

**Kentucky Retirement Systems Board of Trustees
Special Called Board Meeting
October 22, 2024, 10:30 a.m. ET
Live Video Conference/Facebook Live**

AGENDA

- | | |
|---------------------------------------|---|
| 1. Call to Order | Lynn Hampton |
| 2. Legal Public Statement | Office of Legal Services |
| 3. Roll Call/Public Comment | Sherry Rankin |
| 4. Investment Recommendations* | Prewitt Lane
Steve Willer
Anthony Chiu |
| 5. Closed Session ** | Lynn Hampton |
| 6. Adjourn* | Lynn Hampton |

**Board Action Required*

***Board Action May Be Required*



KPPA

Kentucky Public Pensions Authority

KRS Investment Committee

Kayne Anderson

Kraken Resources, LLC

October 22, 2024



KENTUCKY PUBLIC PENSIONS AUTHORITY



INVESTMENTS

To: KRS Investment Committee - CONFIDENTIAL

From: Anthony Chiu, Deputy CIO

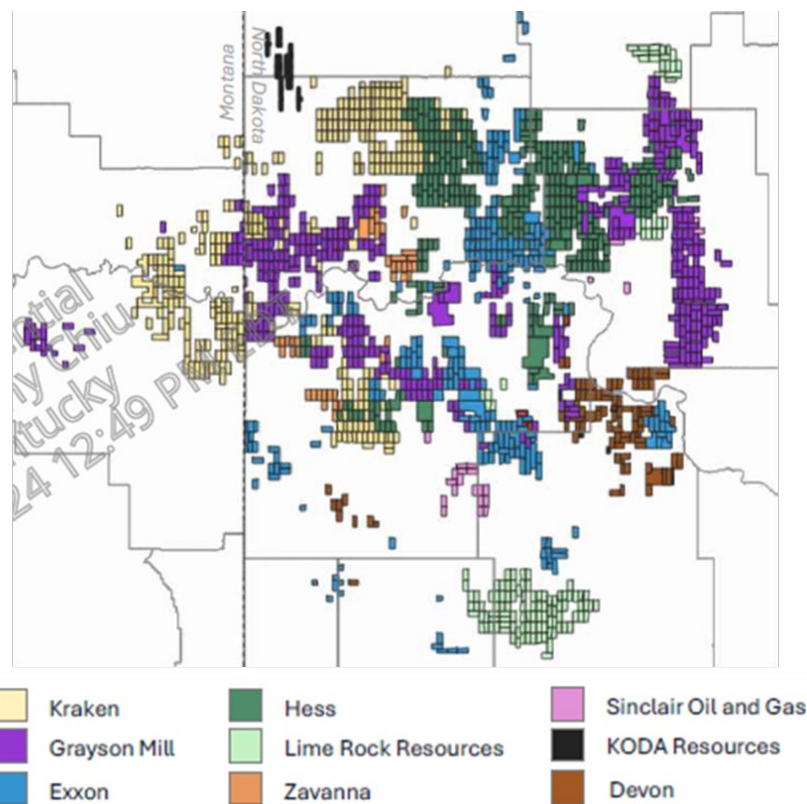
Date: October 22, 2024

Subject: Investment Recommendation – Kraken continuation vehicle

KPPA Investment Staff is proposing an investment with Kayne Anderson (“Kayne” or the “Firm”) in a continuation vehicle (“CV”) for Kraken Resources, LLC (“Kraken”). As of 2Q 2024, Kraken represents a 40% position in Kayne Anderson Energy Fund VII (“KAEF 7” or “Fund 7”), a 2015 vintage fund with \$2.1 billion of committed capital. This includes \$100 million from KPPA.

Kraken is a private energy and production company operating in the Williston Basin along the border of North Dakota and Montana.

Kayne has created a CV structure as they see compelling value in continuing to own Kraken for several years beyond Fund 7’s term, which expires at the end of 2025. They project Kraken’s existing assets will generate over [REDACTED] of cash flow over the next 4.5 years (through 2028) and that the company could be well-positioned for additional growth if it is able to opportunistically acquire additional neighboring asset portfolios that are already for sale or likely to come to market in the near future, as shown in the chart at right.



This investment opportunity is a time-sensitive one that is expected to have significant investor demand. A large institutional investor has committed to anchor the CV with [REDACTED] transaction price, which represents 85% of 6/30/24 NAV. Kayne’s Private Energy Income Fund III (KPEIF III) is also investing in the CV along with Kayne’s partners individually. They are rolling their carry proceeds from Kraken into the CV and contributing some additional new capital for a total of approximately [REDACTED] of internal investment that further aligns their interests with investors.

Staff believes Kraken will provide an attractive risk-adjusted return with low correlation to KRS’ existing overall portfolio and provide complementary exposure within the Real Return allocation. Following the recent asset allocation update, KRS’s plans are still modestly under their target portfolio weights for Real Return when proxy assets are excluded. This proposed investment would help the plans continue moving toward target weight and will be fully invested before year-end 2024.

However, because this is a continuation vehicle for a 2016 fund that was invested prior to the formation of the CERS board in 2021, KRS and CERS are tied together in the election of whether to reinvest or sell existing exposure to Kraken. If one plan chooses to reinvest and the other chooses to sell, both plans will be forced to sell since Kayne is not accepting any partial elections.

KRS Choice	CERS Choice		KPPA Election
Reinvest	Reinvest	→	Reinvest
Reinvest	Sell	→	Sell
Sell	Reinvest	→	Sell
Sell	Sell	→	Sell

Fund 7 sellers will realize a 2.5x gross multiple on their investment; transact at a price of 85% of 6/30/24 NAV; and bear transaction fees and expenses representing ~2% of NAV. Because of the deferred payment structure of the CV, even those investors electing to sell will not receive all their proceeds until late 2026 under Kayne's base case.

Investment Process and History:

Kraken is the combination of 3 legal companies that was formed in November 2020 amidst the difficult energy investment environment that prevailed during the first year of the COVID-19 pandemic. KPPA's exposure was through KAEF 7 in Kraken Oil and Gas II, which comprises around 40% of the remaining fund value. The company focuses on the acquisition, development, and production of assets in the Williston Basin and is the second time Kayne has partnered with this management team.



Since 2020, the Kraken team has found multiple opportunistic acquisitions and (which they hedge) and free cash flow in just 4 years. The resulting scale that has been achieved has allowed the company to self-fund its capex, production, and significant cash flow return to investors, as shown below.

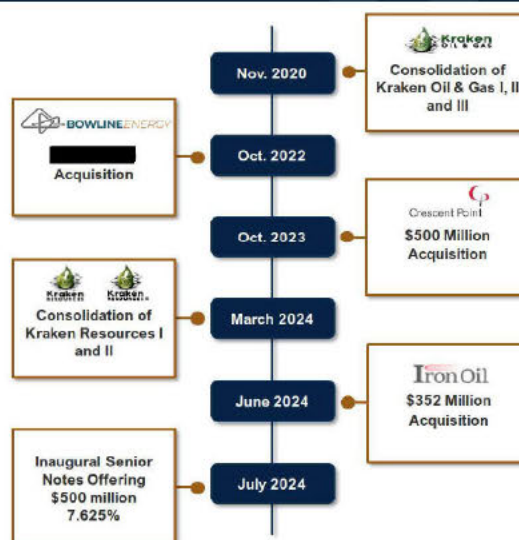
Kraken Resources Group's Transformation Into Scaled Bakken Business

- » Formed in 2012
- » Embarked on growth and consolidation strategy over the last four years
- » Built scaled platform with optimized operations and capital structure
- » Company now paying significant equity distributions, annualized yield in 1H 2024¹

Metric	2020	2024E
Net Acres	135,000	336,000
Operated Locations		
Net Production	31 Mboe/d	
Wells Turned Online	22	
Hedged EBITDA ²		
Free Cash Flow ²		

¹Annualized yield based on [redacted] of total equity invested into Kraken Resources Group.

²2024E represents Kraken corporate forecast at strip ending as of July 26, 2024 through July 2025, with NYMEX oil and gas prices held flat at \$70/bbl and \$3.50/MMbtu thereafter.



Performance:

Kraken in KAEF 7	Invested (\$ MM)	Realized (\$ MM)	Unrealized (\$ MM)	Total Value (\$ MM)	Gross Multiple	Gross IRR
2023 2Q	\$229	\$47	\$414	\$461	2.0x	13%
2023 3Q	\$229	\$81	\$521	\$602	2.6x	17%
2023 4Q	\$229	\$126	\$483	\$609	2.7x	17%
2024 1Q	\$229	\$154	\$482	\$636	2.8x	17%
2024 2Q	\$229	\$196	\$461	\$657	2.9x	17%

Conclusion: Given Kraken's attractive cash flows, hedged commodity price risk, and current Real Return allocations, Staff is recommending that KRS rolls its existing investment of \$3 million. The investment will be shared among all KRS plans pending successful legal negotiations and represents an additional ~0.1% of plan assets.

Investment and Terms Summary

Type of Investment: Real Return

Structure: Continuation Vehicle

Term: 5 years, with 2 one-year extensions (1 at GP discretion, 1 with Advisory Committee consent)

Management Fee: [REDACTED] on existing cost basis

Profit Sharing: [REDACTED] of profits above [REDACTED] compounded annual return on the increased cost basis that results from the CV

Purpose: Maintain KRS's exposure to an attractive cash flowing asset without having to sell at a 15% discount or bear transaction fees and expenses that are being charged to sellers.

Risks: Commodity price, higher than expected costs, leverage, illiquidity

Exp. Net Return: 10% - 12%

*No placement agents have been involved or will be compensated as a result of this recommendation.

Project Kryptonite - Kraken Resources Continuation Vehicle

Preliminary Diligence

General Partner	Kayne Anderson
Vintage Year	2024
Timing	October 2024
Strategy	Upstream Energy
Sector	Energy
Investment Structure	Continuation Vehicle
Region	North America
Purchase Price – Fund NAV (\$M)	
Capital Structure	Equity
Funds' Equity (\$M)	
Net Asset Value – Company (Q2 2024)	
LTM EBITDA (Q2 2024)	
Base Case Returns	
Base Case Hold	5 years
Fee* / Carry / Hurdle	Various*

*Management fees are modeled to maintain each fund's current management fee rate and basis through the 2-year optional extension for each fund.

General Partner

Founded in 1984 by Richard Kayne, Kayne Anderson ("Kayne" or the "Firm") is a US-based alternative investment management firm specializing in real estate, credit, infrastructure, and energy. The Firm currently manages \$36 billion in AUM across asset classes and employs 350 employees across the U.S. and Europe, including 150 investment professionals. Known for its expertise real estate investments, Kayne also has an established energy private equity track record, including \$9 billion+ of invested capital across 130+ energy assets since inception. Kayne Energy Private Equity has a successful track record within the upstream oil and gas sector across 11 funds since 1992. The Firm launched its Energy Fund series ("KAEF") in 1998 with Kayne Anderson Energy Fund I and has raised eight funds within this series to date. Kayne launched its first Private Equity Income Funds strategy in 2014/2015, targeting acquisitions of long-life, low-risk onshore oil and gas assets.

Investment Merits

- Low entry multiple for CV investors
- High-quality, cash flowing asset with reasonable base case return assumptions
- GP alignment through GP commitment and rolling of carried interest

Investment Concerns

- KAEF VII is out of the carry and investors are likely to pay carried interest in the new vehicle
- Extending lock up for a long-dated asset
- Unattractive low case return if oil sustains depressed pricing

Past performance is not indicative of future results.

Company & Transaction

Kraken Oil & Gas LLC was initially acquired by Kayne in May 2012 by Kayne Anderson Energy Fund V ("KAEF V"). Follow-on investments in Kraken Oil & Gas II and III LLC from Kayne Anderson Energy Funds VII and VIII ("KAEF VII" and "KAEF VIII") occurred to provide growth capital and unlever the business, respectively. Kraken Resources, LLC ("Kraken" or the "Company") was formed in November 2020 through an all-equity combination of Kraken Oil & Gas LLC, Kraken Oil & Gas II LLC, and Kraken Oil & Gas III LLC, which were portfolio investments in Kayne Anderson Energy Funds V, VII, and VIII (the "Funds"). Kraken is a lease and drill company located in North Dakota in the Bakken basin and is now the third-largest private E&P operator in the region. In March 2024, Kraken and Kraken Resources II LLC ("Kraken II") merged into Kraken Resources Group LLC, of which Kraken and Kraken II own 65.5% and 34.5% of, respectively.

Having initially launched a competitive process for Kraken in 2022, Kayne was unable to achieve an attractive bid that would appropriately compensate investors. In May 2024, Kayne launched a more targeted process, reaching out to 8 of their highest conviction potential investors. Ultimately, an agreement was reached for interests held by the Funds in Kraken, and Kayne executed definitive documents with [REDACTED], as a lead investor, at a gross purchase price of [REDACTED] of total consideration. This represents [REDACTED] of the Funds' unrealized NAV as of March 31, 2024. The Continuation Vehicle currently has commitments from [REDACTED], and other third-party investors. Upon approval for the waiver of potential conflicts of interest from the Funds' advisory boards and finalizing documents, Kayne launched the LP election period, giving the Funds' LPs the option to (i) sell 100% of indirect interest in Kraken and receive cash plus a series of deferred payments or (ii) retain 100% of indirect interest in Kraken through an investment in the Continuation Vehicle. This is a realization event for Kraken interests held by the Funds, excluding [REDACTED]'s interests in Kraken II. Entry multiple for the Continuation Fund is [REDACTED] EV/EBITDA and Kraken is outperforming YTD budgeted production and hedged EBITDA by [REDACTED] and [REDACTED], respectively as of Q2 2024.

Value Creation Plan

Through establishment of the Continuation Vehicle, Kayne is flexible to seek to accrete value to its equity holders, while additionally providing an opportunity for legacy LPs to monetize their investment at a discount to recent mark-to-market valuation. KAEF V's initial term matured in May 2018 and has been subsequently extended five times, with a maturity date of December 31, 2024. Kayne has elected to facilitate a liquidity option for KAEF V, of which Kraken is the only remaining unrealized investment and redeeming LPs would receive approximately a [REDACTED] gross ROI upon redemption. KAEF VII and VIII are not yet reaching maturity, though unrealized investments are targeted to enter a sale process in the near term. Upon redemption, LPs within these funds will receive approximately a [REDACTED] and [REDACTED] gross ROI, respectively. Near-term focuses of Kraken's value creation plan include maintaining low leverage while distributing significant capital to investors and the integration of recent acquisitions to realize synergies and cost savings. Long-term value drivers include utilization of Kraken's liquidity to continue making acquisitions with no incremental equity and to continue growth within Kraken's high-margin water infrastructure midstream business, Hydra, through organic growth and potential acquisitions. Kraken is a cash yielding and fully hedged investment, of which its cash yield will bring the asset to cost in a five-year timeframe. Potential for upside includes potential multiple uplift at exit and a sustained increase in oil prices. Base case assumptions are reasonable, assuming production [REDACTED] from [REDACTED] to [REDACTED] barrels a day and no M&A or drilling on undeveloped land occurs.

Track Record

Since the strategy's inception in 1998, Kayne has raised approximately \$7.3 billion in total commitments across eight Kayne Anderson Energy Funds. Funds I-IV have generated strong returns and Funds V-VIII have recovered meaningful value with a path in place to further improve returns.

Fund	Vintage	Size (\$M)	Net ROI	Net IRR
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: Kayne Anderson as of June 30, 2024.

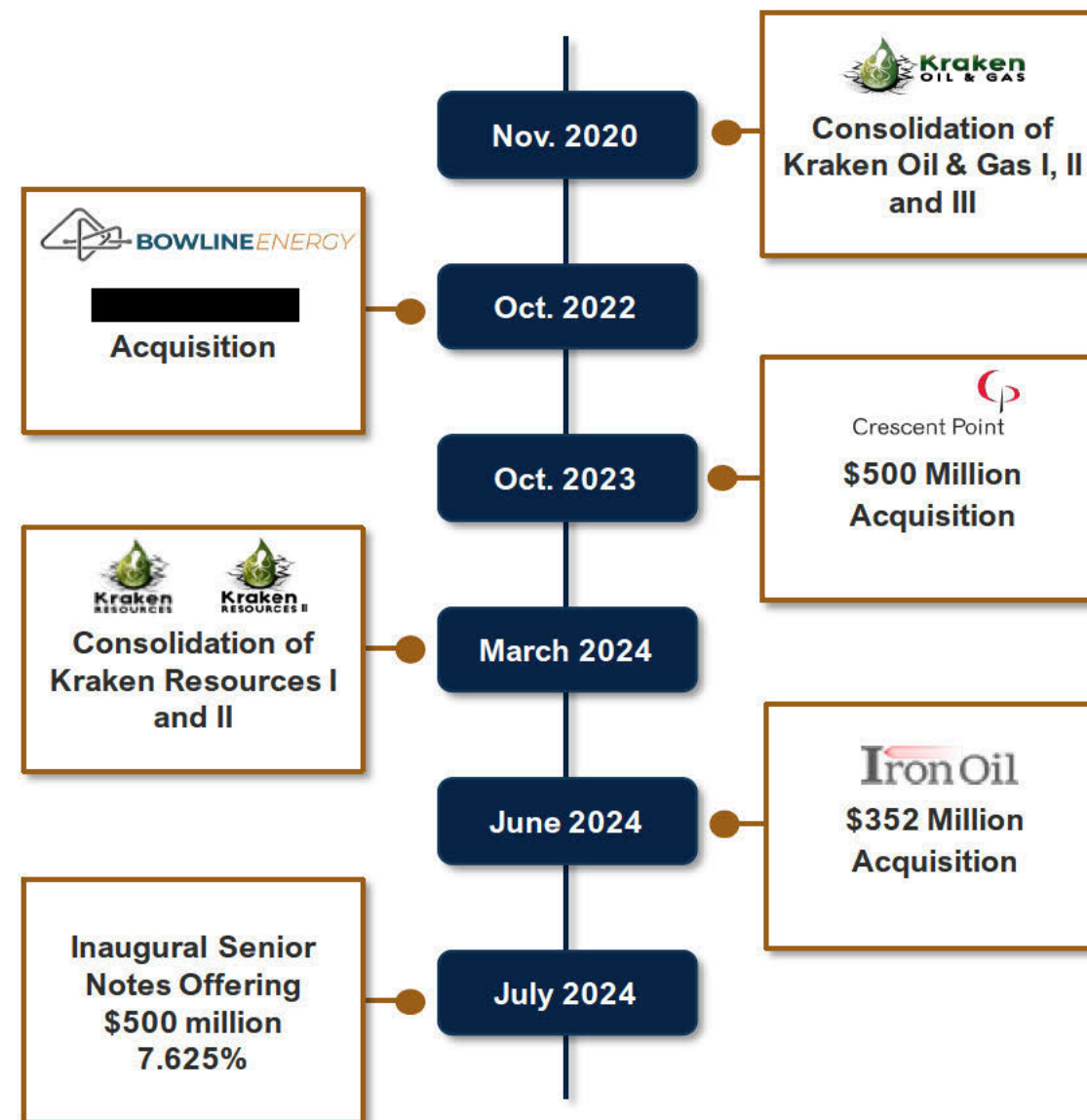
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- » Formed in 2012
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- » Company now paying significant equity distributions, ██████████ annualized yield in 1H 2024¹

Metric	2020	2024E
Net Acres	135,000	336,000
Operated Locations	██████	██████
Net Production	31 Mboe/d	██████████
Wells Turned Online	22	██████
Hedged EBITDA ²	██████████	██████████
Free Cash Flow ²	██████████	██████████

¹Annualized yield based on ██████████ of total equity invested into Kraken Resources Group.

²2024E represents Kraken corporate forecast at strip pricing as of July 25, 2024 through July 2025, with NYMEX oil and gas prices held flat at \$70/bbl and \$3.50/MMbtu thereafter.



Kayne Energy Private Equity

Transaction overview



Kayne Anderson Capital Advisors, L.P. (“Kayne”) is pursuing a single-asset acquisition fund (the “Continuation Fund”) transaction (the “Transaction”) for certain equity interests held in various funds managed by Kayne of Kraken Resources, LLC (“KR1”), which owns 65.5% of Kraken Resources Group, LLC (“Kraken” or the “Company”)

Opportunity Overview

- » The Transaction offers an opportunity to invest into one of the **few remaining private E&P companies of significant scale operating in a premier oil-rich basin**
- » **Kraken is a leading, oil-weighted E&P operator active in the Williston Basin**, producing █ Mboe/d and expecting to generate over █ of 2024E EBITDA
- » The Kraken management team has **decades of deep technical, operational, and commercial expertise** in the Bakken
- » Following several investments into the platform over the past 12 years, Kayne formed Kraken through the asset combination of two Kayne-owned predecessor entities in Q1 2024, resulting in a **scaled business with significant operational capabilities and regular, material distributions**
- » **Kayne is a leading private equity firm with vast experience investing throughout the energy value chain**, having deployed \$9 billion¹ across 10 energy-focused funds since 1998

Transaction Rationale

- » The proposed Transaction provides existing LPs in certain legacy funds a liquidity option for their interests in Kraken, while allowing Kayne to continue its stewardship of the business
- » Kayne recognizes the significant value creation potential inherent in the Company’s distinct combination of a highly experienced **management team with a strong operational track record coupled with a scaled asset base generating meaningful free cash flow**
- » Throughout the 5-year projection period, **the Company is projected to generate material distributions to shareholders**

Transaction Structure

- » The proposed Transaction involves marketing common equity interests in Kraken that are currently held by Kayne Anderson Energy Fund V (“KAEF V”), Kayne Anderson Energy Fund VII (“KAEF VII”), and Kayne Anderson Energy Fund VIII (“KAEF VIII”) and together with KAEF V and KAEF VII, the “Selling KAEF Funds”), which have a combined FMV of nearly █ as of 3/31/2024, representing █ of KR1²
- » Continuation Fund terms and structure to be provided at a later date

Projected performance is not indicative of future returns. Projections are based on various assumptions and are not intended to predict future performance. Actual results may vary materially and adversely.

¹Across all Kayne Anderson Energy vehicles, excluding co-investments, as of March 31, 2024.

²Ownership does not account for impact of management promote, which may vary depending on investment performance.

Kayne Energy Private Equity

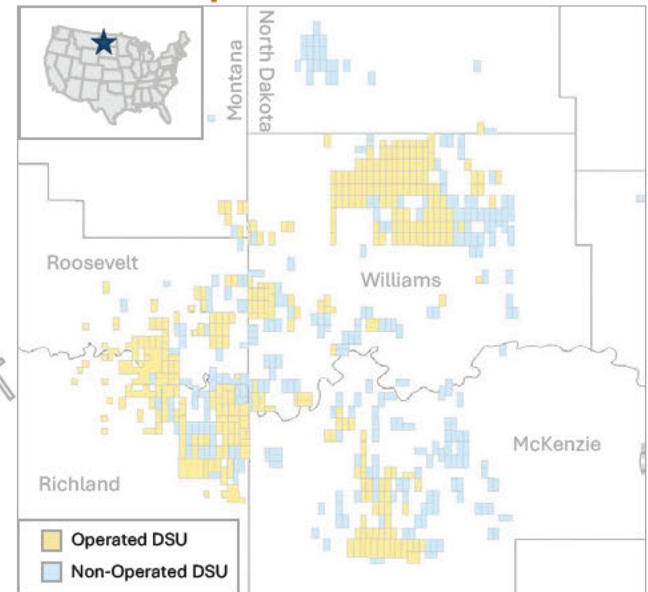
Kraken Resources Group: A leading Williston Basin enterprise



Company Overview

- » **Kraken is a premier operator with a scaled, oil-weighted business in the Williston Basin in Williams and McKenzie Counties, ND and Richland and Roosevelt Counties, MT**
 - 330,000 net acres in the core of the Bakken
 - 92% operated and 88% HBP asset ensures significant operational control and flexibility
 - [REDACTED] average 8/8th NRI and average undeveloped WI of [REDACTED]
- » **Large operated inventory of delineated, long-lateral, high-returning locations**
 - [REDACTED] modeled gross ([REDACTED] net) operated undeveloped Bakken locations with an average lateral length [REDACTED]
 - Over [REDACTED] gross locations generating returns in excess of 50% IRR
- » **Substantial current production, high margin cash flow and strong balance sheet**
 - April 2024 net production of 90 MBoe/d from nearly 1,000 gross operated and 500 gross non-op PDP wells
 - PDP PV-10 of [REDACTED] as of April 1, 2024
 - [REDACTED]
 - Forecasted cumulative levered FCF of nearly [REDACTED] billion¹ through 2030
 - Forecasted leverage of [REDACTED] throughout projection period; 4-year remaining term on credit facility
- » **Kraken has established the foundation to efficiently develop its assets**
 - 2-rig development program and dedicated frac crew on multi-well pads
 - Established management team in place at Kraken for more than 12 years with a proven track record of successfully executing large-scale pad development programs with over 400 wells drilled
 - Wholly-owned SWD subsidiaries ensure water takeaway solutions for the majority of the asset
 - Infrastructure and services in place to support near-term development plan

Asset Map



Metric	Total
Net Acres	330,000
Operated Undev. Locations	[REDACTED]
Net Production (April 2024)	90 Mboe/d
Avg. Undeveloped WI	[REDACTED]
Avg. 8/8 th NRI	[REDACTED]
2024E Projected TILs	[REDACTED]
2024E Hedged EBITDA / FCF ¹	[REDACTED]

Kraken is the third largest private operator by production in the Williston Basin with nearly [REDACTED] rig-years of high quality inventory, a leading cost structure and a healthy balance sheet

Note: All metrics inclusive of Kraken's recently signed acquisition, which is scheduled to close on June 25, 2024.


¹Strip pricing as of May 23, 2024 through May 2025, with NYMEX oil and gas prices held flat at \$70/bbl and \$3.50/MMbtu thereafter.





Kayne Energy Private Equity


Near-term deals coming to market



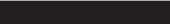




Potentially Actionable Opportunities







- Net Acreage: 
- Net Production: 
- Deal Value: 
- Status: 

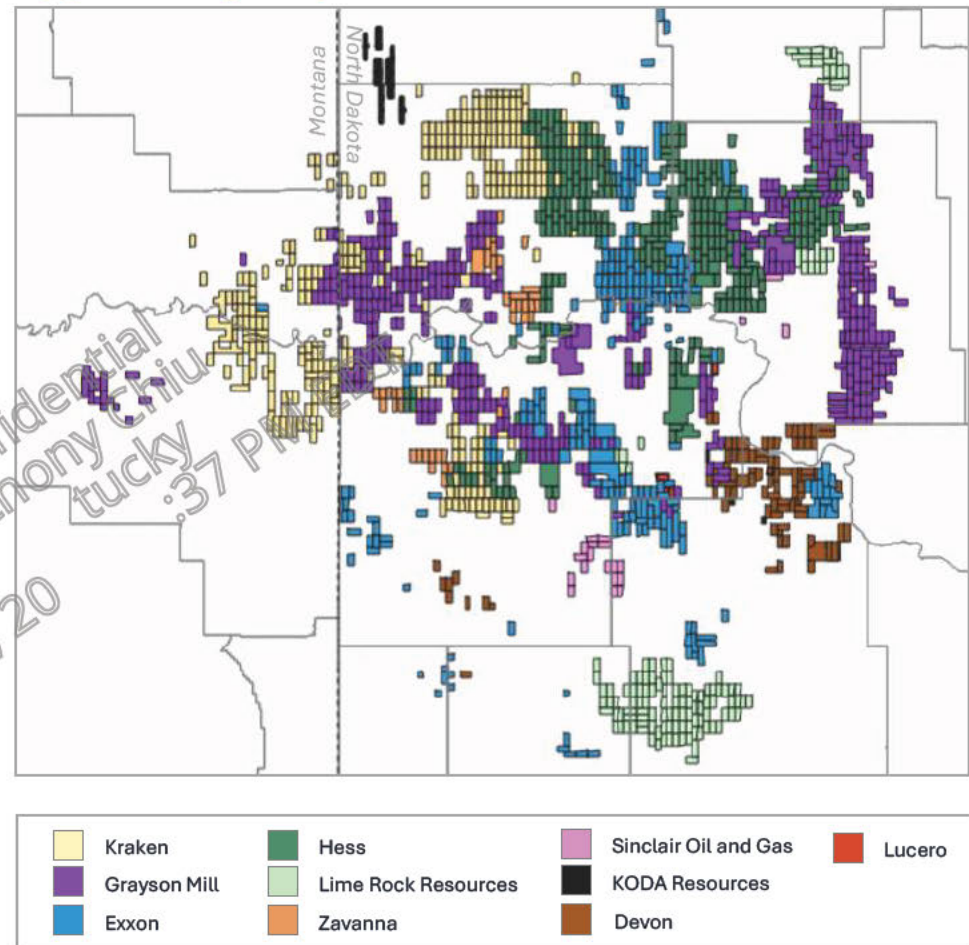


- Net Acreage: 
- Net Production: 
- Deal Value: 
- Status: 



- Net Acreage: 
- Net Production: 
- Deal Value: 
- Status: 

Opportunity Map



Multiple A&D opportunities nearby Kraken's existing acreage provide opportunity to utilize the Company's scale and liquidity to continue creating value for shareholders

Potentially actionable opportunities are for illustrative purposes only. Neither Kraken or Kayne has consummated or entered into an exclusive agreement relating to such potential investments, and there can be no assurance that any of such potential future investments will ever be acquired (on the described terms or otherwise) or, if acquired, lead to investor returns. Actual opportunities effected may differ materially from the potential opportunities and/or estimates discussed herein.