

**STAFF ANALYSIS  
OF THE  
NORTH AMETHYST SATELLITE TIE-BACK  
BENEFITS PLAN**

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## **1.0 PURPOSE**

The purpose of this analysis is to make a recommendation to the Board with respect to Husky's North Amethyst Satellite Tie-back Canada – Newfoundland and Labrador Benefits Plan (the Benefits Plan). This staff analysis considered the Benefits Plan, as well as comments from governments with respect to the Benefits Plan.

According to 45(2) of the Acts, the Board shall approve a Benefits Plan prior to approving a Development Plan. Therefore, in this instance the Board will review and make a decision on the North Amethyst Benefits Plan prior to making a decision with respect to the associated Development Plan.

## **2.0 EXECUTIVE SUMMARY**

Staff has reviewed and analyzed Husky's North Amethyst Benefits Plan submitted in support of developing the North Amethyst Satellite Tie- Back.

The staff review and analysis included a Web Based public consultation and direct solicitation of comments from the Provincial and Federal governments. Feedback from these consultations was considered in the course of the staff review.

Staff recommends that the North Amethyst Benefits Plan be approved. Board staff will monitor the commitments set forth by Husky in its Benefits Plan. In addition, Board staff will continue to monitor and report contracting and employment opportunities to ensure this information is shared with the public in a timely manner.

### **3.0 BACKGROUND**

#### **3.1 The Application**

On August 14, 2007, Husky Oil Operations Limited (Husky) submitted to the Canada-Newfoundland and Labrador Offshore Petroleum Board (the Board) an Application to develop the North Amethyst field consisting of the following documents:

- North Amethyst Satellite Tie-back Development Plan and the White Rose Development Plan Amendment (August 2007); and
- North Amethyst Satellite Tie-back Canada – Newfoundland and Labrador Benefits Plan (August 2007).

The proposed mode of development consists of a subsea tie-back to the SeaRose FPSO through the existing subsea infrastructure for White Rose.

The capital cost estimate for the development is approximately \$1.5 billion, including \$705 million to drill and complete seven to ten wells. Husky estimates recoverable reserves to be 70 million barrels on a P50 basis.

The Application (including the Benefits Plan) was sent to governments on August 17, 2007. Board staff reviewed the North Amethyst Benefits Plan and requested additional information in a letter dated September 18, 2007. Husky responded with additional information on November 6, 2007, and this information was distributed to governments on November 19, 2007. Also, on December 5, 2007, the Board wrote to governments and formally requested feedback with respect to the Benefits Plan. The Government of Canada responded on January 3, 2008.

There was a web based public review of the Application during the period November 30, 2007 to January 7, 2008. There were no comments received from the public review process.

### **3.2 History/Context**

#### **White Rose**

The White Rose Field was discovered in 1984. White Rose currently uses a Floating, Production, Storage and Offloading (FPSO) facility and associated subsea wells to produce hydrocarbons from the Southern Avalon portion of the field. Oil production began in November 2005. To date, 18 wells have been drilled and completed. The base production profile for the White Rose Development predicts that the SeaRose FPSO will begin to reach the end of plateau production in 2008. Thus, Husky has submitted its Application for North Amethyst, in order to avail of spare production capacity on the SeaRose FPSO.

#### **North Amethyst**

As a part of its Benefits Plan submission (Husky Benefits Plan, Appendix 1, Alternative Modes of Development) in August 2007, Husky investigated two alternatives for the development of the North Amethyst field – a subsea tie-back to the existing SeaRose FPSO, or a subsea tie-back to a new ship-shaped FPSO. The investigation concluded that a tie-back to the SeaRose FPSO was the preferred solution for the North Amethyst field.

For the preferred solution, Husky proposed two options to develop the North Amethyst Satellite Tie-back - by way of dedicated flowlines and risers terminating at the FPSO spider buoy (Option A), or by tie-back to the existing Southern Drill Centre (Option B).

As part of the Board's Completeness Review, Husky further indicated in its response to the Board on November 6, 2007 that it had selected Option B for development of North

Amethyst i.e. tie-back to the SeaRose FPSO via the existing Southern Drill Centre, with first oil in late 2009.

Essentially, the North Amethyst Development will consist of a Glory Hole (already excavated) with a capacity of up to 16 wells, a drill centre (the North Amethyst Drill Centre) consisting of various subsea equipment, dedicated flowlines and umbilicals, and drilling and completions of seven to ten wells. There will also be minor modifications required on the SeaRose, mainly in the area of chemical injection and storage, and controls software.

Clarification provided in correspondence from Husky in February 2008 confirmed that planned SeaRose topsides modifications are not required. This determination followed completion of FEED engineering, flow assurance studies and economic analysis.

#### **4.0 CANADA-NEWFOUNDLAND AND LABRADOR BENEFITS**

##### **4.1 Introduction**

Board staff reviewed the document titled “North Amethyst Satellite Tie-back Canada-Newfoundland and Labrador Benefits Plan”. This document has been assessed in accordance with the Board’s Canada-Newfoundland and Labrador Benefits Plan Guidelines (February 2006), and section 45 of the Legislation.

Section 45(1) of the Legislation defines a Benefit Plan as a plan for the employment of Canadians and, in particular, members of the labour force of the Province and, subject to paragraph (3)(d), for providing manufacturers, consultants, contractors and service companies in the Province and other parts of Canada with a full and fair opportunity to participate on a competitive basis in the supply of goods and services used in any proposed work or activity referred to in the benefits plan.

Section 45(3) provides that a benefits plan shall contain provisions intended to ensure that:

- (a) before carrying out any work or activity in the offshore area, the corporation or other body submitting the plan shall establish in the Province an office where appropriate levels of decision-making are to take place (para 45(3)(a));
- (b) consistent with the Canadian Charter of Rights and Freedoms, individuals resident in the Province shall be given first consideration for training and employment in the work program for which the plan was submitted and any collective agreement entered into by the corporation or other body submitting the plan and an organization of employees respecting terms and conditions of employment in the offshore area shall contain provisions consistent with this paragraph (para 45(3)(b));
- (c) expenditures shall be made for research and development to be carried out in the Province and for education and training to be provided in the province (para 45(3)(c)); and
- (d) first consideration shall be given to services provided from within the Province and to goods manufactured in the Province, where those services and goods are competitive in terms of fair market price, quality and delivery (para 45(3)(d)).

Section 45(4) provides that the Board may require that any benefits plan include provisions to ensure that disadvantaged individuals or groups have access to training and employment opportunities and to enable such individuals or groups or corporations owned or cooperatives operated by them to participate in the supply of goods and services used in any proposed work or activity referred to in the benefits plan (ss 45 (4)).

## 4.2 Statutory Requirements

Section 4.0 of Husky's Benefits Plan refers to Statutory Requirements. Husky's commitments in this regard are discussed in some detail in subsections 4.1 to 4.7.

In subsection 4.1, Husky recognizes the Accord Acts; and supports the right of the Province to be the principal beneficiary of offshore oil and gas resources. Husky notes that its own Benefits Guidelines which were adopted for White Rose have been incorporated into its Benefits Reporting and Procedures Manual which will be applicable for Husky's contracting process; Husky also notes that the policies and procedures contained in the original White Rose Canada-Newfoundland Benefits Plan remain in place for current and future activity.

Board staff reviewed subsections 4.2 to 4.7 in detail. Some of the areas which Husky notes are:

- Regarding the principle of Office in the Province, high level decision-making with respect to the project will occur locally;
- Key functions (project management, engineering, procurement, reservoir engineering etc.) will be performed in the Province;
- Benefits will be a factor in procurement;
- Project information will be provided to the supply community in a timely manner;
- Project management, Front End Engineering Design (FEED) and detailed engineering for the North Amethyst project will take place in the Province;
- First consideration for employment and training to residents of the Province;
- Contractors and subcontractors must adhere to Husky's benefits philosophy;
- Full and fair opportunity to goods and service providers in the Province and in Canada;

- Husky commits to making Research and Development and Education and Training expenditures consistent with the C-NLOPB Guidelines; and
- The White Rose Diversity Plan will apply to the North Amethyst Satellite Tie-Back Project etc.

Following an assessment of these areas, Board staff concluded that subsection 45.1 of the legislation (full and fair opportunity), subsection 45(3)(a) (office in the province), subsection 45(3)(b) (first consideration for employment), subsection 45(3)(c) (research and development & education and training in the province) and subsection 45(4) (disadvantaged individuals or groups), were adequately addressed by Husky.

However, subsection 45(3)(d) (first consideration for goods and services) was not adequately addressed by Husky. The Board noted this deficiency in its September 18, 2007 letter to Husky following the conclusion of the completeness review of the Benefits Plan by Board staff. Specifically, Board staff indicated to Husky that:

“Although this principle (first consideration for goods and services) is addressed in Husky’s Canada-Newfoundland and Labrador Guidelines located in Appendix 3 of its Benefits Plan submission, this fundamental principle should be addressed by Husky in the main body of its Benefits Plan.”

Husky responded with the following supplemental information on November 6, 2007:

“Husky fully supports the principle of Full and Fair opportunity and First Consideration for Newfoundland companies and individuals related to any procurement opportunities which may arise from the development North Amethyst tie-back. Husky is committed to providing first consideration to Newfoundland companies and individuals with respect to any procurement opportunities that are identified during the development and production phase of this project.”

Following a review of this information, Board staff has concluded that this area is now adequately addressed by Husky.

### **4.3 Policies and Procedures**

Section 5.0 of Husky's Benefits Plan refers to Policies and Procedures with respect to Project Management, Supplier Development, Procurement and Contracting Strategy, Employment and Training, Research and Development, and Disadvantaged Individuals and Groups.

#### **Project Management**

Husky indicates that the project management team will be located in Newfoundland and Labrador. Husky also recognizes the maturity and experience of the local engineering community and will attempt to engage local engineering services, e.g. contracting out, etc.

#### **Supplier Development**

Some of the supplier development initiatives proposed by Husky are as follows:

- Bid lists and quarterly procurement forecasts will be posted on Husky's website and in the NOIA Bulletin;
- Expressions of Interest (EOIs) and Requests for Proposals (RFPs) will be posted on Husky's website, in NOIA Bulletins, as well as newspapers such as the Telegram;
- Supplier development information sessions will be held;
- Husky will continue to attempt to identify areas of technology transfer; and
- In January 2007, Husky visited the offices of several potential bidders for fabrication of subsea equipment.

## **Procurement and Contracting Strategy**

Husky will continue to conduct procurement and contacting strategies which were used during the White Rose development. These include strategies such as release of contracting information on a timely basis, location of procurement offices by Husky and its contractors in the Province, and listing of local procurement contact names on Husky's website and the media such as the NOIA Bulletin. Also, all Husky contractors will be provided with Husky's Benefits Guidelines and Benefits Reporting and Procedures Manual.

Husky also notes that some contracts previously awarded for White Rose work contain options to extend contracts for North Amethyst work. Some of these services include marine support vessels, helicopter support services, shorebase facilities, warehouse facilities, communications, and various drilling and completions services. Board staff is satisfied that the principle of full and fair opportunity was exercised when these contracts were originally awarded.

## **Employment and Training**

Some of the highlights of employment and training initiatives proposed by Husky include:

- First consideration for employment for residents of the Province;
- Project recruitment will be carried out locally;
- Succession plans will be established, whenever possible, for positions filled by foreign residents due to the unavailability of qualified Newfoundland and Labrador and Canadian residents;
- Husky will work with government departments and training institutions to identify and develop relevant training programs if required. Whenever feasible, training programs will take place locally;

- Husky is represented on the provincial Skills Task Force and the federal Skills Canada organization. These groups are involved in evaluating the demand for skilled trades in the Province; and
- In June 2007, Husky contributed \$500,000 to the Husky Energy Oil and Gas Chair at MUN.

Other than Husky's commitment to establish succession plans, Board staff has noted that Husky does not discuss its strategy for the development of a Human Resource Plan for the operations phase. The Board noted this deficiency in its September 18, 2007 letter to Husky following the conclusion of the completeness review of the Benefits Plan by Board staff. Husky responded on November 6, 2007 that:

“As stated in Section 6.2 of the Benefits Plan, employment and procurement opportunities in the production phase will be limited to incremental activities related to subsea inspection and maintenance workovers associated with wellhead equipment and subsea lines. The additional reserves from North Amethyst will be used to offset declining production from the original White Rose field and as such will not require additional personnel. Essentially, North Amethyst will allow the SeaRose to produce at peak capacity for a longer period of time thereby providing stable employment for the existing complement of offshore and onshore personnel for an additional 2 to 3 years. Based on this assessment it was felt that a separate Human Resources plan was not required for the North Amethyst Tieback Development.”

Board staff has accepted Husky's approach as reasonable.

### **Research and Development**

Husky will continue to support and consider the use of local and national R&D facilities. As previously mentioned, Husky has committed to adhere to the Board's R&D Guidelines.

## **Disadvantaged Individuals and Groups**

Husky will continue to implement the White Rose Diversity Plan for North Amethyst. The plan applies to Husky and all contractors and sub-contractors.

### **4.4 Capacity of Newfoundland and Labrador and Canadian Economies**

The Board's Guidelines require an operator to provide an analysis of the potential for Newfoundland and Labrador companies to participate in the provision of goods and services for a project. Similarly, an operator must provide an analysis of the labour force to meet the employment needs of the project.

#### **Construction Phase Employment**

For North Amethyst, Husky hired the local engineering firm PSN to conduct a local fabrication capacity and labour market availability study, which appears as Appendix VI in Husky's Benefits Plan submission. In addition to the North Amethyst Development, the study evaluated other major potential construction projects (e.g. Lower Churchill, Long Harbour Hydromet plant, Hebron and a new oil refinery in Placentia Bay) which could occur during the development of North Amethyst, and the impact of these projects on the availability of labour and fabrication facilities.

The study concluded that for the most part the demand for labour and facilities can be met within the Province. However, in the case of all projects proceeding concurrently, there would likely be a shortage in trades such as insulators, coatings applicators, and electrical and instrumentation specialists. Husky has indicated that it will monitor the status of these projects, and should a number of these projects proceed at the same time, then a contingency plan will be developed to address potential trades shortfalls.

In addition to the PSN study, subsection 6.1.2 discusses construction phase employment opportunities for the North Amethyst Satellite Tie-back. In general, new employment opportunities will occur in the areas of engineering and project management, development drilling, subsea fabrication, testing and installation activities, and logistics (e.g. additional supply vessels). For example, in the Fall of 2007, Husky's engineering services contractor AKCS increased its staffing levels to 126 persons to undertake FEED work for satellite fields surrounding the White Rose field.

Subsea fabrication activity would create opportunities for trades such as welders, pipefitters, ironworkers, electricians, instrumentation technicians, mechanical trades, sheet metal workers, carpenters, insulators etc. Testing and installation activity will require inspectors, marine personnel, divers etc.

Board staff noted that Husky did not project the demand for labour, in person-hours and persons, for each major component of the preferred production system, by skill classification in accordance with Canada's National Occupation Codes (NOC), as per the Board's guidelines. This was communicated to Husky during the Board's completeness review, and the information was subsequently supplied by Husky in its November 6, 2007 to the Board.

In terms of the peak demand for labour, Husky has indicated in subsequent correspondence (e-mail of February 8, 2008) that for the construction phase years 2008 and 2009, employment will peak at 350 to 400 persons. In 2008, the majority of increased employment can be attributed to engineering and project management (75 persons), development drilling (150 persons) and subsea fabrication (140 persons). In 2009, increases in employment can be attributed mainly to engineering and project management (75 persons), development drilling (150 persons) marine operations (160 persons).

In addition to new employment opportunities, employment will also be extended in the areas of operations and logistics.

Husky estimates a total of 1,660,000 hours of employment to occur locally for its preferred development scenario (Option B).

Board staff has noted that Husky did not provided an estimate of the hours that will be performed in the rest of Canada, internationally and total hours. The Board noted this deficiency in its September 18, 2007 letter to Husky following the conclusion of the completeness review of the Benefits Plan by Board staff. Husky responded on November 6, 2007 with the following information with respect to Option B:

<b>North Amethyst Tie-back Estimated Person Hours Option B (Preferred Solution)</b>				
<b>Project Component</b>	<b>Total Employment</b>	<b>NL Employment</b>	<b>Other Canadian</b>	<b>Foreign Employment</b>
Engineering/PM	350,000	350,000	0	0
FPSO Modifications	0	0	0	0
Subsea Production System	281,000	180,000	1,000	100,000
Drilling and Completions	929,000	900,000	25,000	4,000
Logistics	200,000	200,000	0	0
Glory Holes	38,000	30,000	0	8,000
<b>Total</b>	<b>1,798,000</b>	<b>1,660,000</b>	<b>26,000</b>	<b>112,000</b>

For Option B, Husky estimates high NL content with respect to employment – 100% of Engineering and Project Management, 97% of drilling and completions, 100% of logistics and 64% of the subsea production system.

## Construction Phase Goods and Services

Husky estimated the development costs for the North Amethyst Tie-Back to be \$1.3 billion. Husky subsequently updated the development costs to \$1.5 billion in its November 6, 2007 response letter to the Board regarding the Board's completeness review. The costs are as follows:

<b>North Amethyst Tie-back Development Costs</b>	
<b>Activity</b>	<b>Cost (\$Millions)</b>
Project Management & Engineering	137
SeaRose Modifications	7
Drilling & Completions	705
Glory Hole Construction	32
Subsea Production System	587
<b>Total</b>	<b>1468</b>

With respect to goods and services, subsection 6.1 of Husky's Benefits Plan indicates that Husky "anticipates that manifold and foundation design and construction, with an associated Subsea Integration Test (SIT)... will be contracted and carried out in Newfoundland and Labrador".

Subsection 6.1.1 of Husky's Benefits Plan deals with an assessment of the demand of goods and services for the construction phase of the North Amethyst Satellite Tie-back. In 6.1.1, Husky tabularizes the major equipment packages and services required for the project and indicates which packages and services could take place in Newfoundland and/or Canada. Some of the subsea equipment packages that could be fabricated in the Province (on a competitive basis) are as follows:

- Subsea and production and water injection manifolds;
- Flowline end manifold modules;

- Temporary Guide Bases;
- Production and water injection spools;
- Various subsea foundations and gravity bases; and
- Control jumpers.

Goods and services that cannot be supplied locally or from Canada include Christmas trees, flowlines, risers and umbilicals, glory hole excavation equipment, subsea installation equipment and drilling and completions (rig) equipment. These goods are manufactured by specialized manufacturers in dedicated international facilities.

### **Operations Phase Employment**

Husky indicates in the Benefits Plan that, the North Amethyst field tied back to White Rose will extend employment levels at peak production for an additional four to six years. Currently, steady state employment for White Rose is around 1000 persons, including Husky employees and major contractors and sub-contractors.

As previously mentioned, Husky also states in its response to the Board's request for additional information with respect to its completeness review that North Amethyst will allow the SeaRose to produce at peak capacity for a longer period of time, thereby extending (the life of the platform and) employment for an additional 2 to 3 years.

### **Operations Phase Goods and Services**

Current operations phase goods and services required for White Rose will continue for North Amethyst.

#### **4.5 Consultation, Monitoring and Reporting**

Husky will continue to undertake the monitoring and reporting procedures currently in place for White Rose e.g. maintaining a public website, continuing to use systems and reporting manuals, use of benefits questionnaires, calculation of Newfoundland and

Labrador and Canadian content etc. Husky notes that detailed reporting requirements will be determined in consultation with the Board; and in fact, Board staff is currently engaged with Husky with respect to contract review.

#### **4.6 Responses to Benefits Plan**

Comments with respect to the Benefits Plan were requested of governments on December 5, 2007 with a deadline for responses by January 7, 2008, and through the public review which took place from November 30, 2007 to January 7, 2008.

As of January 7, 2008, the Board received only one response, from the federal government. The Government of Canada (NRCan) indicated that it had “no comment with respect to Husky’s Benefits Plan”.

#### **4.7 Conclusions**

In general, Husky’s philosophies stated throughout the Benefits Plan with respect to statutory requirements, policies and procedures, and capacity assessment, are consistent with the principles, policies and procedures contained in section 45 of the Legislation and the Benefits Plan Guidelines.

It is noteworthy to repeat some of Husky’s specific commitments in its Benefits Plan below:

- Key functions (project management, engineering, procurement, reservoir engineering etc.) will be performed in the Province;
- Project management, Front End Engineering Design (FEED) and detailed engineering for the North Amethyst project will take place in the Province;
- Husky anticipates that manifold and foundation design and construction, with an associated SIT (subsea integration test), will be contracted for and carried out in Newfoundland and Labrador; and

- Husky lists a number of subsea packages, which could be fabricated locally (on a competitive basis):
  1. Subsea and production and water injection manifolds;
  2. Flowline end manifold modules;
  3. Temporary guide bases;
  4. Production and water injection spools;
  5. Various subsea foundations and gravity bases; and
  6. Control jumpers

Board staff will monitor the commitments and initiatives set forth by Husky in its Benefits Plan. Board staff is currently engaged with Husky in monitoring pre-development contracts, and will continue to monitor contracting and employment opportunities to ensure this information is shared by the proponent with the public in a timely manner.

## **5.0 RECOMMENDATIONS**

The authority in the Accord Act, which addresses Benefits Plan approval, is contained in Section 45(2). This section of the Act requires that before the Board may approve any development plan pursuant to subsection 139(4) ... a Canada-Newfoundland and Labrador Benefits Plan shall be submitted to and approved by the Board, unless the Board directs that the requirement need not be complied with.

Board staff recommends that the Benefits Plan for the North Amethyst Satellite Tie-back be approved.