Internal Fact Sheet: Possible Restrictions to Oil and Gas Drilling on Federal Lands in Utah

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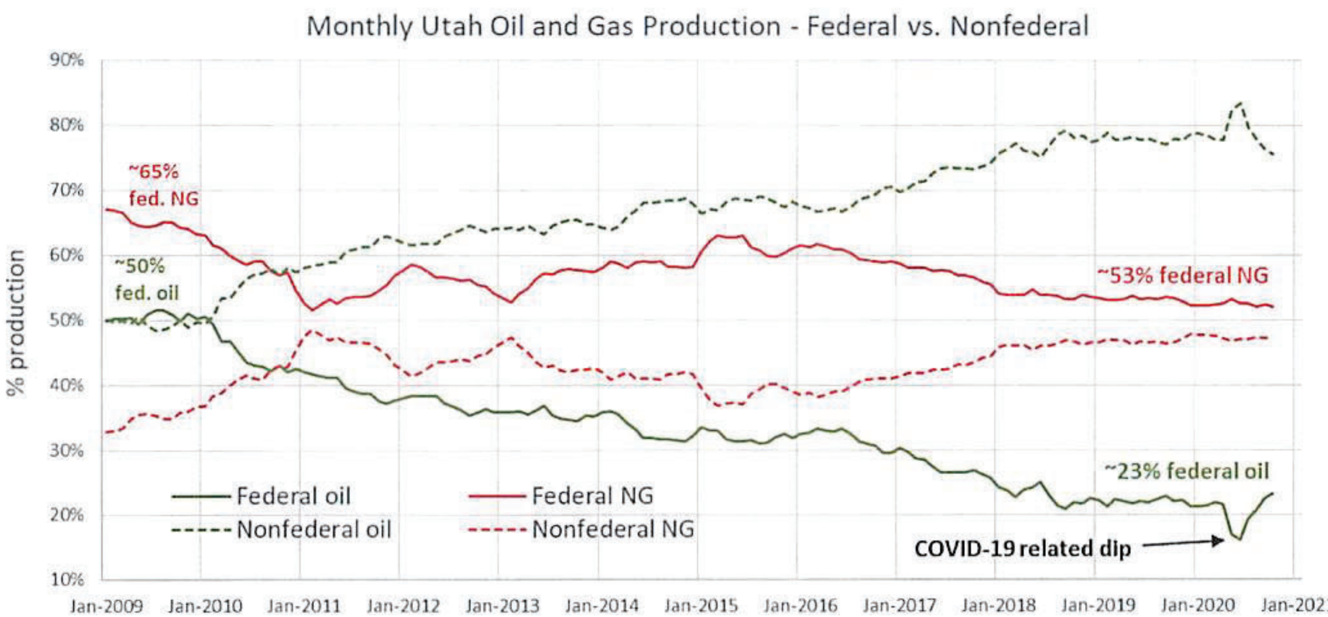
The Biden Administration has made several comments regarding possible restrictions on drilling oil and natural gas (NG) wells on federal lands in the United States. While it is too early to say what the impacts of yet unannounced restrictions might be for Utah, a look at recent drilling activity in the state, as well as proposed future activity, might help prepare Utah for any possible impacts.

Unknowns:

1) Will the Biden administration implement a complete drilling ban, a leasing ban, or a frac-ing ban? Or all three? Or some kind of moratorium pending further study?
2) How long will these restrictions last? 4 years? 8 years? Indefinitely?
3) Will the potential frac-ing ban be restricted to unconventional "resource" plays and horizontal drilling or will it include all plays/wells (conventional plays, vertical drilling, etc.)?
4) Will approved (or newly submitted) APDs (applications for permit to drill) be grandfathered? Will approved federal leases be grandfathered?
5) What about split or multi-estate wells? What about horizontal wells that cross landownership boundaries?
6) What about recompletions of currently drilled wells on federal land?
7) How will tribal lands be affected?

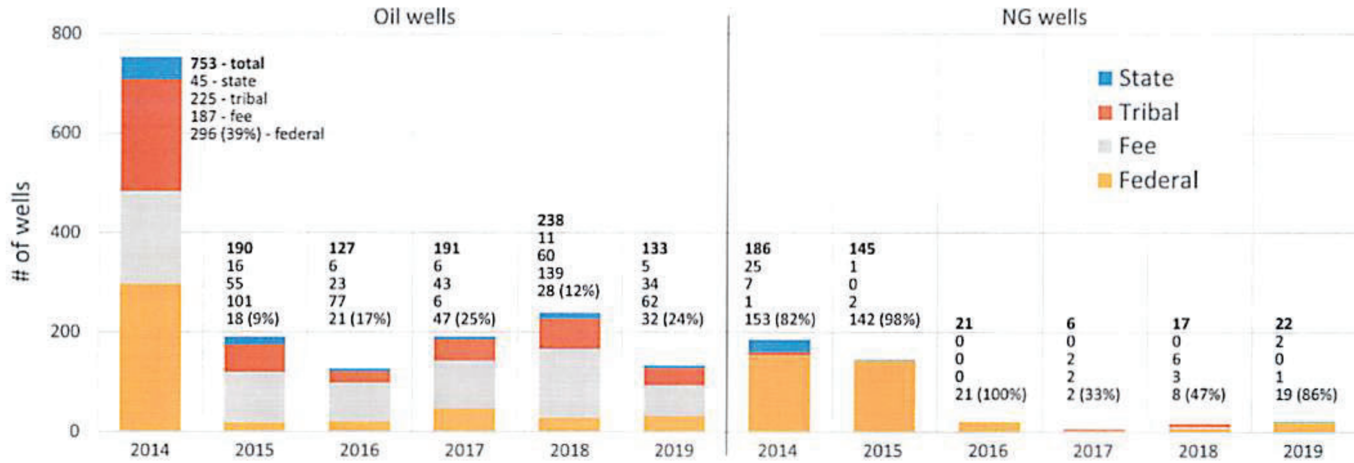
Historic Production:



- Production of oil on federal land has dropped from about 50% of total Utah production in 2009 to only about 23% as drilling, mostly long reach horizontal wells, has shifted to mostly tribal and private land in Duchesne County.
- Production of NG on federal land has remained steady at about 53% over the past several years even as total production has dropped from 491 Bcf in 2012 to 245 Bcf in 2020.

Historic Drilling:

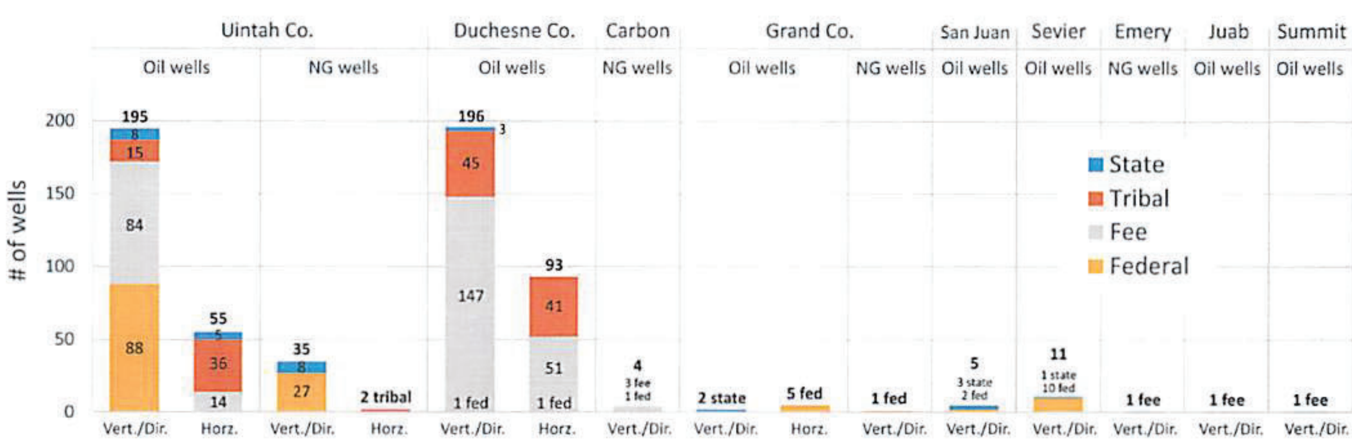
Number of Wells Completed in Utah, 2014-2019



Note: Only includes completed oil and gas wells; excludes disposal, injection, gas storage wells Source: Utah Division of Oil, Gas and Mining

- The number of wells drilled in Utah dropped dramatically starting in 2015 following a significant reduction in oil prices, from over 900 wells in 2014 to an average of about 150 wells between 2017 and 2019.
- In 2014, 39% of all oil wells were drilled on federal land, between 2015 and 2019, only an average of 17% of oil wells were drilled on federal land. Future drilling will most likely resemble drilling that took place between 2017 and 2019, with no anticipated increase in drilling on federal land.
- Drilling for NG dropped dramatically starting in 2016, as NG prices remained below $3 per mcf. The few wells drilled during this time were nearly all on federal land.

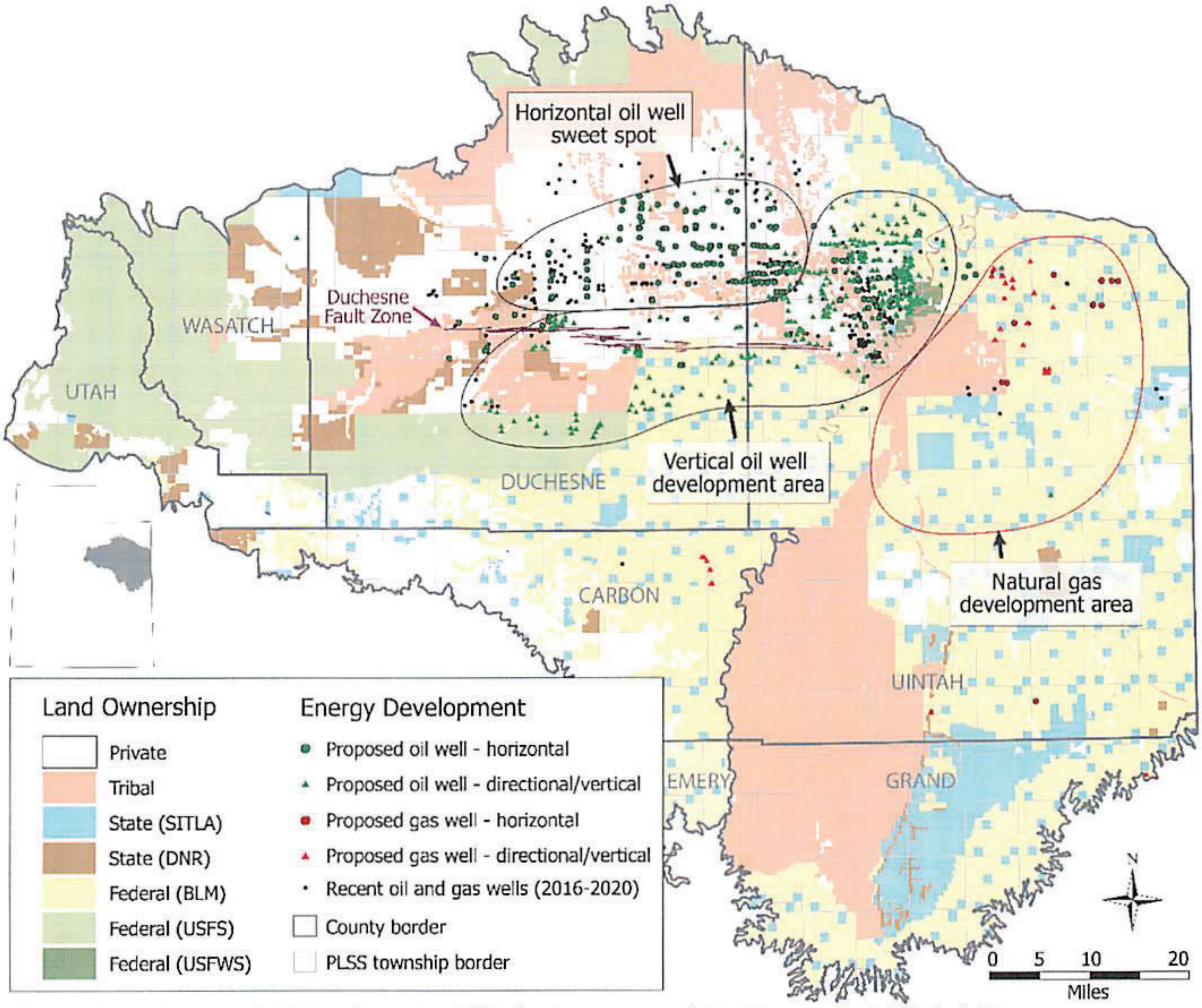
Total Well Completions in Utah Between 2017 and 2019



Note: Only includes oil and gas wells; excludes disposal, injection, gas storage wells Source: Utah Division of Oil, Gas and Mining

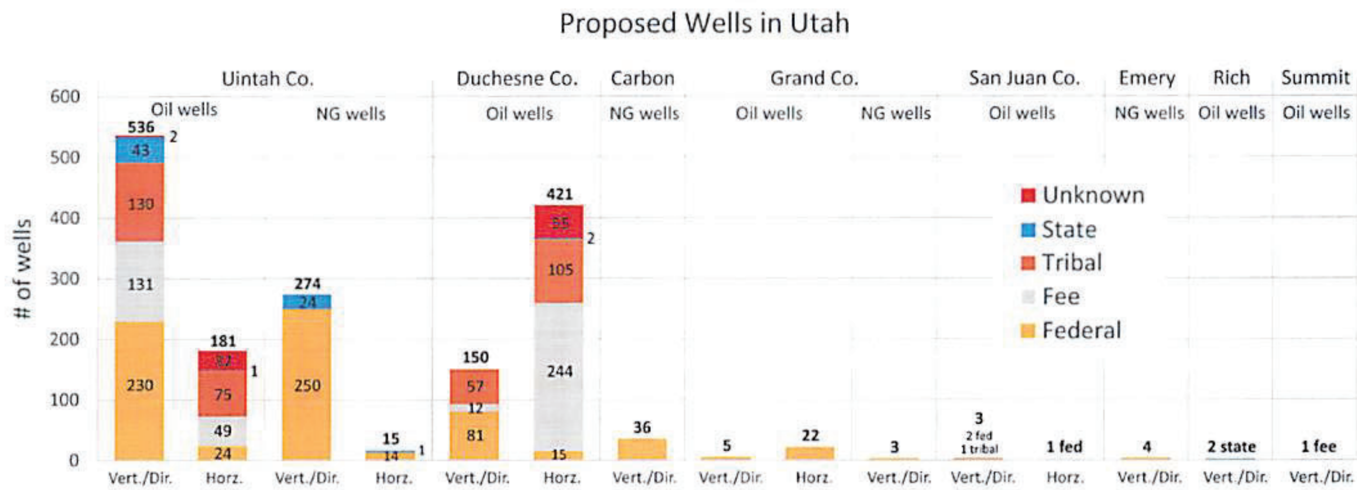
- It is anticipated that near-term drilling could look similar to drilling that took place between 2017 and 2019.
- Drilling restrictions on federal land would mostly affect vertical/directional oil and gas development in Uintah County, but would have a minimal near-term affect on drilling in other areas. The exception might be the limited horizontal drilling that could take place in Grand County (no additional drilling on federal land is currently planned near the Covenant field in Sevier County).

Future Drilling:



Note: Only includes approved applications for permit to drill (APD) and new, unapproved APDs. Map created by Utah Geological Survey
Source: Utah Division of Oil, Gas and Mining

- Oil drilling over the past several years has shifted to the central Uinta Basin, where very successful horizontal wells are drilled mostly on private and tribal lands - only 53 (9%) of the 617 proposed horizontal oil wells (Uinta Basin only) are on federal lands.
- Vertical oil development in the Uinta Basin would target federal land areas in NW Uintah County (536 proposed oil wells, 230 [43%] on federal land) and southern Duchesne County (150 proposed oil wells, 81 [54%] on federal land).
- NG development areas in Uintah County are mostly on federal land, with smaller areas on tribal and state land (264 [91%] of the 289 proposed NG wells are on federal land). In addition, 36 directional gas wells are proposed for the Peters Point area in Carbon County. However, with sustained low NG prices, very few gas wells have been drilled since 2015.
- Drilling outside the Uinta Basin is mostly proposed for federal land (37 of 41 proposed wells), including 22 horizontal oil wells in Grand County that will target the Cane Creek tight oil play.



Note: Only includes approved applications for permit to drill (APD) and new, unapproved APDs

Source: Utah Division of Oil, Gas and Mining

Conclusions – Overall Comments:

1) Possible drilling or leasing restrictions on federal land would be more impactful to Utah's NG development than oil development.
2) Overall oil production would not be severely impacted since newer, more productive horizontal drilling will continue to take place on tribal and private land in the central Uinta Basin.
3) With continued low NG prices, there will be limited drilling for NG regardless of federal drilling restrictions.
4) The severity of any impacts would depend on the duration of such restrictions. If only 4 to 8 years, and if current APDs and/or leases are grandfathered, Utah has more than enough potential well locations that could be drilled without major disruption to overall activities.
5) There are currently 1654 wells with approved or submitted APDs, at an average of 200 wells per year (average between 2017 and 2019), the current list of APDs would last over 8 years.
6) Drilling for oil could more easily shift to nonfederal lands than NG. With such a shift, Utah would see reductions in federal Mineral Lease payments, affecting the organizations that rely on these funds, but severance and other taxes would stay relatively stable.
7) SITLA could see added benefit as drilling might shift to scattered SITLA lands, especially for NG.

Recommendations:

1) A Utah-specific economic analysis could be completed to look at possible fiscal impacts of several different restriction scenarios.