PULSE

ISSUE XVIII · PERMIAN BASIN EDITION · JULY 2022

PROBUS
ENERGY SERVICES

WHAT'S INSIDE?

01

INTRODUCTION

PROBUS
ENERGY SERVICES

INTRO

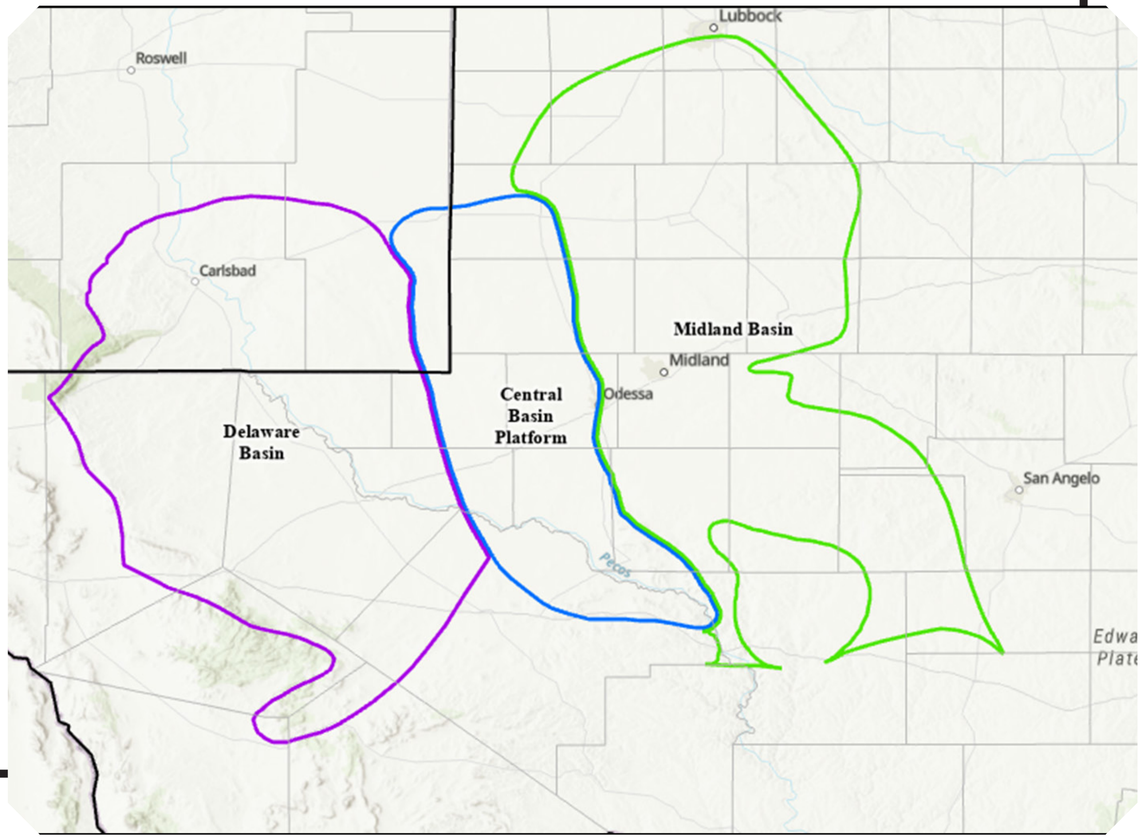
PERMIAN BASIN

We tend to think of the Permian Basin as the Midland and Delaware Basin, but before shale play and emerging technology, vertical wells were the name of the game, and the Central Basin Platform reigned as the powerhouse for almost a century and structural highs were all the rage.

We will recap some of the more recent successes in each of the Basins as operators continue to increase efficiency to allow for those oh-so-sweet returns in the mineral buying space.

EXCITING NEWS!

In this addition, we are thrilled to preview our new dashboards, “ProBoards”, which will be showcased throughout. Find more on the ProBoards page.



WHAT'S INSIDE?

02

PROBOARDS

PROBUS

ENERGY SERVICES

If you've enjoyed our Probus Energy Services' Pulse Reports over the years, we think you will really enjoy our ProBoards.

At Probus we are very proud to introduce to you our Probus Energy Services' Proboards.

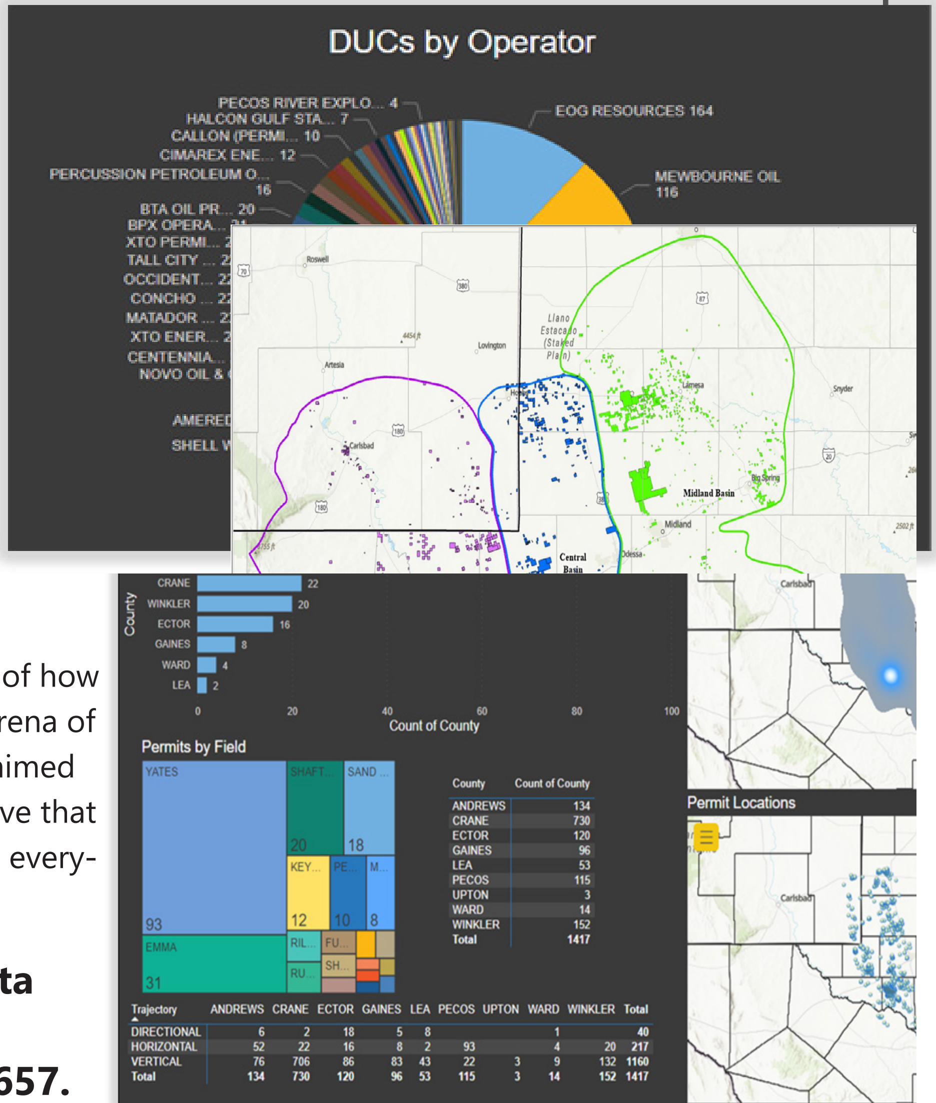
Our Proboards are a subscription-based dashboard showing you all of the different areas we cover in the Pulse Report, but in real-time!

There will be much more information coming in the next few weeks, including screen-grabs, case studies and instructional videos. We are targetting an official launch date of early December, but are looking for a very few number of active companies and/or individuals to beta test our new platform.

Imagine looking at leasehold transactions in realtime based on a user generated polygon drawn on a map. Or perhaps you want to you want to look at groups who acquired minerals, but have not sold them, within a certain radius of wells that are estimated to produce greater than 1,000,000 barrels of oil. Maybe you want to query the dashboard to see the most active mineral and leasehold acquirer from last week. ProBoards can do it all.

We've created a powerful tool that is ultilizing information in real-time from the courthouses across the country.

ProBoards are yet another example of how Probus continues to trailblaze the arena of data-driven land solutions that we aimed to perfect years ago. We truly believe that we are the experts in land, data and every-thing in between!



If you would like to know more, or participate in our beta test, please reach out to Lance Miller at Lance.Miller@ProbusEnergyServices.com or at 817-349-7657. And stay tuned for more on our ProBoards launch!

PROBOARDS

PROBUS
ENERGY SERVICES

WHAT'S INSIDE?

03

LEASE ACTIVITY

PROBUS
ENERGY SERVICES

LEASE ACTIVITY

"IS THERE ANYTHING LEFT TO LEASE IN THE PERMIAN? APARENTLY SO...

From January 1st, 2020 to May 31st, 2022 the Permian Basin saw consistent lease activity across the three main components; the Delaware Basin, Central Basin Platform and the Midland Basin. The majority of the lease activity has been in the Midland Basin, with Howard County leading the other counties in number of leases filed since January 1st, 2020. Let's take a closer look at Midland Basin, and the leading lessees.

DELAWARE BASIN

We turn our attention to the lease activity in the Delaware Basin. SPC Resources, Colgate Energy and COG Operating take the top three spots as most active lessees in the Delaware. Colgate has certainly been active lately with their acquisition of Oxy acreage and their most recent announcement with Centennial Resource Development. They also managed to out lease everyone else in Reeves County.

SPC Resources dominated Eddy County, New Mexico, when it came to taking new leases from January 1st, 2020 to May 31st, 2022. MRC Permian put up a strong showing leasing in Lea County, New Mexico.

CENTRAL BASIN

For the first time we are turning our attention to the Platform. We have neglected to highlight the activity on the Platform for too long. Companies like Blackbeard Resources, Fortuna, Adobe Energy and Ring Energy have certainly been busy executing leases. Blackbeard takes top honors by being the most active lessee on the Platform, but also being the top lessee in both Winkler and Crane Counties.

Fortuna Resources Permian comes in second in the most active lessee competition. Adobe Energy and Ring Energy follow behind in a neck and neck race for third and fourth, respectively.

MIDLAND BASIN

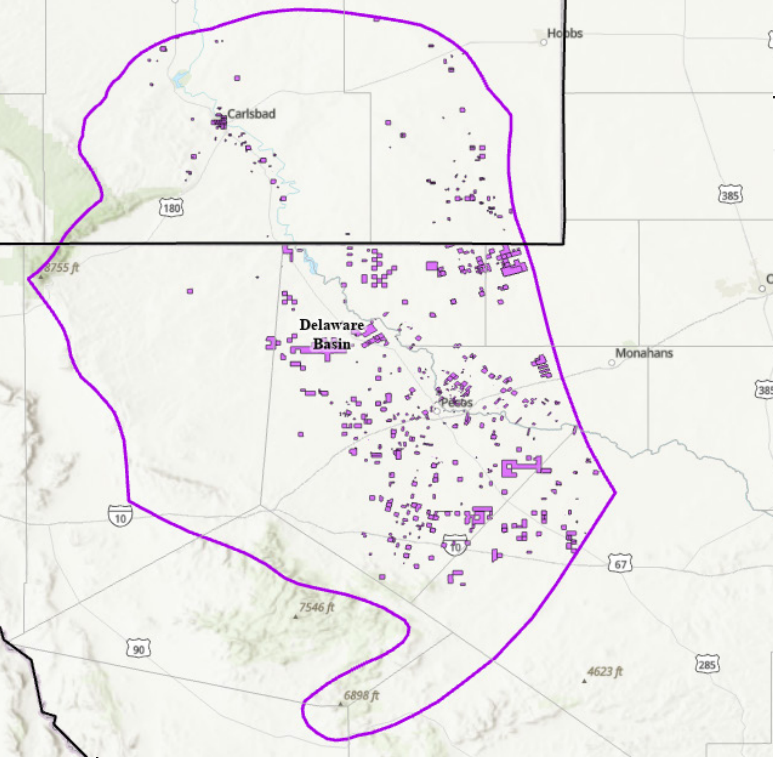
Our data tells us that CGS Operating, LLC, is the most active lessee (calculated by the total number of leases recorded, not total number of acres) since January 1st, 2020. Is CGS Operating a part of EOG? We certainly think so, which is why you see the EOG logo representing CGS Operating as the most active lessee in Andrews and Martin Counties.

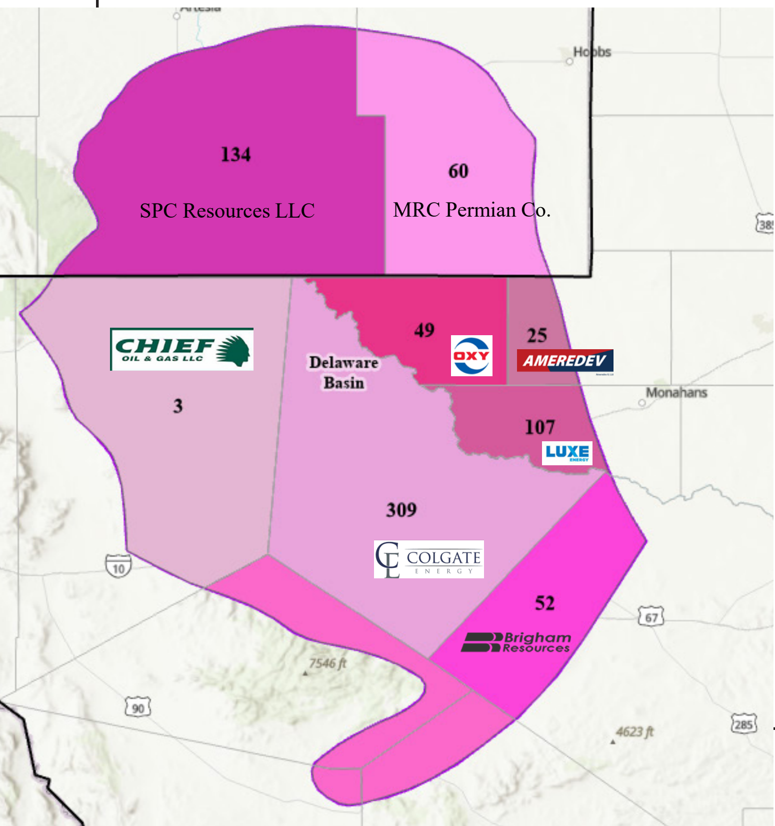
Four Sevens Operating and Midland Petro DC Partners came in second and third place, respectively. A number of companies made up the remainder of the top 10 with roughly the same number of leases over the same time period. We've made sure to call out the Top 10 lessees as well as the most active lessee in each Midland Basin County.

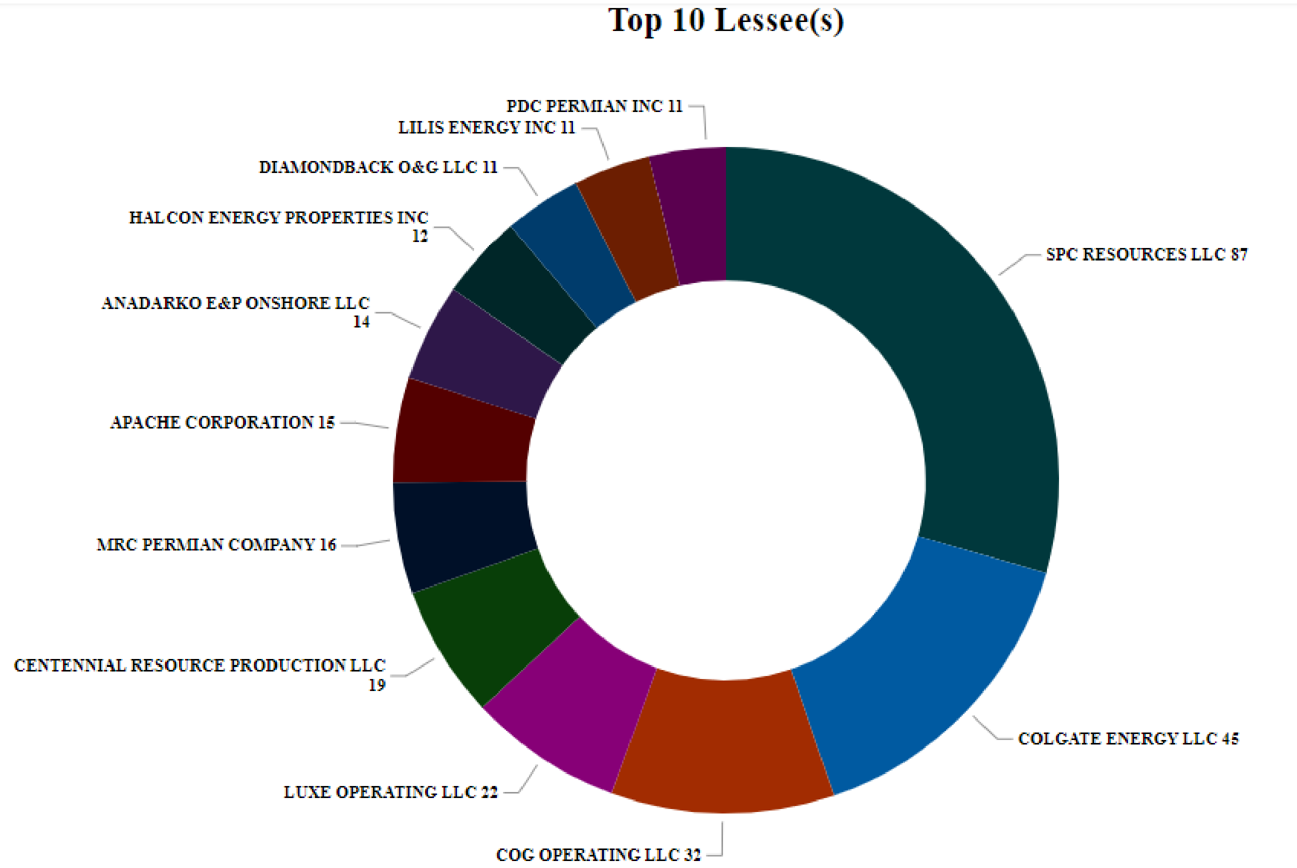
Congratulations to all the companies who've made these lists. Anyone who's done this can attest, it takes a lot of work to be a leader in the leasing world.

PROBUS
ENERGY SERVICES

DELAWARE

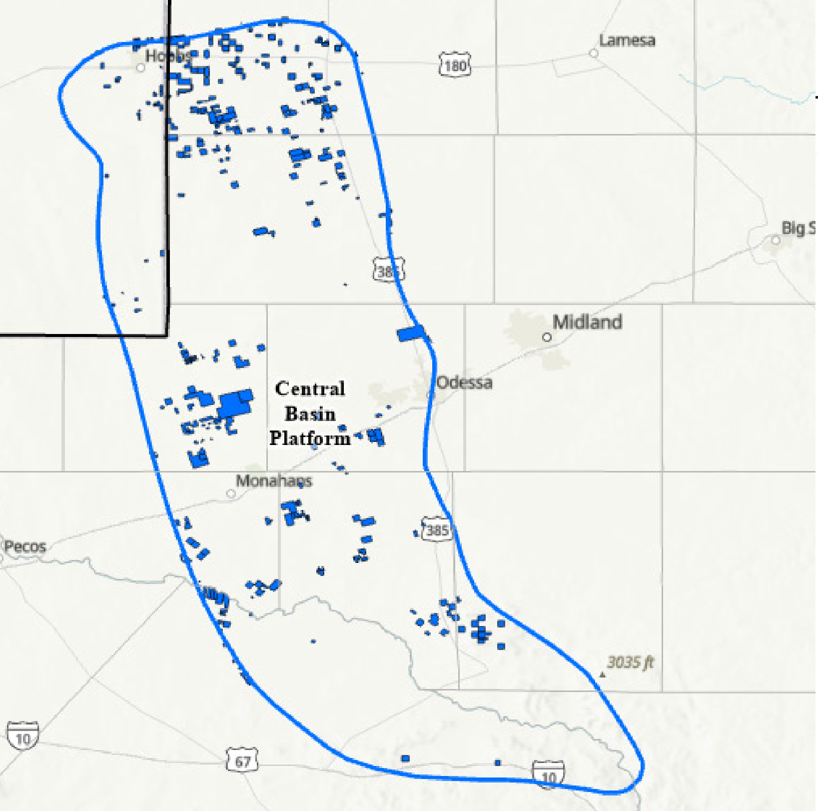


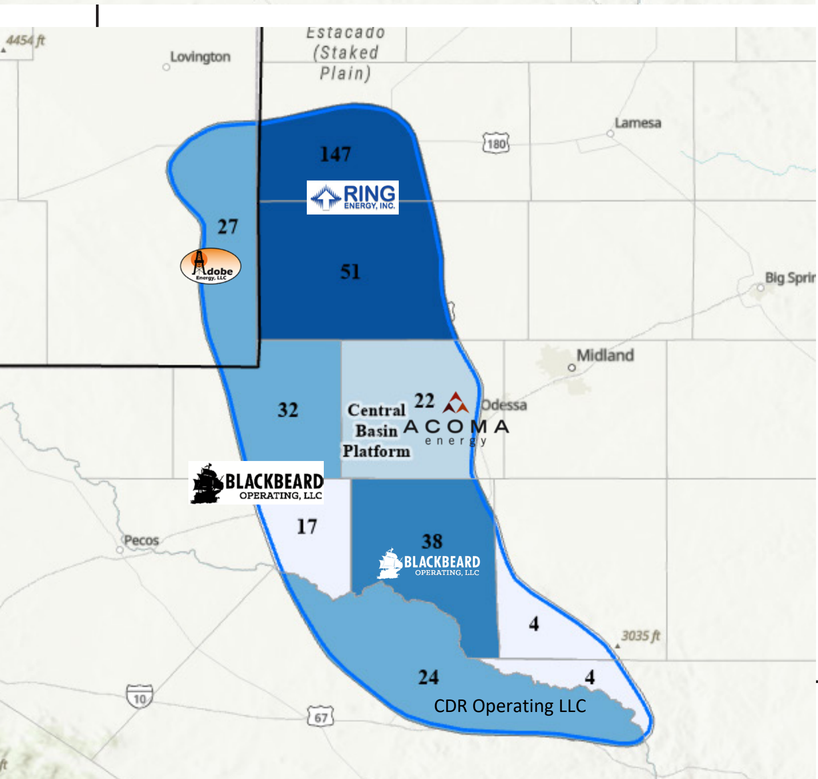


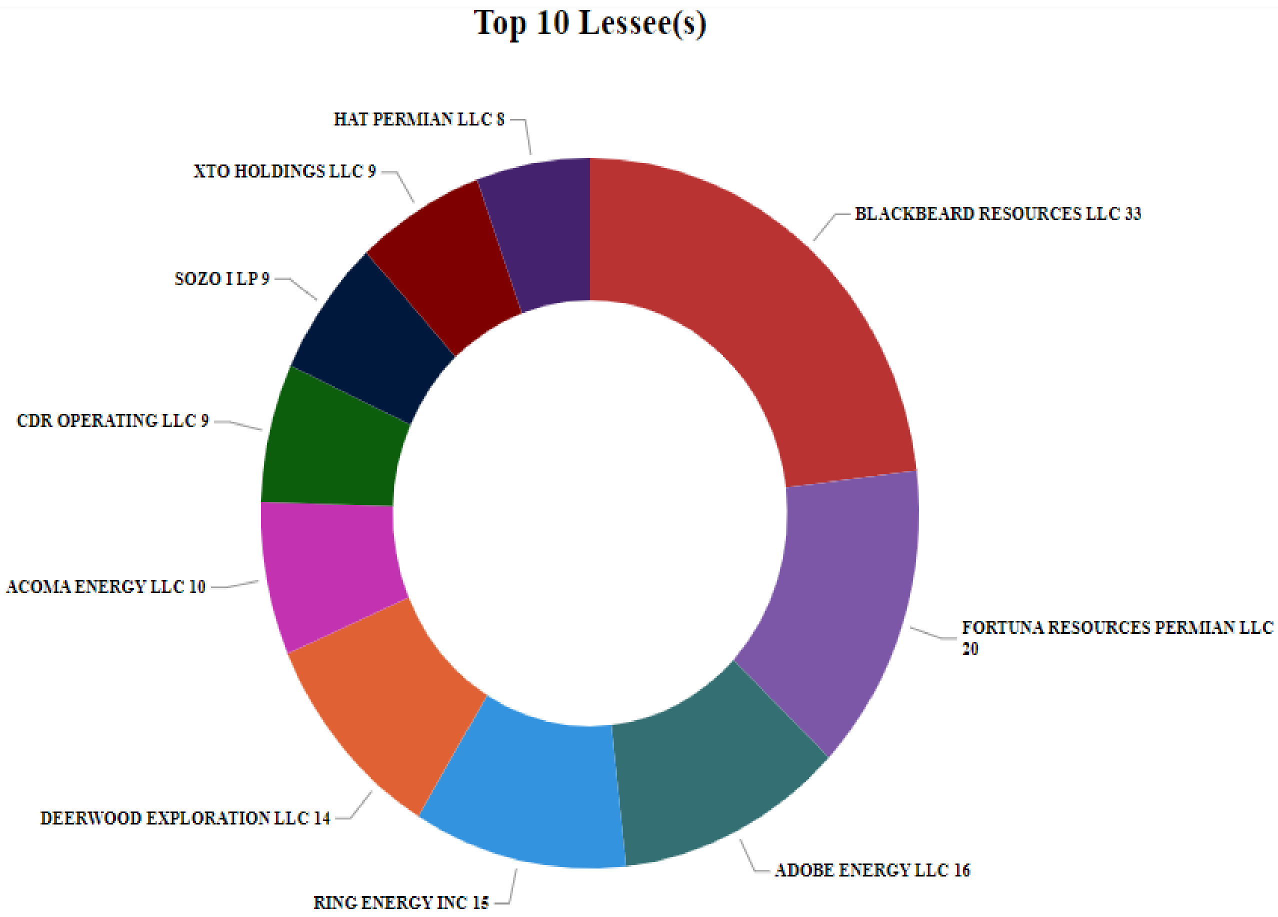


Leasing has continued across the Delaware Basin since 2020 with approximately ***739 leases*** being taken across the entire basin. The numbers to the left represent each counties totals, as well as the top lessee for each county.

CENTRAL

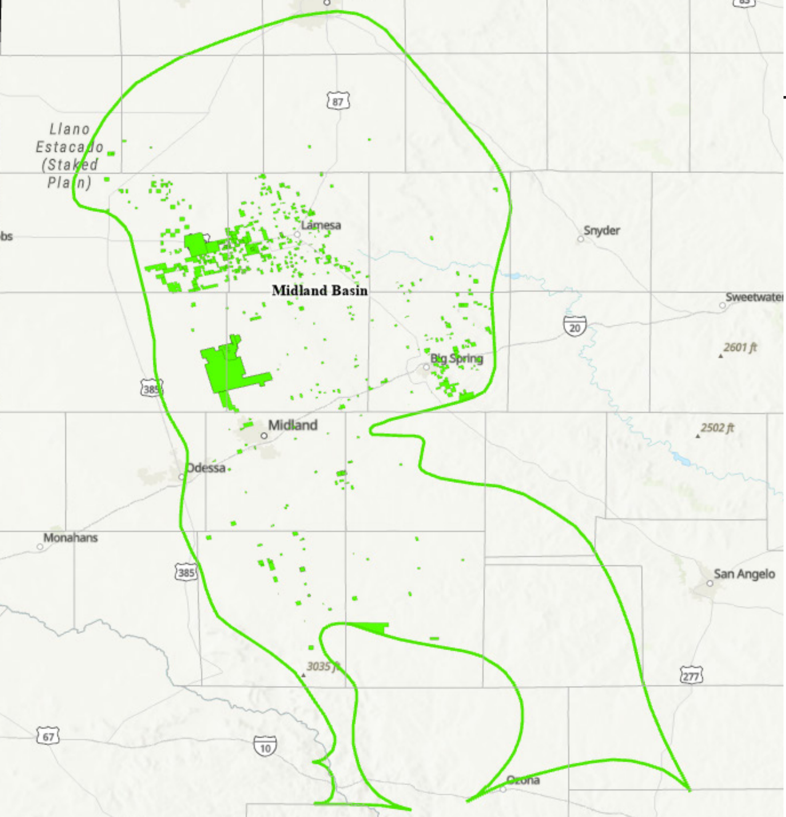


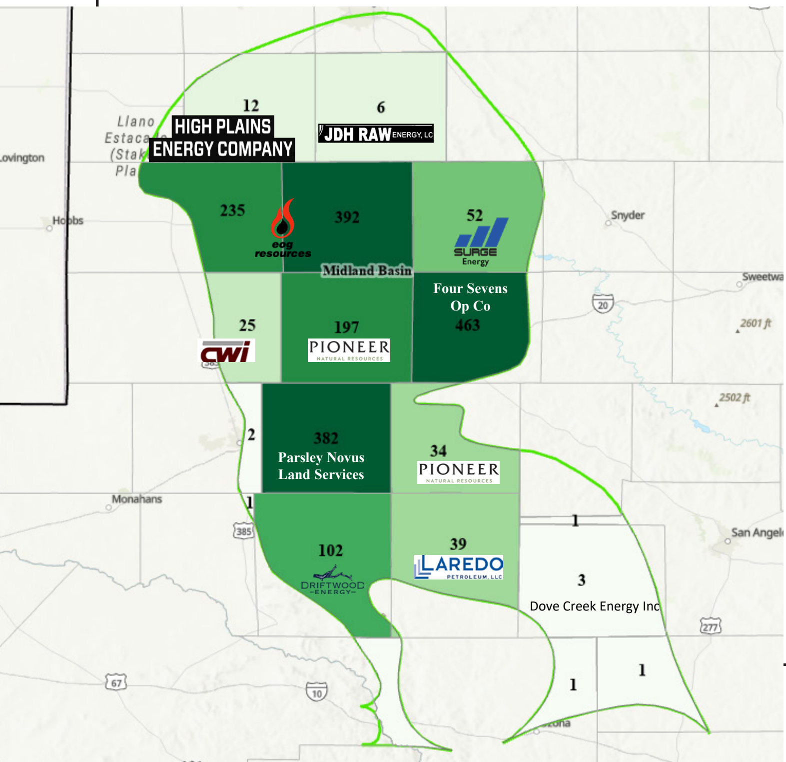


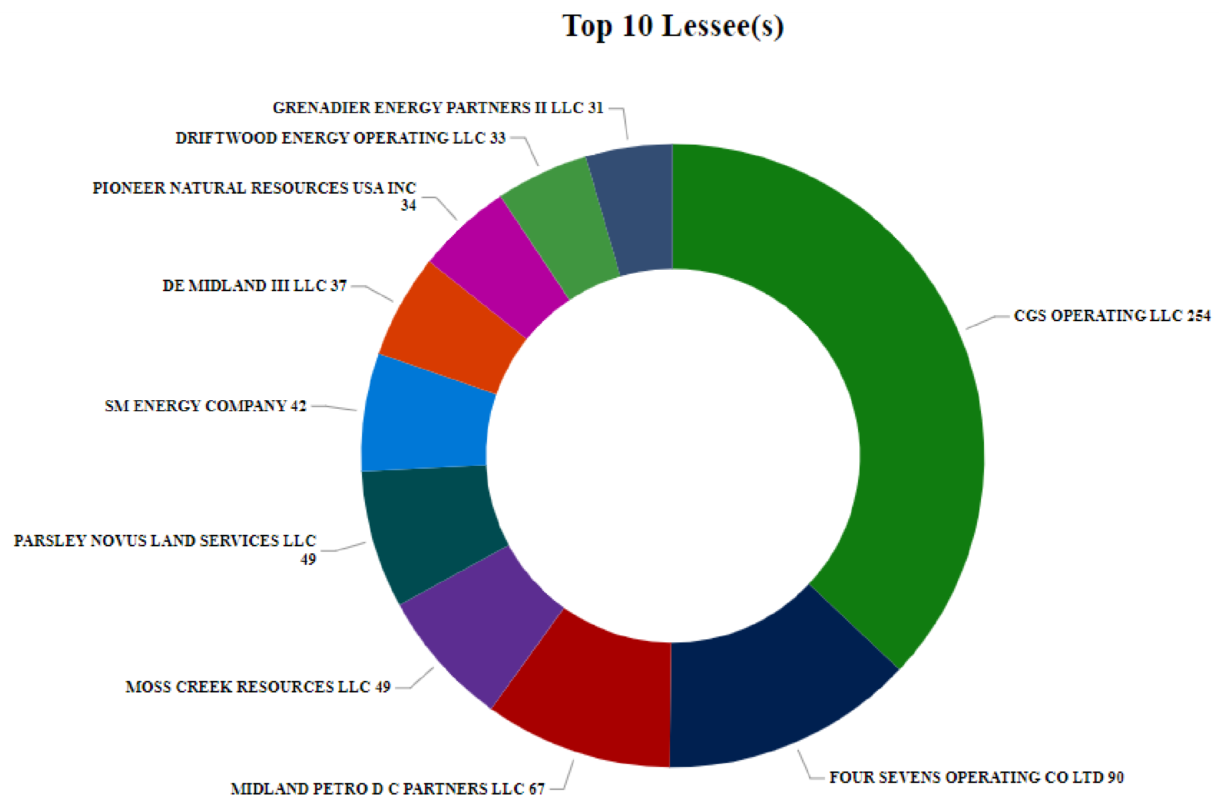


Leasing has continued across the Central Basin since 2020 with approximately ***366 leases*** being taken across the entire basin. The numbers to the left represent each counties totals, as well as the top lessee for each county.

MIDLAND







Leasing has continued across the Midland Basin since 2020 with approximately ***1,996 leases*** being taken across the entire basin. The numbers to the left represent each counties totals, as well as the top lessee for each county.

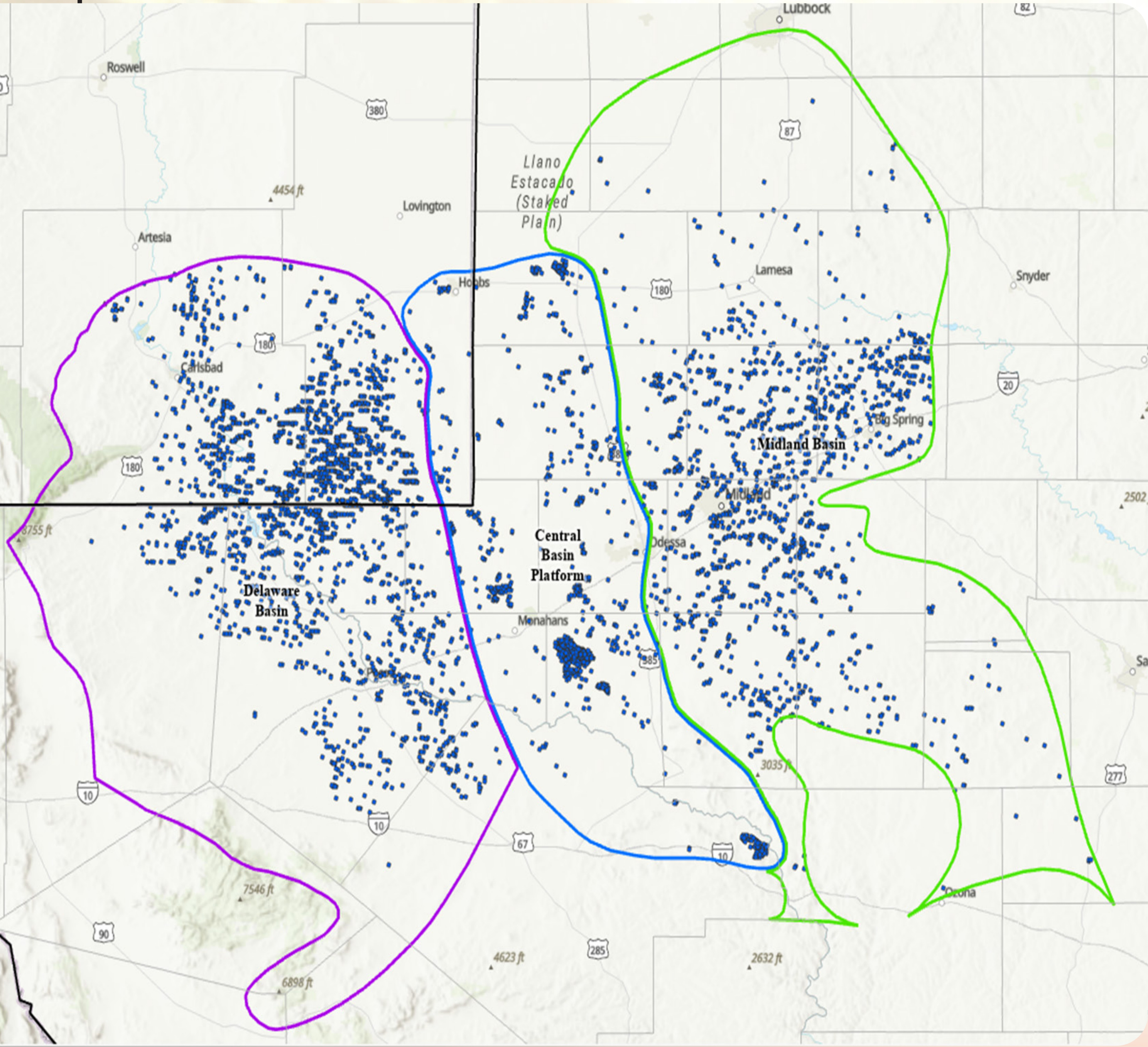
WHAT'S INSIDE?

04

PERMIT ACTIVITY

PROBUS ENERGY SERVICES

PERMIT



Even though the majority of permits still tend to gravitate to the Midland and Delaware Basins, this is probably the most even distribution of permits we've seen across the entire Permian Basin.

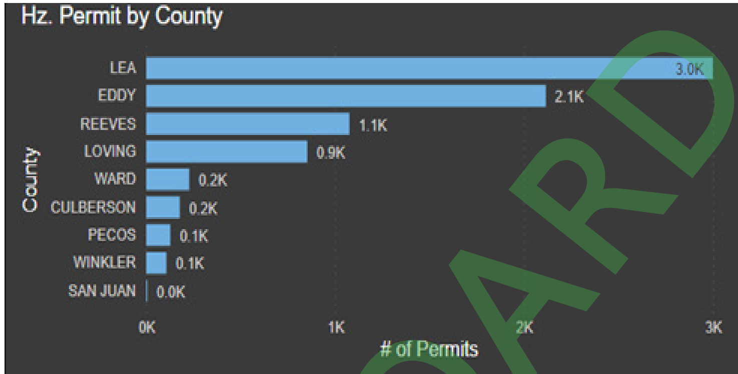
It seems likely that this "bookending" effect will continue into the foreseeable future. However, as the Permian starts to burn through the horizontal Wolfcamp locations in the Midland and Delaware, and as the Central Basin Platform starts to come into its own as a contributor of first class resource plays, we would expect to see a solid coverage of new permits from central Culberson to Eastern Howard Counties.

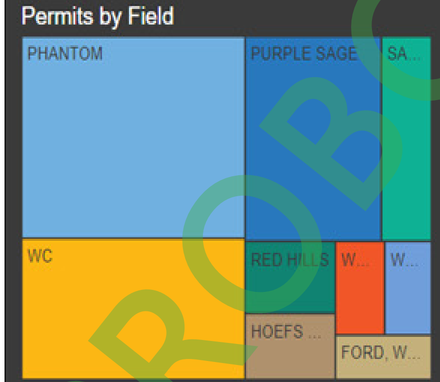
The vast majority of new permits are for horizontal wells, as one might expect. Long gone are the days where wildcat permits made up any significant portion of total permit activity.

While the world looks wildly different than it did 20 years ago, through a permitting lens, there are a few key insights that give us a preview of what the future might look like.

“No surprise that New Mexico permits are outpacing the Texas permits in the Delaware.

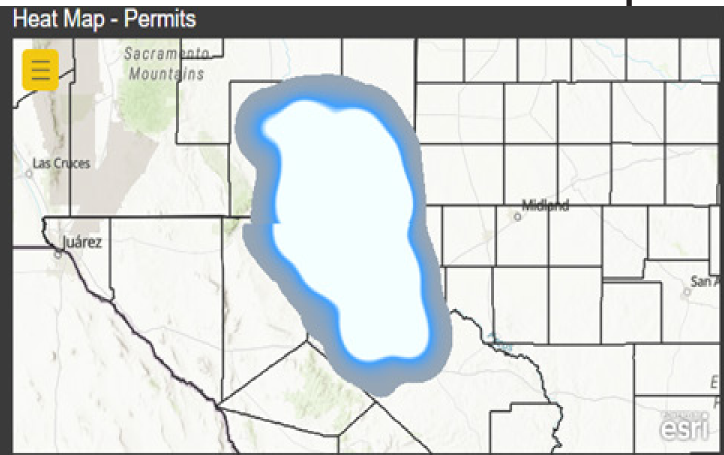
Operators have continued to file permits where they can yeild the best results. With inventory shrinking in Loving County, and well performance being better in Lea and parts of Eddy, it sets up for New Mexico to see more near-term future activity. However, given the political climate, one wonders if that will hold into the next few years. The Phantom field is still the most popular, but that seems to be a function of location rather than any other factor.

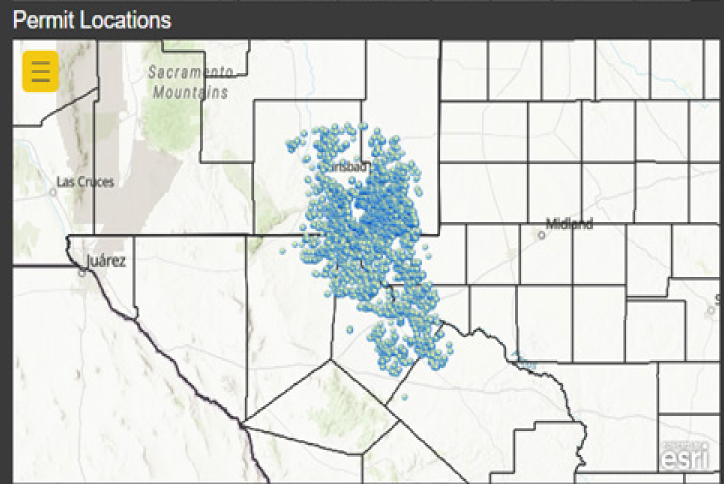




County	Count of County
WINKLER	111
WARD	292
SAN JUAN	1
REEVES	1129
PECOS	133
LOVING	924
LEA	3035
EDDY	2140
CULBERSON	246
Total	8011

Trajectory	CULBERSON	EDDY	LEA	LOVING	PECOS	REEVES	WARD	WINKLER	Total
DIRECTIONAL	2	3	2	1		1	39		48
HORIZONTAL	178	2116	3000	853	128	1076	228	107	7686
VERTICAL	66	21	33	70	5	52	25	4	276
Total	246	2140	3035	924	133	1129	292	111	8010



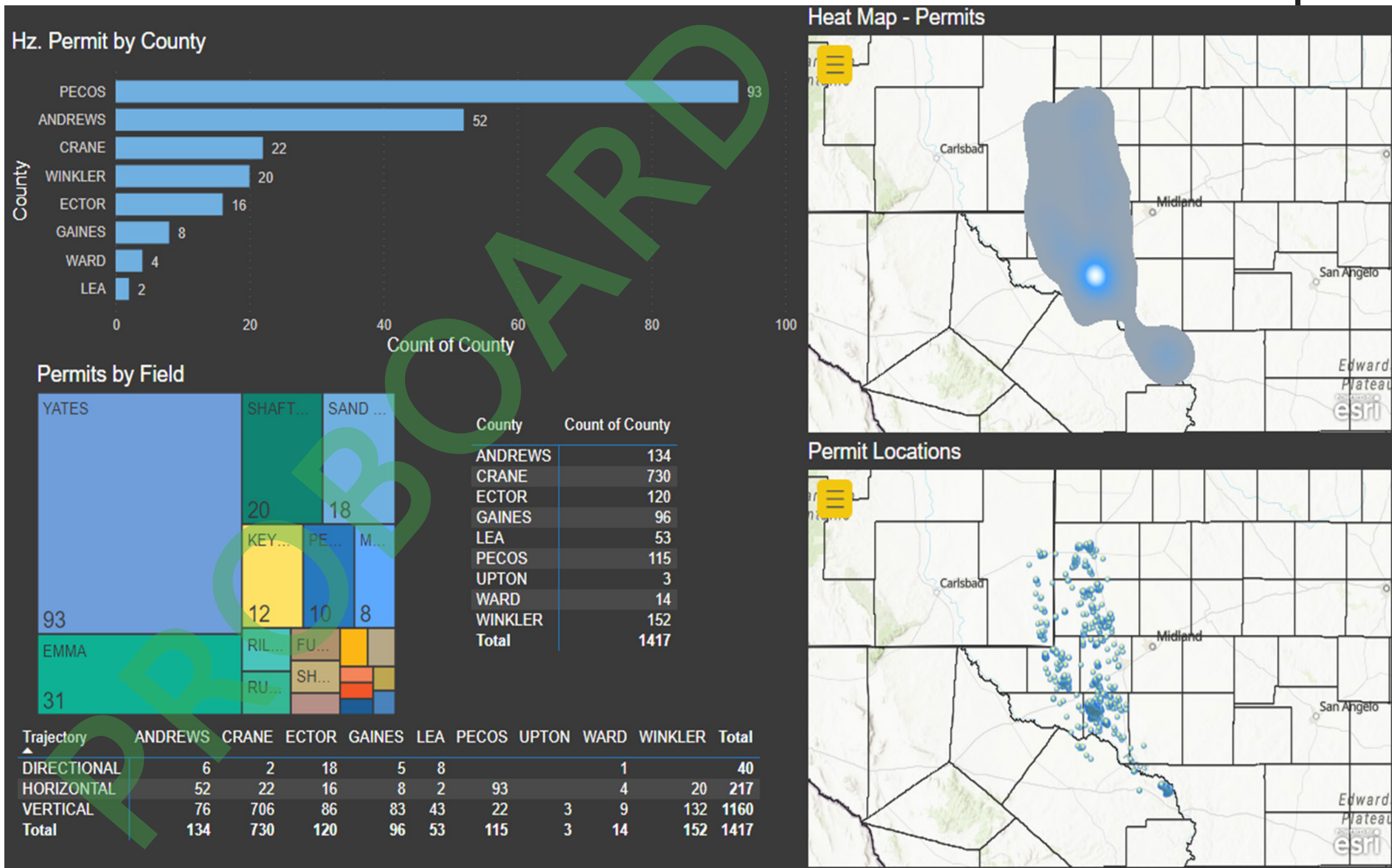


DELAWARE

PROBUS ENERGY SERVICES

“The Central Basin Platform has seen an increase in horizontal activity over the last 5 years.

With recent operators testing the Mississippian, Wolfcamp and San Andres as targets, there continues to be a surge in testing the limits this historic basin has to offer. The chart to the right isolates the horizontal permits by county, along with the fields the horizontals are permitted in. The Yates field in Pecos, operated by KinderMorgan, has 93 horizontal permits. The Emma (Mississippian) field contains 25 horizontal permits in Andrews County, and 6 horizontal permits in Ector County.



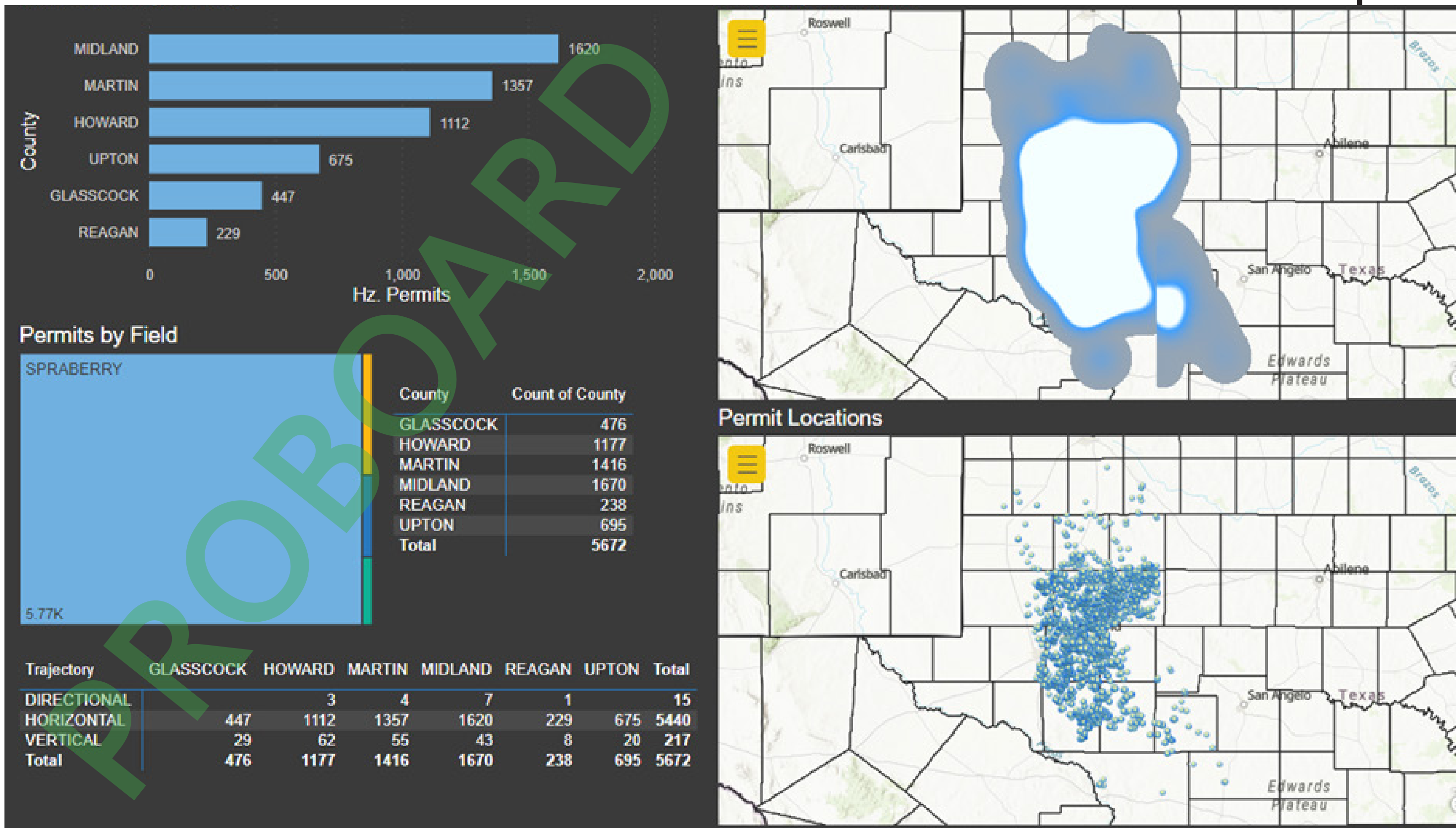
CENTRAL

PROBUS
ENERGY SERVICES

“We are seeing an even-handed approach to development of the Midland Basin.

The unique thing about the Midland Basin is how even the distribution of permits is once you’ve taken into account the geographic area of the productive part of the horizontal Wolfcamp play. Perhaps the well performance is more homogenous, or operators have their favorite areas. Either way it’s causing mineral owners to have a fair chance of seeing near term activity.

Moving forward, it’ll be interesting to see if that pattern holds or if we start to see permits “clump” into distinct areas which would indicate hot spots.



County	Count of County
GLASSCOCK	476
HOWARD	1177
MARTIN	1416
MIDLAND	1670
REAGAN	238
UPTON	695
Total	5672

Trajectory	GLASSCOCK	HOWARD	MARTIN	MIDLAND	REAGAN	UPTON	Total
DIRECTIONAL		3	4	7	1		15
HORIZONTAL	447	1112	1357	1620	229	675	5440
VERTICAL	29	62	55	43	8	20	217
Total	476	1177	1416	1670	238	695	5672

MIDLAND

WHAT'S INSIDE?

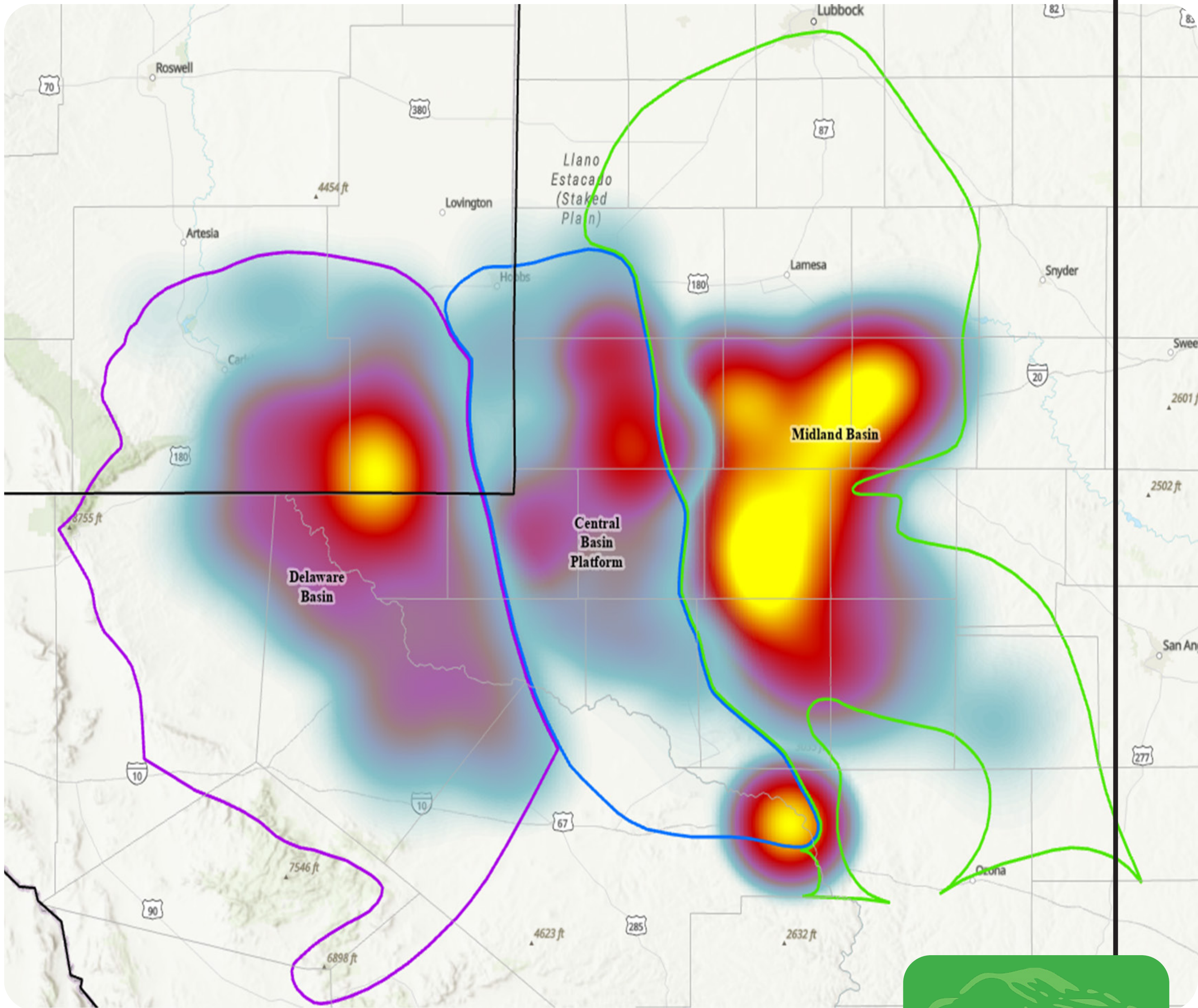
05

PRODUCTION

PROBUS ENERGY SERVICES

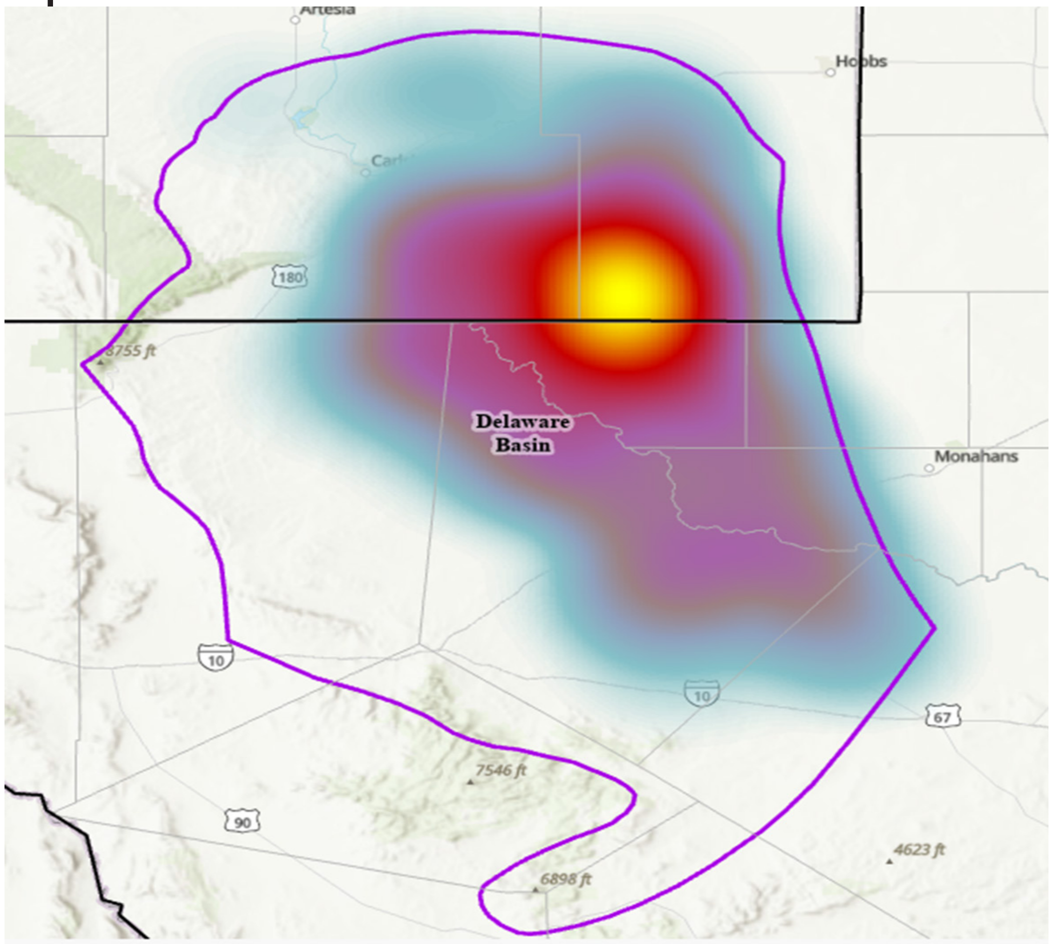
"Is the Permian Basin heating up?!

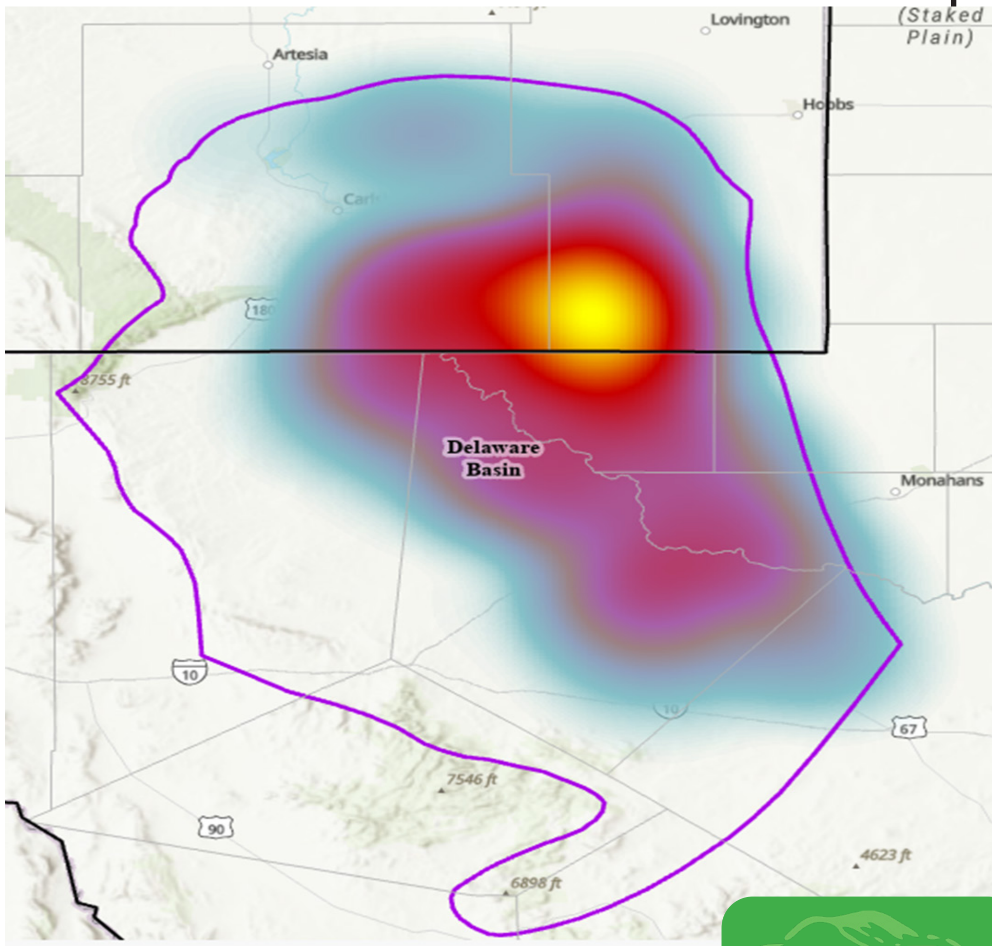
We analyzed over 20,000 wells within the Permian Basin region to identify the hot spots in oil production within the last twelve months. Midland Basin and Delaware Basin continues to expand its core areas. Throughout this section you will find comparisons from the first 12 months of production, to the last 12 months of horizontal production within the basins.



DELAWARE

The core area outer band, located in Southwest Lea, has expanded into parts of Southern Eddy. This mirrors what we saw in Delaware permitting, indicating that operators are chasing the best well performance.

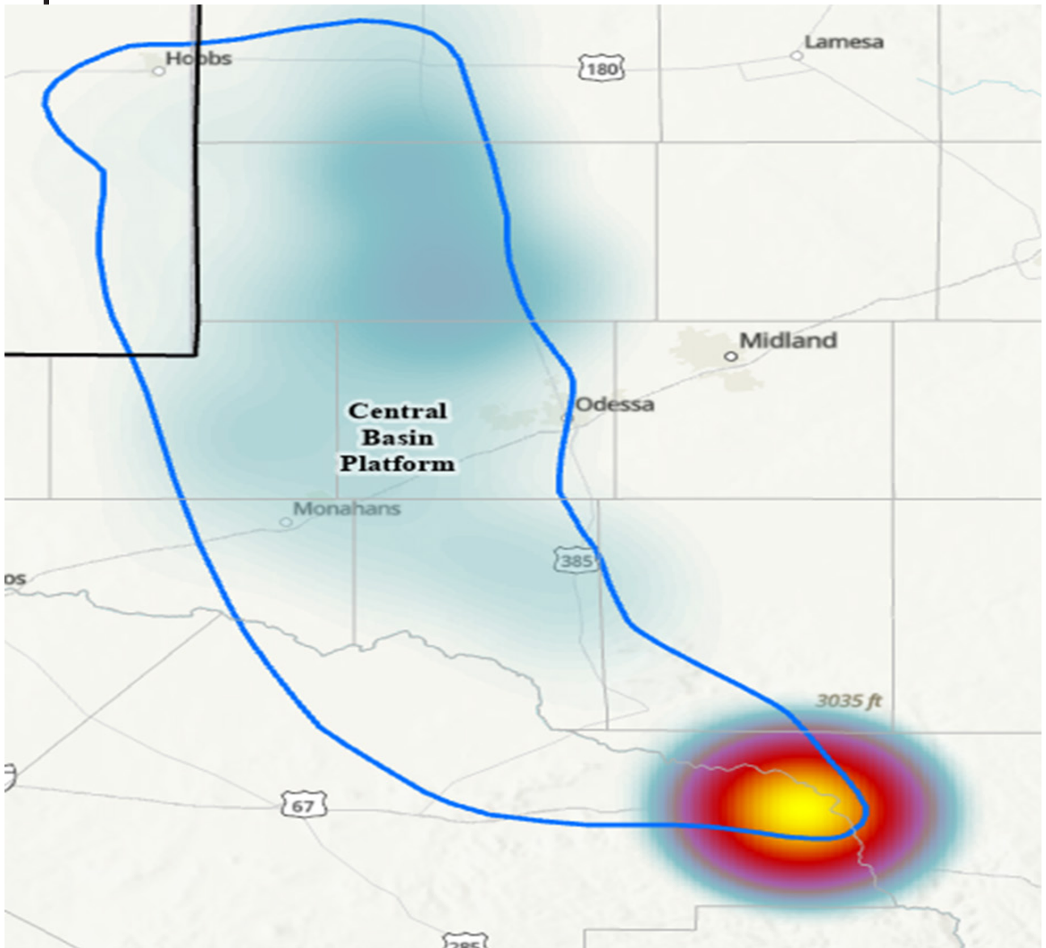


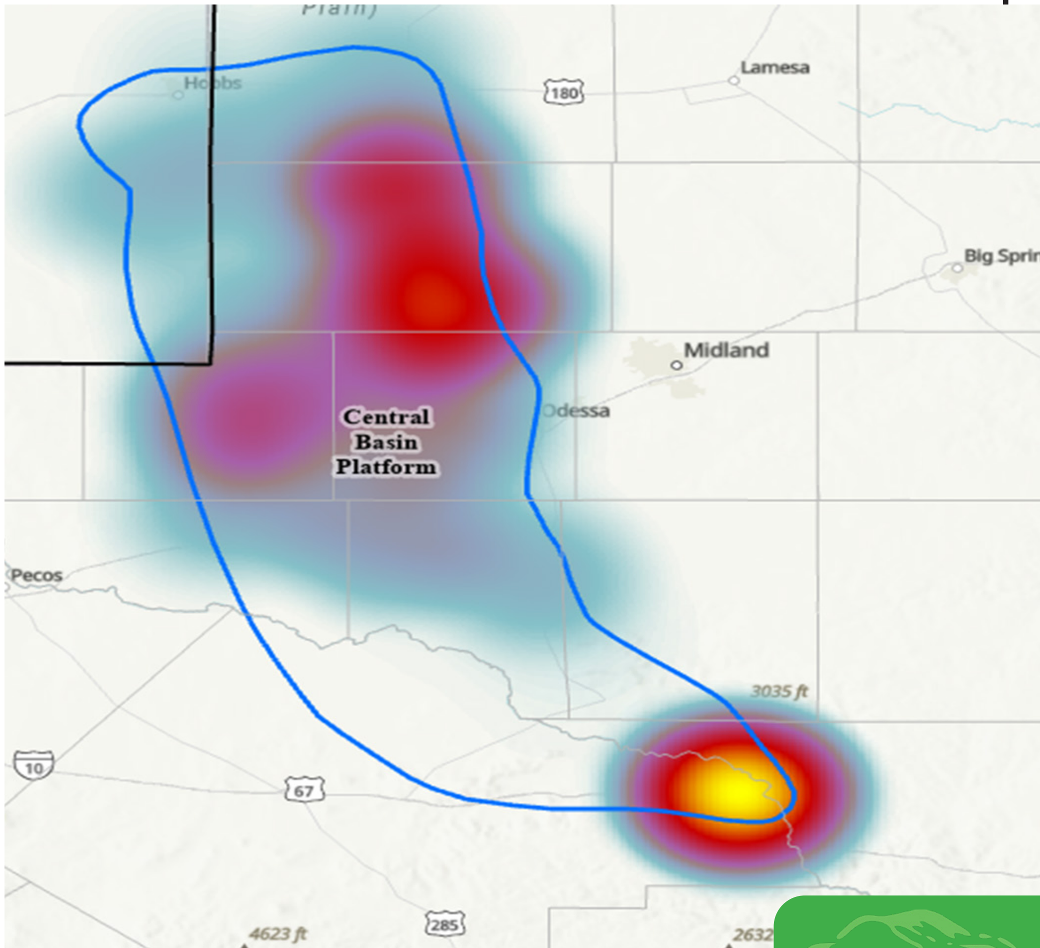


PROBUS
ENERGY SERVICES

CENTRAL

The Yates field in the Southern tip has been a constant. Elevation Resources and Ring Energy have drilled the most horizontals in Andrews County. Boyd & McWilliams has had success in Winkler County.

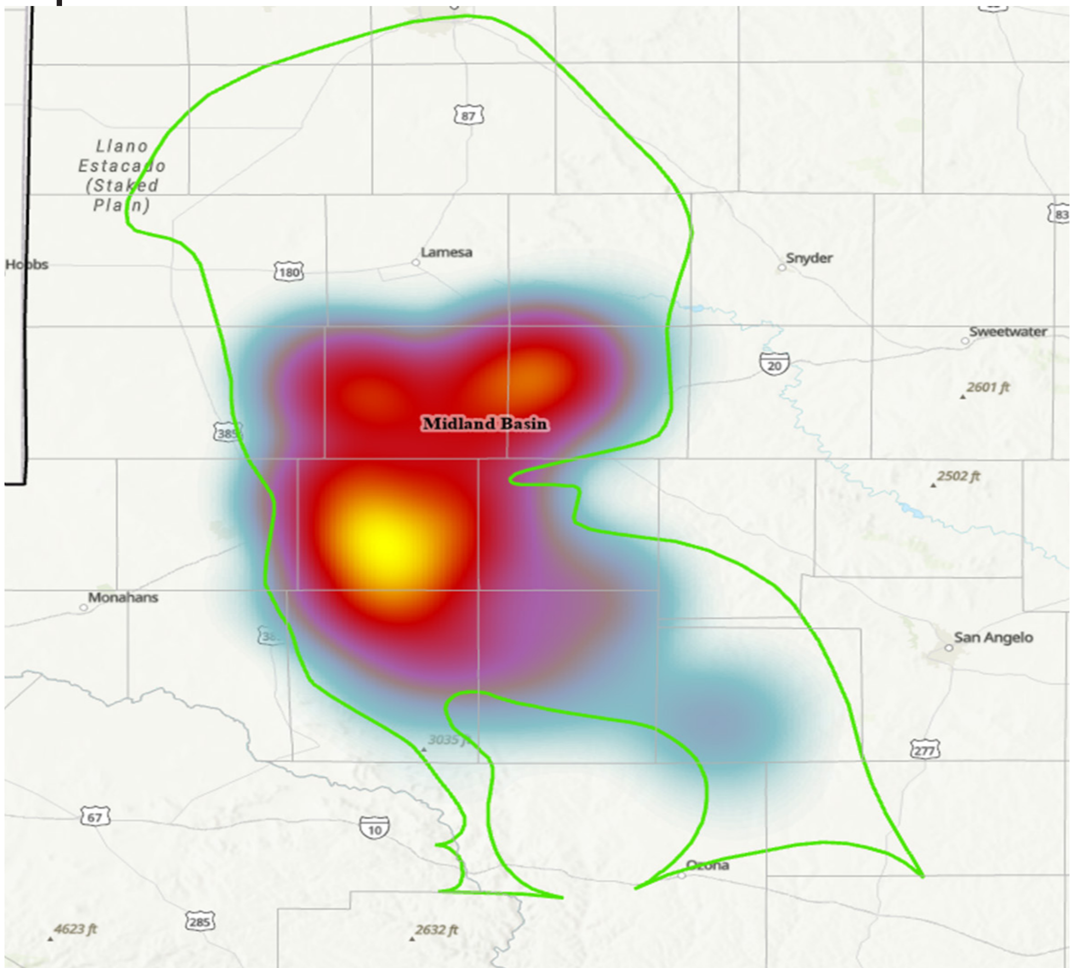


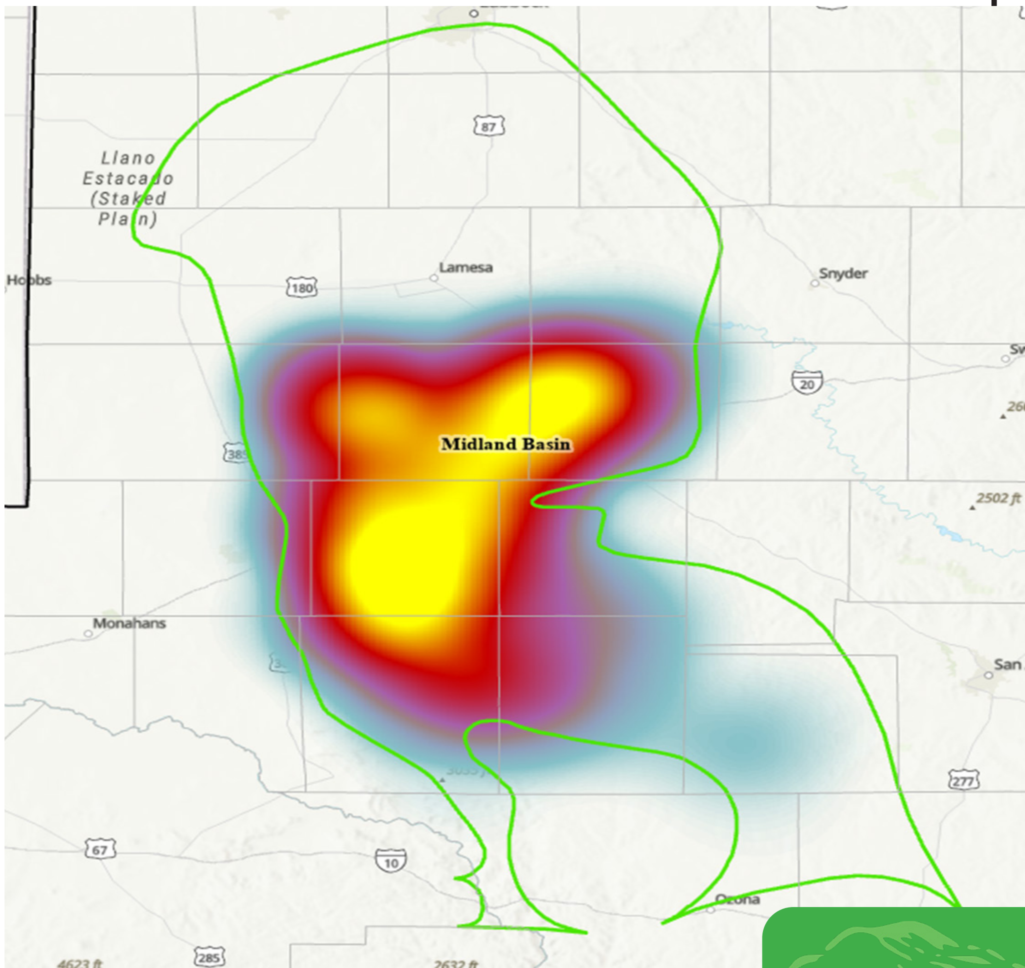


PROBUS ENERGY SERVICES

MIDLAND

This visual really tells the story in the progression of the sweet spot in the Midland Basin. As noted in the Midland Basin permit discussion, our theory is that the well performance in the Midland Basin is more homogenous than the Delaware or the Central Basin Platform. This map really drives home that point.





PROBUS
ENERGY SERVICES

WHAT'S INSIDE?

06

COMPLETION

PROBUS
ENERGY SERVICES

COMPLETION

Where are the DUCs?

DUC inventories have dropped since their highs, which is no surprise given oil and gas prices. One might reasonably expect to see these current DUCs to be completed and turned in line in the very near future.

DELAWARE BASIN

Where my DUCs at?

1649

Total DUCS

CENTRAL BASIN

Where my DUCs at?

102

Total DUCs

MIDLAND BASIN

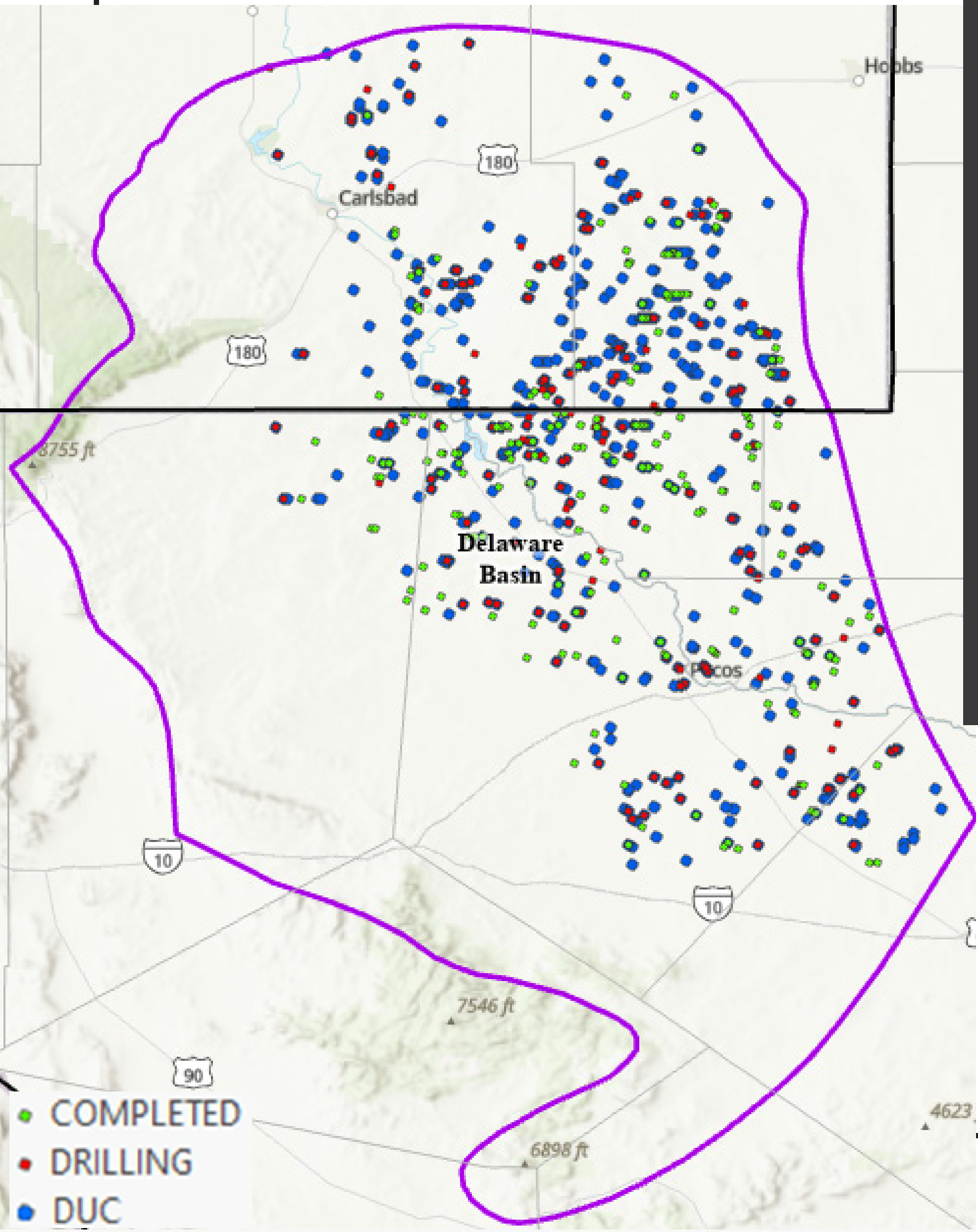
Where my DUCs at?

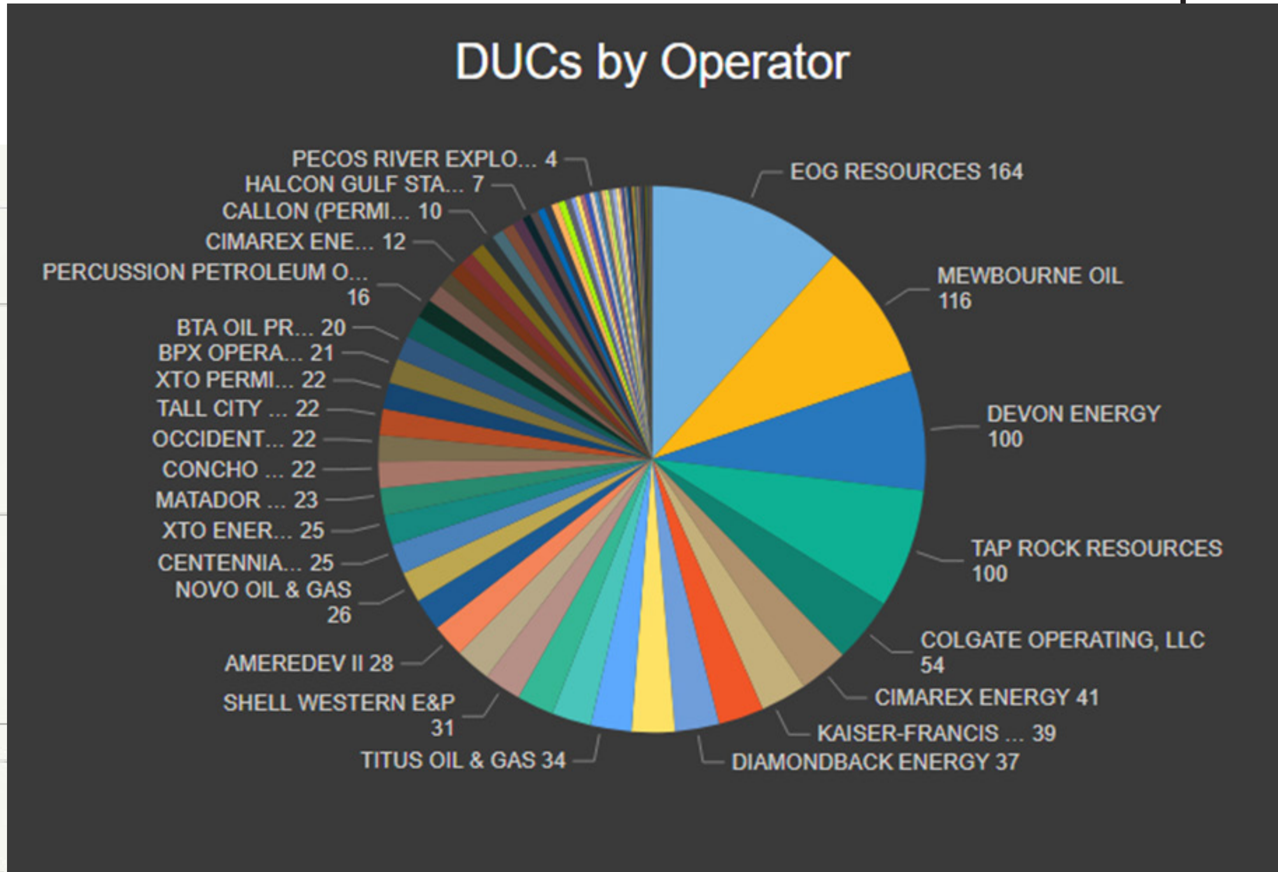
1416

Total DUCS

PROBUS ENERGY SERVICES

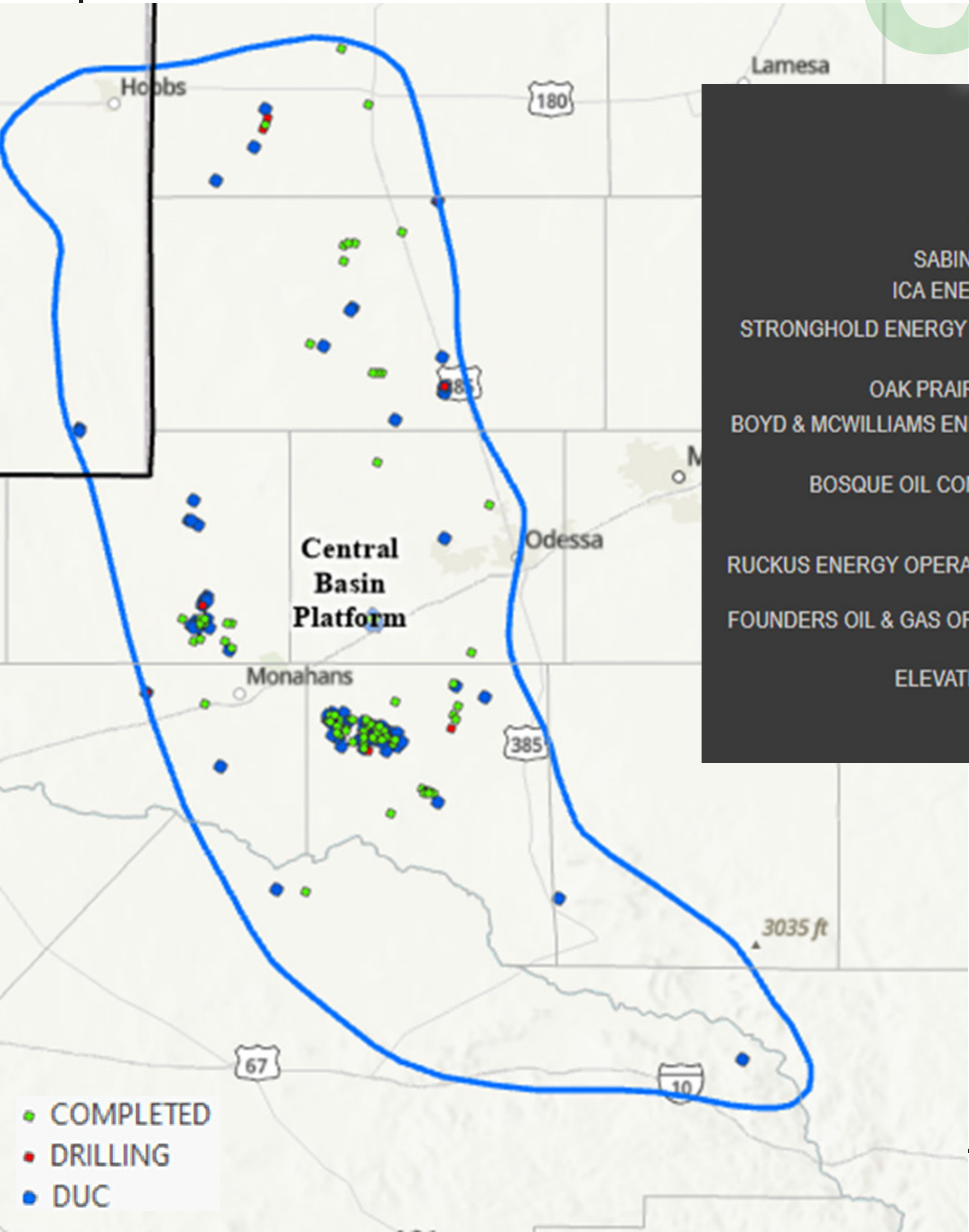
DELAWARE

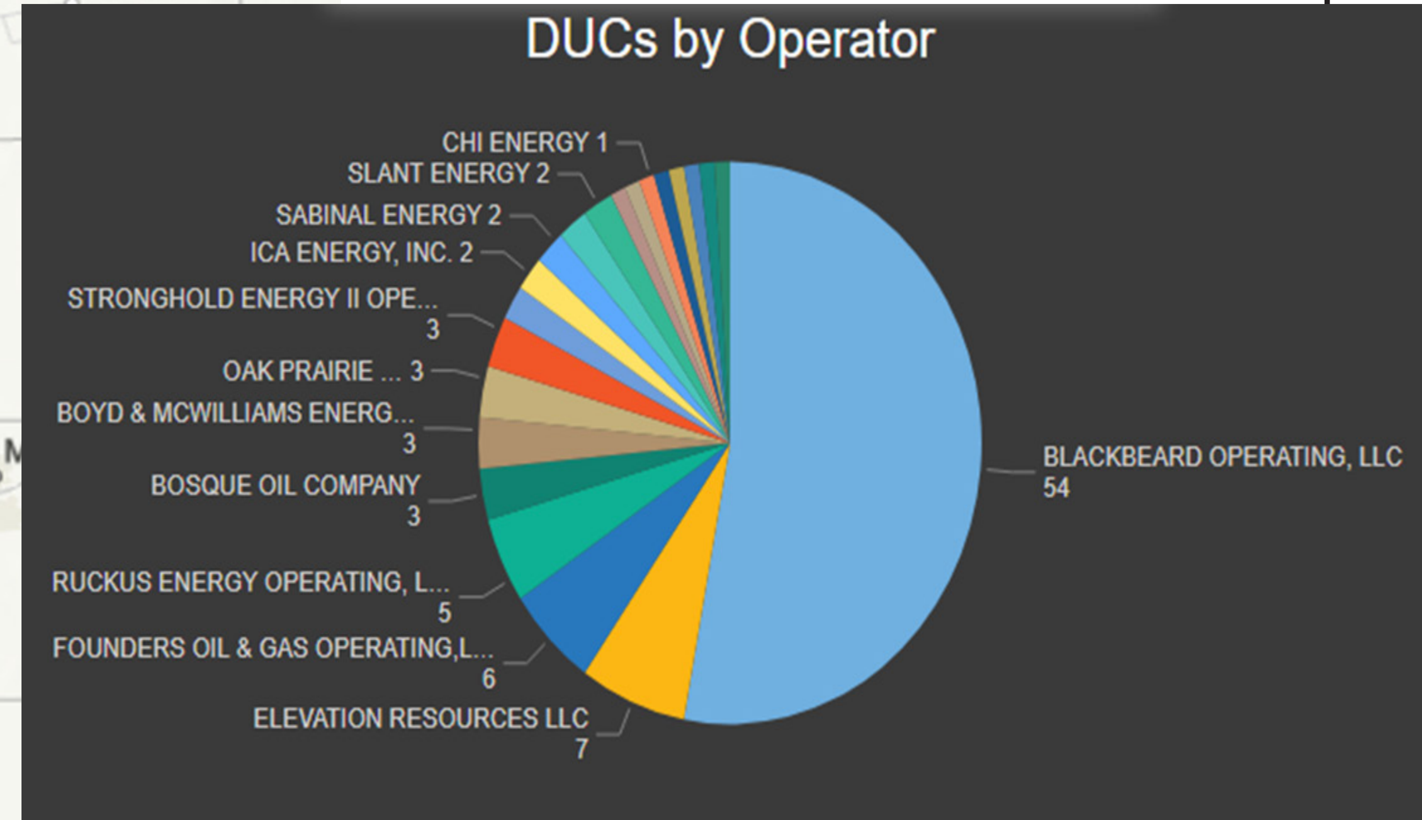




EOG Resources has some work to do to bring the 164 DUCs they have online. However, they are only one of four companies with over 100 DUCs. The remainder of the operators are a who's who of the Delaware Basin.

CENTRAL

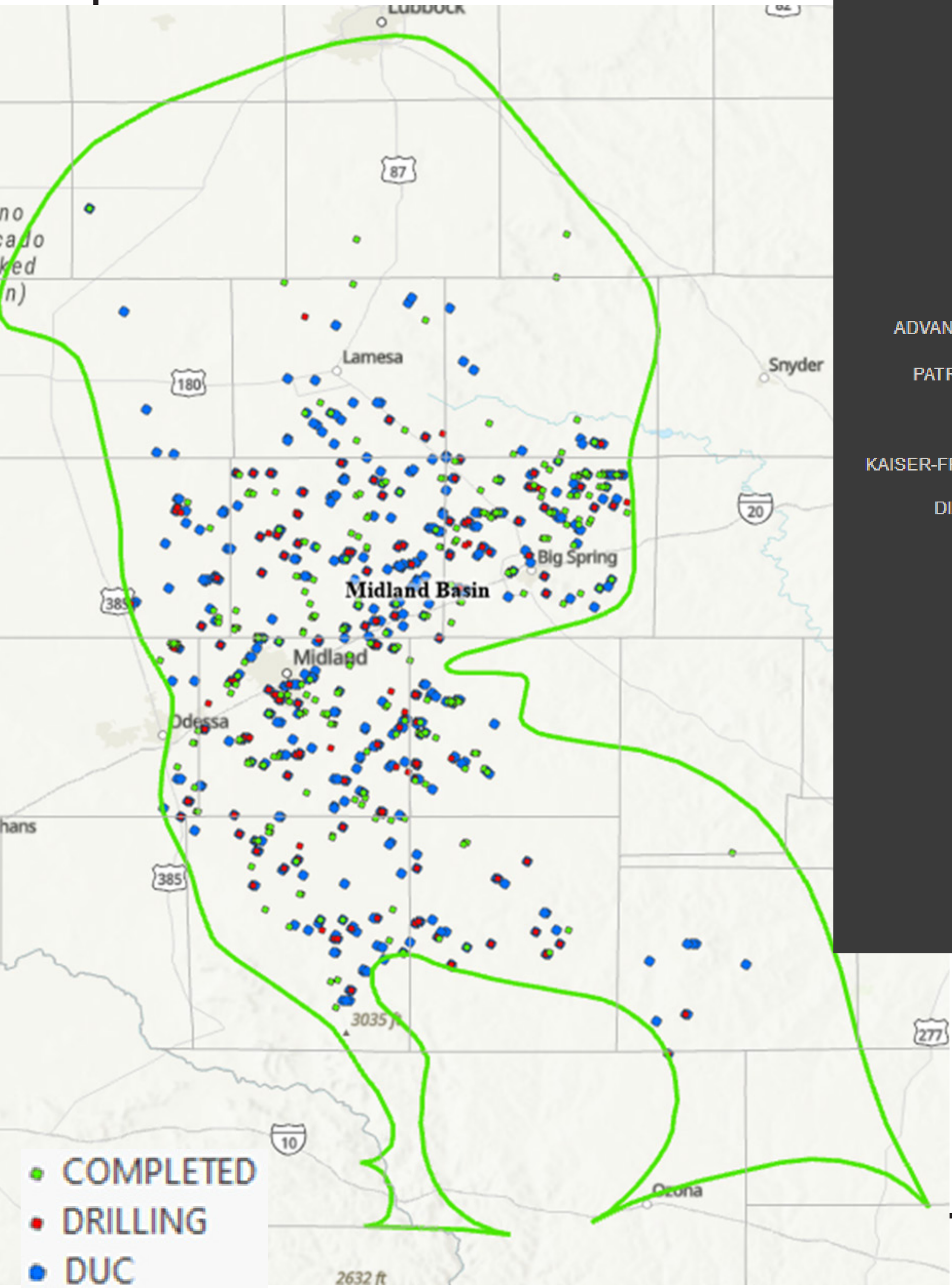


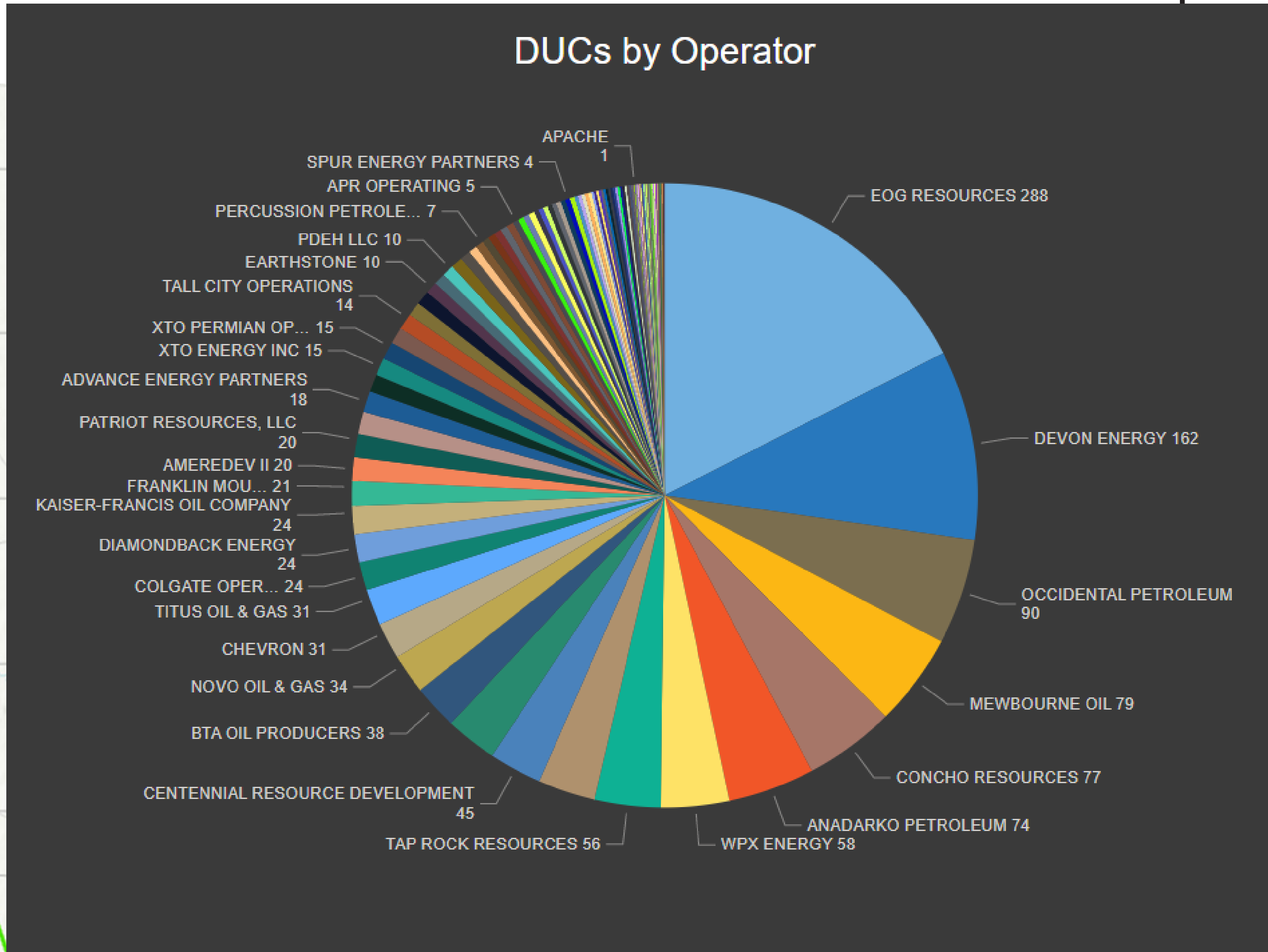


Blackbeard has a healthy inventory of DUCs, accounting for more than half of all DUCs on the Central Basin Platform. The balance is spread fairly evenly across a dozen other operators. One would expect to see the production map for the Central Basin Platform growing in the near future.

PROBUS ENERGY SERVICES

MIDLAND





In addition to the Delaware, EOG leads the Midland Basin in the total number of DUCs. Could EOG know something about the direction of oil prices the rest of us don't? Time will tell.

WHAT'S INSIDE?

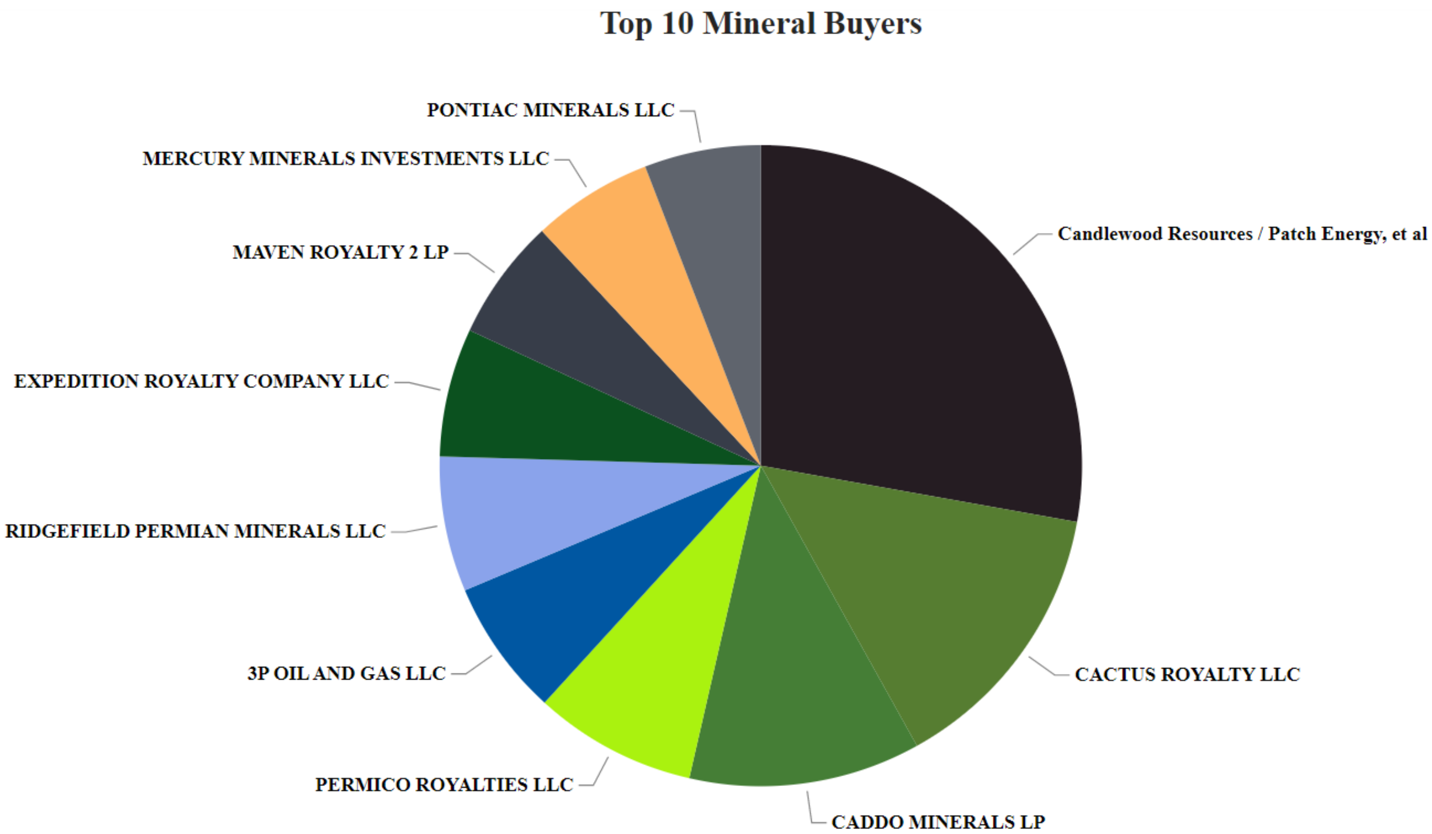
07

MINERALS

PROBUS
ENERGY SERVICES

MINERALS

This is our first look at the leading mineral and royalty purchasers in the Permian Basin, and in each of the main components to the Permian. Let's see who has been the most active buyers across the entire Permian.



Leading the way is Candlewood, Patch, et al, followed by other familar groups. Congrats to Cactus, Caddo, Permico and all the other groups that have made the Permian Basins Top 10 Mineral Buyers List. It takes a lot of skill and hardwork to make this list, which has not gone unnoticed.

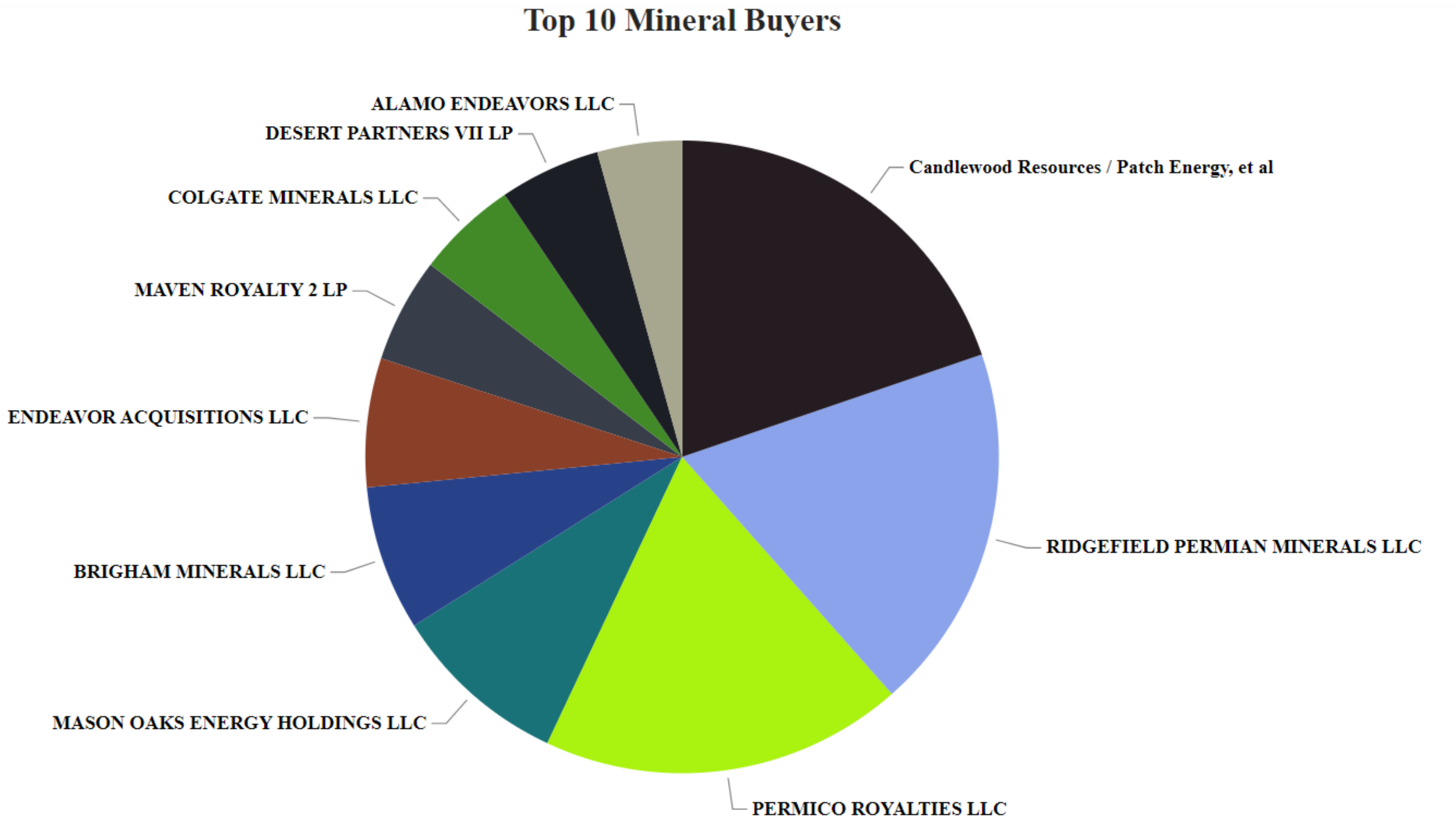
PROBUS ENERGY SERVICES

DELAWARE

The Delaware Basin has always been an interesting area to watch the mineral and royalty groups operate. Mineral owners tend to be a little more sophisticated, and it requires a different mindset than the other parts of the Permian Basin.

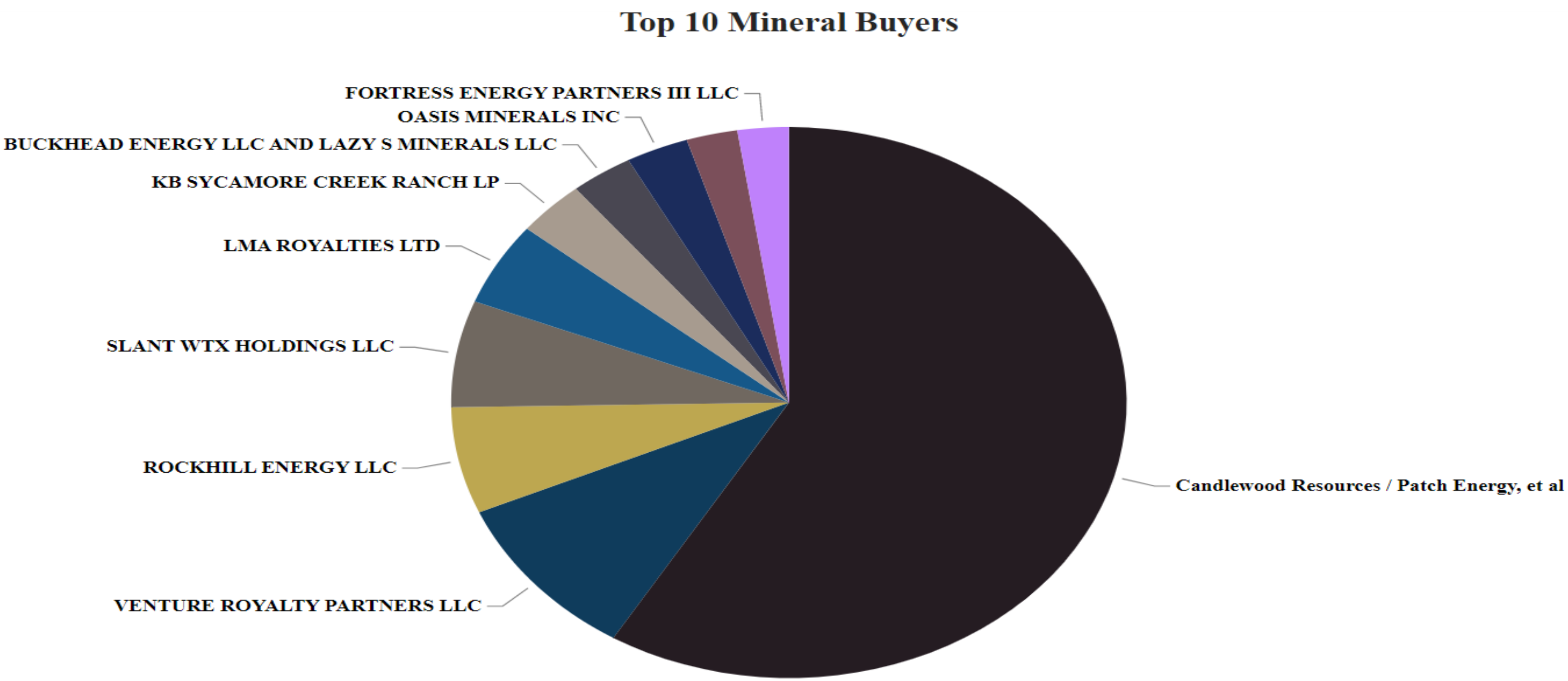
Candlewood, Patch, and other subsidiaries are the leaders in the Delaware Basin too. We see some Delaware specific buyers in Ridgefield and Colgate. There are also some names we haven't seen since our last Delaware Basin Pulse Report, being Brigham, Endeavor and Desert Partners.

Congratulations to all the companies who made the Top 10! You guys certainly brought your "A" game to get this many deals done.



PROBUS ENERGY SERVICES

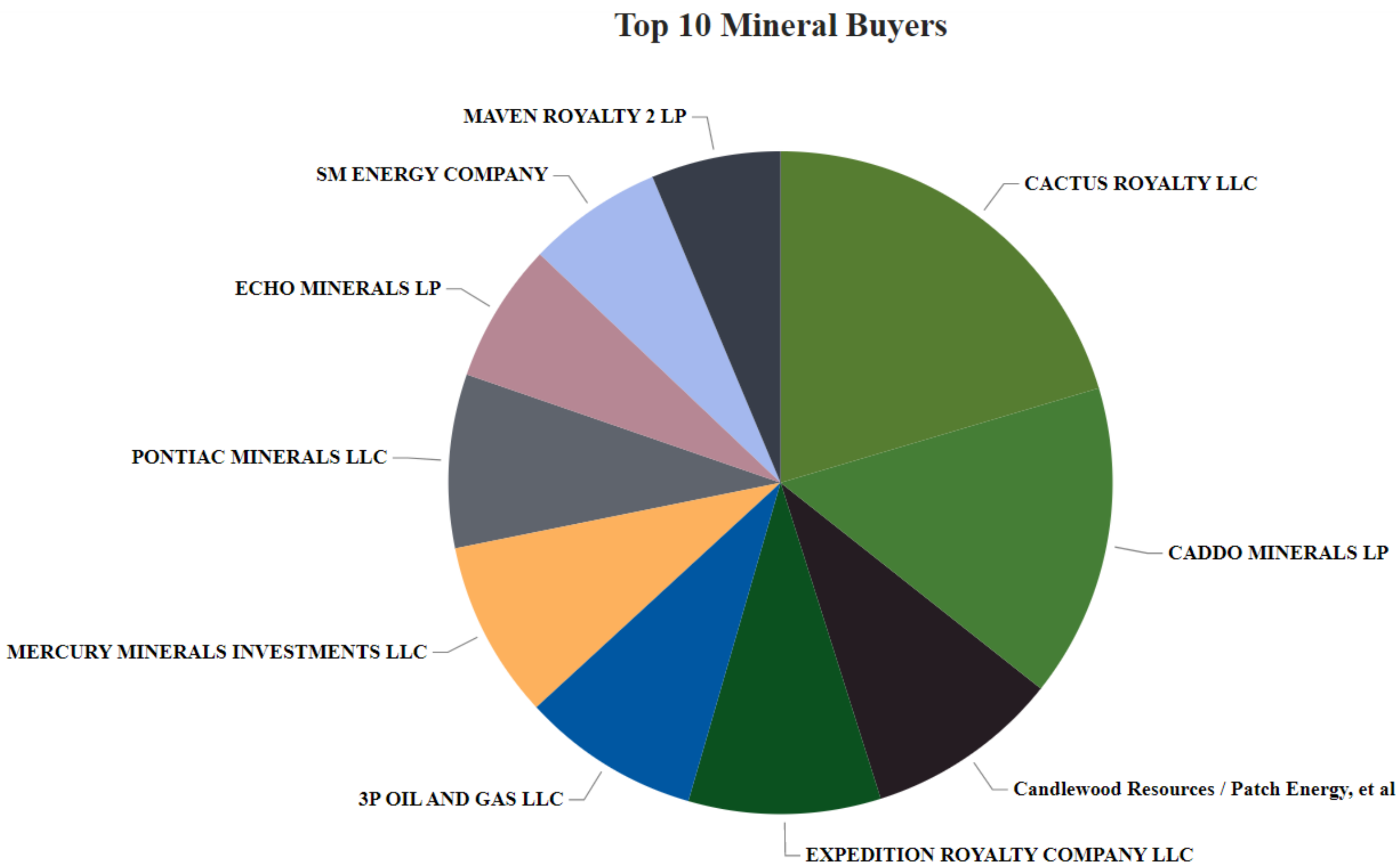
This is our first look at mineral buying on the Central Basin Platform. We see some familar names, being Candlewood, Patch, other subsidiaries, and Fortress. However, there are many new groups who seem to have had the CBP to themselves.



Apparently, there are a few Central Basin Platform focused mineral and royalty buyers. Almost half of the total transactions are by these groups, leaving approximately 60% for Candelwood, Patch, et al. It will be interesting to see who has the ability to stay in the Top 10 from now until the next CBP Pulse.

MIDLAND

The Midland Basin seems to be the most even playing field for mineral buyers to compete on. There are more mineral owners, the production is more homogenous, and there is a larger geographic area for companies to compete within. The groups that made this list have outcompeted them all.



Congratulations Cactus Royalty for being the most active buyer in the Midland Basin; and way to go to everyone else on the Top 10 list.

WHAT'S INSIDE?

08

A&D LOOK

PROBUS

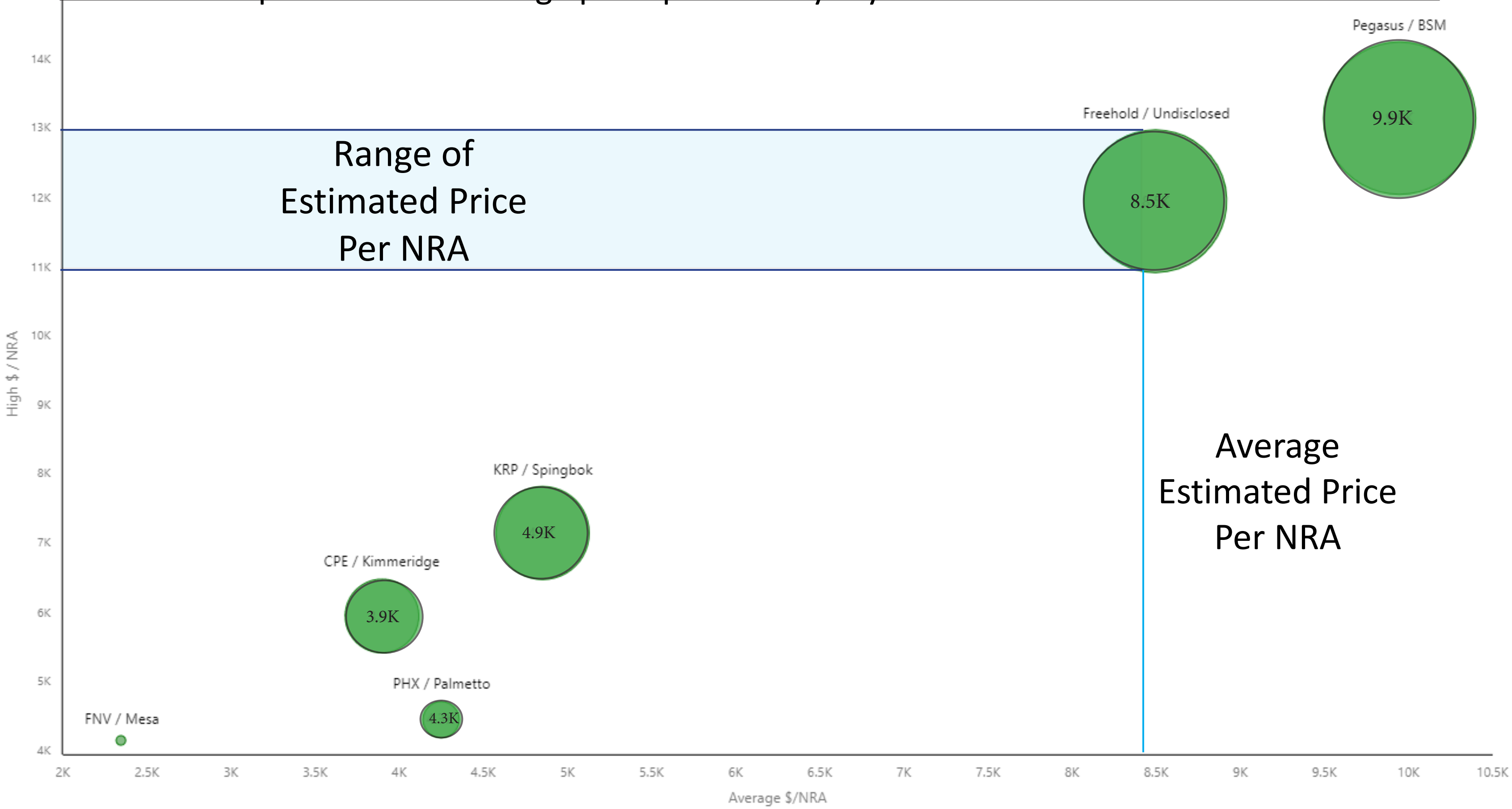
ENERGY SERVICES

A&D LOOK

For 2022 alone, mineral transactions continue to thrive. Across all basins in the first two quarters of 2022, over 3000 transactions have occurred. The Top 5 transactions are represented with over $12 billion in 2022 across all basins.

Who is doing the buying? The Desert Peak merger made up about 1/6th of the total transactions, but the Colgate merger with Centennial for $7 Billion makes up about 58% of the total transactions done. The Midland Basin continues to be a hot spot, with the Delaware basin mineral transactions right on its heels; especially when you factor in the GLO Mineral Classified lands.

This chart represents the average price per net royalty acre for mineral transactions in 2022



PROBUS ENERGY SERVICES

WHAT'S INSIDE?

09

ABOUT PROBUS

PROBUS ENERGY SERVICES

PROBUS

Probus Energy Services was founded with a vision to offer world-class land services while championing relationships. We value uncompromising accuracy and apply a rigorous standard to every project.

What sets us apart is that we pride ourselves on relationships, and we view them distinctly different than anyone else. It is vital that we provide outstanding service to our clients, and we see information as a collection of relationships. This view delivers unique insight on the industry and unlocks a deeper level of understanding. In turn, this allows for innovative and ultimately more effective solutions. Bottom line, we love data and we love helping our clients
be successful!

We created the Pulse to be the perfect union and natural product of our love for data and staying informed about what's happening in the major oil and gas basins in the United States. The Pulse is a monthly report, focused on a different basin in each edition. If there is somewhere you want to know more about, just let us know.

Can't wait for the next edition of the Pulse? Our email subscribers get the first look, sign up on our website.

"Probus is a comprehensive land service company, and we want to assist you in using your information more effciently. Let us help you with your next project, deliver solutions and reach your goals. Our team is skilled at all things land; prospect identifcation, leasing, title, due diligence and curative...we do it all!"

WHERE TO FIND US

201 Main Street, Ste 1440
Fort Worth, TX 76102

817•764•1094

www.probusenergyservices.com

PROBUS
ENERGY SERVICES