



NWT Oil and Gas Annual Report 2018

Rapport sur l'activité pétrolière et gazière aux Territoires du Nord-Ouest 2018

Le présent document contient la traduction
française du résumé et du message du ministre

Northwest Territories Oil and Gas Annual Report 2018

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Minister's Message

I am pleased to present this report of oil and gas activity in the Northwest Territories (NWT) for the year ending December 31, 2018.

Much of the focus in 2018 was towards the future. The introduction, in May, of the NWT Petroleum Resources Strategy: A Path to Northern Benefits and Energy Security was an important step.

Its release, alongside the 2030 Energy Strategy and the 2030 Climate Change Strategic Framework, served to confirm our government's commitment to a long-term vision and approach to energy, climate change and petroleum resources.

As we advance and define our approach to climate change, the development of our territory's tremendous natural gas resources will offer a means to reduce the use of fossil fuels and in-turn greenhouse gas emissions; while providing greater energy security economic opportunities for residents.

2018 also saw the Department of Industry, Tourism and Investment begin its review, analysis and public engagement of legislation governing the oil and gas sector in the Northwest Territories.

Meanwhile, through the implementation of the Resources and Energy Development Information (REDI) initiative, our government continues to NWT residents with information and products aimed at strengthening the knowledge and understanding of resource development – in all of its forms.

As we move forward, we will build on these initiatives to identify and pursue opportunities to grow and expand our petroleum sector responsibly and sustainably for the benefit of all.

Wally Schumann
Minister, Industry, Tourism and Investment

May 2019



Message du ministre

Je suis heureux de présenter ce rapport sur l'activité pétrolière et gazière aux Territoires du Nord-Ouest (TNO) pour l'année se terminant le 31 décembre 2018.

En 2018, nous nous sommes tournés vers l'avenir. En mai, le dépôt de la Stratégie sur les ressources pétrolières des TNO : Un pas vers la sécurité énergétique au profit des Ténos s'est révélé une étape importante.

Son dévoilement, en même temps que le dévoilement de la Stratégie énergétique 2030 et du Cadre stratégique 2030 sur le changement climatique, a permis de confirmer l'engagement de notre gouvernement en faveur d'une approche à long terme en matière d'énergie, de changement climatique et de ressources pétrolières.

Au fur et à mesure que nous allons de l'avant et définissons notre approche à l'égard du changement climatique, la mise en valeur de nos imposantes réserves de gaz naturel offrira un moyen de réduire la dépendance aux autres combustibles fossiles et de réduire nos émissions de gaz à effet de serre, tout en élargissant les perspectives économiques et en consolidant l'approvisionnement énergétique pour les résidents.

En 2018, le ministère de l'Industrie, du Tourisme et de l'Investissement a également commencé l'examen et l'analyse de la législation qui régit le secteur pétrolier et gazier des Territoires du Nord-Ouest, et a organisé des échanges avec le public.

Entre-temps, grâce à la mise en œuvre de la Préparation sur les ressources et l'énergie pour les Ténos (PRÉT), notre gouvernement continue de présenter aux résidents des TNO de l'information et des produits pour leur permettre de mieux comprendre l'exploitation des ressources sous toutes ses formes.

Alors que nous continuons à aller de l'avant, nous nous appuyerons sur ces initiatives pour trouver des occasions de faire croître notre secteur pétrolier de manière responsable et durable dans l'intérêt de tous.

Wally Schumann
Ministre de l'Industrie, du Tourisme et de l'Investissement

Mai 2019



2018 IN BRIEF

Petroleum Resources Strategy

The strategy was released in May 2018, it sets out a plan to promote and grow the territorial oil and gas sector; enabling exports to international markets while supporting smaller-scale natural gas initiatives designed to meet the needs of residents and communities in the NWT.

Developed with input from NWT residents, businesses, governments, industry and many other stakeholder groups, the strategy offers a balanced approach to developing oil and gas resources to ensure that NWT residents can both support the sector and benefit from it in the long term.

It was released in concert with the Northwest Territories 2030 Energy Strategy and the NWT Climate Change Strategic Framework.

Resources and Energy Development Information Project

Launched in June 2017, the Resources and Energy Development Information (REDI) initiative fulfils a government commitment to ensure NWT residents have meaningful opportunities to participate in the assessment of potential benefits and risks associated with resource development, including hydraulic fracturing. In 2018, REDI visited Yellowknife, Fort Simpson, and Norman Wells.

Rights Management

There were no rights issuance processes completed in 2018 in the onshore regions of the NWT.

Operations

There were no new wells drilled in the NWT between January 1 and December 31, 2018. There was no seismic work conducted in the NWT between January 1 and December 31, 2018.

Production

The total aggregate oil production between January 1 and December 31, 2018 was 619,014 barrels. The total aggregate natural gas production in the NWT was 513 million cubic feet between January 1 and December 31, 2018.

Northwest Territories Environmental Studies Research Fund (NWT ESRF)

ESRF continued its work to support scientific research in the territory, funding several projects related to boreal caribou and groundwater monitoring. For more information on work supported by the ESRF, visit www.nwt-esrf.org.

2018 EN BREF

Stratégie sur les ressources pétrolières

Publiée en mai 2018, la Stratégie sur les ressources pétrolières trace la voie à suivre pour promouvoir et faire croître le secteur pétrolier et gazier, en favorisant les exportations sur le marché international tout en soutenant des projets de gaz naturel à plus petite échelle qui visent à répondre aux besoins des résidents et des collectivités des TNO.

Élaborée à partir des commentaires fournis par les résidents, les entreprises, les gouvernements, l'industrie et d'autres parties prenantes des TNO, la stratégie propose une approche équilibrée pour développer les ressources pétrolières et gazières afin de s'assurer que les Ténos peuvent à la fois soutenir le secteur et profiter des retombées à long terme.

Ce document a été publié en même temps que la Stratégie énergétique des TNO 2030 et le Cadre stratégique sur le changement climatique des TNO.

L'initiative PRÊT

Lancée en juin 2017, l'initiative PRÊT (« préparation sur les ressources et l'énergie pour les Ténos ») répond à l'engagement du gouvernement de veiller à ce que les Ténos puissent participer de manière significative à l'évaluation des avantages et des risques associés à l'exploitation des ressources, dont ceux liés à la fracturation hydraulique. En 2018, l'initiative a été présentée à Yellowknife, Fort Simpson, et Norman Wells

Gestion des droits

En 2018, il n'y a eu aucun processus d'attribution de droits dans les régions continentales des TNO.

Opérations

Entre le 1^{er} janvier et le 31 décembre 2018, aucun nouveau puit n'a été foré aux TNO. Au cours de la même période, des travaux sismiques n'ont pas été entrepris non plus.

Production

Le bilan total de la production pétrolière entre le 1^{er} janvier et le 31 décembre 2018 a été de 619 014 barils. Le bilan total de la production gazière aux TNO a été de 513 millions de pieds cubes pour la même période.

Fonds pour l'étude de l'environnement des Territoires du Nord-Ouest

Le Fonds pour l'étude de l'environnement a continué de soutenir la recherche scientifique aux TNO. Il a permis de financer plusieurs projets de surveillance du caribou boréal et des eaux souterraines. Pour plus d'information sur les travaux soutenus au moyen du Fonds, visitez le www.nwt-esrf.org.

OIL AND GAS RESOURCES

Table 1: Discovered conventional resource volumes in the Northwest Territories

TYPE	NWT Onshore	Arctic Islands	TOTAL
Natural Gas			
billion m ³	213.8	75.2	289.0
(trillion ft ³)	(7.6)	(2.6)	(10.2)
Natural Gas Liquids			
million m ³	8.3	0.0	8.3
(million barrels)	(52.2)	(0.0)	(52.2)
Oil			
million m ³	84.1	4.9	89.0
(million barrels)	(529.0)	(30.8)	(559.8)

National Energy Board, *Assessment of Discovered Conventional Petroleum Resources in the Northwest Territories and Beaufort Sea*, November 2014

Table 2: Unconventional resource assessments of Canol and Bluefish shale

billion m ³ (billion barrels)	In-Place		
	Low	Expected	High
Bluefish	4.392 (27.624)	7.366 (46.331)	11.254 (70.786)
Canol	13.129 (82.579)	23.018 (144.779)	35.095 (220.741)

National Energy Board, *An Assessment of the Unconventional Petroleum Resources of the Bluefish Shale and the Canol Shale in the Northwest Territories*, June 2015

Table 3: Natural gas resource estimates for the Liard Basin

trillion m ³ (trillion ft ³)	In-Place		
	Low	Expected	High
Exshaw-Paltry	5.2 (184)	9.0 (318)	14.5 (514)
Horn River	2.6 (91)	5.3 (187)	9.0 (317)

National Energy Board, *The Unconventional Gas Resources of Mississippian-Devonian Shales in the Liard Basin of British Columbia, the Northwest Territories, and Yukon*, March 2016

OIL AND GAS MANAGEMENT

RIGHTS ISSUANCE

NWT has a policy of being open to Expressions of Interest from companies interested in gaining the right to explore for petroleum on GNWT subsurface lands. The GNWT made changes to its rights issuance process, moving away from the traditional call for nominations process to a more open, expression-of-interest process. Companies with an interest in petroleum exploration in the NWT can nominate the lands which they would like to see included in a call-for-bids process at any time. An open-call rights-issuance process means the NWT is operating in much the same way as Alberta, Saskatchewan, Yukon, and the offshore petroleum boards of Newfoundland and Nova Scotia.

Petroleum land disposition in the NWT

The following series of charts show the current petroleum land dispositions in the NWT, all of which were transferred from the Government of Canada as part of the 2014 Devolution agreement.

Table 4: Land Disposition as of December 31, 2018

Region (number of interests)	Exploration Licence	Significant Discovery Licence	Production Licence	Petroleum Land Leases ¹
Mackenzie Delta and Arctic Islands	0	38	2	0
Central Mackenzie Valley	3	21	0	0
Southern Northwest Territories	0	31	21	8

Region (hectares)	Exploration Licence	Significant Discovery Licence	Production Licence	Petroleum Land Leases ¹
Arctic Islands	0	10,219	0	0
Mackenzie Delta	0	111,871	3,423	0
Central Mackenzie Valley	239,397	272,258	0	0
Southern Northwest Territories	0	65,729	32,842	21,107
TOTAL	239,397	460,077	36,265	21,107

¹These leases and licences were issued under former legislative regimes pursuant to Sections 99 and 101 of the *Petroleum Resources Act*.

Issuance and Terminations

Exploration Licences

There were no Exploration Licences (EL) issued in 2018, nor were there any ELs that expired or that were surrendered.



Significant Discovery Licences

There were no Significant Discovery Licences issued in 2018.

Oil and Gas Lease

The Department of Industry, Tourism and Investment maintains a public registry of all petroleum interests and instruments registered under Part 8 of the *Petroleum Resources Act*. The registry stands as the official record of rights holders, and any transfers or changes of ownership are duly recorded.

A monthly activity report is available online at: <http://www.iti.gov.nt.ca/en/services/oil-and-gas-rights-management/oil-and-gas-activity-reporting>.

The following series of maps show the locations of all interests on petroleum lands held in the NWT both onshore and offshore as of December 31, 2018.

Figure 1: Mackenzie Delta/Arctic Islands Petroleum Land Disposition Map

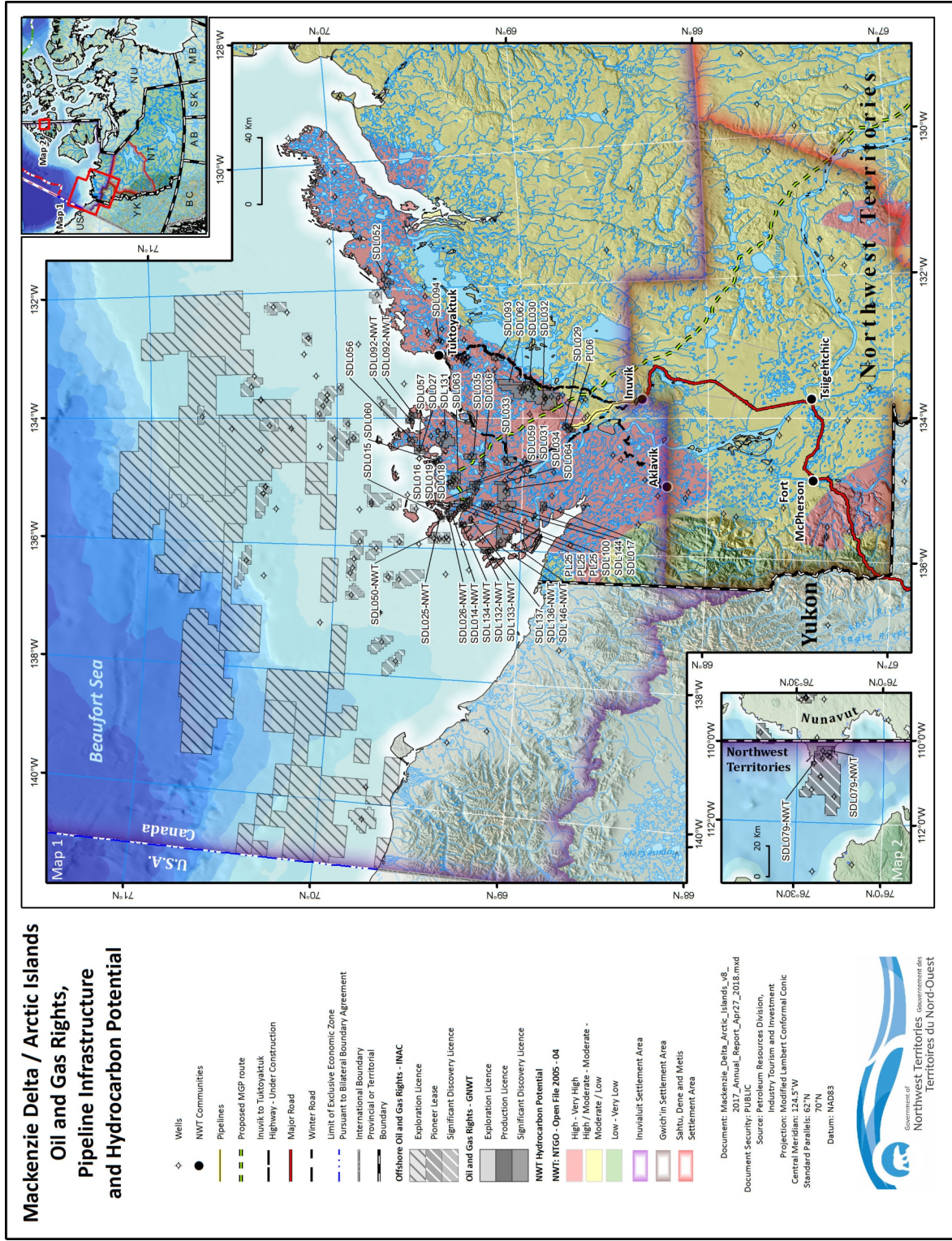


Figure 2: Liard Basin Land Disposition Map

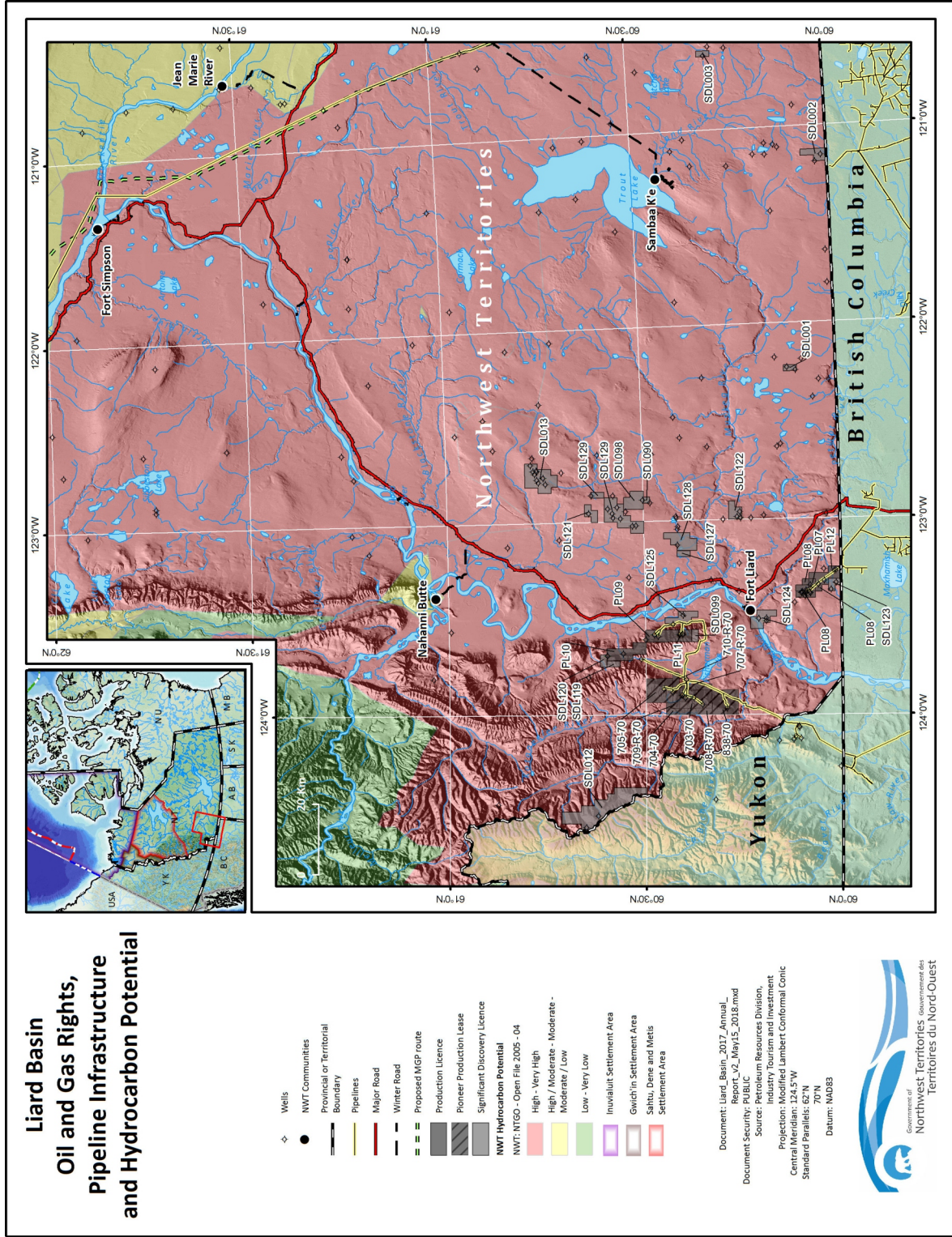


Figure 3: Central Mackenzie Valley Land Disposition Map

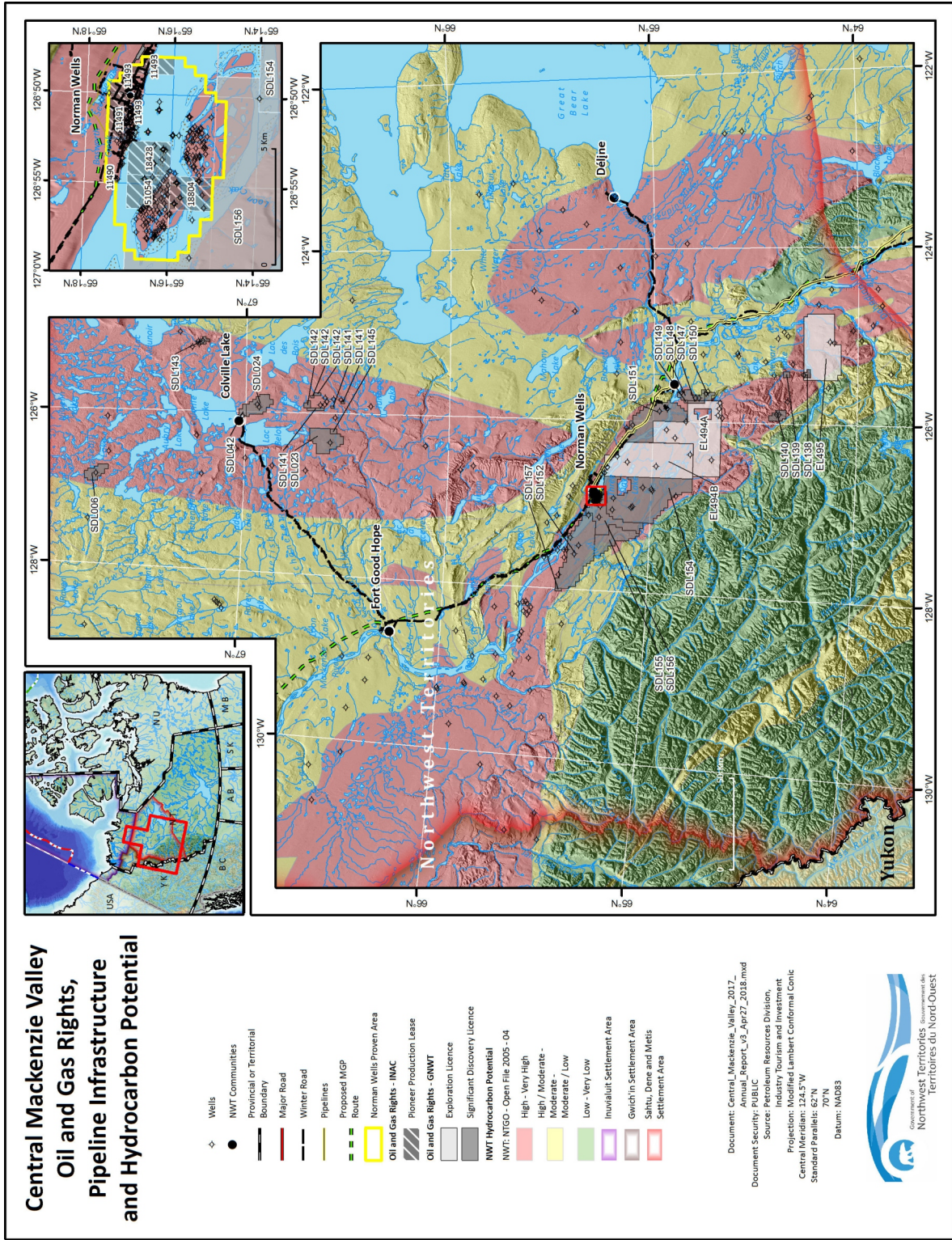


Figure 4: Cameron Hills Land Disposition Map

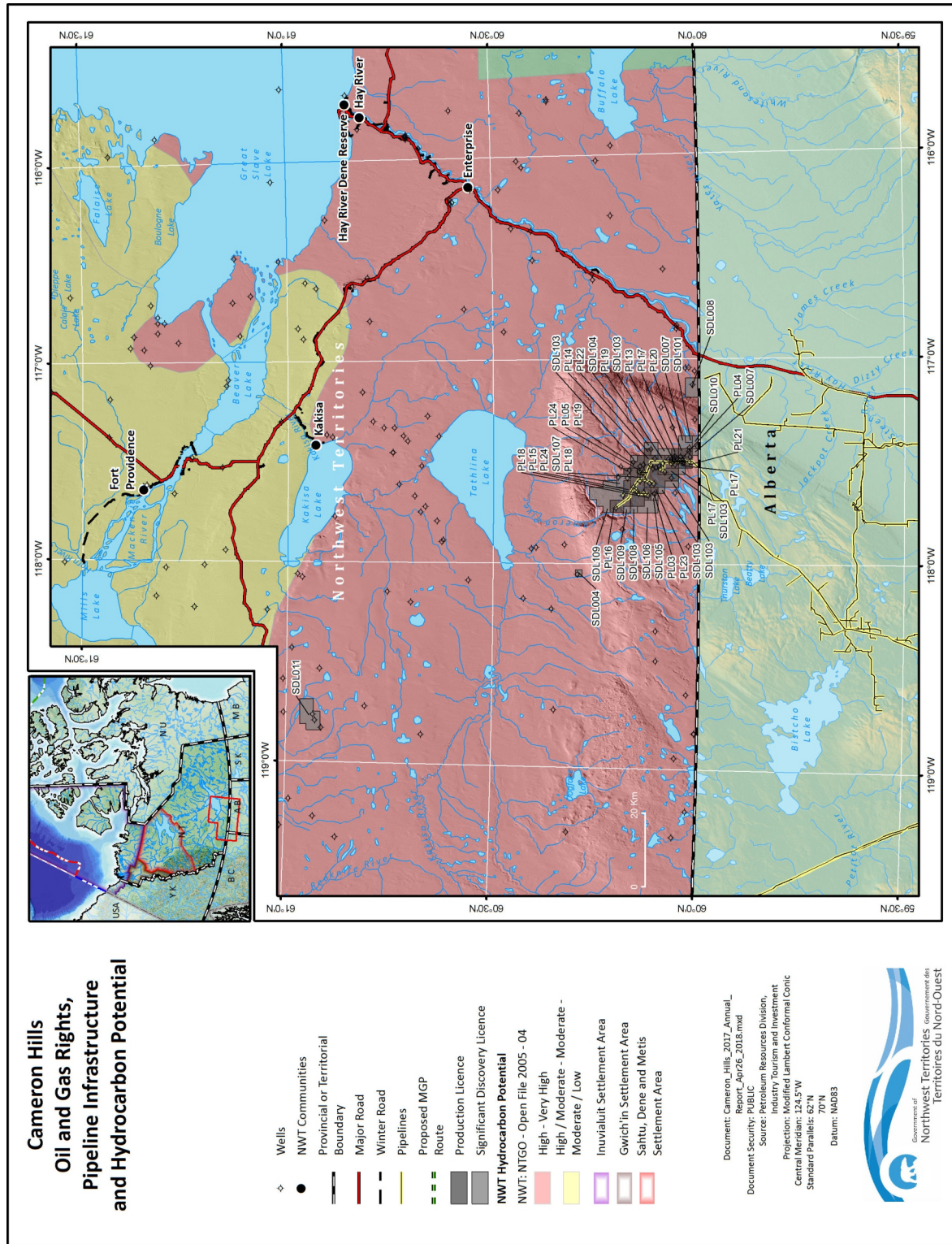


Table 5: Exploration Licences in the NWT

Licence	Hectares	Representative ¹		Issue Date	End of Period 1 ²	Expiry Date	Work Proposal Bid ³ (\$)
EL494A	87,748	Husky Oil Operations Limited	√	29/08/2013	29/08/2016	28/08/2020	188,000,000
EL494B	87,034	Husky Oil Operations Limited	√	29/08/2013	29/08/2016	28/08/2020	188,000,000
EL495	65,994	International Frontier Resources		16/3/2014	15/03/2019	15/3/2023	1,200,000
TOTAL:	240,776						377,200,200

¹Current representative as of December 31, 2018

²This date is as per the terms and conditions of the original licence.

³All amounts rounded to the nearest dollar.

√ indicates that a well has been drilled on the lands under licence.

Revenues from Administration of Interests

Following the completion of a rights issuance process, successful bidders for Exploration Licences are required to post 25 percent of the Work Proposal Bid before the interest can be issued. Referred to as the Work Deposit, this amount is refundable as expenditures are incurred through the first (Period 1) term of the licence. Approved expenditures are refunded to the interest holders at the prorated amount of 25 percent of the total amount of expenditures. Any balance remaining at the end of Period 1 of an Exploration Licence is forfeited.

If an interest holder meets all terms and conditions set out in the Exploration Licence and is able to maintain the licence for an additional four years, they are required to pay rental fees. Rental fees are refundable as expenditures are incurred on a dollar-for-dollar basis.

Financial deposits held for Period 1 work as of December 31, 2017 totalled \$42,975,397.20

ITI also received \$1,387,224 for EL494 in the form of a Period 1 Extension Fee. Husky Oil Limited, interest holder on EL494, paid the fee equivalent of its first year of rental in Period 2 but retained its outstanding Work Bid Deposit having met its Period 1 drilling requirement.

Table 6: Revenues from Administration of Interests (\$)

	2013	2014	2015	2016	2017	2018
Non-refundable rentals (leases)	53,195	52,202	52,202	52,202	52,202	52,202
Fees	8,832	106	1,432	118	136	0
Forfeitures	50,000	0	0	12,084,465	31,036,250	0
Period 1 Extension Fee	0	0	0	520,209	953,716	1,387,224

Fees

There were no forfeitures paid for the year ending December 31, 2018. During this same period, a total of \$52,202 in non-refundable fees on lands under Petroleum Land Leases was paid.

There were no rental fees on ELs or SDLs paid between January 1 and December 31, 2018.



EXPLORATION ACTIVITIES IN THE NORTHWEST TERRITORIES

There was no new exploration drilling in the NWT in 2018, nor was there any development drilling for the same period. Additionally, there were no seismic programs conducted in the NWT during this period.

PRODUCTION

The Cameron Hills field and the Ikhil gas field, while both located in onshore regions of the NWT, are subject to regulation under two distinct bodies – Cameron Hills under the Office of the Regulator of Oil and Gas Operations and Ikhil under the National Energy Board.

Production information in this report spans the period from January 1-December 31, 2018.

Ikhil

Production levels at Ikhil J-35 continue to be low year over year as efforts to conserve reservoir pressure remain in place, with approximately 3.4 million cubic metres (121 million cubic feet) of natural gas produced during 2018. Gas from this field is used as a back-up system for power generation in Inuvik.

Cameron Hills


There was no production at the Cameron Hills for the year ending December 31, 2018.

Table 7: Production Levels 2013-2018

<i>Oil cubic metres (000s) (barrels) (000s)</i>	Cameron Hills	Norman Wells	Ikhil
2013	16.4 (103)	638.09 (4,013.44)	N/A
2014	8.2 (52)	630.73 (3,967.18)	N/A
2015	1.8 (11.35)	576.29 (3,623.75)	N/A
2015	N/A	521.99 (3,283.23)	N/A
2017	N/A	16.62 (104.54)	N/A
2018	N/A	98.42 (619.01)	N/A
<i>Gas Production cubic metres (000,000s) (cubic feet) (000,000s)</i>	Cameron Hills	Norman Wells	Ikhil
2013	44.5 (1,572)	84.51 (2,984.33)	4.03 (142.46)
2014	24.40 (861.7)	83.85 (2,961.04)	3.64 (128.58)
2015	3.69 (130.40)	83.83 (2,961.04)	2.79 (98.37)
2016	0.01 (0.27)	78.55 (2,773.89)	3.78 (133.42)
2017	0.001 (0.035)	4.11 (144.97)	4.79 (169.08)
2018	0 (0)	11.13 (393.04)	3.42 (120.78)

¹Data for Ikhil and Norman Wells courtesy National Energy Board

²Data for Cameron Hills from NEB (2013-2014) and Office of the Regulator of Oil and Gas operations for 2015-2018

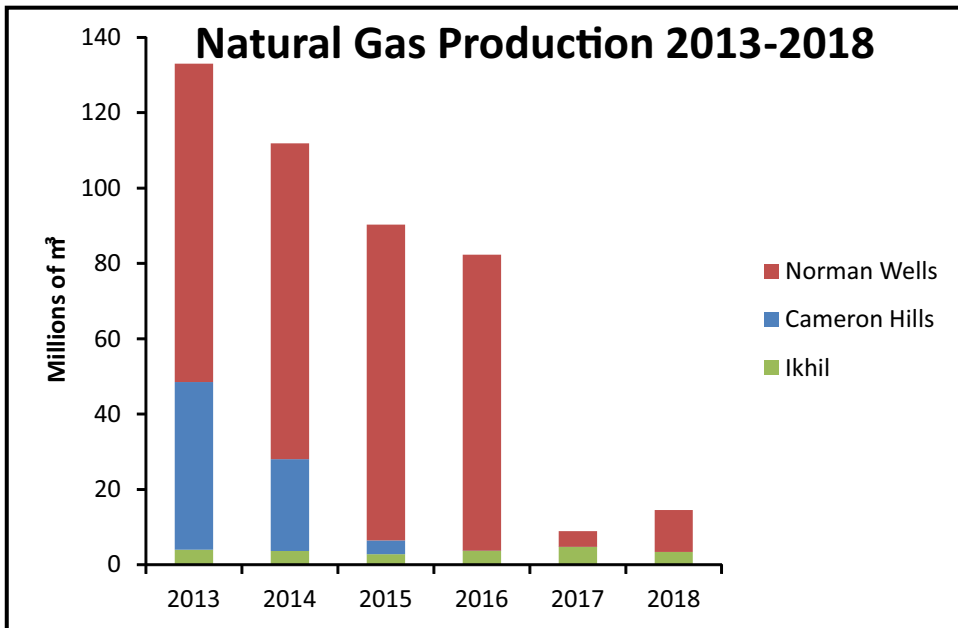
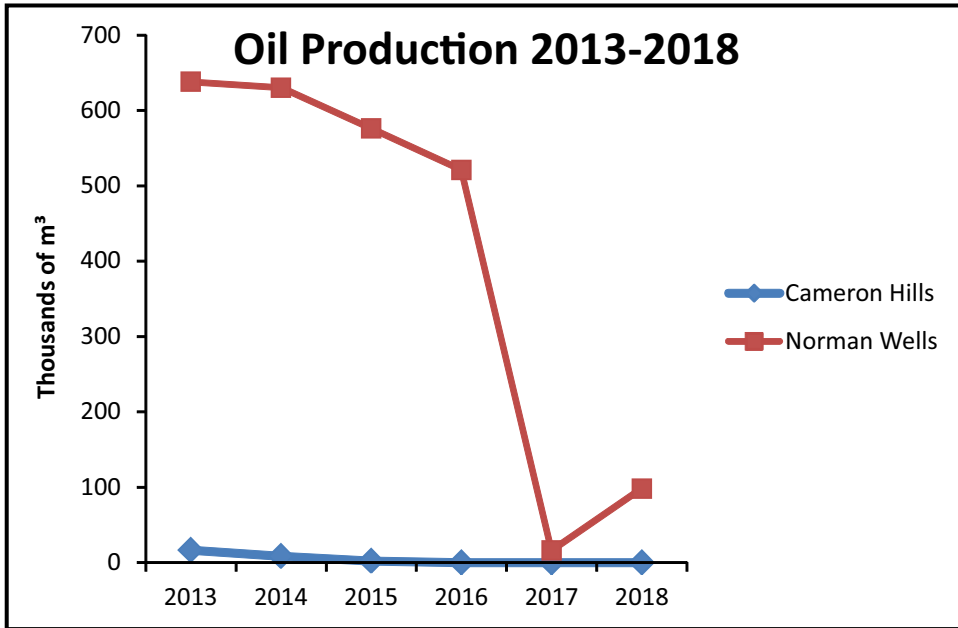


Norman Wells Proven Area

Production at Norman Wells resumed in October 2018, after work to replace a section of the Enbridge Line 21 pipeline was completed. A leak discovered in late 2016 resulted in a shutdown of the pipeline and limited production in 2017 while Enbridge went through the permitting process with the National Energy Board (NEB) and the Mackenzie Valley Land and Water Board to replace the damaged section.

With production returning to full operation late in the year, 619,010 barrels (98,420 m³) of oil was produced at Norman Wells.

Figure 7: NWT Production Volumes, 2013-2018





FURTHER INFORMATION

Please visit our website at www.nwtpetroleum.com

To obtain further information, please contact the appropriate individual below by telephone or in writing:

Mailing address:

Petroleum Resources Division
Department of Industry, Tourism and Investment
P.O. Box 3019
INUVIK NT X0E 0T0

Email: oilandgasrights@gov.nt.ca

Information on the resource management regime, rights issuance process and other related information:

Manager, Oil and Gas Rights: (867) 777-7484

Information on registration procedures and regulations, exploration, significant discovery and production licences, transfers and notices:

Registrar, Oil and Gas Rights (867) 777-7476

Information on Petroleum Resources Division maps and Geographic Information System (GIS) data:

Petroleum Geomatics Officer: (867) 777-7483



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