



Canada-Newfoundland and Labrador Benefits

Annual Report 2019

Husky Energy Ref. No.: WR-ADM-RP-0064



TABLE OF CONTENTS**Contents**

1.0	Introduction – 2019 Highlights.....	3
2.0	Summary of 2019 Activities	4
3.0	Employment Summary	4
4.0	White Rose Drilling Program	10
5.0	Procurement.....	11
6.0	Research and Development & Technology Transfer	13
7.0	Education and Training	15
8.0	Community Investment	17
9.0	Diversity.....	17
10.0	Photographs.....	18

1.0 Introduction – 2019 Highlights

Husky completed its 14th full year of operations on the White Rose field, safely producing approximately 3.6 million barrels of oil. To the end of 2019, the White Rose field and satellites have produced over 300 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.

In 2019, the North Amethyst field completed its tenth year of production, producing approximately 1.0 million barrels of oil and West White Rose completed its eighth full year of production, producing approximately 274 thousand barrels of oil. Also in 2019, South White Rose Extension (SWRX) completed its fourth year of oil production, producing approximately 1.4 million barrels of oil.

In May, 2017, Husky announced sanction of the West White Rose Project. This project involves construction of a stationary drilling platform. Construction of various components for the West White Rose Platform is being conducted at sites in NL, and in Ingleside, Texas, where the facility's topsides is being fabricated. The accommodations module is being fabricated in Marystown, NL along with the flare boom, helideck and lifeboat stations.

At the graving dock in Argentia, NL four slipforms were completed on the outer caisson for the project's Concrete Gravity Structure ("CGS") and the first three interior decks were installed.

During 2019, Husky and its partner continued to assess the potential development of Bay du Nord and other discoveries in the Flemish Pass Basin using an FPSO-based development concept. Husky holds a 35 percent non-operated working interest in the Bay du Nord, Bay de Verde, Baccalieu, Harpoon and Mizzen discoveries.

Husky presently holds working interests ranging from 5.8 percent to 100 percent in 23 significant discovery areas in the Jeanne d'Arc Basin and Flemish Pass Basin, offshore NL and Baffin Island.

Husky received exploration rights to one parcel of land in the November 2019 C-NLOPB land sale. The licence is adjacent to other Husky land holdings in the Jeanne d'Arc Basin.

In 2019, Husky had 126 co-op student placements in various disciplines throughout the company (63 males and 63 females).

Quarterly updates, procurement and business opportunities are posted on the Husky website. Husky also has a West White Rose Project-specific website where Husky procurement opportunities are identified and links to contractor procurement websites are available. 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 Daily Barrel. Again this year, Husky participated in the annual Noia conference providing an update on current and future operations.

2.0 Summary of 2019 Activities

2019 marked the 14th full year of production from the White Rose field. A total of 3.6 million barrels of oil was produced. 2019 also marked the tenth year of production from the North Amethyst field with a total of 1.0 million barrels of oil produced and the eight full year of production from West White Rose with 274 thousand barrels of oil produced. 2019 was the fourth full year of oil production from SWRX with 1.4 million barrels of oil produced.

In 2019, *Beothuk Spirit*, *Norse Spirit* and *Dorset Spirit* transported White Rose crude. A total of 8 full White Rose cargoes were completed in 2019 of which all (100% or approximately 5.4 million bbls) was delivered to the NTL terminal at Whiffen Head, Placentia Bay, NLS

In 2019, Husky invested over \$7.84 million in Research and Development and Education and Training on a number of initiatives, including \$60,000 to Thrive for educational programs, \$15,000 in support of the Eastern NL Science Fairs Council (ENSFC) and \$20,000 in continued support of the WRDC Techsploration Program.

As of December 31, 2019, a total of 1,105 people were reported employed on Husky's White Rose Operations of which 517 were located offshore. This includes people employed with Husky and its contractors and includes North Amethyst and South White Rose Extension (SWRX). Of this total, 949 or 86 percent were residents of Newfoundland and Labrador when hired, while another 110 or 10 percent were residents of other regions of Canada at the time of hire. The number of females employed on White Rose operations was 199 or approximately 18 percent of the total workforce.

As of December 31, 2018, 2,656 people were reported employed on Husky's West White Rose Project, representing approximately 1,352,392 person hours. The number of females employed on the project was 248 or approximately 11 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, 2019 stands at 89.5 percent (65.42 percent NL; 24.08 percent Other Canadian).

3.0 Employment Summary

3.1 White Rose Project

As of December 31, 2019, a total of 1,105 people were employed on Husky's White Rose Operations of which 517 were located offshore. This includes people employed

with Husky and its contractors and includes North Amethyst and South White Rose Extension (SWRX).

Of the total personnel, 949 or 86 percent were residents of Newfoundland and Labrador when hired, while another 110 or 10 percent were residents of other regions of Canada at the time of hire. The number of females employed on White Rose operations was 199 or approximately 18 percent of the total workforce (Table 3.1).

Table 3.1 White Rose Employment Summary by Location, as of December 31, 2019



Atlantic Region Contractor Stats

Head Count By Location
 White Rose - Q4 2019

Location	NL Male	NLFemale	NL Subtotal	Other Canadian Male	Other Canadian Female	Other Canadian Subtotal	Foreign Male	Foreign Female	Foreign Subtotal	Male Subtotal	Female Subtotal	Total
Foreign	0	0	0	0	0	0	14	1	15	14	1	15
Newfoundland - Offshore	452	14	466	38	1	39	10	2	12	500	17	517
Newfoundland - Onshore	328	155	483	49	20	69	13	6	19	390	181	571
Other Canadian	0	0	0	2	0	2	0	0	0	2	0	2
Total	780	169	949	89	21	110	37	9	46	906	199	1,105

Table 3.2 Employment Summary - Husky & Major Contractors as of Dec 31, 2019

Atlantic Region Contractor Stats

 Head Count By Contractor
 White Rose - Q4 2019

Contractor	NL Male	NL Female	NL Subtotal	Other Canadian Male	Other Canadian Female	Other Canadian Subtotal	Foreign Male	Foreign Female	Foreign Subtotal	Male Subtotal	Female Subtotal	Total
A Harvey	9	2	11	0	0	0	0	0	0	9	2	11
Aker Solutions	39	14	53	1	0	1	1	0	1	41	14	55
ASCO Canada Limited	6	0	6	0	0	0	0	0	0	6	0	6
Atlantic Offshore Medical Services	6	3	9	0	0	0	0	0	0	6	3	9
Atlantic Towing	57	5	62	25	12	37	2	0	2	84	17	101
Atlantic XL	3	0	3	0	0	0	0	0	0	3	0	3
Baker Hughes	2	1	3	1	0	1	0	0	0	3	1	4
Cougar	35	10	45	11	1	12	0	0	0	46	11	57
Crosbie Salaris	28	5	33	4	0	4	0	0	0	32	5	37
DBC Marine Services	2	3	5	0	0	0	0	0	0	2	3	5
DOF Subsea	65	12	77	4	0	4	1	0	1	70	12	82
East Coast Catering	15	4	19	0	0	0	0	0	0	15	4	19
East Coast Tubulars	9	1	10	1	0	1	0	0	0	10	1	11
Expro Group Canada	12	1	13	1	0	1	3	0	3	16	1	17
FI Oilfield Services Canada ULC	11	0	11	1	0	1	0	0	0	12	0	12
Fugro Jacques GeoSurveys Inc	4	1	5	0	0	0	0	0	0	4	1	5
Halliburton	10	1	11	0	0	0	0	0	0	10	1	11
Husky	211	89	300	24	8	32	10	8	18	245	105	350
Import Tool	0	0	0	0	0	0	0	0	0	0	0	0
Maersk	29	0	29	0	0	0	0	0	0	29	0	29
Oceaneering International Ltd.	1	0	1	0	0	0	9	1	10	10	1	11
Oceans Ltd	3	1	4	0	0	0	0	0	0	3	1	4
OneSubsea	27	2	29	0	0	0	4	0	4	31	2	33
Pennecon	0	0	0	1	0	1	0	0	0	1	0	1
Provincial Airlines	1	0	1	0	0	0	0	0	0	1	0	1
Schlumberger Services	25	6	31	3	0	3	2	0	2	30	6	36
Score	6	1	7	0	0	0	0	0	0	6	1	7
SGS Canada Inc.	0	0	0	0	0	0	0	0	0	0	0	0
Siemens	9	0	9	0	0	0	1	0	1	10	0	10
SNC Lavalin	1	0	1	0	0	0	0	0	0	1	0	1
Stantec	0	0	0	0	0	0	0	0	0	0	0	0
TechnipFMC	5	1	6	0	0	0	0	0	0	5	1	6
Teekay	34	0	34	2	0	2	2	0	2	38	0	38
Terrapure Environmental	3	1	4	0	0	0	0	0	0	3	1	4
Trans Ocean	111	5	116	10	0	10	2	0	2	123	5	128
Weatherford	0	0	0	0	0	0	0	0	0	0	0	0
Workstrings Canada	1	0	1	0	0	0	0	0	0	1	0	1
Total	780	169	949	89	21	110	37	9	46	906	199	1,105

Table 3.3 Employment Summary of Husky and Major Contractors – By Discipline and Gender as of December 31, 2019



Atlantic Region Contractor Stats

Head Count By Occupation
 White Rose - Q4 2019

Occupation	NL Male	NL Female	NL Subtotal	Other Canadian Male	Other Canadian Female	Other Canadian Subtotal	Foreign Male	Foreign Female	Foreign Subtotal	Male Subtotal	Female Subtotal	Total
Administration & Clerical	7	40	47	0	8	8	0	1	1	7	49	56
Engineers	88	32	120	10	2	12	12	2	14	110	36	146
Management	44	5	49	11	1	12	6	0	6	61	6	67
Marine Crew	185	6	191	12	0	12	2	0	2	199	6	205
Other Field Services	100	9	109	10	1	11	0	0	0	110	10	120
Professionals	116	62	178	29	7	36	4	6	10	149	75	224
Skilled Trades	98	2	100	9	0	9	1	0	1	108	2	110
Technicians & Technologists	142	13	155	8	2	10	12	0	12	162	15	177
Total	780	169	949	89	21	110	37	9	46	906	199	1,105

Note: In Q4 2019, Husky employed 37 co-op students (19 female) on the White Rose project. The students are not included in the head count above because they started and ended their term outside of the reporting system period.

3.2 West White Rose Project

As of December 31, 2019, 2,271 people were employed on Husky's West White Rose Project (WWRP). During the fourth quarter of 2019 approximately 1,352,392 hours were expended on the project and the total for 2019 was approximately 5,215,654 person hours.

The majority of person hours expended on the project for this quarter were by SDP for CGS construction. Hours reported by Wood are related to topsides engineering and procurement of topsides equipment. Hours reported by Husky Energy are related to project management. Arup Canada Inc. hours were for continued CGS engineering design work. Similarly, the hours reported by Kiewit (Marystown) reflect construction of living quarters and appurtenances in Marystown. Kiewit (Texas) hours are related to topsides fabrication. Kvaerner hours were for engineering, analysis and planning related to marine operations. TechnipFMC hours relate to engineering of the subsea tie-back system. Hours for Parker Drilling are related to planning for platform operations. Hours for MHWirth were for design of the Drilling Equipment Set, while hours for Jan De Nul are for preparation of dredging and excavation services.

Eighty-four percent of the person hours related to detailed engineering of the CGS took place in Newfoundland and Labrador in the fourth quarter of 2019 (see Arup in Table 3.4) and, overall, 67 percent of person hours expended on the project occurred in Newfoundland and Labrador.

Table 3.4 Person Hours by Contractor – West White Rose Project Employment

Atlantic Region Contractor Stats

Hours By Contractor

West White Rose Project - Q4 2019

Contractor	Onshore	Offshore	Subtotal	Other Canadian	Foreign	Total
Arup Canada Inc.	17,457	0	17,457	1,005	2,327	20,789
Husky	31,156	0	31,156	5,308	740	37,204
Jan De Nul Group	732	0	732	0	1,776	2,508
Kiewit (Marystown)	69,853	0	69,853	0	0	69,853
Kiewit (Texas)	0	0	0	0	400,833	400,833
Kvaerner	5,771	0	5,771	0	433	6,204
MHWirth	0	0	0	0	17,427	17,427
Parker Drilling	3,064	0	3,064	0	40	3,104
SDP	764,505	0	764,505	4	1,699	766,208
TechnipFMC	5,030	0	5,030	0	0	5,030
Wood	5,049	0	5,049	0	18,183	23,232
Total	902,617	0	902,617	6,317	443,458	1,352,392

Residents of NL comprised 67 percent of the West White Rose Project work force, and residents of Canada comprised one percent of the work force. Women comprised approximately 11 percent of the workforce (Table 3.5).

Table 3.5 Head Count by Contractor – West White Rose Project

Atlantic Region Contractor Stats

Head Count By Contractor

West White Rose Project - Q4 2019

Contractor	NL Male	NL Female	NL Subtotal	Other Canadian Male	Other Canadian Female	Other Canadian Subtotal	Foreign Male	Foreign Female	Foreign Subtotal	Male Subtotal	Female Subtotal	Total
Arup Canada Inc.	22	12	34	4	0	4	9	0	9	35	12	47
Husky	56	22	78	9	4	13	3	0	3	68	26	94
Jan De Nul Group	0	0	0	0	0	0	3	0	3	3	0	3
Kiewit (Marystown)	178	21	199	0	0	0	0	0	0	178	21	199
Kiewit (Texas)	0	0	0	0	0	0	596	22	618	596	22	618
Kvaerner	5	1	6	0	0	0	1	0	1	6	1	7
MHWirth	0	0	0	0	0	0	32	6	38	32	6	38
Parker Drilling	3	3	6	0	0	0	0	0	0	3	3	6
SDP	1,031	143	1,174	7	1	8	19	2	21	1,057	146	1,203
TechnipFMC	7	2	9	0	0	0	0	0	0	7	2	9
Wood	8	1	9	0	0	0	30	8	38	38	9	47
Total	1,310	205	1,515	20	5	25	693	38	731	2,023	248	2,271

The majority of positions in Q4 2019 were associated with skilled trades supported by other field services, management, and engineers (Table 3.6).

Table 3.6 Summary by Occupation – West White Rose Project

Atlantic Region Contractor Stats

Head Count By Occupation

West White Rose Project - Q4 2019

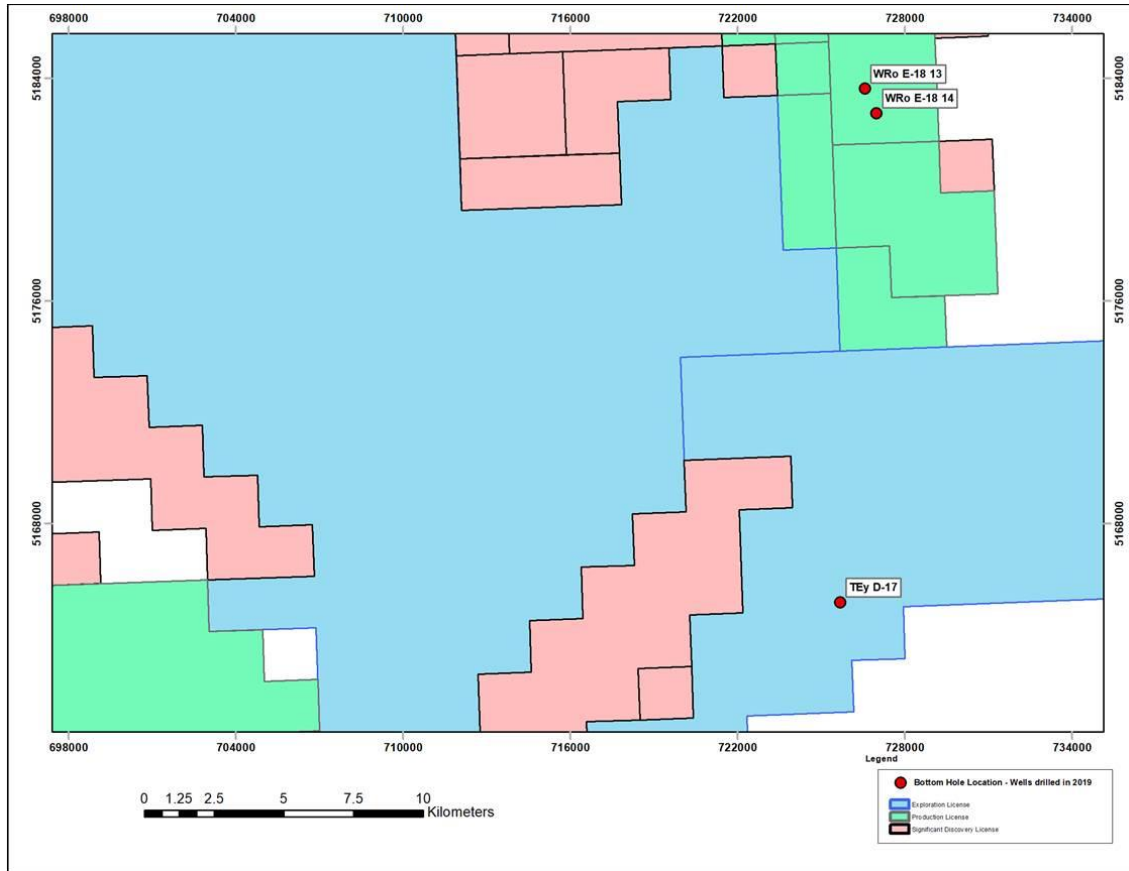
Occupation	NL Male	NL Female	NL Subtotal	Other Canadian Male	Other Canadian Female	Other Canadian Subtotal	Foreign Male	Foreign Female	Foreign Subtotal	Male Subtotal	Female Subtotal	Total
Administration & Clerical	7	21	28	0	0	0	1	4	5	8	25	33
Engineers	66	21	87	8	1	9	44	4	48	118	26	144
Management	120	27	147	5	0	5	25	3	28	150	30	180
Other Field Services	650	60	710	1	0	1	1	0	1	652	60	712
Professionals	69	34	103	4	4	8	3	2	5	76	40	116
Skilled Trades	344	29	373	0	0	0	561	14	575	905	43	948
Technicians & Technologists	54	13	67	2	0	2	58	11	69	114	24	138
Total	1,310	205	1,515	20	5	25	693	38	731	2,023	248	2,271

Note: In Q4 2019, Husky and its contractors employed 20 co-op students (10 female) on the West White Rose Project.

4.0 White Rose Drilling Program

During 2019, Husky brought two infill production wells online in the White Rose field Central Drill Centre (E-18 13 and E-18 14). In addition, well integrity scopes were conducted on four water injection wells in the central (E-18 9) and southern drill centres (B-07 1, B-07 4, and B-07 6).

Figure 4-1 Map of Husky Wells Drilled in 2019



5.0 Procurement

During 2019 a total of 48 new contracts and 42 contract extensions valued at over \$250,000 were awarded. Table 6.1 provides a summary of these contracts.

Table 5.1 Procurement Summary for 2019

Husky East Coast Operations Procurement Summary		2019 Q1					
Description	Vendor Name	Vendor Location	Range	NF	CDN	FOR	Total
New Contracts							
Personal Protective Equipment	Spartan Industrial Marine	St. John's	B	15%	70%	15%	100%
Excitation System Management Services	ABB Inc.	Montreal, QC	A	0%	100%	0%	100%
Offshore Support Vessel (Adhoc) for Ice Management - Maersk Mobiliser	Maersk Supply Service Canada	St. John's, NL	D	90%	5%	5%	100%
Offshore Support Vessel (Adhoc) for Drilling Support - Maersk Detector	Maersk Supply Service Canada	St. John's, NL	D	90%	5%	5%	100%
Waste Management Services	Revolution Environmental Solutions LP	St. John's, NL	G	75%	25%	0%	100%
Offshore Support Vessel (Adhoc) for Ice Management - Atlantic Kestrel	Atlantic Towing Limited	St. John's, NL	A	62%	31%	7%	100%
Provision of Wireline Tension Lifframe	Professional Rental Tools, LLC	Lafayette, LA	C	60%	0%	40%	100%
Offshore HPHT Advisors	Maersk Training Inc.	Houston, TX	A	100%	0%	0%	100%
WWRP Vendor Support for Uninterruptible Power Supply Systems (UPS)	Borri Power Systems	Vancouver, Canada	B	0%	100%	0%	100%
WWRP Installation, Hookup and Commissioning	Pennecon Hydraulic Systems Ltd.	St. John's, NL	A	88%	4%	7%	100%
Charter of Atlantic Merlin	Atlantic Merlin Limited Partnership	Saint John, NB	F	62%	31%	7%	100%
Licensing of Seismic Data	Multiklient Invest Inc. (PGS)	Norway	I	40%	18%	42%	100%
Vendor Support Services for Nuclear Level Devices	Vega Americas	Cincinnati, OH	A	0%	0%	100%	100%
Vendor Support Services for Potable / Utility Water Package	Aqua Chem	Knoxville, TN	A	0%	0%	100%	100%
Vendor Support Services for Hypochlorite Package	H2O LLC	Lafayette, LA	A	0%	0%	100%	100%
Provision of Downhole Camera Rentals	EV Canada Inc.	Calgary, Alberta	A	0%	100%	0%	100%
Provision of Souring Prediction and Core Flooding Injectivity Studies	Oil Plus Limited	Newbury, UK	B	0%	0%	100%	100%
Subsea Inspection, Maintenance, Repair (IMR) and Support Services	TechnipFMC Canada Limited	St. John's, NL	H	79%	1%	20%	100%
WWRP Drilling Rig Operations and Maintenance	Parker Drilling Canada Company	St. John's, NL	O	95%	5%	0%	100%
Offshore Tubing Cutting Rental Equipment	Claxton Engineering Services	Great Yarmouth, UK	A	0%	0%	100%	100%
Mooring Chain Laser Inspection Sensor	Kraken Robotics System Inc.	St. John's, NL	B	100%	0%	0%	100%
Provision of OLGA Online Leak Detection System Services	Schlumberger Information Solutions Division of Schlumberger Canada Ltd	Calgary, AB	D	0%	100%	0%	100%
Offshore Maintenance Technical Services	Pennecon Technical Services	St. John's, NL	E	85%	10%	5%	100%
Offshore Subsea Marine Base Services	Pennecon Marine Base Ltd.	St. John's, NL	E	100%	0%	0%	100%
Fabrication, Testing, SIT Activities and Ad-hoc Warehouse Space	Pennecon Grand Banks Warehousing Inc.	St. John's, NL	C	100%	0%	0%	100%
Supply of Instrumentation Materials	Petroleum Measurement Integrators	Mount Pearl, NL	B	25%	37.5%	37.5%	100%
Supply of Fire & Safety Equipment	K & D Pratt	Mount Pearl, NL	A	30%	5%	65%	100%
Offshore Satellite Services	RigNet Canada Inc.	Houston, Texas	C	17%	0%	83%	100%
Onsite Shredding Services, IS Tape Storage & Handling, and DCC Document Storage & Handling	Iron Mountain Canada	Toronto, ON	A	100%	0%	0%	100%
OEM Technical Support for Turret Communication Swivel	Focal Technologies Corporation	Dartmouth, NS	A	0%	100%	0%	100%
WWRP OEM Vendor Support Services for Air Handling Units	Wozair Limited	Gillingham, United Kingdom	B	0%	0%	100%	100%
WWRP Operating Procedures	Wood Canada Limited	Oakville, ON	F	10%	65%	25%	100%
WWRP Wellheads and Trees	Schlumberger Canada Limited	St. John's, NL	M	55%	3%	42%	100%
WWRP Vendor Support Services for the Emergency Generator Package	Eureka Pumps AS	Oslo, Norway	B	0%	0%	100%	100%
WWRP OEM Vendor Support Services for Drilling Variable Frequency Drive (VFD) System & Transformers Package	M&I Electric LLC	Houston, Texas	C	0%	0%	100%	100%
WWRP OEM Vendor Support Services for Diesel Filtration Centrifuge, Fuel Gas, and the Oily Water Separator	Integrated Flow Solutions LLC (IFS)	Houston, Texas	A	0%	0%	100%	100%
FPSO Benchmarking Study - Consulting Services	Mckinsey & Company Inc. United States	Houston, Texas	A	0%	0%	100%	100%
Provision of Tubular Management Preservation Services	East Cost Tubulars Ltd.	St. John's, NL	D	85%	10%	5%	100%
Provision of Offshore Completions Equipment	RPC Energy Services of Canada, operating as Thru Tubing Solutions	Calgary, AB	B	0%	100%	0%	100%
WWRP Vendor Support Services for Aviation Fuel Package	Helifuel AS	Hordaland, Norway	A	0%	0%	100%	100%
WWRP Vendor Support Services for Seawater Lift Pumps and Water Injection Pumps	Sulzer Pump Services (US) Inc.	Houston, Texas	B	0%	0%	100%	100%
Supply of Intake Filters for Main Power Generator Engine	Clear Edge Filtration	Tulsa, Oklahoma	B	0%	0%	100%	0%
WWRP Vendor Support Services for Firewater Pumps	Framo Services AS	Hordaland, Norway	B	0%	0%	100%	100%
WWRP Vendor Support Services for Air Compressor & Nitrogen Generator Package	Atlas Copco Compressors Canada, a division of Atlas Copco Canada Inc.	St-Laurent, Quebec	B	0%	100%	0%	100%
WWRP OEM Vendor Support Services for the Low Voltage Motor Control Centre and the Medium Voltage Switchgear Packages	ABB Inc.	Brampton, Ontario	A	0%	100%	0%	100%
WWRP Intervention Services	Schlumberger Canada Limited	St. John's, NL	L	58%	5%	37%	100%
Supply Vessel Maersk Cutter - SeaRose Support 2020-2022 (per long term Vessel Bid)	Maersk Supply Service Canada	St. John's, NL	J	0%	0%	100%	100%
Supply Vessel Maersk Cutter - 2020 Ice Management	Maersk Supply Service Canada	St. John's, NL	F	0%	0%	100%	100%

Table 5.1 Procurement Summary for 2019 (cont'd)

Contract Extensions							
Archer Drilling	Suspension Plugs	Houston, Texas	C	30%	0%	70%	100%
MODU Landing String Services	Expro Group Canada	St. John's, NL	F	47%	0%	53%	100%
Hose Retermination and Inspection/Stem Discharge System	Beattie Industrial	St. John's, NL	A	100%	0%	0%	100%
Subsea Storage and Support Services	Pennecon Marine Base	St. John's, NL	A	100%	0%	0%	100%
Offshore Electrical and Thermal Imaging Services	Pennecon Technical Services	St. John's, NL	A	85%	10%	5%	100%
Offshore Safety Training Services	Falck Safety	Dartmouth, NS	B	80%	20%	0%	100%
Offshore Safety Training Services	Rogers Enterprises	Paradise, NL	A	100%	0%	0%	100%
Provision of Production Chemicals	Baker Hughes Canada Company	St. John's, NL	M	64%	24%	13%	100%
General Engineering and Related Services	Hatch Ltd.	St. John's, NL	C	25%	75%	0%	100%
Offshore Engineering Consultancy Services	Frontier Subsea Inc.	St. John's, NL	E	97%	0%	3%	100%
Leak Testing and Purging Services	IKM Testing (Canada) Ltd.	St. John's, NL	G	86%	7%	7%	100%
MODU Directional Drilling, MWD and LWD Equipment and Services	Baker Hughes Canada	St. John's, NL	H	30%	0%	70%	100%
ROV Equipment and Services	DOF Subsea Canada Corp	St. John's, NL	G	79%	0%	21%	100%
MODU Cementing Equipment and Services	Schlumberger Canada Ltd.	St. John's, NL	I	9%	19%	72%	100%
MODU Mud Logging Equipment and Services	Schlumberger Canada Ltd.	St. John's, NL	D	67%	7%	26%	100%
MODU ICD and SAS Equipment and Services	Schlumberger Canada Ltd.	St. John's, NL	C	44%	20%	36%	100%
MODU Tubing Conveyed Perforating	Schlumberger Canada Ltd.	St. John's, NL	F	21%	9%	70%	100%
MODU Provision of Swell Packers	TAM International	St. John's, NL	C	30%	45%	25%	100%
MODU Well Tractor Equipment	Welltec Canada Inc.	St. John's, NL	D	8%	79%	13%	100%
MODU Wellbore Cleanout Tools and Services	Halliburton Group Canada	St. John's, NL	D	33%	28%	39%	100%
MODU Stickline Services	Halliburton Group Canada	St. John's, NL	E	31%	49%	20%	100%
Offshore Lifeboat Maintenance Services	Palfinger Marine Canada Inc.	Langley, BC	F	0%	100%	0%	100%
MODU Lower String Completions	Schlumberger Canada	St. John's, NL	C	10%	10%	80%	100%
MODU Lower String Completions	Halliburton Group Canada	St. John's, NL	H	27%	38%	35%	100%
MODU Liner Hanger and Casing Accessories	Import Tool	St. John's, NL	C	35%	56%	9%	100%
MODU Drill String Rentals	Workstrings Canada	St. John's, NL	C	65%	0%	35%	100%
Information Management System Software	Stratus Technologies Ireland Ltd.	Ballycoolin, Ireland	A	0%	0%	100%	100%
Pressure Safety Device Certification / Recertification Activities	Petrofac Inc.	Houston, TX	A	70%	0%	30%	100%
Chain Measurement Tooling	Oceaneering Canada Ltd.	Paradise, NL	B	0%	0%	100%	100%
Local Courier Services	Fastlane Courier	Mount Pearl, NL	A	100%	0%	0%	100%
MODU Drilling Fluids	Schlumberger (MI Swaco)	St. John's, NL	I	9%	47%	44%	100%
MODU Solids Control	Schlumberger (MI Swaco)	St. John's, NL	F	29%	9%	62%	100%
MODU Well Test Services	Expro Group Canada	St. John's, NL	E	40%	0%	60%	100%
SeaRose FPSO Structural Integrity Manuals Management	Marine Technical Limits	Aberdeen, UK	C	0%	0%	100%	100%
MODU Tubular Running Services	FI Canada	St. John's, NL	F	68%	2%	30%	100%
Cisco System Switches, Associated Hardware, Smartnet Solution Support	Triware	Mount Pearl, NL	A	25%	75%	0%	100%
Supply of the Salt Water Lift Pump and Maintenance Spares	DT Martin	Gander, NL	A	100%	0%	0%	0%
Supply of Kamos Gaskets	PM Interational	Lakeland, Florida, USA	A	0%	0%	100%	100%
Supply of Software Licenses	Paradigm	Calgary, AB	A	0%	40%	60%	100%
Supply of FlowManager Software and Maintenance	FMC Kongsberg	Kongsberg, Norway	B	20%	0%	80%	100%
Supply of Well Intervention and Drilling Well Control Training	Well Control Group	Mount Pearl, NL	A	90%	10%	0%	100%
Supply of Transaqua HT2	K&D Pratt	Mount Pearl, NL	F	34%	0%	66%	100%
Cost Range Code Legend							
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 & Technology Transfer

Husky's investment in Newfoundland and Labrador executed R&D was over \$4.5 million in 2019. R&D expenditures include engagement with a wide spectrum of local companies and academic institutions.

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. Developing the technologies that can support improvements in safety, performance, and productivity for the Grand Banks environment is key to supporting future activity in the region.

Husky acknowledges that the emergence of new digital technologies, their adoption and the intelligent exploitation of data can make our industry more competitive and safer.

6.1 Ongoing R&D Projects

A number of Husky directed, or sponsored R&D initiatives noted in the 2018 Annual Report continued into 2019, including:

Memorial University

NSERC/Husky industry chair for safety at sea recognizing present capacity and to promote the development of simulation technologies to improve operational safety leading to a more robust, inherent safe design, of offshore facilities

Petroleum Research (PRNL)

- Asset Integrity
 - Liquid Repellent Surfaces for Asset Integrity
 - Microbial Corrosion
- Environment
 - Bioindicators – Diagnostic Tools for Effects Assessment
 - Effects of Seismic Activity on Shrimp Behavior – Phase II pilot survey
- Health & Safety
 - Unmanned Aerial Iceberg Tracking
 - Dynamic Positioning Operations in Ice Environments
 - Performance of Personal Locator Beacons (PLBs)
- Integrated Operations / Digitalization
 - Robotic Process Automation Assessment & Proof-of-Concept
 - Maintenance Advisor Implementation Demonstration
 - Digital Oilfield Education
 - Digitizing Extractive Industries

- Enabling Marginal Fields
 - Enabling Marginal Field Roadmapping
- Other
 - Enhanced Oil Recovery - Complex Reservoirs
 - Ocean Supercluster (OSC)

C-CORE

- *Henry Goodrich* MODU operations in sea ice
- Automation of Water Cannon Target Tracking for Ice Management
- Evaluation and Optimization of an Iceberg Drift Forecast Model for the Smart Iceberg Management System (SIMS)

Husky Led R&D

- Collaborative research with the Marine Institute and Notus to develop an ice net for use in high sea states.
- Collaborative research with C-CORE, Arup and others to mature the WWRP design basis.
- Ice Loads on Floating Structures JIP with industry operators and engineering service providers
- Laser Inspection of the SeaRose FPSO Mooring Chain Using Kraken SeaVision Technology

6.2 New R&D Projects

Husky's R&D program continued to grow with initiation of a number of new R&D projects during 2019. Notable new projects include:

Petroleum Research (PRNL)

- Environment
 - X-Band Radar Oil Spill Detection
 - Advanced Satellite Observations for Oil Spill Response
- Enabling Marginal Fields
 - AFT Program – Flowline Protection for Extended Tiebacks
 - Evaluation of use of Weaklinks for Iceberg Mitigation
 - Technology Advancement for Subsea Excavations (Scanmudring)

- Other
 - Ocean Supercluster (OSC) – The following project has been initiated through Ocean Supercluster
 - OceanVision (Kraken)

C-Core

- Subsea Infrastructure Iceberg Interaction Model Sensitivity Review

7.3 Future Initiatives in R&D

Husky's investment in collaborative R&D in Newfoundland and Labrador continues to contribute to the growth of local R&D capacity and capability.

Husky supports initiatives which motivate innovation in safety practices, efficiency, and reliability of offshore exploration and production operations, while continuing to advance the technological feasibility of future offshore developments. A combination of direct investments in R&D, addressing strategic challenges unique to its business needs and opportunities, participation on collaborative R&D, and targeting more generic industry and regional operation challenges, helps maintain Husky's diverse R&D portfolio.

Husky remains committed to its role as a strategic industry partner to enable Newfoundland and Labrador innovators to successfully leverage additional funding from agencies such as ACOA Atlantic Innovation Fund, toward advanced technology demonstration and commercialization of projects. Husky's contribution incorporates a blend of direct financial investment and participation through mentoring, which includes access to subject matter experts and operational resources.

7.0 Education and Training

Education and training remains a key area for Husky and continues to provide an opportunity to contribute to the development of the local offshore industry.

Husky will continue to invest in education and training to assist 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 2019.

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 2019. Husky continued to be an important employer of co-operative education students working in various disciplines, hiring 126 students in 2019. Total expenditure on co-operative education for

2019 by Husky was over \$2.5 million. Husky views this program as an important tool for building local capabilities in the offshore oil and gas sector and will continue to support this program in the future.

Husky renewed its commitment to influencing education and career choices of young adults in Newfoundland and Labrador through a \$20,000 contribution to Techsploration in 2019, the 17th 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 female employees who volunteer their time to be mentors for this program. This included a school visit (including presentation and speed networking activity), a facility tour (Cougar Helicopters) and an afternoon at the Husky's offices where participants were provided an overview of career options in the oil and gas industry. In addition to Techsploration, forty-eight female Grade 9 students from Pearce Junior High in Marystown were provided a unique opportunity on October 11 when Husky partnered with WRDC, the College of the North Atlantic - Burin Campus (CNA), and Kiewit Offshore Services to introduce the students to skilled trades. The day began with a tour of the CNA campus where students were able to get first-hand experience welding, working with electrical circuits, bending sheet metal and learning about non-destructive testing. This was followed by a tour of the Kiewit fabrication facility, where they could observe the construction of the living quarters, flare boom, life boat stations, and the helideck for the topsides of the West White Rose Project.

Husky also continued to work closely with Women in Science and Engineering (WISE) in 2019 through provision of \$25,000 for summer student positions. As part of this program, female Husky employees also hosted a Husky Day on August 14 for the SSEP students which provided an opportunity for participants to meet with other females in non-traditional jobs as well as taking a tour of OneSubsea, Cahill Fabrication, and RelyOn Nutec Canada (NL).

In 2019 Husky also provided, \$10,000 to the Shorefast Foundation Geology at the Edge Internship Program, \$3,000 to the Learning Disabilities Association's Assistive Technology Program, and \$1,000 to the Marine Institute's Mate ROV Competition.

7.2 Husky Personnel Training

During 2019, Husky personnel received locally-based training from various educational facilities including Leadership Behaviours and High Reliability Organization Support Coaching Workshops at a cost of \$43,155, Formation and Prevention of Oilfield Scale: From the Laboratory to the Field at a cost of over \$8,500, an Eclipse Compositional Simulation course at a cost of over \$8,300, and a Port Engineer's course at a cost of over \$5,200.

7.3 Other Training Initiatives

- Teekay spent over \$89,500 on work term students studying Marine Navigation and Marine Engineering at the Marine Institute and Human Resources at the College of the North Atlantic.
- Atlantic Towing spent over \$76,500 on work term students from the Marine Institute and College of the North Atlantic.
- TechnipFMC spent over \$180,000 on work terms students from Memorial University and the College of the North Atlantic.
- SDP spent over \$1,000,000 on work term students from Memorial University and Keyin College.

8.0 Community Investment

In the Atlantic Region, Husky focused its efforts on preserving relationships with key community partners and supporting initiatives that will build stronger communities by supporting diversity, inclusion, and education. Many of our contributions were payments under existing agreements that were previously announced. However, in 2019 Husky supported new commitments such as:

- \$1,000,000 towards a Harsh Environment Research Facility to strengthen Atlantic Canada infrastructure and expertise in technologies operating in harsh environments, such as the ocean, energy, shipping and aerospace sectors.
- \$120,000 to the Husky Centre of Excellence (MUN) which is geared to enhance the sales and supply chain management capabilities of local firms by engaging businesses, practitioners and students in the buying and selling of goods and services.

In addition to these major gifts, Husky also supported other local community organizations including \$50,000 to the Canadian Cancer Society Cancer Prevention Program and a \$25,000 sponsorship for the 2019 CNIB Industrial Eye Safety Program.

9.0 Diversity

Husky's Diversity Forum for 2020 has been deferred and will be held at a later date. A report on Husky's White Rose Diversity Plan will be submitted under separate cover.

10.0 Photographs



Husky employees volunteer to deliver the Junior Achievement program at St. Kevin's High - January 2019



The HSEQ team donates 60 bunker suits to municipal fire departments - March 2019



**Husky managers cooked and served a pancake breakfast to
fundraise for the Husky Has Heart charities – March 2019**



**Husky employees presented cheques to representatives
from the 3 Husky Has Heart chosen charities. Pictured above
is the donation to the Community Food Sharing Association
– March 2019**



The West White Rose Project participates in WRDC's Orientation to Trades and Technology program by offering site tours - April 2019



Husky invites vendors to set up booths in the 351 lobby to educate about making a positive impact on the environment for Earth Day - April 2019



Husky's West White Rose Project SCM team volunteers at the Ronald McDonald House to cook for 48 guests – May 2019



Husky sponsors the 13th Annual Husky Energy Eastern Newfoundland Science and Technology Fair – May 2019



Husky employees participate in the 9th Annual Wade Duggan Memorial Hockey Tournament - May 2019



Husky has had another great year helping young girls get hands on exposure to science through WRDC's annual Techsploration program – May 2019



**Husky donates \$50,000 to the Salvation Army Centre of Hope
- June 2019**



**Husky employees participate in the Pride Week Parade in St.
John's, NL - July 2019**



Husky hosts Family Fun Day in Argentina for employees and their family members to tour the CGS site - July 2019



Husky's contributes \$3,000 and 2 laptops to the Learning Disabilities Association of NL for their Tech Buddies program – August 2019



Husky donated two computers to the Jimmy Pratt Centre for their Outreach Client Access Centre – August 2019



Husky donates \$10,000 to Easter Seals to help reach their goal to return to regular operations in wake of flooding that disrupted programs and services - August 2019



Husky hosts Husky Day for participants of the Women in Science and Engineering Summer Student Employment Program – August 2019



Husky becomes first to achieve 'Accessibility Certified Gold' rating under the Rick Hansen Foundation Accessibility Certification™ (RHFAC) program - September 2019



Husky employees participate in Orange Shirt Day to recognize the hardships of Indigenous children who endured the residential school system - October 2019



The *Henry Goodrich*, *Transocean*, *Horizon* and *Husky* donate funds to support the Happy Valley-Goose Bay Food Bank - October 2019



Husky's provides the Binge Eating Disorder Foundation with \$10,000 to support its work raising awareness around eating disorders and providing tools to support individuals and families struggling with them – November 2019



Husky employees participate in Goodlife Fitness' Annual Spin4Kids to raise funds for physical activity programs for children with special needs – November 2019



Husky contributes \$1 million to create the Husky Centre of Excellence in Sales and Supply Chain Management - December 2019



Husky supports the Single Parent Association of NL through monetary donations and Christmas gifts for 19 families, totalling over \$10,000 – December 2019



Husky employees volunteer to serve Christmas dinner for the Clean Start program, a Stella's Circle organization - December 2019



Husky employees volunteer to support the Salvation Army Kettle Campaign – December 2019