

## REPORT

REPORT TITLE

Husky Energy Atlantic Region
Newfoundland and Labrador Offshore Area
Environmental Assessment Review for 2011

SUBMITTED TO

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NO.	Date:	September 2011	Report No.:	EC-HSE-RP-0209	Version No:	02	
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### 1.0 Introduction

Offshore oil and gas exploration and production programs generally encompass long periods of time and multiple, successive, operational steps. As a consequence of this environmental assessments of these programs address a variety of activities undertaken over a number of years.

This document is the fourth of the annual reviews of the status and ongoing validity of the environmental assessments currently in place for Husky Energy's activities in the Newfoundland and Labrador Offshore Area. These reviews are to assist the C-NLOPB in fulfilling its responsibilities under the *Canadian Environmental Assessment Act* by ensuring that the scope of the assessment(s) and the mitigations committed to therein remain technically valid.

The following lists Husky Energy's environmental assessments that have been approved by the C-NLOPB under which Husky may be conducting offshore operations during 2011.

Table 1 - Environmental Assessment Approvals in Force for Husky Energy as of January 2009

Screening Determination Reference <sup>1</sup>	EA Report Title	Husky Document Number
	Husky White Rose Development Project: New Drill Centre Construction and Operations Program Environmental Assessment & Addendum	WR-HSE-RP-4003 & WR-HSE-RP-0167
CEAR No. 06-01-7410	Husky White Rose Development Project: New Drill Centre Construction and Operations Program Environmental Assessment Amendment: Construction of Protective Flowline Rock Berms	WR-HSE-RP-1087
CEAR No. 07-01-28877	Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008-2017	ED-HSE-RP-0016

The following sections organized by specific, individual environmental assessments provide the necessary information to confirm the ongoing validity of the assessment in question or note any changes that need to be addressed.

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<sup>&</sup>lt;sup>1</sup> Follow the links to C-NLOPB public registry to view the environmental assessments, amendments and regulatory determinations.

# 2.0 Husky White Rose Development Project: New Drill Centre Construction and Operations Program Environmental Assessment

## 2.1 Project Description and Scope

#### 2.1.1 Activities Covered

The environmental assessment covers the construction of up to five (5) glory holes during a construction phase that will continue through 2015. Construction will also include installation of drilling templates and other subsea equipment in the glory holes to support eventual production operations. In addition, subsea flow lines will also be installed to connect new glory holes with existing ones that connect to the *SeaRose FPSO*.

Husky Energy proposes to up to five new drill centres in three areas adjacent to the three drill centres currently active in the White Rose Field. All proposed activities will occur within the defined project areas, North, West and South White Rose Extension Drill Centres and the North Amethyst Drill Centre. The South White Rose Extension (SWRX) and North Amethyst each would require a new drill centre and a maximum of 16 wells each. The West White Rose Extension (WWRX) could potentially support up to two new drill centres and a maximum of 18 wells. The North White Rose Extension (NWRX) would support one new drill centre and a maximum of 4 wells. There are a total of 54 wells proposed for the five drill centres.

## 2.1.2 Geographic Scope

The geographic scope of the assessment is portrayed in the inset map in Figure 2-1.

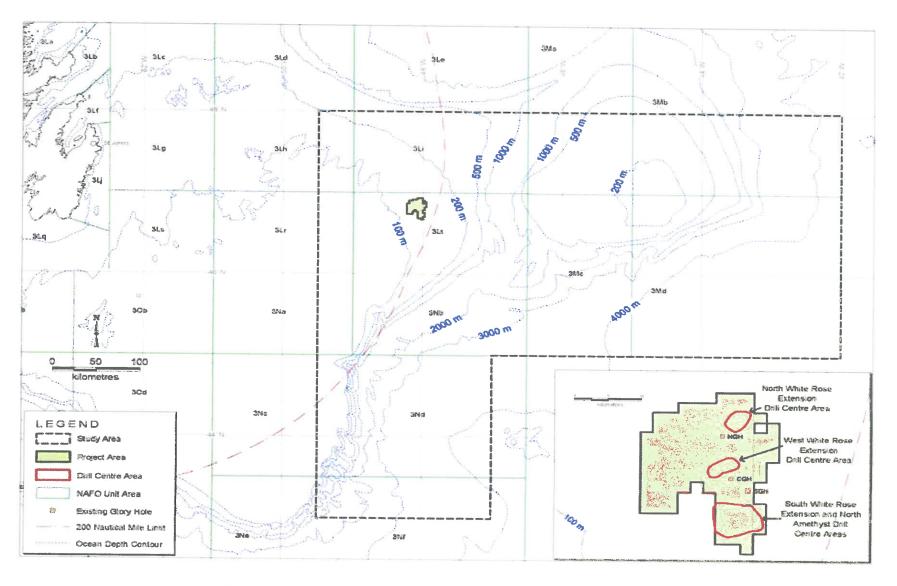


Figure 2-1 - Geographic Scope of Project Area for CEAR No. 06-01-7410

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### 2.1.3 Temporal Scope

The temporal scope of New Drill Centre construction and operation activities is from 2007 to 2015.

Annually, glory hole dredging activities are scheduled for May through mid-September each year. Drilling and other construction and related activities are scoped for year round operations however placement of subsea equipment to support drilling and production operations and installation of flow lines in glory holes will most likely occur during the summer and fall weather windows.

To date development drilling activities carried out under the scope of this environmental assessment involved drilling at the North Amethyst Drill Center. A total of 6 of the 54 wells estimated for up to five potential glory holes scoped under this environmental assessment have been completed.

#### 2.1.4 Planned Activities for 2011

No new glory hole excavation or flow line construction has occurred or is planned in 2011. Water injector wells are planned from North Amethyst and Central Drill Centres in 2011. Producer wells are planned for North Amethyst, Central and Southern Drill Centres. Oil production from the North Amethyst Drill Center began on May 31, 2010.

During early September of 2011 Husky will undertake a geotechnical program within the White Rose Field in an area of 1 km² radius North and West of the Central Drill Centre (Figure 2-2). This program will be of 2 to 3 weeks in length, depending on weather conditions, and will see the drilling of 3 to 11, 250 mm (9 7/8") diameter boreholes needed to evaluate the seabed conditions with respect to the foundation design of potential of a bottom founded well head platform at this location. The depth of the boreholes will range from 60 to 150 meters and thus the total maximum displacement of sediment from the boreholes to the seabed, if all 11 boreholes were drilled, will be 21.56 cubic meters affecting approximately 99 square meters of seafloor. However, if only the three boreholes planned are drilled the volume would be approximately 6 cubic meters with the result that approximately 27 square meters of seafloor would be affected from deposition of cuttings around the boreholes. A naturally sourced clay mineral based drill mud may used while drilling the boreholes. The product has been screened and approved pursuant to the Husky's Chemical Management System and the implementation of the C-NLOPB's chemical screening guidelines therein.

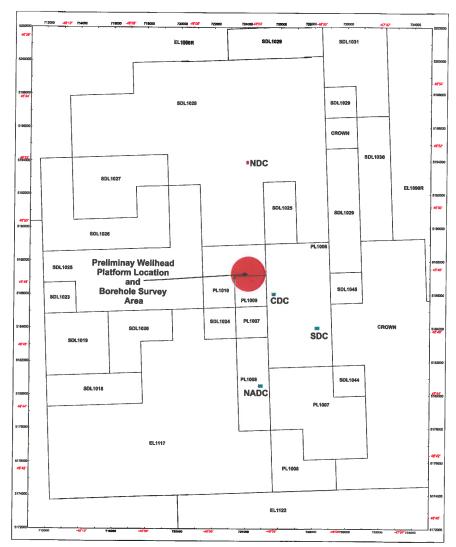


Figure 2-2 - Location of Borehole Survey Area for Wellhead Platform Geotechnical Program

## 2.2 Environmental Aspects

#### 2.2.1 Fisheries

Consultations specific to this update were undertaken in August 2011 with Fish Food and Allied Workers Union and One Ocean to discuss new activities planned for the fall of 2011. In addition, there is ongoing liaison maintained through the regular meetings of the One Ocean Technical Working Group that involves representatives from the various operating oil and gas companies and fishing interests.

Fishing activities in the study area have not changed significantly since the initial environmental assessment was accepted and the program approved. Figure 2-3 below provides a map of recently compiled fishing activity information that depicts an overall patterning of fishing activities that is consistent with that documented in the original environmental assessment. This compilation, derived from Fisheries and Oceans Canada (DFO) databases including research vessel and underutilized species information, is consistent with recent environmental assessments by other offshore

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operators that overlap the geographic and temporal scope of Husky's environmental assessment.

Figure 2-3 - Cumulative pattern of Fishing Activity to 2003 - 2009 in Jeanne d'Arc Basin relation to the EA Study Area

While the general patterning of fishing relevant to this assessment is seen to be generally the same between years, the following paragraphs note some points relevant to the interaction between the oil and gas and fishing industry within the scope of this environmental assessment.

This year's discussion with the FFAW and One Ocean indicated that it would be useful to check on the timing and sampling locations of any post-season snow crab surveys that may routinely occur in or near the area of Husky's 2011 operations. Using the information provided by FFAW, there appears to be no spatial overlap between the snow crab surveys and 2011 planned activities. The commercial crab season will be closed during the planned duration of Husky's activities.

Preliminary decisions have been taken by Northwest Atlantic Fisheries Organization (NAFO) in the event that there is a resumption of a cod fishery in NAFO area 2J3JKL in the future (FFAW, pers. comm. & NAFO, 2010). Pursuit of such a fishery is however contingent on both Canadian and NAFO future decision making.

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As noted in previous updates, a directed fishery for American Plaice has not existed for some time and this has not changed as of 2011. If in the future a directed fishery is authorized then previous fishing patterns for that species may be re-established in areas in and near the Jeanne d'Arc basin. Attempts to consult with Ocean Choice International with respect to Husky's 2011 activities have not been successful to date. Husky will continue efforts to consult with the fishing industry in this regard.

Husky understands that it is important to recognize that harvesters fish a resource, and not fixed points from year to year. Licenses are issued for large areas (e.g. NAFO subdivisions 3K or 3L) and fishing activity could take place anywhere within these areas and not just at the pattern of locations fished in recent years indicated by DFO data. Hence this requires that Husky continues to consult with the fishing industry on a regular basis to keep up to date with trends in fishing from year to year.

With regard to the conduct of its operations, Husky will continue to keep fishing interests informed of these activities during the operational planning phases. This will be done through the established One Ocean and FFAW contacts and others as deemed necessary or as advised.

Since the approval of the aforementioned environmental assessment, the fishing and oil and gas industries, through One Ocean, have completed two initiatives to help enhance communication and collaboration between the two industries. The first is a communication protocol that has been distributed to fishers and members of the petroleum industry. The protocol recommends communication procedures between fish harvesters and offshore installations and petroleum-related vessels during operational activities. The second is a risk-based decision matrix that defines the conditions under which oil and gas operators could employ either or both a Fisheries Liaison Officer or a guide vessel in support of certain oil and gas operations that have a potential to affect fisheries activities offshore.

#### 2.2.2 Species at Risk

An updated listing of SARA and COSEWIC<sup>2</sup> species for the Grand Banks area of relevance to this assessment is provided in Appendix 1. SARA listed species with final recovery strategies in place are noted. None of the SARA listed species relevant to the scope of this assessment have an associated critical habitat description or an action or management plan in place. It is noted however that the North Atlantic Right Whale does have a critical habitat statement pursuant to SARA however it is rare in the study area considered under this environmental assessment (see Appendix 1 – footnotes). Appendix 1 also provides the COSEWIC candidate species under consideration.

Since the last environmental assessment update no new species were added to the SARA Schedule 1 listing. However, six (6) species were designated by COSEWIC as noted in Appendix 1.

Of these the Loggerhead sea turtle is deemed by COSEWIC to be endangered and the Basking shark and Spiny Dogfish are deemed to be of special concern. These three species along with the Atlantic Cod (previously listed by COSEWIC), the Deepwater and

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<sup>&</sup>lt;sup>2</sup> SARA: Species At Risk Act. COSEWIC: Committee on the Status of Endangered Wildlife in Canada

Acadian Redfish – Northern and Atlantic populations respectively – have recently been recommended for consideration for SARA listing.

The ringed seal is a high priority candidate for future COSEWIC and potentially SARA consideration.

None of the recovery plans for SARA listed species in place materially change the mitigation measures currently committed by Husky for the scope of the operations addressed by the environmental assessment.

## 2.2.3 Mitigations

Husky regards the environmental predictions and consequent mitigations cited in the environmental assessment and subsequent significance determination that relates to CEAR No. 06-01-7410 as still valid and re-commits to implementing these mitigation measures for the activities to be carried out under the scope of this assessment this year.

The potential environmental effects of geotechnical survey and drilling activities potentially undertaken as described in Section 2.1.4 are assessed to be *not significant* when evaluated against the assessment definitions and criteria applied to the valued ecosystem components addressed in the original assessment.

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# 3.0 Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008-2017

## 3.1 Project Description and Scope

#### 3.1.1 Activities Covered

This environmental assessment addressed the potential for drilling 18 delineation and/or exploration wells from semi-submersible or jack-up mobile drilling units or drill ships. It also assessed the effects of geo-hazard/well site surveys and vertical seismic profiles associated with the drilling program.

Husky Energy proposes to drill up to 18 exploration/delineation wells on any current or future Husky land holdings in the Jeanne d'Arc Basin area during 2008 to 2017.

To date 5 of these 18 wells have been drilled to date.

## 3.1.2 Geographic Scope

The geographic scope of the drilling program is depicted in Figure 3-1. The project area is depicted by the red rectangle. The coordinates of the project area are as follows:

48° North and 49.5° West;

48° North and 47° West;

46° North and 49.5° West; and,

46° North and 47° West.

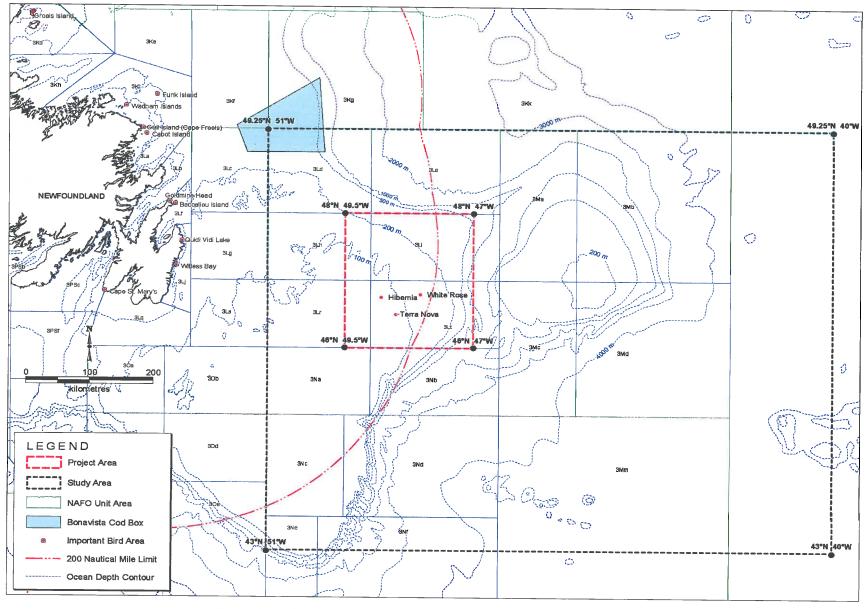


Figure 3-1 - Geographic Scope of Project Area CEAR No. 07-01-28877

## 3.1.3 Temporal Scope

Exploration and delineation drilling activities including geo-hazard/well site surveys and vertical seismic profiles associated with the drilling program as outlined above may be carried out year round from 2008 through 2017.

#### 3.1.4 Planned Activities for 2011

Husky has no plans for exploratory drilling before the end of 2011.

Husky plans to conduct well site surveys within the geographic scope described in Section 3.1.2, starting in early September 2011. The program will acquire high resolution 2D seismic, side-scan sonar, sub-bottom profiler, multi-beam bathymetric data and ground truth data (i.e., camera/grab samples) over the proposed areas shown and described in Figures 3-2 and 3-3.

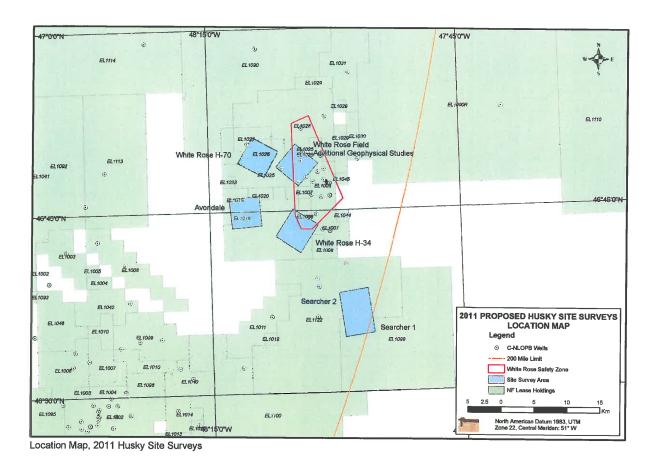


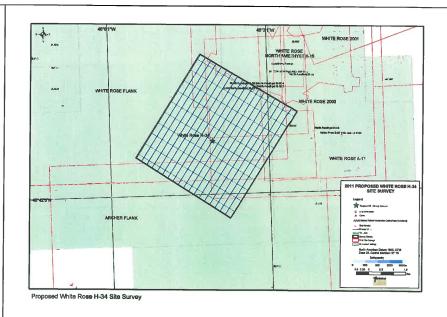
Figure 3-2 - Overview of Location of Well Site Surveys Planned for Fall 2011

The approximately 570 line miles of surveys (Figure 3-3) will take an estimated 20 days in total contingent on weather conditions, so operations should be complete by late September or early October 2011.

As noted in the current environmental assessment, for well site surveys the requirements of Appendix 2 of the *Geophysical, Geological, Environmental & Geotechnical Program Guidelines* (2011) will be complied with regarding consultation and notification of fishing and other marine interests and placing a qualified marine mammal observer on the survey vessel.

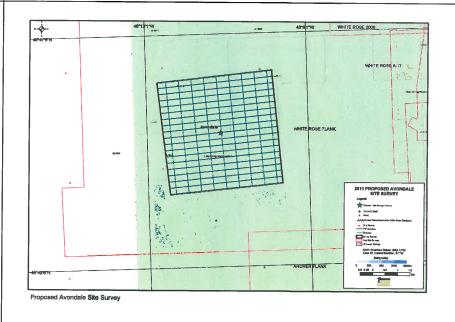
#### White Rose H-34

- Approximate Areal Dimensions 5x5 km
- 140 line miles
- Time to complete 3 to 4 days



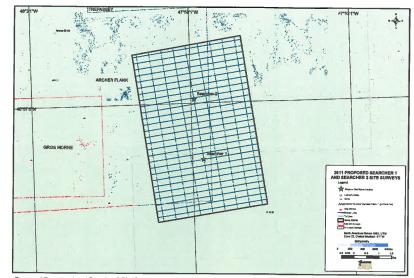
# White Rose P-75 Avondale

- Approximate Areal Dimensions 5x5 km
- 126 line miles
- Time to complete 3 to 4 days



## Searcher C-88 & O-86

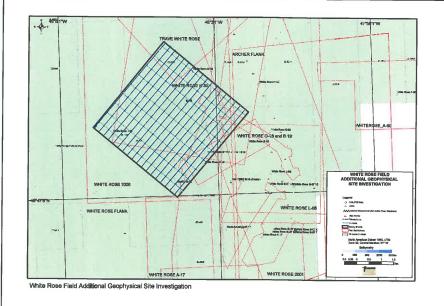
- Approximate Areal Dimensions 5x5 km
- 185 line miles
- Time to complete 4 to 6 days



Proposed Searcher 1 and Searcher 2 Site Surveys

# White Rose Field geophysical studies

- Approximate Areal Dimensions 5x5 km
- 119 line miles
- Time to complete 4 to 6 days



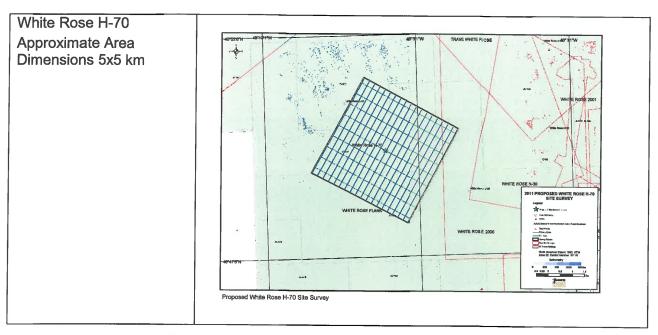


Figure 3-3 - Information on Well Site Survey Areas

## 3.2 Environmental Aspects

#### 3.2.1 Fisheries

Fishing activities in the study area have not changed significantly since the initial environmental assessment was accepted and the program approved. Figure 3-4 below provides a map of recently compiled fishing activity information that depicts an overall patterning of fishing activities that is consistent with that documented in the original environmental assessment. This compilation, derived from Fisheries and Oceans Canada (DFO) databases, including research vessel and underutilized species information, is consistent with recent environmental assessments by other offshore operators that overlap the geographic and temporal scope of Husky's environmental assessment.

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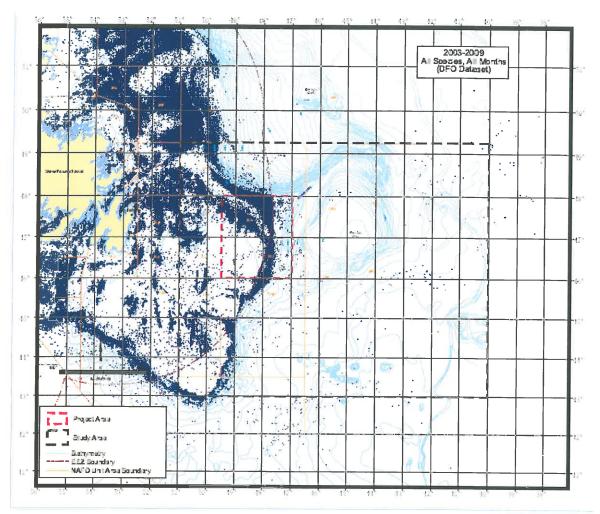


Figure 3-4 - Cumulative pattern of Fishing Activity to 2003 - 2009 in Jeanne d'Arc Basin in relation to 2011 the EA Study Area

Figure 3-5 provides a view of the same dataset shown in Figure 3-4 for the environmental assessment project area within which the activities proposed for 2011 will take place.

While the general patterning of fishing relevant to this assessment is seen to be generally the same between years, the following paragraphs note some points relevant to the interaction between the oil and gas and fishing industry within the scope of this environmental assessment.

This year's discussion with the FFAW and One Ocean indicated that it would be useful to check on the timing and sampling locations of any post-season snow crab surveys that may routinely occur in or near the area of Husky's 2011 operations. Using the information provided by FFAW, there appears to be no spatial overlap between the snow crab surveys and 2011 planned activities. The commercial crab season will be closed during the planned duration of Husky's activities.

Preliminary decisions have been taken by Northwest Atlantic Fisheries Organization (NAFO) in the event that there is a resumption of a cod fishery in NAFO area 2J3JKL in

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the future (FFAW, pers. comm. & NAFO, 2010). Pursuit of such a fishery is however contingent on both Canadian and NAFO future decision making.

As noted in previous updates, a directed fishery for American Plaice has not existed for some time and this has not changed as of 2011. If in the future a directed fishery is authorized then previous fishing patterns for that species may be re-established in areas in and near the Jeanne d'Arc basin. Attempts to consult with Ocean Choice International with respect to Husky's 2011 activities have not been successful to date. Husky will continue efforts to consult with the fishing industry in this regard.

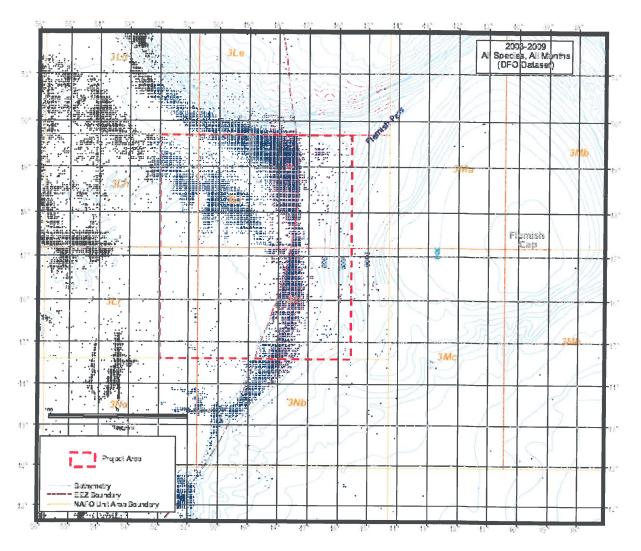


Figure 3-5 - Cumulative fishing activity 2003-2009 within the EA Project Area

Husky understands that it is important to recognize that harvesters fish a resource, and not fixed points from year to year. Licenses are issued for large areas (e.g. NAFO subdivisions 3K or 3L) and fishing activity could take place anywhere within these areas and not just at the pattern of locations fished in recent years indicated by DFO data. Hence this requires that Husky continues to consult with the fishing industry on a regular basis to keep up to date with trends in fishing from year to year.

With regard to the conduct of its operations Husky will continue to keep fishing interests informed of these activities during the operational planning phases. This will be done through the established One Ocean and FFAW contacts and others as deemed necessary or as advised.

Since the approval of the aforementioned environmental assessment the fishing and oil and gas industries, through One Ocean, have completed two initiatives to help enhance communication and collaboration between the two industries. The first is a communication protocol that has been distributed to fishers and members of the petroleum industry. The protocol recommends communication procedures between fish harvesters and offshore installations and petroleum-related vessels during operational activities. The second is a risk-based decision matrix that defines the conditions under which oil and gas operators could employ either or both a Fisheries Liaison Officer or a guide vessel in support of certain oil and gas operations that have a potential to affect fisheries activities offshore.

#### 3.2.2 Species at Risk

An updated listing of SARA and COSEWIC designated species for the Grand Banks area of relevance to this assessment is provided in Appendix 1. SARA listed species with final recovery strategies in place are noted. None of the SARA listed species relevant to the scope of this assessment have an associated critical habitat description or an action or management plan in place. It is noted however that the North Atlantic Right Whale does have a critical habitat statement pursuant to SARA however it is rare in the study area considered under this environmental assessment (see Appendix 1 – footnotes). Appendix 1 also provides the COSEWIC candidate species under consideration.

Since the last environmental assessment update no new species were added to the SARA Schedule 1 listing. However, six (6) species were designated by COSEWIC listings as noted in Appendix 1.

Of these the Loggerhead sea turtle is deemed by COSEWIC to be endangered and two the Basking shark and Spiny Dogfish are deemed to be of special concern. These three species along with the Atlantic Cod (previously listed by COSEWIC), the Deepwater and Acadian Redfish – Northern and Atlantic populations respectively – have recently been recommended for consideration by SARA.

The ringed seal is under consideration as a high priority candidate for future assessment by COSEWIC and potentially SARA consideration.

None of the recovery plans for SARA listed species in place materially change the mitigation measures currently committed by Husky for the scope of the operations addressed by the environmental assessment.

#### 3.2.3 Mitigations

Husky regards the environmental predictions and consequent mitigations cited in the environmental assessment and subsequent significance determination that relates to CEAR No. 07-01-28877 as still valid and re-commits to implementing these mitigation

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measures for the activities to be carried out under the scope of this assessment this year.

The potential environmental effects of well site survey activities potentially undertaken as described in Section 2.1.4 are assessed to be *not significant* when evaluated against the assessment definitions and criteria applied to the valued ecosystem components addressed in the original assessment.

## 4.0 Concluding Statement

The activities Husky plans to carry out in 2011 have been reviewed and assessed to be within the spatial and temporal scope of the environmental assessments referenced herein.

The environmental effects predicted in the currently valid assessments are still valid. Husky reaffirms its commitment to implement the mitigation measures proposed in these assessments and in the Screening Decisions made by the C-NLOPB.

### 5.0 References

## 5.1 Original Husky Environmental Assessments

- LGL Limited. 2006c. Husky White Rose Development Project: New Drill Centre Construction & Operations Program Environmental Assessment. LGL Rep. SA883. Rep. by LGL Limited, St. John's, NL, for Husky Energy Inc., Calgary, AB. 299 p. + App.
- LGL Limited. 2007. Husky White Rose Development Project: New Drill Centre Construction & Operations Program Environmental Assessment Addendum. LGL Rep. SA883a. Rep. by LGL Limited, St. John's, NL, for Husky Energy Inc., Calgary, AB. 126 p. + App.
- LGL Limited. 2007. Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008-2017, Environmental Assessment. LGL Rep. SA935. Prepared by LGL, St. John's, NL, in association with Canning & Pitt Associates, Inc., Oceans Ltd., and PAL Environmental Services. Prepared for Husky Energy Inc., Calgary, AB. 231 p. + Appendices.
- 4. Husky Energy. 2010. Husky Energy East Coast Operations Newfoundland & Labrador Offshore Area Environmental Assessment Review for 2010. Doc. No. WR-HSE-RP-1886.

## 5.2 Recent & Relevant Environmental Assessments by Others

 LGL Limited. 2008. Environmental Assessment of StatoilHydro Canada Ltd. Exploration and Appraisal/Delineation Drilling Program for Offshore Newfoundland, 2008-2016. LGL Rep. SA947b. Rep. by LGL Limited, Canning & Pitt Associates Inc., and Oceans Ltd., St. John's, NL, for StatoilHydro Canada Ltd., St. John's, NL. 292 p. + appendices.

- 2. Christian, John R. 2008. Environmental Assessment of Petro-Canada Jeanne d'Arc Basin Exploration Drilling Program, 2009-2017. LGL Rep. SA993. Prepared by LGL, St. John's, NL prepared for Petro-Canada, St. John's, NL 258 p. + Appendix.
- 3. Christian, John R. 2009. Environmental Assessment of Petro-Canada Jeanne d'Arc Basin Exploration Drilling Program, 2009-2017 Addendum. LGL Rep. SA993. Prepared by LGL, St. John's, NL prepared for Petro-Canada, St. John's, NL 22 p.
- 4. Stantec. 2010. Hebron Project Comprehensive Study Report. Prepared by Stantec Ltd. on behalf of ExxonMobil Canada Properties
- Suncor 2011, Suncor I&O East Coast Operations Newfoundland & Labrador Offshore Area Environmental Assessment Review for 2011. Doc. No. TN-PE-EC15-X00-155.
- LGL Limited. 2011. Environmental assessment of Statoil's Geophysical Program for Jeanne d'Arc and Central Ridge/Flemish Pass Basins, 2011-2019. LGL Rep. SA1121. Rep. by LGL Limited, in association with Canning & Pitt Associates Inc., and Oceans Ltd., St. John's, NL, for Statoil Canada Ltd., St. John's, NL. 227 p. + appendices.

## 5.3 Species at Risk Recovery Strategies

- Atlantic Leatherback Turtle Recovery Team 2006. Recovery Strategy for Leatherback Turtle (*Dermochelys coriacea*) in Atlantic Canada. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa, vi + 45 pp.
- Kulka, D., C. Hood and J. Huntington. 2007. Recovery Strategy for Northern Wolffish (*Anarhichas denticulatus*) and Spotted Wolffish (*Anarhichas minor*), and Management Plan for Atlantic Wolffish (*Anarhichas lupus*) in Canada. Fisheries and Oceans Canada: Newfoundland and Labrador Region. St. John's, NL. x + 103 pp.
- DFO (Fisheries and Oceans Canada). 2008. Recovery Strategy for the Atlantic walrus (Odobenus rosmarus rosmarus), Northwest Atlantic population, in Canada. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa, ON. x + 11 pp.
- Beauchamp, J., Bouchard, H., de Margerie, P., Otis, N., Savaria, J.-Y., 2009.
   Recovery Strategy for the blue whale (*Balaenoptera musculus*), Northwest Atlantic population, in Canada [FINAL]. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. 62 pp.
- Brown, M.W., Fenton, D., Smedbol, K., Merriman, C., Robichaud-Leblanc, K., and Conway, J.D. 2009. Recovery Strategy for the North Atlantic Right Whale (*Eubalaena glacialis*) in Atlantic Canadian Waters [Final]. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada. vi + 66p.

## 6.0 Appendices

Appendix 1 - Current Listing of <u>SARA</u> and <u>COSEWIC</u> Listed Species in the Husky Project Areas.

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# Appendix1: Current SARA Listed and COSEWIC Assessed Species in the Husky Project Areas

New Since Last Update											
Species		Drill Centres	Exp Drilling	SARA Status noted as Schedules 1,2 or 3			COSEWIC Status				
Common Name	Scientific Name			Endangered	Threatened	Special Concern	Endangered	Threatened	Special Concern	Candidate <sup>5</sup>	
Birds						1					
Ivory Gull	Pagophila eburnean			1			X				
Marine Fish											
Northern wolffish	Anarhichas denticulatus		1. 1. 7.		gen Harles	***		. X	4000		
Spotted wolffish	Anarhichas minor	1 d. = 1			1 1 4, 92		Bull the Latin	X	No the State of th		
Atlantic wolffish	Anarhichas lupus					7-1	- 4 4 5 5 7		2 X		
Atlantic cod	Gadus morhua			V		3					
Atlantic cod (NL population)	Gadus morhua						×				
Atlantic Salmon (various regional populations)	Salmo salar						Х				
Porbeagle shark	Lamna nasus						X				
White shark	Carcharodon carcharias						X				
Roundnose Grenadier	Coryphaenoides rupestris						X				
Cusk	Brosme brosme							X			
American Shad	Alosa sapidissima									MPC	
Alewife	Alosa pseudoharengus									MPC	
Capelin	Mallotus villosus									MPC	
Haddock	Melanogrammus aeglefinus									MPC	
Shortfin mako shark	Isurus oxyrinchus							X			
Blue shark	Prionace glauca								Х		

<sup>3</sup> March 2011

<sup>&</sup>lt;sup>4</sup> Green Shade means a final Recovery Strategy is in place but no Critical Habitat has been identified nor have Action or Management plans been finalized for these species with the exception of the North Atlantic Right Whale (see footnote 7). Note that two other species that have recovery strategies, the Atlantic Walrus and Grey Whale, have been extirpated from Eastern Canadian waters and therefore are not listed in the above table.

<sup>&</sup>lt;sup>5</sup> Candidate COSEWIC species are classified as High (H), Medium (M) or Low (L) Priority Candidate (PC) species

y		New Sir Upo	ice Last late								
Species		Drill Centres	Exp Drilling	SARA Status noted as Schedules 1,2 or 3			COSEWIC Status				
Common Name	Scientific Name			Endangered	Threatened	Special Concern	Endangered	Threatened	Special Concern	Candidate	
American Eel	Anguilla rostrata								X		
Roughhead grenadier	Macrourus bersgla								Х		
Bluefin Tuna	Thunnus thynnus	●6	●5				X				
Spiny eel	Notacanthus chemnitzi									MPC	
Pollock	Pollachius virens									MPC	
Spinytail Skate	Bathyraja spinicauda									MPC	
Ocean pout	Zoarces americanus									MPC	
American Plaice (NL pop.)	Hippoglossoides platessoides							х			
Acadian Redfish (Atlantic pop.)	Sebastes fasciatus	•	•					Х			
Deepwater Redfish (Northern pop.)	Sebastes mentella	•	•					Х			
Spiny Dogfish	Squalus acanthias	•	•						X		
Basking Shark	Cetorihinus maximus	•	•					×			
Marine Mammals											
Blue whale	Balaenoptera musculus			1			×				
Humpbacked whale	Megaptea movaeanglia					3					
North Atlantic right whale?	Eubalaena glacialis			1			X				
Fin whale (Atlantic pop.)	Balaenoptera physalus					1			Х		
Killer Whale (NW Atl./East Arctic population)	Orcinus orca								Х		
Sperm whale	Physeter macrocephalus									LPC	
Cuvier's Beaked Whale	Ziphius cavirostris									MPC	
Northern Bottlenose whale ( Davis Strait/Baffin Bay/Labrador Sea)	Hyperoodon ampullatus	●8	•7			3					

<sup>6</sup> Recently re-assessed by COSEWIC

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<sup>&</sup>lt;sup>7</sup> A critical habitat statement exists for this species however it is rare in the study area considered in this assessment with one sighting of two individuals recorded in the DFO cetacean database.

See .		New Sin								
Species		Drill Centres	Exp Drilling		RA Status noted chedules 1,2 or			COSEWIC	C Status	
Common Name	Scientific Name			Endangered	Threatened	Special Concern	Endangered	Threatened	Special Concern	Candidate <sup>5</sup>
Sowerby's beaked whale	Mesoplodon bidens					3			Х	
Harbour porpoise	Phocoena phocoena				2				Х	
Hooded seal	Cystophora cristata									LPC
Harp seal	Phoca groenlandica									LPC
Ringed Seal	Pusa hispida	•	•							LPC
Reptiles								I .		
Leatherback sea turtle	Dermochelys corlacea			1			X			
Loggerhead sea turtle	Caretta caretta	•	•				х			

<sup>&</sup>lt;sup>8</sup> Although not new pursuant to COSEWIC this species is included since its general distribution encompasses the North-west Atlantic. However apart from a localized population on the edge of the Scotian Shelf, the nearest known population is along the northern coast of Labrador and into the Davis Strait.