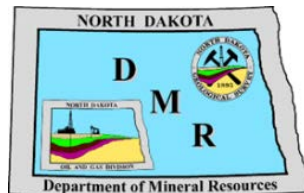


NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES: OIL & GAS 2020

October 8, 2020 | WDEA

Black Swans in Bevys



Visit Us: www.dmr.nd.gov

WHAT IS HAPPENING

WHERE ARE WE

WELLS – RIGS – JOBS – PRODUCTION

WHERE ARE WE GOING

PRICES – RIGS – PRODUCTION – JOBS

WHAT CAN WE DO

COUNTY BY COUNTY

WHAT IS HAPPENING

WHERE ARE WE
WELLS – RIGS – JOBS – PRODUCTION

WHERE ARE WE GOING
PRICES – RIGS – PRODUCTION – JOBS

WHAT CAN WE DO

COUNTY BY COUNTY

What Is a Black Swan?

A black swan is an unpredictable event
beyond what is normally expected of a situation
has potentially severe consequences
extremely rare
severe impact
widespread insistence they were obvious in hindsight.



COVID19



November Elections



OPEC +



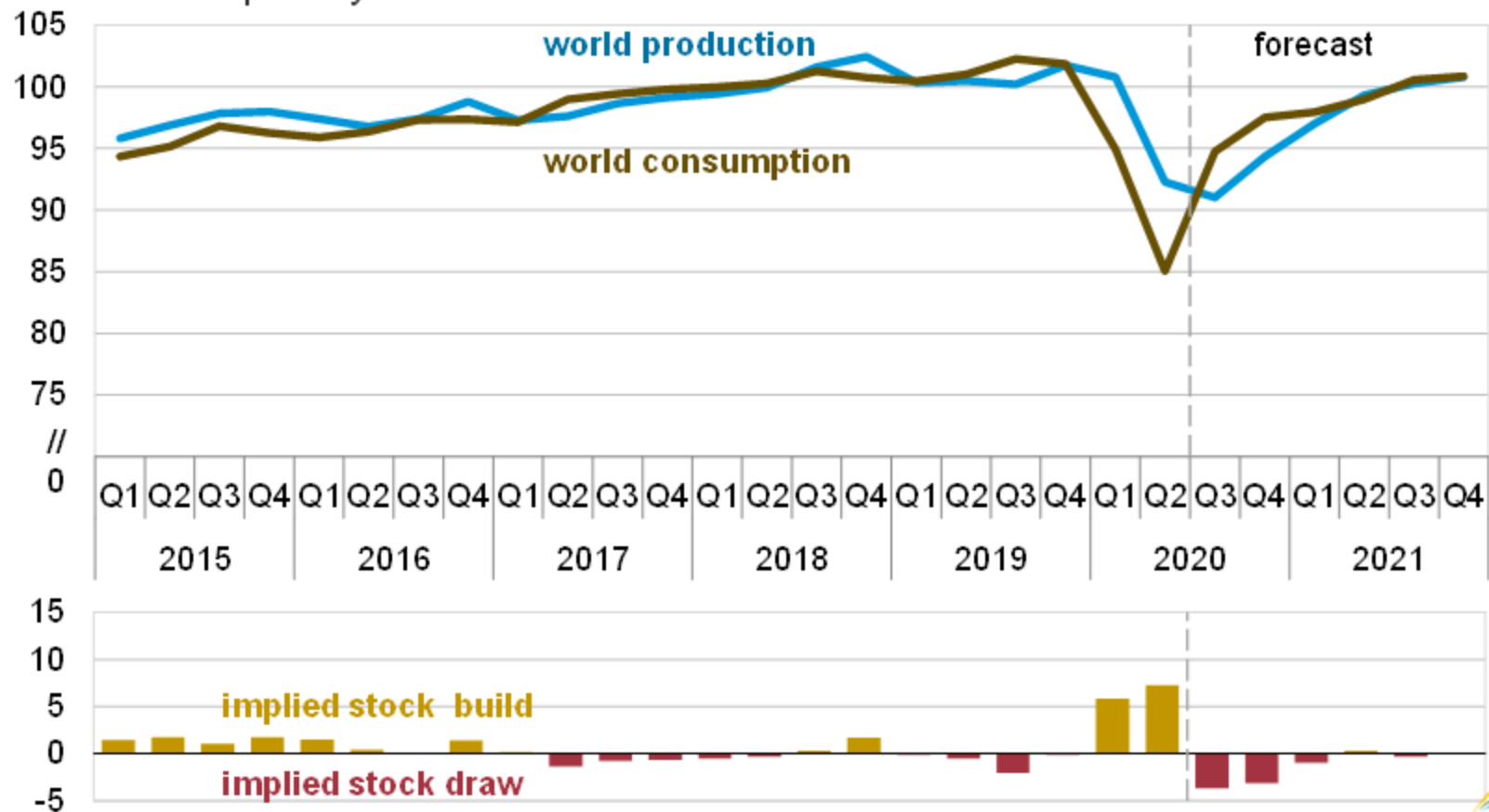
DAPL



Norther Border

World liquid fuels production and consumption balance

million barrels per day



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020



Imported from Inte...
Alert: COVID-19 Related Closures and Information (Note: Department offices are open to public access by appointment only.)

Tundra Swan License Availability

Season Information

View lottery results

Lottery Deadline: Wed, 08/12/2020

Lottery Deadline Date Status: Finalized

Availability

No Available Licenses

Total Licenses: 0

WHAT IS HAPPENING

WHERE ARE WE

WELLS – RIGS – JOBS – PRODUCTION

WHERE ARE WE GOING

PRICES – RIGS – PRODUCTION – JOBS

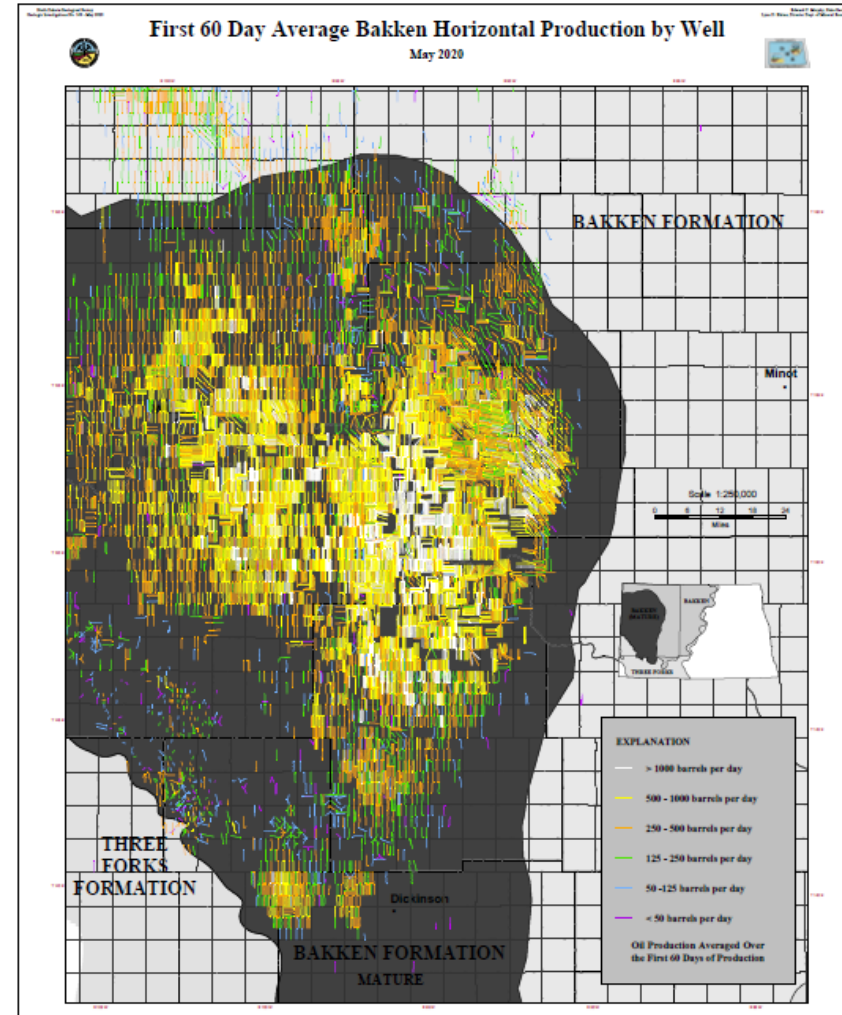
WHAT CAN WE DO

COUNTY BY COUNTY

Wells

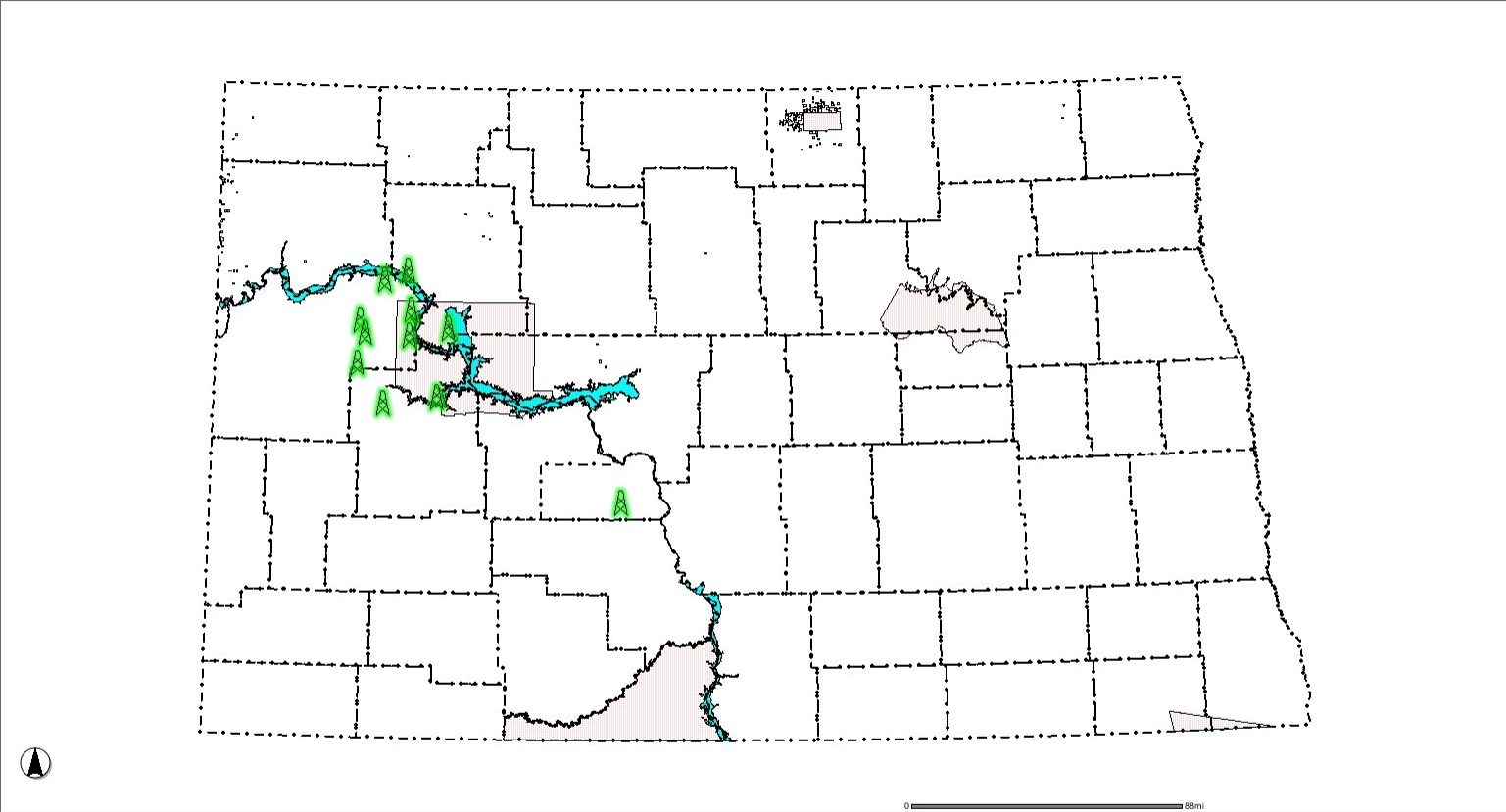


Active Aug 2020 Conventional Bakken/Three Forks	15,111 1,992 13,119
Inactive Aug 2020 \$35-\$45 WTI – NYMEX 2Q 2020 - 4Q 2022	2,719
Waiting on Completion Aug 2020 \$45-\$50 WTI - NYMEX 4Q 2025 EIA 2Q 2021	846
Permitted Aug 2020 \$55-\$60 for 90 days NYMEX > 10 years EIA 1Q 2024	1,450
Increase Density Sep 1, 2020 ICO 31037	12,036
Total	32,162
Estimated Final	
\$60/BO = 55-65 Rigs = 20 Yr	40,000
\$70/BO = 65-75 Rigs = 45 Yr	65,000
\$80/BO = 70-80 Rigs = 70 Yr	85,000



Oil and Gas : ArcIMS Viewer

- Legend / Layers
- Overview Map
- View Entire State
- Previous View
- Clear Selection
- Search
- Create PDF
- Zoom In
- Zoom Out
- Pan
- Rect Identify
- Select Object
- Buffer
- Distance
- Find Well
- Find Field / Unit
- Find Section



Download Shape Files

ND OIL & GAS LAYERS

- Oil and Gas
- Wells
- Permit Status Before Spud
- Rig Location
- Directional Surveys
- Directional Legs
- Horizontal Surveys
- Horizontal Legs
- Cases Docketed
- Oil Fields
- Unit Boundaries
- Inspector Areas
- Drilling / Spacing
- Seismic
- Gas Plants
- Other

Refresh Map

Auto Refresh

Help:

- A closed group, click to open.
- An open group, click to close.
- A map layer.
- A hidden group/layer, click to make visible.
- A visible group/layer, click to hide.
- A visible layer, but not at this scale.
- A partially visible group, click to make visible.
- An inactive layer, click to make active.
- The active layer.

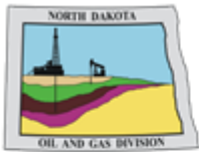
Map Data Last Updated : 10/5/2020

100%

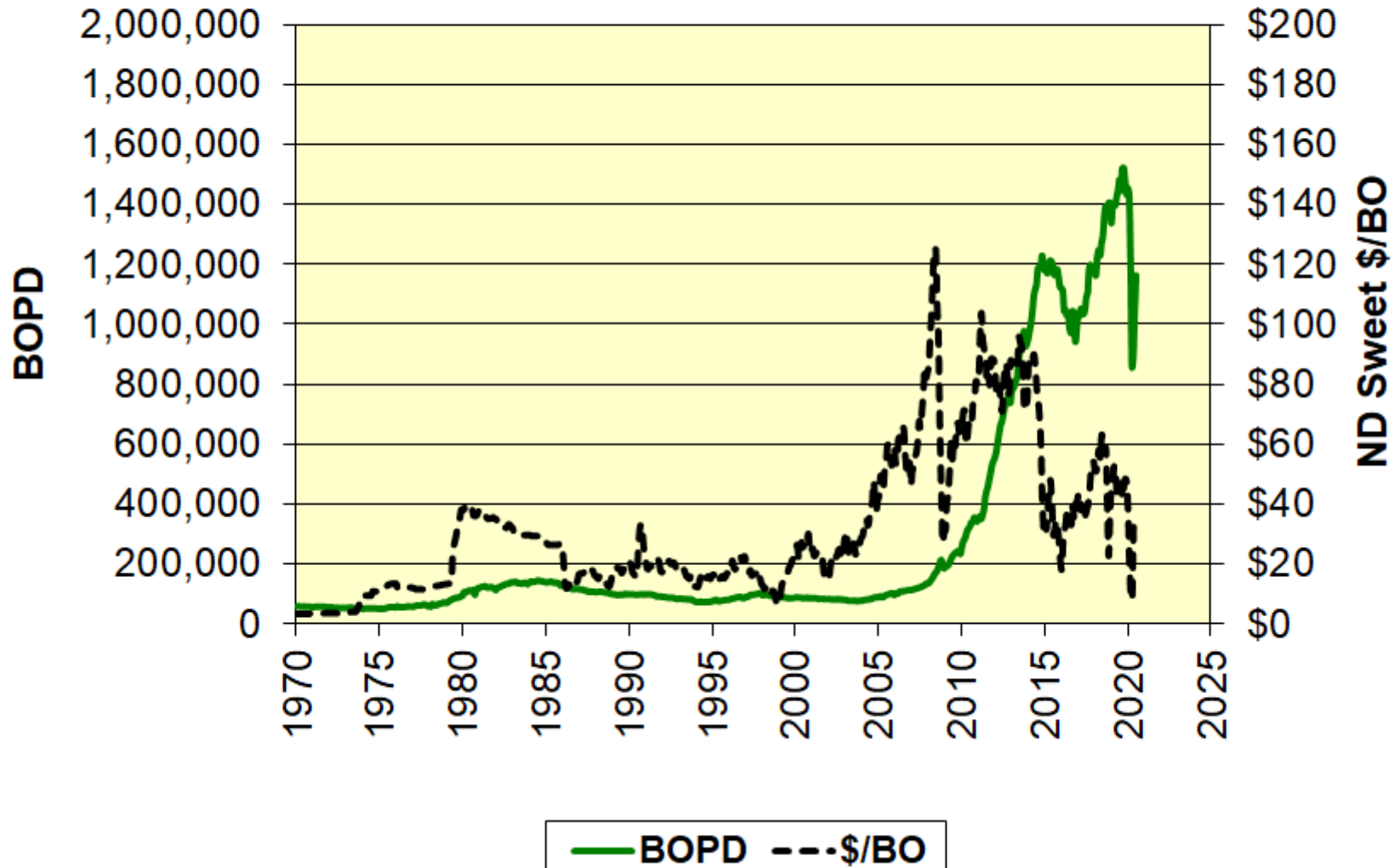
Zoom In



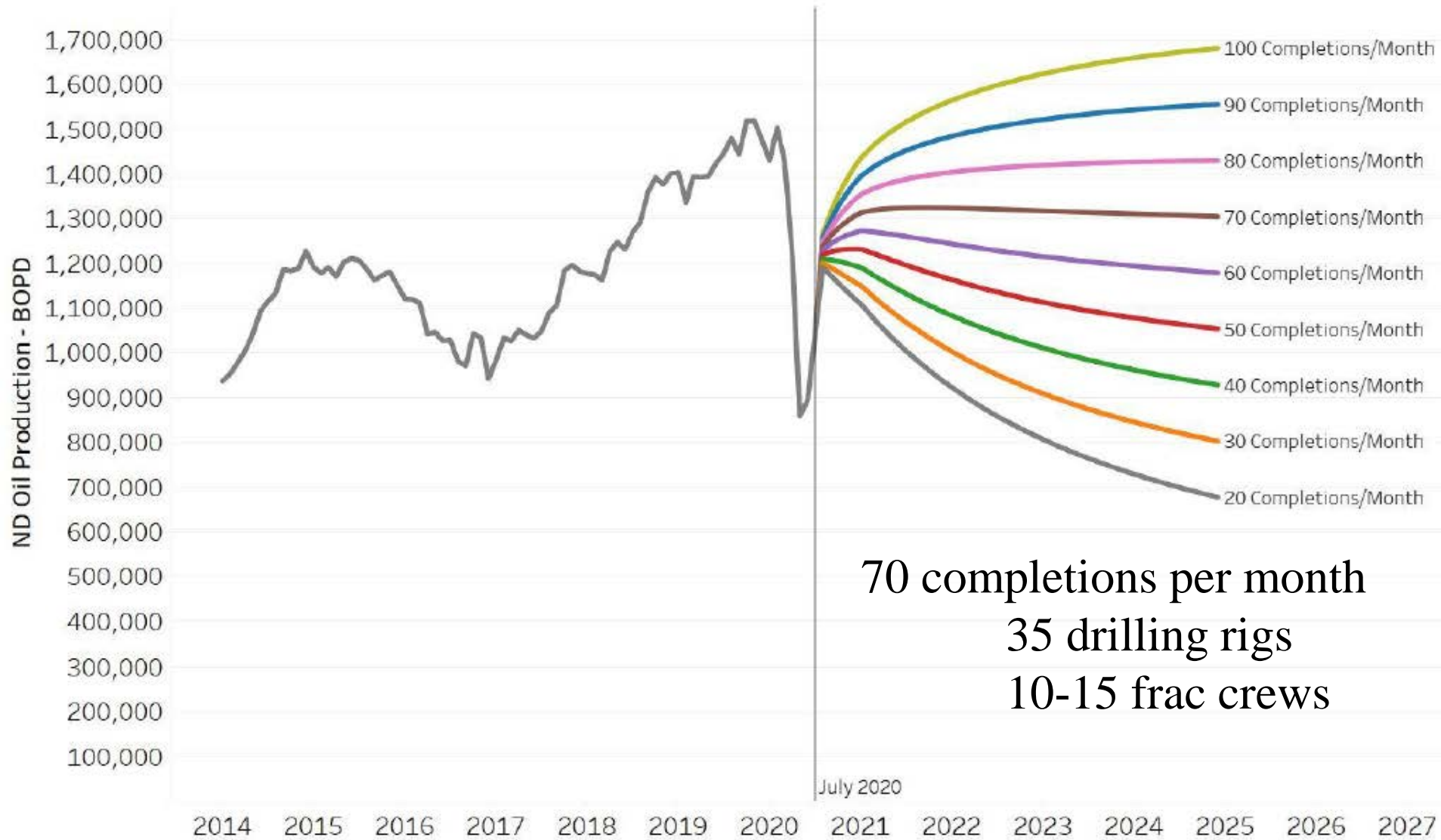
Rigs -45 > 10 Frac Crews -20 > 5
- 11,100 jobs



North Dakota Daily Oil Produced and Price



Monthly Completion Scenarios - Oil

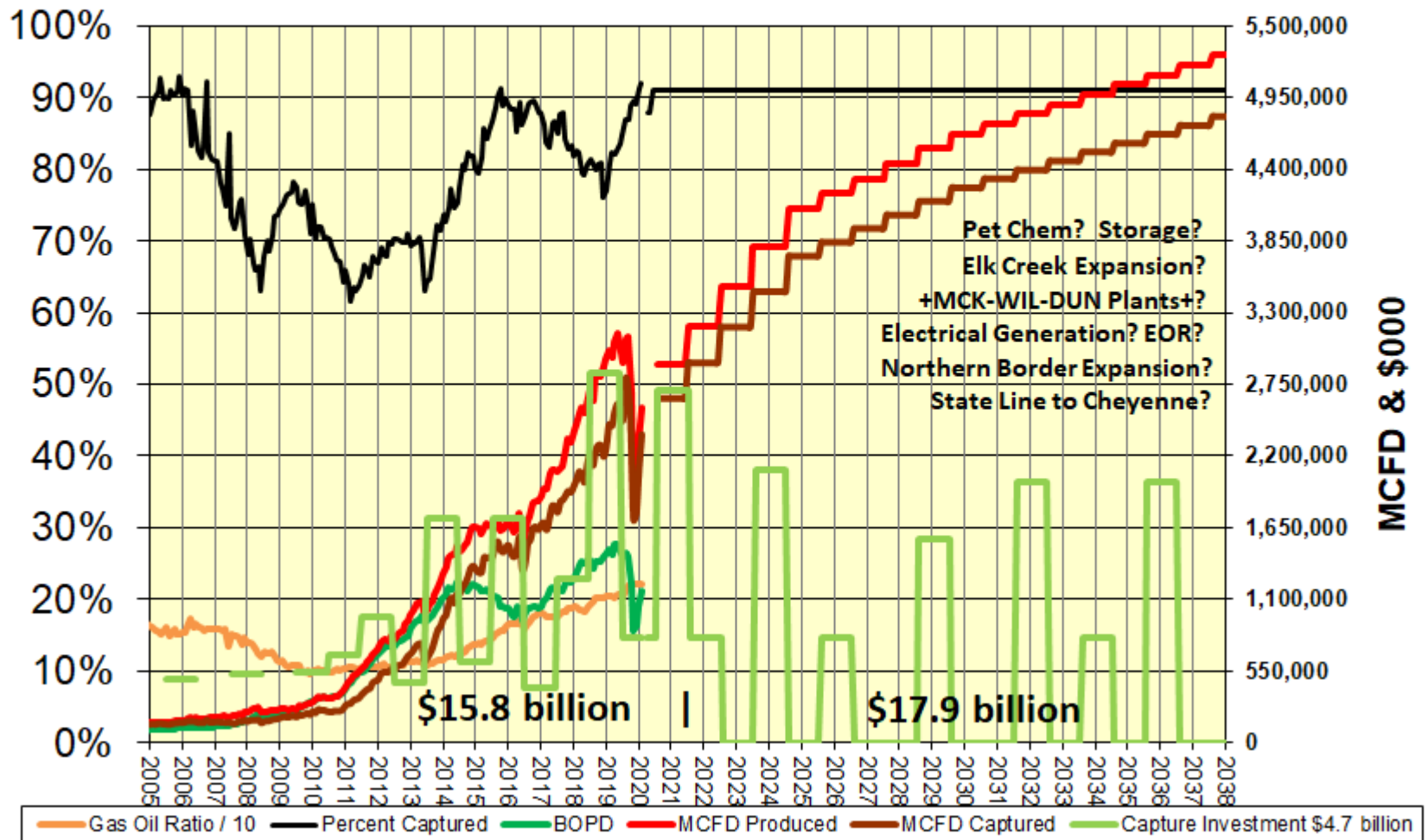


70 completions per month
35 drilling rigs
10-15 frac crews





North Dakota Monthly Gas Captured



WHAT IS HAPPENING

WHERE ARE WE

WELLS – RIGS – JOBS – PRODUCTION

WHERE ARE WE GOING

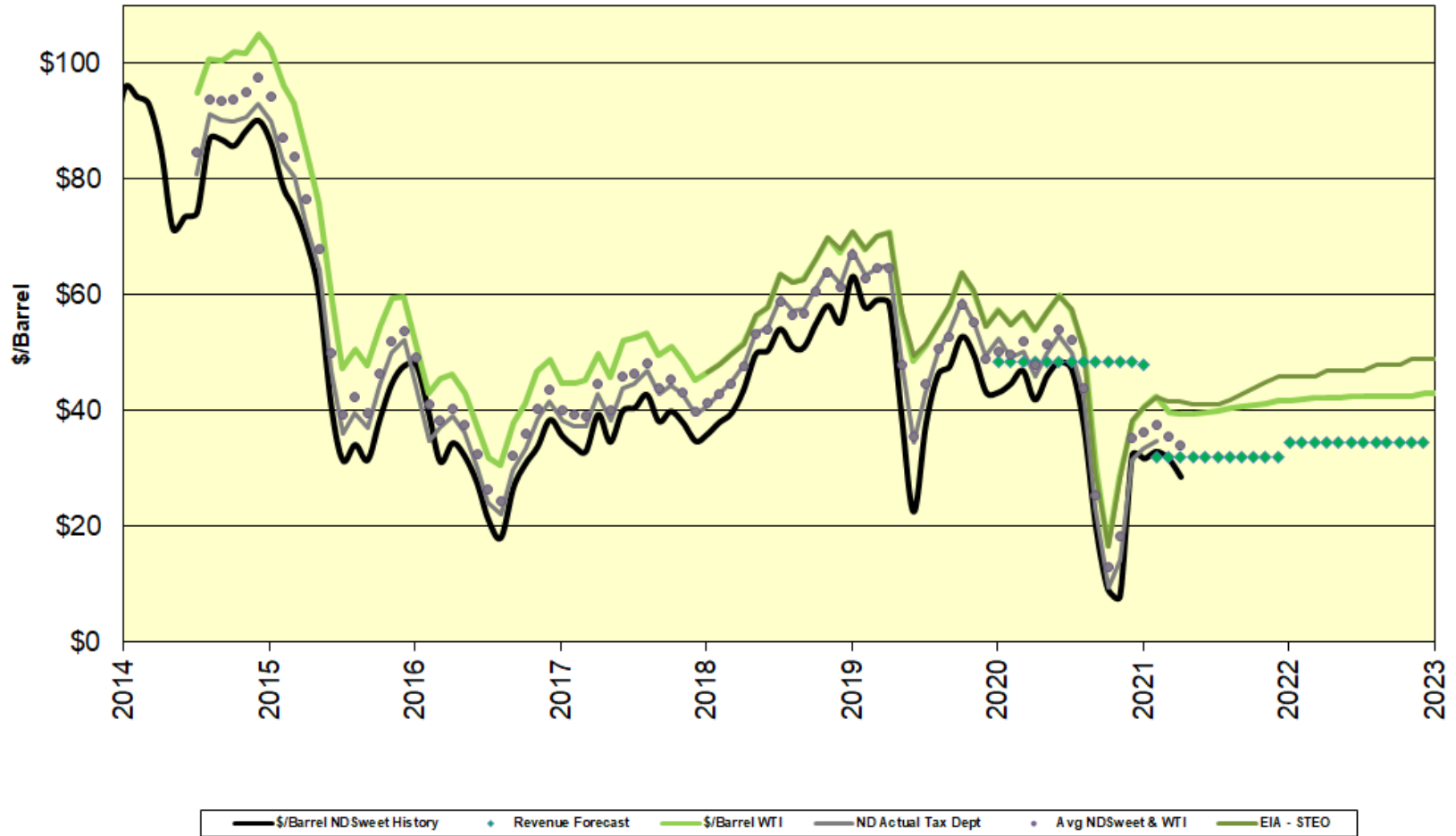
PRICES – RIGS – PRODUCTION – JOBS

WHAT CAN WE DO

COUNTY BY COUNTY

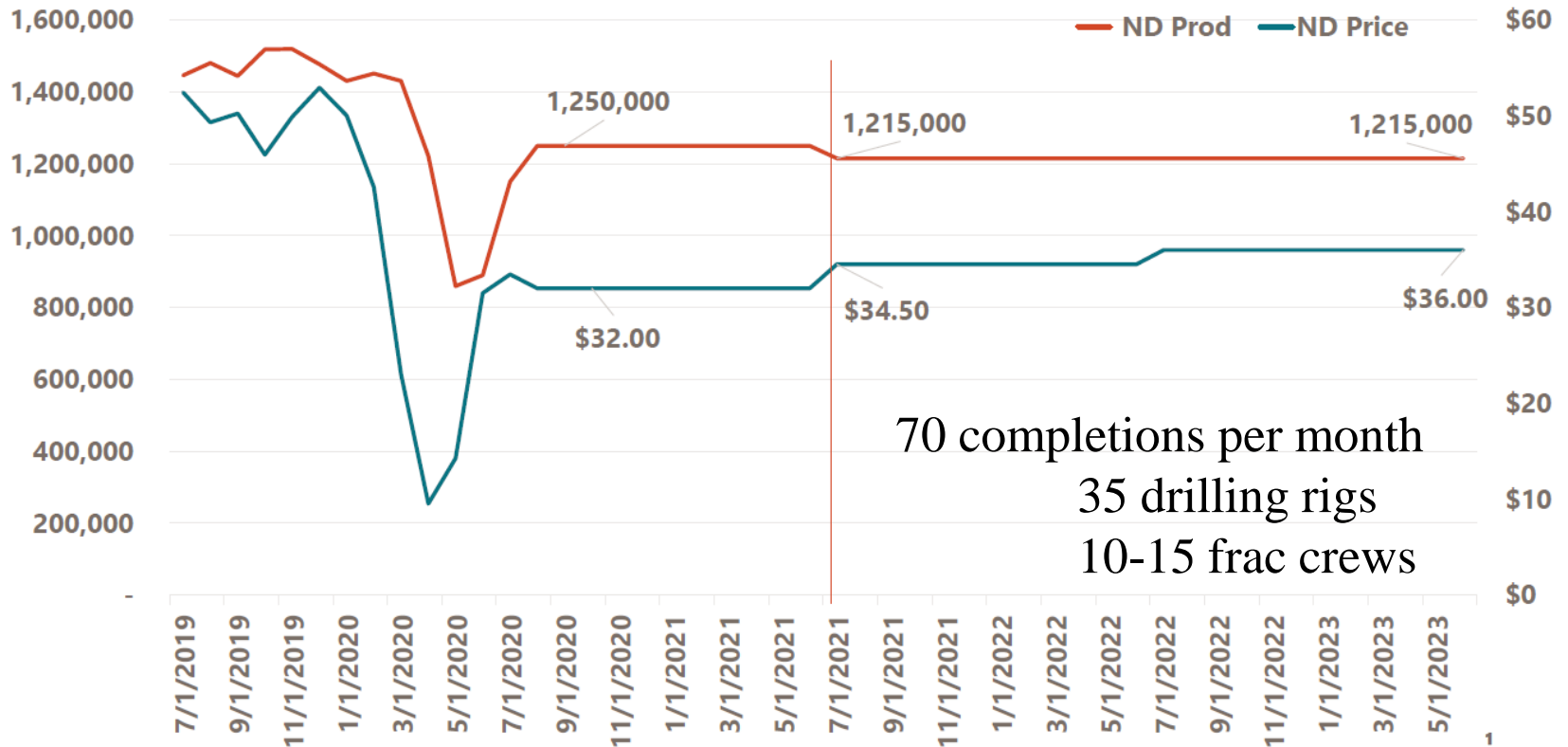


North Dakota Oil Price Projections

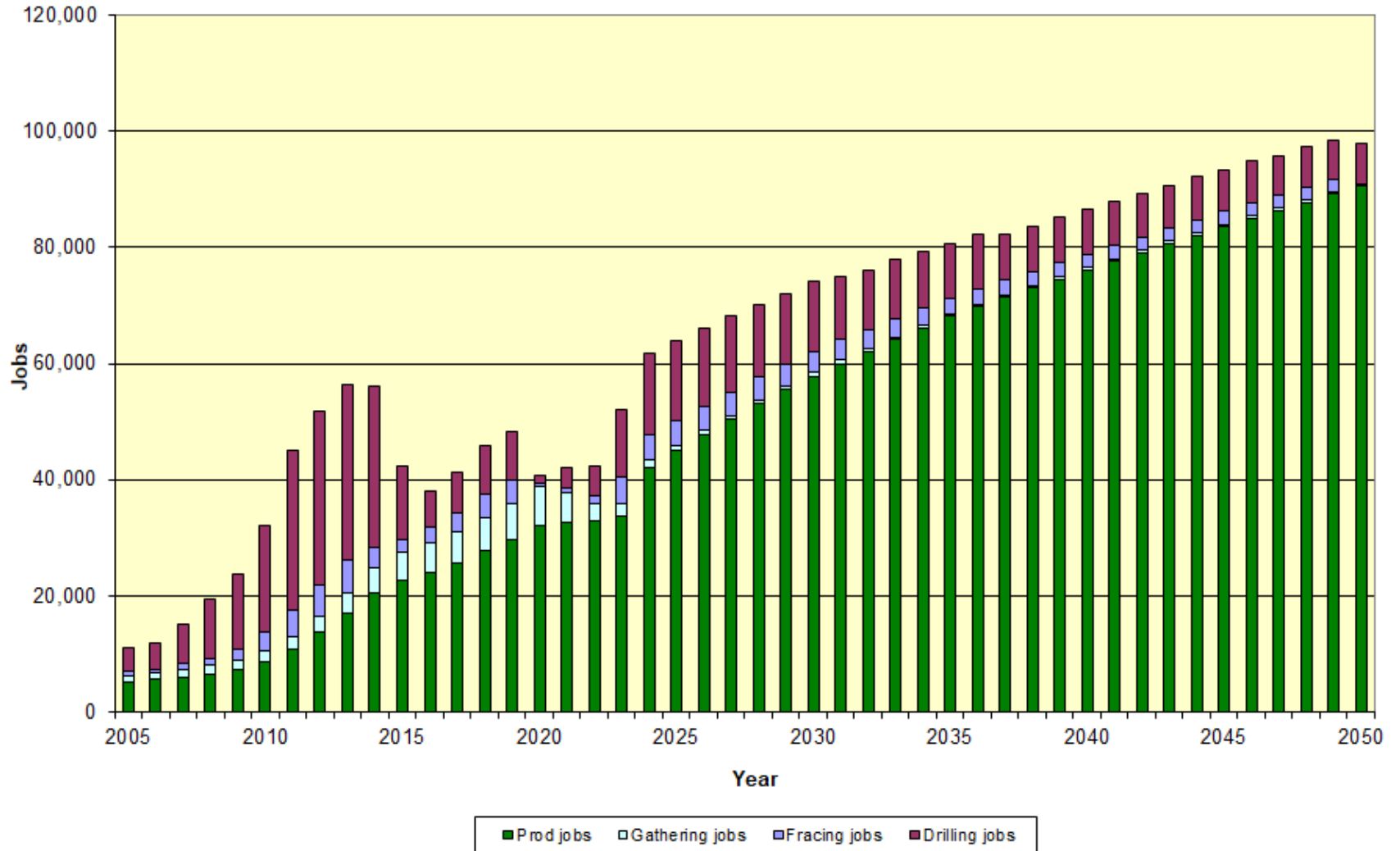


OIL PRICE AND PRODUCTION

SEPTEMBER 2020 REVENUE FORECAST



North Dakota Oil Industry Jobs



WHAT IS HAPPENING

WHERE ARE WE

WELLS – RIGS – JOBS – PRODUCTION

WHERE ARE WE GOING

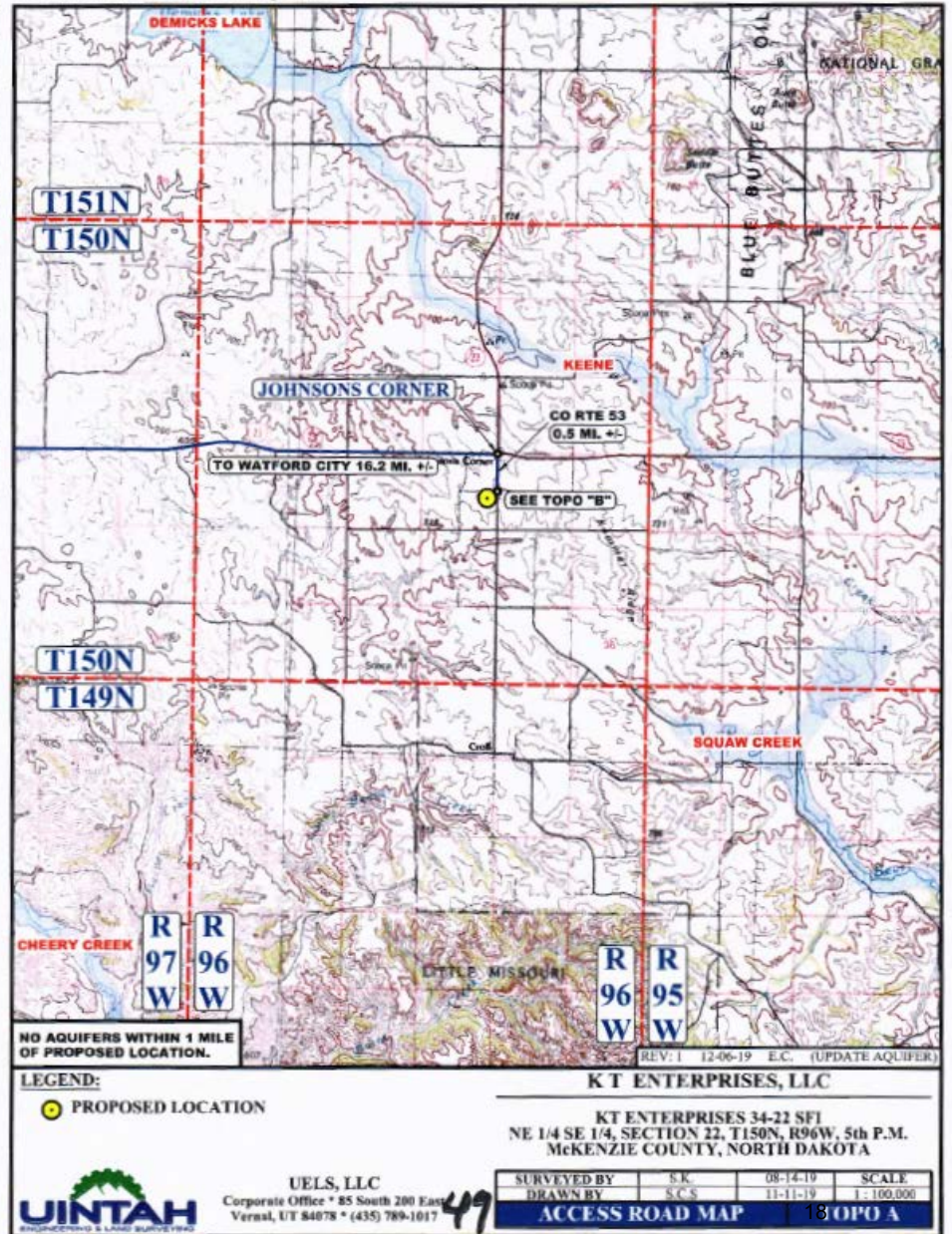
PRICES – RIGS – PRODUCTION – JOBS

WHAT CAN WE DO

COUNTY BY COUNTY

Innovate

Attachment No. 16: Surficial Aquifers



CARES ACT PROJECT



Garrett Van Dyke, left, and Jesse Zanh, both with Ham's Well Service, anchor a cable stretching to the top of the 96-foot-tall derrick and workover rig while plugging an abandoned oil well last week west of Antler in Bottineau County.
Mike McCleary Bismarck Tribune

Active May 2020	12,809
Conventional	1,540
Bakken/Three Forks	11,269
Inactive May 2020	2,719
Abandoned May 2020	784
Orphaned	380
Confiscated	334
Confiscation Pending (Director's Orders)	46
RTP-RTI-PA-TA by operator	69
Total committed to date	\$60,100,000
380 Plugging contracted	43,800,000
53 Reclamation contracted	3,975,000
133 Reclamation bid let	12,325,000
Total spent to date	\$12,119,000
98 Plugged (40,840 man-hours)	11,294,000
3 Reclaimed / 8 in progress	825,000
North Dakota May 2020	
859,362 BOPD	
\$14.27 / BO	

CARES ACT PROPOSAL

Active May 2020	12,809
Conventional	1,540
Bakken/Three Forks	11,269
Inactive May 2020	6,109
Abandoned May 2020	784
Orphaned	380
DUC Wells	334
Total possible repurpose	\$16,875,000
5 frac crews currently operating 6 frac jobs per month per crew 140 completions by YE 2020 needed to maintain production 80 DUC well completions needed 5-10 more frac crews needed 500-1,000 jobs supported 250,000 Barrels water per frac Grant \$200,000 per DUC well = 40% of water acquisition & disposal cost	\$16,000,000
North Dakota May 2020 859,362 BOPD \$14.27 / BO	



WHAT IS HAPPENING

WHERE ARE WE

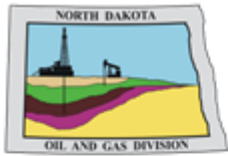
WELLS – RIGS – JOBS – PRODUCTION

WHERE ARE WE GOING

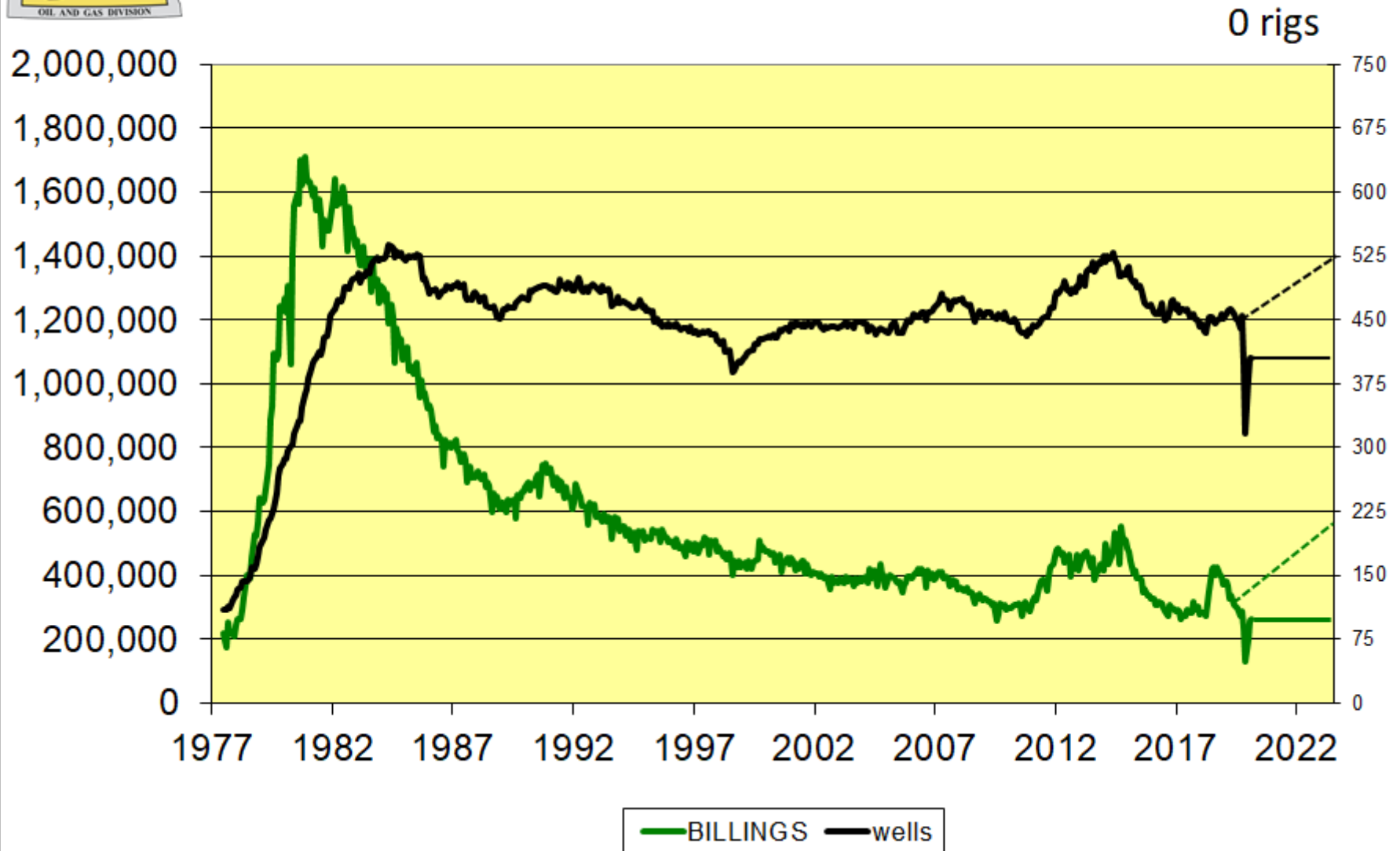
PRICES – RIGS – PRODUCTION – JOBS

WHAT CAN WE DO

COUNTY BY COUNTY

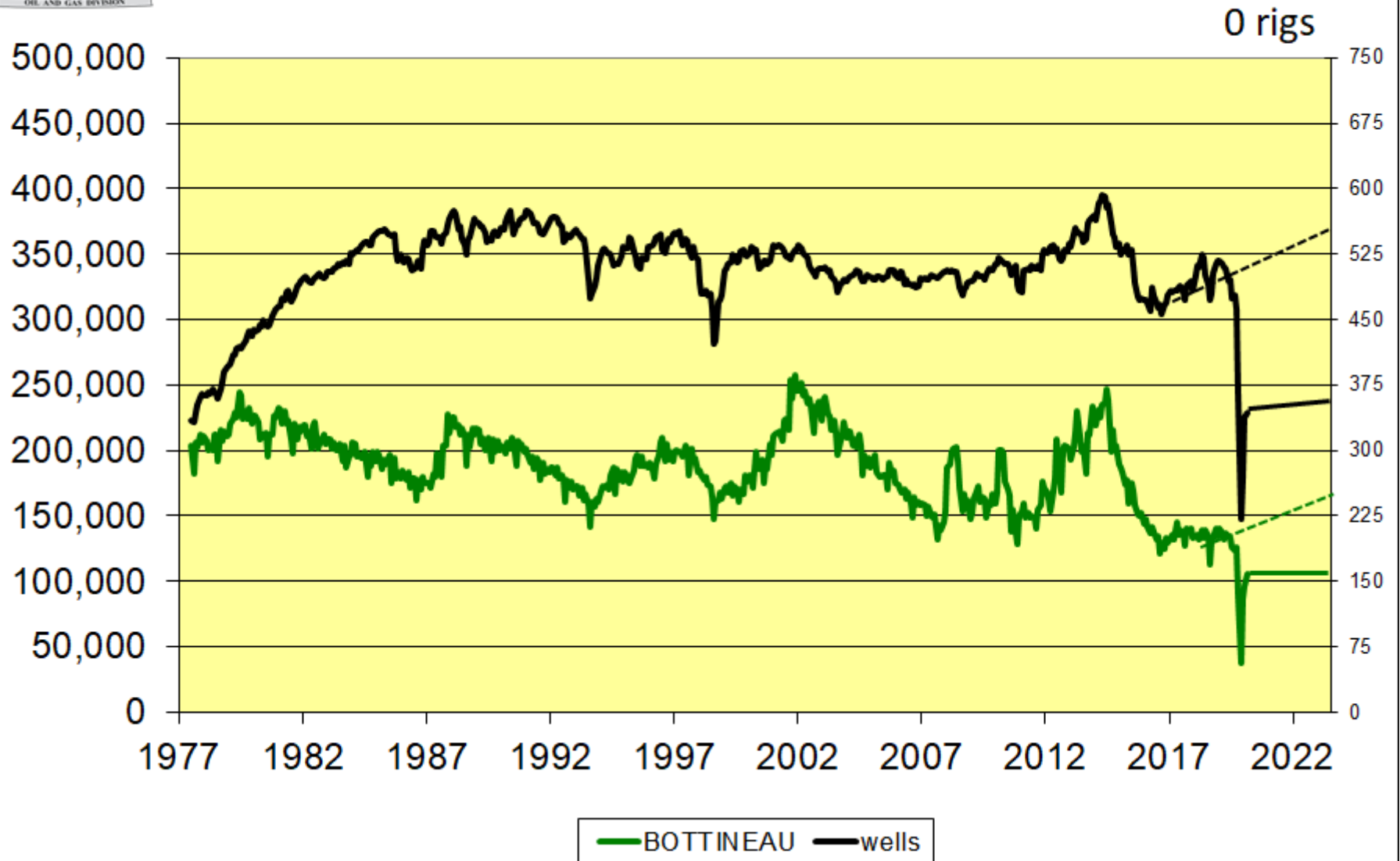


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



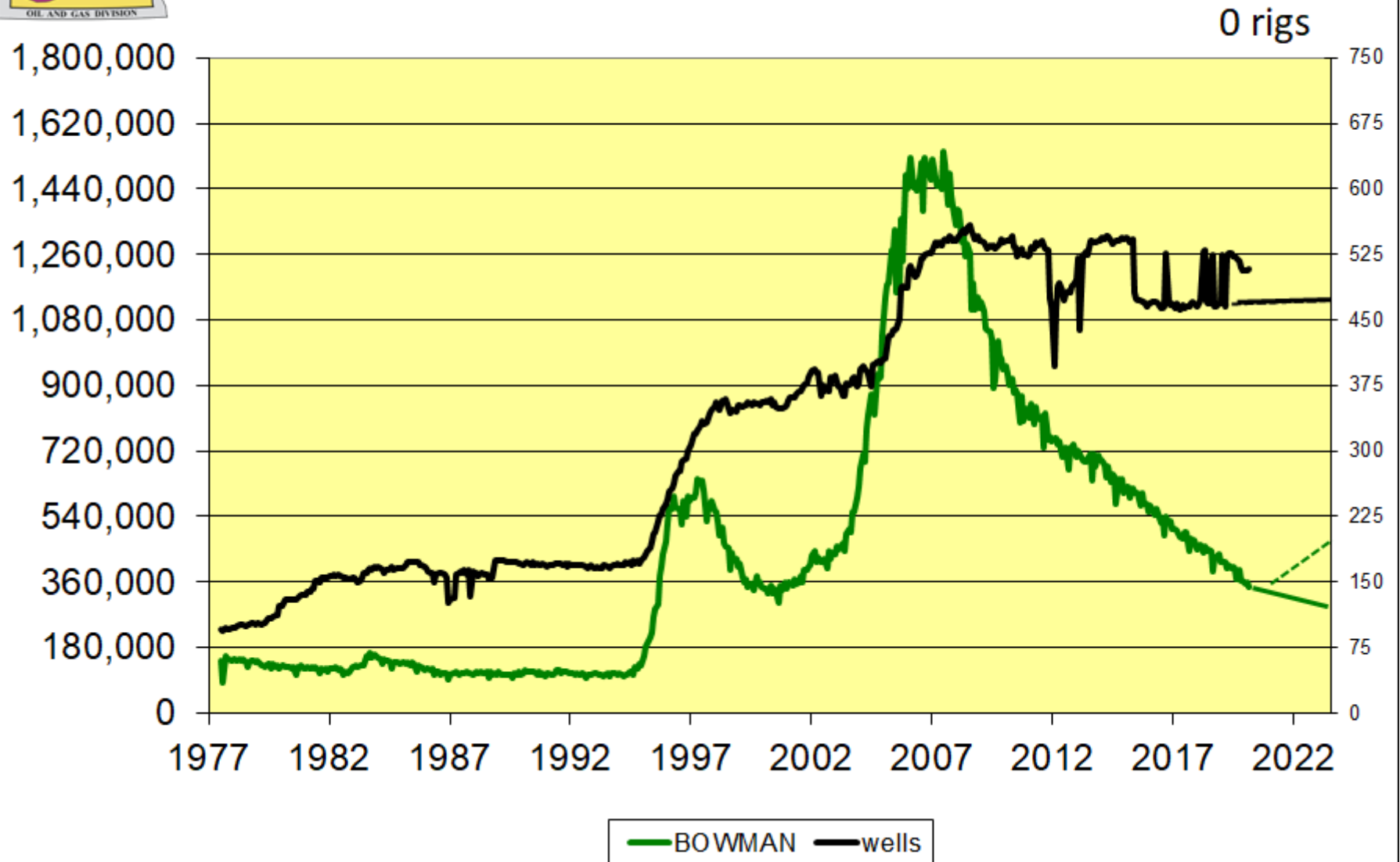


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES





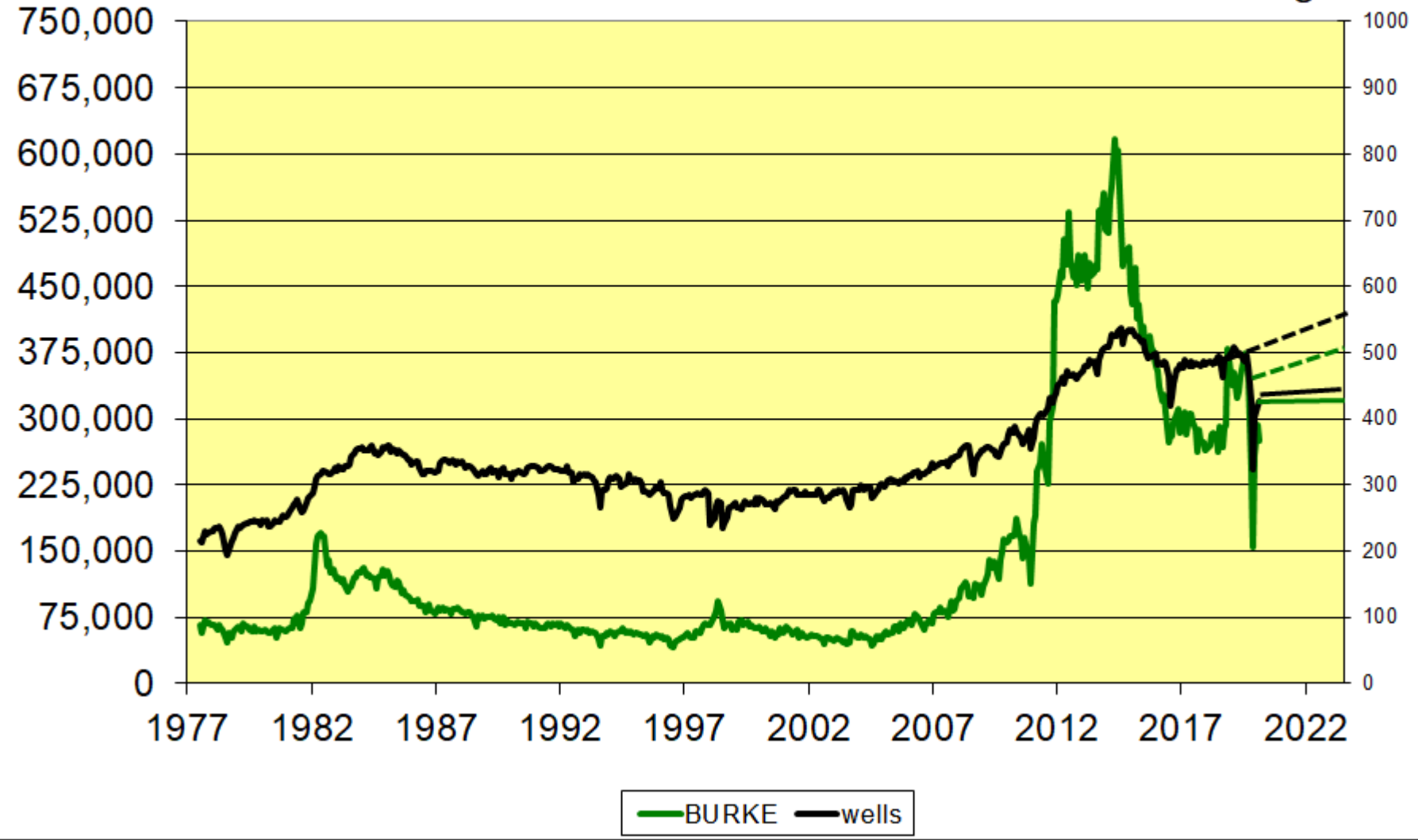
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES





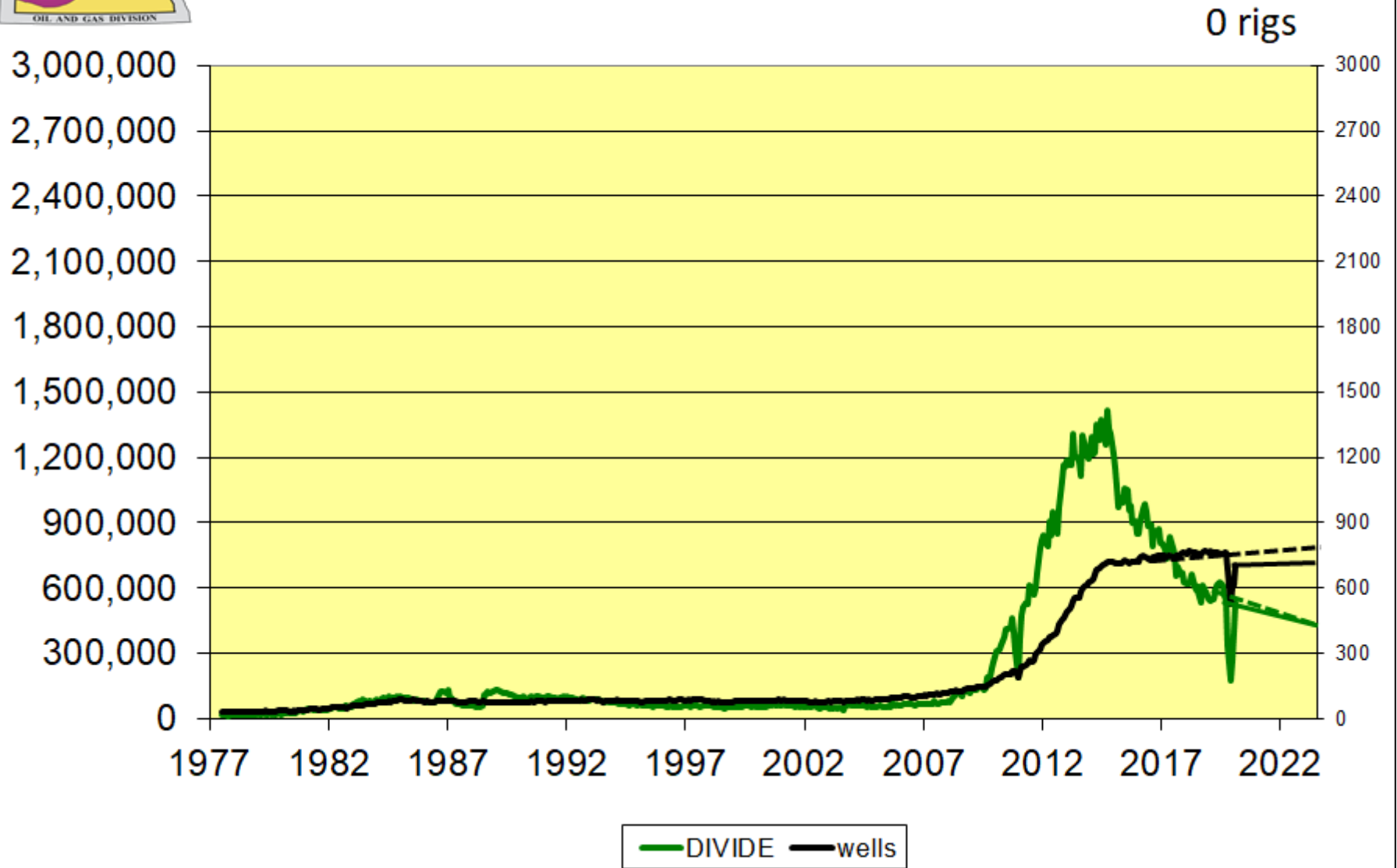
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES

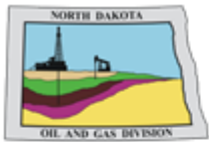
0 rigs



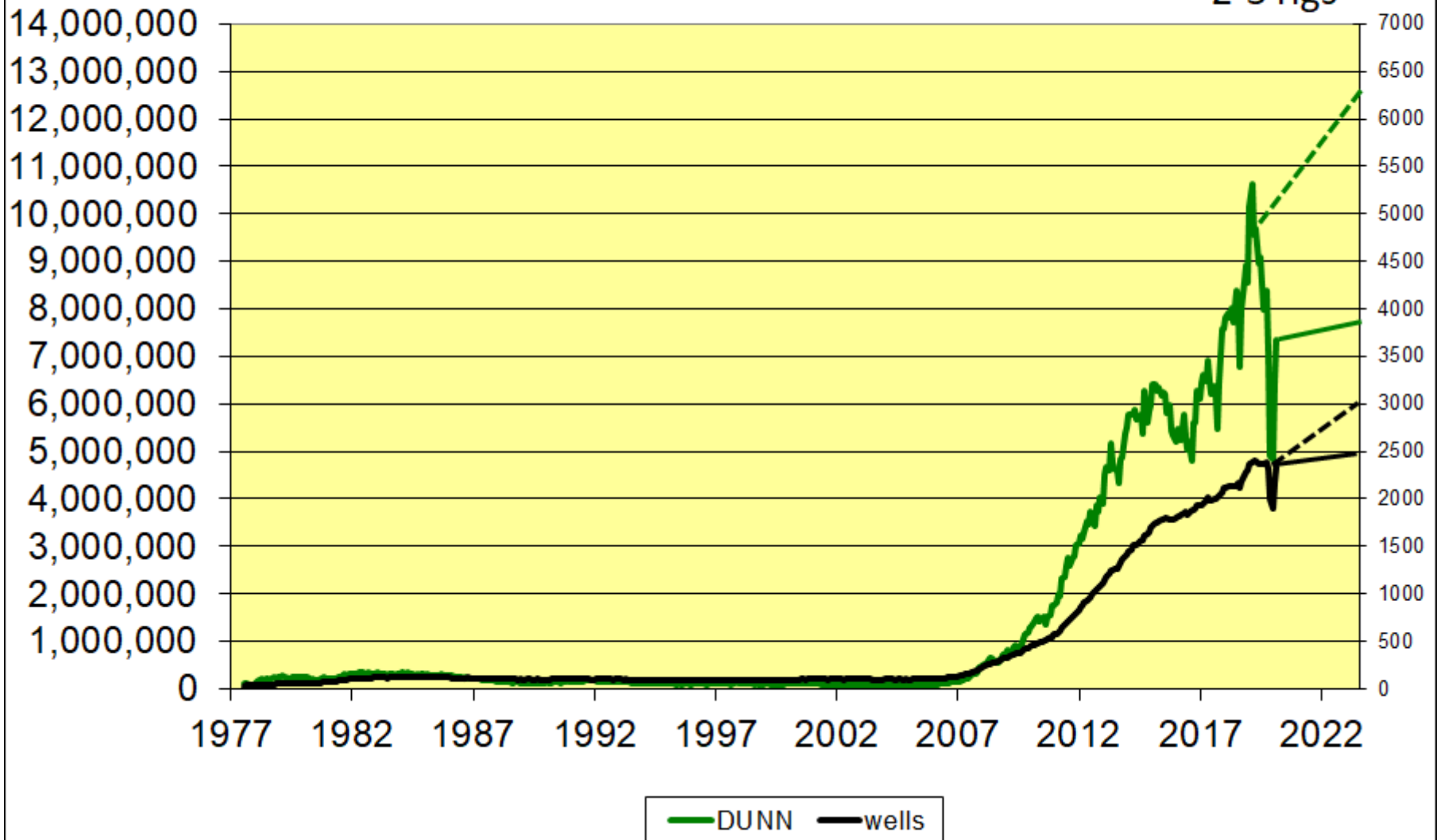


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



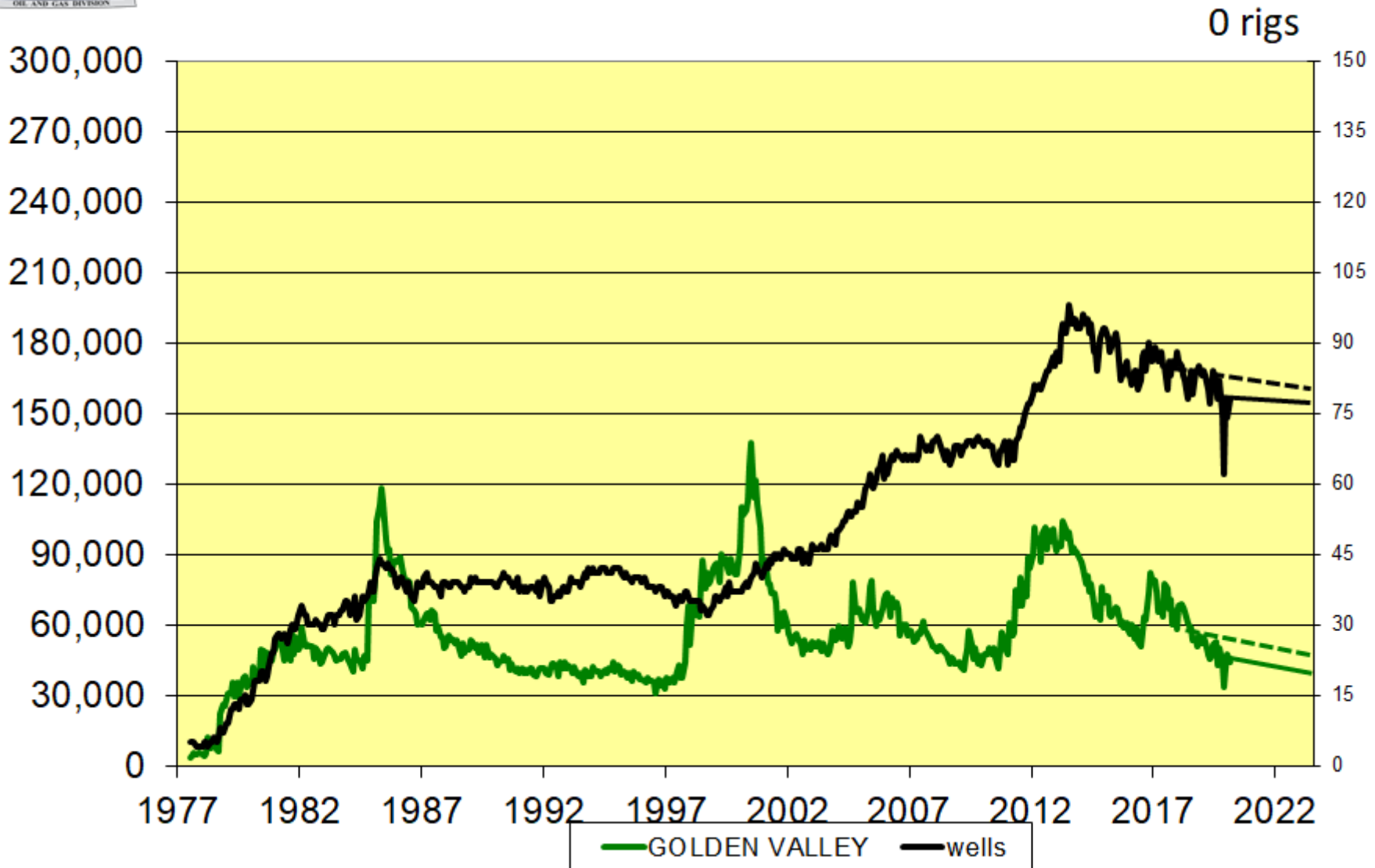


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



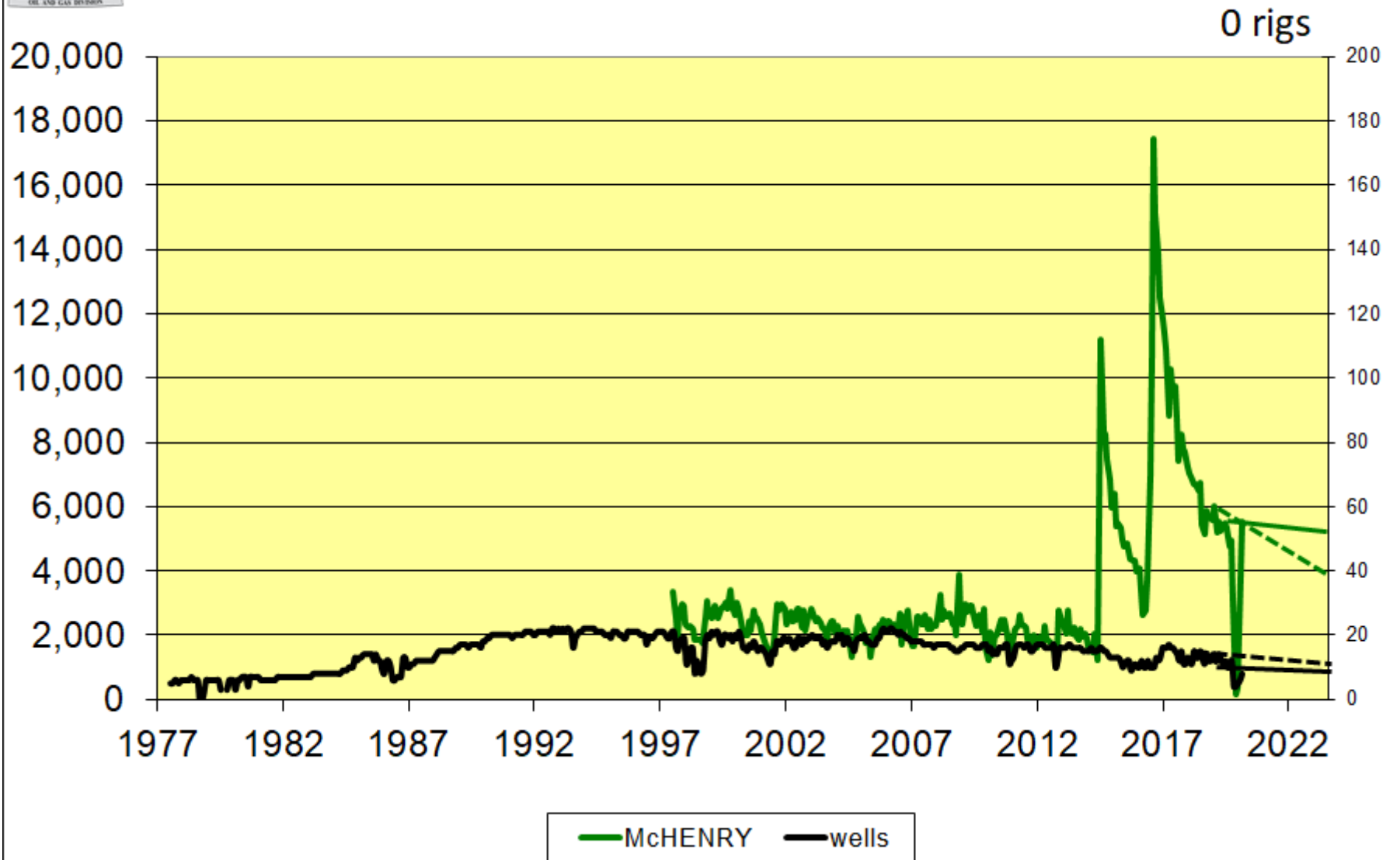


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



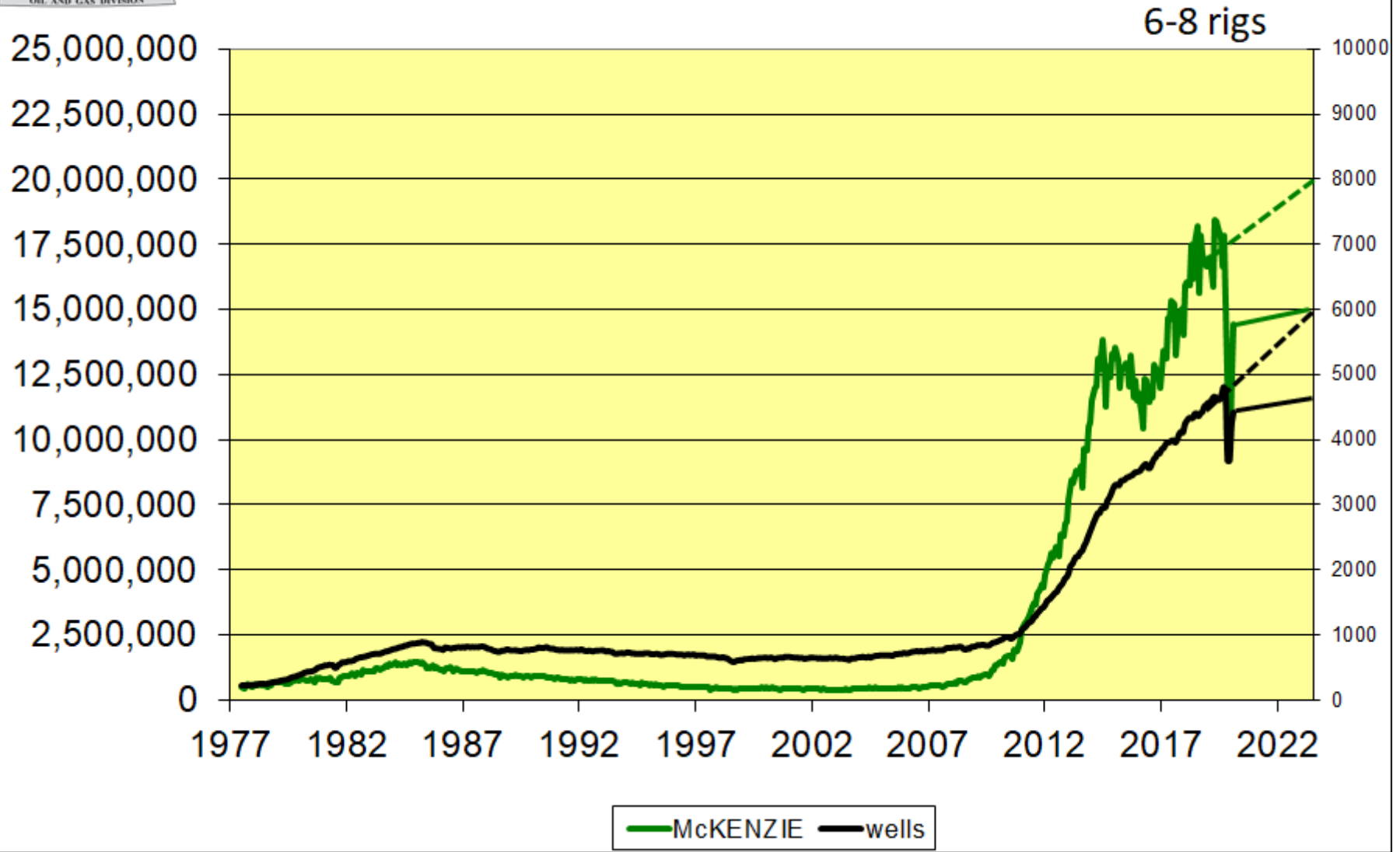


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



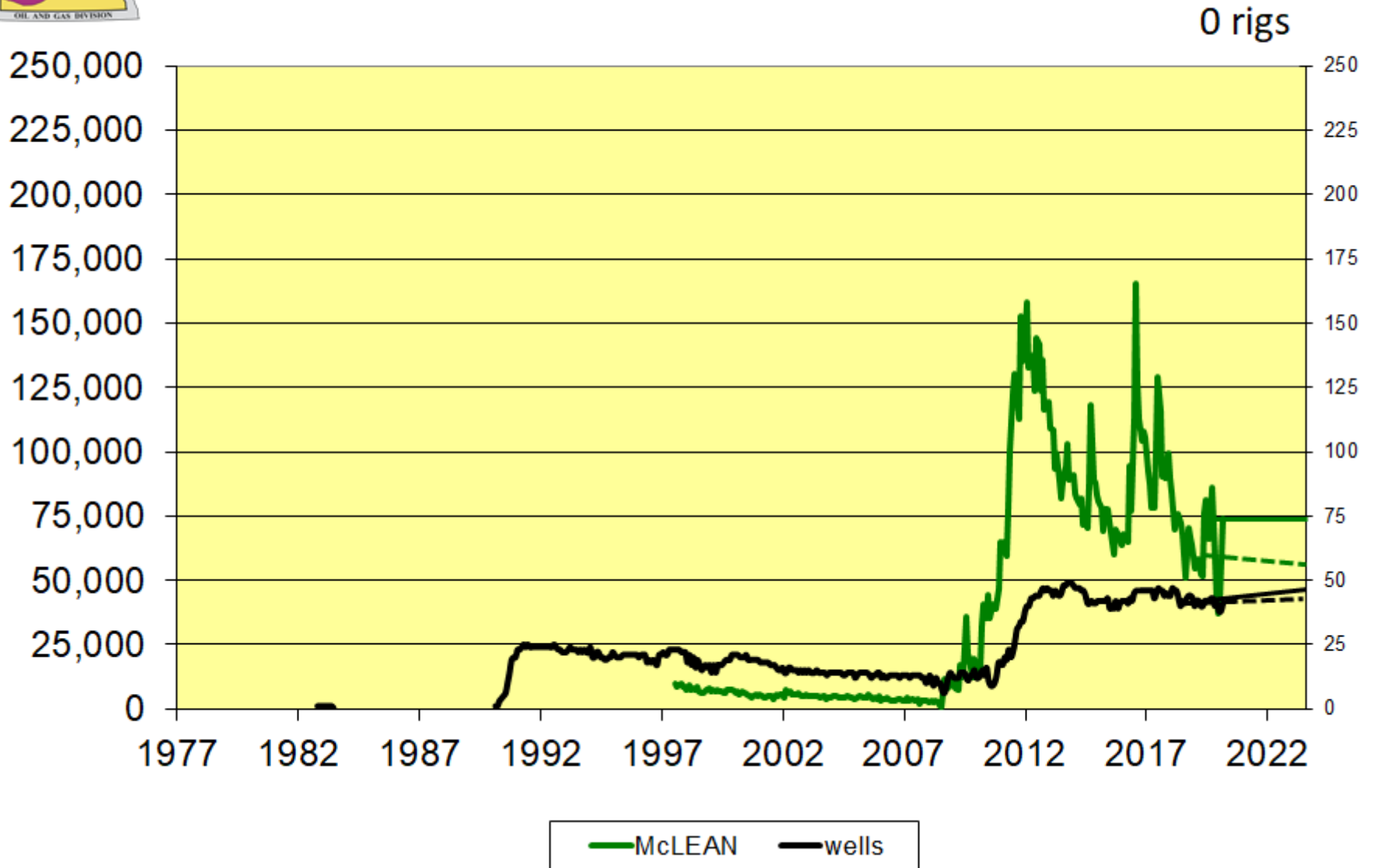


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



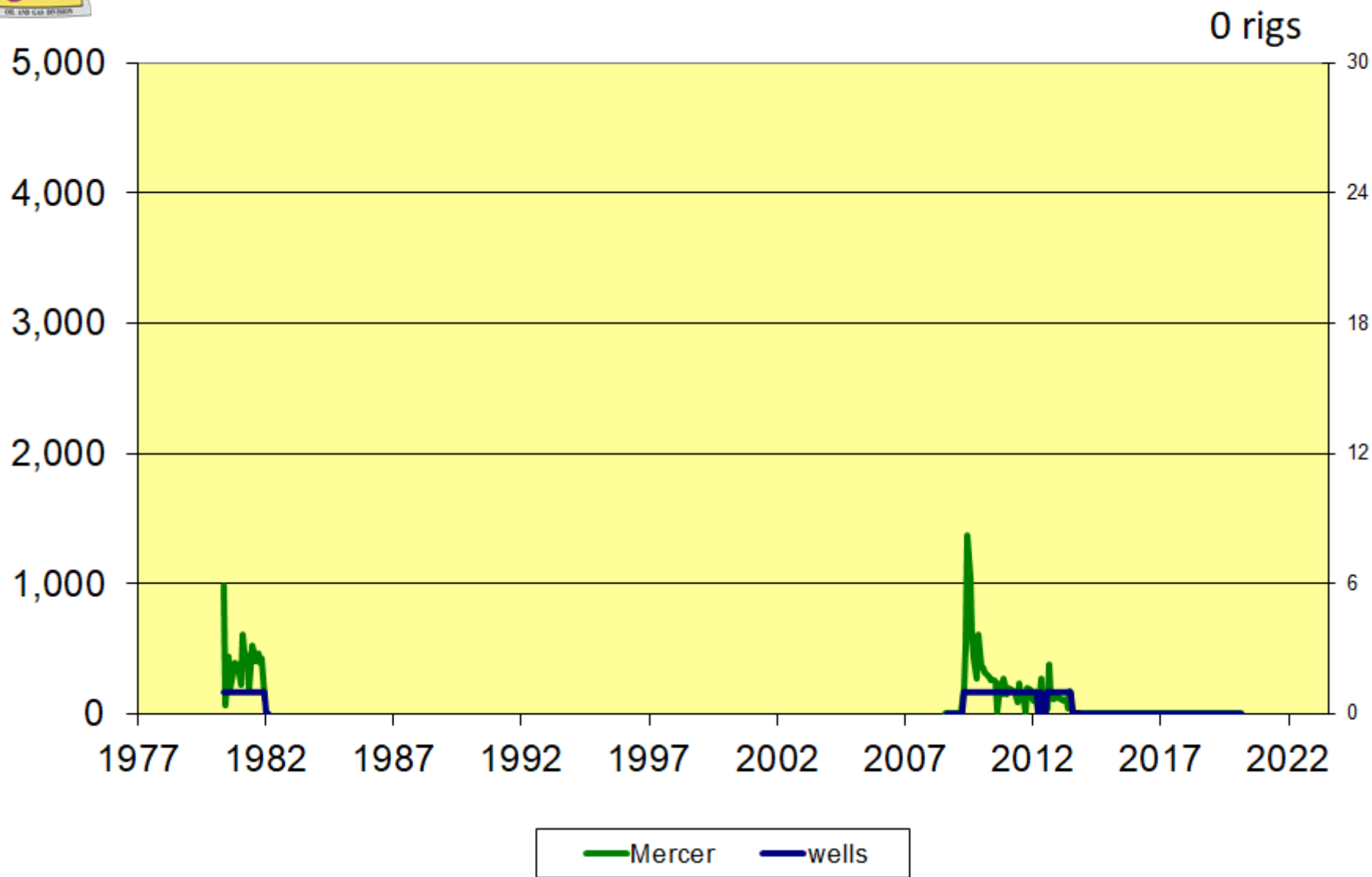


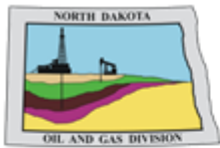
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



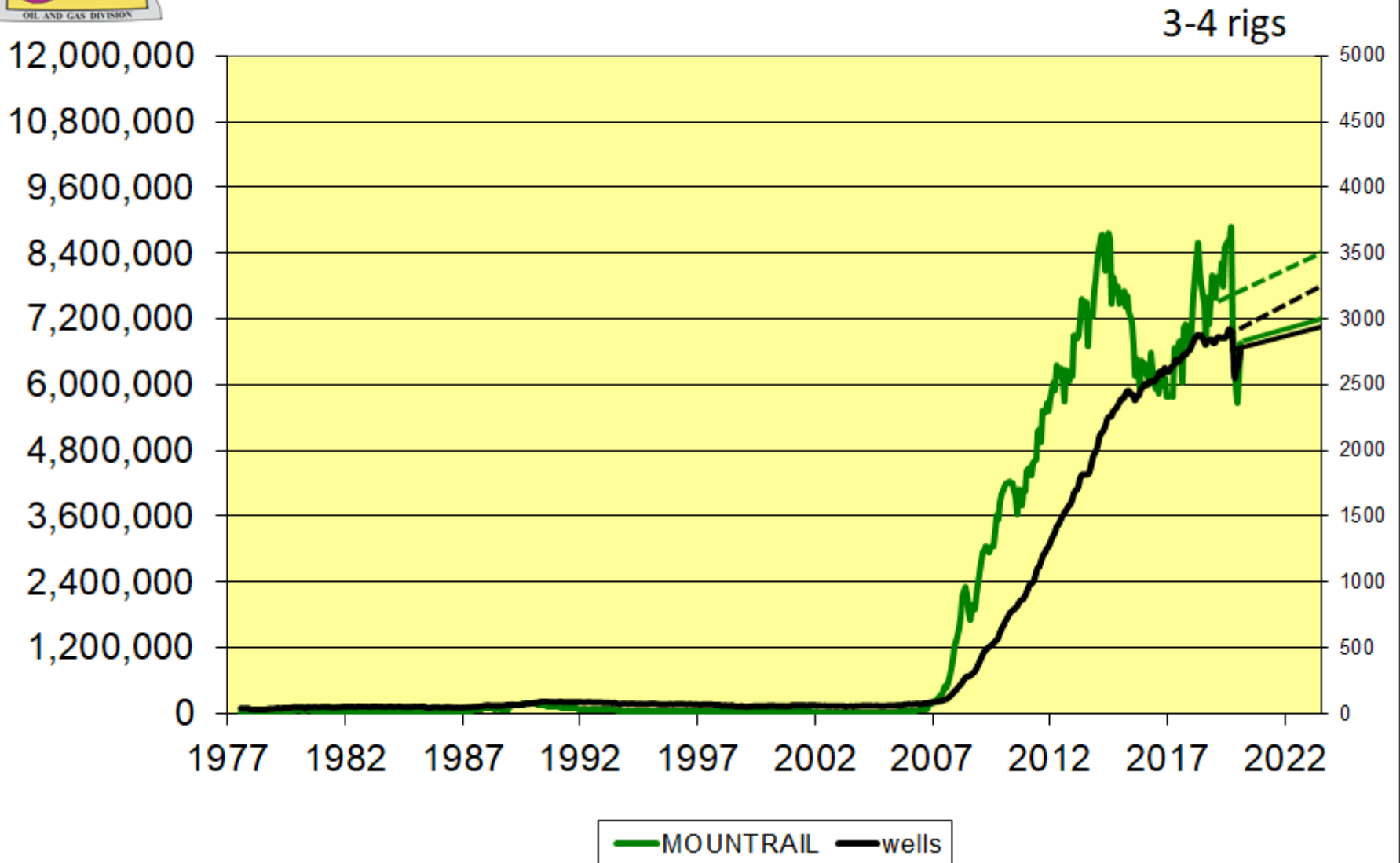


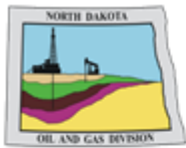
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



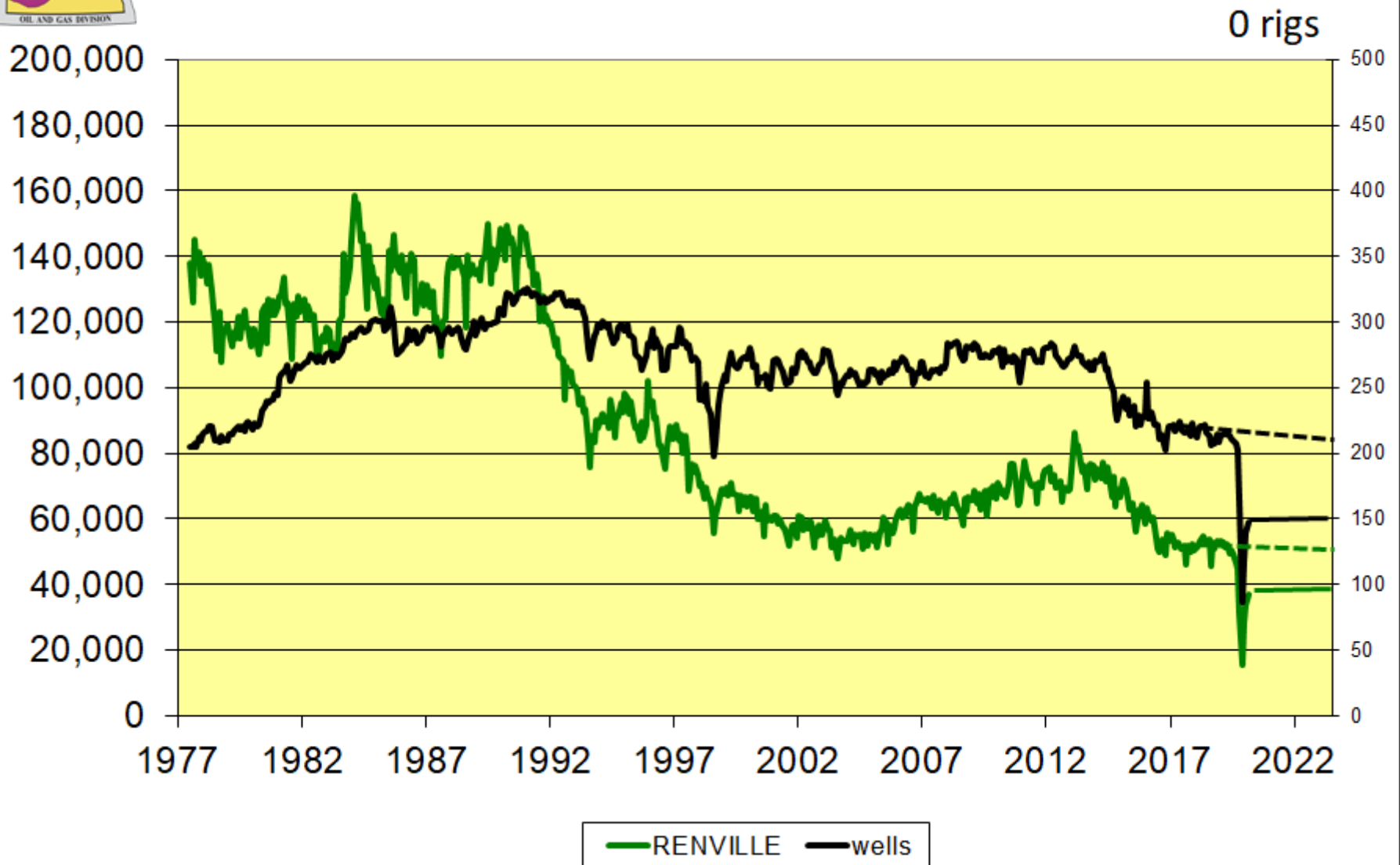


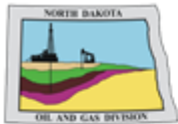
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



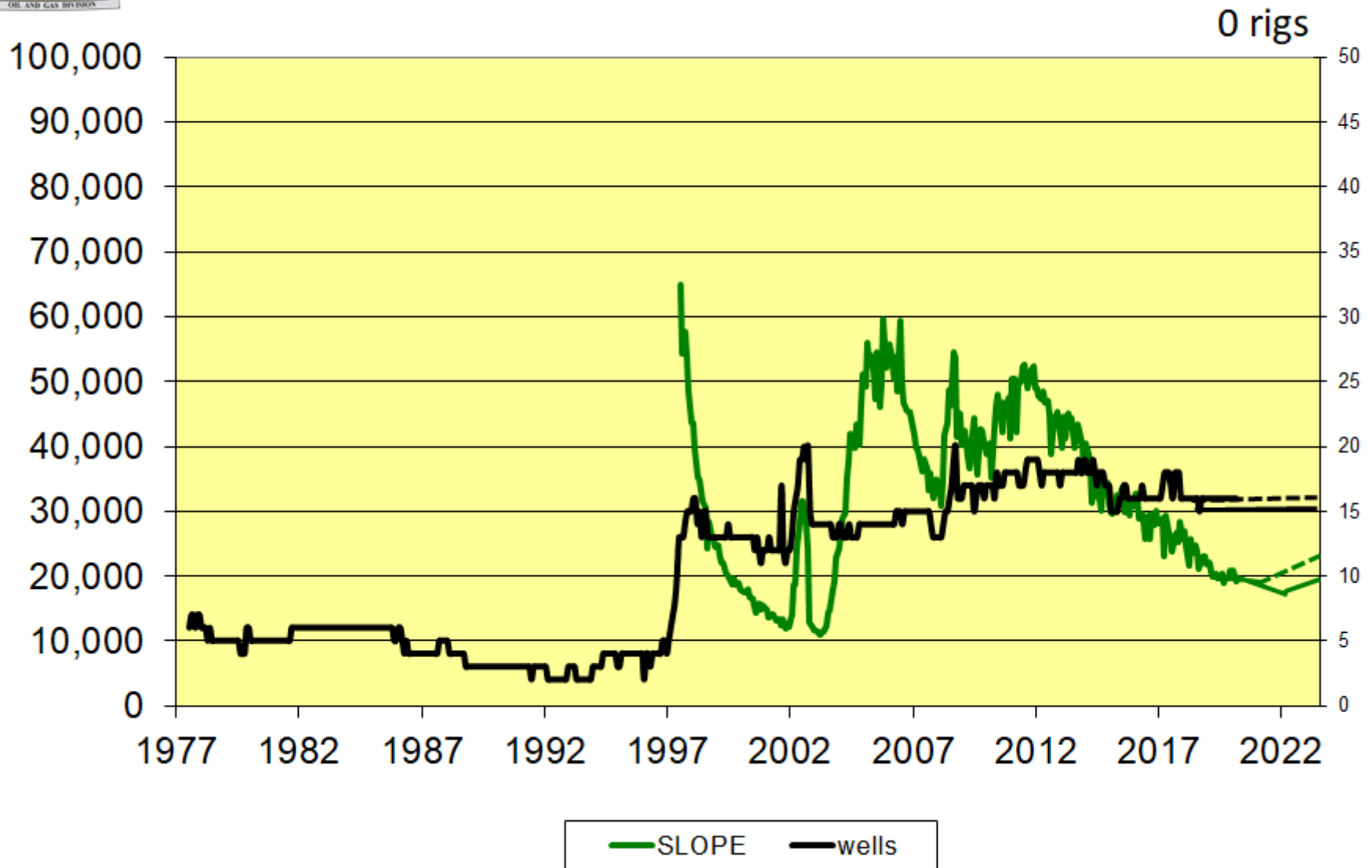


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



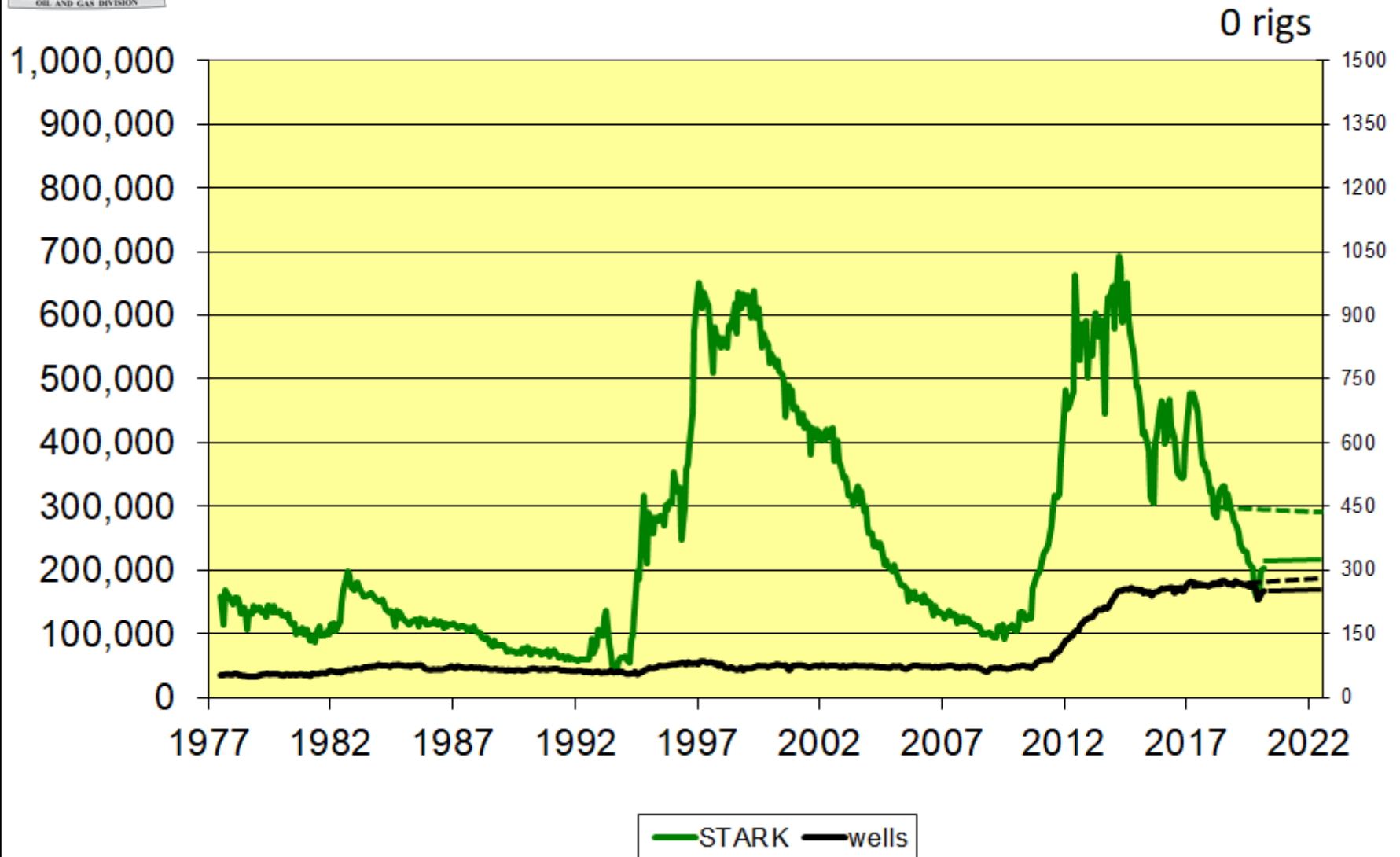


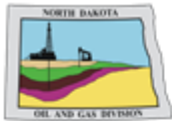
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



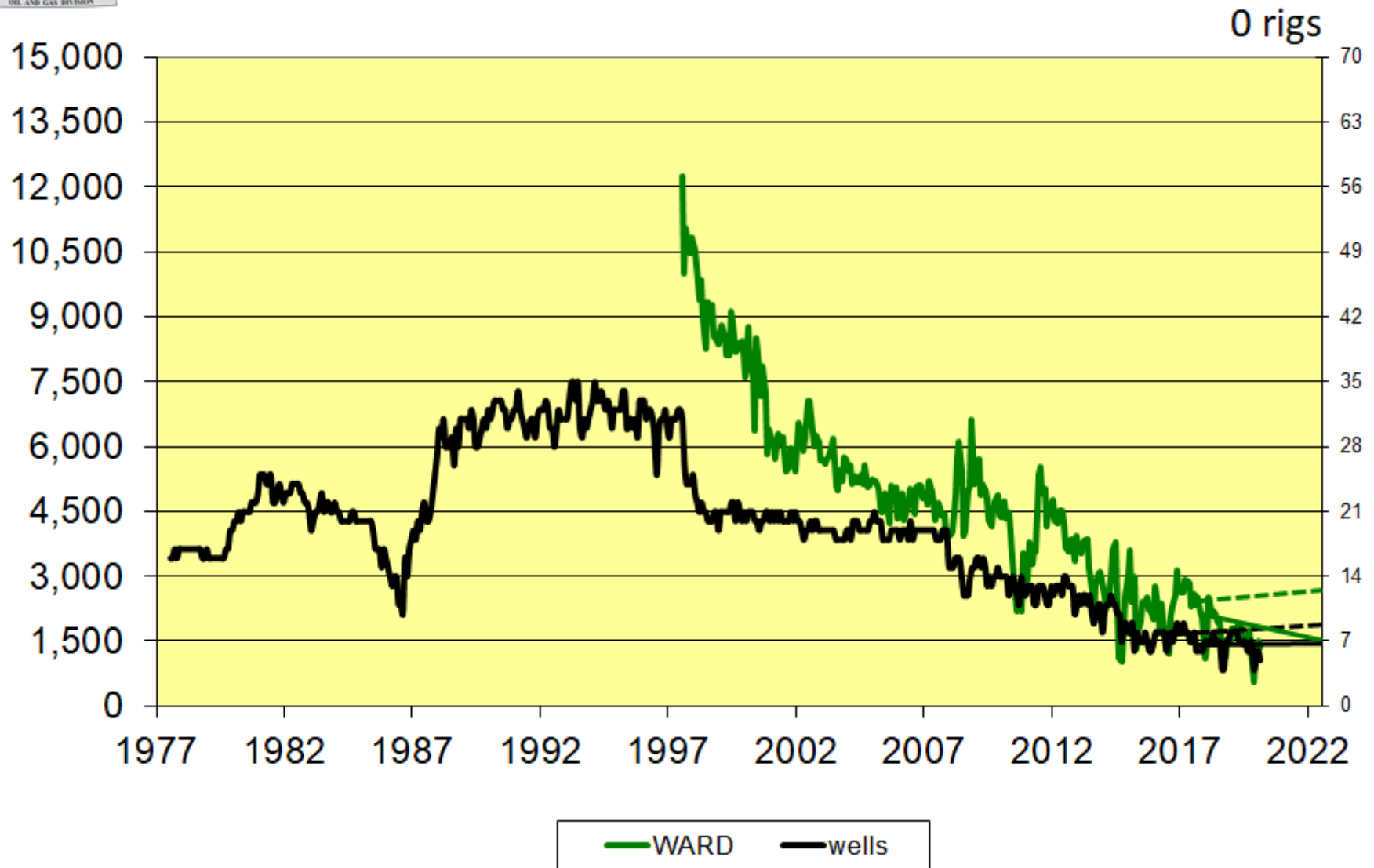


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



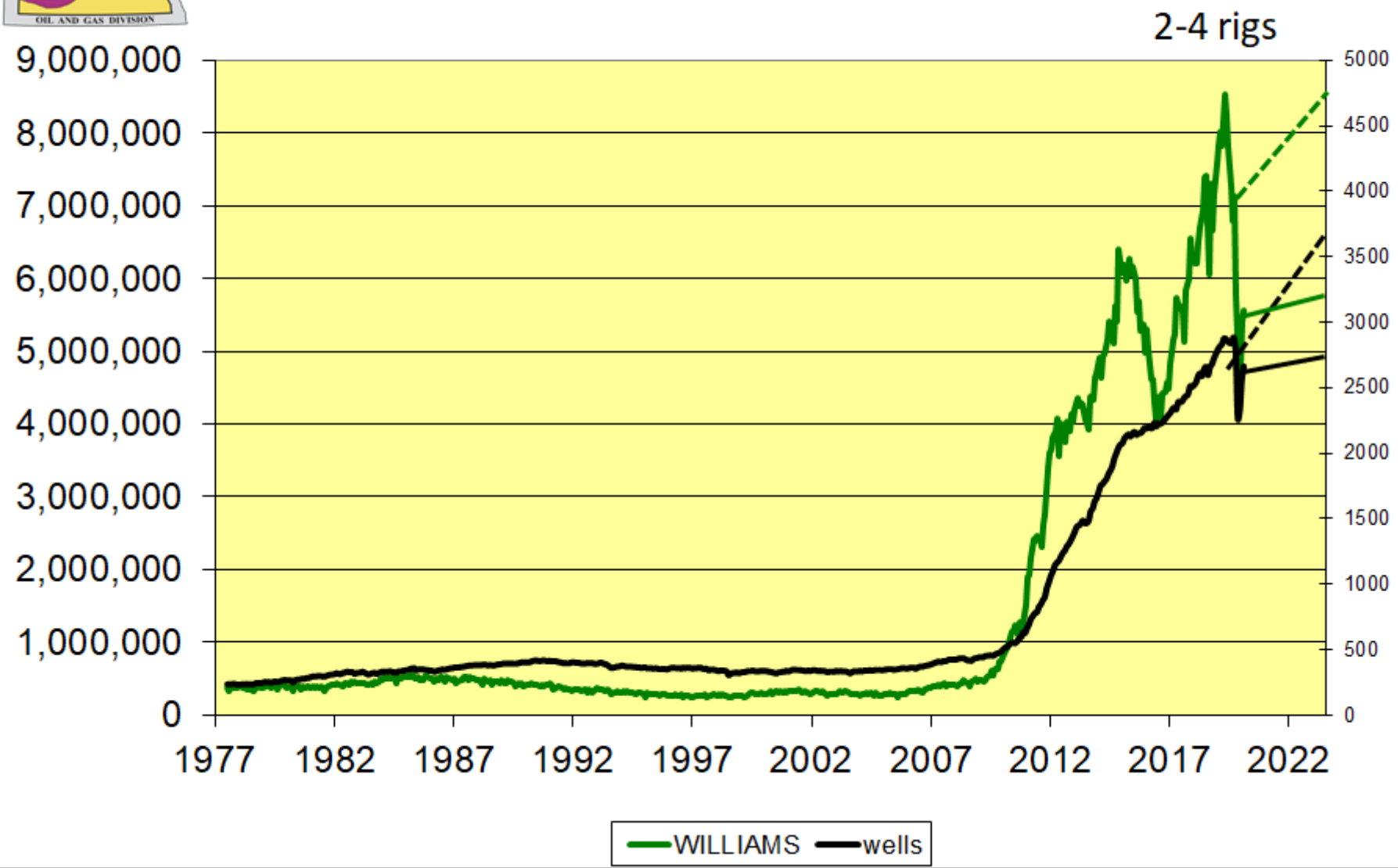


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES





MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



**NORTH DAKOTA
DEPARTMENT OF MINERAL RESOURCES**

CONTACT US

**600 East Boulevard Ave. – Dept. 405
Bismarck, ND 58505**

Phone: 701.328.8020

Email: oilandgasinfo@nd.gov



www.dmr.nd.gov