Position Statements

2.4#16 Submitted to the Beaufort Sea Environmental Assessment Panel
82.11.04

Department of Energy, Mines and Resources. 1982.
Background paper submitted to the Beaufort Sea Environmental
Assessment and Review Panel from the Department of Energy,
Mines and Resources. November 1982.

Abstract (from Report Summary)

The EMK Background Paper on development of Beaufort Sea hydrocarbons is presented to the Environmental Assessment and Review Panel in an effort to increase their knowledge of the mandate of the Department, its programs in energy and the earth sciences, and its views regarding energy supply and demand. The information presented here is consistent with energy policy positions already enunciated in the National Energy Program 1980 and the NEP Update 1982 and should provide the Panel with an adequate energy policy framework within which the environmental and social consequence of development can be reviewed.

Attachment- Review (Guideline Reference Index)

Review (Guideline Reference Index)

Legislation and Mandate

"Departmental responsibility relevant to planning the development of Beaufort Sea hydrocarbons, and for their management derives from the Resources and Technical Surveys Act and from the Energy, Mines and Resources Act. Under these acts the Minister is responsible for coordinating, promoting and recommending national policies and programs with respect to energy, mines and minerals, including their production, transportation, distribution and export."

Regulations are presently under the Canada Oil and Gas Act.

"The mandate to develop national policy and programs with respect to energy resource has led to the National Energy Program of 1980 and the NEP Update of 1982. Elements of these policy documents support resource development in the north at a rate and in a manner compatible with Canada's social and environmental goals."

The Minister is also responsible for administering the Canada Oil and Gas Act and the Petro Canada Act.

Statutes administered by or in the Ministry are listed and described in the Appendix.

Department of Energy, Mines and Resources. 1982.
Background paper submitted to the Beaufort Sea Environmental Assessment and Review Panel from the Department of Energy, Mines and Resources. November 4, 1982. 32p.

Impact - Policies, Programs

EMR Programs and Activities (Excerpt from Report Summary p.30-31 follows)

"The operational programs in EMR are divided into two major categories: Energy, and Mineral and Earth Sciences. The activities of the Energy program are further divided into a number of units which, to a large extent reflect the sub-objectives of the energy policies of the government. This outline provides the Panel with an overview of the EMK activities relevant to the "delivery" of the NEP and also relevant to the capability of the Ministry to respond to new challenges in energy policy.

On the Mineral and Earth Sciences side, the Panel will note the range of programs of relevance to Beaufort Sea,

Review (Guideline Reference Index)

especially within the GSC and Earth Physics Branch. These latter units will not only be active in the technical review of the Beaufort Sea EIS but, along with the Polar Shelf Project, will also continue to provide invaluable scientific and technical support to industrial initiatives in the north.

The changing energy scene has resulted in corresponding changes in the Federal Government's priorities with respect to energy research and development. Of particular interest to the Panel is the work in the area of oil and gas, which focusses on technological and regulatory constraints to hydrocarbon development in the frontier. The Panel will note that environmental R&D plays an important part in this initiative, especially with regards to questions of safety.

In the NEP Update 1982, major events since the release of the 1980 NEP are reviewed. Some positive changes are noted, such as the fact that Canadian control of the producing industry has increased and is expected to continue increasing in succeeding years. Also, agreements have been reached with most of the producing provinces on oil and gas pricing, taxes and incentives."

Details of the programs summarized above were provided under the following categories:

- the Energy Program:

The objective of the program is defined, sub-objectives defined and 10 activities listed.

-the Mineral and Earth Sciences Programs :

The activities of Earth Sciences program noted include:

- the Surveys and Mapping Branch
- the Geological Survey of Canada
- the Earth Physics Branch
- the Centre for Remote Sensing
- the Polar Continental Shelf Project

Energy Research and Development:

Environmental work is aimed both at evaluating and mitigating adverse impacts of oil and gas development on the environment and at understanding environmental processes so that the integrity and safety of installations can be optimized.

Background review is presented followed by a description of federal R&D activities. Objectives and priorities are reviewed and specific programs noted including;

- Beaufort Sea seabed research
- technological aspects related with this research
- 1983-1984 two new projects to examine the sensitivity of the Beaufort Coast to engineering development and the long-term stability of artificial islands.

Priorities for federal oil and gas research have been defined on a regional and policy basis as priority 1 or priority 2. Priority 1, includes oil and gas from Proximal Atlantic Offshore Shelf (Hibernia; Sable Island; Labrador); oil and gas from conventional reservoirs including enhanced recovery; oil from Beaufort Sea; Arctic gas and LNG transportation.

Program guidelines within the policy priorities are "a) to define the specific environmental and safety conditions in frontier regions which determine the design of oil and gas production and transportation system and b) to develop leading-edge technology for commercialization by Canadian companies to meet these conditions in the context of the world-scale operations by the petroleum industry." The criteria used by program committees to review projects are listed, and the 1982-83 distribution of Panel-controlled resources summarized in Table 2.

control and enforce the conditions upon which specific approvals are granted and to monitor the execution of the approved work or activities. COGLA may also include in an exploration agreement terms and conditions providing for additional environmental work or special protective measures.

Office of Environmental Affairs- responsible for coordinating departmental activities in response to a range of environmental issues of relevance to energy or mineral policy

Review (Guideline Reference Index)

Need for development and timing

Major events since NEP - Current views on supply/demand: A brief recap of the major concerns covered in The National Energy Program: Update 1982 is presented.

Perspective of future hydrocarbon development in the Canada Lands :

The Update contains a detailed outlook for oil supply and demand . A major task for the 1980's is to establish greater certainty over estimated oil and gas potential on Canada Lands elsewhere than Hibernia.

The opportunities for phased development or demonstration projects (e.g. linkage with Norman Wells Pipeline) is recognized, but it is difficult at this stage to state a position in terms of optimum rate of development.

The portion of the Report Summary dealing with supply/demand follows:

"It is difficult in this uncertain economic climate to project the place of Beaufort Sea hydrocarbons within the national supply/demand scene as well as the international oil price scene. Although the pressures on the world price of oil have been downwards in recent times, the outlook on prices is essentially uncertain. In view of this, it is prudent to assume that the present flatness in price is temporary. On the question of Canada's petroleum demand, the share of oil in the total primary energy demand is expected to decrease significantly by the end of the century. This will result in a net decrease in the nation's total demand for petroleum products. Coupled with promising ventures in the frontier, including Beaufort Sea, which will improve the supply picture, Canada's position is indeed very attractive by world's standards."

FEARU
Reference No.

Beaufort Sea Project

2.4

Government Position Statements

2.4#17

Submitted to the Beaufort Sea Environmental Assessment
Panel : 82.11.09

Department of Indian Affairs and Northern Development.
October 1982.
Submission to the Beaufort Sea Environmental Assessment
Panel.

Abstract.

"This paper provides an overview of DIAND
responsibilities, programs and initiatives and the wide
range of factors currently being considered with
respect to the Beaufort Sea Proposal."

The Executive Summary from the Report follows.

Attachment - Guideline Reference Index review.

EXECUTIVE SUMMARY

Hydrocarbon production, mainly in the Beaufort Sea - Mackenzie Delta, will result in major changes for the North. The profound socio-economic pressures that hydrocarbon development will bring to bear on the North and on northern government structures and institutions, will require a major commitment on the part of the federal government to initiate major environmental protection and resource management measures. Community and related infrastructures must be designed to cope with the population boom associated with resource development, as well as with industrial development needs. Government structures will have to respond to the changing economic environment.

Hydrocarbon development will also affect northern native land claims, specifically those of COPE, the Dene Nation, the Métis, the council for Yukon Indians and Inuit Tapirisat. This will be particularly true for claims in production areas, the Beaufort Sea - Mackenzie Delta area, and areas crossed by hydrocarbon transportation links with southern Canada, such as the Northwest Passage and overland routes.

Oil and gas discoveries in the Beaufort Sea hold great promise for Canada and the North. The government, however, is adopting a cautious and phased approach to hydrocarbon development because it recognizes how crucial careful analysis and planning is to the success of such development. No decisions have yet been made on Beaufort Sea development or production, pending the completion of environmental and socio-economic assessments and a review of production implications by the resource developers.

Industry is considering alternative hydrocarbon developments, including the Polar Gas "Y" line and the Esso 12-inch pilot pipeline up the Mackenzie Valley to Norman Wells. Such proposals reflect different interests and initiatives. With the exception of the Alaska Highway gas pipeline and the Norman Wells oil field expansion and associated pipeline, these developments are still in the planning stage.

Concurrent with the Beaufort Sea EARP, the Department is preparing an interim comprehensive land use plan for the Beaufort Sea region, an essential step in ongoing effective resource management. Other major initiatives are also underway, including a five-year federal-territorial hydrocarbon planning and research program with emphasis on the Beaufort Sea - Mackenzie Delta region; the development of an energy policy to meet northern needs; a review of existing environmental policies, legislation and practices to meet the accelerating pace of northern resource development, and the structuring of an economic framework for the region.

Such initiatives are consistent with DIAND's major legislative and administrative responsibilities with respect to the North and particularly to the Beaufort Sea proposal. The Department is responsible for the protection, conservation and management of resources on federal Crown Lands north of 60°, including those offshore, and it is responsible for environmental management. DIAND develops and co-ordinates federal socio-economic development strategies for the North in consultation with the territorial governments and other federal departments and it administers social and cultural programs that augment socio-economic programs the federal government, the Department also negotiates financial agreements with the territorial governments and is directly responsible for status Indians in the territories.

The regulatory process relating to hydrocarbon development and production involves a number of federal departments, agencies and advisory boards. The Canada Oil and Gas Lands Administration (COGLA) is responsible for administering the operational aspects of the Department's responsibilities relative to hydrocarbon exploration and production in the North. Specifically, it administers the federal regulation of oil and gas in the Canada Lands, and works closely with the Department's Northern Affairs Program on northern hydrocarbon development. This role reflects its responsibility to the Minister of DIAND with respect to lands north of 60°.

DIAND's Northern Affairs Program, however, remains responsible for the policy and planning aspects of hydrocarbon development in the North. The Program and the territorial governments are now working together to set goals for northern development that will meet the objectives of the National Energy Program as well as the interests of northern people. Environmental protection and the interests and concerns of northern people in relation to hydrocarbon development are of primary importance to the Department. And the balance among the social, economic and environmental factors implicit in hydrocarbon production is being strongly emphasized.

This paper provides an overview of DIAND responsibilities, programs and initiatives and the wide range of factors currently being considered with respect to the Beaufort Sea Proposal.

Review (Guideline Reference Index):

Legislation & Mandate

A general description of the Department of Indian Affairs and Northern Development's role and specific responsibilities in the North are presented. The duties of the Minister are established in the Department of Indian Affairs and Northern Development Act.

36 statutes administered by the Department are listed in Annex 1.

The most important statutes pertaining to the administration of hydrocarbon resources on northern Canada Lands are:

- Territorial Lands Act
- Lands Title Act
- Public Lands Grants Act
- Northern Inland Waters Act
- Arctic Waters Pollution Prevention Act
- Oil and Gas Production and Conservation Act
- Canada Oil and Gas Act

The organization of the Department is outlined. The four major operational programs are the Indian and Inuit Affairs Program, the Northern Affairs Programs, the office of Native Claims and COGLA.

Legislation & Mandate and Follow up to Review (review processes and regulatory procedures)

DIAND REGULATION OF HYDROCARBON DEVELOPMENT:

An overview of the regulation of hydrocarbon development projects and DIAND's role is presented.

"The Northern Affairs Program of DIAND supports COGLA through the provision of direction on northern policy considerations and by establishing the environmental and, in conjunction with territorial governments, socio-economic operating conditions for the north to apply under the legislation administered by COGLA."

Other acts under which DIAND exercises regulatory responsibility include the Territorial Lands Act,

Land Titles Act, Public Land Grants Act, Northern Inland Waters Act and the Arctic Waters Pollution Prevention Act.

Specific areas discussed included:

Management of Socio-economic Aspects -

Regional northern socio-economic objectives with major developers are achieved by means of agreements with major developers, e.g. Memorandum of Understanding, Canada Northern Benefits package contained in the Exploration Agreement. Requirements include an industrial benefits plan, a manpower development plan and a northern benefits plan. Contents of these plans are explained in more detail. The northern benefits plan must deal with how information and consultation activities will take place in the communities, and the precise activities to be taken by a proponent are set out in an action plan to be reviewed and approved by the Minister. This "agreement" and "action plan" process will be used in future with companies involved in hydrocarbon production and transportation.

Technical Aspects of Exploration, Drilling and Production

The Oil and Gas Production and Conservation Act provides the statutory authority for regulation of oil and gas operations. A review of the requirements under the Act is provided. The Oil and Gas Drilling Regulations specify technical standards for all aspects of drilling operations. A Program Approval and a Drilling Authority is required for all oil and gas drilling programs. The review process of an application for approval is summarized.

Use of Arctic Waters

Offshore drilling sites fall under the regulations of the Arctic Waters Pollution Prevention Act. The Act and part of the Pollution Prevention Regulations are administered by DIAND.

The construction of artificial islands is regulated by DIAND as well as by requirements in the Oil and Gas Production and Conservation Act. Other dredging is regulated by the Ocean Dumping Control Act.

Navigation is subject to regulation by the Canada Shipping Act and the Arctic Waters Pollution Prevention Act. Harbour and port facilities use is

regulated by Transport Canada under the Navigable Waters Protection Act.

"all of the above noted acts, and the Oil and Gas Production and Conservation Act, contain provisions for holding an operator who pollutes the water liable, within specified limits, for the costs and damage resulting from pollution."

Use of Surface Land - Land use in the Arctic is regulated by the Territorial Lands Act.

Use of fresh water for land based activities is regulated by the Northern Inland Waters Act.

Impact- Policies, Programs and the Beaufort Proposal

PLANNING FRAMEWORK

The status of the implementation of the Regional Land Use Planning Policy is reviewed. Regional Land Use Planning is reviewed in terms of:

- framework and timetable for Beaufort Sea - Mackenzie Delta region planning
- relationship to the Lancaster Sound Regional Study
- relationship to the Beaufort Sea EARP review
- relationship to the proponents' planning
- relationship to other areas
- policy, plans and procedures for establishment of protected areas

Land Claims

The claims of the ITC, COPE, the Dene/Métis and CYI broadly relate to the Beaufort Sea development and their final settlement could conceivably include measures that will influence the conditions of further development in the Beaufort Sea region.

DIAND Programs

Section E briefly describes DIAND's programs and responsibilities in the North. Programs discussed included:

Surface Resources - "The Department is responsible for the protection, conservation and management of surface rights in federal Crown lands in the Yukon Territory and Northwest Territories, and seabed lands north of 60°." Since most exploration and development programs require land based facilities, the land management program will have a large impact on the Beaufort Sea program.

A conservation strategy to deal with parks, recreational lands, wildlife areas, ecological reserves and other classifications is being prepared within DIAND.

The Department's responsibility for water resources management relates to overall management of inland waters. Specific services are listed. Amendments are being developed for the Northern Inland Waters Act and the Arctic Waters Pollution Prevention Act.

No changes in resources, legislation or cooperative actions in terms of forestry resources is anticipated.

Subsurface Resources Management - COGLA manages oil and gas development on Canada Lands. The Canada Oil and Gas Act provides the authority to carry out hydrocarbon activities on all Canada Lands, and the Oil and Gas Production and Conservation Act provides the basic authority to regulate industry's operational activities.

Additional information is provided in Annex 5.

Environmental Protection - The main objective is to protect and conserve the natural environment by maintaining an effective and comprehensive management and monitoring regime. Monitoring studies and additional regulatory measures will be required on approval of production in the Beaufort Sea.

Economic Development - The participation of DIAND with the territorial governments and other federal agencies in the formulation and implementation of economic development plans and strategies is reviewed. A number of socio-economic objectives are achieved by means of formal agreements with developers. In the case of northern hydrocarbon development these agreements take the form of the Canada Benefits Agreement as required by the Canada Oil and Gas Act.

Work is underway to develop new Economic Development Agreements (EDA). The objective of EDA's will be to develop an analysis of the

economic circumstances in each territory and identify priorities and opportunities. Programs will be developed based on these and funded and administered under subsidiary agreements. If specific needs related to the Beaufort are identified, new subsidiary agreements could be developed to respond to these.

Social and Cultural Development - The jurisdiction of social development has been devolved to the Territories through the Northwest Territories Act and the Yukon Act. DIAND has retained programs which support social and cultural development of Inuit and other northern native people, acts to facilitate consultation between government and northern native people, and arranges funding for native groups to consult and be consulted on northern development concerns and interests. A more detailed description of these programs is included.

Status Indian Programs- DIAND has a particular responsibility in administering the statutory requirements for status Indian people defined in the Indian Act. The programs involved are expanded upon, e.g. core funding for band governments and band training, National Native Alcohol Abuse Program and the Indian Economic Development Fund.

Native Land Claims - The Office of Native Claims was established to deal with the increasing number of native claims. The responsibilities of the Office are reviewed.

Territorial Relations - "The general thrust of federal policy in the territories for a number of years has been to provide support for the development of responsible government." The implementation of this policy is reviewed. Certain government services which will be affected by the Beaufort Sea project are the responsibility of the territorial governments, but DIAND must ensure that funding is in place to meet the demands.

POLICY FRAMEWORK:

Current policies for northern development emanate from the 1972 policy framework "Canada's North 1970-1980". Modifications and elaborations are indicated and the following overview of policy objectives for northern development presented:

"In a statement on March 24, 1982 to the standing committee on Indian Affairs and Northern Development, the Minister of DIAND stated that the objective for all people "north of 60" is greater political, social and economic self sufficiency and full participation in Canada's future development. Settlement of outstanding land claims is a major element in the attainment of these goals, and other questions to be resolved include the responsibilities of the territorial governments, their financial relationship with the federal government and the political relationships between native and non-native northerners. With respect to national energy requirements, the Minister stated:

"Because on national energy requirements, resource development in the North takes on special significance. Such development must proceed in a way that is compatible with Canada's national interest and the interest of northerners. At the same time, adequate safeguards must be provided to protect the environment and the cultural heritage of native northerners. All citizens in the North, as well as the territorial governments, must share in the benefits resulting from such future development."

National Energy Policy - A brief review is presented.

Hydrocarbon development planning strategy:

The planning strategy announced June 1982 is reviewed. Research, planning and monitoring of northern hydrocarbon development is being accelerated in a comprehensive and co-ordinated manner. A five year research and planning program is in the process of being implemented.

Plans and new initiatives

Several programs in which DIAND is involved and which are designed to contribute to the knowledge base required for hydrocarbon development in the North are listed.

Need for Development and Timing

"However, the need, timing and priority for northern hydrocarbon production, particularly Beaufort Sea oil, and the economic feasibility of developing such northern reserves relative to other supplies has not yet been established. No government decisions have been made as to how or when hydrocarbon production and transportation will begin in the Beaufort Sea region."

Other physical, social and economic problems

Under other issues the report discusses;
Socio-economic effects - involvement of the
Committee on Megaproject Industrial and Regional
Benefits reviewed in terms of maximization of use
of Canadian goods, and the requirement for a plan
to demonstrate how benefits for northerners will
be maximized and adverse impacts minimized.

Marine emergencies and the Beaufort Sea
Contingency Plan and the Arctic Seas Contingency
Plan are reviewed briefly in terms of lead
agencies and responsibilities.

FEARO Document

2.4 Government Position Statements

2.4 # 17 S
(Supplement)

Submitted to the Beaufort Sea Environmental Assessment Panel 83.08.01
Department of Indian Affairs and Northern Development. 1983.

Statement update to the the Beaufort Sea Environmental Assessment Panel from the Department of Indian Affairs and Northern Development.

The updated sections have been included in their entirety and replace the previous sections in the October 1982 Statement to the Panel. The following updated sections are included:

D.1 Regional Land Use Planning.

Items covered in this section include status; framework and timetable for Beaufort Sea - Mackenzie Delta regional planning (comprehensive interim plan prepared between 1983-86); relationship to the Lancaster Sound Regional Study; relationship to the Beaufort Sea EARP review; relationship to proponent's planning; relationship to other areas; policy, plans and procedures for establishment of protected conservation areas.

D.5 Other initiatives related to hydrocarbon planning.

A number of specific initiatives which will contribute to the knowledge base required for hydrocarbon development are noted. These include: with the likely date for production receding to the 1990's resources are being sought to undertake a replanned program starting in 84-85; the Beaufort Sea Environmental Monitoring Project has been initiated; Northern Energy Phase II alternatives have been prepared; amendments to the Arctic Waters Pollution Prevention Act; review of renewable resource and environmental policies; review of regulatory processes and coordinating mechanisms on a broad scale; implementation of comprehensive land use planning in priority areas; coordination and funding of the Environmental Studies Revolving Fund; assessment of infrastructure requirements in the territories

to meet major development needs; study of alternative transportation modes; review of government programs so that appropriate changes can be made prior to development.

Annex 5 Northern Environmental Studies Revolving Fund...Background and relationship to the Beaufort Sea EIS.

FEARO

Reference NO. Beaufort Sea Project

2.5.1 # G General.

Resumés for the following Technical Specialists:

Ms. Diane Erickson	Socio-economics
Dr. Don Mackay	Oil spill behaviour
Dr. Gordon Beanlands	Environmental impact assessment methodologies
Mr. Andrew Roman	Operational procedures
Dr. Paul Greisman	Physical oceanography
Dr. Tim Parsons	Marine biology
Dr. Ray Lemberg	Risk analysis
Mr. Nigel Richardson	Land use planning
Mr. Warren Bonn	Icebreaker tanker design and operation
H.W. Smith	Geosciences Ltd. Pipelines
Ms. Valda Walsh	Socio-economic issues
Dr. C. Davis	Socio-economics
Mr. W. Mair	Renewable resource management

FEARO Beaufort Sea Project
Reference
no.

2.5.1 Technical Specialist Comments

2.5.1 #1 Submitted to the Beaufort Sea Environmental Assessment Panel
82.12.16
by:
Technical specialist - Physical oceanography: Paul Greisman

Greisman, P. 1982. EIS critique : overall view of EIS oceanography and significant overall issues. Submitted to the Beaufort Sea Environmental Assessment Panel. December 1982. 5p.

The report addresses knowledge requirements and adequacy of existing knowledge. Specific topics included: oilspill trajectory modelling; icemotion modelling; climate effects; stabilization of land-fast ice. The most significant overall issues involving physical oceanography noted were oilspills, changes to the ice cover, underwater noise and detection of navigation hazards.

2.5.1 #2 Submitted to the Beaufort Sea Environmental Assessment Panel
82.12.16
by:
Technical specialist - Oil spill behaviour :- D. Mackay

Mackay, D. 1982. Critique of EIS. Submission to the Beaufort Sea Environmental Assessment Panel. December 1982. 8p.

The overall impression of the EIS is presented, followed by discussion of 10 concerns: long term or chronic impacts of oil release; oil spill frequency and volumes; absolute effect of countermeasures; Mackenzie Valley pipeline spills; other hazardous materials; oil spill scenarios; identification of times and places of unusual vulnerability; tanker safety; operator training; monitoring and research.

2.5.1 #3 Submitted to the Beaufort Sea Environmental Assessment Panel
82.12.16
by:
Technical specialist- icebreaker tanker design and operation: Warren Bonn

Bonn, W. 1982. Review of the Environmental Impact Statement concerning transportation of oil from the Beaufort Sea to eastern Canadian markets by Arctic tanker. Submitted to the Beaufort Sea Environmental Assessment Panel. December 1982. 8 p.

The review addresses the following subjects: Arctic class tankers; general description and characteristics of proposed tankers; proposed propulsion systems including transmission systems and propellers; topsides general; navigation and radio communication equipment; crew training; limits of liability. A summary of significant issues is presented.

2.5.1 #4 Submitted to the Beaufort Sea Environmental Assessment Panel
82.12.16
by:
Technical specialist- marine biology: T. Parsons

Parsons, T. 1982. Environmental Impact Statement re Hydrocarbon development in the Beaufort Sea - Mackenzie-Delta region: marine biology impacts. Submitted to the Beaufort Sea Environmental Assessment Panel. December 1982. 19 p.

Critique of the EIS is presented under the following topics: general impressions; general comments on Volume 4, Biological and physical effects; specific comments on Volume 4; comments on Volume 6, Accidental spills; comments on Volume 7, Research and monitoring; comments on EIS Volume 1, Summary; summary of marine biological impacts identified in the review as requiring further information.

FEARU Beaufort Sea Project
Ref. No.

2.5.1 Comments/Intervention Submissions to the Panel

2.5.1 #5 Submitted to the Beaufort Sea Environmental Assessment Review Panel 82.12.
by Technical specialist/socio-economic impacts: Diane Erickson

Erickson, D. 1982.
Beaufort Sea hydrocarbon production proposal: a critical evaluation of proponent's socio-economic impact assessment. Submitted to the Beaufort Sea Environmental Assessment Panel, December 1982. 13p.

Abstract

The review is a critical one and directed at the discussion of deficiencies, with some general conclusions about the adequacy of the socio-economic impact assessment presented in the final section.

Two problems identified with the general methods employed by the proponents in conducting the assessment were identified and discussed: the involvement of northern residents; and the determination of significance. A review of the efforts of the proponents to fulfill particular guideline requirements under the following general headings were discussed:

- impact assessment
- impact management
- research and monitoring
- pipeline construction and operation
- new communities
- abandonment

General conclusions about the adequacy of the socio-economic impact assessment noted the following limitations:

- i. the potential effects of establishing new communities and of the abandonment phase has not been identified;
- ii. Industry's commitments with respect to mitigation, enhancement and compensation measures as well as research and monitoring requirements are not clear;
- iii. the optimistic conclusions regarding the overall significance of the socio-economic impact lack a factual basis;
- iv. information concerning potential effects has not been presented in a form which would readily permit an evaluation of alternatives, i.e. pipelines/tankers, new town/established communities, small diameter/large diameter pipeline." (p. 13)

FEARU Beaufort Sea Project
Reference No.

2.5.1 #6

Submitted to the Beaufort Sea Environmental Assessment Panel 82.12
by:
Technical Specialist- Land use planning:
N.H. Richardson

Richardson, N.H. 1982.
Land use planning, regional planning, and environmental assessment: a preliminary review of issues. Submitted to the Beaufort Sea Environmental Assessment Panel, December 1982. 15p.

This paper is intended to draw the attention of the Panel to issues related to land use planning and regional planning which it may wish to examine in greater detail and which are not addressed in the EIS (and which industry cannot be expected to address). A brief sketch of past and current planning initiatives in the north is presented followed by a discussion of issues:

- policies and planning
- present lack of anticipatory planning
- focus of responsibility for land use planning and way it should be organized
- land use planning versus "regional" or "comprehensive" planning
- relationship between a general land use planning system and aboriginal claim settlements
- relationship between land use planning and environmental impact assessment
- relationship of the proposed comprehensive conservation policy and strategy to land use planning
- DIAND's current program and short-term intentions; interim planning measures.
- whether or not a federal land use planning system for the north should be embodied in new legislation rather than being left to ministerial discretion

- planning of hydrocarbon shore facilities
- long-term settlement implications
- land use conflicts, Mackenzie Valley and Delta
- land use conflicts, North Yukon
- land use planning at sea
- the Canada Oil and Gas Lands Administration

FEAR Document

Beaufort Sea Project

2.5.i

Technical Specialist Comments

2.5.1. #7

Submitted to the Beaufort Sea Environmental Assessment Panel
83.01.24
by: M.W. Smith Technical Specialist- geotechnical aspects

Smith, M.W. 1983. Report on geotechnical aspects of the pipeline operations for the proposed Beaufort Sea - Mackenzie Delta hydrocarbon development. Submitted to the Beaufort Sea Environmental Assessment Panel. January 1983.

This report deals with the pipeline aspects of the EIS.

-In Vol. 1 two overland pipelines are mentioned (small and large). Subsequent discussions exclude the small diameter and clarification may be required on this.

-The EIS shows awareness of the kinds of problems that will be encountered but the impact assessment is very general and repetitive, and based on good intentions. Examples of typical concerns are provided in appendix II.

-The Panel needs assurance that the pipelines will be designed and built to standards that will result in a low probability of rupture. The standards indicated for the overland pipeline appear to be adequate. However a means of monitoring pipe stability should be installed prior to start-up.

The oil gathering system in the Mackenzie Delta will consist of buried insulated pipelines designed to operate at ambient ground temperature. Overall one can be cautiously optimistic about the buried gathering system.

-In terms of the submarine warm oil pipeline system, the problem of permafrost may have been underestimated. An updating of the present knowledge of shallow ice-bonded permafrost beneath the Beaufort Sea should be sought, and the implications to pipeline design examined. Ice scour risks are also noted.

In summary it is noted that an overland, 1-m diameter warm oil pipeline can obviously be built. Assuming sufficient research and development can be optimistic about the other pipeline. In terms of terrain disturbance, little analysis is presented and environmental impacts are simply addressed using categorical statements. The proposed mitigative measures have not yet been developed in any detail in some cases. Also worker training to understand the need to follow designs and regulations is important.

2.5.1

Technical Specialist Comments

2.5.1 #8

Submitted to the Beaufort Sea Environmental Assessment Panel, January 1983.
83.01
by Technical Specialist - Risk analysis:
R. Lemberg.

Lemberg, R. 1983. A critical risk analysis evaluation of the environmental impact assessment: Beaufort Sea hydrocarbon production proposal. Submitted to the Beaufort Sea Environmental Assessment Panel, January 1983.

The review is designed to assist the Panel in reviewing the risk and risk analysis aspects of the EIS, and determine the degree of compliance of the EIS with the Guidelines issued by the Panel.

The risk analysis process is defined and the difficulties of applying it to the information in the EIS noted. Ten issues are noted in Chapter 2 of the report:

1. The lack of a cost-benefit analysis in the EIS coupled with the proponents "feasibility" qualifier "...to the extent feasible" leads to the issue-

How can the Panel be reasonably certain of the environmental impact assessment if it doesn't know which countermeasures the proponents will determine as feasible.

2. The proponents impact assessments are subjective and could be interpreted differently by various individuals -

How can the Panel ensure all parties will have the same interpretation of the assessments.

3. The reviewers may strive for maximum protection of the environment and implementation of the necessary countermeasures. The proponents may resist implementing countermeasures which are not economically feasible...conflicting objectives will need to be resolved.

4. Should the proponents be required to produce scenarios for the largest tanker accidents from the Beaufort Sea through the Northwest Passage, complete with the associated environmental impact

assessments.

5. The spill severity estimated in the EIS appear to be less than maximum, leading to the question of whether the proponents should include the maximum severity of the largest accidents in the most environmentally vulnerable locations.

6. Accidents cannot be ranked in order of quantitative measures of risk without information about accident probabilities, severities, and spill exposure. Should the proponents provide their estimates and the degree to which countermeasures may reduce all or some of these.

A calculation of the probabilities, severities and exposures from information in the EIS is presented.

7. A discussion of the EIS treatment of the following is presented: major oil spill impact assessments, countermeasures, prevention, recovery - containing the spill and cleaning up the spill, contingency planning. Recovery mechanisms are intended to contain a spill and clean it up. The effectiveness of any contingency plan depends on its state of readiness to respond to an emergency, and the decision dynamics required to operate it. This discussion led to issue #7.

"Will sufficient equipment and manpower be available and deployed to contain and clean up a spill?"

How long will it take for the government monitors to decide whether the response is adequate?"

Will it be left to the operator to ask for industry assistance, or can the government order it?"

If government resources become necessary, will they be adequate and how long will it take to deploy them?"

The authors conclusion was that the EIS did not address these issues.

8. Concern about how the contingency plan will be financed sufficiently to ensure that they will be adequate to respond to oil spill emergencies is addressed in Issue 8 - will public funds be needed, will government costs be reimbursed by

industry, will the public be assured that the operator and industry have sufficient funds for response and how will an operator's financial condition affect his response and how quickly can the government decide that a response is inadequate and take required action?

9. The EIS does not provide sufficient data to compare environmental risks of pipeline and tanker transportation options, leading to Issue #9.

"Which transportation option, arctic tankers or an overland pipeline, will be less risky to the environment?"

10. The author presents a comparison of the two options, omitting the common elements and comparing the two transportation systems in terms of oil-containing facilities exclusive to each system. The preliminary conclusion is that the overland pipeline system will be environmentally safer than the arctic tanker option.

"Should the Panel request a comprehensive comparison of the two transportation options?"

Section 2.5 presents the reviewer's opinion of the degree of compliance of the EIS with the guideline sections 2.4.2.1 (Major Spills) and 2.4.3 (Risk analysis, probability and cleanup measures).

Section 2.6 presents comments regarding the application of risk analysis to environmental impact assessments.

Section 3 of the report defines risk analysis, and describes the steps in a risk analysis process. The difficulties in applying risk analysis to the EIS is reviewed.

Section 4 discusses the intentional risks and reviews how they are assessed in the EIS. Comments are included about the adequacy of the assessments: the assessments do not appear to follow the procedure described; little data is cited for regional populations discussed; many impact assessments do not appear to be based on data; residual impacts will be increased if assumed mitigative measures are later judged to be infeasible; impacts without preventive

countermeasures are not indicated; assessments are subjective estimates of the proponents' expectations of impacts; danger of underestimating impacts; conflicting objectives of reviewers and proponents.

Section 5 reviews the accidental risks associated with the project and covered in Vol 6 of the EIS. Additional information pertaining to accidental spills is presented as derived from the data in the EIS, and comments included about the adequacy of the risk analysis of accidents: a comparison of oil spill severity as presented in the EIS with possible maximum severities derived from data contained in the EIS; discussion of oil spill event probabilities and exposures deduced from data in the EIS and support documents.

Discussions included well probability and exposure, tank spill probabilities and exposure, tanker accident probability and exposure, pipeline spill probability and exposure and a summary table of the major spill risks.

Major oil spill impacts are reviewed and inconsistencies noted. Countermeasure proposals and contingency plans as covered by the EIS are discussed.

Section 6 compares the risks of arctic marine transportation and overland pipeline transportation. The comparison is intended to provide an appreciation of the differences in risk between the two options, particularly at the current conceptual stage of development. The comparison is in terms of the basic attributes of each system, nature of their spill potential, and their supporting facilities. At the year 2000 stage of development, the tanker system has an accident probability which is 19 times larger, a maximum spill volume 37 times larger, and a spill exposure about 3,700 times larger than the corresponding spill parameters for the overland pipeline system.

FEARO
Reference No.

Beaufort Sea Project

2.5.1 # 9

Submitted to the Beaufort Sea Environmental Assessment Panel 83.02.17

by:

Technical Specialist - Ms. Val Walsh

Walsh, V. 1983. A review of the Beaufort Sea Hydrocarbon Production Proposal. Submitted to the Beaufort Sea Environmental Assessment Panel. February 1983. 13p.

The review presents an assessment of the adequacy and completeness of the Beaufort Sea EIS utilizing the Guidelines for the Preparation of an Environmental Impact Statement as standard. Section 2 presents an overview summary of deficiencies considered critical to an efficient public review and a comprehensive list of major deficiencies which could adversely affect the quality of the Panel review are listed in Section 3. The critical deficiencies noted included insufficient community consultation; lack of adequate alternative assessment; methodological shortcomings; inadequate assessment of impacts on traditional life style and social stability; inadequate mitigation and monitoring plans.

The following major deficiencies were discussed for guideline requirements, methodological deficiencies, and content deficiencies: proposal description; description of socio-economic environment; impact analysis; impact management.

2.5.1 # 10

Submitted to the Beaufort Sea Environmental Assessment Panel 83.04.11

by:

Technical Specialist - H. Craig Davis

Davis, H. Craig and G.B. Hainsworth. 1983. A critical appraisal of the economic aspects of the proposed Beaufort Sea development. Submitted to the Beaufort Sea Environmental Assessment Panel. 1983. 25p.

"Throughout the several volumes of the 1982 environmental impact statement (EIS) of the Beaufort Sea - Mackenzie Delta Hydrocarbon Development Proposal appear three distinct rationales for undertaking the project: 1) provision of national energy self-sufficiency; 2) production of net national economic benefits; and 3) promotion of regional economic development, generally throughout the nation, and particularly in the northwest territories. Each of these objectives is critically reviewed in turn in this

report, with major emphasis placed on the latter two."

1. Energy self-sufficiency strategy - questions concerning this cannot be readily answered but are raised as a caution against uncritical acceptance of the Beaufort Sea as a priority measure towards this goal.

2. Five significant points are discussed in regard to the project's contribution to net national economic benefits:

- estimation of economic impacts
- determination of net benefits
- determination of project costs
- Canadian sourcing
- estimation of multiplier effects
- regional multipliers

3. The Beaufort development as an agent of regional development. The discussion assumes that the concern is primarily with the pre-plan long-term residents, and discussion is on this basis. Topics include:
- Economic development effects for Northerners - bonanza development problems, no presentation of a strategy for permanent or sustained development.

A commentary on the categories of benefits identified in the EIS is presented for the following: employment effects, income effects, business opportunities, broader socio-economic effects.

FEARO Document

2.5.1 # 11 Submitted to the Beaufort Sea Environmental
Assessment Panel 83.08.02
by: W.E. Bonn, Technical Specialist

Re: Meeting with Dome Petroleum Ltd concerning
transportation of Beaufort Sea oil by Tanker.

Report on meeting with Mr. A. Churcher, Naval
Architect and agreement noted that the proponents
would provide a full written response to various
queries presented in the critique and during the
meeting.

2.5.1 # 12

Submitted to the Beaufort Sea Environmental
Assessment Panel 83.08.01
by: W. Winston Mair, Technical Specialist

Re: Comments on the Preliminary draft schedule
and draft agenda.

Comments on the draft agenda include a list of
possible key issues. The item of compensation is
only mentioned in the draft agenda under Inuvik -
major oil spills but will probably come up at
every meeting.

FEARO Document

2.5.1 # 13 Technical Specialist Comments on the proponents
response to the Panel's environmental impact
statement deficiency statement.

Included in the following report.

-----1983.

Compendium of written submissions to the Panel on
the Dome, Gulf & Esso response to the Panel's
environmental impact deficiency statement.
Includes all submissions recieved as of August 15,
1983 from review participants and the Panel's
technical specialists. Beaufort Sea Environmental
Assessment Panel. Canada Environmental Assessment
Review. 140p .

Includes submissions from the following technical
specialists:

R-1 N.H. Richardson
R-3 Dr. Paul Greisman
R-5 Dr. Don Mackay
R-8 W. Winston Mair
R-12 Dr. Ray Lemberg
R-14 Ms. Val Walsh
R-16 Ms. Diane Erickson

2.4 # 16-S

83.09.23

Panel Index E

Submitted to the Beaufort Sea Environmental Assessment Panel

by: Energy , Mines & Resources.

Revisions to section 4 and 5 of the Background Paper from the Department of Energy, Mines and Resources.

These sections have been amended to reflect current estimates of hydrocarbon resources and continued uncertainty of pricing for oil on the international market, and the effect this is likely to have on oil supply/demand balance.

Section 4. Major Events since NEP - Current views on Supply / Demand.

This section provides a recap to "The National Energy Program: Update 1982" and presents a summary of trends and events to August 1983.

5. Perspective for Future Hydrocarbon Development in the Canada Lands.

2.5.1 # 16 83.09.25 Panel Index E

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Dr. J.M. Terhune (Technical Specialist)

Terhune, J.M. 1983. Comments on Vol. 4, E.I.S.
(Biological and physical effects).

Abstract: (from report)

"In addition to a number of lesser concerns, I have a number of comments which I think should be more fully addressed. I believe that the calculations of the zones of influence of underwater noise (pages 2.40 & 2.41) are incorrect. Possible damaging effects of loud noises are mentioned (page 2.31) but not discussed. The cumulative effect of many loud sources (Tables 2.3-7 and 2.3-9) are not fully discussed. The endangered status of the bowhead whale is often mentioned but, again, not fully discussed, especially with regard to the Bering Sea stock and the other pressures this stock is facing. The possible cumulative effects of various minor impacts on a species are not discussed. Sound propagation and ambient noise levels in the Beaufort Sea (pages 2.30 and 2.31) should have been measured under a variety of conditions (1981 workshop, page 338)."

2.5.1 # 17 83.09.15 Panel Index E

D.W.I. Marshall, Executive Secretary
Beaufort Sea Environmental Assessment Panel
From: Nigel H. Richardson (Technical Specialist)

Re: Conversation with John Bahen, President, Peter Kiewit Sons Co. re Kiewit's application to DIAND for a rock quarry and shipping facilities at King Point.

2.5.1 # 18 Sept 1983 Panel Index E
Beaufort Sea Environmental Assessment Panel.

Lemberg, R. 1983. Comments on "Oil spill risk assessment" dated September 1983 by the Proponents. Submitted to the Beaufort Sea Environmental Assessment Panel.

Summary:

2.5.1 # 18 Sept 1983 Panel Index E
Beaufort Sea Environmental Assessment Panel.

Lemberg, R. 1983. Comments on "Oil spill risk assessment" dated September 1983 by the Proponents. Submitted to the Beaufort Sea Environmental Assessment Panel.

Review:

In commenting upon the report by the proponents entitled " Oil Spill Risk Assessment", the risk variables in the report are discussed. Risk of an oil spill is indicated as a combination of two variables - the probability of an accident occurring, and given that an accident occurs, the probability distribution of oil spill sizes. The oil spill data analysis used in the report is commented upon but "no attempt has been made to check the accuracy of the Proponents results in this table because the original data the Proponents used for the analysis has not been made available yet for review."

Comments on the conversion of conventional statistics to Arctic statistics notes some concern with the mean spill size data . In commenting upon the transformation of conventional to Arctic ... "It is apparent that the spill distributions were not changed except for overland pipeline. The accident frequencies were reduced in some instances, the largest reductions being for the tanker. "

The section on Arctic Tanker notes a reduction of accident frequency by a factor of 100 was used for the Arctic tanker. Reasons are given as to why it is not possible to determine whether such a large reduction is credible. "...one may speculate as to whether the reduction factor has any validity. The Arctic tanker concept is based on new designs and systems which, to date, have not appeared in a prototype. Such improvements and new systems may in fact be necessary to make the Arctic tanker operations as safe as a conventional tanker in southern waters." A second concern is that the report does not attempt to estimate a spill distribution for the Arctic tanker but that the conventional tankers' oil spill distribution is adopted unchanged.

Subsea pipelines - comment on this section notes that "It is apparent that the 2400 barrel mean spill size contained in the Report is likely a very conservative upper bound. A lower bound may be on the order of 200 barrels, a factor of ten less."

Overland Pipeline: - .."Thus the lower bound on the accident frequency for overland pipelines is probably at least half of that calculated by the Proponents." In commenting on the mean spill size.."One would expect the Proponents to provide an estimate of the mean spill size from their proposed 16" diameter overland pipeline. Such an estimate would provide a perspective on the spill size reduction one may expect from the design features being considered by the Proponents. If such features will indeed be effective, one may expect that the mean spill size may be considerably less than the 1,400 barrels calculated in...the Report."

General Comments: A consistent error in the Report is pointed out noting that the mean spill size for item(b) Blowouts should read 34,000 barrels instead of 1,300 barrels. It is also noted that "Table 4.7.1 of the Report is totally incomprehensible."

Comparison of transportation scenarios: Although the Report does not tabulate a comparison, the data provided in the report is used to do so. For the tanker system, calculations are made using the Reports full reduction of accident frequency and a second calculation is made assuming that this reduction is not credible and the accident frequency of a conventional tanker is used.

"The figures for the pipeline systems are very likely upper bounds on the barrels spilled per year as noted above . These figures could in fact be much less by a factor of 2 or more. If this were the case, the pipeline system would compare favourably against the Arctic tanker system having the 100-times reduction of its accident frequency. That is, at production levels of double or triple the Base Case, the expected barrels spilled per year by the Arctic tanker system would exceed that of the pipeline system.

In comparing the systems, one would have to take into consideration the fact that there are more unknowns or debatable factors involved in determining the barrels spilled per year by the Arctic tanker system. Two have been commented upon:"

2.5.1 # 18
A1 and A2

Submitted to the Beaufort Sea Environmental
Assessment Panel

October 28, 1983 and November 2, 1983.

By: R. Lemberg, Technical Specialist

Lemberg, R. October 1983.

Amended version - Comments on "Oil Spill Risk
Assessment" dated September 1983 by the
Proponents. Prepared for the Beaufort Sea
Environmental Assessment Panel. 19 p.
(Corrections for pages 7, 9, 16, 17 attached).

FEARO Document
2.5.2

2.5.2 # 1

Beaufort Sea Project
Direct Panel Correspondence

83.02.09 Panel Index
Beaufort Sea Environmental Assessment Panel

Interim compendium of written submissions to the Panel on the Dome, Gulf & Esso Environmental Impact Statement. February 9, 1983.
(Includes all submissions received as of February 9, 1983).

The compendium includes 20 submissions as follows:

- p. 1 - Dept. of Fisheries & Oceans
- p. 2 - Labrador Institute of Northern Studies
- p. 7 - Environment Canada
- p. 13 - Mr. Wayne Liebau
- p. 27 - Beaufort Sea Alliance
- p. 49 - Trans North Air
- p. 53 - Dene Nation
- p. 57 - Canadian Wildlife Federation
- p. 84 - Canadian Nature Foundation
- P. 87 - Councillor, Old Crow Band
- P. 139 - Dr. C. Eric Tull
- p. 189 - Environment Canada
- p. 229 - Arctic International Wildlife Range Society
- p. 237 - Mrs. Rita Pasiciel
- p. 239 - Metis Association of the Northwest Territories

2.5.2 # 2

- p. 275 - Arctic Bay Development Review Committee
- p. 289 - Labrador Inuit Tapirisat of Canada
- p. 295 - Inuit Tapirisat of Canada
- p. 315 - Fisheries & Oceans Canada
- p. 381 - Department of Indian Affairs and Northern Development (Vol. 1)

83.02.15
Beaufort Sea Environmental Assessment Panel

Second (final) interim compendium of written submissions to the Panel on the Dome, Gulf & Esso Environmental Impact Statement.
(Includes all submissions received between Feb 9/84 and Feb. 15/83).

The compendium covers 16 submissions plus 2 attached submissions to the Panel as follows:

- P. 1 - Settlement and Band Councils of Fort Norman
- p. 55 - Yukon Conservation Society
- p. 61 - Mackenzie Dene Regional Council
- p. 67 - Dene Community Council - Fort Good Hope
- p. 73 - Government of the Northwest Territories
- p. 95 - North Slope Borough
- p. 101 - Archaeological Survey of Canada

p. 115- Energy, Mines and Resources Canada

p. 125- Beaufort Sea Alliance

p. 127- Morten Lindhard

p. 145- Government of Yukon

p. 159- Baffin Regional Inuit Association

p. 173 -Department of Indian Affairs & Northern
Development (Vol.II)

p. 271- Hamlet of Pond Inlet

p. 281- Town of Inuvik

p. 283- Employment & Immigration Canada

Attachments:

- Artic Transportation Ltd.

- Hamlet Council of Norman Wells

FEARO
Reference
No.

2.5.2 # 3

2.5.2 # 4

Beaufort Sea Project

Submitted to the Beaufort Sea Environmental Assessment
Panel (dated 83.02.28)
by: Ottawa Field-Naturalist Club

Reference.

Ottawa Field-Naturalists' Club. 1983. Comments on the
Environmental Impact Statement concerning hydrocarbon
development in the Beaufort Sea/Mackenzie Delta
Region. Submitted to the Beaufort Sea Environmental
Assessment Panel. 9p.

Submitted to the Beaufort Sea Environmental Assessment
Panel 83.03.22
by: Sachs Harbour Trappers Association

Reference:

Sachs Harbour Trappers Association. 1983. Comments on
Beaufort Development. Submitted to the Beaufort Sea
Environmental Assessment Panel.

2.5.2 #4 Submitted to the Beaufort Sea Environmental Assessment Panel 83.03.22
by: Sachs Harbour Trappers Association

Sachs Harbour Trapper Association. 1983.
Comments on Beaufort development. Submitted to the Beaufort Sea Environmental Assessment Panel by Sachs Harbour Trappers Association. 14p.

The principal tanker route from the Beaufort Sea is thought to be detrimental to the biotic community. There is concern that the noise from the icebreaking activities would cause redistribution of ringed and bearded seals of the immediate area. Any dramatic alteration in the present biology of the area will result in hardship to the Inuvialuit community. Known whelping areas of the bearded and ringed seals are in the most danger. If the seals go, the bear and foxes will follow.

Ship track and ice build up...Concern is with the landfast ice zones. Ice build-up in the Prince of Wales Strait area will prolong spring break-up and force the natural inhabitants of the area to move elsewhere. The possibility of development of an artificial ice ridge grounded to the sea floor which would prolong natural spring break-up is also of concern.

Conclusion and recommendation: There is not enough information in the EIS concerning noise pollution from ships and impacts of ships tracks, the impact on animals, and the resultant impact on the Inuit of the area who depend on the animals.

The concern for noise pollution and ice impacts should be studied and reported for the benefit of the community. One alternative would be to go ahead with a prototype for two years. If such a project was harmful it would have to be stopped.

Social and Economic Matters: The introduction of industry to the area is recognized as essential to the well being of the people. A need for jobs and careers has become the order of the day and the people must be given the opportunity to develop the skills required to participate and compete as equals. One solution would be the establishment of a training center in the region.

Better educational and recreational facilities are required in the community. If the oil is being removed

to benefit the south, the north should also benefit from increased services, employment and economic development.

A training facility located in Inuvik to qualify people as tradesmen should be established. Reliable employees in the community should be subsidized so they will stay in the community rather than be lost to the higher bidder ..industry.

Compensation. The following items need to be implemented:

- establishment of a compensation board manned by a govt appointee, an industry representative and a representative of the Inuvialuit community.
- the mandate of the board should be to review and award remedies for loss/damage to subsistence/income
- to award restitution where losses have occurred and these losses are of a commercial nature, and the loss is related to development/production activities as opposed to natural causes, an adjudicative approach be taken to settle these particular commercial losses
- to investigate and take remedial action for a specific community as specified, for the sole purpose of increasing an individuals income to match industry.

Conclusion. Environmental monitors from this community should be utilized during any exploratory or production project that is within 200 mile perimeter of Banks Island (321.8 km). Projects must be fully explained to Banks Islanders and have the approval of Sachs Harbour.

2.5.2 # 5 Submitted to the Beaufort Sea Environmental Assessment Panel
83.03.18
By: Environment Canada

Environment Canada's Technical Review of the Beaufort Sea Environmental Impact Statement - Volume II

"..This documents contains the detailed comments on which the Volume I -Overview was based. The information in Volume II will provide the necessary background for the tackling of deficiencies. It will also constitute a considerable portion of our intervention at the hearings...."

TEXTNAME: cat-2.5.2 (R)P: (p.01) 01

Appendices.

- i) "The environmental issues"; Extracted from Environment Canada's Proposed Response to Beaufort Sea Hydrocarbon Production; July 1982; pgs. 4-6.
- ii) Review of recommendations for risk analysis of Beaufort Sea Oil Transportation DASB Project U480. P. Cohen; December 1982.
- iii) Western snow goose data; L.Allen and R. Barry, 1981.
- iv) Significant resources - summary; CWS Publication under preparation.

2.5.2 # 6 Submitted to the Beaufort Sea Environmental Assessment Panel 83.05.06

Archaeological Survey of Canada. 1983.
Background documentation to the critical review of the "heritage resources" issue, Beaufort Sea project - environmental impact statement. Archaeology Survey of Canada, National Museum of Man, Ottawa, Ontario.

Background documentation consists of a Table of Problems. Although taken individually they may not be particularly relevant, but are presented as illustrative of the non-approach with respect to the issue of archaeological heritage preservation. They are used to support the recommendation to the Panel to the effect that:

"The proponents should be urgently required to re-appraise their position(s) and approach(es) vis-à-vis Heritage issues, and to participate in the formulation and implementation of a long-term, integrated B.S.P. archaeological mitigation programme, through extensive consultation and collaboration with the Territorial and Federal Agencies responsible for Heritage research and management in areas under consideration."

2.5.2 # 5 Submitted to the Beaufort Sea Environmental Assessment Panel
83.03.18
By: Environment Canada

Environment Canada's Technical Review of the Beaufort Sea Environmental Impact Statement - Volume II

"..This documents contains the detailed comments on which the Volume I -Overview was based. The information in Volume II will provide the necessary background for the tackling of deficiencies. It will also constitute a considerable portion of our intervention at the hearings....".

EXTNAME: cat-2.5.2 (R)P: (p.01) 01

Appendices.

- i) "The environmental issues"; Extracted from Environment Canada's Proposed Response to Beaufort Sea Hydrocarbon Production; July 1982; pgs. 4-6.
- ii) Review of recommendations for risk analysis of Beaufort Sea Oil Transportation DASB Project U480. P. Cohen; December 1982.
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Background documentation consists of a Table of Problems. Although taken individually they may not be particularly relevant, but are presented as illustrative of the non-approach with respect to the issue of archaeological heritage preservation. They are used to support the recommendation to the Panel to the effect that:

"The proponents should be urgently required to re-appraise their position(s) and approach(es) vis-à-vis Heritage issues, and to participate in the formulation and implementation of a long-term, integrated B.S.P. archaeological mitigation programme, through extensive consultation and collaboration with the Territorial and Federal Agencies responsible for Heritage research and management in areas under consideration."

2.5.2 # 7

Submitted to the Beaufort Sea Environmental Assessment
Panel 82.11.04

Adamache, H. 1982.
Environmental and social concerns, Coppermine, N.W.T. :
oil and gas explorations, Beaufort Sea development. A
case study. Compiled by H. Adamache and S. Atatakfor
Coppermine Hamelt Council, October 1982. 3p.

Coppermine has much to offer tourists and visitors.
Hunting and fishing are still a number one priority to
all residents of Coppermine and a part time job for
most. The community is not against development and
needs the employment. Employment opportunities have
increased, revenues have increased and alcohol is a
problem. There is a need for education about better
home and money management.

Counseling could be provided by the oil industry and
advertising could help (family togetherness).

What happens when the oil industry is gone is also a
concern. Some people are concerned about development
because of perceived impact on crime, alcohol,
drugs, etc.

The hunting, trapping and fishing areas include areas
of Victoria Island and no money could compensate for
its destruction.

A community survey indicated that most felt that oil
development had been beneficial to the community
(employment). Also the oil companies should make an
agreement to compensate if a blowout occurs or oil
spills from tankers or islands.

"Again we urge the Federal Government to weigh the
concerns of the people and necessities of development
to compensate the effects of oil and gas explorations
in the Beaufort Sea".

FEARO Document

2.5.2 # 8 Submissions to the Beaufort Sea Environmental Assessment Panel.

Beaufort Sea Environmental Assessment Panel
August 15, 1983

Compendium of written submissions to the Panel on the Dome, Gulf & Esso response to the Panel's environmental impact statement deficiency statement. Includes all submissions received as of August 15, 1983 from review participants and the Panel's technical specialists.

Report includes submissions from the following:

- R-1 N.H. Richardson
- R-2 Govt. of Northwest Territories
Ministry of Energy, Mines and Resources
- R-3 Dr. Paul Greisman
- R-4 National Museum of Man
- R-5 Dr. Don Mackay
- R-6 Environment Canada, Western and Northern Region
- R-7 Dr. C. Eric Tull
- R-8 W. Winston Mair
- R-9 Dr. Jack B. Ellis
- R-10 Baffin Region Inuit Association
- R-11 Renewable Resources, Govt. of Northwest Territories
- R-12 Dr. Ray Lemberg
- R-13 Fisheries & Oceans Canada, Freshwater Institute
- R-14 Ms. Val Walsh
- R-15 Employment & Immigration Canada, Alberta/NWT Region
- R-16 Ms. Diane Erickson
- R-17 Govt. of Yukon
- R-18 Indian and Northern Affairs Canada
- R-19 Town of Inuvik
- R-20 Dene Nation

2.5.2 # 10 Submitted to the Beaufort Sea Environmental
Assessment Panel
October 1983
by: Proponents

F.G. Bercha and Associates Ltd., Lavalin Offshore
Inv.-FENCO Consultants Ltd. September 1983.
Oil spill risk assessment - Final Report.
Prepared for Dome Petroleum Ltd., Esso Resources
Canada Ltd. and Gulf Canada Resources Inc.,
Calgary, Alberta.

Also filed 2.3.5 # 2

2.5.2 # 10 Submitted to the Beaufort Sea Environmental
Assessment Panel
October 1983
by: Proponents

F.G. Bercha and Associates Ltd., Lavalin Offshore
Inv.-FENCO Consultants Ltd. September 1983.
Oil spill risk assessment - Final Report.
Prepared for Dome Petroleum Ltd., Esso Resources
Canada Ltd. and Gulf Canada Resources Inc.,
Calgary, Alberta.

Also filed 2.3.5 # 2

2.5.2#10	total	I-I.A	2.4.3.1
I	risk analysis	methodology	oilspill
proj components	comparisons	dataanalysis	

F.G. Bercha&Lavalin Offshore Inc-Fenco. Sept 1983. Oil spill risk assessment - Final Report. Prepared in conjunction with Dome Petroleum Ltd., Esso Resources Canada Ltd, Gulf Canada Resources Inc., Calgary, Alberta. 46p + appendices.
Summary: This report was prepared in response to questions raised to the EIS, particularly those raised by Dr. Ray Lemberg and Dr. Phil Cohen, and to clarify differences between published work of Fenco Consulatants and F.G. Bercha and Associates. Historical statistics for each component of production and transportation systems were prepared for mean spill size (barrels); frequency of spill (spills/year); and spill size probability distribution. These statistics were then modified to make them appropriate for an Arctic environment and used to predict the resulting oil spills for both pipeline and tanker systems with a base throughput of 100,000 barrels per day. Subscenarios were also considered. A comprehensive study was made of all available oil spills, both conventional and Arctic. "With minor exceptions where slightly more up-to-date statistics have been used, there are no significant changes from the information already tabled by the Proponents. What has been achieved, however, is that apparently conflicting data has been compared on the same basis and has been found to be compatible. The report shows that the various components comprising an Arctic production and transportation system, have different characteristics. Figure 1 shows the risk characteristics of each of the prnciple components. From this figure, the following may be noted: -Development drilling has a low probability of spills occurring but that these spills may be large if they occur; -A higher incidence of small spills are anticipated for pipelines, but the chance of large spills are much less and their spill volume is limited by pipeline size; -Tankers have similar risk characteristics to those of production and development drilling with slightly lower probability of a spill and slightly smaller maximum spill volumes; -Storage and cargo transfer have a relatively high probability of small spills and a small probability of a large spill."

2.5.2 #11

Submission to the Beaufort Sea Environmental
Assessment Panel

83.08.09

by: Mr. A.W. May, Deputy Minister, Fisheries &
Oceans

Re: Submission of additional information in
response to Panel request. Documents submitted
include:

Assessment of the effects of oil on arctic marine
fish and marine mammals. (Filed 2.1 # 22)

The effects of vessel traffic in the arctic on
marine mammals and recommendations for future
research. (Filed 2.1 #21)

2.5.2 # 12

83.09.17

Panel Index E

Submitted to the Beaufort Sea Environmental Assessment Panel

by: E.W. Hayes, Whitehorse, Yukon.

Covering letter puts forth the position that many of the claims in the Health and Welfare Position Paper are untrue (e.g. the Inuvik Region was running with only one half the compliment of station nurses indicated in the paper; the program for community based mental health programs including involvement of native organizations has not yet approached any of the native organizations).

Enclosure:

Hayes, E.W. 1982. Health policy on the Beaufort Rim.

Summary (from report):

"The Inuvialuit are a group of Inuit inhabiting the Beaufort Rim - the site of pending hydrocarbon development. The health conditions of the Inuvialuit indicate a social malaise that can best be tackled by directing attention to social and public health measures. The Department of National Health and Welfare, which is responsible for the health of the people in the Beaufort Rim, has developed policies which might satisfactorily address the public health problems of this region. Because of increasing centralization and decreasing funds, forces within the department appear to have subverted these policy statements. It is argued that centralization is reducing the effectiveness of existing funds by increasing the amounts put into medical, rather than public health, technology. It is also argued that there has been a misinterpretation of policy arising from the increased use of lay administrators and from misplaced anxiety over the role of the Auditor - General. "

Also Filed: 2.1 #30

2.5.2 # 13

83.09.06 Panel Index E
Dr. J.S. Tener, Chairman
Beaufort Sea Environmental Assessment Panel
From: Dr. A.H. Macpherson, Regional Director
General, Environment Canada.

Re: Response to Panel Request for listing of
conservation areas in Northern Canada and Status
of park planning north of 60.

Submission includes:

1. Summary of current status of areas north of 60
assigned to the Minister of Environment - Parks
Canada Areas of Interest
2. Current status of action on national park
proposals north of 60°.
3. Proposed outline for submission on the Northern
Yukon to the Beaufort Sea Environmental
Assessment Panel.
4. Supporting documentation:
Canada's Special Places in the North: An
Environment Canada Perspective for the '80's.
(Filed 2.1 # 30)

Areas of interest to the the Canadian Wildlife
Service (within the Beaufort Sea hydrocarbon
production zone and associated transportation
corridors). Filed 2.1 # 31.

2.5.2 # 14 Submitted to the Beaufort Sea Environmental
Assessment Panel
83.10.13

by: Ms. Kate Tompkins, K.E.T. Enterprises

Thompkins, K. October 3, 1983. Letter to Dr.
J.S. Tener as submission to the Beaufort Sea
Environmental Assessment Panel.

2.5.2 # 15 Submitted to the Beaufort Sea Environmental
Assessment Panel
83.10.07

by: Thomas F. Albert, Senior Scientist, North
Slope Borough Conservation and Environmental
Protection Office

Letter of transmittal for four documents with the
request that they be brought to the attention of
the Panel.

Documents enclosed (excerpt from letter):
Published reports filed 2.2 #27 and 2.2 #28

2.5.2 # 16

Submitted to the Beaufort Sea Environmental
Assessment Panel

83.09.23

by: Mr. Paul Tellier , Deputy Minister, Energy,
Mines and Resources.

Re: Response to Panel request for additional
information.

Submission includes amended sections 4 and 5 of
the Background Paper from the Department of
Energy, Mines and Resources. "These sections have
been amended to reflect current estimates of
hydrocarbon resources and continued uncertainty of
pricing for oil on the international market, and
the effect this is likely to have on oil
supply/demand balance."

Filed as additional information to Position
Statement (2.4 # 16 Supplement).

2.5.2#17	7p.	I-V	A&B
NSp	government management		responsibilities
	policies & programs	legislation	
*		research & programs	

Josephson, F.J.O. 1983.
 Intervention on government management to the Beaufort Sea Environmental Assessment Panel. Arctic Operation, Western Regions, Fisheries & Oceans Canada. 7p.

Summary of the Dept. of Fisheries & Oceans responsibilities and programs which are relevant to the Beaufort Sea Proposal; matters included in the Department's mandate, and legislative basis are indicated. Synopsis of the on-going programs most relevant to the proposal are included and research areas noted.

2.5.2#18	19p	0-III	
NSp	government management		research activities
	transportation	*	
	Transport Canada	research review	

Transport Canada. November 1983.
 Arctic marine transportation R&D in Transport Canada. Canadian Marine Transportation Administration, Transport Canada, Ottawa. 19p.

"The attached report reflects our current R&D activity under the Arctic Marine Transportation R&D ProgramAlso included, although not identified as specific projects is R&D undertaken with our regular departmental funding, both in the Canadian Coast Guard (Marine Administration) and the Transport Development Centre..." from covering letter.
 The objectives of the Arctic Marine Administration R&D Program are outlined . A general description of R&D and Data Gaps are discussed as follows: regulatory (design; operations; general) ; operation of vehicles; communication systems and technologies; government services; and oil spill detection, containment and clean-up. Factors which determine the departments priorities are identified.

2.5.2#19 I-I.D response capability
NSp oil spills
restoration shoreline countermeasures
BIOS Project Panel request

Environment Canada. December 1983.
Submission of material on the Baffin Island Oil Spill Project. Submitted by G.A. Sergy, BIOS Project Manager in response to a request by the Beaufort Sea Environmental Assessment Panel, November 18.

Covering letter to submission notes the reports on Shoreline Countermeasures covered by submitted working reports..."Unfortunately there was no questioning at the hearings to bring out the results of this experiment which is highly applicable to the Beaufort Sea area. Of particular interest is the effectiveness of shoreline cleanup techniques, the relatively rapid self-cleaning ability of moderate to high energy intertidal beaches (1-2 open water periods) and the relatively long residence time of oil stranded in the backshore or low energy intertidal beaches." from covering letter.

2.5.2#19 I-III.H effects on wildlife
NSp env. effects - offshore
summary- sources/species *
BIOS Project Panel request

Environment Canada. December 1983.
Submission of material on the Baffin Island Oil Spill Project. Submitted by G.A. Sergy, BIOS Project Manager, in response to a request by the Beaufort Sea Environmental Assessment Panel, November 1983.

Submission to the Panel included a set of "working reports" available to date on the BIOS Project and notes on some of the reports and on some of the unavailable material. Notes were provided on shoreline countermeasures, macrobenthos, physiological studies, microbiology, analytical biogeochemistry, and under-ice studies.

Summary notes that "...what the BIOS Project is doing in to address some of these factors, namely the fate of oil under the countermeasure scenarios and the effects on the subtidal benthos.....the Project provides what is the most comprehensive in situ oil spill study in the Arctic and probably rivals site-specific spill data bases on a world scale..."

2.5.2#20

W-I.G

I(Y)

env. effects-Yukon

effects on wildlife

fisheries

background data

*

Panel questions

Fisheries & Oceans Canada. December 1983.

Yukon coast fish sampling information. Submitted to the Beaufort Sea Environmental; Assessment Panel by F.C. Boyd, Habitat Management Division, Fisheries & Oceans Canada. 2p.

"In order to describe, for the Panel, the present Yukon coast fisheries data I have attached a map of the Yukon coast upon which fish sampling locations are plotted."

2.5.2#21

Y-I

NSp

env. effects- pipeline

pipeline alternatives

scale effects

tanker comparison

*

Panel questions

Brook, D.B. December 1983. Supplementary information to testimony at Yellowknife. Submitted by the Beaufort Sea Alliance in response to questions of the Beaufort Sea Environmental Assessment Panel, Yellowknife Hearings. 3p.

Submission includes citation for reference in Yellowknife testimony and comments noting agreement with Dr. Mackay's comments on the conclusions about pipelines being presented. Additional comments on scale and the numbers provided with the conclusion "that all of these numbers..have to be taken with a grain of salt."

2.5.2#22 R-I
III arctic tankers oil spills
wind* background data
Labrador technical specialist

Greisman, P. December 1983.

Telex re Labrador Inuit Association written question. Submitted to the Beaufort Sea Environmental Assessment Panel. 2p.

Response to question "is it your opinion that the wind data from BRAVO is representative of the winds offshore northern Labrador?". Answer indicates that in the absence of any other data they would be the best available and further notes that recorded wind data by Petro Canada - if available- could be considered the "gospel" in this matter.

2.5.2#23 R-III
III government management tanker(research & control)
icebreaker design employment initiatives
accident response Panel request

Transport Canada. 1982.

Submission of reports requested for Beaufort Sea Environmental Assessment Panel. Submitted by C. Stephenson. Coast Guard Northern Transport Canada.

The following reports were enclosed:

Leslie, I.K. .1982.

The Polar Icebreaking Project and its impact on the Canadian shipbuilding and allied industries. Presented at the Annual Technical Conference Canadian Shipbuilding and Ship Repairing Association, 2 March 1982. 20p.

Also filed 2.1# 36.

Emergency Planning Canada.

The Edgar Jourdain incident: narrative of events. Prepared by Emergency Planning Canada with the assistance of Transport Canada (Canadian Coast Guard), Environment Canada and Indian and Northern Affairs Canada.

Coast Guard native employment initiatives in the Arctic. 1p.

2.5.2#24 R-I *
III arctic tankers
winds background data
Labrador session question

Labrador Inuit Association. December 1983.
Outline of data to be presented at the Ottawa General Session. Tellex from Judy Rowell, Labrador Inuit Association. 2p

Tellex requests time at the Ottawa Session to provide more elaboration on winds offshore northern Labrador and indicates nature of data.

2.5.2#25 W-I.C W-III
I(Y) env. effects-Yukon Yukon shorebases
const and maintenance control authority
legislation noted Panel question

Transport Canada. 1983.
Harbours and Ports Directorate - Material requested by the Panel. Submission to the Beaufort Sea Environmental Assessment Panel, December 1983. Transport Canada, Ottawa. 2p.

* Material noting that the Harbours and Ports Directorate has the mandate to administer the public harbours and wharf facilities which are the responsibility of the Minister of Transport as well as the responsibility for the construction and maintenance programs related to these facilities.

2.5.2#29

I(Y)

W-10supp

Env. effects - Yukon

W-I.C

Yukon shorebases

fisheries

*

background data

Panel request-respons

Fisheries & Oceans Canada. 1983.

Fish Data Base for the Yukon Shorebases. Submitted To the Beaufort Sea Environmental Assessment Panel by G.C. Vernon, Fisheries & Oceans Canada. January 1984. 17p.

"This review was prepared in response to a request to summarize the pertinent data used in support of the Department's brief on Yukon shorebases. Although the Yukon supports harvested stocks of fish as well as marine mammals, this review is limited to a discussion of the pertinent fish information since fish data formed the basis of most of the brief's conclusions...

..it is the intention of this review to describe the available fish information used to develop the brief's position of strongly discouraging shorebase development in the productive area west of Kay Point (ie: at Stokes Point)."

Information is provided under the topics : data availability, study objectives, sampling locations, sampling time, collection methodologies, data summary (species composition, relative abundance, species distribution and relative abundance, feeding, arctic char staging area, lagoon habitats), and interpretation - posiiton development.

2.5.2#30		0-I	
III	government management		biophysical effects
	marine policy	ITC proposal	
	COGLA comments	Panel request	

Canada Oil and Gas Administration. January 1984.
 Comments on the proposed Inuit Arctic Marine Environmental Policy. Submitted by
 M.E. Taschereau for, Canada Oil and Gas Administration, Ottawa. 2p.

Comments indicate that certain elements of the proposed policy are being dealt with by other government departments...."and am assured that a number of initiatives are already underway ,...which should address these specific elements of your policy as well as the broader social and environmental concerns, expressed by Northerners in general." The need for Inuit/Government dialogue is noted.

2.5.2#31		0-I	
III	government management		biophysical effects
	marine management policy	ITC proposal	
	Transport Canada	Panel request	

Transport Canada. January 1984.
 Comments of the proposed Inuit Arctic Marine Environmental Policy. Submitted by
 R. Withers, Transport Canada. 5p.

The fundamental principal for Transport in dealing with controls for the Arctic is noted and ...
 "In connection with this principle, we would be opposed to any proposal that 'compartmentalized' Arctic waters such that a comprehensive and uniform management regime no longer applied. The concept of treating ice-covered waters as an extension of the closest land is in conflict with the marine concept of the waterway as a thoroughfare operated under consistent national and international rules.."

Initiatives taken by Transport under the Arctic Control Authority are noted .
 Comments are included on the training and employment of Inuit in departmental activities in the North.

2.5.2#32		R-Gen	
III	overview document		Labrador concerns
	oilspills	land claims	
	recommendations	Final argument	

Labrador Inuit Association. December 1983.
 Submission to the Beaufort Sea Review Panel: final argument.
 Submitted to the Beaufort Sea Environmental Assessment Panel, December 1983 by
 the Labrador Inuit Associations, Nain, Labrador. 9p.

Introduction to the report notes concerns that neither the Panel nor the
 Proponent's experts were familiar with the Labrador Sea and with relevant data
 sources. Issues addressed included : land claims, Labrador Sea, oil spills and
 Labrador as a priority. Eleven recommendations were submitted . In conclusion
 .."LIA believes that an acceptable case has been made to support the position
 that the Labrador Sea is an area of special concern; that because of the winds
 and currents any spilled oil is likely to come ashore and this puts the
 livelihood of the Labrador Inuit at risk..." LIA supports the Newfoundland
 recommendation that is tankers are approved the route south of 60° should be
 referred to an EARP review.

2.5.2#32	1-2	R-II	
III	community/ soc-ec effects		*
	land claims	*	
	Labrador	Final argument	

Labrador Inuit Association. December 1983.
 Submission to the Beaufort Sea Review Panel: final argument.

Recommendation submitted that the LIA be allowed to settle outstanding claims
 prior to any approval of tankers using the Labrador Sea and adjacent waters.

2.5.2#32	2-5	R-IC	R-I.B
III	arctic tankers		oilspills
routing		background data	
Labrador		Final argument	

Labrador Inuit Association. 1983.
 Submitted to the Beaufort Sea Review Panel: final argument

Concern is expressed over lack of background data for the Labrador Sea in the EIS and statements made by the proponents despite this. Concern over reporting on the review of the LIA report in Inuvik and the fact that the LIA was left with the task and expense of providing the Panel with the best data on wind conditions in the Labrador Sea. Two recommendations referring to this topic are included.

"LIA believes that the record now indicates there is hard evidence to suggest that oil may come ashore on the Labrador coast." Concern over the ability to clean up spilled oil in the area and the placement of response resources is noted and two recommendations proposed

2.5.2#32	6-9	R-III	
III	government management		planning
env protection		*	
Labrador		recommendations	

Labrador Inuit Association. December 1983.
 Submitted to the Beaufort Sea Review Panel: final argument.

"Through questions and submissions we have tried to show you that we cannot depend on Industry or Government to take any of the initiatives necessary to protect our interests in the offshore unless they are pressured to do so. Major research programs sponsored by the Government focus north of 60°. The Arctic Marine Transportation Authority is restricted to north of 60°. Operator and responsible Government departments have never referred Labrador offshore drilling activities to EARP." Discussion and five recommendations.

2.5.2#33		R-Gen	O-Gen
III	overview document		Labrador and Zone III
	oilspills	govt management	
	ITC	Final argument	

Inuit Tapirisat of Canada. December 1983.
 Submission to the Beaufort Review Panel: final argument. Submitted to the
 Beaufort Sea Environmental Assessment Panel, January 1984.

The importance of political development, constitution and land claims processed is discussed. Concern is expressed over the proponents questioning of the Inuit hunting techniques and even motives of hunters and the insinuation that compensation claims would be missused. These attitudes are not found in the published policies of the proponents but illustrate the need for Inuit to have some control and monitoring responsibilities. Specific comments address tanker design, compensation, socio-economics, bio-physical impacts and government management.

The concluding statement notes that if this concept were a specific project, the ITC would oppose it. If the Panel has been convinced that this concept could become a practical and safe project, it is hoped that no suggestion of an approval-in-principle will be made. The uncertainties are noted, in particular, the regulatory process and the lack of a guarantee that this will not be the last public environmental review of the tanker concept.

2.5.2#33	p.5-6	R-I.A	
III	arctic tankers		design and performance
*		concerns	
ITC		recommendations	

ITC Final argument.

The main concern discussed is the jump which remains to be made from a Class III supply icebreaker to a Class X icebreaking tanker. The recommendation made is that no icebreaking tankers be approved for construction until either the Polar VIII Coast Guard Vessel or the Dome Class X icebreaker has been built, tested and evaluated.

2.5.2#33 p.7 R-I.C
 III arctic tankers oil spills

 response -capability countermeasures
 * recommendations

ITC Final argument.

The position noted is that the proponent has not adequately addressed the question of oil spill countermeasures for the tanker route. "A great deal of research and planning remains to be done."

2.5.2#33 p.7-9 R-II.D
 III community and soc-ec effects

 compensation policy
 interpretation final argument

ITC Final argument

The question of the implementation of proposed compensation policies is discussed . "While the policy of the proponents appeared to be generous, under questioning this generosity dissolved and was replaced by meaningless commitments and suspicion of Inuit motives."

2.5.2#33 p.9 R-II.B
III community and soc-ec effects ec opportunities/benefits

final argument

ITC Final argument.

"ITC does not quarrel with their conclusion. ..we do not believe the proponents have realistically assessed the hurdles which must be overcome before business and employment opportunities can be fully exploited by communities along the tanker route.

2.5.2#33 p.9-11 R-I.E R-I.G
III arctic tankers noise

env. assessment

data questions
recommendations

ITC Final argument.

The issue of the impact of noise on marine mammals is raised and a recommendation that the evidence suggests a real possibility of serious negative impact.

2.5.2#33
III

p.9
community and soc-ec effects

R-II.B

ec opportunities/benefits

final argument

ITC Final argument.

"ITC does not quarrel with their conclusion. ..we do not believe the proponents have realistically assessed the hurdles which must be overcome before business and employment opportunities can be fully exploited by communities along the tanker route.

2.5.2#33
III

p.9-11
arctic tankers

R-I.E

R-I.G
noise

env. assessment

data questions
recommendations

ITC Final argument.

The issue of the impact of noise on marine mammals is raised and a recommendation that the evidence suggests a real possibility of serious negative impact.

2.5.2#33 p.11-13 R-III 0-Gen
 III government management planning

 marine management policy recommendations
 *

ITC Final argument.

"..There is no coordinated policy for management of the Arctic Oceans. In addition, the Inuit are not involved in any of the decisions or institutions now concerned with programs related to Arctic waters."

Recommendations are made for the establishment of an authority with a broader mandate and full Inuit participation. A second recommendation deals with the need for a coordinated approach to management.

2.5.2#34 R-I.D icebreaking effects
 III arctic tankers

 * *
 proponent submission

Danielwicz, W. 1983.

A review of spring break-up dates associated with the operation of the ice breaker MV Arctic. Submitted by Dome Petroleum Ltd. to the Beaufort Sea Environmental Assessment Panel. 5p.

A review of the break-up dates associated with the spring operation of the ice-breaker MV Arctic is presented with the conclusion the "since the commencement of ice breaking in Admiralty Inlet in 1978, there has been no consistent alteration of the date of spring break-up."

2.5.2#35.1		R-I.G	
III	arctic tankers		env assessment
	wildlife	background data	
*		pub report	

Stemp, R. 1983.
 Wildlife monitoring in Davis Strait, 1979-1982. Prepared for Canterra Energy Ltd. Submitted to the Beaufort Sea Environmental Assessment Panel, January 1984.

Canterra began wildlife studies in 1976. With commencement of drilling a monitoring program began from the drillship and was repeated in 1980 at Hekja and in 1982 at the Raleigh site. Wildlife observations were also made during Canterra's seismic programs in Davis Strait in 1980, 1981 and 1982. The program provided information on the types and numbers of birds and mammals found in southwestern Davis Strait. The following species are covered in this report:

Mammals: fin whale, killer whale, pilot whale, ringed seal, bearded seal, hooded seal, harp seal, and other mammals.

Birds: northern fulmar, black-legged Kittiwake, thick-billed murre, other birds, and land birds.

2.5.2#35.3		R-II	
III	community and soc-ec eff		overview
*		Baffin Island	
*		pub report	

Canterra Energy Ltd. 1982.
 1982 Socioeconomic review : Raleigh drilling program. 21p.

"This report has been prepared for the residents of South Baffin Island to explain Canterra's 1982 drilling program in Davis Strait. The report summarizes the Company'S northern programs in areas of training, employment, community consultation, cultural considerations and the use of local business.

FEARO Document

No. 2.5.3 Written Questions and Answers.

2.5.3 # 1 (Q) From: Dr. C. Eric Tull

To: Proponents

Areas addressed:

1. Interaction matrices: Request for interaction matrices for each of the four regions as referred to in vol. 4 of the EIS, page 1.2
2. Knowledge Deficiencies: Request that the proponents summarize the results of their consideration of the adequacy of the two data bases (baseline biophysical and impact data bases) for the impacts considered in Volumes 4 and 6. Request that they fill out a set of matrices (references to EIS cited) and indicate for each entry the adequacy of both data bases.
3. Monitoring Plans: Request for preparation of a set of matrices in which are indicated for each impact entry shown whether the proponents are planning a monitoring program.

2.5.3 # 1 (A) From: R.A.W. Hoos, Director, Environmental Management

To: Dr. C. Eric Tull

1. Interaction Matrices: The matrices provided in the EIS were in fact the basic matrices used to identify possible interactions although regrettably the linkage was not expressed clearly enough in the EIS.
2. Knowledge deficiency: The task posed by this question is too onerous to undertake at this time and somewhat unnecessary. Many consultants were employed and various approaches with the final consensus in many cases based on the best professional judgement of such people.

3. Monitoring Plans: "This request is considered unreasonable and premature because it asks for a level of possible commitment on the part of the proponenets which goes well beyond that needed for consideration by the Panel and anyone else at this conceptual stage of development"...

..."the propo nents felt that, at this early time,it was more important to establish and demonstrate our committment to do the work necessary to ensure adequate environmental protection; to describe the existing monitoring program that has resulted from consultation with the people in the north and government agencies; and to recommend a process that ensures consultative process continues with those most affected..."

2.5.3 # 2 Written Questions and Answers:

2.5.3 # 2(Q) 83.09.26
Government of the Northwest Territories - Information
Request No. 1

To: the Proponents.

Information from the proponents with respect to the
possible transportation of oil by tanker is requested
(11 specific requests listed).

2.5.3 # 3 (Q) 83.09.02 Panel Index D
Question from: Dr. C. Eric Tull

To: Dr. Gordon E. Beanlands

This information request is posed since the agenda does not list Dr. Beanlands as attending any of the General Sessions. Information requested:

-evaluation of the Beaufort Sea EIS in terms of the extent it agrees with the intent of his recommendations concerning establishment of a sound ecological framework for environmental impact assessment in Canada.

-Request to indicate which of the recommendations the proponents could fairly have been expected to comply with.

2.5.3 # 3 (A) 83.09.30 Panel Index D

From: Dr. Gordon Beanlands

To: Dr. C. Eric Tull

Response indicates that Dr. Beanlands will be attending hearings in both Resolute and Inuvik as a technical advisor to the Panel. "At the hearings in Resolute and Inuvik I will be pursuing some of the ideas and implications for impact assessment arising from our report, as they may apply to the Beaufort Sea development."

FEARO
Category

2.5.4 Presentations (written submission) to the Panel.
(the oral presentation will appear in the
transcripts). Support documentation will be
listed. In the case of published documents,
these will be included in category 2.1 as Support
Documentation.

C - Community Sessions

C(b) - Community Session - Beaufort Region (Zone I)

C(EA) - Community Session - Eastern Arctic (Zone III)

C(M) - Community Session - Mackenzie Valley (Zone II)

C(Y) - Community Session - Yukon

G - General Sessions

G(C) - General Session - Calgary

G(I) - General Session - Inuvik

G(O) - General Session - Ottawa

G(R) - General Session - Resolute

G(W) - General Session - Whitehorse

G(Y) - General Session - Yellowknife

- 2.5.4
C (B) Community Sessions: Beaufort Sea Region (Zone 1)
- 2.5.4
C (B-1) Beaufort Hunters & Trappers Association. 1983.
Beaufort oil. A submission to the E.A.R.P.
hearings. Submitted to the Beaufort Sea
Environmental Assessment Panel Tukloyaktuk
Community Session, September 14, 1983.
Tuktoyaktuk, N.W.T.
- 2.5.4
C (B-2) Hamlet of Tuktoyaktuk. 1983. Concerns of the
people regarding Beaufort development.
Presentation of the Hamlet of Tuktoyaktuk to the
Beaufort Sea Environmental Assessment Panel.
Tuktoyaktuk Community Session, September 14,
1983.
Tuktoyaktuk, N.W.T. 6p.
- 2.5.4
C (B-3) Sachs Harbour Trappers Association. 1983.
Beaufort Development. Presented to the Beaufort
Sea Environmental Assessment Panel. Sachs
Harbour Community Session, September 14, 1983.
Sachs Harbour, N.W.T.
- 2.5.4
C (B-4) Kuptana, R. April 1983. The inter-relationships
of the Beaufort Sea / Amundsen Gulf ecosystem
and possible impacts of development from the
perspective of Holman Island. Submission to the
Beaufort Sea Environmental Assessment Panel.
Holman Island Community Sessions, September 17,
1983.
Holman Island, N.W.T. 30p.
- 2.5.4
C (B-5) Pokiak, Calvin. 1983. Remarks to the Beaufort
Sea Environmental Assessment Panel. Presented
at the Tuktoyaktuk Community Session, September
14, 1983.
Tuktoyaktuk, N.W.T.

TEXTNAME: pub0fil10.24 (R)P: (p.01) 01

2.5.4
C (B-6)

Paulatuk Community. (Presented by Gilbert Rueban)
1983.

Presentation to the Beaufort Sea Environmental
Assessment Panel, Paulatuk Community Session,
September 20, 1983.
Paulatuk, N.W.T.

TEXTNAME: pub0fil10.24 (R)P: (p.01) 05

2.5.4
C(B-7)

Mackenzie Delta Dene Regional Council (prepared by
E.T. Jackson and L.T. Trudeau). July 1983.

Dene socio-economic planning in the Mackenzie
Delta: an overview of economic and social
conditions. Presentation to the Beaufort Sea
Environmental Assessment Panel, Fort McPherson
Community Session, September 21, 1983, Fort
McPherson, N.W.T.

2.5.4
C(B-8)

Kuptana, Robert. 1983.
Remarks by Robert Kuptana. Presentation to the Beaufort
Sea Environmental Assessment Panel, Holman Island
Community Session, September 20, 1983. Holman Island,
N.W.T

2.5.4
C(B-7)

Mackenzie Delta Dene Regional Council. (prepared by E.T.
Jackson and L.D. Trudeau , July 1983). 1983.
Dene socio-economic planning in the Mackenzie Delta: An
overview of economic and social conditions. Presentataion
to the Beaufort Sea Environemntal Assessment Panel, Fort
McPherson Community Session, September 21, 1983. Fort
McPherson, N.W.T.

2.5.4
C(B-9)

Govt. N.W.T. (presented by Richard Nerysoo). Presentation
to the Beaufort Sea Environmental Assessment Panel, Aklavik
Community Session, September 15, 1983, Aklavik, N.W.T.
Presentation included submission of four support documents.

1.

----.1983

NWT - Canada. Resource management and revenue sharing
agreement - a proposal for settlement. June 1983. Draft #5
- For discussion purposes only.

2.

Govt. N.W.T. 1983.
Resource Development Policy.

3.

Govt. N.W.T.
Renewable Resource Compensation Policy. (Draft).

4.

Govt. N.W.T.
Department of Renewable Resources Strategic Plan.

2.5.4

C(B-10)

Firth, Ernest. 1983.

Notes of oral presentation to Panel. Presentation to the Beaufort Sea Environmental Assessment Panel, Fort McPherson Community Session, September 21, 1983, Fort McPherson, N.W.T.

2.5.4
C(B)

Community Sessions : Beaufort Sea Region (Zone I)

2.5.4
C(R-1)

Beaufort Hunters & Trappers Association. 1983.
Beaufort Oil. A submission to the E.A.R.P. hearings.
Submitted to the Beaufort Sea Environmental Assessment Panel,
Tuktoyaktuk Community Session, September 14, 1983.
Tuktoyaktuk, N.W.T.

The submission "...makes recommendations about present and future developments within the Beaufort Sea, Amundsen Gulf and Northwest Passage area.

The Inuvialuit desire to be an active participant within government and industrial developments in our geographical areas....

The solutions we have identified are essential for the Inuvialuit and the biotic communities well being. After all, our culture and livelihood goes hand in hand with the biotic community....

Serious consideration should be given to our priorities over other presentations made by other special interest groups not residing in the north."...From Report.

Items addressed in the report include:

Hydrocarbon transportation routes : the Mackenzie Valley Pipeline option is preferred.

Tanker route : requires further research into physical and biological effects. Concerns are identified (mortality of seals and abandonment of pups; underwater noise; reduced seal population effect on polar bear; crossing of Prince of Wales Strait; change in hunting patterns due to change in ice formations; prolonged break up of ice in ships tracks)and discussed. Recommendations are proposed in the event of increased marine traffic within Kugmallit and Mackenzie Bay for a harbour authority and cross-cultural programs. Recommendations for areas of research are also included.

Use of the Prince of Wales Strait is outlined and a proposal presented covering the types of compensatory measures required (compensation in kind; monetary; compensation board mandate).

A section on supplementary requirements includes the need for additional recreational programs; new liasion group between government, industry and other institutions; training center.

Problems created by exploration and production islands are noted (navigational hazards, delayed spring break-up, abandonment) with the recommendation that islands should be

2.5.4
C(B-1) cont. dismantled.

A centralized shore base at McKinley Bay is recommended, and since McKinley Bay is already established as a new community, industry should use this base.

A review of company infrastructure is presented and their affect on the local labour market. A concern over poor communication between the company's Northern Interface group and the Operations Personnel is expressed"consequently through this poor line of communications the individual northern/native becomes victimized by a poor misunderstanding from Operation Line Supervisors.." Cross-cultural programs and greater involvement in the community consultation process is recommended.

Needs analysis - "The primary function in establishing a needs analysis concept is to determine the annual success of the native people working in the industry, and to review whether or not the Socio-Economic commitments have been met by Petroleum Companies operating in the Beaufort Sea." Training is indicated as a primary concern, lack of on-going programs with long range goals and that after current training programs the employee is often returned to his previous menial labour job.

Program development and evaluation - Areas in which lack of social consideration needs to be addressed are listed and negative impacts indicated. Recommendations of steps to be taken to help the native employee upgrade their skills are proposed. A need for Community Employment Offices in other communities besides Tuk is noted both to assist the local population in finding suitable employment and to act as an advisory to the local leaders and to become a nucleus for improved relations between the company representatives and the community as a whole.

Northern Business: Grievance noted that the companies are not living up to the Corporate Policy to promote northern business (example cited). On the other hand the cases where "the operating companies have awarded secondary contracts to natives mainly to pacify the native in order that he will not speak out against the companies operation " is not supported.

Union: Concern that the unions have too much authority in deciding who has the right to work on Projects in the North "with the Northerners and particularly the Natives being victimized by such antics of Union Representatives.

2.5.4

C(B-1) cont.

Proposal put forth would prevent unions from becoming involved in any Beaufort Sea Development without prior consultation with the community . Discussion of this issue with the Beaufort Sea Hunters & Trappers Association is encouraged and the Legislative Assembly is encouraged to draft founding principles to oversee union activity.

Future Training and Employment: The Hunters and Trappers Association have decided to establish a Future Employment and Training Board which will establish guidelines and a mandate in incorporating Board functions. Priorities include the need for a locally centralized Petroleum Industry training Center and a change in course curriculum. Course suggestions for extension programs are listed and the role of the proposed Board in relation to training programs.

Summary: the change from reliance on the land and sea to employment income was noted and the concern that most employment continues to be in labour positions. The willingness of the Association to participate in future development "for the benefit of the native people of the Beaufort Sea Communities " is noted.

2.5.4
C(B-2)

Hamlet of Tuktoyaktuk. 1983.

Concerns of the people regarding Beaufort development.
Presentation of the Hamlet of Tuktoyaktuk to the Beaufort Sea
Environmental Assessment Panel, Tuktoyaktuk Community
Session, September 14, 1983. Tuktoyaktuk, N.W.T. 6p.

Abstract:

The presentation notes that Tuktoyaktuk will be more heavily impacted than just about any other community. Areas of concern commented upon include:

Socio-economics: Proper respect for both the land and the people is requested. "The expansion of this community - the rate of development and direction of growth should be at the discretion of the residents of Tuktoyaktuk not industry ...". The concept of "fly-in fly-out" camps is supported and a recommendation proposed that there be only one funded group to keep lines of communication open between communities and industry.

Education: Need for a high school and a vocational school in Tuk and disappointment in the current Adult Education Programs.

Airport Facilities: Discussion of proposed airport facilities and recommendations of the Hamlet presented.

Harbour control for Tuk is requested. The Hamlet expressed preference for one large harbour facility at McKinley Bay.

Artificial Islands: Problems noted and a monitoring program supported and a committee recommended to have control over artificial islands.

2.5.4
C(B-3)

Sachs Harbour Trappers Association. 1983.
Beaufort development. Presented to the Beaufort Sea
Environmental Assessment Panel , Sachs Harbour Community
Session, September 14, 1983, Sachs Harbour, N.W.T.

Abstract:

"The principal tanker route from the Beaufort Sea, Amundsen Gulf and Prince of Wales Strait is thought to be detrimental to the biotic community of the proposed ice breaking tanker shipping corridor." Concerns of effect on mammals of noise from the tankers is noted, and effect on polar bears with any loss or movement of the seals. Concern is expressed over oil spills, both major and numerous minor ones. Summer passages only are recommended. The effect on movement of animals into a new area on the overall environmental balance is noted. Ice build up in the Prince of Wales Strait and prolonging of natural spring break up is noted as an area of concern. The conclusion notes that

"We feel that there is not enough information contained in the environmental impact statement about noise pollution and ship tracks impacts which will likely happen within the Amundsen Gulf/ Prince of Wales Strait area.....We recommend that our concern of noise pollution and ice build-up be studied and documented for our benefit before this project of transporting hydrocarbons becomes a reality.....Also, the Inuit of the area be compensated for loss of subsidence reviewed by the adjudicative process."

Social and economic matters: "The introduction of industry to our region is essential to the well-being of our peoples.....A need for jobs and careers have become the order of the day." To achieve meaningful participation a training center for northerners within the region is needed. Concern that training with certification is not available. A recommendation for wage subsidy for community employees is presented.

The proposed compensation scheme is outlined. Other recommendations include the use of environmental monitors on any project within a 200 mile perimeter and that all projects must have approval from the community.

2.5.4
C(B-4)

Kuptana, R. April 1983.

The inter-relationships of the Beaufort Sea Amundsen Gulf ecosystems and possible impacts of development form the perspective of Holman Island. Submission to the Beaufort Sea Environmental Assessment Panel. Holman Island Community Session, September 17, 1983. Holman Island, N.W.T. 30p.

Abstract:

"The intent of this paper is to give voice to the concerns of the community of Holman with regard to environmental conservation and protection in the face of Beaufort Sea development, in conjunction with an overview of the relevant scientific information for the consideration for the Beaufort Sea EARP."

A need for research is stressed..."much work remains, in terms of basic ecological and physiological studies of Arctic marine species, as well as studies of development impact.....Due to limitations in baseline data and basic research, it is very difficult to predict the ecological effects of environmental impacts....."

This paper begins with a presentation of the perceptions of the people of the community of Holman with respect to their knowledge of and relationship to the land and sea, to the wildlife resources and critical habitats, and of the interdependency of the marine and terrestrial ecosystems as reflected in their way of life; followed by an overview of the ecology of the region based on existing research."...Au

Report contents :

- land and sea use(p1-6) - a review of traditional activities
- wildlife resources (p.6-10) a review of wildlife resources of particular importance and their habitats with reference to an accompanying map
- critical habitat (p.10) - critical areas mapped

Part 2. The ecology of the Beaufort Region as it pertains to the interests of the community of Holman Island. (p.11-27)
Overview of the ecology based on existing research covering seasonal cycles and variations, productivity, recovery from disturbance, marine habitats, polar bear distribution, seal distribution, whale studies and waterbird migration.

"In summary, this paper has attempted to show why attempts at assessing impacts of development on the people of Holman and their way of life must be done on a regional basis, with full consideration of the ecological complexity and interdependency of the biotic and abiotic components, both marine and terrestrial. Finally, it has attempted to reflect expert opinions as to the need for further basic scientific research of a long-term nature."..Au

2.5.4
C(B-5)

Pokiok, Calvin. 1983.

Remarks to the Beaufort Sea Environmental Assessment Panel.
Presented at the Tuktoyaktuk Community Session. September
14, 1983. Tuktoyaktuk, N.W.T.

Abstract:

Beneficial effects are recognized - job opportunities, business benefits, worker rules, etc. but..."there are drawbacks in every oil exploration programs.....Public relations can be improved ". Suggestions included town visits, reports on the social effect that has taken place in the community, site visits by local people, and credit to people working on the rigs for successful seasons. In terms of environmental safety, supply vessels with environmental equipment on board surveying each rig were recommended.

"My main concern is that we should never depend heavily on oil companies. They can be gone with the close of our eyelash. This is where most local people would struggle to survive, the younger ones would suffer, and where would they turn to (welfare) ?.....Regarding the North Slope talks...I strongly feel that before any company is allowed in this area, land claims should be settled."..Au.

2.5.4
C(B-6)

Paulatuk Community (presented by Gilbert Rueban). 1983.
Presentation to the Beaufort Sea Environmental Assessment
Panel, Paulatuk Community Session, September 20, 1983.
Paulatuk, N.W.T.

Abstract.

The presentation included an introduction covering scope of the survey, Paulatuk's history, occupation identification, and jobs with the oil companies (mainly part time), number of years people have lived in Paulatuk, travel to other communities. Conclusion - "Though there does not seem to be very much jobs available in Paulatuk there appears to be a great interest of people moving back and forth and staying here in Paulatuk."

Under effects of development, 23 of 35 responded that oil development had been beneficial to them. Development is perceived to help the communities through employment opportunities, income and gradual community growth. The three major concerns identified were damage to the environment; lack of training opportunities; and people will be less likely to live off the land. A total of 15 community concerns are presented.

Conclusion from report:

"In this report people are concerned about the animals and where the Industry is working. They hunt the animals for survival or for the income. They are interested in the Industry and what will happen in the future because they will be involved in it. They feel that oil development and increased oil development will be beneficial to them because it will provide jobs, job training and better services which will work together."..Au.

2.5.4
C(B-7)

Mackenzie Delta Dene Regional Council (prepared by E.T. Jackson and L.T. Trudeau) July 1983.

Dene socio-economic planning in the Mackenzie Delta: an overview of economic and social conditions. Presentation to the Beaufort Sea Environmental Assessment Panel, Fort MacPherson Community Session, September 21, 1983. Fort MacPherson, N.W.T.

Abstract:

The purpose of this paper is to present an overview of some of the findings of a larger study on socio-economic planning currently being conducted by the Mackenzie Delta Dene Regional Council. Information is summarized on economic and social conditions among the Dene in four Delta communities -- Aklavik, Arctic Red River, Fort MacPherson and Inuvik--for the following key indicators: income, social assistance, family structure, employment, education, alcohol, health and crime.

Introduction from report follows:

2. 5. 4
(153-7)

INTRODUCTION

The purpose of this paper is to present an overview of some of the findings of a larger study on socio-economic planning currently being conducted by the Mackenzie Delta Dene Regional Council. The information summarized below on economic and social conditions among the Dene in four Delta communities -- Aklavik, Arctic Red River, Fort McPherson and Inuvik -- originates almost entirely in the data bases of the Territorial and Federal governments. Accordingly, these data should be viewed as conservative estimates, that is to say, the problems are very likely much worse than what is described here.

However, government data on their own show clearly enough that the Delta Dene, in relation to national and territorial norms, have been and continue to be in a position of severe economic and social disadvantage. This is demonstrated for most key indicators including income, social assistance, family structure, employment, education, alcohol, health and crime.

Experience in other parts of the Canadian north has shown that rapid and uncontrolled large-scale industrial development will deepen existing inequalities in the Delta and further impoverish and demoralize Native communities, causing social costs to skyrocket far beyond the reach of Canadian taxpayers. The Delta Dene will be devastated.

There is a better way. Canadians need not be morally, as well as economically and socially, responsible for the genocide of the Dene.

The Mackenzie Delta Dene Regional Council for several months has been developing an economic strategy for its people that, while enabling Dene participation in acceptable non-renewable resource development, would ensure in the long run a more independent and self-reliant economic base. It is precisely at this moment that the Dene require the fullest development of Dene human resources to achieve maximum benefit from the short-term opportunities available now and at the same time to proceed with their long-term plan toward greater economic self-reliance.

2.5.4
C(B-8)

Kuptana, Robert. 1983.

Remarks by Robert Kuptana. Presentation to the Beaufort Sea Environmental Assessment Panel, Holman Island Community Session, September 20, 1983. Holman Island, N.W.T

Abstract:

Concern is expressed over possible environmental damage and treat to mammals and fish. The prevention of damage by authorized development to wildlife and habitat is promoted, as well as the need to avoid disruption of harvesting areas. Finally, if damage does occur there is the need to compensate hunters and trappers and fishermen for loss of their sustenance and support for the COPE concept of compensation is given. An outline of the terms of compensation is presented.

Compensation comments from report follow:

This is the reason we support COPE concept of compensation scenario in Approval in Principle negotiated between COPE and the Federal Government signed in 1978.

CONTAIN

Participation agreements. Specific compensation with provisions for loss or diminution of wildlife harvesting. The cost of temporary or permanent relocation, habitat restoration, reimbursement in kind, preferential subsistence quotas, cash payments in lump sum, by installments or or combination, mitigative and remedial measures, including clean-up. It is only reasonable to set terms and conditions that are weighed in favour of environmental conservation where there chance be a concern of prevention of distruction of wildlife. Because nature itself will have the best results of environmental conservation.

2.5.4
C(B-9.1)

-----1983

NWT-Canada. Resource management and revenue sharing agreement - a proposal for settlement. June 1983. Draft #5 - for discussion purposes only. Submitted by Richard Nerysoo to the Beaufort Sea Environmental Assessment Panel, Aklavik Community Session, September 15, 1983. Aklavik, N.W.T.

Abstract:

"...the National Energy Program has three northern objectives .. The GNWT agrees with the stated objectives of the National Energy Program and would like to show support by furthering these objectives through the signing of a Resource Management and Revenue Sharing Agreement...
...the GNWT seeks an agreement with the Government of Canada that covers a wider range of resource issues than has so far been agreed to by any provincial government. Apart from agreeing on a revenue sharing formula and resource pricing mechanism, an extensive resource management framework is required to assure the GNWT an increased role in the decision making process relative to all resource activities. These three issues are the major components of the NWT-Canada Resource Management and Revenue Sharing Agreement Proposal and they serve as the focal point of this document.

As well, any agreement signed would need to be consistent with the GNWT move towards responsible government and should safeguard the interests of aboriginal peoples as well as recognize the non - renewable nature of the resources in question...

Anticipated benefits can be said to include fairness, opportunity and security:

- . A fair and equitable share of resource revenues and a reasonable level of responsibilities accruing to both Territorial and Federal Governments;
- . Opportunity for Northerners to secure jobs, training and business enterprises, to enable them to fully participate in the expansion of resource sector industries; and
- . Security of a stable and reasonably priced supply of resources from hydrocarbon and mineral producing projects for Canada as a whole and the NWT in particular...

Negotiations with the Federal Government will center on securing reasonable benefits while attempting to mitigate costs. To do this effectively, parameters must be established within which negotiations can proceed. The parameters in this instance are entitled Precepts. Within each parameter of "Precept" there are several steps or "Negotiation Points" which can be identified.....For clarity purposes the negotiating points are listed here with their perspective precepts.....

2.5.4
C(B-9.1)
cont.

In addition to the above list, each negotiating point needs to be broken down into component parts and operationalized. It is this aspect of the negotiating process which is identified in the following pages...

Finally, since the GNWT is working toward responsible government, the GNWT bargaining stance in negotiations with the Federal Government will need to reflect the evolutionary nature of the political system. This topic is discussed in the final section of this paper and the proposal for settlement #26 is designed to meet this requirement..." From Introduction.

Table of contents attached.

7-1-1984
(13-1st)

TABLE OF CONTENTS

	I. Introduction.....	1
	II. A Fair and Equitable Share of Resource Revenues.....	8
Resource	A. Resource Royalties.....	9
Revenue	B. Resource Taxation.....	13
Sharing	C. Other Resource Revenues.....	16
Proposal	D. Stability of Resource Revenues.....	17
	E. The Nature of Discretionary Funding.....	20
Resource	III. GNWT Participation in COGLA.....	24
Management	IV. Opportunity for Jobs, Training and	
Proposal	Business Enterprise.....	29
	V. Security of Resources at Reasonable Prices.....	33
	VI. Political Evolution.....	36
	VII. Conclusion.....	38
	VIII. Appendix	
	A. Resource Revenue Estimates.....	40
	B. Summary of Provincial Revenue	
	Sharing Agreements.....	42
	C. Precepts, Negotiating Points and	
	Proposals for Settlement.....	47
	D. Mining Statistics	
	(Compliments of NWT Chamber of Mines).....	53
	E. NWT Heritage Fund Proposal.....	55

2.5.4
C(B-9.2)

Govt N.W.T. 1983.

Resource Development Policy. Submitted by Richard Nerysoo to the Beaufort Sea Environmental Assessment Panel, Aklavik Community Session, September 15, 1983. Akalvik, N.W.T.

Introduction and Table of Contents from Report follow:

Introduction

The development of resource-based industries in the Northwest Territories is of major importance to the livelihoods and lifestyles of its inhabitants, most of whom were born here and wish to maintain a choice between traditional pursuits and those that have been made possible through modern technology.

In order to accomplish this, it has become increasingly important for aboriginal peoples of the territories — and long-term residents — to exercise a strong element of control over the developments that are taking place, or will take place, in their homeland.

It is against this background that the Government of the Northwest Territories recently approved a Resource Development Policy based on the principle that it will support development when its overall economic, social and environmental implications are judged to result in a net benefit to the people of the Northwest Territories.

This policy and its guidelines should be viewed as an aid to resource development rather than a burden. The intent is not to duplicate information or actions currently required of industry by other levels of government or Federal review processes. Instead, it is to enable the Government of the Northwest Territories to effectively fulfill its responsibilities by addressing resource development issues that are of major and primary concern to the North, by using appropriate territorial mechanisms and processes.

From the NWT perspective, the performance of a resource development project is as important as the resource that is being developed.

In the spring of 1982, the government's elected executive committee approved a document that outlined three elements of the proposed Resource Development Policy. More recently, the guidelines and criteria for the policy provisions and its implementation strategy have been reviewed and approved.

The policy identifies nine principles to be used in the evaluation of the implications of resource development projects. The scope of the policy includes all phases of resource development activity and when fulfilled will enable industry to proceed to the federal level of review having convinced the Government of the Northwest Territories of its project's merit.

The first element of the new policy involves the designation and prioritization of Development Impact Zones in the Northwest Territories. Such a zone is defined as a community, a group of communities or a geographic area that is experiencing or is about to experience extraordinary impacts as a result of resource development.

Within that zone, the government's executive committee may approve formation of a zone group that is representative of the public interests in the area and relies on existing bodies such as municipal, band and regional councils, as well as native organizations, for overall local identification and resolution of issues associated with the perceived impacts of resource development.

The Development Impact Zone Group will be a valuable resource for the assessment and planning activities of both government and industry and will participate in the planning of programs and physical infrastructures within the zone.

The second element of the policy is a Territorial Assessment and Review Process.

Proponents of resource development projects will need to consult with the Government of the Northwest Territories and the communities before options concerning the nature, pace and scale of the project are closed. Identification and resolution of identified adverse impacts will need to be carried out in advance of project implementation.

Under terms of the policy, major resource developers are designated by the executive committee and are required to secure a development certificate. This certificate will outline the terms and conditions under which support is received from the Government of the Northwest Territories. The needs and timing of the Federal processes will be considered when decisions are made concerning the territorial review.

The policy's third element identifies requirements for the monitoring of resource development activities. Development certificates, when necessary, will be renewed after a periodic review of the activities associated with the resource development project. This need for review is based on the fact that residents of affected communities must be included more effectively in the monitoring and evaluation activities and to fill the requirement of objective information for decision making.

In conclusion, the policy will enable the Government of the Northwest Territories to make decisions on resource development issues in a comprehensive and integrated manner. It will allow for more effective planning for resource development with the joint participation of the public, industry and government.



The Hon. Richard Nerysoo
Minister Responsible for
Energy and Resource Development

2.5.4
CIB-12)

Table of Contents

	Page
Policy	5
Criteria and Guidelines	11
A. Development Impact Zones:	12
Definition	
Intent	
Tasks	
A.1 Criteria: Designation of Development Impact Zones	13
A.2 Criteria: Priorization of Development Impact Zones	14
A.3 Criteria: Evaluation of DIZ Group Funding Requests	15
A.4 Criteria for membership: DIZ Group	16
B. Assessment and Review:	17
Definition	
Intent	
Tasks	
B.1 Guidelines: Assessment and Review	18
B.2 Criteria: Assessment and Review	21
C. Monitoring:	25
Definition	
Intent	
Tasks	
C.1 Guidelines: Monitoring	26
Questions and Answers	27

2.5.4
C(B-9.3)

Govt. of N.W.T

Renewable Resource Compensation Policy (Draft). Submitted by Richard Nerysoo to the Beaufort Sea Environmental Assessment Panel, Aklavik Community Session, September 15, 1983. Aklavik, N.W.T.

Review:

"..This policy initiative is our reponse to increasing pressures on renewable resource harvesters from non-renewable resource developments. It formalizes our requirement that potential developers specify how they will protect and restore the renewable resource base and compensate hunters and trappers whose livelihood is affected.

We hope to provide consistent guidelines to the industry to assist them in planning for these aspects of their projects while ensuring that a fair compensation process is in place to protect the interest of resource harvesters.." From report.

Appendix 1 - Considerations for renewable resource compensation program - follows:

CONSIDERATIONS FOR RENEWABLE RESOURCE COMPENSATION PROGRAM

The following positive considerations for compensation program design should be discussed:

- . The affected harvester is responsible for initiating claims;
- . A Government of the Northwest Territories resource person be available to assist in defining responsibility for establishing losses;
- . The existing data base, supplemented by local knowledge will often be sufficient, given acceptance of a reduced standard of proof, to establish losses;
- . Creation of new agencies responsible for establishing cause and effect through research and monitoring is impractical and not justified;
- . The Compensation program should be establishing claims for damage to property and loss of income, including subsistence income;
- . Compensation options which should be considered include payments for damage to property, loss of income, and inconvenience; providing the means to continue the disrupted activity, and; relocation assistance for individuals;

2.5.4

C(B-9.3)

Cont.

- . A multi-tiered claim process is most appropriate with claimant/company negotiation as the primary level of response; an arbitration option should be considered for claims that cannot be settled on the first level; and/or for losses where the source of impact is not clear; allowances for appeal of arbitration decisions may also be necessary;
- . Losses resulting from a clearly identified operator should be settled and paid by that operator;
- . Where awards for non-attributable losses are arbitrated, funding on an as needed basis or a limited levy is recommended for redressing day-to-day losses;
- . Financial security for response to catastrophic events should be provided through a letter of credit or similar guarantee as required under federal legislation; and
- . As surface rights are awarded through native claim settlements, surface rights legislation which provides for a right-of-entry and subsequent arbitration of compensation will become a necessity. "

2.5.4
C(B-9.4)

Govt. N.W.T.

Department of Renewable Resource Strategic Plan. Submitted by Richard Nerysoo to the Beaufort Sea Environmental Assessment Panel, Aklavik Community Session, September 15, 1983. Aklavik, N.W.T.

Review:

"The Northwest Territories is experiencing a period of rapid growth and changes. These changes are being driven by continuing interest in non-renewable resource potential of the frontier...

This development pressure is occurring during a period when constitutional evolution and the need for a resolution of aboriginal rights claims are also forcing changes on our government...

The Department of Renewable Resources has recently secured Executive Council approval for the goals and objectives which will guide its response to changing conditions in the north over the next few years. The objective of this document is to outline the Department of Renewable Resources intentions and strategies over the next 5 years." From Introduction.

Important factors in the departmental environment are delineated (economy, energy development, renewable resources and conflicts with development activities, the well-being of humans and wildlife). The departmental mandate is defined and the ordinances identified through which their responsibilities are discharged. Goals and objectives of the department are listed and departmental priorities identified. Response strategies are being developed for the priority areas which will in effect map out a course of action to achieve one of the departmental objectives. Under departmental management - "the Department is committed through our objectives and through Executive Council direction, to increase the responsiveness of our programs and policies to the legitimate concerns of northern residents. We are equally committed to developing a management control system which maximizes the productivity of our programs.

This strategic plan, as a reflection of departmental intent and strategies, represents a fundamental component of that management system."...from report.

2.5.4
C(B-10)

Firth, Ernest. 1983.

Notes of oral presentation to Panel. Presentation to the Beaufort Sea Environmental Assessment Panel, Fort McPherson Community Session, September 21, 1983, Fort McPherson, N.W.T.

Review:

The feeling that development is destined to go is expressed but the need for it to be done properly by listening to the people was put forth...

"You'll hear of the economical situation, industry will point out that their wages are high, and so they are. The economical value to Ft. MacPherson is appreciated. The problems they've caused are not--and I say not!

We have here in Ft. McPherson one of the highest, if not the highest, suicide rate in Canada. We also have people living below the poverty line..

If INDUSTRY gives me back a healthy, prosperous Fort McPherson, then I'll let them but THEIR tankers, icebreakers and pipelines--and THEY GET TO keep our oil." Suggestions on how to achieve this included cooperation with the territorial government and help provided to the people through education, training, and money management.

2.5.4
C(Y-1)

Old Crow Indian Band Council. (prepared by Grafton Njootli)
1983.

Old Crow Indian Band Submission to the Beaufort Sea
Environmental Assessment Panel. Submitted September 1983.

2.5.4 G(IN-1) * W-III W-I
 I soc-ec/community effects ec-opportunities/ benefits
 Yukon's economic base stabilization
 specific benefits opening govt statement

Government of Yukon (presented by C.W. Pearson). 1983.

Presentation to Beaufort Environmental Assessment Review Panel. Inuvik General Session, November 9, 1983. Inuvik, N.W.T.

Support for the Beaufort Development is reaffirmed. General contribution to the stabilization, growth and diversification of Yukon's economic base is noted. Specific benefits will occur to the transportation sector and local energy supply. Canada benefits are noted. In terms of Yukon participation, support for the development of harbour facilities on the Yukon coast was stated while at the same time a commitment to protection of critical wildlife areas is noted. This will be achieved through strict conditions attached to land-use permits (conditions listed). The Govt of Yukon's analysis of the EIS is presented in summary, with disappointment expressed in the analysis of socio-economic impacts on Yukon.

2.5.4 G(IN-2) * I-V.B I-VI.D
 I government management plans & policies
land claims proposal impact
 settlement prerequisite Panel/govt responsibility

Beaufort Sea Alliance (presented by T. Chamberlain). 1983.

Evidence given by Ted Chamberlain on behalf of the Beaufort Sea Alliance. Presented to the Beaufort Sea Environmental Assessment Panel, Inuvik General Session, November 21, 1983. Inuvik, N.W.T. 5p.

"In my evidence I will outline how native land claims, as the expression of the rights and the aspirations of the native people of the north, are vulnerable in a variety of ways to this kind of hydrocarbon development proposal; and I will indicate why the general and conceptual character of the Dome-Esso-Gulf proposal poses what is in some respects a greater threat to native land claims than more project specific proposals."

Land claim settlement is noted as a pre-requisite to other development proposals.. "Native land claims will not be the end of the matter; on the contrary, they will be the beginning.....they are the appropriate and necessary beginning for responsible northern development that incorporates notice interests". A brief review of the origin of native land claims is presented. Concluding remarks focus on three constituents of native land claims: land, livelihood, and collective identity.

2.5.4 G(IN-2) * Y-V.B *
NSp government management plans & policies
land claims proposal impact
settlement prerequisite Panel/govt responsibility

Beaufort Sea Alliance (submitted by J. Chamberlain) 1983.

Direct written evidence to the Beaufort Sea Environmental Assessment Review Panel. Submitted to the Panel, Inuvik - November 19, 1983. 7p.

Written submission addressed questions dealing with the following subjects: the effect of the proposal on native land claims; the affect of land claims on the project; relationship to mandate of the Beaufort Sea Panel; Panel consideration of the information about lives and livelihood of native people as an equal expression of corporate enterprise; the nature of land claims and how the Panel may be involved.

2.5.4 G(IN-2) supp I-V.B *
NSp government management plans&policies
land claims proposal impact
context of review Panel involvement

Chamberlain, J.E. January 1983.

Native land claims and northern hydrocarbon development in the Beaufort Sea - Mackenzie Delta region. A report to the Beaufort Sea Alliance, Ottawa, Ontario. P.

The need for a thorough consideration of the nature and extent of the differences between the perogatives of land claims and of hydrocarbon development is noted as the challenge facing the Beaufort Sea Panel. The report suggests ways in which the Panel may meet this challenge. The problems created by the fact that the interests of native people are assumed to exist only within contexts defined by the interests of industry and government is addressed, and the need to reverse this .."the contexts proposed by native land claims established as the premise for northern development.."

2.5.4 G(IN-3)	*	I	*
NSp proposal/general			position re proposal
EIS acceptability	*		
nature of evidence		opening statement	

Beaufort Sea Alliance (presented by David Brooks and Nancy M. MacPherson).
1983.

Opening statement to the Beaufort Sea Environmental Assessment Panel.
Presentation to the Beaufort Sea Environmental Assessment Panel, Inuvik General
Session, November 19, 1983. Inuvik, N.W.T. 11p.

Opening statement presents background information on the nature of the Beaufort
Sea Alliance; sources of funds; purpose of formation; nature of the Alliance
research program.

Position of the Beaufort Sea Alliance is presented (adverse environmental and
social effects increase with both the speed and the scale of development;
likelihood of an accident and the extent of the damage is greater with the
tanker option); need for further assessment and review hearings; land claims
need to be settled and no option is acceptable that involves development of the
North Slope; the EIS is viewed as not acceptable ("had it been more modest in
its claims, the EIS might well have been deemed acceptable as the central
document in a scoping hearing designed to identify which areas appear to be
capable of withstanding the impacts of industrial use.....it is far from
acceptable as the central document for winning any form of "approval in
principle".

The nature of the evidence to be presented is reviewed for socio-economic
issues; bio-physical issues; and material to be submitted.

2.5.4 G(IN-4)	*	I-I.A	*
NSp oilspills			risk analysis overview
<u>spill trajectory modelling</u>		description	
parameters used		proponent submission	

Potter, Stephen. January 1983.

Dome oil spill trajectory model. Oil Spill Research Group, Dome Petroleum Ltd.,
Calgary, Alberta.

"This is a deterministic model which can be used to predict the motion of oil
slicks over open water. It is based on the Atmospheric Environment Service
(AES) oil spill model which was developed by Neralla and Jarvis in 1980.
...Section 2.1 describes the currents used in the model...the model uses wind
driven surface currents as the major driving force, and does not consider tidal
and residual currents." ..from covering letter. Model description attached.

2.5.4 G(IN-5) *
NSp oilspills
scenario
modelling

I-I
clean-up
proponent submission

A,B, D
risk analysis overview

Dome Petroleum Ltd. 1983.

Corrections to oil spill chapter of the response to environmental and technical issues document. Submitted to the Beaufort Sea Environmental Assessment Panel.

Corrections noted at the Resolute hearings are submitted. Additional information on Tables 1 and 4 are also enclosed in response to a request at Resolute.

2.5.4 G(IN-6)	*	I-V	I
NSp	government management		propoosal review
EIS acceptability		detailed assessment req'd	
env/soc-ec concerns		govt plans /future reviews	

Tull, C.E. 1983.

The quality of the EIS and the need for further hearings. Presentation to the Beaufort Sea Environmental Assessment Review Panel, Inuvik General Session, November 1983. Inuvik, N.W.T. 283p.

This submission addresses within the overall theme many specific environmental and social-economic concerns which need to be considered under the specific agenda items for those subjects. In general,.. "this submsission is more a general critique of the EIS. The purpose of this intervention is to focus on the quality of the EIS and the need for further hearings. ...There are two intertwined themes throughout my subnission. The first is that the EIS has been poorly done. The poor quality of the EIS challenges the proponents' committment to doing things properly and their implicit assumption of trust that the environment will be in good hands in their care. ...The second intertwined theme is that the material provided in the EIS in inadequate for the purposes of a detailed environmental impact assessment and detaiked environmental hearings. Consequently, such detatiled hearings will be required in future when detailed plans have been prepared..."

The question of whether these hearings are conceptual or detailed hearings is addressed. The question of detail expected at a general conceptual hearings depends on the committment to hold detailed hearings at a later stage. ... "The question of future detailed environmental hearings is thus open. The government has made no committment to holding them, and the proponents have recognized no need to do so. It is for this reason that I have treated the proponents' EIS as a detailed EIS for the purpose of detailed environmental assessment hearings -- to show that it is inadequate for that purpose and to thus show the need for future detailed hearings when the proponents have detailed plans for development."

Conclusions are presented for the following topics: poor quality of the EIS; some of this poor material leads to a lessening of environmental concern; the poor quality of the EIS challenges the proponents' commitment to environmental responsibility; the EIS is inadequate for the purposes of detailed environmental impact assessment; future detailed environmental impact assessment hearings are needed when detailed plans are available.

Table of contents and Introduction from report attached.

2.5.4 G(IN-7)	*	I-V	*
I	government management		*
<u>protection</u>		<u>Mackenzie Delta</u>	
<u>unique features</u>		<u>proposal impact</u>	

Beaufort Sea Alliance (presented by C.Eric Tull). 1983.

Protection for the Mackenzie Delta. Presentation to the Beaufort Sea Environmental Assessment Panel, Inuvik General Sessions, November 1983. Inuvik, N.W.T. 64p.

"An issue that has received little attention with regard to this EARP process is the Mackenzie Delta and its need for protection." The unique features of the Delta are noted (one of the world's great deltas and one of the few major deltas in the Arctic. Several areas have been proposed for protection. "But protection of representative samples of the Delta is not sufficient. What is needed is a controlled approach to development that will evaluate the necessity of various development activities in the delta. This should be done with the view to minimizing the human presence and disturbance in the area... ..camps, roads, airstrips, stockpiles, wharves and especially processing facilities should be kept to an absolute minimum, and wherever possible, located outside the Delta on higher ground.

The case for this action was made very strongly by Dr. W.W.H. Gunn,...when he wrote the attached paper "The Need to Preserve the Integrity of the Mackenzie Delta." Most of this report... presented to the Berger hearing, is valid today. I strongly endorse his recommendations."

Introduction from report and from attached report (W.W. Gunn) attached.

2.5.4 G(IN-8) * Y-III.A I-V
 NSp government management role of GNWT
wildlife management identification of areas
 * recommendations

Government of N.W.T. (presented by Paul Grey). 1983.

Management of wildlife habitat in the Northwest Territories. Presentation to the Beaufort Sea Environmental Assessment Panel, Inuvik General Sessions, November 1983. Inuvik, N.W.T. 12p.

"The distribution and abundance of wildlife populations is strongly influenced by the availability and quality of suitable habitat. Therefore, in areas like the Northwest Territories where wildlife resources are important, industrial programs, facilities and associated infrastructure must be carefully planned and sited. My evidence is intended to inform the Proponents and the Panel of areas that are important to wildlife and therefore, should be considered in the planning and development program."

Areas important to wildlife are identified and described. A summary map indicates areas which have been identified, withdrawn or reserved for exclusive or restricted use. "The next step in this program will be to determine those areas which should be managed exclusively for wildlife and wildlife harvesting from those areas where other uses are compatible." Recommendations to the Proponent indicate the role of the Department of Renewable Resources in identifying to the Proponent areas important to wildlife and in developing with the Proponents mitigative measures where these areas cannot be avoided.

2.5.4 G(IN-9) * Y-III.A I
I government management role of GNWT
wildlife management proposal impact
polar bears recommendations

Government of N.W.T. (presented by P. Latour). 1983.

The potential effect of increased industrial activity on polar bears in the Beaufort Sea. Presentation to the Beaufort Sea Environmental Assessment Panel, Inuvik General Sessions, November 1983. Inuvik, N.W.T. 21p.

Report deals with the population of polar bears which occupies the offshore Beaufort Sea region extending from the Alaska-Yukon-Northwest Territories mainland and the west coast of Banks Island eastward to include Amundsen Gulf. The paper reviews the biology of the polar bear (mobility, effect of decreased seal numbers, preferred ice environment, den locations). The harvest and economic importance of polar bears to people in the Beaufort Sea region is reviewed.

Effects from hydrocarbon development include concern over proposal locations which overlap with preferred sea ice habitat; attraction to artificial island; shooting of bears by personnel who perceive them as a threat. Areas of disagreement with conclusions in the EIS are noted, leading to the comment.. "I believe more caution over potential impacts is required than that displayed in the Proponents' EIS." Present research is reviewed and additional information requirements identified. The Government role is outlined... "It will be our Department's role to anticipate potential problems specific to polar bears, to consult with local hunters and Industry to co-ordinate suitable studies and to direct mitigative measures which address these problems.... The Department will also adhere to a management program that emphasizes the welfare of the polar bear population..." Recommendations are listed (p.18) (attached).

2.5.4 G(IN-9) * Y-III.A I
Nsp government managaement role of GNWT
contaminant control oilspills
hazardous wates. contingency planning

Government of the Northwest Territories (presented by M. Smith). 1983.

Contingency planning and the control of contaminants in the Northwest Territories. Presentation to the Beaufort Sea Environemntal Assessment Panel, Inuvik General Session, Inuvik, N.W.T. 10p.

"The purpose of my evidence is to inform you of the potential problems which surround the control of contaminants should production and transportation of oil and gas in the Western Arctic proceed." The legislation is noted and Ordinances administered. The involvement with industrial activities in the Beaufort Region is anticiipated in the ares of contingency planning for offshore areas, contingency planning for onshore areas, and in handling and clean-up of hazardous wastes. In terms of increased industrial activities, "our existing staff and budget cannot meet future responsibilites related to Beaufort Development. Recommendations are proposed. (Attached).

2.5.4 G(IN-10)	*	Y-I.G	I-II.I
<u>NSp</u>	env effects/proposal gen		env assessment
<u>disturbance/response</u>		EIS acceptability	
<u>caribou</u>		recommendations	

Government of the Northwest Territories (presented by A. Gunn) 1983.

Evaluation responses of caribou and other ungulates to industrial activities and the effects of those activities. Presented to the Beaufort Sea Environmental Assessment Panel, Inuvik General Session, November 1983. Inuvik, N.W.T. 25p.

"The intent of my evidence to the Panel is to describe potential effects of the Beaufort Hydrocarbon development on northern ungulates especially caribou and to identify shortcomings in the Proponent's description of those possible effects. My evidence also includes recommendations for the Panel's consideration as to how some of the potential effects can be mitigated."

"Disturbance" and "response" are defined. The potential effects of industrial activities on caribou are discussed under categories: perceptions of caribou behaviour by humans; vulnerability of caribou cows with calves; caribou responses to buildings, pipelines and roads; Peary caribou responses to tanker traffic; displacement of caribou by industrial activity; modification of behavioural responses by learning; ecological effects.

The applicability and practicality of the proposed mitigative measures are reviewed and the need identified for the management of the effects of industrial activities on northern ungulates..."the Proponents should also have considered whether impacts are synergistic and that mitigative measures will be unsuccessful. Therefore, until the actual levels of impacts to caribou or any other ungulate is determined, wildlife management techniques will have to be developed to manage a situation that is less optimistic than the Proponents have predicted."

Direction of future research on disturbance is reviewed and recommendations proposed. (recommendations attached).

2.5.4 G(IN-11) 11(A) I-II.K Y-I.D
NSp env effects/proposal gen env assessment
disturbance/responses mitigative measures
caribou recommendations

Jakimchuk, R.D. 1983.

Submission to the Beaufort Sea Environmental Assessment Panel. Presentation to the Beaufort Sea Environmental Assessment Panel, Whitehorse General Sessions, December 1983. Whitehorse, Yukon. 11p.

"I have been asked to review, comment on and respond to the submission by Anne Gunn to this panel dated September 1983. ...My primary purpose in this submission is to provide information supplementary to Dr. Gunn's submission which I feel is relevant to the panel's assessment, to question those statements which I feel require further substantiation by Dr. Gunn or with which I disagree based on our current level of research knowledge."

Objection to statements relating to calf injuries or death from trampling or separation of cow-calf pairs are noted, and "I do not think it is helpful to suggest that the consequences of extreme disturbance, energetic stress or harassment, which have obvious implications, will occur when extreme disturbance will not be created by the proponents' proposal." Comments on responses of caribou to buildings, pipelines and roads are included and on the displacement of caribou owing to industrial activity. Mitigative measures involving manipulation of caribou movements are cautioned against and, under management of effects the conclusion that there appears to be no grounds for the suggestion that impacts should be viewed as synergistic.

"In summary, I feel that we do have a significantly greater base of credible data which was unavailable in 1975 at the time of the Berger Inquiry. I think Dr. Gunn has omitted some of these important findings in her paper and I have brought these to your attention. While our knowledge of caribou ecology is incomplete and new information continues to be generated, the answers to some significant questions on caribou responses to industrial disturbance are now known.... ...In closing, I see a pressing need to expand and continue quantitative research on caribou demography and responses of populations to developmental activity."

2.5.4 G(IN-12) * Y-III.A I
NSp government management role of GNWT
wildlife management proposal impacts
bear/human conflict recommendation

Government of Northwest Territories (presented by G. Stenhouse). 1983.

Bear/human conflict. Submission to the Beaufort Sea Environmental Assessment Panel, Inuvik General Sessions, November 1983. Inuvik, N.W.T. 32p.

Questions addressed in the report include:

why are we concerned about the effects of industrial activities on bears

why do bear/human conflict occur

what is the potential for bear/human conflicts

how can bear/human conflicts be minimized (education and training, previously tested deterrants)

the Department of Renewable Resources detection and deterrent program

Recommendations (attached).

2.5.4 G(IN-13) * I-IV.C *
NSp soc-ec/community effect * native harvest
indirect effects *
* recommendations

Government of Northwest Territories (presented by R. Graf). 1983.

THE changes in harvest patterns resulting from increased industrial development. Submission to the Beaufort Sea Environmental Assessment Panel, Inuvik General Sessions, November 1983. Inuvik, N.W.T. 19p.

"In my evidence I would like to discuss the possible indirect effects on wildlife populations from increased wage employment, increased non-native populations and/or increased native populations."

To examine the possible changes in harvest patterns resulting from Beaufort development the following approach is taken: review the types of NWT hunter; review the recent harvest data systems put in place to monitor the hunters; examine the limitations of past methods and data and its use by the Proponents; examine the possible changes to current harvest patterns resulting from Beaufort development; examine the capability of our Department to respond to the possible changes to harvest patterns resulting from increased development; and provide recommendations to the Panel.

- 2.5.4 Presentations and Written submissions - RESOLUTE
G (R) GENERAL SESSIONS - RESOLUTE
- 2.5.4 Northern Environmental Protection Directorate,
G (R-1) DIAND (presented by J.H. Hurst). 1983.
Effects of vessel traffic on whales in Lancaster
Sound. Presentation to the Beaufort Sea
Environmental Assessment Panel, Resolute
General Session, October 1983.
Resolute, N.W.T
- 2.5.4 Northern Land Use Planning Directorate, DIAND.
G (R-2) 1983.
Land use planning in the Lancaster Sound
region. Presentation to the Beaufort Sea
Environmental Assessment Panel, Resolute General
Session, October 1983.
Resolute, N.W.T.
- 2.5.4 Archaeological Survey of Canada, National Museum
G (R-3) of Man. October 1983.
Archaeological Concerns. Presentation to the
Beaufort Sea Environmental Assessment Panel,
Resolute General Session.
Resolute, N.W.T.
- 2.5.4 Baffin Region Inuit Association (prepared by
G (R-4) Thomas Nesbitt, with the staff and board of
directors of BRIA). October 1983.
Written submission of the Baffin Region Inuit
Association to the Federal Government's Beaufort
Sea Environmental Assessment and Review Process:
Resolute General Session.
- 2.5.4 Labrador Inuit Association (prepared by J.
G (R-5) Bobbitt, Oceans Ltd). October 1983.
The implications of the physical environment
offshore Labrador on Arctic tanker traffic.
Presentation to the Beaufort Sea Environmental
Assessment Panel, Resolute General Session,
Resolute, N.W.T.



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Environmental
Assessment Review

Examen des évaluations
environnementales

FIRST UPDATE TO

INFORMATION SURVEY - KINDS AND SOURCES - FOR THE
ENVIRONMENTAL ASSESSMENT REVIEW PROCESS:
BEAUFORT SEA HYDROCARBON PRODUCTION AND TRANSPORTATION PROPOSAL

OCTOBER, 1981

compiled by
Elsie M. MacDonald

for the
Federal Environmental Assessment Review Office
Hull, Quebec

June, 1982

Canada

ERRATA:

- Cover Page: Date of Update - June 1982

Replacement Page attached



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Environmental
Assessment Review
1982.06.07

Examen des évaluations
environnementales

TO: Recipients of the "Information Survey - Kinds and Sources - for the Environmental Assessment Review Process: Beaufort Sea Hydrocarbon Production and Transportation Proposal". October 1981.

Re: Update

Please find enclosed update pages for insertion in the Information Survey Report, October 1981. These pages consist of corrections to the original report and new submissions. In some cases the new entries were by groups missed in the original survey, e.g. Polar Gas Project, and I would like to thank them for their participation.

The enclosed update pages have not yet been added to section II.2.2 - Subject Index (by Zones) to Project Information Sheets. This will be done for the next update in which this section will be revised to relate more directly to the Final Guidelines for the preparation of an Environmental Impact Statement issued by the Beaufort Sea Environmental Assessment Panel.

Your support in maintaining this survey as an up-to-date working document is again requested through submission of Project Information Sheets for any new projects initiated since the last survey or update information on projects already included. Groups which were omitted in the original survey but have subsequently become aware of this project are encouraged to participate.

Recognizing that many individuals will be currently involved in field studies, we are setting September 30th as the submission deadline for the next update. Earlier replies where possible would be appreciated, and would contribute to meeting an early circulation date of October 30th 1982. Replies or inquiries should be directed to the Federal Environmental Assessment Review Office, Hull, Quebec, K1A 0H3, Attention: E.M. MacDonald, Telephone: (819) 997-2725.

Your cooperation in this project is appreciated and I trust that the continuing exchange of information will prove mutually beneficial.

Yours sincerely,

D.W.I. Marshall
Executive Secretary
Beaufort Sea
Environmental Assessment Panel

encls.



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Environmental
Assessment Review

Examen des évaluations
environnementales

Federal Environmental Assessment
Review Office
13th Floor, Fontaine Building
Hull, Quebec K1A 0H3

1982.06.01

INFORMATION NOTE:

Re: Update - May 1982 of the "Information Survey - Kinds and Sources
- for the Environmental Assessment Review Process: Beaufort Sea
Hydrocarbon Production and Transportation Proposal. October
1981".

The attached pages are for insertion in the above noted Information Survey Report, October 1981. This report was circulated for review in December 1981 and the enclosed pages consist of corrections to the original report and new submissions.

The enclosed update pages have not yet been added to section II.2.2 - Subject Index (by Zones) to Project Information Sheets. This will be done for the next update in which this section will be revised to relate more directly to the Final Guidelines for the preparation of an Environmental Impact Statement issued by the Beaufort Sea Environmental Assessment Panel in February, 1982.

The next update is planned for October/November 1982.

E. MacDonald
Consultant, Research/Information Co-ordination

encls.

INFORMATION SURVEY - KINDS AND SOURCES - FOR THE
ENVIRONMENTAL ASSESSMENT AND REVIEW PROCESS:
BEAUFORT SEA HYDROCARBON PRODUCTION AND TRANSPORTATION PROPOSAL

----- Response Sheet -----

To: Federal Environmental Assessment Review Office
13th Floor, Fontaine Building
Hull, Quebec
K1A 0H3

Attention: Ms. E. MacDonald

Inquiries: 819-997-2725

To ensure timely distribution of the Survey results, this report is being distributed as a Working Document. Editorial comments, revisions, and new submissions for a future update are requested. Current entries are on word processor discs to facilitate revision. Changes should preferably be submitted directly on copy, with major additions attached.

Date: _____

Organization: _____

Contact: _____

Enclosures:

Changes in the current edition of the Survey

Additions for a future update
(See Survey Format Section 5, p.5
and: attached Format Sheets)

Comments

Information Survey for the Environmental Assessment Review Process-
Beaufort Sea Hydrocarbon Production Proposal

A. Format - Agency Information Sheet.

1. Agency and Address. (Government department, associations, universities, commercial enterprises, or any sub-division of these).
2. Contact (Phone No.)
3. Responsibilities or Objectives Identify objectives applicable to areas north of 60°, or specifically to the Beaufort Sea Referral.
4. Areas of Expertise. Identify activities or areas of expertise relevant to the assessment of the Beaufort Sea Proposal.
5. Specific Project Information. List current projects relevant to the Beaufort Sea Proposal and attach project information sheets.
6. Information Services. Identify information services (library, data bases, etc.) and accessibility of information.
7. Publications. List publications of a general nature (Bibliographies, annual reports, summary reports, newsletters etc.)

The Beaufort Sea Hydrocarbon Development Proposal covers both environmental and social impacts of hydrocarbon production and transportation to southern markets.

Information Survey for the Environmental Assessment Review Process
- Beaufort Sea Hydrocarbon Production Proposal

B. Format - Project Information Sheet

1. Project Title
2. Geographic Study Area
3. Objectives
4. Approach and/or Progress
5. Reports or Publications
6. Anticipated Time Frame
7. Undertaken by:
 1. Agency
 2. Research Personnel
8. Contracted or funded by: (if applicable)
 1. Agency
 2. Scientific Authority
9. Contact:
Address and phone number

Include current or recent (1979-1981) projects relevant to any aspect of the "Beaufort Sea Hydrocarbon Development Proposal" as referred to the Environmental Assessment and Review Process. The referral covers both environmental and social impacts of hydrocarbon production and its transportation to southern markets.



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FIRST UPDATE TO
INFORMATION SURVEY - KINDS AND SOURCES - FOR THE
ENVIRONMENTAL ASSESSMENT REVIEW PROCESS:
BEAUFORT SEA HYDROCARBON PRODUCTION AND TRANSPORTATION PROPOSAL

OCTOBER, 1981

compiled by
Elsie M. MacDonald

for the
Federal Environmental Assessment Review Office
Hull, Quebec

June, 1981

Canada

1. ACKNOWLEDGEMENTS

This report was prepared under contract to the Federal Environmental Assessment Review Office under the auspices of the Secretariat for the Beaufort Sea Panel. Appreciation is extended to the Secretariat for their support and assistance throughout the Survey.

The contributions of all who responded to the Survey is gratefully acknowledged. The efforts expended by those individuals to identify any involvement within the scope of the review of the Beaufort Sea Hydrocarbon Production and Transportation Proposal have made this report possible.

The author would like to thank Ms. Mary-Margaret Healy for her assistance throughout the project and Mrs. Ginette Crites for recording all responses on word processor.

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
Design study of oil skimmer for use in Canadian waters		72
CanOcean participation in the Arctic Pilot Project (A.P.P.)		73
4th Service System design (Arctic service system - In-house R & D)		74
E.R. Walker	C-4	
Pallister Resource Management Ltd.	C-5	
Acres Consulting Services Ltd.	C-6	
Tuktoyaktuk Harbour Master Plan		93
Economic development plan.		106
Oil and gas exploration supply base		107
Geotechnical investigations of proposed Mackenzie highway.		108
Yukon grizzly bear studies		109
Study of the tourism potential for the Mackenzie Valley communities.		110
Market opportunities - North of 60°		111
Transportation feasibility studies		112
Financial analysis of Arctic pipeline applications.		113
Arctec Canada Ltd.	C-7	
Acres Santa-Fe Incorporated	C-8	
Transportation of gas and oil from the Arctic Islands		94
Laboratory study of heat transfer at ice/water interface.		95

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
Tanker terminals feasibility for a petrochemical complex.		96
Feasibility study, deepwater transshipment storage facility.		97
Risk analysis for pipeline construction		98
Oil and gas production facilities for offshore Labrador		99
Ice management for Arctic LNG terminal.		100
Compilation of ice forces against structures		101
Ice studies for exploratory drilling system		102
Crossing of ship tracks in Barrow Strait		103
Stress analysis of Barrow Strait ice cover		104
Production and gathering system; Design and project management		105
Interdisciplinary Systems Ltd.	C-9	
Hire North evaluation study		119
Socio-economic impact assessment of the Arctic Pilot Project on selected high Arctic communities.		120
Assessment of the socio-economic impacts and damages resulting from the Grand Rapids 1960-1980 (with projections to year 2000)		122
Construction and use of winter roads during pipeline construction, to reduce terrain and vegetation impacts		123

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
Candidate Natural Areas of Canadian Significance and Natural Sites of Canadian Significance in Natural Region 8 and in Natural Region 7.		124
Regulatory consulting services to private industry.		125
Beaufort Environmental Support Services Ltd.	C-10	
MacLaren Plansearch	C-11	
C.H. Templeton & Associates, Consultants	-	
Workshop on the impact of the Dempster Corridor on the Mackenzie Delta		24
Dome Petroleum Ltd.	C-12	
Oil Spill Prevention/Cleanup/Impact Production: Current Projects 1980-1981. Beaufort Sea Production Development. Dome Petroleum Ltd.		1
Ice Research 1980-1981. Beaufort Sea Production Development. Dome Petroleum Ltd.		2
Remote Sensing Program 1980-1981. Beaufort Sea Production Development. Dome Petroleum Ltd.		3
Geotechnical Research 1980-1981. Beaufort Sea Production Development. Dome Petroleum Ltd.		4
Oceanographic Research 1980-1981. Beaufort Sea Production Development. Dome Petroleum Ltd.		5
Research Program for Canmar Kigoriak, An Experimental Class 4 Icebreaker (1979-1980). Beaufort Sea Production Development. Dome Petroleum Ltd.		6

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
Biological - Chemical Research 1980, Beaufort Sea Production Development. Dome Petroleum Ltd.		7
Beaufort Sea Production Environmental Studies 1979-1980. Beaufort Sea Development. Dome Petroleum Ltd.		8
Oceanographic and Sea Ice Research 1979- 1980. Beaufort Sea Production Development. Dome Petroleum Ltd.		9
Oil Spill Research 1979-1980. Oil Spill Prevention/Cleanup/Impact Prediction: Recent Studies 1979-1980. Beaufort Sea Production Development. Dome Petroleum Ltd.		10
Polar Gas Project	C-13	
Environmental Statement - West Hudson Bay Route		167
Socio-Economic Statement - West Hudson Bay Route		168
Biophysical Research and Data Collection - West Hudson Bay Route		169
Socio-Economic Research and Data Collection - West Hudson Bay Route		170
Environmental Statement - "Y" Route to Longlac Route		171
Socio-Economic Statement - "Y" Line to Longlac Route		172
Biophysical Research and Data Collection - "Y" Line to Longlac		173
Socio-Economic Research and Data Collection - "Y" Line to Longlac		174

EDUCATIONAL BODIES

University of Ottawa, Dept. Geography Ed-1

Terrain, land use and waste drilling
fluid disposal problems adjacent to

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
exploratory wellsites in permafrost, Arctic Canada.		57
The study of coastal processes and dynamics, Southwest Banks Island, Western Canadian Arctic.		58
Memorial University, Ocean Engineering Group	Ed-2	
C-CORE (Centre for Cold Ocean Resources Engineering	Ed-3	
Ocean Engineering Information Centre (OEIC)	Ed-4	
Arctic Institute of North America	Ed-5	
Boreal Institute of Northern Studies	Ed-6	
Arctic Science and Technology Information System	Ed-7	
University of Toronto	-	
Studies of behaviour and effects of oil spills in Arctic lands and waters and spill countermeasures, especially chemical dispersion.		64
Dalhousie University, Institute for Resource and Environmental Studies	-	
Ecological basis for environmental impact assessment in Canada.		160
University of Waterloo, Faculty of Environmental Studies	-	
Applicability of Scottish shore experience to Canadian Beaufort Sea development.		161
<u>GOVERNMENT</u>		
<u>Govt 1: Bedford Institute of Oceanography</u>	G1-1	
<u>Govt 2: Energy, Mines & Resources Canada</u>		
Earth Physics Branch, Division of Seismology and Geothermal Studies (<u>Seismology Studies</u>)	G2-1	

<u>Cont: Summary List (Agency and Project)</u>	<u>Agency File No.</u>	<u>Project Information Sheet No.</u>
Geological Survey of Canada, Resource Geophysics and Geochemistry Division	G2-2	
Sub-seabottom permafrost mapping - Beaufort Sea		65
Earth Physics Branch, Division of Seismology and Geothermal Studies (<u>Geothermal Service</u>)	G2-3	
National Energy Program - Energy R & D Oil and Gas Task 3.26 - Offshore temperature studies.		75
National Energy Program - Energy R & D: Oil and Gas Task 7.6. Study of shallow thermal aspects for pipelining.		76
National Energy Program - Energy R & D: Oil and Gas Task 3.1. Fundamental studies of moisture migration.		77
National Energy Program. Energy R & D: Oil and Gas Task 2.2. Geological and geophysical studies of gas hydrates.		78
Canada Centre for Remote Sensing	G2-4	
Radarsat Project		114
Geological Survey of Canada, Atlantic Geoscience Centre	G2-5	
Coastal Reconnaissance of the Sverdrup Basin, N.W.T.		20
Coastal Reconnaissance of Bylot and N.E. Baffin Islands, N.W.T.		21
Coastal erosion - sedimentation, Northern Somerset Island, N.W.T.		22
Establishment of environmental design parameters for Beaufort Sea development - Geotechnical information requirements.		23
<u>Govt 3: Employment and Immigration Canada</u>	G3-1	

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
<u>Govt 4: Environment Canada</u>		
Lands Directorate, Land Resource and Data Systems Branch	G4-1	
Northlands Ecoregions		15
Ecodistrict mapping for the Northwest Territories.		16
Ecological baseline information system for the Beaufort Sea Planning Area.		17
Atmospheric Environment Service, Ice Branch	G4-2	
Atmospheric Environment Service, Western Region	G4-3	
Environmental aspects of Arctic marine transportation: Sea state, ice and weather.		35
Annual reports of Beaufort Weather Office (BWO).		36
Atmospheric Environment Service, Meteorological Services Research Branch	G4-4	
Operational Systems design R & D		37
Satelite ice status system R & D		39
Marine oil spill trajectories R & D		40
Wave and swell forecasting R & D		41
Sea-Ice modelling R & D		42
National Hydrology Research Institute, Surface Water Division	G4-5	
Lake regimes, Mackenzie Delta, N.W.T.		61
Ice regime of lower Mackenzie River and Mackenzie Delta, N.W.T.		62
Northern highways hydrology study, Mackenzie Delta region, N.W.T.		63
Canadian Wildlife Service - Seabird Research Unit, Migratory Birds Branch, Atlantic Region	G4-6	

<u>Cont: Summary List (Agency and Project)</u>	<u>Agency File No.</u>	<u>Project Information Sheet No.</u>
Hudson Strait seabird study - year 2 of 3		66
Seabird population studies in Lancaster Sound and vicinity.		67
Environmental Protection Service, Yukon	G4-7	
Arctic Marine Oilspill Program (AMOP).		51
Atmospheric Environment Service - Central Region	G4-8	
Atmospheric Environment Service - Arctic Meteorology Section, Applications and Impact Division	G4-9	
Offshore wind/wave climate studies		30
Climatic study of northwestern Baffin Bay.		31
Regional climate study of the Canadian Arctic Islands and adjacent waters.		32
Arctic air temperatures relevant to steel selection for ship hulls		33
Climatic change in the Arctic		34
Parks Canada, National Parks Branch	G4-10	
Northern Technology Unit, Water Pollution Control Directorate	G4-11	
Northern Technology Unit Projects		80
Canadian Wildlife Service - Western and Northern Region	G4-12	
Responses of Peary caribou and muskoxen to helicopter harassment.		59
Inter-island movement of Peary caribou		60
Preliminary environmental assessment of proposed harbour sites at McKinley Bay and Baille Islands.		175
Environmental Emergency Branch	G4-13	
Arctic Marine Oilspill Program		28

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
Environmental Protection Service, NWT	G4-14	
Beaufort coastal survey.		126
Mckinley Bay, Beaufort Sea		127
Ocean dumping standardization		128
Federal Environmental Assessment Review Office	G4-15	
Environmental Assessment Panel Projects.		162
Federal Activities Assessment Branch	-	
Onshore impacts of offshore hydrocarbon development: An annotated bibliography.		140
<u>Govt 5: Fisheries and Oceans Canada</u>		
Economic Policy & Marketing	G5-1	
Arctic Biological Station	G5-2	
Microbiology of water and sediments at Issunguak Artificial Island		55
Scientific Information and Publications Branch	G5-3	
Marine Environmental Data Services Branch	G5-4	
Wave climate study.		56
Ocean Science and Survey - Atlantic Oceanographic Laboratory	G5-5	
Physical Oceanographic Program		25
Marine pollution chemistry		26
Ocean Science and Surveys - Marine Ecology Laboratory	G5-6	
Fisheries and Oceans - Western	G5-7	
Monitoring and assessment of the commercial fishery potential in the Mackenzie Delta.		129
Mackenzie Delta - Beaufort Sea Project		130

Cont: Summary List (Agency and Project)	Agency File No.	Project Information Sheet No.
Tuktoyaktuk Lakes Study		131
Subsistence Beluga/Narwhale exploitation - Mackenzie Delta and Baffin area.		132
Energy related organics		133
Metals in Arctic ecosystems		134
Heavy metal and hydrocarbon monitoring in sediments and fishes along the Tuktoyaktuk Peninsula.		135
Coastal migrations: Spawning areas.		136
Water quality monitoring in Tuktoyaktuk Harbour.		137
Data inventory of Bowhead and White Whales in the Beaufort Sea and adjacent marine waters		138
Review and assessment of existing data for fish and marine mammals in the Beaufort Sea hydrocarbon production area and along possible transportation corridors		139
Ocean Science and Surveys, Central Research and Development Division	G5-8	
Oceanographic monitoring in Barrow Strait		115
Ice studies in the Central Arctic		116
G-UMPS (Gyroscope unmanned profiling system).		117
Oceanography of Hudson/James Bays		118
Oceanographic Information Division, Institute of Ocean sciences	G5-9	
Case studies directed towards defining major physical and chemical fluxes and determining chemical mass balances for the Beaufort Sea in general.		11

I.2 INDEX TO AGENCY INFORMATION SHEETS

Category

Agency Information Sheet Title

File No.
(Report page no.)

Associations

Beaufort Sea Advisory Committee A-1

Arctic Petroleum Operators Association A-2

Commercial

Woodward - Clyde Consultants C-1

D.F. Dickins Associates Ltd. C-2

CanOcean Resources Ltd. C-3

E.R. Walker C-4

Pallister Resource Management Ltd. C-5

Acres Consulting Services Ltd. C-6

Arctec Canada Ltd. C-7

Acres Santa-Fe Incorporated C-8

Interdisciplinary Systems Ltd. C-9

Beaufort Environmental Support Services Ltd. C-10

MacLaren Plansearch C-11

Dome Petroleum Ltd. C-12

Polar Gas Project C-13

Educational Bodies

University of Ottawa, Dept. Geography Ed-1

Memorial University, Ocean Engineering Group Ed-2

C-CORE (Centre for Cold Ocean Resources Engineering Ed-3

Ocean Engineering Information Centre (OEIC)	Ed-4
Arctic Institute of North America	Ed-5
Boreal Institute of Northern Studies	Ed-6
Arctic Science and Technology Information System	Ed-7
<u>Government</u>	
<u>Govt 1: Bedford Institute of Oceanography</u>	G1-1
<u>Govt 2: Energy, Mines & Resources Canada</u>	
Earth Physics Branch, Division of Seismology and Geothermal Studies (<u>Seismology Studies</u>)	G2-1
Geological Survey of Canada, Resource Geophysics and Geochemistry Division	G2-2
Earth Physics Branch, Division of Seismology and Geothermal Studies (<u>Geothermal Service</u>)	G2-3
Canada Centre for Remote Sensing	G2-4
Geological Survey of Canada, Atlantic Geoscience Centre	G2-5
<u>Govt 3: Employment and Immigration Canada</u>	G3-1
<u>Govt 4: Environment Canada</u>	
Lands Directorate, Land Resource and Data Systems Branch	G4-1
Atmospheric Environment Service, Ice Branch	G4-2
Atmospheric Environment Service, Western Region	G4-3
Atmospheric Environment Service, Meteorological Services Research Branch	G4-4

National Hydrology Research Institute, Surface Water Division	G4-5
Canadian Wildlife Service - Seabird Research Unit, Migratory Birds Branch, Atlantic Region	G4-6
Environmental Protection Service, Yukon	G4-7
Atmospheric Environment Service - Central Region	G4-8
Atmospheric Environment Service - Arctic Meteorology Section, Applications and Impact Division	G4-9
Parks Canada, National Parks Branch	G4-10
Northern Technology Unit, Water Pollution Control Directorate	G4-11
Canadian Wildlife Service - Western and Northern Region	G4-12
Environmental Emergency Branch	G4-13
Environmental Protection Service, NWT	G4-14
Federal Environmental Assessment Review Office	G4-15
<u>Govt 5: Fisheries and Oceans Canada</u>	
Economic Policy & Marketing	G5-1
Arctic Biological Station	G5-2
Scientific Information and Publications Branch	G5-3
Marine Environmental Data Services Branch	G5-4
Ocean Science and Survey - Atlantic Oceanographic Laboratory	G5-5
Ocean Science and Surveys - Marine Ecology Laboratory	G5-6

Fisheries and Oceans - Western	G5-7
Ocean Science and Surveys, Central Research and Development Division	G5-8
Oceanographic Information Division, Institute of Ocean Sciences	G5-9
Canadian Hydrographic Service, Atlantic Region	G5-10
<u>Govt 6: Indian Affairs and Northern Development Canada</u>	
Northern Affairs Program, Inuvik Office	G6-1
Northern Research Information and Documentation Service, Northern Social Research Division	G6-2
Northern Environmental Protection Branch, Northern Environment Directorate	G6-3
Office of Native Claims, NWT and Labrador Group	G6-4
Program Services, Indian and Inuit Affairs Program	G6-5
Library Services, Information Resources Division, Finance and Professional Services Program	G6-6
Major Projects Assessment Branch, Northern Affairs Program	G6-7
Northern Statistical Information Centre, Data Management Division, Northern Affairs Program	G6-8
<u>Govt 7: National Research Council</u>	G7-1
<u>Govt 8: Northern Canada Power Commission</u>	G8-1
<u>Govt 9: Public Works Canada</u>	G9-1
<u>Govt 10: Town of Inuvik, N.W.T.</u>	G10-1

Agency: ARCTIC PETROLEUM OPERATORS ASSOCIATION (APOA)
APOA Information Service, P.O. Box 1281, Station M,
Calgary, Alberta T2P 2L2

Contact: J. Pallister Telephone: 403-236-2344

Objectives: The APOA is a non-profit association of around 20 oil companies active in Canada's Arctic. It provides a means of undertaking joint research projects relative to operating in the Arctic environment, encourage protection of the Northern environment, provide liaison with other groups interested in the Arctic and share information.

Area of Expertise: Over 170 projects have been completed on a wide variety of subjects such as ice, environmental and oil spill studies.

Current Projects: There have been studies of specialized vehicles for use in the Arctic, and general research and information projects. Among the latter has been support of the Arctic Institute of North America for its Beaufort Sea Symposium and an Arctic Science and Technology Information System.

Information Services: APOA reports can be obtained from the address listed above. Lists of reports appear in the APOA Review. The Arctic Science and Technology Information System (ASTIS) has recently prepared a bibliography of APOA Research Projects. Abstracts are provided for all documents in the APOA bibliography. It is 74 pages and includes detailed title, author, subject, and geographical indexes. It costs \$10.00 pre-paid and is available through APOA Information Service or from ASTIS.

Publications: The APOA Review - 3 times a year

Agency: PALLISTER RESOURCE MANAGEMENT LTD.
700 - 6th Avenue S.W.
Calgary, Alberta T2P 0T8

Contact: Mr. Jeff Pallister Telephone: 403-236-2344
Telex: 03-82442/Kenting Ltd. CGY

Objectives: To provide consulting services in the areas of oil and gas exploration, development and transportation, ice engineering, including subsea activities.

Areas of Expertise: Research and development for ocean engineering, oil and gas offshore exploration equipment. A study of the marine service industry. Pallister Resource Management produces under contract the APOA Review for the Arctic Petroleum Operators Association.

Information Services: Pallister has a technical library of approximately 3000 documents. About 25% are marine related. The library dates from 1973 and includes technical reports, computerized literature searches, etc. Access for researchers who establish a need-to-know.

Current Projects: Recent projects (selected) and major activity area:
Beaufort Sea Environmental Program (Environment)
Oil and Gas Offshore Equipment (Ocean Engineering)
Research and Development for Ocean Engineering (Resource Development)
Government Policy (Resource Development)
Potential Oil and Gas Supplies (Resource Development)
Summarization of Petroleum Industry Arctic (Resource Development)
Study of Marine Service Industry (Ocean Engineering)
Proposed organization of a Research and Development Program
- Arctic Pilot Project

Agency: MACLAREN PLANSEARCH LTD.
Windmill Place, 1000 Windmill Road
Dartmouth, N.S. B3B 1L7 Telephone: 902-469-0932

Contact: Shirley A.M. Conover, Vice President
Simon G.P. Skey, Group Manager, Physical Sciences

Objectives: Consulting Service

Areas of Expertise: Computer Sciences; Economic and Social Studies Environmental Sciences; Ocean Sciences and Operations; Transportation Studies: Urban and Regional Planning; Water Resources.

Current Projects: Ice Surveillance on the Dome drill rigs (proprietary to Dome). Provision of expert personnel trained in all aspects of ice and weather surveillance as well as measurement of meteorological and oceanographic parameters. Primary function is to protect drilling rigs and islands etc. from hazards caused by ice.

Arctic Risk Study for the Environmental Protection Service: Participation with FENCO in an analysis associated with transport of oil from sites in the Beaufort and elsewhere in the Arctic to southern ports. In addition to developing risk estimates for the transporting vehicles, assessment of impacts on the biological resources and recommendations for future studies were made. Oil spill modelling including tracking, analysis and interpretation was fundamental to this work.

Agency: POLAR GAS PROJECT
P.O. Box 90
Commerce Court West
Toronto, Ontario M5L 1H3

Contact: K.G. Taylor Telephone: 416-869-2624
Supervisor
Environmental Programs

Objectives: Polar Gas is a joint public/private sector project established to transport natural gas from Canada's northern frontier to markets in the south. The project has determined that a large diameter pipeline is the most efficient transportation mode and proposes to build such a pipeline to connect gas reserves in the Arctic Islands and Mackenzie Delta/Beaufort Sea areas to markets in southern Canada.

Areas of Expertise: Since 1972 Polar Gas has invested over 80 million dollars in feasibility studies on several potential pipeline routes through the Northwest Territories. A preferred route across the central NWT to northern Ontario has been identified, but a Mackenzie Valley, an East Franklin route and a Keewatin route are also viable. An application to the National Energy Board for permission to build a pipeline is anticipated during 1983. Polar Gas staff and consultants have carried out a wide range of studies on the geotechnical, environmental, socio-economic and engineering aspects of pipelining in the Northwest Territories. The environmental and socio-economic research, and the study reports are described in Project Information Sheets.
- See Project Information Sheets 167-174

Current Projects: Environmental and Socio-Economic Impact Assessment Statements, which will form part of an application for the preferred pipeline route, are currently in preparation by Polar Gas staff and consultants.

Information Services: Project library has extensive holdings on Arctic pipelining, natural gas, energy, northern development, and environmental and socio-economic aspects of northern Canada. Non-project users by special permission or inter-library loan.

Publications: Some reports considered proprietary; most environmental and socio-economic reports (approx. 100) are published and available at selected research libraries across Canada.

Agency: TOWN OF INUVIK
P.O. Box 1160
Inuvik, N.W.T.

XOE OTO

Contact: Cynthia C. Hill
Mayor

Telephone: 403-979-2607

Objectives: The Town of Inuvik is involved in the management of the Municipality's roads, water and sanitation services, fire protection services, recreation services and facilities and the library. Other responsibilities include: bylaw enforcement, building inspection, animal control.

Areas of Expertise: The Town of Inuvik is participating in the Beaufort Sea Environmental Assessment Review Process, maintains a liaison with industry and is examining the potential impacts of hydrocarbon development on the community.

Current Projects: The Town of Inuvik prepared 2 submissions to the Beaufort Sea Environmental Assessment Review Panel concerning the Draft Guidelines for the preparation of an Environmental Impact Statement. The Town is also conducting an assessment of the current level and adequacy of Municipal Services and Infrastructure and future needs resulting from Beaufort Sea Development. Conditional on approval of a FEARO funding application this assessment will include an extensive community information and consultation program.

Information Services and Publications Copies of the submissions to the Panel and the Municipal Services and Infrastructure Assessment are available from the Town Office.

Cont. (Project Listing)

Project Information Sheet No.	Title
28	Arctic Marine Oilspill Program
29	EAMES - Eastern Arctic Marine Environmental Studies
30	Offshore wind/wave climate studies
31	Climatic study of northwestern Baffin Bay.
32	Regional climate study of the Canadian Arctic Islands and adjacent waters.
33	Arctic air temperatures relevant to steel selection for ship hulls
34	Climatic change in the Arctic
35	Environmental aspects of Arctic marine transportation: Sea state, ice and weather.
36	Annual reports of Beaufort Weather Office (BWO).
37	Operational Systems design R & D
38	None
39	Satellite ice status system R & D
40	Marine oil spill trajectories R & D
41	Wave and swell forecasting R & D
42	Sea-ice modelling R & D
43	Long term fate and effects of Balaena Bay oil spill
44	Study of ice conditions along a year round shipping route from the Bering Strait to the Canadian Beaufort Sea, June 1979.
45	Air deployable oil spill ignitor tests, Yellowknife, May 1979.

Cont. (Project Listing)

Project Information Sheet No.	Title
46	Oil and gas under sea ice, Dec. 1980
47	Ice conditions along Arctic tanker routes (to be included in volume 3 of Dome's Beaufort Sea Production, E.I.S.)
48	Sea ice motion in the southeastern Beaufort Sea, 1978.
49	Beaufort Sea winter ice experiment 1979: Oceanography
50	Beaufort Sea winter ice experiment 1981: Oceanography.
51	Arctic Marine Oilspill Program (AMOP).
52	Expanded power supply alternatives for Inuvik - Tuktoyaktuk area.
53	Physical oceanography in the Northwest Passage.
54	Fish, invertebrates and marine plants of the Southern Beaufort Sea - An overview.
55	Microbiology of water and sediments at Issunguak Artificial Island
56	Wave climate study.
57	Terrain, land use and waste drilling fluid disposal problems adjacent to exploratory wellsites in permafrost, Arctic Canada.
58	The study of coastal processes and dynamics, Southwest Banks Island, Western Canadian Arctic.
59	Responses of Peary caribou and muskoxen to helicopter harassment.
60	Inter-island movement of Peary caribou
61	Lake regimes, Mackenzie Delta, N.W.T.

Cont. (Project Listing)

Project Information Sheet No.	Title
62	Ice regime of lower Mackenzie River and Mackenzie Delta, N.W.T.
63	Northern highways hydrology study, Mackenzie Delta region, N.W.T.
64	Studies of behaviour and effects of oil spills in Arctic lands and waters and spill countermeasures, especially chemical dispersion.
65	Sub-seabottom permafrost mapping - Beaufort Sea
66	Hudson Strait seabird study - year 2 of 3
67	Seabird population studies in Lancaster Sound and vicinity.
68	Frontier subsea pilot production project (Beaufort)
69	Extended well production test riser system for Dome Petroleum
70	The feasibility of underwater containment of subsea oil spills in Arctic waters (Oil spill containment study - 1979)
71	Subsea containment study task 3 (C-CORE: 426-0)
72	Design study of oil skimmer for use in Canadian waters
73	CanOcean Participation - Arctic Pilot Project (A.P.P.)
74	4th Service System design (Arctic service system - In-house R & D)
75	National Energy Program - Energy R & D Oil and Gas Task 3.26 - Offshore temperature studies.
76	National Energy Program - Energy R & D: Oil and Gas Task 7.6. Study of shallow thermal aspects for pipelining.

Cont. (Project Listing)

Project Information Sheet No.	Title
77	National Energy Program - Energy R & D: Oil and Gas Task 3.1. Fundamental studies of moisture migration.
78	National Energy Program. Energy R & D: Oil and Gas Task 2.2. Geological and Geophysical studies of gas hydrates.
79	Water resources officer - Northern Affairs Program, Northern Operations Branch, District Operations, Inuvik, NWT
80	Northern Technology Unit Projects
81	Coastal characteristics of the Northwest Passage.
82	Regional Analysis study of the western Arctic Archipelago Marine Region #4
83	Parks analysis Natural Region #26
84	Shoreline analysis, Alaska & Arctic Canada
85	Coastal geology mapping, central Sverdrup Basin, N.W.T.
86	Beaufort Sea coastal video survey
87	Northwest Passage video-tape survey
88	BIOS Oil Spill
89	APOA Beaufort Oil Spill Workshop
90	AMOP spill site selection
91	EAMES Atlas Workshop
92	Southeast Newfoundland oil spill countermeasures study.
93	Tuktoyaktuk Harbour Master Plan
94	Transportation of gas and oil from the Arctic Islands

Cont. (Project Listing)

Project Information Sheet No.	Title
95	Laboratory study of heat transfer at ice/water interface.
96	Tanker terminals feasibility for a petrochemical complex.
97	Feasibility study, deepwater transshipment storage facility.
98	Risk analysis for pipeline construction
99	Oil and gas production facilities for offshore Labrador
100	Ice management for Arctic LNG terminal.
101	Compilation of ice forces against structures
102	Ice studies for exploratory drilling system
103	Crossing of ship tracks in Barrow Strait
104	Stress analysis of Barrow Strait ice cover
105	Production and gathering system; Design and project management
106	Economic development plan. (Discontinued)
107	Oil and gas exploration supply base
108	Geotechnical investigations of proposed Mackenzie highway.
109	Yukon grizzly bear studies
110	Study of the tourism potential for the Mackenzie Valley communities.
111	Market opportunities - North of 60°
112	Transportation feasibility studies
113	Financial analysis of Arctic pipeline applications.

Cont. (Project Listing)

Project Information Sheet No.	Title
114	Radarsat Project
115	Oceanographic monitoring in Barrow Strait
116	Ice studies in the Central Arctic
117	G-UMPS (Gyroscope unmanned profiling system).
118	Oceanography of Hudson/James Bays
119	Hire North evaluation study
120	Socio-economic impact assessment of the Arctic Pilot Project on selected high Arctic communities.
122	Assessment of the socio-economic impacts and damages resulting from the Grand Rapids 1960-1980 (with projections to year 2000)
123	Construction and use of winter roads during pipeline construction, to reduce terrain and vegetation impacts
124	Candidate Natural Areas of Canadian Significance and Natural Sites of Canadian Significance in Natural Region 8 and in Natural Region 7.
125	Regulatory consulting services to private industry.
126	Beaufort coastal survey.
127	Mckinley Bay, Beaufort Sea
128	Ocean Dumping Standardization
129	Monitoring and assessment of the commercial fishery potential in the Mackenzie Delta.

Cont: (Project Listing)

Project Information Sheet No.	Title
163	Ice behaviour C-CORE Program
164	Seabed Group (C-CORE)
165	Radar Group (C-CORE)
166	Hydrocarbon Group (C-CORE)
167	Environmental Statement - West Hudson Bay Route
168	Socio-Economic Statement - West Hudson Bay Route
169	Biophysical Research and Data Collection - West Hudson Bay Route
170	Socio-Economic Research and Data Collection - West Hudson Bay Route
171	Environmental Statement - "Y" Route to Longlac Route
172	Socio-Economic Statement - "Y" Line to Longlac Route
173	Biophysical Research and Data Collection - "Y" Line to Longlac
174	Socio-Economic Research and Data Collection - "Y" Line to Longlac
175	Preliminary environmental assessment of proposed harbour sites at McKinley Bay and Baille Islands

<u>Subject Categories</u>	<u>Project Title</u>	<u>Project Information Sheet No.</u>
Zone I (cont.)		
3.1.4 <u>Geology, Coastal Morphology and Terrain</u>		
	Geotechnical Research 1980-1981. Beaufort Sea Production Development. Dome Petroleum Ltd.	4
	Biological - Chemical Research 1980, Beaufort Sea Production Development. Dome Petroleum Ltd. (Proj. 7. Coastal survey)	7
	Surficial geology and geomorphology. Mackenzie Bay - Continental Shelf.	18
	Coastal reconnaissance of the Sverdrup Basin, N.W.T.	20
	Establishment of environmental design parameters for Beaufort Sea development - Geotechnical information requirements.	23
	The study of coastal processes and dynamics, Southwest Banks Island, Western Canadian Arctic.	58
	Lake regimes, Mackenzie Delta, N.W.T.	61
	Ice regime of lower Mackenzie River and Mackenzie Delta, N.W.T.	62
	Coastal geology mapping, central Sverdrup Basin, N.W.T.	85
	Beaufort Sea coastal video survey	86
	Northwest Passage video-tape survey	87
	Seabed Group (C-CORE)	164
3.1.5 <u>Permafrost and Thermal Regime (including hydrates)</u>		
	Establishment of environmental design parameters for Beaufort Sea development - Geotechnical information requirements.	23
	Sub-seabottom permafrost mapping - Beaufort Sea	65
	National Energy Program - Energy R & D Oil and Gas Task 3.26 - Offshore temperature studies.	75

<u>Subject Categories</u>	<u>Project Title</u>	<u>Project Information Sheet No.</u>
Zone I 3.1.5 (cont.)	National Energy Program - Energy R & D: Oil and Gas Task 7.6. Study of shallow thermal aspects for pipelining.	76
	National Energy Program - Energy R & D: Oil and Gas Task 3.1. Fundamental studies of moisture migration.	77
	National Energy Program. Energy R & D: Oil and Gas Task 2.2. Geological and Geophysical studies of gas hydrates.	78
3.2 <u>Biological Environment</u>		
3.2.1 <u>Marine and Freshwater Systems (plants and animals)</u>		
	Biological - Chemical Research 1980, Beaufort Sea Production Development. Dome Petroleum Ltd. (Proj. 2 Environmental monitoring of dredging activities Proj. 4 Whale surveys - Tuktoyaktuk Peninsula. Proj. 5 Seal surveys, Beaufort Sea (Arctic Islands).	7
	Beaufort Sea Production Environmental Studies 1979-1980. Beaufort Sea Production Development. Dome Petroleum Ltd. (Proj.3 Environmental baseline data - Kopanoar specific, Beaufort Sea general. Proj. 7 Ecology of the southern Beaufort Sea and Mackenzie Delta: An annotated bibliography. Proj. 8 An engineering and environmental study of the use of explosives in ice).	8
	Fish, invertebrates and marine plants of the Southern Beaufort Sea - An overview.	54
	Microbiology of water and sediments at Issunguak Artificial Island	55
	Beaufort coastal survey.	126
	Mckinley Bay, Beaufort Sea	127
	Monitoring and assessment of the commercial fishery potential in the Mackenzie Delta.	129

II.2.2 Subject Index (by Zones)

ZONE II: Terrestrial areas North of 60°

<u>Subject Categories</u>	<u>Project Title</u>	<u>Project Information Sheet No.</u>
1. <u>GENERAL</u>		
	Workshop on the impact of the Dempster Corridor on the Mackenzie Delta	24
	Environmental Assessment Panel Projects.	162
2. <u>PROPOSAL (DESIGN) RELATED</u>		
	Northern highways hydrology study, Mackenzie Delta region, N.W.T.	63
	Risk analysis for pipeline construction	98
	Financial analysis of Arctic pipeline applications.	113
	Construction and use of winter roads during pipeline construction, to reduce terrain and vegetation impacts	123
3. <u>ENVIRONMENTAL SETTING</u>		
3.0 <u>Ecosystem Studies</u>		
	Northlands Ecoregions	15
	Ecodistrict mapping for the Northwest Territories.	16
	Candidate Natural Areas of Canadian Significance and Natural Sites of Canadian Significance in Natural Region 8 and in Natural Region 7.	124
	Northern land use information series mapping project.	143
3.1 <u>Physical Environment</u>		
3.1.2 <u>Climate and Air Quality</u>		
	Climatic change in the Arctic	34

<u>Subject Categories</u>	<u>Project Title</u>	<u>Project Information Sheet No.</u>
Zone II (cont.)		
3.1.4	<u>Geology, Terrain and Coastal Morphology</u>	
	Ice regime of lower Mackenzie River and Mackenzie Delta, N.W.T.	62
	Geotechnical investigations of proposed Mackenzie highway.	108
3.3	<u>Socio-Economic Environment</u>	
	Yukon grizzly bear studies	109
	Study of the tourism potential for the Mackenzie Valley communities.	110
	Market opportunities - North of 60°	111
	Transportation feasibility studies	112
	Hire North evaluation Study	119
	Historical development of current patterns of Inuit culture and implications with respect to future development.	144
4.	<u>IMPACT STUDIES</u>	
4.1	<u>Physical Environment Effects</u>	
	Terrain, land use and waste drilling fluid disposal problems adjacent to exploratory wellsites in permafrost, Arctic Canada.	57
	Terrain - vehicle interaction - Keewatin	154
4.3	<u>Socio-Economic Effects</u>	
	Long term fate and effects of Balaena Bay oil spill	43
	Study of the tourism potential for the Mackenzie Valley communities.	110
	Assessment of the socio-economic impacts and damages resulting from the Grand Rapids 1960-1980 (with projections to year 2000)	122

Project: COASTAL EROSION - SEDIMENTATION, NORTHERN SOMERSET ISLAND, N.W.T.

Geographic Area: Somerset Island, N.W.T.

Objectives: To map the modern sedimentary environments of the coasts of northern Somerset Island and adjacent islands with particular reference to the processes controlling erosion, transportation and deposition of sediments and the role of permafrost and sea ice movement. To provide basic data that will help assess the impact of the various human activities on the natural balance of processes with particular reference to gas pipeline concerns.

Approach Progress: The proposed project "Coastal erosion-sedimentation, northern Somerset Island" is a field oriented study of the rates and intensities of erosive and sedimentary processes relating to an Arctic sea ice and permafrost environment.

During 1974 a general reconnaissance of the entire coastal strip was made with detailed work and bench marks to be established. During 1975 and 1976 detailed observations of investigation will be completed along the coasts of Barrow Strait with special reference to Somerset, Bathurst, Lowther, Russell and S.W. Devon Islands.

During 1979-80, an office study to analyze previously collected field data was carried out. Attention was focused on the seasonal fluctuations of beach thaw and the effect of permafrost on coastal processes in the Arctic. It represents the first detailed study of the beach thermal regime and rates of thaw on coarse sediment beaches in the eastern Arctic Islands. Thaw beneath the beach foreshore zone is directly related to the salinity and temperature of the nearshore water and because of the presence of brine the thaw characteristics are much different than beneath the beach backshore zone. The ice-bonded sediment prevents large scale changes to the coast during storm wave conditions because of its resistance to erosion.

Reports: Taylor, R.B., 1979. Beach thaw depths: seasonal and short term fluctuations, Canadian Arctic Islands (abstract) submitted to N.R.C. Canadian Coastline Conference.

Taylor R.B., 1980. Beach thaw depth and the effect of ice-borded sediment on beach stability, Canadian Arctic Islands; in Canadian Coastal Conference 1980, Proceedings. NRC, pp 103-121

Taylor R.B., 1980. Coastal Environmental along the northern shore of Somerset Island, District of Franklin; in the Coastline of Canada, S.B. McCann, editor; Geological Survey of Canada, Paper 80-10, pp 239-250.

Taylor, R.B., 1977. The Occurrence of Grounded Ice Ridges and Shore Ice Piling Along the Northern Coast of Somerset Island, N.W.T. Arctic 31 (2), 133-149.

Taylor, R.B., 1978. Beach Changes, Northern Somerset Island, Proceedings of the Fourth International Conference on Port and Ocean Engineering under Arctic Conditions, Memorial University, Nfld., 1978, pp. 904-915, V. II.

W.B. Barrie, B.D. Bornhold, D.A. Hodgson, R.G. Jubb, P. McLaren, R.B. Taylor, 1978. Coastal Reconnaissance for Marine Terminal Planning in the High Arctic. Internal Report to Strategic Studies Branch Transport Canada, 1978, 328 pp. Geological Survey of Canada, Open File 633.

Taylor, R.B., 1980. Coastal Environments along the Northern Shore of Somerset Island, District of Franklin. The Coastline of Canada, S.B. McCann, Editor; Geological Survey of Canada, Paper, 80-10, pp. 239-250, 1980.

Time Frame: Ongoing.

Undertaken Atlantic Geoscience Centre
By: Environmental Marine Geology, Coastal Geodynamics
Geological Survey of Canada
Dept. Energy, Mines & Resources.
Project Leader - R.B. Taylor

Contact: R.B. Taylor Telephone: 902-426-7726
Atlantic Geoscience Centre
Geological Survey of Canada
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

Project: LAKE REGIMES, MACKENZIE DELTA, NWT

Geographic Area: Mackenzie Delta

Objectives: Determine the water level regimes of a variety of lakes in the Mackenzie Delta under current Mackenzie River flow conditions, in order to assess the potential impact of increased flow regulation upon the Mackenzie Delta. In order to broaden the data base and further investigate the potential regulatory effects upon the Delta lakes, a preliminary analysis of water quality characteristics will be undertaken in 1982.

Approach
Progress: Record lake and channel water levels by means of time-lapse photography of staff gauges. Pilot study began in 1980, at one area, and was expanded in 1981 to a second area. Expect to instrument a third area in 1982.

Reports: None as yet

Time Frame: Commenced 1980 - Terminate 1984.

Undertaken
By: Northern Hydrology Section, Surface Water Division,
National Hydrology Research Institute, Environment Canada

Research Personnel: S.C. Bigras,
A.C.D. Terroux and J.C. Anderson

Funded
by: Environment Canada

Contact: S.C. Bigras Telephone: 819-997-2369
Northern Hydrology Section
Surface Water Division
National Hydrology Research Institute
Ottawa, Ontario K1A 0G7

Project: ICE REGIME OF LOWER MACKENZIE RIVER AND MACKENZIE DELTA

Geographic Area: Mackenzie River below Ft. Norman; Mackenzie Delta

Objectives: To obtain information on processes and timing of freeze-up and break-up in the Mackenzie Delta channels and Mackenzie River below Fort Norman.

Approach Progress: Field work in April (measurement of ice thickness), May and June (aerial photography, to record pattern and timing of break-up and location of jams). Water temperature recordings; to monitor amount and determine sources of heat available for melting and freezing.

Reports: In preparation, for Mackenzie River Basin Committee.

Time Frame: 1981-82 is the second year of this study. The planned length of this study is 5 years.

Undertaken By: Northern Hydrology Section, Surface Water Division
National Hydrology Research Institute, Environment Canada

Research Personnel: A.C.D. Terroux

Funded by: Environment Canada

Contact: A.C.D. Terroux Telephone: 819-997-2385
Northern Hydrology Section
Surface Water Division
National Hydrology Research Institute
Ottawa, Ontario K1A 0E7

Project: NORTHERN HIGHWAYS HYDROLOGY STUDY, MACKENZIE DELTA REGION, N.W.T.

Geographic Area: Mackenzie Delta Region, Inuvik-Tuktoyaktuk corridor.

Objectives: Provide hydrologic information relevant to the design and construction of the proposed Inuvik-Tuktoyaktuk Highway especially with regard to the sizing of culverts. This is to be accomplished through the collection and analysis of data on snowpack water equivalent, rainfall, discharge and icings at a number of drainage basins to be crossed by the highway.

In so doing, obtain an understanding of processes such as runoff response of different basin types to snowmelt and rainfall. Determine water balance component magnitudes and variations in the tundra and taiga environments of the region.

Approach Progress: Field Work May-Sept.: collect data on snowpack water equivalent, precipitation, air temperature, discharge and note occurrence of icings at a minimum of four drainage basins along the route of proposed Inuvik-Tuk Highway. (Co-operate with Water Survey of Canada).

Office study, Oct.-Apr.: compilation and analysis of field data; preparation of a progress report for DIAND.

Reports: Anderson, J.C. (1980). "Hydrologic studies in the Mackenzie Delta region, N.W.T., 1979". Internal report to Northern Roads Environmental Working Group, DIAND, Ottawa. 39 p. & appendix.

Anderson, J.C. and A.W. Gell (1980). "Hans Creek icing study: 1979". Internal report to Northern Roads Environmental Working Group, DIAND, Ottawa, 12 p.

Time Frame: No specific termination date at present; commenced 1975.

Undertaken By: Northern Hydrology Section, Surface Water Division
National Hydrology Research Institute, Environment Canada
Research Personnel: J.C. Anderson, S.C. Bigras, A.C.D. Terroux

Funded by: DIAND and Environment Canada

Contact: J.C. Anderson Telephone: 819-997-2385
Northern Hydrology Section
Surface Water Division
National Hydrology Research Institute
Ottawa, Ontario K1A 0E7

- Project: STUDIES OF THE BEHAVIOUR AND EFFECTS OF OIL SPILLS IN ARCTIC LANDS AND WATERS AND SPILL COUNTERMEASURES, ESPECIALLY CHEMICAL DISPERSION.
- Geographic area: Laboratory work in Toronto, field work in Mackenzie Valley (Norman Wells, Inuvik, Tuktoyaktuk).
- Objectives: To understand better the behaviour of oil spills and thus better identify any adverse effects and develop more effective clean-up or restoration procedures.
- Approach
Progress: This project has been underway since 1971 and has resulted in a number of reports. Several aspects are currently under study, especially
- i) chemical dispersion of oil spill
 - ii) oil spill behaviour at sea (evaporation, spreading, emulsion formation, adhesion to shorelines, mathematical modelling, general impact assessment, etc.
 - iii) oil spill behaviour on arctic shorelines
 - iv) oil spill behaviour on arctic soils
 - v) toxicity of oil to marine organisms
- Reports: Selected recent publications (from 1976).
- Mackay, D., 1977. "Oil from the Beaufort Sea: A personal viewpoint". The Beaufort Seer, February 1977.
- Mackay, D., "Commentary on offshore drilling in the Beaufort Sea" presented at the conference (November 1975) and published in the Proceedings "Mackenzie Delta: Priorities and Alternatives: Canadian Arctic Resources Committee, Ottawa
- Mackay, D., "Pipeline Yes: Today's Delay only means Tomorrow's Crisis", Macleans, p. 22, May 30, 1977.
- Brodsky, L., Charles, M.E., Greene, G.D., Mackay, D., "The use of deflectors for the deployment of oil booms at an angle to river currents". Report prepared for and published by the Petroleum Association for the Conservation of the Canadian Environment, 1977.
- Mackay, D., "Oil in the Arctic: Some personal views on inputs, countermeasures, effects and sanctuaries", Spill Technology Newsletter, 2 (2), March-April 1977.
- Gainer, J.G., Logan, W.J. and Mackay, D., (Editors) Proceedings of the Sixth Arctic Environmental Workshop, Fairmont, B.C., April 1977. Published as report EE6 of the Institute for Environmental Studies, University of Toronto.

Project: CANOCEAN PARTICIPATION IN ARCTIC PILOT PROJECT (A.P.P.)

Geographic Area: Melville Island and surrounding area.

Objectives: The A.P.P. is a system for the delivery of natural gas from Northern Melville Island to an LNG liquefaction plant and port facility on the South Coast of the Island. From there, the LNG will be transported to Southern markets in Canada in ice-breaking LNG carriers operating on a year-round basis. CanOcean is presently involved with the A.P.P. consortium on various aspects of the project including the design of the LNG loading facilities, LNG carriers, and pipelines. In addition, CanOcean is the NOVA representative at many of the consortium working committee meetings.

Approach (a) in-house expertise;
Progress: (b) thorough review of existing literature.

Reports: Not yet determined.

Time Frame: Ongoing

Undertaken CanOcean Resources Ltd.
By: Project Engineers - Manfred Schaper, Peter Metcalf.

Funded by: Arctic Pilot Project (A.P.P.) consortium consisting of:
Dome Petroleum
Petro-Canada
TransCanada Pipeline
Melville Shipping
PanArctic
NOVA, An Alberta Corporation

Contact: John English, P.Eng. Telephone: 604-524-4451
Manager of Communications and Sales Coordination
CanOcean Resources Ltd
New Westminster, B.C.
V3M 5P8

Project: 4TH SERVICE SYSTEM DESIGN. (Arctic Service System - In-House R & D)

Geographic Area: Variety of offshore areas, including Canada's Arctic and East Coast areas.

Objectives: To design an offshore service system that would be suitable for supporting subsea operations in a variety of areas including the Beaufort Sea, Arctic Islands, and Canadian East Coast offshore areas.

Approach
Progress: (a) in-house expertise based on more than a decade of experience at operating offshore service systems;
(b) thorough review of existing literature;
(c) thorough evaluation of other existing or planned service systems.

Reports: None.

Time Frame: Service System to be available '88-'89.

Undertaken
By: CanOcean Resources Ltd.

Project Engineer, Ernie Sjöholm.

Funded by: In-house research and development.

Contact: John English, P.Eng. Telephone: 604-524-4451
Manager of Communications and Sales Coordination
CanOcean Resources Ltd.
New Westminster, B.C.
V3M 5P8

Project: COASTAL CHARACTERISTICS OF THE NORTHWEST PASSAGE

Geographic Area: Alaska and Canadian Arctic Coast

Objectives: To provide shoreline data for the development of an EIS for northern marine transportation routes.

Approach Progress: As part of a continuing study of the environmental impacts of northern hydrocarbon developments, Dome Petroleum has contracted Woodward-Clyde to prepare a shoreline analysis of the coasts of the Northwest Passage. This study encompasses the coasts between the mouth of the Yukon River, Alaska, and Cape Henry Kater on Baffin Island, N.W.T., including Prince of Wales Strait, Viscount Melville Sound and Lancaster Sound.

The study will focus on a detailed description of the physical coastal character and of the shore-zone processes on a section-by-section basis. Examples of repetitive shoreline types that occur within the study region are illustrated and described.

Undertaken By: Woodward-Clyde Consultants.

Funded by: Dome Petroleum Ltd.

Contact: Dr. E.H. Owens
Woodward-Clyde Consultants
16 Bastion Square
Victoria, B.C. V8W 1H9

Telephone: 604-381-5811

Project: REGIONAL ANALYSIS STUDY OF THE WESTERN ARCTIC ARCHIPELAGO
MARINE REGION #4

Geographic Area: Western Canadian Arctic

Objectives: Identify natural areas and sites of Canadian significance in the Western Arctic Marine Region.

Approach Progress: The region was described and mapped in terms of the various "natural themes" which exist within the Western Arctic. The theme categories relate to various oceanographic, geologic, physiographic, and biologic characteristics which are considered important for inclusion within a national park. Each natural theme is assessed for its representivity within the region (i.e., is it common, uncommon, rare, or exceptional?) and also its "naturalness" (i.e., the extent of alteration by man); by grouping these assessments in a matrix form, a ranking of marine areas was established. The list of marine areas identified by this study will be used to select potential marine park sites on the basis of the selection criteria outlined in Parks Canada Policy.

Reports: Regional Analysis of the Western Arctic Archipelago Marine Region #4.

Time Frame: Completed

Undertaken By: Woodward-Clyde Consultants

Contracted/ Funded by: Parks Canada, Dept. of Environment.

Contact: Dr. J.R. Harper Telephone: 604-381-5811
Woodward-Clyde Consultants
16 Bastion Square
Victoria, B.C. V8W 1H9

John A. Carruthers Telephone: 819-994-3011
Chief
National Parks System Division
Les Terrasses de la Chaudière
10 Wellington Street
Hull, Quebec
K1A 1G2

Project: PARKS ANALYSIS NATURAL REGION #26

Geographic Area: Baffin Island, N.W.T.

Objectives: To identify natural areas and sites of Canadian significance in Northern Davis Strait (Natural Region 26).

Approach
Progress: The region is described and mapped in terms of the various "natural themes" (geology, physiography, climate, soils, hydrology, vegetation, etc.) which exist within the Natural Region (Baffin Island). Each of the natural themes is then assessed for its representivity within the region (i.e., is it common, uncommon, rare, exceptional?) and also its "naturalness" (i.e., the extent of alteration by man), and by grouping these assessments in a matrix form, a ranking of candidate areas was established. The list of candidate areas identified by this study will be used to select potential national park sites on the basis of the selection criteria outlined in Parks Canada Policy. Study is completed.

Undertaken Woodward-Clyde Consultants.

By:

Contracted/ Parks Canada, Dept. of Environment.

Funded by:

Contact: Dr. J.R. Harper Telephone: 604-381-5811
Woodward-Clyde Consultants
16 Bastion Square
Victoria, B.C. V8W 1H9

John A. Carruthers Telephone: 819 994-3011
Chief
National Parks System Division
National Parks Branch
Les Terrasses de la Chaudière
10 Wellington Street
Hull, Quebec K1A 1G2

Project: SHORELINE ANALYSIS, ALASKA & ARCTIC CANADA

Objectives: Definition of shoreline terrain characteristics and sensitivity for possible Arctic tanker route assessment and planning.

Approach
Progress: Woodward-Clyde Consultants has been requested to prepare a series of maps that define shoreline character for the coasts of Alaska and Canada north of 60°. The maps will be prepared from existing data and information and will be used to assess potential tanker routes and to evaluate the potential damage from tanker accidents.

Undertaken
By: Woodward-Clyde Consultants

Contracted/
Funded by: Arctic Sciences Ltd.

Contact: Dr. E.H. Owens
Woodward-Clyde Consultants
16 Bastion Square
Victoria, B.C. V8W 1H9

Telephone: 604-381-5811

Project: PRODUCTION AND GATHERING SYSTEM, DESIGN AND PROJECT MANAGEMENT.

Geographic Area: Prudhoe Bay, Alaska.

Objectives: To provide Design Management and Support services for new production and gathering facilities.

Approach Progress: Project and construction management, engineering design (preliminary and detailed) and support services for the installation of new production and gathering facilities in the Prudhoe Bay oil producing area of Alaska. The project involved the expansion of existing facilities for connecting up to 60 additional wells. The design included well pad buildings and related infrasture, more than 161 km of flow lines and additional modules for three major crude-oil gathering centers. The approximate value of the project to the client was \$200 million.

Reports: Submitted to client.

Time Frame: Completed.

Undertaken By: Santa Fe Engineering Services Co.

Funded by: SDHIO Petroleum Company.

Contact: Mr. Y.M. Maurette Telephone: 403-253-9161
Vice President
Acres-Santa Fe Corporation
Suite #450, 6712 Fisher Street S.E.
Calgary, Alberta T2H 2A7

Project: ECONOMIC DEVELOPMENT PLAN (DISCONTINUED)

Geographic Area: Inuvik, Northwest Territories.

Objectives: Acres' is presently providing economic planning expertise to the Town of Inuvik's Economic Planning Committee for the design of an overall comprehensive economic development plan. The planning process will provide specific cost-benefit analysis as well as an on-going analysis and interpretation of government policies and their ramification and implications for the Town of Inuvik.

Approach
Progress: An in-depth description and analysis of population, locational, and economic characteristics plus locational and population activity relationships will be presented with emphasis on key economic indicators. Based on this description of Inuvik's economic circumstances, an economic opportunity assessment will be conducted and a Model of Inuvik's Economic Community will be formulated. Growth projections related to the various development scenarios will be calculated to assist in establishing realistic economic development targets.

During the planning process, community involvement will be encouraged through work-shops and public information meetings. Finally, the economic development plan and strategy will provide new dimensions in terms of enterprise, base sector and non-base sector development and methods for increased local participation in Beaufort Sea resource developments.

Reports:

Time Frame: Ongoing.

Undertaken By: Acres Consulting Services Ltd.

Funded by: Town of Inuvik

Contact: Dr. Si Brown Telephone: 604-683-9141
Acres Consulting Services Ltd.
8th Floor, 800 West Pender Street
Vancouver, B.C. V6C 2V6

Update
Information February 1982.
This project has been discontinued.

Project: CONSTRUCTION AND USE OF WINTER ROADS DURING PIPELINE CONSTRUCTION, TO REDUCE TERRAIN AND VEGETATION IMPACTS.

Geographic Area: Alaska, Yukon, N.W.T. in general, field tests at Quill Creek, Yukon.

Objectives: Evaluate use of various types of winter road (snow, ice-capped, ice aggregate) as work pads for pipeline construction and their effectiveness in protecting sensitive permafrost terrain. Conduct literature review, develop construction specifications and conduct field tests.

Approach Progress: Study underway. Note: A similar study was previously conducted at Norman Wells, N.W.T. in 1973.

Reports: Report on Norman Wells winter road research study, 1973. Snow and ice roads: ability to support traffic and effects on vegetation. K.M. Adam and H. Hernandez. 1977. Arctic 30 (1): 13-27.

Construction and testing of an ice aggregate work pad at Quill Creek testing facility (1981).

Time Frame: Scheduled completion - summer 1981.

Undertaken By: Interdisciplinary Systems Ltd., Winnipeg.

Funded by: For current study - Foothills Pipe Lines (Yukon) Ltd.
For 1973 study - Canadian Arctic Gas Study Ltd.

Contact: Dr. K.M. Adam Telephone: 204-453-3745
Interdisciplinary Systems Ltd.
966 Waverley Street
Winnipeg, Manitoba
R3T 4M5

Project: CANDIDATE NATURAL AREAS OF CANADIAN SIGNIFICANCE AND NATURAL SITES OF CANADIAN SIGNIFICANCE IN NATURAL REGION 8 AND IN NATURAL REGION 7.

Geographic Area: Region 8 - Mackenzie Mountains area in B.C., Yukon, N.W.T.
Region 7 - Northern Interior Plateau and Mountains in B.C., Yukon, N.W.T.

Objectives: Identify candidate Natural Areas and Natural Sites of Canadian Significance

Approach Progress: Completed

Reports: Report on Natural Areas of Canadian Significance and Natural Sites of Canadian Significance in Natural Region 7.

Report on Natural Areas of Canadian Significance and Natural Sites of Canadian Significance in Natural Region 8.

Time Frame: Completed December 1980.

Undertaken By: Interdisciplinary Systems Ltd., Edmonton.

Funded by: Parks Canada, Ottawa.

Contact: L.E. Hurwite Telephone: 819-994-3011
Dr. A. Garbutt
Interdisciplinary Systems Ltd.
107 Centre 104
5240 Calgary Trail
Edmonton, Alberta T6H 5G8

John A. Carruthers Telephone: 819-994-3011
Chief
National Parks System Division
Les Terrasses de la Chaudière
10 Wellington Street
Hull, Quebec

Project: ONSHORE IMPACTS OF OFFSHORE HYDROCARBON DEVELOPMENT: AN ANNOTATED BIBLIOGRAPHY.

Objectives: To bring together in one place a set of comments on articles, reports etc. ... relating to the onshore impacts of offshore hydrocarbon development - and which may be of interest and use in the Canadian situation.

Approach
Progress: Attention was focused on publication which raise substantive issues regarding onshore impacts and which make specific recommendations.

Reports: Report to the Federal Activities Assessment Branch, Policy Planning and Assessment Directorate, Environment Canada - March 31, 1981. Onshore impacts of offshore hydrocarbon development: An annotated bibliography.

Kwamera, Felix A., C. Brassard, and D. Wrisht. September 1981. Onshore Impacts of offshore hydrocarbon development: An annotated bibliography. Update.

Funded by: Federal Activities Assessment Branch Policy Planning and Assessment Directorate, Environment Canada.

Contact: R. Baker Telephone: 819-997-1731
Federal Activities Assessment Branch
Environment Canada
351 St. Joseph Blvd.
Place Vincent Massey
Hull, Quebec K1A 1C4

Project: UPTAKE AND RETENTION OF PETROLEUM HYDROCARBONS IN TISSUE OF BENTHOS.

Geographic Area: Cape Hatt, Northern Baffin Island.

- Objectives:
- a) To quantify the short-term uptake and retention of petroleum hydrocarbons in benthic fauna during an in-situ exposure to crude oil and chemically dispensed crude oil, and to provide a baseline for a long-term assessment of petroleum hydrocarbon retention.
 - b) To determine the correlation between petroleum hydrocarbon concentration in tissues and short/long-term population and physiological effects measures as part of other biological studies.
 - c) To determine the correlation between petroleum hydrocarbon concentration in the tissue to the concentrations measured in the exposure media (water and sediment samples).

Approach
Progress: Biological samples will be collected in at least three sampling periods, including a pre-spill sample. Three standardized sampling sites will be chosen in each of three test bags (control, surface oil treated, dispersed oil treated). The largest number of samples will be analyzed for petroleum hydrocarbon residues by spectrofluorescence. Pooled samples representative of index species, sampling time, and dosing conditions will be assayed by capillary gas chromatography-mass spectrometry methods.

A total of eight species, representative of several trophic levels and feeding habits will be assessed. Hydrocarbon loading will be correlated with toxic responses to treatment, in particular changes in community structure, physiological condition indices, and pathological damage.

Reports: The project will form a Baffin Island Oil Spill (BIOS) Project Report, and will also lead to one or two reviewed research papers published in the primary environmental biology literature.

- Time Frame:
- a) Experimental Phase - July to September 1981, with a follow-up sample in July or August 1982.
 - b) Analytical Phase - 6 months following the experimental phase(s).
 - c) Reports - 1st report ready by March 1982.

Project: POLAR GAS PROJECT
Environmental Statement - West Hudson Bay Route

Geographic Areas: Proposed Pipeline Route: Melville Island to Cornwallis Island via Bathurst Island; Barrow Strait; Somerset Island; Boothia Peninsula; to Longlac, Ontario via vicinities of Spence Bay and Baker Lake, NWT; Churchill, Manitoba; and Pickle Lake, Ontario.

Objectives: The Environmental Statement was prepared as part of an application to federal regulatory agencies for permission to build a natural gas pipeline from the Arctic Islands to southern Canada.

Approach/Progress: The Environmental Statement was submitted to the Department of Indian Affairs and Northern Development and to the National Energy Board in December, 1977. The application was subsequently withdrawn pending investigation of alternative routes. The Statement was prepared by Polar Gas staff with assistance from senior Biophysical consultants.

Reports: The Environmental Statement consists of the following: Volume V, Public Interest, Part A, Environmental Statement, 9 Chapters and Atlas.
Copies have been distributed to appropriate government agencies and the National Science Library.

Time Frame: Filed 1977, withdrawn 1979.

Undertaken By: Polar Gas staff and senior biophysical consultants.

Contact: K.G. Taylor, Supervisor
Environmental Programs
Polar Gas Project
P.O. Box 90,
Commerce Court West
Toronto, Ontario M5L 1H3

Project: POLAR GAS PROJECT
Socio-Economic Statement - West Hudson Bay Route

Geographic Areas: Proposed Pipeline Route: Melville Island to Cornwallis Island via Bathurst Island; Barrow Strait; Somerset Island; Boothia Peninsula; to Longlac, Ontario via vicinities of Spence Bay and Baker Lake, NWT; Churchill, Manitoba; and Pickle Lake, Ontario.

Objectives: The Socio-Economic Statement was prepared as part of an application to federal regulatory agencies for permission to build a natural gas pipeline from the Arctic Islands to southern Canada.

Approach/Progress: The Socio-Economic Statement was submitted to the Department of Indian Affairs and Northern Development, and to the National Energy Board in March, 1978. The application was subsequently withdrawn pending investigation of alternative routings. The Statements were written by Polar Gas staff with assistance of senior socio-economic consultants.

Reports: The Socio-Economic Statement consists of the following:

Volume V, Public Interest, Part B, Socio-Economic Statement, Northwest Territories, 7 Chapters and Table Supplement.

Volume V, Public Interest, Part C, Socio-Economic Statement, Manitoba and Ontario, 6 Chapters and Table Supplement.

Copies have been distributed to appropriate government agencies and the National Science Library.

Time Frame: Filed 1978; withdrawn 1979.

Undertaken By: Polar Gas staff and senior socio-economic consultants.

Contact: K.G. Taylor, Supervisor
Environmental Programs
Polar Gas Project
P.O. Box 90,
Commerce Court West
Toronto, Ontario M5L 1H3

Project: POLAR GAS PROJECT
Biophysical Research and Data Collection -
West Hudson Bay Route

Geographic Areas: Proposed Pipeline Route: Melville Island to Cornwallis Island via Bathurst Island; Barrow Strait; Somerset Island; Boothia Peninsula; to Longlac, Ontario via vicinities of Spence Bay and Baker Lake, NWT; Churchill, Manitoba; and Pickle Lake, Ontario.

Objectives: The Polar Gas Biophysical (Environmental) Research Program was designed to establish the data base essential for a comprehensive Environmental Statement on the effects of a proposed natural gas pipeline from the Arctic Islands to southern Canada.

Approach/Progress: Most studies were carried out by independent contractors under the general direction of the project's senior biophysical consultants.

Reports: A total of 63 reports were published during the program. All reports have been distributed to appropriate government agencies, regional special interest groups, the National Science Library, and selected research libraries across the country. Reports are also available from Polar Gas on request. See list of reports attached.

Time Frame: 1973-1978

Undertaken By: Consultants/Contractors to Polar Gas

Contact: K.G. Taylor, Supervisor
Environmental Programs
Polar Gas Project
P.O. Box 90,
Commerce Court West
Toronto, Ontario M5L 1H3

Project: POLAR GAS PROJECT
Biophysical Research and Data Collection -

Study 1973-1978
Reports:

1973 Pluritec Consultants Ltd. 1973. Physical Characteristics Section. Volume 1 - Annotated Bibliography. Volume 2 - Synthesis and Recommendations. Volume 2, 306 p.; Volume 2, 30 p.

Waltz, D. and L. Thibodeau. 1973. Ecological Vegetation Study. University of Montreal, Centre de Recherches Ecologiques de Montreal. 239 p.

Renewable Resources Consulting Services Ltd. 1973. Preliminary Land Mammal Study. 123 p.

Davis, R.A., C. Holdsworth, and W.J. Richardson. 1973. Present Ornithological Knowledge and Suggested Research Programs for the Polar Gas Pipeline Project. LGL Limited. Volume 1, Parts 1 and 2. 245 p. Volume 2.

T.W. Beak Consultants Ltd. 1973. Freshwater Resources. 39 p.

Lalli, C.M., R. Buchanan, D. Thomson and F. Wells, Jr. 1973. marine Ecology Report. McGill University, Office of Industrial Research, Marine Sciences Centre. 98 p.

1974 Montreal Engineering Co. Ltd. 1975. A Reconnaissance Biophysical Survey along the Proposed Route of the Polar Gas Pipeline on the Boothia Peninsula, Somerset Island, Cornwallis and Little Cornwallis Islands, NWT., 1974. 104 p.

Renewable Resources Consulting Services Ltd. 1974. A Study of Land Mammals in the High Arctic, 1974; a preliminary interim report. 107 p.

Renewable Resources Consulting Services Ltd. 1975. A Study of Land Mammals in the High Arctic, 1974; a supplement completing the interim report. 60 p.

Davis R.A., K. Finely, M. Bradstreet, C. Holdsworth, M. McLaren, and W.J. Richardson. 1975. Studies of the Numbers and Distribution of Birds in the Central Canadian Arctic 1974; a preliminary interim report. 2 volumes. LGL Limited. 102 p.

Davis, R.A., K. Finley, M. Bradstreet, C. Holdsworth, M. McLaren. 1975. Studies of the Numbers and Distribution of Birds and Marine Mammals in the Central Canadian Arctic, 1974. A supplement completing the interim report. LGL Limited. 205 p.

Sekerak, A.D. and F.F. Graves. 1975. Investigation of Aquatic Resources Along Proposed Polar Gas Pipeline Routes North of Spence Bay, N.W.T., 1974; a preliminary interim report. Aquatic Environments Ltd. 51 p. plus Appendices and Maps.

Sekerak, A.D. and F.F. Graves. 1975. Investigation of Aquatic Resources Along Proposed Polar Gas Pipeline Routes North of Spence Bay, N.W.T., 1974. 2 volumes. Aquatic Environments Ltd. 189 p.

Thomson, D. 1974. Marine Ecology. Preliminary interim report. McGill University, Marine Sciences Centre. 27 p.

Finley, K.J., R.A. Davis, and W.J. Richardson. 1974. Preliminary Studies of the Numbers and Distribution of Marine Mammals in the Central Canadian Arctic, 1974. LGL Limited. 68 p.

Thomson, D., S. Woods, and J. Acreman. 1975. Marine Ecology Survey in the Central Portion of the Canadian Arctic Islands, 1974. McGill University, Marine Sciences Centre. 77 p.

1975

Gubbe, D.M. (ed.) 1976. Landscape Survey, District of Keewatin, N.W.T., 1975. R.M. Hardy & Associates Ltd. 227 p.

Fischer, C.A., and E.A. Duncan. 1976. Ecological Studies of Caribou and Muskoxen in the Arctic Archipelago and Northern Keewatin, 1975. Renewable Resources Consulting Services Ltd. 194 p.

Alliston, W.G., M.S.W. Bradstreet, M.A. McLaren, R.A. Davis, and W.J. Richardson. 1976. Numbers and Distribution of Birds in the Central District of Franklin, N.W.T. June-August, 1975. 2 volumes. LGL limited. 583 p.

McLaren, P.L., R.A. Davis, W.E. Renaud, and C. Holdsworth. 1976. Studies of the Numbers and Distribution of Birds in the District of Keewatin, N.W.T. June-August, 1975. 2 volumes. LGL Limited. 591 p.

McLeod, C.L., P.J. Wiebe, and R.A. Mohr. 1976. An Examination of Aquatic Ecosystems in the Baker Lake - Lower Thelon River, N.W.T. Area in Relation to Proposed Polar Gas Pipeline Development. Renewable Resources Consulting Services Ltd. 68 p.

Sekerak, A.D., D. Thomson, H. Bain, and J. Acreman. 1976. Summer Surveys of the Marine Ecology of Creswell Bay, Somerset Island and Assistance Bay, Cornwallis Island, N.W.T. 1975. LGL Limited. 215 p.

Finley, K.J. Studies of the Status of Marine Mammals in the Central District of Franklin, N.W.T., June-August, 1975. LGL Limited. 183 p.

Alliston, W.G. 1976. A Summary of Research on Birds, Marine Mammals and Marine Ecology in the Districts of Franklin and Keewatin, N.W.T., 1974 and 1975. LGL Limited. 90 p.

1976

Kolomeychuk, R.J. 1977. Determination of Gaseous Emissions from Polar Gas Activities and Facilities. Dames and Moore.

Steen, O.A. (ed.) 1977. Landscape Survey, district of Franklin, N.W.T., 1976. R.M. Hardy & Associates Ltd.

James, D.A. (ed.) 1977. Landscape Reconnaissance, Provinces of Manitoba and Ontario, 1976. R.M. Hardy & Associates Ltd.

Nicholson, W. and W. Younkin. 1977. Preliminary Reclamation Studies. R.M. Hardy & Associates Ltd.

Fischer, C.A., D.C. Thompson, R.L. Wooley and P.S. Thomspen. 1977. Ecological Studies of Caribou on the Boothia Peninsula and in the District of Keewatin, N.W.T., 1976. Renewable Resources Consulting Services Ltd.

Fischer, C.A., G.L. Fisher, G.H. Klassen and D.C. Thompson. 1977. Studies of Moose and Woodland Caribou in Northeastern Manitoba and Northwestern Ontario. Renewable Resources Consulting Services Ltd.

Thompson, P.S. and C.A. Fischer. 1977. Studies of Furbearers in Northeastern Manitoba and Northwestern Ontario. Renewable Resources Consulting Services Ltd.

McLaren, P.L., M.A. McLaren and L.A. Patterson. 1977. Numbers and Distribution of Birds during Migration in the District of Keewatin, Northern Manitoba and Northwestern Ontario, 1976. LGL Limited. 283 p.

McLaren, M.A., P.L. McLaren, and W.G. Alliston. 1977. Bird Populations in the Rasmussen Basin Lowlands, N.W.T., June-September 1976. LGL Limited.

Bradstreet, M.S.W. 1977. Feeding Ecology of Seabirds Along Fast-Ice Edges in Wellington Channel and Resolute Passage, N.W.T. LGL Limited. 149 p.

Bradstreet, M.S.W. and K.J. Finley. 1977. Distribution of Birds and Marine Mammals Along Fast-Ice Edges in Barrow Strait, N.W.T. LGL Limited.

Hatfield, C.T., G.R. Peterson, W. Bengeyfield, G.L. Williams and G.M. Smith. 1977. Survey of Selected Living Aquatic Resources Along the Proposed Polar Gas Pipeline Route from Spence Bay, N.W.T., to Longlac, Ontario 1976. 3 volumes. Hatfield Consulting Limited. 117 p.

Bain, H., D. Thomson, M. Foy and W. Griffiths. 1977. Marine Ecology of Fast-Ice Edges in Wellington Channel and Resolute Passage, N.W.T. LGL Limited. 262 p.

Sekerak, A.D. and W.J. Richardson. 1978. Studies of the Ecology of Fast-Ice Edges in the High Arctic. LGL Limited.

Finley, K.J. and G. Johnston. 1977. An Investigation of the Distribution of Marine Mammals in the Vicinity of Somerset Island with Emphasis on Bellot Strait, August-September 1976. LGL Limited. 89 p.

Polar Gas Project. 1978. Wildlife Habitat Map Series.

Peterson, E.B. 1977. Environmental Overview of the Winnipeg Alternative, Polar Gas Project. Part 1 - Annotated Bibliography, Part 2 - Analysis and Summary. Western Ecological Services Ltd. Part 1, 331 p. Part 2, 13 p.

Scheledermann, P. and R.J. Nash. 1977. Archaeological Overview of the Regions Along the Proposed Polar Gas Pipeline Route. The Arctic Institute of North America. 192 p.

Polar Gas Project. 1977. Land Use Atlas. Melville Island, Northwest Territories to Longlac, Ontario.

Collins, D.H. 1977. Palaeontological Sites and Areas Within the Vicinity of the Polar Gas Route. Royal Ontario Museum.

1977

Nicholson, W.E., D.L. Johnson and W.E. Younkin. 1978. Preliminary Reclamation Studies Polar Gas Project, 1977. R.M. Hardy and Associates Ltd.

James, D.A. (ed.) 1978. Landscape Survey Province of Ontario, 1977. R.M. Hardy and Associates Ltd.

Reid, D.A. and D.M. Gubbe. 1978. Landscape Survey, Province of Manitoba. R.M. Hardy and Associates Ltd.

Thompson, D.C., G.H. Klassen, C.A. Fischer. 1978. Ecological Studies of Caribou in the Southern District of Keewatin, 1977. Renewable Resources Consulting Services Ltd.

McLaren, P.L. and M.A. McLaren. 1978. Studies of Terrestrial Bird Populations in Northwestern Ontario and Northern Manitoba, June 1977. LGL Limited.

McLaren, P.L. and C. Holdsworth. 1978. summer Bird Populations in the Pitz Lake-Baker Lake Area, District of Keewatin, N.W.T. LGL Limited.

McLaren, P.L. 1978. Summer Bird Populations in Chesterfield Inlet, District of Keewatin, N.W.T. LGL Limited.

Alliston, W.G. and L.A. Patterson. 1978. A Preliminary Study of Peregrine Falcon Populations in the Polar Gas Area, Districts of franklin and Keewatin, N.W.T. LGL Limited.

Patterson, L.A. and W.G. Alliston. 1978. Breeding Bird Surveys at Selected Sites on Southern Somerset Island and Boothia Peninsula, July 1977. LGL Limited.

Bain, H. and A.D. sekerak. 1978. Aspects of the Biology of Arctic Cod (*Boreogauds saida*) in the central Canadian Arctic. LGL Limited.

Thomson, D., Wm.E. Cross, H. Bain and L. Patterson. 1978. Aspects of the Spring and Summer Marine Environment of Brentford Bay, Boothia Peninsula, N.W.T. LGL Limited.

Salter, R.E. 1978. Normal Behaviour and Disturbance Responses of Walruses (*Odobenus rosmarus* L.) During Terrestrial Haul-Out, Eastern Bathurst Island, N.W.T., July-August 1977. LGL Limited.

Davis, R.A., W.R. Koski and K.J. Finley. 1978. Numbers and Distribution of Walruses in the Central Canadian High Arctic. LGL Limited.

Finley, K.J. 1978. Behaviour and Densities of Ringed Seals (*Phoca hispida*) During Haul-Out in the High Arctic, June 1977. LGL Limited.

Hatfield, C.T., G.R. Peterson, Wm. Bengeyfield, G.L. Williams, G.M. Smith and M.B. Winsby. 1978. Survey of Selected Living Aquatic Resources Along the Proposed Polar Gas Pipeline Route from Melville Island, N.W.T. to Longlac, Ontario. 1977. 3 volumes. Hatfield Consulting Limited.

Peterson, G.R., G.M. Smith and L. Bodnaruk. 1978. Some Short-Term Effects of Experimental Trenching On Two Streams in the Caribou River Drainage, Manitoba, 1977. Hatfield Consulting Limited and Northwest Hydraulic Consultants Ltd.

Schledermann, P. 1978. Distribution of Archaeological Sites in the Vicinity of the Proposed Polar Gas Pipeline and Staging Areas, N.W.T. The Arctic Institute of North America.

Kolomeychuk, R.J. 1978. Noise Level and Ground Vibration Measurements During Polar Gas Construction Methods Program. The Environmental Applications Group Limited.

Peterson, E.B. 1978. Environmental and Land use Comparisons of Alternative Routes. Polar Gas project. Western Ecological Services Ltd.

Project: POLAR GAS PROJECT
Socio-Economic Research and Data Collection -
West Hudson Bay Route

Geographic Areas: Proposed Pipeline Route: Melville Island to Cornwallis Island via Bathurst Island; Barrow Strait; Somerset Island; Boothia Peninsula; to Longlac, Ontario via vicinities of Spence Bay and Baker Lake, NWT; Churchill, Manitoba; and Pickle Lake, Ontario.

Objectives: The Polar Gas Socio-Economic research program was designed to establish the data base essential for a comprehensive Socio-Economic Statement on the effects of a proposed natural gas pipeline from the Arctic Islands to southern Canada.

Approach/Progress: Most studies were carried out by independent contractors under the general direction of the project's senior socio-economic consultants.

Reports: A total of 21 reports were published during the program. All reports have been distributed to appropriate government agencies, regional special interest groups, the National Science Library, and selected research libraries across Canada. Reports are also available from Polar Gas on request. See list of reports attached.

Time Frame: 1973-1978

Undertaken By: Consultants/Contractors to Polar Gas

Contact: K.G. Taylor, Supervisor
Environmental Programs
Polar Gas Project
P.O. Box 90,
Commerce Court West
Toronto, Ontario M5L 1H3

Study 1973-1978
Reports:

1973 Gourdeau, E. 1973. Notes on the Human Setting in the Area to be Traversed by a Proposed Polar Gas Pipeline Going from Ellef Ringnes Island to Southern Markets. The Arctic Institute of North America.

1976 Freyman, A.J. and I.D. Wilson. 1977. Mineral Exploration and Development in the Central Arctic - Keewatin Region. Recent Trends and Future Situation with and Without the Polar Gas Project. Minec-Consult Ltd.

* Hobart, C.W. 1977. Staffing Recommendations for the Polar Gas Pipeline. Hobart, Walsh and Associate Consultants Limited.

Kemp, W.B., G. Wenzel, N. Jensen and E. Val. 1977. The Communities of Resolute and Kuvinaluk: A Social and Economic Baseline Study. McGill University, Office of Industrial Research.

Govier, G.T. and R.E. Mayne. 1977. Settlements of the Central Arctic - Keewatin Region: Community Profiles and Regional Hierarchies. 2 volumes. Underwood McLellan & Associated Ltd.

Merrett, J.S. 1977. State-of-the-Art Review of Experience to Date in Assessing the Socio-economic Effects of Northern Pipeline Projects as of Mid-1976. M.P.S. Associates Ltd.

Stager, J.K. 1977. Baker Lake, N.W.T. A Background Report of its Social and Economic Development. University of British Columbia.

Taunton, G.F. and R.W. Fenton. 1977a. Background Information on the Resource Harvesting Economy in the Polar Gas Study Region, Northwest Territories, 1976. InterGroup Consulting Economists Ltd.

Taunton, G.F. and R.W. Fenton. 1977b. Labour Force, Employment and Income Information for the Polar Gas Study Region, Northwest Territories, 1976. InterGroup Consulting Economists Ltd.

* This report was not printed.

Williamson, R.G. 1977. The Boothia Peninsula People: Social Organization in Spence Bay, N.W.T. University of Saskatchewan, Institute for Northern Studies.

1977

Hobart, C. 1978. Work Aspirations and Physical Mobility Interests of Young Inuit in Gjoa Haven, N.W.T. Hobart, Walsh and Associate Consultants Limited.

Irwin, N.A. (Study Director). 1978. Socio-Economic Baseline study of Northwestern Ontario. 2 volumes. IBI Group.

Knowles, J.A. (Study Director). 1978. Socio-Economic Analysis and Projections for Gillam, Bird and Sundance. Underwood McLellan (1977) Ltd.

McEachern, John. 1978. A Survey of Resource Harvesting, Eskimo Point, N.W.T., 1975-1977. Quest Socio-Economic Consultants Inc.

McIlveen, D. 1978. Preliminary Study of Resource Harvesting in Areas Along the Polar Gas Route in Northeastern Manitoba and Northwestern Ontario, 1977. D. McIlveen.

McSkimming, R. and J.K. Stager. 1978. Chesterfield Inlet, N.W.T. A Background Report on its Social and Economic Development. Dove Inc. Research and Consulting; Univeristy of British Columbia.

Martin, P. 1978. Nakina-Aroland Socio-Economic Analysis and Projections. M.M. Dillon Limited.

Martin, P. 1978. Pickle Lake - Savant Lake Socio-Economic Analysis and Projections. M.M. Dillon Limited.

Owen, T. (Study Director). 1978. Northwestern Ontario Socio-Economic Analysis and Projections. IBI Group.

Paulson, P.M., P.U. Rutgers and M. Strong. 1978. Northern Manitoba: Socio-Economic Projections, 1977-1991. Strong Hall & Associated Ltd.

Taunton, G.F. 1978. Baseline Socio-Economic Profile of Northern Manitoba. InterGroup Consulting Economists Ltd.

Project: POLAR GAS PROJECT
Environmental Statement - "Y" Line to Longlac Route

Geographic Areas: Proposed Pipeline Route: A lateral from Melville Island to the vicinity of Coppermine via M'Clure Strait, Victoria Island, and Dolphin and Union Strait; a lateral from the Mackenzie Delta/Beaufort Sea to the vicinity of Coppermine; a main line from the vicinity of Coppermine to Longlac, Ontario, via the vicinities of Artillery Lake, NWT; Gillam, Manitoba; and Pickle Lake, Ontario.

Objectives: An Environmental Statement is being prepared as part of an anticipated application to government regulatory agencies for permission to build a natural gas pipeline from the Arctic Islands and the Mackenzie Delta to southern Canada.

Approach/Progress: A draft Environmental Statement is well advanced. Work is being carried out by Polar Gas staff and consultants.

Reports: Not yet available.

Time Frame: Filing of application anticipated 1983.

Undertaken By: Polar Gas staff assisted by senior socio-economic consultants

Contact: K.G. Taylor, Supervisor
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Toronto, Ontario M5L 1H3

Project: POLAR GAS PROJECT
Socio-Economic Statement - "Y" Line to Longlac Route

Geographic Areas: Proposed Pipeline Route: A lateral from Melville Island to the vicinity of Coppermine via M'Clure Strait, Victoria Island, and Dolphin and Union Strait; a lateral from the Mackenzie Delta/Beaufort Sea to the vicinity of Coppermine; a main line from the vicinity of Coppermine to Longlac, Ontario, via the vicinities of Artillery Lake, NWT; Gillam, Manitoba; and Pickle Lake, Ontario.

Objectives: A Socio-Economic Statement is being prepared as part of an anticipated application to government regulatory agencies for permission to build a natural gas pipeline from the Arctic Islands and the Mackenzie Delta to southern Canada.

Approach/Progress: A draft Socio-Economic Statement is well advanced. Work is being carried out by Polar Gas staff and consultants.

Reports: Not yet available.

Time Frame: Filing of application anticipated 1983.

Undertaken By: Polar Gas staff assisted by senior socio-economic consultants

Contact: K.G. Taylor, Supervisor
Environmental Programs
Polar Gas Project
P.O. Box 90,
Commerce Court West
Toronto, Ontario M5L 1H3

Project: POLAR GAS PROJECT
Biophysical Research and Data Collection -
"Y" Line to Longlac

Geographic Areas: Proposed Pipeline Route: A lateral from Melville Island to the vicinity of Coppermine via M'Clure Strait, Victoria Island, and Dolphin and Union Strait; a lateral from the Mackenzie Delta/Beaufort Sea to the vicinity of Coppermine; a main line from the vicinity of Coppermine to Longlac, Ontario, via the vicinities of Artillery Lake, NWT; Gillam, Manitoba; and Pickle Lake, Ontario.

Objectives: The Polar Gas Biophysical (Environmental) Research Program was designed to establish the data base required for an Environmental Statement on the effects of a proposed natural gas pipeline from the Arctic Islands and the Mackenzie Delta to southern Canada.

Approach/Progress: Studies were carried out by independent contractors under the general direction of the project's senior biophysical consultants. The field program in 1980/81 focussed on Victoria Island and the region north of Great Bear Lake.

Reports: A total of 13 reports have been published to date. All reports have been distributed to appropriate government agencies, regional special interest groups, the National Science Library, and selected research libraries across Canada. A limited number of copies are also available on request from Polar Gas. See list of reports attached.

Time Frame: Beginning 1979; continuing.

Undertaken By: Consultants/Contractors to Polar Gas

Contact: K.G. Taylor, Supervisor
Environmental Programs
Polar Gas Project
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Toronto, Ontario M5L 1H3

Project: POLAR GAS PROJECT
Biophysical Research and Data Collection -
"Y" Line to Longlac

Study 1979-1982
Reports:

1979 Peterson, E.B. and V.M. Levson. 1979. Environmental Overview of a Possible Polar Gas "Y" Line. Part 1 - Annotated Bibliography, Part 2 - Analysis and Summary. Western Ecological Services Ltd. Part 1, 494 p. Part 2, 38 P.

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- Notes on Caribou Distribution, Abundance and Use in the Northwest Territories, 1933-1949. A.W.F. Banfield.
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Project: POLAR GAS PROJECT
Socio-Economic Research and Data Collection -
"Y" Line to Longlac

Geographic Areas: Proposed Pipeline Route: A lateral from Melville Island to the vicinity of Coppermine via M'Clure Strait, Victoria Island, and Dolphin and Union Strait; a lateral from the Mackenzie Delta/Beaufort Sea to the vicinity of Coppermine; a main line from the vicinity of Coppermine to Longlac, Ontario, via the vicinities of Artillery Lake, NWT; Gillam, Manitoba; and Pickle Lake, Ontario.

Objectives: The Polar Gas Socio-Economic Research Program was designed to establish the data base required for a Socio-Economic Statement on the effects of a proposed natural gas pipeline from the Arctic Islands and the Mackenzie Delta to southern Canada.

Approach/Progress: Studies were carried out by independent contractors and in-house under the general direction of the project's senior socio-economic consultants. Data has been collected for all communities in the vicinity of the route; studies on resource harvesting have been completed for Victoria Island and Manitoba/Ontario.

Reports: Two reports have been published to date, and have been distributed to appropriate government agencies, regional special interest groups, the National Science Library, and selected research libraries across Canada. A limited number of copies are also available on request from Polar Gas. Community profile data collected in-house will be published as part of the Socio-Economic Statement and is not yet available. See list of reports attached.

Time Frame: Beginning 1979; continuing.

Undertaken By: Consultants/Contractors to Polar Gas

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Project: POLAR GAS PROJECT
Socio-Economic Research and Data Collection -

Study
Reports: 1979-1982

1980 Jacobson, Roy. 1980. Land Use for Resource Harvesting on Victoria Island, Northwest Territories. Kluane Consulting.

1981 Levson, V.M. and Kabzems, R.D. 1981. Renewable Resource Harvesting Along the Proposed Polar Gas Combined Pipeline System in Manitoba and Ontario. Western Ecological Services (B.C.) Limited, Sidney. Report to Polar Gas Project.

In
Preparation Polar Gas Project. Community Profiles and Data Tables: Communities in the vicinity of the Proposed "Y" Line Route to Longlac. To be published as a Supplement to a Socio-Economic Statement.

Project: PRELIMINARY ENVIRONMENTAL ASSESSMENT OF PROPOSED HARBOUR SITES AT MCKINLEY BAY AND BAILLIE ISLANDS.

Geographic Areas: McKinley Bay, Baillie Islands, Beaufort Sea.

Objectives: Assess potential impacts of harbour development on migratory birds and their habitat.

Approach/Progress: Aerial breeding and moulting bird surveys were flown. Ground observations of migratory bird use were made. Vegetation communities were sampled and mapped with the aid of aerial photos. Potential impacts of harbour development and operation on migratory bird use of habitat was assessed. Guidelines for harbour development were recommended.

Reports: Karasiuk, D.J. and P.N. Boothroyd. 1981. Preliminary environmental assessment of proposed harbour sites at McKinley Bay and Baillie Islands, Northwest Territories. Unpublished Canadian Wildlife Service Report. In preparation.

Time Frame: Initial work completed in 1980. Monitoring of McKinley Bay carried out in 1981 (by other personnel). Further monitoring planned for 1982.

Undertaken By: Canadian Wildlife Service, Western and Northern Region
Research Personnel: D.J. Karasiuk, P.N. Boothroyd

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Winnipeg, Manitoba
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