

EXXONMOBIL CANADA LTD.

EXPLORATION SEABIRD MANAGEMENT REPORT EL1165A HAMPDEN K-41

OCTOBER 26, 2022

CONFIDENTIAL





EXPLORATION SEABIRD MANAGEMENT REPORT

EL 1165A
HAMPDEN K-41

EXXONMOBIL CANADA LTD.

FINAL (1)
CONFIDENTIAL

PROJECT NO.: ME2278308
DATE: OCTOBER 21, 2022

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October 26, 2022

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ExxonMobil Canada Ltd.
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Attention: Derek Sullivan, Exploration SSHE Lead

Dear Mr. Sullivan:

Subject: Exploration Seabird Management Report
Client ref.:

The following report presents the results for the marine and migratory birds observed and stranded during the Hampden K-41 drilling program for July 7th to August 13th. This report fulfills requirements outlined in the Exploration Seabird Management Plan and submitted within the required timelines.




Yours sincerely,

A handwritten signature in black ink that reads "Lara Miles". The signature is fluid and cursive.

Lara Miles, M.Sc.
Intermediate Ecologist,
Resilient Environments

LLM
Encl.
cc: Kevin Baldwin, Sr. Associate Project Manager
WSP ref.: ME2278308

QUALITY MANAGEMENT

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PRODUCTION TEAM

CLIENT

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1 INTRODUCTION

1.1 BACKGROUND

ExxonMobil Canada Ltd. (EMCL) undertook an offshore exploration drilling program in Exploration Licence (EL) 1165A (formerly EL1134) at the Hampden K-41 wellsite. EL1165A is located in the Flemish Pass in the eastern Newfoundland offshore area. EMCL is committed to complying with federal regulatory requirements with regards to migratory birds and contracted WSP Canada Ltd. (formerly Wood E&I Canada Limited) to implement the Exploration Seabird Management Plan here as referred to as the Plan (EMCL 2021). The following report highlights actions completed in accordance with the Plan.

1.2 PROGRAM OVERVIEW

The 2022 EMCL offshore drilling program was part of the Eastern Newfoundland Offshore Exploration Drilling Project. The project area for this program includes the Sackville Spur areas off the Eastern Grand Banks of NL with a total exploration area of 2,661 km² and water depths ranging between 240 to 1,180 m. Chapter 6 of the project environmental impact statement (EIS) assessed the potential effects to marine and migratory birds which are known or likely to be found in the project area (EMCL 2017). The EIS considered the overall extent of affected individuals and bird populations during the time period that may be affected by planned project components and activities.

The primary mechanisms of interaction that may have a negative effect on marine and migratory birds include drilling installation and support/supply vessel attraction associated with lighting and increased foraging opportunities, and potential hydrocarbon sheening. The EIS predicted that the project was not likely to result in significant adverse environmental effects on marine and migratory birds, including Species at Risk (SAR).

1.3 SCOPE

The scope of this program was primarily to fulfill Condition 4.3 in the Decision Statement and to verify the accuracy of the EIS predictions. Additional conditions applicable to this program are discussed in Section 3.

2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

EMCL conducted an exploration drilling program in EL1165A in 2022. This program took place in the southern section of the Project Area at the Hampden K-41 wellsite approximately 400 km east of St. John's, Newfoundland. The well is within the Flemish Pass Basin at a water depth of 1,180 m.

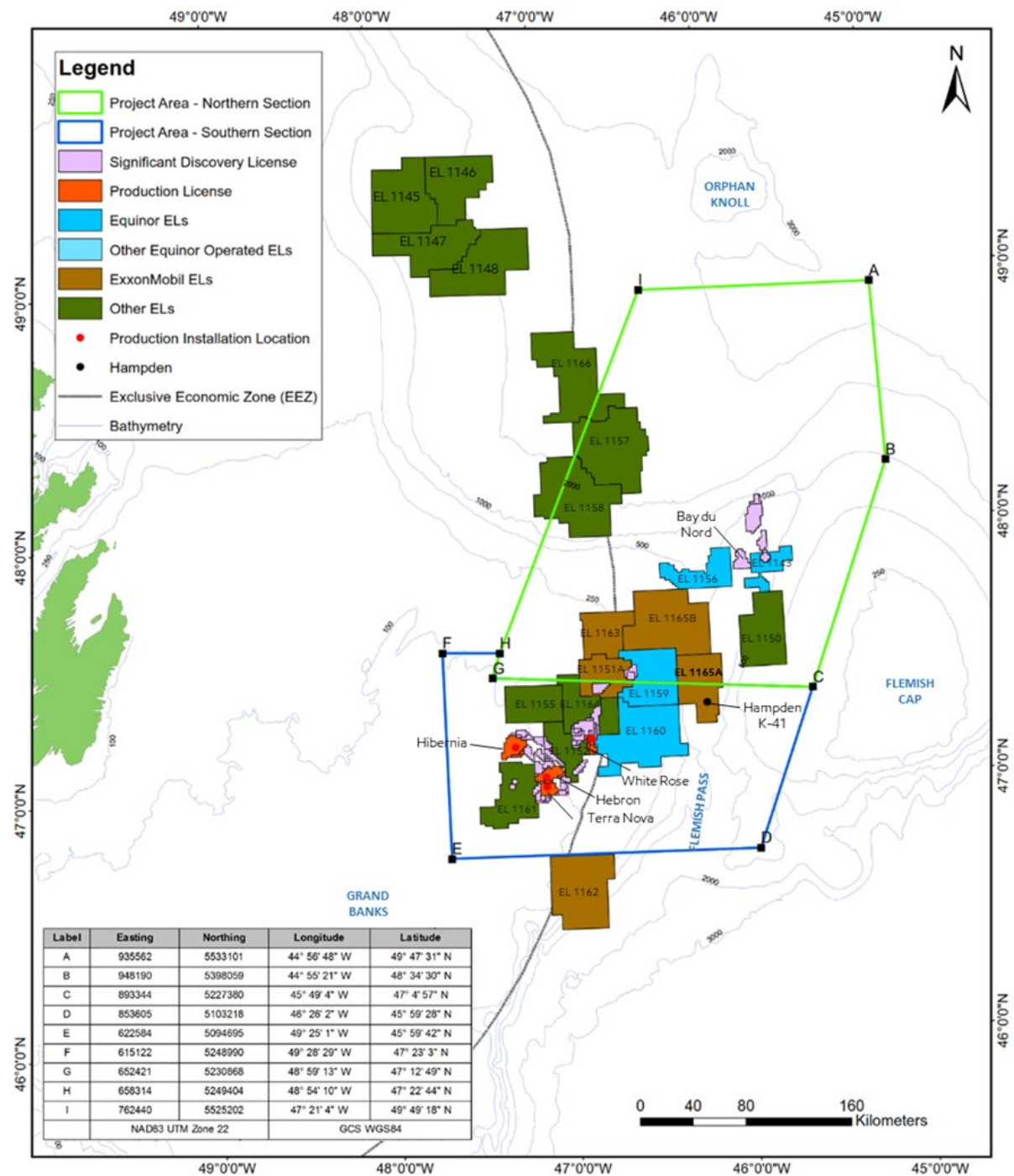


Figure 1: Project Location for Hampden K-41 wellsite

2.2 OPERATION OVERVIEW

EMCL contracted the *Stena Forth*, a mobile offshore drilling unit (MODU), to complete the drilling program. This vessel is 228 m in length and 42 m in width. The drilling derrick is centrally located on the main deck. The vessel did not use anchors during drilling and remained on dynamic positioning. EMCL obtained the Environment and Climate Change Canada-Canadian Wildlife Service (ECCC-CWS) Scientific Permit for the capturing and handling of migratory birds (permit number SC4039). WSP was contracted by EMCL to implement the Plan on the MODU with qualified observers and report the results.



Figure 2: *Stena Forth* MODU

2.3 SUMMARY OF SEABIRD OBSERVATION AND STRANDED BIRD SEARCH PROCEDURES

EMCL developed a seabird management plan in consultation with ECCC-CWS and in compliance with current regulatory procedures (ECCC 2016; ECCC 2021 a, b; EMCL 2021). The following is a brief description of seabird observation survey and stranded bird search procedures.

2.3.1 OBSERVATIONS

Observations for the *Stena Forth* were conducted by onboard observers. These observations were conducted following the protocol outlined in the *Eastern Canada Seabirds at Sea (ECSAS) standardized protocol for pelagic seabird surveys from moving and stationary platforms* (Gjerdrum et al. 2012). Both moving and stationary platform surveys were conducted during the duration of the program. Moving platform observations were conducted in 5-minute intervals throughout the day. Stationary platform observations were conducted using instantaneous counts scanning a 180-degree arc, giving priority to birds within 300-m of the MODU.

2.3.2 STRANDED BIRD SEARCHES

Stranded bird searches were conducted by observers onboard the *Stena Forth* and designated crew members onboard the support/supply vessels. The stranded bird protocols were developed and implemented as per Environment and Climate Change Canada-Canadian Wildlife Service (ECCC-CWS) guidance (ECCC 2021 a, b). Daily systematic searches were completed at least once per day as per the *Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada* (ECCC 2016).

3 APPLICABLE ENVIRONMENTAL ASSESSMENT ACT DECISION STATEMENT CONDITIONS

3.1 CONDITION DESCRIPTIONS

The objective of this program was to verify the accuracy of the predictions made during the environmental assessment as it pertains to migratory birds (including marine birds) and to determine the effectiveness of the mitigation measures to avoid harm to migratory birds implemented by EMCL. The Decision Statement outlines several conditions applicable to the seabird management program. Table 3.1 describes each statement condition applicable to seabird monitoring for this program.

Table 3.1 Conditions Applicable to Seabird Monitoring

CONDITION NUMBER	CONDITION
2.8	The Proponent shall cause to be published on the internet the reports and the executive summaries referred to in condition 2.7, the coral and sponge survey results referred to in condition 3.6, the communication plan referred to in condition 5.1, the well and wellhead abandonment plan referred to in condition 5.2, the well control strategies referred to in condition 6.5, the spill response plan referred to in condition 6.6, the Spill Impact Mitigation Assessment referred to in condition 6.10, the implementation schedule referred to in condition 7.1, <i>monitoring and follow-up results for marine mammals, fish and fish habitat, and migratory birds and any update(s) or revision(s) to the above documents, upon submission of these documents to the parties referenced in the respective conditions.</i> The Proponent shall notify Indigenous groups of the availability of these documents within 48 hours of their publication.
4.1	The Proponent shall carry out the Designated Project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall be in compliance, where applicable, with the Migratory Birds Convention Act, 1994, the Migratory Birds Regulations and with the Species at Risk Act, 2002 and shall take into account Environment and Climate Change Canada's Avoidance Guidelines.

4.3	The Proponent shall develop, prior to the start of the drilling program and in consultation with Environment and Climate Change Canada and the Board, follow-up requirements, pursuant to condition 2.4, to verify the accuracy of the environmental assessment as it pertains to migratory birds and to determine the effectiveness of the mitigation measures implemented by the Proponent to avoid harm to migratory birds, their eggs and nests, including the mitigation measures used to comply with conditions 4.1 and 4.2. The Proponent shall implement these follow-up requirements for the duration of the drilling program. As part of the follow-up, the Proponent shall:
4.3.1	Monitor daily for the presence of marine birds from the drilling installation using a trained observer following Environment and Climate Change Canada's <i>Eastern Canada Seabirds at Sea Standardized Protocol for Pelagic Seabird Surveys from Moving and Stationary Platforms</i>
4.3.2 ¹	Monitor the drilling installation and supply vessels daily for the presence of stranded birds and follow Environment and Climate Change Canada's <i>Procedures for Handling and Documenting Stranded Birds Encountered on Infrastructure Offshore Atlantic Canada</i>
¹ As per the plan approved by the regulators, daily monitoring for the presence of marine birds was only conducted from the drilling installation. Systematic stranded bird searches were conducted once daily on the drilling installation and support/supply vessels.	

4 SEABIRD SURVEY RESULTS

4.1 OBSERVER EFFORT

As stated in the Plan, daily seabird monitoring surveys were conducted from the MODU by trained seabird observers. Surveys were conducted while the MODU was in transit to site and for the duration of the drilling program. Surveys were conducted outside on the bridge deck. The MODU spent 38 days at sea (one day in transit and 37 days on site) during which 477 surveys were completed. Observers conducted surveys outdoors on the bridge of the MODU.

Table 4.1 Observer Effort by month

MONTH	DAYS AT SEA	NUMBER OF SURVEYS
July	25	313
August	13	164
Total	38	477

4.2 SEABIRD OBSERVATIONS

Seabird observations began on July 7th while the *Stena Forth* was in transit from Bay Bulls, Newfoundland to the wellsite and observations ended on August 13th, 2022. The MODU arrived onsite on July 8th. Observers conducted daily surveys at 1-hour intervals during daylight hours and as other duties allowed. There were 10 moving platform surveys and 467 stationary surveys. A total of 6,911 birds were observed from six different species. Northern Fulmar and Greater Shearwater were the most commonly observed seabird species.

Table 4.2 Observed seabird species with counts from July 7th to August 13th, 2022 (477 Total Surveys)

SPECIES	COUNT
Greater Black-Backed Gull	1
Greater Shearwater	3,098
Hooded Crow*	1
Northern Fulmar	3,479
Sooty Shearwater	21
Unknown Shearwater	311
Total	6,911

*A Hooded Crow was observed on the MODU during the duration of the drilling program
256 of the 477 surveys had no bird observations

5 STRANDED BIRD RESULTS

5.1 SEARCHES AND STRANDINGS

Searches for stranded seabirds were conducted on both the *Stena Forth* and supply vessels. Daily searches were conducted while the *Stena Forth* was alongside in Bay Bulls, Newfoundland (July 1 and July 6th) and while at sea (transit beginning July 7th). Searches were limited to areas of open deck that were accessible to the observer and were conducted on the main and upper decks (Figure 3). Searches on the supply vessels were conducted by vessel crew. A total of 45 birds were found during the various vessel searches (Table 5.1). One bird carcass was found on the *Paul A. Sacuta*, it was the skeletal remains of a storm-petrel and likely not stranded during the duration of the program. A total of 43 seabirds (all identified as Leach’s Storm-petrel) were observed on the *Stena Forth* (this does not include the hooded crow found on the vessel). No stranded birds appeared to be oiled. Twenty-four bird carcasses were found and disposed of at-sea and 19 were released alive at-sea. There were several birds that likely succumbed to predation from the hooded crow observed onboard. There were no stranded birds observed on any of the other supply vessels associated with the Hampden K-41 wellsite.

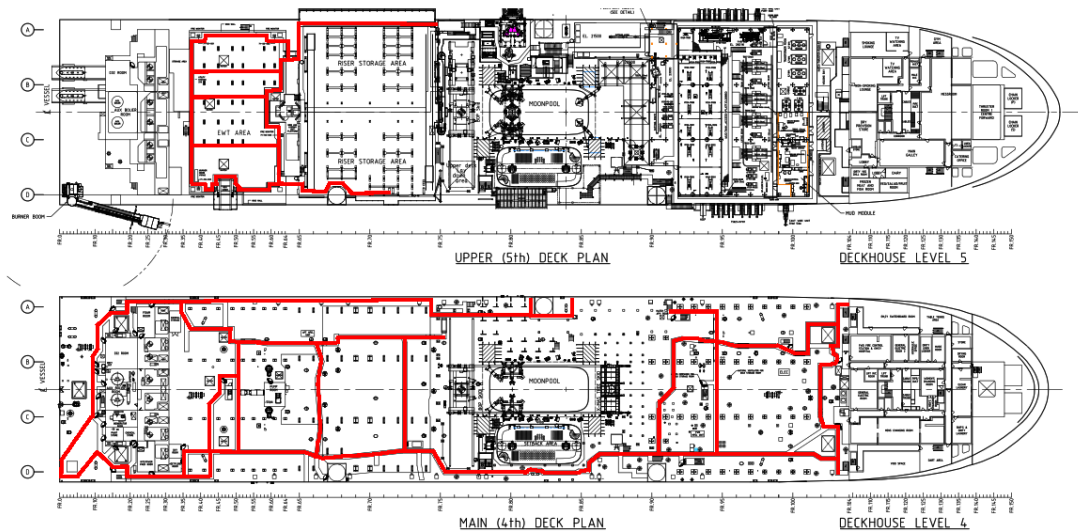


Figure 3: Stena Forth stranded seabird search route



Figure 4: Example of possible predation on the Stena Forth. A) Hooded Crow, B) Scattered feathers, C) Separated petrel wings, D) dismembered carcass.

Table 5.1 Bird Strandings for Hampden K-41 wellsite program

DATE	SPECIES	VESSEL	TOTAL	FOUND DEAD	FOUND ALIVE	NOTES
				Disposed At Sea	Released Alive	
May/06/2022	LESP	PAS	1	1		Skeletal remains found
July/03/2022	LESP	Stena Forth	4	1	3	
July/04/2022	LESP	Stena Forth	6	5	1	
July/05/2022	LESP	Stena Forth	2	1	1	
July/06/2022	LESP	Stena Forth	5	5		3 succumbed to predation
July/07/2022	LESP	Stena Forth	15	2	13	
July/16/2022	LESP	Stena Forth	1		1	
July/26/2022	LESP	Stena Forth	6	6		Skeletal remains found
July/31/2022	LESP	Stena Forth	1	1		
Aug/01/2022	LESP	Stena Forth	3	3		Succumbed to predation from crow
Totals		All	44	25	19	

LESP: Leach's Storm-Petrel, UNSP: Unknown Storm-Petrel, PAS: Paul A. Sacuta
 Stranded Bird searches were also conducted of the Stena Forth while it was tied-up in Bay Bulls, Newfoundland (July 1st to July 6th).
 No birds were found oiled.

6 CONCLUSIONS

The Eastern Newfoundland Offshore Exploration Drilling Project Environmental Impact Statement (EIS) assessed the potential effects to marine and migratory birds which are known or likely to be found within the project area. The EIS highlighted that the primary mechanisms of interaction that may have negative effects on marine and migratory birds, included platform and vessel attraction associated with lighting and increased foraging opportunities, and potential hydrocarbon sheening. The effects of these interactions were anticipated to be negligible to minor due to the localized nature of Project activities. With 24 bird mortalities for the entire duration of the exploration program at Hampden K-41, the project did not have a population-level effect within the Project Area. This report demonstrates that appropriate monitoring procedures were implemented during the project. As stated in the Plan this report was submitted within the reporting timelines. As required by the seabird handling permit SC4039, all original data will be submitted to the Canadian Wildlife Services within the specified reporting timelines.

BIBLIOGRAPHY

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- EMCL (ExxonMobil Canada Ltd.) (2017) Eastern Newfoundland Offshore Exploration Drilling Project Environmental Impact Statement. <https://www.ceaa-acee.gc.ca/050/documents/p80132/121318E.pdf>
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