



Canada-Newfoundland and Labrador Benefits  
Annual Report 2013



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## 1.0 Introduction – 2013 Highlights

Husky continues to be active on Canada's East Coast, utilizing its in-depth knowledge of the area and extensive off shore drilling experience to evaluate prospects. Offshore exploration and development programs are focused in the Jeanne d'Arc Basin, offshore Newfoundland and Labrador, which contains the Hibernia, Terra Nova and White Rose fields. The company also has interests offshore Labrador and in Greenland and the Flemish Pass.

Husky has ownership interests in the Terra Nova and White Rose fields, as well as in a number of smaller fields centrally located in the Jeanne d'Arc Basin. Working interests range from 5.8 to 73.125 percent in 23 significant discovery areas in the Jeanne d'Arc Basin, Flemish Pass, Labrador and Baffin Island. Husky also holds a working interest in 15 exploration licences (ELs) offshore Newfoundland, Labrador and Greenland. Husky is the operator of 11 of these ELs and has working interests ranging from 35 percent to 100 percent.

Husky and its partner made two additional oil discoveries in the Flemish Pass area, Harpoon and Bay du Nord. In 2013, Husky also announced a hydrocarbon discovery at the White Rose H-70 well northwest of the main White Rose field. An analysis of the results is continuing. The well was drilled as part of Husky's ongoing strategy of near-field delineation in the White Rose area.

In 2013, the North Amethyst field completed its fourth year of production, producing approximately 8.3 million barrels of oil and the West White Rose Pilot Scheme completed its second full year of production, producing approximately 3.3 million barrels of oil. Also in 2013, Husky completed its eighth full year of operations on the White Rose field, safely producing approximately 8.7 million barrels of oil. To the end of 2013, the White Rose field and satellites have produced over 218 million barrels of oil. Husky recognizes the impact of the White Rose and satellite projects on the provincial economy and on local communities, and works proactively to ensure that Newfoundland and Labrador residents and members of the local supply community are full participants in the projects.

The North Amethyst G-25-9 multilateral well was completed and brought online in late November 2013. This well is the first multilateral well to be drilled on the east coast of Canada and is the final well of the base plan for development of the North Amethyst field.

The development plan amendment for South White Rose Extension (SWRX) was approved by the C-NLOPB in April 2013. In 2013 Husky completed installation of gas injection equipment in the SWRX glory hole. Installation of oil production equipment is planned for 2014.

The development plan amendment for North Amethyst Hibernia was approved by the C-NLOPB in October 2013. Drilling began on the North Amethyst Hibernia well in the fourth quarter of 2013. This well targets a secondary deeper zone below the main North Amethyst field. Production is expected in the first half of 2014.

Also in 2013, a development application for the White Rose Extension Project (WREP) was submitted to the C-NLOPB. This application is currently under review. The focus of the WREP is development of the West White Rose Extension using a fixed wellhead platform. Husky received environmental assessment approval for the WREP in September 2013. Following conclusion of a project-specific benefits agreement with the province, construction of the graving dock at Argentia began in November 2013. A project-specific procurement website was launched in October 2013.

Fabrication of the new drilling rig *West Mira* began in 2013. The rig will be used to support a range of exploration and development drilling activities for Husky in the Atlantic region commencing in 2015.

In 2013, Husky had 89 co-op student placements in various disciplines throughout the company. Also in 2013, Husky had two new graduates join the permanent staff of the Atlantic Region. Both were previous work term students and were hired directly into the departments where they had completed their work terms. In 2013, four offers were made and accepted by students who will start with Husky in 2014 following graduation.

Quarterly updates, procurement and business opportunities are posted on the Husky website. Husky continues to interact with local stakeholders in the White Rose and satellite projects, including maintenance of a close working relationship with the Newfoundland Ocean Industries Association (NOIA). Husky regularly posts procurement opportunities with NOIA through the NOIA/OTANS Daily Bulletin. Again this year, Husky participated in the annual NOIA conference providing a project update to the supplier community.

## **2.0 Summary of 2013 Activities**

2013 marked the eighth full year of production from the White Rose field. A total of 8.7 million barrels of oil was produced. 2012 also marked the fourth year of production from the North Amethyst field. A total of 8.3 million barrels of oil was produced. 2012 was also the second full year of production from the West White Rose Pilot Scheme and 3.3 million barrels of oil were produced.

In 2013, the *Heather Knutsen*, *Jasmine Knutsen* and *Mattea* transported Husky's White Rose and Terra Nova crude. A total of 31 White Rose cargoes were completed in 2013 of which the vast majority (85% or 17.5million bbls) were delivered to points within

Canada. Of the total Canadian deliveries, 58% (10.2 million bbls) was delivered to the NTL terminal at Whiffen Head.

The final production well in the base plan for North Amethyst (G-25 9) was drilled and completed by the *GSF Grand Banks* in 2013 as well as the North Amethyst multilateral production well (G-25 9z). The multilateral well is the first well of this type to be drilled in the Atlantic Region. The *GSF Grand Banks* also drilled the first gas injection well into the South White Rose Extension pool (J-05 1). The final water injection well in the base plan for North Amethyst (G-25 8) was drilled by the *Henry Goodrich* in 2013 as well as the Northwest White Rose near field delineation well (H-70). The *Henry Goodrich* also drilled the North Amethyst Hibernia production well (E-18 12 A). Construction began on the new build drilling rig *West Mira*, due to arrive in late 2015.

In 2013, Husky conducted well site surveys on Glenwood (EL 1090R) and North Hebron (SDL 1046) areas.

In 2013, Husky invested \$14.6 million in Research and Development and Education and Training on a number of initiatives, including a donation of \$200,000 to the Gathering Place for computer skills and literacy training programs and \$100,000 to the Thrive Community Youth Network for education and training programs including GED and Youth-At-Promise Programs.

As of December 31, 2013, a total of 1480 people were reported employed on Husky's White Rose Operations of which 689 were located offshore. This includes people employed with Husky and its contractors and includes White Rose, North Amethyst, the West White Rose Pilot Scheme and South White Rose Extension. Of this total, 1310 or 89% were residents of Newfoundland and Labrador when hired, while another 107 or 7% were residents of other regions of Canada at the time of hire. The majority (+99%) of these positions were located in Newfoundland and Labrador as of December 31, 2013. The number of females employed on White Rose operations was 250 or approximately 17% of the total workforce.

As of December 31, 2013, 486 people were reported employed on Husky's White Rose Extension Project, representing over 139,000 person hours. The number of females employed on the White Rose Extension Project was 93 or approximately 19 percent of the total workforce.

Total Newfoundland and Canadian content for expenditures on the White Rose project for the period January 1 to December 31, 2013 stands at 89.66 percent (65.23 percent NL; 24.43 percent Other Canadian).

### 3.0 Employment Summary

#### 3.1 White Rose Project

As of December 31, 2013, a total of 1480 people were reported employed on Husky's White Rose Operations of which 689 were located offshore. This includes people employed with Husky and its contractors and includes North Amethyst and the West White Rose Pilot Scheme which were previously reported separately, as well as South White Rose Extension.

Of this total, 1310 or 89% were residents of Newfoundland and Labrador when hired, while another 107 or 7% were residents of other regions of Canada at the time of hire. The majority (+99%) of these positions were located in Newfoundland and Labrador as of December 31, 2013. The number of females employed on White Rose operations was 250 or approximately 17% of the total workforce (Table 3.1).

**Table 3.1 – White Rose Employment Summary by Location, as of December 31, 2013**



#### Atlantic Region Contractor Stats

Head Count By Location

White Rose - Q4 2013

Location	Newfoundland Male	Newfoundland Female	Newfoundland Subtotal	Other Canadian Male	Other Canadian Female	Other Canadian Subtotal	Foreign Male	Foreign Female	Foreign Subtotal	Male Subtotal	Female Subtotal	Total
Nova Scotia	0	0	0	0	0	0	0	0	0	0	0	0
Offshore	572	26	598	65	2	67	24	0	24	661	28	689
Ontario	2	1	3	0	0	0	0	0	0	2	1	3
St. John's	491	217	708	36	4	40	37	1	38	564	222	787
USA	1	0	1	0	0	0	1	0	1	2	0	2
<b>Total</b>	<b>1,067</b>	<b>243</b>	<b>1,310</b>	<b>101</b>	<b>6</b>	<b>107</b>	<b>62</b>	<b>1</b>	<b>63</b>	<b>1,229</b>	<b>250</b>	<b>1,480</b>

#### 3.2 White Rose Extension Project

As of December 31, 2013, 486 people were reported employed on Husky's White Rose Extension Project, representing over 139,000 person hours (Table 3.2). The number of females employed on the White Rose Extension Project was 93 or approximately 19 percent of the total workforce (Table 3.2).

**Table 3.2 Person Hours by Contractor – White Rose Extension Project  
Employment****Atlantic Region Contractor Stats**Hours By Contractor  
Wellhead - Q4 2013

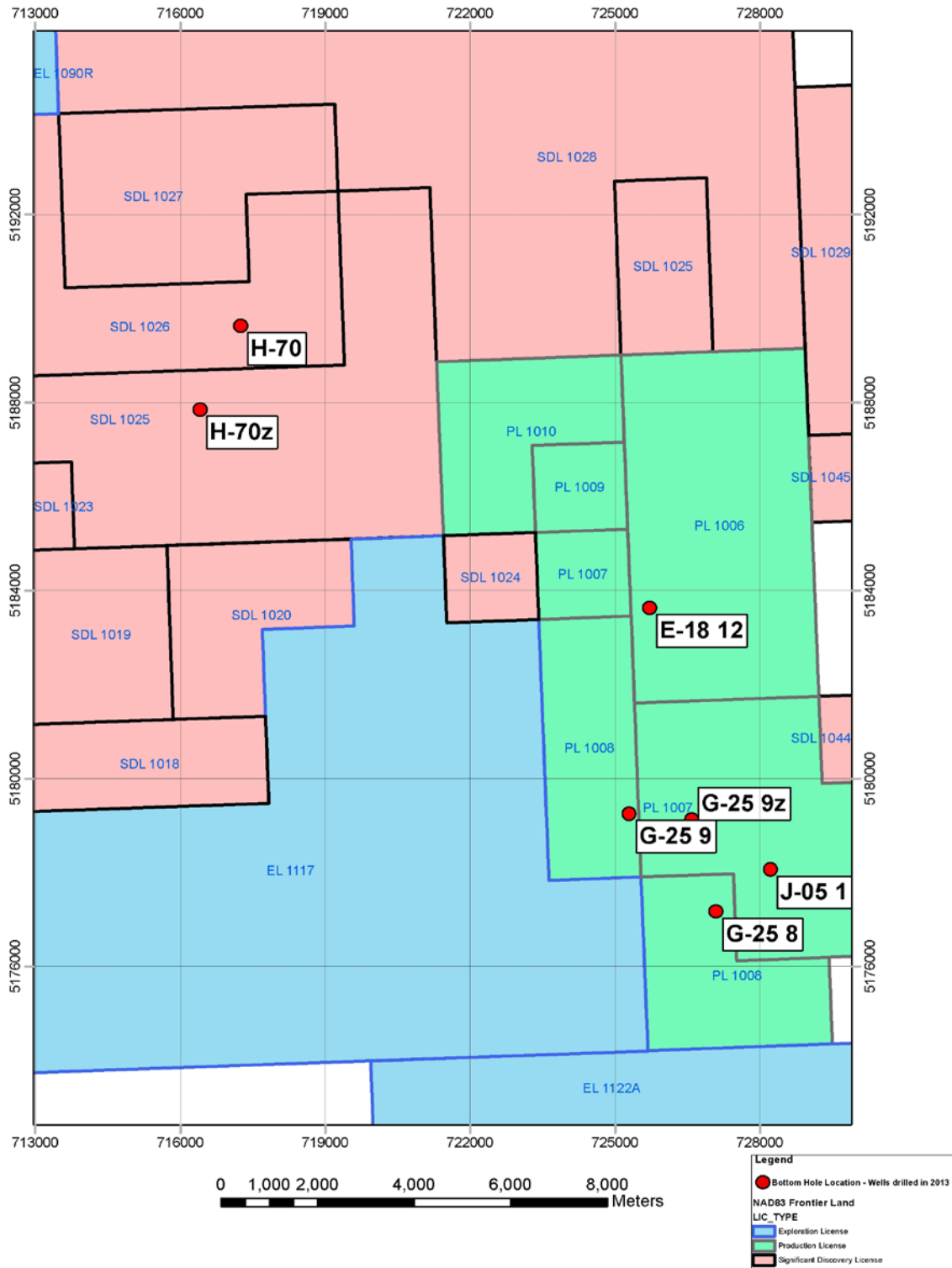
Contractor	Onshore	Offshore	Subtotal	Other Canadian	Foreign	Total
Arup Canada Inc.	24,079	0	24,079	247	5,575	29,901
Dexter Construction	18,025	0	18,025	2,476	2,684	23,184
Husky	19,175	0	19,175	1,147	1,620	21,942
Stantec	41	0	41	0	0	41
Wood Group Mustang	11,175	0	11,175	0	53,512	64,687
<b>Total</b>	<b>72,494</b>	<b>0</b>	<b>72,494</b>	<b>3,870</b>	<b>63,391</b>	<b>139,755</b>

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#### 4.0 Development and Delineation Drilling Program

The final production well in the base plan for North Amethyst (G-25 9) was drilled and completed by the *GSF Grand Banks* in 2013 as well as the North Amethyst multilateral production well (G-25 9z). The multilateral well is the first well of this type to be drilled on Canada's east coast. The *GSF Grand Banks* also drilled the first gas injection well into the South White Rose Extension pool (J-05 1). The final water injection well in the base plan for North Amethyst (G-25 8) was drilled by the *Henry Goodrich* in 2013 as well as the Northwest White Rose nearfield delineation well (H-70). The *Henry Goodrich* also drilled the North Amethyst Hibernia production well (E-18 12 A). Figure 4.1 identifies the wells drilled and/or completed in 2013. Fabrication also began on the new build drilling rig *West Mira*, due to arrive in late 2015.






**Figure 4.1 Map of Husky Wells Drilled in 2013**

## 5.0 Procurement

During 2013 a total of 15 new contracts and 34 contract extensions valued at over \$250,000 were awarded. Table 5.1 provides a summary of these contracts.

**Table 5.1 Procurement Summary for 2013**

Husky East Coast Operations Procurement Summary		2013					
Description	Vendor Name	Vendor Location	Range	NF	CDN	FOR	Total
<b>New Contracts</b>							
Well Bore Cleanout Equipment and Services	Halliburton Energy Services	St. John's	F	49%	14%	37%	100%
Pre-Lay Moorings for Aster Well	Deep Sea Moorings	Norway	H	0%	0%	100%	100%
Well Test Equipment	EXPRO Canada Limited	St. John's	K	51%	26%	23%	100%
Offshore Engineering Services	Aker Solutions Ltd.	St. John's	L	90%	0%	10%	100%
Graving Dock Construction	Dexter	Bedford, Nova Scotia	M	60%	30%	10%	100%
Detailed Engineering Design (associated with Graving Dock, CGS & Marine)	ARUP	Toronto, Ont.	M	80%	10%	10%	100%
Detailed Engineering Design (associated with Topsides)	Mustang Engineering	Houston, TX	N	20%	0%	80%	100%
Wireline Equipment and Services	Schlumberger Canada Limited	St. John's	K	10%	63%	27%	100%
Rig Positioning and Offshore Surveying	Fugro GeoSurveys	St. John's	J	60%	5%	35%	100%
Tubular Running Equipment and Services	FI Oilfield Services Canada	Mount Pearl	I	41%	26%	33%	100%
Fishing Equipment and Services	Weatherford Canada Partnership	Paradise	K	80%	13%	8%	100%
ROV Services (West Mira)	Subsea 7	St. John's	M	74%	11%	15%	100%
Slickline Equipment and Services	Halliburton Energy Services	Mount Pearl	G	53%	23%	24%	100%
Cuttings Conveyance (GSFGB/HGR)	AGR Drilling Services Canada Limited	Paradise	C	60%	0%	40%	100%
Cementing Services (West Mira)	Halliburton Energy Services	Mount Pearl	H	54%	28%	18%	100%
<b>Contract Extensions</b>							
Waste Management Services	Newalta Corporation	St. John's	F	100%	0%	0%	100%
Freight Forwarding/Customs Clearance Services	PF Collins Customs Broker	St. John's	C	100%	0%	0%	100%
AHTS Vessel Maersk Dispatcher	Maersk Supply Services Canada	St. John's	J	70%	3%	27%	100%
Independent Certification Services	Det Norske Veritas (DNV)	St. John's	I	87%	5%	8%	100%
Crane Maintenance Services	Liebherr Canada Inc.	St. John's	G	85%	3%	12%	100%
Satellite Communication Services	Inmarsat Solutions (Canada) Inc.	St. John's	G	70%	25%	5%	100%
Helicopter Services Contract extension	Cougar Helicopters	St. John's	L				
Maersk Dispatcher extension	Maersk	St. John's	I				
Subsea Equipment Storage and Maintenance	OneSubsea Canada ULC (formerly Cameron Canada)	Mount Pearl	M	73%	2%	25%	100%
Technical Support for Fire Water Pump Motors	Cummins Eastern Canada LP	Mount Pearl	B	100%	0%	0%	100%
Provision of Fabrication Services	Bowring Engineering Services	Paradise	A	100%	0%	0%	100%
Technical Support and Maintenance for FPSO Main and Auxiliary Engines	Wartsila Canada Incorporated	Mount Pearl	A	0%	100%	0%	100%
Provision of Training Services	Bentley Nevada Canada Co.	Toronto, ON	A	0%	100%	0%	100%
Maintenance Services of Lifeboats on SeaRose FPSO	Harding Safety Canada	Langley, BC	E	100%	0%	0%	100%
Provision of Training Services	Fisheries and Marine Institute of Memorial University of Newfoundland	St. John's	B	0%	100%	0%	100%
Drilling Fluids, Equipment and Services	MI Swaco	St. John's	L	41%	41%	18%	100%
Solids Control	MI Swaco	St. John's	I	41%	41%	18%	100%
Lower String Completions	Schlumberger Canada Limited	St. John's	C	17%	37%	46%	100%
Lower String Completions	Halliburton Energy Services	Mount Pearl	H	29%	15%	56%	100%
Upper String Completions	Schlumberger Canada Limited	St. John's	K	21%	47%	32%	100%
Perforating Equipment and Services	Schlumberger Canada Limited	St. John's	G	22%	42%	36%	100%
Inflow Control Devices/Stand Alone Screens	Schlumberger Canada Limited	St. John's	B	17%	35%	48%	100%
Coring Equipment and Services	Baker Hughes Canada Company	Mount Pearl	B	60%	35%	5%	100%
Tubulars/Crossover Rentals	Workstrings Canada	Mount Pearl	B	85%	0%	15%	100%
Liner Hanger Equipment and Services	Import Tool	Mount Pearl	C	52%	32%	16%	100%
Well Test Services	EXPRO Group Canada	Mount Pearl	K	90%	3%	7%	100%
Freight Forward, customs and immigration services	PF Collins	St. John's	E	100%			100%
Tanker Services - Jasmine Knutsen	Knutsen AS	Norway	K		25%	75%	100%
Helicopter Services (passenger)	Cougar Helicopters	St. John's	L	15%	65%	20%	100%
Integrity Manuals Services	Marine Technical Limits	Aberdeen, UK	B			100%	
Technical Support for Fire Water Pump Motors	Cummins Eastern Canada LP	Mt. Pearl, NL	C	100%			
Technical Support and Maintenance for FPSO Main And Auxiliary Engines	Wartsila Canada Inc.	Mt. Pearl, NL	A	100%			
Field Support for Proximitor Module 3500 Series Machinery and General Equipment Repairs	Bentley Nevada Canada Co.	Toronto, Ont.	A		100%		100%
Training Services	Fisheries and Marine Institute of Memorial University of Newfoundland	St. John's, NL	B	100%			100%
<b>Cost Range Code Legend</b>							
A = 250,001 - 500,000 \$	E = 2,000,001 - 3,000,000 \$	I = 10,000,001 - 15,000,000 \$	M = 50,000,001 - 75,000,000 \$				
B = 500,001 - 1,000,000 \$	F = 3,000,001 - 5,000,000 \$	J = 15,000,001 - 20,000,000 \$	N = 75,000,001 - 100,000,000 \$				
C = 1,000,001 - 1,500,000 \$	G = 5,000,001 - 7,500,000 \$	K = 20,000,001 - 30,000,000 \$	O = Over 100,000,001 \$				
D = 1,500,001 - 2,000,000 \$	H = 7,500,001 - 10,000,000 \$	L = 30,000,001 - 50,000,000 \$					

## 6.0 Research and Development

Husky Energy's investments in Newfoundland and Labrador executed R&D grew by more than 8% from 2012 to 2013, with new R&D expenditures of over \$11 million during the year. Expenditures include engagement with a wide spectrum of local companies and academic institutions.

### 6.1 Ongoing R&D Projects

A number of Husky directed or sponsored R&D initiatives noted in the 2012 Annual Report continued into 2013, including:

#### **Memorial University**

- Sustainable Technology for Polar Ships and Structures (StePS2)
- Research in Plate Reconstruction Project of North Atlantic Petroleum Systems

#### **Petroleum Research (PRNL)**

- Development of Technologies for Burial and Protection of Pipelines in Ice-Scour Regions
- Subgouge Displacements for the Design of Buried Submarine Pipelines in Cold Regions
- Next Generation Emergency Escape, Evacuation and Rescue (EER) System in Ice Covered Waters
- Dual Polarized Ice Detection and Navigation Radar Research and Development
- Enhanced Satellite Radar-based Iceberg Detection and Sea Ice Monitoring
- Iceberg and Sea Ice Drift Forecasting Advancements
- Marine Dredge Disposal – Measuring Recovery to Natural Conditions
- Enhanced Oil Recovery from Complex Reservoirs Using CO<sub>2</sub> (MUN)
- Development of Diagnostic Bioindicators for Effects Assessment of Marine Life

#### **C-CORE**

- Derivation and Evaluation of Iceberg Impact Loads on Fixed Concrete Structure

- Instrumentation & Monitoring Technology Assessment for Wellhead Platforms

**Virtual Marine Technology (VMT)**

- Safety and Survival Simulation Training – Development of training simulators for emergency egress, lifeboat davit maintenance and operation and evacuation in ice

**Oceanic Consulting, NRC-IOT and Memorial University**

- Accurate Numeric Simulation of Hydrodynamic Loads for the Safe Production and Transportation of Oil and Gas in Harsh Marine Environments
- Development of Hydrodynamic Loads and Motions Simulator for *SeaRose FPSO*

**Radiant360**

- Development of radio frequency identification (RFID) and tracking technology for offshore oil and gas logistics and asset integrity management

**Oceans Ltd.**

- Development of Sidescan Sonar Iceberg Profiling Technology
- Development of Ocean Current Prediction Model

**6.2 New R&D Projects**

Husky's R&D program continued to grow via initiation of a number of new R&D projects during 2013. Notable new projects include:

**Petroleum Research (PRNL)**

- Ice Loads on Floating Offshore Structures
- Effects of Seismic Activity on Shrimp Behavior
- Improving Helicopter (Floating) Stability in Waves

**C-CORE**

- Evaluation of CGS Foundation Current Scour Mechanisms and Protection Alternatives

**Radiant360**

- Development of Mobile Computing Technology to Improve Process Safety through Enhanced Lifecycle Management of Safety Critical Elements

### 6.3 Future Initiatives in R&D

Husky's investment in collaborative R&D in Newfoundland and Labrador community continues to contribute to growing local R&D capacity and capability.

Initiatives supported by Husky continue to stimulate innovation to improve safety, efficiency and reliability of offshore exploration and production operations, while advancing the technologic feasibility of future offshore developments. Husky maintains a diverse R&D portfolio, with a mixture of direct investments in R&D to address strategic challenges unique to Husky's business needs and opportunities, and participation in industry collaborative R&D that targets more generic industry and regional operating challenges.

Husky will continue to act as a strategic industry partner to enable Newfoundland and Labrador innovators to successfully leverage additional funding from agencies such as the NL R&D Corporation and ACOA Atlantic Innovation Fund, toward advanced technology demonstration and commercialization of projects. Husky's participation includes a combination of direct financial investment and in-kind contribution through mentoring and access to subject matter experts and operational resources.

## 7.0 Education and Training

Education and training remains a key area for Husky Energy, and continues to provide an opportunity to contribute to the development of the local offshore industry. Through the period of January 1st to December 31st, 2013, direct training expenditure by Husky and its contractors related to the White Rose and North Amethyst projects totaled over \$3.2 million. Husky will continue to invest in education and training to assist our personnel in developing key skills and knowledge for professional and personal development. Husky's regard for the health, safety and wellbeing of the people who support Husky's operations remains paramount, and will be reflected in training associated with implementation of elements of Husky's Operational Integrity Management System, including a behavioral based safety management system.

Below is a description of the major initiatives in education and training undertaken in relation to the White Rose project in 2013.

### 7.1 Husky Energy

Husky continued its strong commitment to the Memorial University of Newfoundland and College of the North Atlantic co-operative education programs in 2013. The complement of co-operative education students working on Husky's Atlantic Region increased in 2013 to a total of 89 placements for the year in various disciplines throughout the company. Husky views this program as an important tool for building strong local capabilities in the offshore oil and gas sector and will continue to support this program in the future.

In 2013, Husky had two new graduates join the permanent staff of the Atlantic Region. Both were previous work term students and were hired directly into the departments where they had completed their work terms. In 2013, four offers were made and accepted by students who will start with Husky in 2014 following graduation. These graduates will join Husky as part of Husky's formal New Grad Program. Through the program, new graduates are able to gain hands-on exposure to different disciplines by completing six-month work assignments in the first two years. Employees choose their top four areas of interest and they are then placed throughout the company in a variety of locations. Available areas for placement include Field Operations, Plant Operations, Functional Departments, and Asset Management. After two years, employees prepare their career development plan with the help of a mentor. Following this, employees are placed into a series of three - two year job rotations which aligns with their Career Development Plan.

Husky Energy renewed its commitment to influencing education and career choices of young adults in Newfoundland and Labrador through support of Techsploration in 2013, the tenth year that Husky has provided funding. The Techsploration program is

delivered by the Women in Resource Development Corporation (WRDC) in St. John's. The program introduces career opportunities in the trades and technologies to female Grade 9 students in an effort to interest them in the sciences before selecting courses for their secondary program. In addition to funding, Husky supports the efforts of several of our female employees who volunteer their time to be mentors for this program. Husky also worked closely with Women in Science and Engineering (WISE) in 2013 providing funding to the organization as well as the provision of female mentors.

Husky continued to support the regional MATE ROV competition which identifies teams who will go on to compete at the international MATE competition. This was the seventh year Husky contributed to this event. This is an excellent way to foster interest in ocean technology among the youth of the province and demonstrates that a career in the offshore is a viable option.



## 8.0 Technology Transfer and Supplier Development

Husky considers investments to develop Newfoundland and Labrador's technological, industrial and economic capacity to be strategic to the sustainable growth of Husky's Atlantic Region. Notable recent examples of Husky's support for transfer of technology and knowledge to local the local marketplace include:

### **PRNL Joint Industry Ice Management R&D Program**

Husky continues to be a key collaborator in PRNL's Ice Management Joint Industry Program. Projects within this program are advancing home-grown technologies and positioning Newfoundland and Labrador companies such as Rutter and C-Core as world leaders in ice intelligence and management technology. These initiatives serve to advance Newfoundland and Labrador's international reputation as a "gateway to the Arctic".

### **White Rose Field Expansion – Graving Dock at Argentia, NL**

Husky continues to advance development of an innovative wellhead platform concept for further development of the White Rose Area. Construction of the concrete gravity structure for the wellhead platform will take place at a purpose-built graving dock at Argentia, NL. The graving dock will have reinforced concrete gates that will allow future re-use of the facility.

The graving dock can be used for future construction of jackets and gravity based structures for offshore oil and gas, wind and marine energy sectors as well as ship/vessel building, repair and maintenance (including MODUs and jack-ups) and decommissioning and dismantling of offshore and marine facilities. In the future, also from a research and development perspective, the facility can act as a stepping stone between smaller scale model testing and more complex and expensive offshore field technology trials. Investigations could include glacial ice interactions, marine soils and geotechnical investigations, marine growth and marine corrosion mechanisms and mitigations and wet testing of prototype subsea processing technologies.

### **SeaRose FPSO Hydrodynamic Loads and Motions Simulator**

Building on the success of the Accurate Numeric Simulation of Hydrodynamic Loads for the Safe Production and Transportation of Oil and Gas in Harsh Marine Environments AIF project, Husky and Oceanic initiated a new project to develop a Hydrodynamic Loads and Motions Simulator for the *SeaRose FPSO*. The simulator will enable Oceanic to showcase newly developed numeric modeling capability, while providing Husky with a platform to develop contingency plans for safe operation during predicted weather

events. Future initiatives may include integration of a finite element model with tie-in to a hull stress monitoring system

### **Safety and Survival Training Simulators**

Husky has continued to work closely with Virtual Marine Technologies (VMT) and Memorial University in 2013 to ensure that prototype safety training simulators achieve their intended learning goals for emergency egress training, lifeboat davit maintenance and operation, and maneuvering lifeboats in ice. VMT are currently building a lifeboat training simulator for installation and use on board the SeaRose FPSO.

### **Sustainable Technology for Polar Ships and Structures**

For the fifth year, the Sustainable Technology for Polar Ships and Structures (STePS2) project at Memorial University continued to advance scientific knowledge of ice interaction with structures, while growing local scientific and technological capacity. A key outcome of the project is the development of a new computation methodology using arrays of GPUs (graphics processors) to enable rapid solving of a relatively long and realistic chains of events related to vessels transiting in ice. To date, the project has produced 30 peer reviewed technical and scientific papers, and one patent. At the end of 2013, the project team had graduated of 15 MSc's and 5 PhD's, and employed 46 co-op students.

### **Engagement with Memorial University**

Husky has participated as an advisor on a number of steering committees to provide industry perspective and guidance in a number of areas including:

- Chair of the Advisory Committee for the NSERC CREATE Training Program for Offshore Technology Research at Memorial University
- Participation in the conference planning committee for Ocean, Offshore, and Arctic Engineering (OMAE2015) – to be hosted by the Ocean Engineering Research Centre (OERC) at the Faculty of Engineering and Applied Science
- Industry Advisory Committee for Scientific Computing Graduate Program
- Industry and Academic Advisory Committee for Computational Applied Geophysics Group
- Research Advisory Committee for Husky Energy Chair in Oil and Gas Research

## 9.0 Community Investment

Husky's goal is to invest time, energy and resources into initiatives that will have lasting impacts on people and build safe and sustainable communities. Husky's community investment program includes three giving streams: major gifts, donations committee, and employees in action and our key focus areas are: Education, Health, and Community.

In March 2013, Husky provided funding to the WHSCC to support the delivery of first-aid training to high school students. The money is being used to make first aid and emergency CPR training a core component of the *Workplace Safety 3220* curriculum.

Last June, Husky gave funding to Daffodil Place to complete the Husky Energy Healing Garden. Then in October, Husky made a donation to the Gathering Place to support the computer and literacy skills programs for adults in the St. John's area. Also in October, Husky provided funding to Thrive—Community Youth Network. That money is being used to expand their education programs for youth-at-risk in the metro area.

Husky also gave donations to 38 community organizations through our Atlantic Region donations committee. Table 9.1 provides a list of those organizations Husky supported in 2013. This program enables Husky to be responsive to local community needs.

**Table 9.1 Organizations Supported by Husky Energy in 2013**

Bay St George Cultural Circle Inc.	Memorial University of Newfoundland
City of St. John's	MS Society of Canada Atlantic Division
CNIB	Mummers Festival Incorporated
Community Food Sharing Association	Newfoundland Athletic Dog Association Inc.
East Coast Trail Association Inc.	Newfoundland Symphony Orchestra Association
Eastern Education Foundation - All Hallows Elementary	Pancreatic Cancer Canada
Epilepsy Society	Parkinson Society Newfoundland & Labrador
Festival 500 Sharing the Voices	Placentia Area Community Food Bank
Fogo Island Folk Alliance	Placentia Area Theatre d'Heritage Committee
GoodLife Kids Foundation	Planned Parenthood NL
Gower Community Band	Salvation Army
Grand Bank Regional Theatre Festival	Seniors Resource Centre Association of NL
Heart and Stroke Foundation of Canada	St. John Ambulance (Newfoundland Council)
Independent Living Resource Centre	St. Peter's Junior High Social Action Team
Jimmy Pratt Memorial Outreach Centre	The Community Food Sharing Association Inc.
Junior Achievement	Young Adult Cancer Canada Inc.
Kids Eat Smart Foundation Newfoundland and Labrador	The Wooden Boat Museum of Newfoundland and Labrador
Laval High School	Threads of Life
Learning Disabilities Association of Newfoundland & Labrador	

The third stream of Husky's giving program is employee-led. Husky has an entrepreneurial work environment that values responsible and sustainable development. Husky encourages employees to volunteer and support organizations that are meaningful to them including the Community Food Sharing Association, Daffodil Place, Jimmy Pratt Memorial Outreach Centre, GoodLife Kids Foundation, Junior Achievement and the VOXM Happy Tree.

## 10.0 Diversity

Husky continued to work closely with its sub-contractors to advance the various initiatives identified within the Diversity Plan. More than 65 people (employees and representatives from community partners) attended Husky's Diversity Forum in November. The program included an introduction and update on Husky Energy's Atlantic Region activities followed by presentations on the status of the White Rose Extension Project and on the Project's Diversity Plan, as well as a guest speaker from Arup Americas. Roundtable discussions on Husky's Project-specific diversity initiatives took place during the second half of the forum. A report on diversity-related activities in 2013 will be submitted under separate cover.

**11.0 Project Photos**



Energy Day Tour of Cougar Helicopters – February 2013



Energy Day Tour of Virtual Marine Technologies – February 2013



Energy Day at GeoCentre – February 2013



Oil and Gas Week Food Drive – February 2013



Donation to WHSCC to Add First Aid & CPR Training to Workplace Safety 3220  
March 2013



Wayne Duggan Memorial Hockey Tournament – April 2013





Husky Receives Exemplary Workterm Award from Memorial – April 2013



Techsploration 2013



Techsploration Visit to Cougar – May 2013



Techsploration Visit to Metal World – May 2013



Opening of the Healing Garden at Daffodil Place – June 2013



Husky Staff Helping Out in the Healing Garden – June 2013



International Feast – Diversity Day on SeaRose – June 2013



Husky Staff Participate in Tely East Coast Trail Hike – June 2013



MUN Alumni Career Fair – May 2013



Official Opening of the Husky Energy Gallery at The Rooms – July 2013



Placentia Bay Industrial Showcase – September 2013



Husky's Day with the WISE students – September 2013



The Gathering Place – October 2013



Signing of the WREP Framework Amending Agreement – October 2013



Thrive – October 2013



Husky Diversity Forum – November 2013





Take Our Kids To Work Day – November 2013



WREP Supplier Information Session – Placentia November 2013



VOCM Happy Tree – December 2013