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From: Greg Mendenhall <gmendenhall@texpetro.com>
Sent: Tuesday, October 24, 2023 3:51 PM
To: Rules Coordinator
Subject: Proposed Rule 8 Economic Impact Comments
Attachments: Comments on Rule 8 Proposal Concerning O&G Industry Economics 10-23-2023.docx

To Whom It May Concern,
Please find attached my comments on the economic impact of the proposed Rule 8 changes.
Respectfully,
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<u>Comments on Rule 8 Proposal on Texas Oil & Gas Industry Economics</u>
10/23/2023

- These comments are based on experience operating in New Mexico where a similar pit rule as the RRC proposed Rule 8 exists.
- Because of mandatory soil sampling if a temporary inground pit is used, operators are unwilling to assume the risk of having expensive cleanups if a liner leak occurs. Any liner leak, no matter the size, will result in additional soil sampling, excavation and replacement of the soil at <u>very high cost</u> (risk-adjusted average cost of a liner leak is about $590,000 in New Mexico). This additional cost has greatly decreased development by independent operators because of the unfavorable economics.

<u>Statistics</u>

- There are currently about 3,049 oil and gas operators in the state of Texas.
- The top 20 large operators (ie. Anadarko, Apache, Chevron, COG, Diamondback, Marathon, Occidental, Pioneer, XTO, etc.) operate about 21.4% of the wells while producing about 52% of the oil and 40% of the gas.
- The remaining 3,029 operators operate about 78.6% of the wells while producing about 48% of the oil and 60% of the gas.
- Many of the 3,029 operators are small independents who support the state and their communities through local purchases, tax payments and employment opportunities.
- There are currently about 304 rigs running in Texas on any given day, with about 289 rigs drilling horizontally (95% of the total) and 15 rigs drilling vertically (5% of the total).
- Many of the horizontal rigs are using equipment to remove cuttings from oil-based mud systems so that the mud can be reused. The cuttings are typically buried at a well's location. In this analysis, 90% of horizontal rigs are assumed to be using oil-based mud while the remainder utilize water-based systems without the cuttings removal equipment.
- Additionally, because most oil and gas producers have fixed budgets for capital projects, added costs will result in a proportional drop in drilling activity. Although this assumption was made for both horizontal projects and vertical projects, increases in vertical well expenses will likely have a much larger impact due to lower budgets and marginal economics.

Winners/Losers

- The proposed Rule 8 with its mandatory soil sampling and pit registration creates a market for numerous businesses. When all of the potential gross revenue for disposal facilities, trucking companies, closed loop system equipment suppliers and environmental remediation companies is tallied, this new regulation-driven market will be worth $513,310,000 annually. There is little wonder that disposal facility & environmental companies are filing for permits even before the proposed Rule 8 is finalized.
- However, the losses to oil and gas operators, service and equipment companies, landowners, working and mineral interest owners, and the state of Texas and its local governments, will be about $1,588,770,000 annually.
- With 3767 horizontal wells drilled and 456 vertical wells drilled annually in Texas, the proposed Rule 8 will result in a cost of $513,310,000 to the oil and gas industry annually. Vertical wells will be most affected and will cost at least 20% or more on average.
- With budgets constrained by either stockholder expectations, cashflow or limited access to capital markets, the added expense will result in a reduction of at least 47 horizontal wells and 80 vertical wells per year. This reduction in drilling and production means a loss of about $54,100,000 in state severance tax and about $36,800,000 in local taxes (ad valorem) annually.
- The reduction in drilling will also directly affect working and royalty interest owners. Working interest owners stand to lose a whopping $367,200,000 annually and royalty owners will lose about $99,600,000 annually.

Conclusions

- The Oil & Gas Industry has a shared goal with the TCEQ and Texas Railroad Commission of preventing water contamination.
- Because of the economic cost to the State of Texas and to its energy producers, regulations should be based on real problems and not perceived problems.
- It has been clearly shown that the current Rule 8 Chapter 3.8 has served the RRC and Texas citizens well since no cases of groundwater contamination have been identified by the TCEQ with regard to temporary pits over the last 40 years.
- Despite the potentially large profit for environmental services and Closed Loop equipment companies that would come with the proposed Rule 8 pit regulations, there is a serious question concerning equipment and services availability (including cuttings control equipment, haul trucks, roll-off bins, fluids storage tanks, commercial waste disposal facilities, environmental services and lab resources). The costs of delayed projects were not part of the analysis but could lead to larger losses for state severance and ad valorem taxes.
- As experienced in New Mexico, real damage has been caused by increased truck traffic on roads and highways while hauling cuttings. Based on the required additions of Closed Loop Systems and cuttings haulers, the new regulations will lead to an additional ±300 haul trucks on the road daily and about 40,000,000 miles driven between locations and disposal facilities annually. The miles for Closed Loop equipment delivery were not

included. Also, about 5,000,000 gals of diesel would be burned while hauling drill cuttings or soil. When drilling in areas close to or in towns or cities occurs, this can lead to nuisance issues and lots of road repairs.

- Lastly, landowners are concerned that a pit registration system would lead to a loss in the real value of their land, especially in areas where developers are active. Landowners, who already could lose millions of dollars in damage payments because of fewer wells drilled, would also face the prospect of having lower land valuations and forfeited sales because of a registered temporary pit. All of this occurring despite the fact that there was no impact on groundwater in the area.

Recommendations

- Based on current experience, knowledge, and a proven track record over the last 40 years, the current Rule 8 guidelines in Chapter 3.8 on **temporary** drilling, completion and workover pits should be followed for most of the state. Temporary pits should be defined as having a service life of the drilling operation plus no more than a year. The RRC Districts should modify the temporary pit rules only in the event that there is a clear, demonstrable risk to the water table.
- Pit registration for **temporary** drilling, completion and workover pits should be eliminated. Pit registration mimics 40 CFR 280 and should not apply to temporary pits unless there is a clear, demonstrable risk. Pit registration can easily lead to litigation. This was clearly demonstrated In New Mexico.

Summary of Revenue Changes

	Horizontal Wells			*Vertical Wells*			Total
	Wells	Gross Add'l Rev	Δ Gross Rev	Wells	Gross Add'l Rev	Δ Gross Rev	Δ Gross Rev
Winners	Drilled/Yr	Per Well	Per Year	Drilled/Yr	Per Well	Per Year	Per Year
Disposal Facilities =	3,767	$27,149	$102,270,904	456	$11,328	$5,165,778	$107,436,683
Trucking Companies =	3,767	$14,661	$55,226,288	456	$6,117	$2,789,520	$58,015,809
Closed Loop Equipment Suppliers =	376	$504,000	$189,504,000	387	$216,000	$83,592,000	$273,096,000
Env Remediation Companies =	377	$188,317	$70,995,547	20	$188,317	$3,766,342	$74,761,889
Winners Total =	3,767	$110,963	$417,996,739	456	$209,021	$95,313,640	$513,310,380
	Horizontal Wells			*Vertical Wells*			Total
	Wells	Gross Add'l Rev	Δ Gross Rev	Wells	Gross Add'l Rev	Δ Gross Rev	Δ Gross Rev
Losers	Drilled/Yr	Per Well	Per Year	Drilled/Yr	Per Well	Per Year	Per Year
Oil & Gas Operators =	3,767	($110,963)	($417,996,739)	456	($209,021)	($95,313,640)	($513,310,380)
Service & Equipment Companies =	3,767	($111,867)	($421,402,000)	456	($206,316)	($94,080,000)	($515,482,000)
State of Texas Severance Tax =	3,720	($12,420)	($46,203,321)	376	($20,916)	($7,864,395)	($54,067,716)
Local Government Ad Valorem Tax =	3,720	($8,449)	($31,428,534)	376	($14,227)	($5,349,538)	($36,778,072)
Landowners =	3,767	($312)	($1,175,000)	456	($2,632)	($1,200,000)	($2,375,000)
Working Interest Owners =	3,720	($81,962)	($304,898,400)	376	($165,631)	($62,277,120)	($367,175,520)
Mineral Interest Owners =	3,720	($20,490)	($76,224,600)	376	($62,111)	($23,353,920)	($99,578,520)
Losers Total =	3,767	($344,924)	($1,299,328,595)	456	($634,734)	($289,438,613)	($1,588,767,208)
Net Gain (Loss) From Proposed Rule 8	(47)	($233,961)	($881,331,855)	(80)	($425,713)	($194,124,973)	($1,075,456,828)

Assumptions:	Numbers in the chart above reflect net changes
	Annual Drilling Projects continue at same rig count (304) and budgets
	Horizontals continue to make up 95% of new drills
	Horizontals are 2 mile laterals with $9,000,000 budgets with 28 days of drilling
	Vertical wells assume $1,200,000 budgets with 12 days of drilling
	Tax Calculations are based on $85 WTI and $3.12 HH Gas
	Assumes 90% of Horizontal wells are already using Closed Loop Systems because of oil-based mud systems
	Assumes all Horizontal and Vertical wells are currently burying cuttings
	Assumes Closed Loop System spill risk is 10% per project
	Tax decreases are based on well drilling reductions due to fixed budgets
	(i.e. more capitol required, less drilling proportionately)
	Landowner losses are based on loss of damage payments because of decreased drilling activity
	Average statewide statistics for tract size and land value were used