

# RESOURCES

Operated Working Interest Package

Barber County, Kansas

OIL & GAS ASSET **CLEARINGHOUSE** 

COMPREHENSIVE A&D SERVICES FOR THE OIL & GAS INDUSTRY

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# **Executive Summary**

## **Private Sale**

The Oil and Gas Asset Clearinghouse, LLC is partnering with Ramshorn Resources to market an operated working interest package in Barber County, Kansas

		<b>,024</b> net mineral acres in Barber County, Kansas							Loca	atio	on M	lap	Ba	rber	<b>C</b> οι	unty	, Ka	nsa	IS			
	<ul> <li>100% of acreage HBF</li> <li>100 / 83% average ov</li> </ul>		14	13	18	17	16	2000 1	ale a		**	*	**	15 <b>*</b>	*	*	*	17	H	Barber Cou		2.
Overview	• Pipeline and other infrastruct growth opportunities	ure in place to facilitate numerous quantified	-23	24	19	20	TŜŻS	R 1/5W	1	24	19 19	20	T325 R	14W	23	24	**	20				KS X
		ine and <b>35 miles</b> of water pipelines	28	25	30	29	28		26	25	2022;#)	29	28	27-	26	25.2	30	29		A. M.	1.et	
	<ul> <li>– 3 active gas delivery</li> </ul>	points to OneOK	35	36	31	32	33	34	351		•a12	-32	33	34	35	36	31	32	33 /	34	* 36	31
	• 28 / 23 bopd avg. oil product	ion (gross / net)	220	NCHE	BER	5	14/1	33	*	•			et l	Sec.	2 0	-	6	5	4	3 2	1	6
Stable	<ul> <li>750 / 622 mcfd avg. gas prod</li> </ul>		17	12 12	BAB 7		126	*			. 9	1.6	*	10	11	*	7	B	1875 n	10 🗱 11	* 42	*
Production and Cashflow		ting Income (05.2021 – 06.2021)		10	18	17	111	-10			1	Faz	16	15			•	17	**	***	*	18
Casillow	• <b>PV</b> <sub>10</sub> : \$2.7MM (PDP)	<b>č</b>	23	24	19	28	T33S   21	R15W	i	**	19	20	T335 R	22	**		**	20	7386 F	13W	<b>*</b> 24	*
	• 50 Mississippian vertical PUD	locations; <b>PV</b> <sub>10</sub> : \$11.8 MM	26	25	30	29	28	2		*.	•	¢ <sup>29</sup> ₹	₽ ¥ <sup>28</sup>	27	26 ¥ ¥	¢	-	*	arbe	127 26	25	
Low risk	• 19 Woodford horizontal PUD	locations; <b>PV<sub>10</sub>: \$6.9 MM</b>	35	1.36	31	32	33	34	*		State of	****	33	34	*35	36	*	2	33	34 35	36 <b>\$</b>	8 <sup>31</sup>
Development	De-risked by current product	on and extensive petrophysical analysis	2	1	6	5	*	3	2	1	<b>*</b> .6	**	<b>\$</b> 4y	3	2	*	6	6	4	3 7	1	6
Opportunities	<ul> <li>25 square miles of high-re</li> </ul>	esolution 3D Seismic over West Block	*	12	1	8	9	10	-11	12	7	4	¥	TO •	*	12	* *		PR	DUCTION		1
	<ul> <li>Petrophysical reports from</li> </ul>	n NuTech on multiple wells/zones			*	17		15	and the	- <del>2</del>	*	**	<b>*</b>	15	14	13	18	• F	Producti SH	on APEFILES		18
	Asset Summary	Reserve Summary	214	1	- 22.210	1	T245	15W	*	*	¢ <sup>₩</sup>		T3 45 F	R14W		Jue		<u></u> ц	ease So	chedule - R	lamshorn	24
Net Mineral	Acres 276,708/19,025	PDP Reserves 1,900 MMcfe	23	24	19	<b>*</b> <sup>20</sup>	21	22 <b>‡</b>	*	24 \$	10	*	31	*	23	*	¢ \$			WELLS uction Type	3	319

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\*

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\* 1355 R15W

65+

51,000 MMcfe

\$2.7 MM

\$18.7 MM

Operating Cash Flow	\$70,000/mo.
NTM PDP Cash Flow <sup>[2,3]</sup>	\$834,000
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	2 Effective Det

50/100%/83%

23/622

Wells / Avg. WI / Avg. NRI

Net Daily Production – bopd / mcfd

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is 2-month average to include new production from Osage 105 (05.2021-06.2021) 2 Effective Date: 08.2021 (Run of PHDwin) [3] Price deck: 7/23/2021 NYMEX Strip Pricing

PUD Locations

**PUD Reserves** 

PDP PV10

PUD PV10

#### **Click here to launch Enverus Workspace** ....

355 R14W

OIL

GAS

OIL & GAS

DISPOSAL

INJECTION

T355 R13W

Source: Enverus

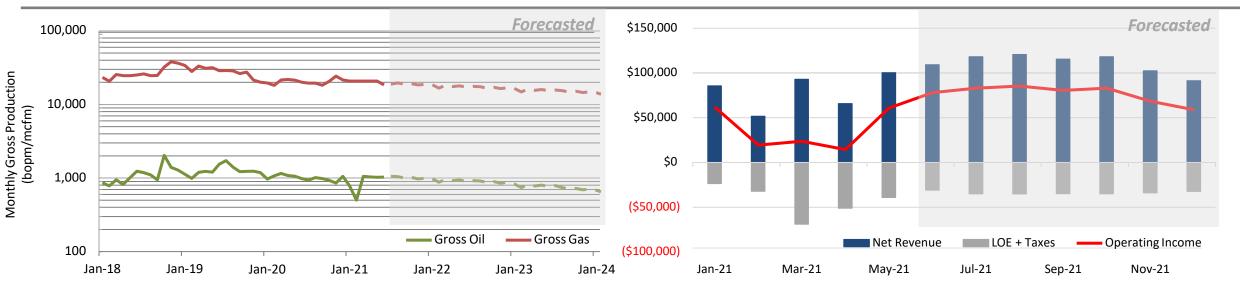
# PDP Reserve & CF Summary

#### **PDP Summary**

- 25 active producers / 5 active SWD
- 23 / 622 avg. daily net production (bopd / mcfd)
- Producing from the Mississippian Lime and Woodford reservoirs
- 13% avg. annual decline

#### Cash Flow Summary<sup>[1,2,3,4]</sup>

- \$70,000 / mo. avg. net Operating Income (05.2021 06.2021)
- \$2.7 MM PDP PV<sub>10</sub>
- NTM Cash Flow \$834,000

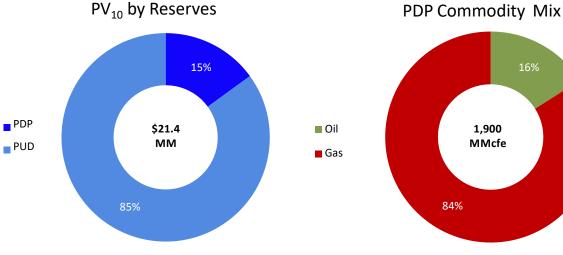


#### **Production & Net Cash Flow**

1 Production is 2-month average to include new production from Osage 105 (05.2021-06.2021)



2 Effective Date: 08.2021 (Run of PHDwin) [3] Price deck: 7/23/2021 NYMEX Strip Pricing





# **Proved Undeveloped Summary**

Oil

(MBbl)

33

1.353

1,386

**Net Reserves** 

Total

% Oil

16%

27%

0

<u>MMcfe</u>

1,240

29,830

31,070

Gas

(MMCF)

1,062

22,249

23,311

**Gross Reserves** 

MMcfe

1,980

43,830

45,810

Total

% Oil

16%

26%

25%

Oil

(MBbl)

52.2

1,864

1,916

Gas

(MMCF)

1,710

33,461

35,171

Capex & NPV

 $PV_{10}$ 

(\$MM)

\$2.7

18.7

\$21.4

Capex

(\$MM)

\$0.00

68.2

68.2

#### **PUD Summary**

- 50+ Mississippian vertical well locations
- 19 Woodford horizontal well locations

•Average annual decline 13%

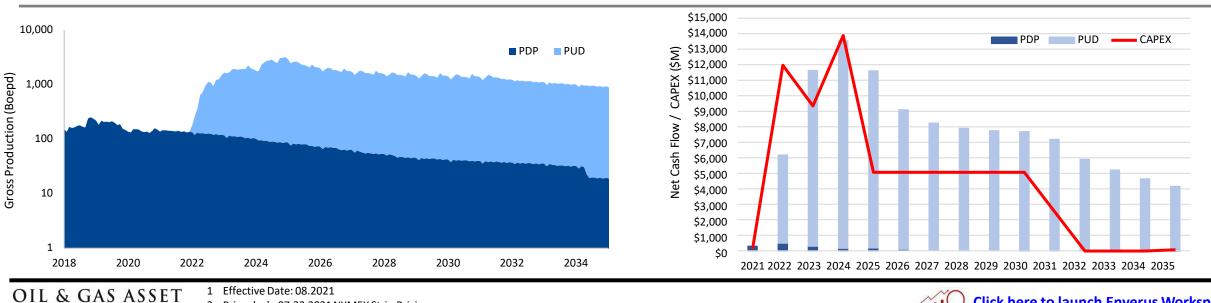
#### Well Development Plan [1,2,3,4]

- 2 Horizontal wells drilled per year
- \$70,000 / mo. avg. Operating Income (01.2021 05.2021) •

2 Price deck: 07.23.2021 NYMEX Strip Pricing

3 LOE: \$2,260 / mo for vert Miss Well, \$3,154 / mo for HZ Woodford 4 Capex: \$519.9 M on Vertical Miss wells, \$1.716 MM on HZ Woodford

- Mississippian PUD PV<sub>10</sub> **\$11.8 MM** ٠
- Woodford PUD PV<sub>10</sub> \$6.9 MM



Proved

Proved Producing

Proved Undeveloped

**Total Proved** 

#### **Production & Net Cash Flow**

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#### Source: Enverus

# **Geology and Petrophysics**

#### **Geological and Seismic Overview**

- The Osagian aged Mississippian formation offers reliable conventional production with additional proven zones in the Woodford and the Viola
- 25 square miles of high-resolution 3D seismic available in the West Block
  - Able to pick optimum well locations for Miss. and Woodford wells
  - Allows for productive Viola zones to be detected

#### **NuTech Overview**

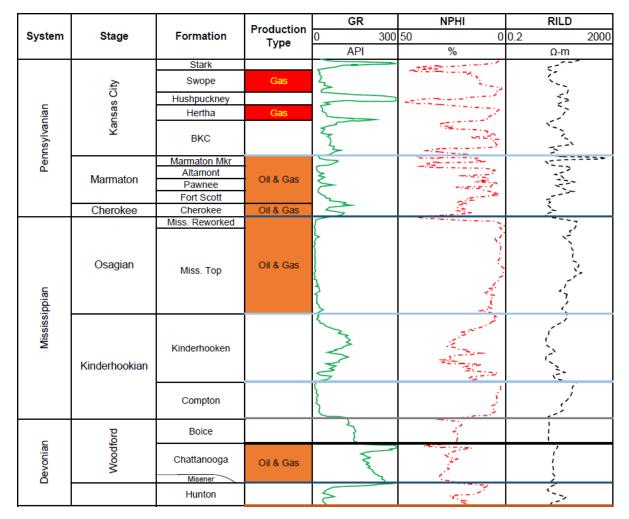
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- NuTech conducted petrophysical analysis on the Mississippian, Woodford, and Viola formations
  - Provides reservoir characteristics and geomechanical properties that can be used in future developments
- NuTech also performed NuStim stimulation studies to optimize well completion scenarios in the Mississippian and Woodford Formations

NuTech Pay Zone Details										
Formation	Gross Feet / Pay Feet	Porosity (avg.)	Permeability (avg.)	OIP (MMBO/Sec)						
Mississippian	100 / 15	13%	1.73 md	5.4						
Woodford	40/18	7%	0.162 md	4.41						
Viola	132/4	8%	3.01 md	0.634						

## Barber County, KS Type Log



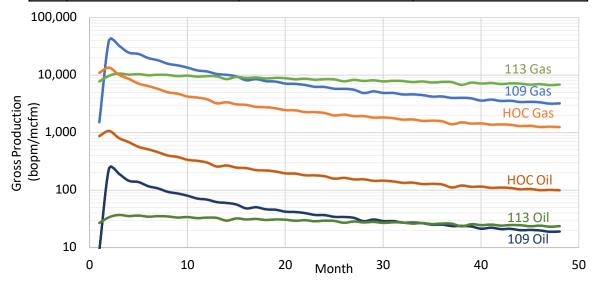
Source: Enverus

#### **Mississippian PUD Overview**

PUD type curves for the Mississippian are based on PDP locations with similar characteristics

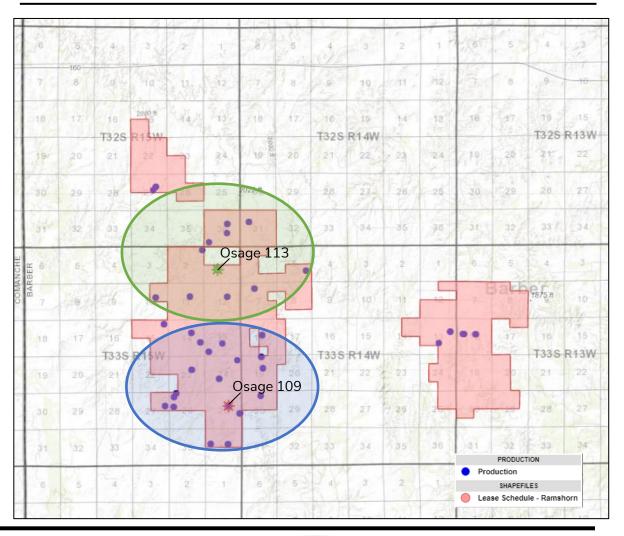
- Osage 109: 16+ PUD locations
- Osage 113: 12+ PUD locations
- High Oil Content (HOC): 17+ PUD locations

	Type Curve Parameters											
	Osag	je 109	Osag	e 113	HOC Wells							
	Oil	Gas	Oil	Gas	Oil	Gas						
IP	8 bopd	1,326 mcfd	1.1 bopd	317 mcfd	35 bopd	437 mcfd						
De	97%	97%	14.0%	14.0%	99%	99%						
b	1	1	1	1	1.2	1.2						
EUR	3.66 Mbbl	609 MMcf	3.51 Mbbl	1002 MMcf	18 Mbbl	228 MMcf						



[1] Effective Date: 08.2021

## Mississippian Overview Map





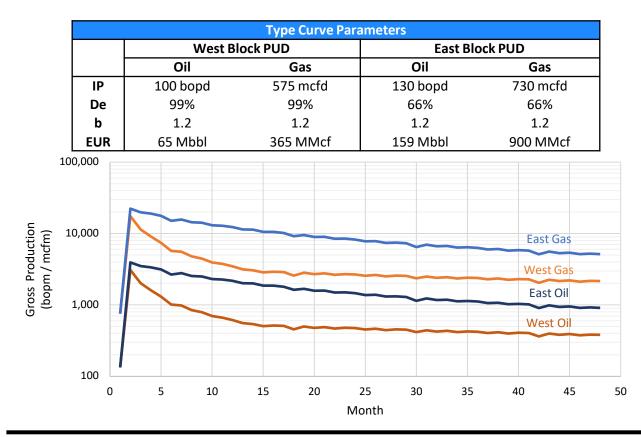
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[2] Price deck: 07.23.2021 NYMEX Strip Pricing
[3] LOE: \$2,260 / mo for vert Miss Well, \$3,154 / mo for HZ Woodford
[4] Capex: \$519.9 M for Vertical Miss wells, \$2.54 MM for HZ Woodford

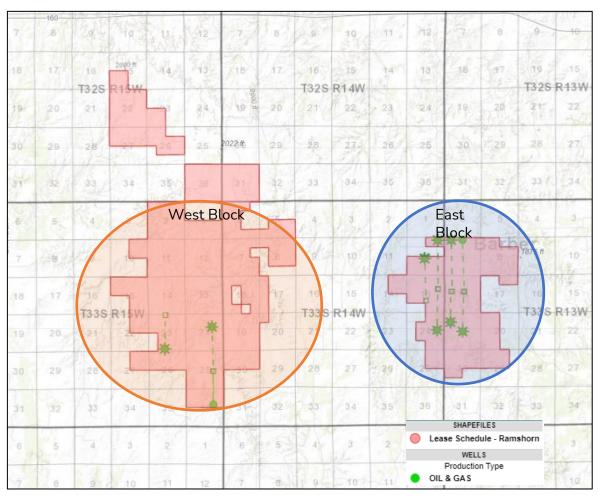
## Woodford PUD Overview

PUD type curves based for the Woodford are based on previously drilled horizontal PDP locations with similar characteristics

- 12 PUD locations in the West Block
- 7 PUD locations in the East Block



# Woodford Overview Map



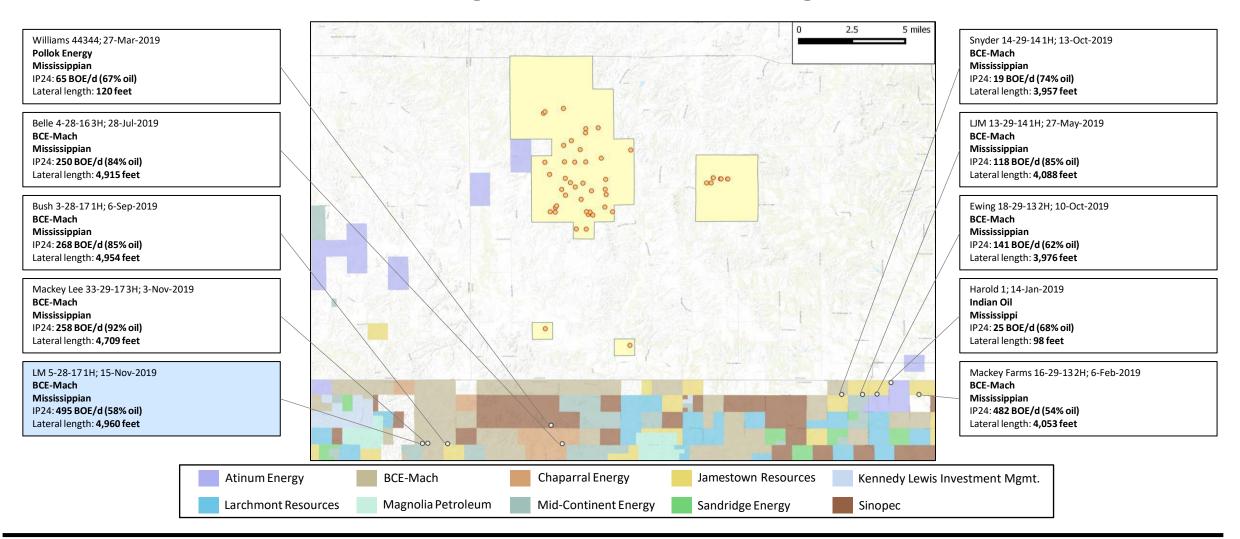


[1] Effective Date: 08.2021
 [2] Price deck: 07.23.2021 NYMEX Strip Pricing
 [3] LOE: \$2,260 / mo for vert Miss Well, \$3,154 / mo for HZ Woodford
 [4] Capex: \$519.9 M for Vertical Miss wells, \$2.54 MM for HZ Woodford



# **Operator Presence in the Vicinity**

BCE-Mach's LM 5-28-17 1H well, with a lateral length of 4,960 feet, achieved an average IP24 of 495 BOE/d in November 2019



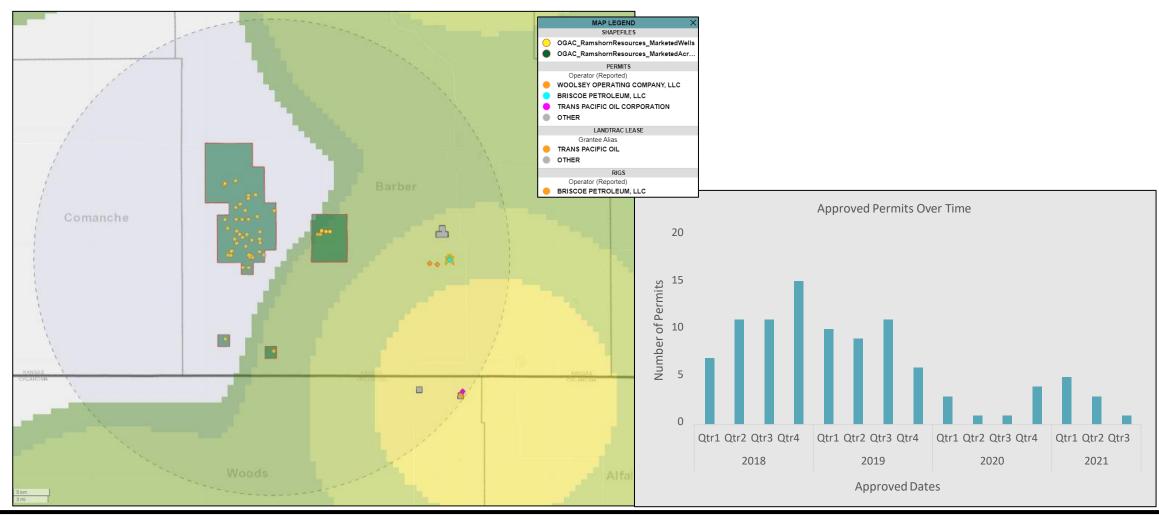


Footnotes: Select wells near the marketed properties tested after Jan-2019



# Developmental Activity in the Vicinity

18 Permits have been approved within a 20-mile radius of the marketed assets since January 2020



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Footnotes: [1] Lease Activity heatmap for the last 3 months, rigs, approved permits and landtrac leases within 20-mile radius of marketed assets during the last 3 months [2] Permits approved within 20-mile radius of marketed assets

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## Sale Process

- Virtual data room available August 26<sup>th</sup>, 2021
- Bids due September 30th, 2021
- Bid instructions available in VDR
- Effective date of October 1<sup>st</sup>, 2021

			per	pteml	Se					t	Augus			
	Sa	F	Th	W	Т	М	Su	Sa	F	Th	W	Т	М	Su
	4	3	2	1				7	6	5	4	3	2	1
	11	10	9	8	7	6	5	14	13	12	11	10	9	8
	18	17	16	15	14	13	12	21	20	19	18	17	16	15
	25	24	23	22	21	20	19	28	27	26	25	24	23	22
		1	30	29	28	27	26					31	30	29

For additional questions or information, please contact our team:

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