

NORTH VIRDEN SCALLION UNIT NO. 2

Waterflood Progress Report 2020

Prepared for:

Manitoba Industry, Economic Development and Mines

Petroleum Branch

Prepared by:



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Introduction

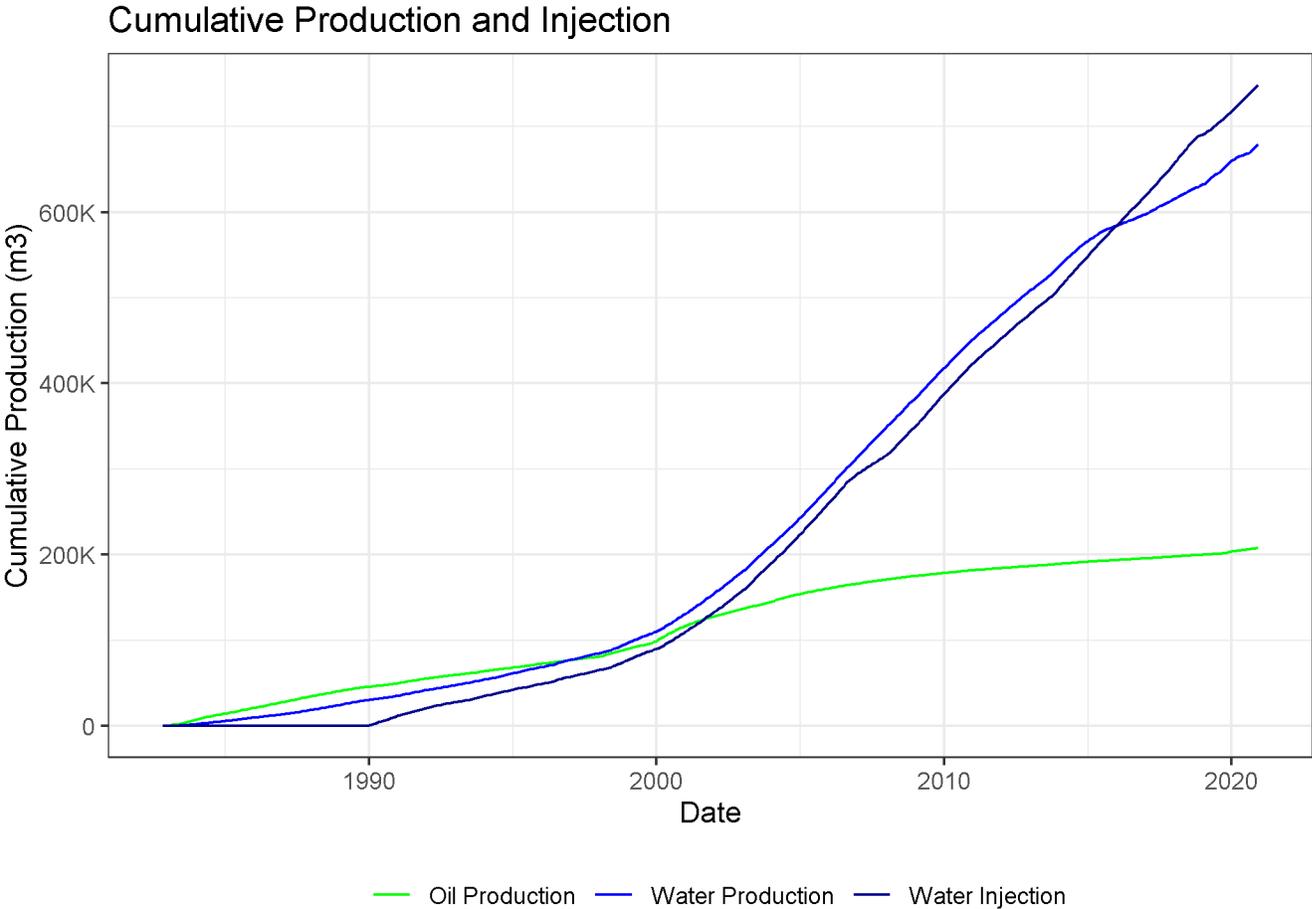
North Virden Scallion Unit No. 2 (NVSU2) Enhanced Oil Recovery (EOR) Waterflood Project was approved under Board Order No. PM 59 effective August 1989 with Saskoil and Gas Corporation as Operator. Mountcliff Resources Ltd. acquired the unit from Saskoil and Gas Corporation and became operator in January 1993. Tundra Oil and Gas (Tundra) acquired the unit from Mountcliff Resources Ltd. in January 2000 and is the current operator of the unit. The EOR project area contains wells in 14 LSDs in Township 11, Range 26 W1. The Unit contains 24 wells. 12 producers, 3 injectors, and 9 abandoned/suspended/other.

Monthly oil and water production rates, injection rate, GOR and WOR

MONTH	Cal Day Oil m3/d	Cal Day Water m3/d	Cal Day Injection m3/d	WOR	GOR
JAN 2020	16.36	83.98	81.58	5.13	0
FEB 2020	14.54	63.18	87.17	4.35	0
MAR 2020	14.16	63.31	108.06	4.47	0
APR 2020	14.17	61.40	103.93	4.33	0
MAY 2020	10.75	20.36	80.19	1.89	0
JUN 2020	11.57	22.89	88.37	1.98	0
JUL 2020	12.45	37.00	88.87	2.97	0
AUG 2020	12.31	37.81	91.32	3.07	0
SEP 2020	13.45	51.08	89.73	3.80	0
OCT 2020	13.04	90.74	90.45	6.96	0
NOV 2020	12.92	92.67	88.40	7.17	0
DEC 2020	13.40	94.10	89.94	7.02	0
Average	13.26	59.88	90.67		

Year summary of produced oil, gas, water and fluid injected

Categories	m3
Oil Production	4,852
Water Production	21,921
Gas Production	0
Water Injection	33,184
Cumulative Oil	207,945
Cumulative Water	679,215
Cumulative Injection	748,166



Monthly Wellhead Pressure

All readings are in kPa

UWI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average
100.04-32-011-26W1.00	5,704	5,498	5,679	5,779	4,708	4,371	4,387	4,330	4,401	4,367	3,932	4,390	4,796
102.03-32-011-26W1.00		75	1,243	1,790	1,475	1,816	1,662	2,052	2,140	2,120	2,094	2,033	1,682
102.16-30-011-26W1.00	1,988	1,894	1,890	1,870	1,081	1,637	1,929	1,960	2,090	2,043	1,911	1,821	1,843

Monthly Injected Volumes

All Volumes are in m3

UWI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
100.04-32-011-26W1.00	1,230	1,014	1,067	986	755	695	721	703	670	678	669	675	9,863
102.03-32-011-26W1.00		326	976	879	768	819	816	921	891	919	864	914	9,093
102.16-30-011-26W1.00	1,299	1,188	1,307	1,253	963	1,137	1,218	1,207	1,131	1,207	1,119	1,199	14,228
Grand Total	2,529	2,528	3,350	3,118	2,486	2,651	2,755	2,831	2,692	2,804	2,652	2,788	33,184

Voidage

All Volumes are in m3 Oil Formation Volume Factor (Rm3/Sm3) = 1.057

MONTH	Oil	Water Injection	Cumulative Oil	Cumulative Water	Cumulative Injection	VRR	Cumulative VRR	
JAN 2020	507	2,604	2,529	203,597	659,892	717,516	0.805	0.820
FEB 2020	422	1,833	2,528	204,019	661,725	720,044	1.109	0.821
MAR 2020	440	1,963	3,350	204,459	663,688	723,394	1.380	0.822
APR 2020	425	1,842	3,118	204,884	665,530	726,512	1.361	0.824
MAY 2020	333	631	2,486	205,217	666,161	728,998	2.529	0.826
JUN 2020	347	687	2,651	205,564	666,848	731,649	2.516	0.828
JUL 2020	386	1,147	2,755	205,950	667,995	734,404	1.772	0.829
AUG 2020	382	1,172	2,831	206,332	669,167	737,235	1.797	0.831
SEP 2020	404	1,532	2,692	206,736	670,699	739,927	1.374	0.832
OCT 2020	404	2,813	2,804	207,140	673,512	742,731	0.865	0.832
NOV 2020	388	2,780	2,652	207,528	676,292	745,383	0.831	0.832
DEC 2020	415	2,918	2,788	207,943	679,210	748,171	0.831	0.832

Workovers

UWI	Date	Description
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Well List

UWI	Type	Status
100.06-29-011-26W1.00	Vertical	Producing
100.11-29-011-26W1.00	Vertical	Producing
102.11-29-011-26W1.00	Horizontal	Producing
100.12-29-011-26W1.00	Vertical	Injection
100.13-29-011-26W1.00	Vertical	Injection
102.13-29-011-26W1.02	Horizontal	Injection
100.14-29-011-26W1.00	Vertical	Producing
100.09-30-011-26W1.00	Vertical	Abandoned Zone
102.10-30-011-26W1.00	Vertical	Injection
102.15-30-011-26W1.00	Vertical	Abandoned
103.15-30-011-26W1.00	Horizontal	Pumping
104.15-30-011-26W1.00	Horizontal	Producing
105.15-30-011-26W1.00	Horizontal	Producing
100.16-30-011-26W1.00	Vertical	Producing
102.16-30-011-26W1.00	Horizontal	Injection
100.01-31-011-26W1.00	Vertical	Abandoned Zone
102.01-31-011-26W1.02	Horizontal	Injection
100.02-31-011-26W1.02	Horizontal	Producing
100.03-32-011-26W1.00	Vertical	Producing
102.03-32-011-26W1.00	Horizontal	Injection
103.03-32-011-26W1.00	Horizontal	Producing
100.04-32-011-26W1.00	Vertical	Injection
100.05-32-011-26W1.00	Vertical	Producing
100.06-32-011-26W1.00	Vertical	Abandoned