



**MONTANA**  
DEPARTMENT OF  
**REVENUE**

**2023 Capitalization Rate Study  
Pipelines - Incorporated**

*Completed: March 24, 2023*

**MONTANA DEPARTMENT OF REVENUE**

**Yield Capitalization Rate Conclusion**

**Industry: Pipelines - Incorporated**

**2023 Assessment Year**

**Capital Structure <sup>[1]</sup>**

Equity	<b>55.00%</b>
Debt	<b>45.00%</b>

**Equity Cost of Capital**

		<b>Weighting</b>
Capital Asset Pricing Model - Ex Post <sup>[2]</sup>	13.46%	56%
Capital Asset Pricing Model - Ex Ante <sup>[2]</sup>	11.52%	14%
3 Stage Dividend Discount Model - Dividends <sup>[3]</sup>	12.06%	15%
3 Stage Dividend Discount Model - Earnings <sup>[3]</sup>	14.14%	15%
Weighted Average	13.08%	100%
Selected Cost of Equity	<b>13.08%</b>	

**Debt Cost of Capital**

		<b>Weighting</b>
A - Mergent's - Avg. YTM of A Rated Corporate Bonds <sup>[4]</sup>	5.12%	0%
Baa - Mergent's - Avg. YTM of Baa Rated Corporate Bonds <sup>[4]</sup>	5.59%	60%
Ba - MTDOR High Yield Debt Study <sup>[5]</sup>	6.97%	40%
B - MTDOR High Yield Debt Study <sup>[5]</sup>	7.71%	0%
Weighted Average	6.14%	100%
Selected Cost of Debt	<b>6.14%</b>	

**Weighted Average Cost of Capital (WACC)**

<b>Source of Capital</b>	<b>Capital Structure</b>	<b>Cost of Capital</b>	<b>Marginal Tax Rate</b>	<b>After-tax Cost of Capital</b>	<b>Weighted Cost</b>
Equity	55.00%	13.08%		13.08%	7.19%
Debt	45.00%	6.14%	24.00%	4.67%	2.10%
<b>WACC</b>	<b>100.00%</b>				<b>9.29%</b>
<b>WACC (Rounded)</b>					<b>9.30%</b>

Notes

- [1] From worksheet: Capital Structure
- [2] From worksheet: Capital Asset Pricing Model Summary
- [3] From worksheet: Yield Equity Summary
- [4] January 2023, Mergent Bond Record
- [5] Montana Department of Revenue High Yield Debt Study

**MONTANA DEPARTMENT OF REVENUE**

**Direct Capitalization Rate Conclusion  
Industry: Pipelines - Incorporated  
2023 Assessment Year**

**Capital Structure <sup>[1]</sup>**

Equity	<b>55.00%</b>
Debt	<b>45.00%</b>

**Equity Capitalization Rate <sup>[2]</sup>**

NOI After-tax	<b>6.34%</b>
GCF	<b>10.83%</b>

**Debt Capitalization Rate <sup>[3]</sup>**

Calculated Current Yield	<b>5.06%</b>
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**NOI After-tax Direct Capitalization Rate**

Source of Capital	Capital Structure	Capitalization Rate	Marginal Tax Rate	After-tax Capitalization Rate	Weighted Capitalization Rate
Equity	55.00%	6.34%		6.34%	3.49%
Debt	45.00%	5.06%	24.00%	3.85%	1.73%
<b>Total</b>	<b>100.00%</b>				<b>5.22%</b>
<b>Total (Rounded)</b>					<b>5.25%</b>

**GCF Direct Capitalization Rate**

Source of Capital	Capital Structure	Capitalization Rate	Marginal Tax Rate	After-tax Capitalization Rate	Weighted Capitalization Rate
Equity	55.00%	10.83%		10.83%	5.96%
Debt	45.00%	5.06%	24.00%	3.85%	1.73%
<b>WACC</b>	<b>100.00%</b>				<b>7.69%</b>
<b>Total (Rounded)</b>					<b>7.70%</b>

Notes:

- [1] From worksheet: Capital Structure
- [2] From worksheet: Direct Equity Summary
- [3] From worksheet: Calculated Current Yield

## MONTANA DEPARTMENT OF REVENUE

### Selection of Guideline Companies

Industry: Pipelines - Incorporated

2023 Assessment Year

#### Screening Requirements:

The universe of companies is all companies listed in Value Line under the Oil-Gas Distribution industry.

Companies were then selected using the following screening criteria:

1. Engaged primarily in providing midstream transportation services.
2. Incorporated as a corporation (not a partnership).
3. Actively traded on an American exchange.
4. Headquartered / incorporated in the United States
5. No significant merger & acquisition activity during the year.

Company Ticker	Midstream transportation	Not a partnership	Actively traded on an American exchange	Incorporated in U.S.	Consider as Potential Guideline Company	Not Engaged in Material M&A Activity	Use as Guideline Company	Note
AM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
CLNE	No				No			
ENB.TO			No		No			
ENLC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
INT	No				No			
KMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
LNG	No				No			
OKE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
PPL.TO			No		No			
TRP				No	No			
WMB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[1]

[1] WMB's acquisition activity during the year was not significant enough to warrant exclusion from GPC selection

**MONTANA DEPARTMENT OF REVENUE**

Support for Capital Structure  
Industry: Pipelines - Incorporated  
2023 Assessment Year

(\$ and Shares Outstanding In Millions, Except Per Share Amounts)

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Ticker Symbol	Company	Industry Group	Financial Strength	Shares Outstanding	End of Year Closing Stock Price	MV Common Stock	MV Preferred Stock	MV Long Term Debt	PV of Operating Leases	Total Common, Preferred, LT Debt, & Op Leases	% Common	% Preferred	% Debt & Op Leases
		Value Line	Value Line	10-K	Yahoo	ExF	10-K	10-K	10-K	G+H+I+J	G/K	H/K	(I+J)/K
							Note [1]	Note [2]					
AM	Antero Midstream Corp.	OILGAS	C++	479	10.79	5,164	0	3,239	0	8,403	61%	0%	39%
ENLC	EnLink Midstream LLC	OILGAS	C+	469	12.30	5,768	0	4,386	92	10,247	56%	0%	44%
KMI	Kinder Morgan Inc.	OILGAS	B	2,248	18.08	40,638	0	30,070	287	70,995	57%	0%	43%
OKE	ONEOK Inc.	OILGAS	B+	447	65.70	29,378	0	12,721	80	42,179	70%	0%	30%
WMB	Williams Cos.	OILGAS	B	1,219	32.90	40,091	35	21,569	173	61,868	65%	0%	35%
<b>All Companies</b>						121,040	35	71,984	633	193,692	<b>62%</b>	<b>0%</b>	<b>37%</b>
<b>Average</b>											<b>62%</b>	<b>0%</b>	<b>38%</b>
<b>Median</b>											<b>61%</b>	<b>0%</b>	<b>39%</b>
<b>Trimmed Average</b>											<b>61%</b>	<b>0%</b>	<b>39%</b>
High											70%	0%	44%
Low											56%	0%	30%
<b>Say</b>											<b>55%</b>		<b>45%</b>

Notes:

- [1] Market value of preferred stock assumed to equal book value  
[2] Market value of debt is fair value of long term debt from 10-K notes

**MCA 15-1-210, rationale for changes to guideline companies:**  
2023 - No changes made to guideline companies

	<b>Median</b>		
Current Year	61%	0%	39%
Prior Year	53%	0%	47%
2 Years Prior	49%	0%	51%
3 Year Average	54%	0%	46%

**MONTANA DEPARTMENT OF REVENUE**

Capital Asset Pricing Model (CAPM)

Industry: Pipelines - Incorporated

2023 Assessment Year

$$k_e = R_f + \beta \times ERP$$

		<i>Ex Post</i>	<i>Ex Ante</i>
$k_e =$	Cost of Equity	<b>13.46%</b>	<b>11.52%</b>
$R_f =$	Risk Free Rate	4.14%	4.14%
$\beta =$	Beta	1.30	1.30
$ERP =$	Equity Risk Premium ( $R_m - R_f$ )	7.17%	5.68%
$R_m =$	Market Rate of Return	11.31%	9.82%

**Risk Free Rate Measures ( $R_f$ ):**

The Value Line Investment Survey: Selection & Opinion<sup>[1]</sup>

January 6, 2023 Page 1465

Selected Yields on Taxable U.S. Treasury Securities as of 12/27/22

10-year	3.84%
30-year	3.93%

Federal Reserve Statistical Release<sup>[2]</sup>

U.S. government securities, Treasury constant maturities, Nominal, December 30, 2022

10-year	3.88%
20-year	4.14%
30-year	3.97%

**Risk Free Rate Selected** 4.14%

Notes

[1] "Value Line Selection & Opinion", Value Line (January 6, 2023)

[2] <https://www.federalreserve.gov/datadownload/Choose.aspx?rel=H.15>

**Ex Post - Equity Risk Premium Measures ( $ERP = R_m - R_f$ )**

Kroll, 2023 Cost of Capital Navigator

		<u><math>R_m</math></u>	<u><math>R_f</math></u>	<u>ERP</u>
ERP "Historical" - <i>Ex Post</i>	<i>Arithmetic Avg.</i>	11.31%	4.14%	7.17%
ERP "Supply-side" - <i>Ex Post</i>	<i>Arithmetic Avg.</i>	10.49%	4.14%	6.35%
<b>Ex Post Equity Risk Premium Selected</b>		<u><u>11.31%</u></u>	<u><u>4.14%</u></u>	<u><u>7.17%</u></u>

**MONTANA DEPARTMENT OF REVENUE**

Capital Asset Pricing Model (CAPM)

Industry: Pipelines - Incorporated

2023 Assessment Year

$$k_e = R_f + \beta \times ERP$$

**Ex Ante - Equity Risk Premium Measures (ERP = Rm - Rf)**

DOR 3 Stage Dividend Growth Model, S & P 500, See Exhibit

	<u>R<sub>m</sub></u>	<u>R<sub>f</sub></u>	<u>ERP</u>
ERP - <i>Ex Ante</i>	8.81%	4.14%	4.67%

Kroll, 2023 Cost of Capital Navigator

	<u>R<sub>m</sub></u>	<u>R<sub>f</sub></u>	<u>ERP</u>
ERP "Conditional" - <i>Ex Ante</i>	9.50%	3.50%	6.00%

Damodaran Implied ERP (Jan 1, 2023)

	<u>R<sub>m</sub></u>	<u>R<sub>f</sub></u>	<u>ERP</u>
Implied Premium - <i>Ex Ante</i> - Trailing 12 month, with adjusted payout	8.99%	3.88%	5.11%
Implied Premium - <i>Ex Ante</i> - Trailing 12 month cash yields	9.82%	3.88%	5.94%
Implied Premium - <i>Ex Ante</i> - Average CF yield last 10 years	9.73%	3.88%	5.85%
Implied Premium - <i>Ex Ante</i> - Net cash yield	9.56%	3.88%	5.68%
Implied Premium - <i>Ex Ante</i> - Normalized earnings and payout	8.71%	3.88%	4.83%

	<u>R<sub>m</sub></u>	<u>R<sub>f</sub></u>	<u>ERP</u>
<u>Average</u>	9.30%		5.44%
<u>Median</u>	9.50%		5.68%
<u>High</u>	9.82%		6.00%
<u>Low</u>	8.71%		4.67%

**Ex Ante Equity Risk Premium Selected**

<b>9.82%</b>	<b>4.14%</b>	<b>5.68%</b>
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**MONTANA DEPARTMENT OF REVENUE**

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**Support for Beta Selection in CAPM****Industry: Pipelines - Incorporated****2023 Assessment Year**

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<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Ticker Symbol</b>	<b>Company</b>	<b>Industry Group</b>	<b>Financial Strength</b>	<b>Beta</b>
		<i>Value Line</i>	<i>Value Line</i>	<i>Value Line</i>
AM	Antero Midstream Corp.	OILGAS	C++	1.10
ENLC	EnLink Midstream LLC	OILGAS	C+	1.55
KMI	Kinder Morgan Inc.	OILGAS	B	1.10
OKE	ONEOK Inc.	OILGAS	B+	1.45
WMB	Williams Cos.	OILGAS	B	1.15
<b>Average</b>				<b>1.27</b>
<b>Median</b>				<b>1.15</b>
<b>Trimmed Average</b>				<b>1.23</b>
High				1.55
Low				1.10
<b>Say</b>				<b>1.30</b>



**MONTANA DEPARTMENT OF REVENUE**

Inflation & Real Growth  
Industry: Pipelines - Incorporated  
2023 Assessment Year

A	B	C	D	Nominal Growth	
				E	F
Source Description	Inflation (CPI)	Real Growth (GDP)	Nominal Growth	Low	High
Livingston Survey <sup>[1]</sup>	2.55%	1.97%	4.52%		
Survey of Professional Forecasters <sup>[2]</sup>	2.44%	1.96%	4.40%		
Congressional Budget Office <sup>[3]</sup>	2.30%	1.80%	4.10%		
<b>Average</b>	<b>2.43%</b>	<b>1.91%</b>	<b>4.34%</b>		
<b>Median</b>	<b>2.44%</b>	<b>1.96%</b>	<b>4.40%</b>		
High	2.55%	1.97%	4.52%		
Low	2.30%	1.80%	4.10%		
<b>Selected</b>	<b>2.45%</b>	<b>2.00%</b>	<b>4.45%</b>	<b>4.10%</b>	<b>4.52%</b>

Inflationary Trend Factors						
Year	Dec. CPI-U Index	Percent Change From Previous	Dec. to Dec. Conversion Factor	Annual Avg. CPI-U Index	Percent Change From Previous	Annual Conversion Factor
	<i>Note [5]</i>	<i>Note [6]</i>	<i>Note [7]</i>	<i>Note [5]</i>	<i>Note [6]</i>	<i>Note [7]</i>
2011	225.672	2.9%	1.3152	224.939	3.1%	1.3010
2012	229.601	1.7%	1.2927	229.594	2.0%	1.2747
2013	233.049	1.5%	1.2735	232.957	1.4%	1.2563
2014	234.812	0.8%	1.2640	236.736	1.6%	1.2362
2015	236.525	0.7%	1.2548	237.017	0.1%	1.2347
2016	241.432	2.0%	1.2293	240.007	1.2%	1.2194
2017	246.524	2.1%	1.2039	245.120	2.1%	1.1939
2018	251.233	1.9%	1.1814	251.107	2.4%	1.1655
2019	256.974	2.2%	1.1550	255.657	1.8%	1.1447
2020	260.474	1.3%	1.1394	258.811	1.2%	1.1308
2021	278.802	6.6%	1.0645	270.970	4.5%	1.0800
2022	296.797	6.1%	1.0000	292.655	7.4%	1.0000

Notes

[1] Federal Reserve Bank of Philadelphia The Livingston Survey December 16, 2023 Table 3 Inflation Rate and Real GDP mean

<https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey>

[2] Federal Reserve Bank of Philadelphia Survey of Professional Forecasters February 10, 2023 Table 8 and Table 9 Average over next 10-Year mean

<https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/survey-of-professional-forecasters>

[3] The Budget and Economic Outlook: 2023 To 2033, Table B-1

<https://www.cbo.gov/about/products/budget-economic-data#4>

[5] Historical Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, all items, index averages (1982-84=100, unless otherwise noted)

<https://www.bls.gov/cpi/tables/supplemental-files/historical-cpi-u-202212.pdf>

[6] (Row year - Previous Year) / Row Year

[7] Most current year / Row year

**MONTANA DEPARTMENT OF REVENUE**

**3 Stage Dividend Discount Model (DDM)**

**Industry: Pipelines - Incorporated**

**2023 Assessment Year**

$$k_e = (D_1 / P_0) + g$$

$k_e$  = Cost of Equity

$D_1$  = Expected Dividend

$P_0$  = Current Price Per Share

$g$  = Sustainable Long-Term Growth

A	B	C	D	E	F	G	H	I
Ticker	Company	2022 Year End Stock Price	2023 Est Div'ds Decl'd per sh	Expected Equity Payout Yield	Sustainable Long-Term Growth Rate <sup>[1]</sup>	Sustainable Long-Term Growth Rate <sup>[1]</sup>	Cost of Equity Dividend Growth	Cost of Equity Earnings Growth
		<i>Yahoo</i>	<i>Value Line</i>	<i>D/C</i>	<i>Dividends</i>	<i>Earnings</i>	<i>E+F</i>	<i>E+G</i>
		$P_0$	$D_1$	$D_1/P_0$	$g$	$g$	$k_e$	$k_e$
AM	Antero Midstream Corp.	10.79	0.94	8.71%	11.10%	14.31%	19.81%	23.02%
ENLC	EnLink Midstream LLC	12.30	0.45	3.66%	2.75%	7.03%	6.41%	10.69%
KMI	Kinder Morgan Inc.	18.08	1.15	6.36%	7.78%	8.91%	14.14%	15.27%
OKE	ONEOK Inc.	65.70	4.05	6.16%	5.10%	9.28%	11.26%	15.44%
WMB	Williams Cos.	32.90	1.76	5.35%	5.43%	6.36%	10.78%	11.71%
<b>Average</b>							<b>12.48%</b>	<b>15.23%</b>
<b>Median</b>							<b>11.26%</b>	<b>15.27%</b>
<b>Timmed Average</b>							<b>12.06%</b>	<b>14.14%</b>
High							19.81%	23.02%
Low							6.41%	10.69%
<b>Selected</b>							<b>12.06%</b>	<b>14.14%</b>

Notes:

[1] From worksheet: DDM Sustainable Long-Term Growth

**MONTANA DEPARTMENT OF REVENUE**

**Support for DDM - Short Term Growth Rate Calculations**

**Industry: Pipelines - Incorporated**

**2023 Assessment Year**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>Ticker</b>	<b>Company</b>	<b>End of Year Closing Stock Price</b>	<b>Div'ds Decl'd per sh 2023 Est</b>	<b>Expected Dividend Yield</b>	<b>Div'ds Decl'd per sh 2025-2027 Est</b>	<b>Short-Term Growth Rate</b>
		<i>Yahoo</i>	<i>Value Line</i>	<i>D / C</i>	<i>Value Line</i>	<i>Note [1]</i>
AM	Antero Midstream Corp.	10.79	0.94	8.71%	1.35	12.82%
ENLC	EnLink Midstream LLC	12.30	0.45	3.66%	0.45	0.00%
KMI	Kinder Morgan Inc.	18.08	1.15	6.36%	1.50	9.26%
OKE	ONEOK Inc.	65.70	4.05	6.16%	4.75	5.46%
WMB	Williams Cos.	32.90	1.76	5.35%	2.10	6.06%

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Ticker</b>	<b>Company</b>	<b>Earnings per share 2023 Est</b>	<b>Earnings per share 2025-2027 Est</b>	<b>Short-Term Growth Rate</b>
		<i>Value Line</i>	<i>Value Line</i>	<i>Note [1]</i>
AM	Antero Midstream Corp.	0.85	1.35	16.67%
ENLC	EnLink Midstream LLC	0.65	0.85	9.35%
KMI	Kinder Morgan Inc.	1.25	1.70	10.79%
OKE	ONEOK Inc.	4.20	5.80	11.36%
WMB	Williams Cos.	1.85	2.30	7.53%

Notes

[1] 4 year compound annual growth rate (CAGR) - 3 periods

**MONTANA DEPARTMENT OF REVENUE**

Support for DDM - Sustainable Long Term Growth

Industry: Pipelines - Incorporated

2023 Assessment Year

Dividend Growth Rate									Stage 1				
Ticker	Company	Year End Stock Price	Expected Short-Term Dividend Growth Rate	Expected Long-Term Growth Rate	Expected Dividend Yield	Internal Rate of Return	Implied Sustainable Long-Term Growth Rate (g)	Initial Investment	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>
		Yahoo	Note [1]	Note [2]	$D_1/P_0$	$K_e = IRR \text{ of } D_1 : D_{500}$	$g = IRR - Div. \text{ Yield}$						
AM	Antero Midstream Corp.	10.79	12.82%	4.45%	8.71%	19.81%	11.10%	(10.79)	0.94	1.06	1.20	1.35	1.52
ENLC	EnLink Midstream LLC	12.30	0.00%	4.45%	3.66%	6.41%	2.75%	(12.30)	0.45	0.45	0.45	0.45	0.45
KMI	Kinder Morgan Inc.	18.08	9.26%	4.45%	6.36%	14.14%	7.78%	(18.08)	1.15	1.26	1.37	1.50	1.64
OKE	ONEOK Inc.	65.70	5.46%	4.45%	6.16%	11.26%	5.10%	(65.70)	4.05	4.27	4.50	4.75	5.01
WMB	Williams Cos.	32.90	6.06%	4.45%	5.35%	10.78%	5.43%	(32.90)	1.76	1.87	1.98	2.10	2.23

Earnings Growth Rate									Stage 1				
Ticker	Company	Year End Stock Price	Expected Short-Term Earnings Growth Rate	Expected Long-Term Growth Rate	Expected Dividend Yield	Internal Rate of Return	Implied Sustainable Long-Term Growth Rate (g)	Initial Investment	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>
		Yahoo	Note [1]	Note [2]	$D_1/P_0$	$K_e = IRR \text{ of } D_1 : D_{500}$	$g = IRR - Div. \text{ Yield}$						
AM	Antero Midstream Corp.	10.79	16.67%	4.45%	8.71%	23.02%	14.31%	(10.79)	0.94	1.10	1.28	1.49	1.74
ENLC	EnLink Midstream LLC	12.30	9.35%	4.45%	3.66%	10.69%	7.03%	(12.30)	0.45	0.49	0.54	0.59	0.64
KMI	Kinder Morgan Inc.	18.08	10.79%	4.45%	6.36%	15.27%	8.91%	(18.08)	1.15	1.27	1.41	1.56	1.73
OKE	ONEOK Inc.	65.70	11.36%	4.45%	6.16%	15.44%	9.28%	(65.70)	4.05	4.51	5.02	5.59	6.23
WMB	Williams Cos.	32.90	7.53%	4.45%	5.35%	11.71%	6.36%	(32.90)	1.76	1.89	2.03	2.19	2.35

**Notes:**

[1] From worksheet: DDM Short Term Growth Rate Calculations

[2] From worksheet: Inflation & Real Growth

**MONTANA DEPARTMENT OF REVENUE**

Support for DDM - Sustainable Long Term Growth

Industry: Pipelines - Incorporated

2023 Assessment Year

Dividend	Stage 2															Stage 3		
Ticker	D <sub>6</sub>	D <sub>7</sub>	D <sub>8</sub>	D <sub>9</sub>	D <sub>10</sub>	D <sub>11</sub>	D <sub>12</sub>	D <sub>13</sub>	D <sub>14</sub>	D <sub>15</sub>	D <sub>16</sub>	D <sub>17</sub>	D <sub>18</sub>	D <sub>19</sub>	D <sub>20</sub>	D <sub>21</sub>	D <sub>22</sub>	D <sub>500</sub>
AM	1.71	1.92	2.16	2.42	2.72	3.05	3.42	3.84	4.31	4.84	5.44	6.11	6.85	7.69	8.64	9.02	9.42	10,292,100,328
ENLC	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.49	0.51	560,484,078
KMI	1.79	1.95	2.12	2.31	2.51	2.74	2.98	3.25	3.54	3.86	4.20	4.58	4.99	5.43	5.92	6.18	6.46	7,053,841,737
OKE	5.28	5.56	5.86	6.18	6.51	6.86	7.23	7.62	8.04	8.47	8.92	9.41	9.91	10.45	11.01	11.50	12.01	13,117,978,079
WMB	2.36	2.50	2.65	2.81	2.97	3.15	3.34	3.54	3.75	3.97	4.21	4.46	4.73	5.01	5.31	5.54	5.79	6,320,647,971

Earnings	Stage 2															Stage 3		
Ticker	D <sub>6</sub>	D <sub>7</sub>	D <sub>8</sub>	D <sub>9</sub>	D <sub>10</sub>	D <sub>11</sub>	D <sub>12</sub>	D <sub>13</sub>	D <sub>14</sub>	D <sub>15</sub>	D <sub>16</sub>	D <sub>17</sub>	D <sub>18</sub>	D <sub>19</sub>	D <sub>20</sub>	D <sub>21</sub>	D <sub>22</sub>	D <sub>500</sub>
AM	2.02	2.34	2.71	3.14	3.64	4.21	4.88	5.66	6.55	7.59	8.79	10.19	11.81	13.68	15.85	16.55	17.29	18,879,178,848
ENLC	0.70	0.76	0.83	0.91	0.99	1.08	1.18	1.28	1.40	1.53	1.67	1.82	1.98	2.16	2.35	2.46	2.57	2,803,036,213
KMI	1.91	2.11	2.33	2.57	2.84	3.13	3.46	3.82	4.21	4.65	5.13	5.66	6.25	6.90	7.61	7.95	8.31	9,069,546,987
OKE	6.91	7.66	8.49	9.42	10.45	11.59	12.85	14.25	15.80	17.52	19.43	21.55	23.90	26.50	29.39	30.70	32.07	35,019,122,526
WMB	2.53	2.71	2.91	3.12	3.35	3.60	3.86	4.14	4.44	4.77	5.12	5.49	5.90	6.33	6.79	7.09	7.41	8,090,595,259

**MONTANA DEPARTMENT OF REVENUE**

Support for Yield Capitalization Rate - Debt Rating

Industry: Pipelines - Incorporated

2023 Assessment Year

A	B	C	D	E	F
Ticker Symbol	Company	Industry Group	Financial Strength	Moody's Long Term Rating	Yield to Maturity
		<i>Value Line</i>	<i>Value Line</i>	<i>Moody's.com</i>	
AM	Antero Midstream Corp.	OILGAS	C++	Ba2	6.97%
ENLC	EnLink Midstream LLC	OILGAS	C+	Ba1	6.97%
KMI	Kinder Morgan Inc.	OILGAS	B	Baa2	5.59%
OKE	ONEOK Inc.	OILGAS	B+	Baa3	5.59%
WMB	Williams Cos.	OILGAS	B	Baa2	5.59%
<b>All Companies</b>					
<b>Average</b>					<b>6.14%</b>
<b>Median</b>					<b>5.59%</b>
<b>Trimmed Average</b>					<b>6.05%</b>
High					6.97%
Low					5.59%
<b>Say</b>					<b>6.14%</b>

**MONTANA DEPARTMENT OF REVENUE**

Support for Direct Capitalization - Equity Capitalization Rates

Industry: Pipelines - Incorporated

2023 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Ticker Symbol	Company	End of Year Closing Stock Price	VL Historic EPS	VL Est EPS	VL Historic P/E Ratio	VL Est P/E Ratio	Ke Estimate - Earnings (Hist. P/E)	Ke Estimate - Earnings (Est. P/E)	VL Historic Cash Flow Per Share	VL Est Cash Flow Per Share	VL Historic P/CF Ratio	VL Est P/CF Ratio	Ke Estimate - Cash Flow (Hist. P/CF)	Ke Estimate - Cash Flow (Est. P/CF)	Market Value of Equity	Book Value of Equity	MTBR
		<i>Yahoo</i>	<i>Value Line</i>	<i>Value Line</i>	<i>C/D</i>	<i>C/E</i>	<i>1/F</i>	<i>1/G</i>	<i>Value Line</i>	<i>Value Line</i>	<i>C/J</i>	<i>C/K</i>	<i>1/L</i>	<i>1/M</i>	<i>Price x Shrs</i>	<i>Value Line</i>	<i>P/Q</i>
AM	Antero Midstream Corp.	10.79	0.68	0.85	15.87	12.69	6.30%	7.88%	0.92	1.15	11.73	9.38	8.53%	10.66%	5,164	2,287	2.26
ENLC	EnLink Midstream LLC	12.30	0.75	0.65	16.40	18.92	6.10%	5.28%	1.30	2.00	9.46	6.15	10.57%	16.26%	5,768	1,324	4.36
KMI	Kinder Morgan Inc.	18.08	1.12	1.25	16.14	14.46	6.19%	6.91%	2.11	2.35	8.57	7.69	11.67%	13.00%	40,638	30,742	1.32
OKE	ONEOK Inc.	65.70	3.83	4.70	17.15	13.98	5.83%	7.15%	4.76	5.30	13.80	12.40	7.25%	8.07%	29,378	6,015	4.88
WMB	Williams Cos.	32.90	1.82	1.85	18.08	17.78	5.53%	5.62%	2.88	3.65	11.42	9.01	8.75%	11.09%	40,091	11,423	3.51
<b>Average</b>					<b>16.73</b>	<b>15.57</b>	<b>5.99%</b>	<b>6.57%</b>			<b>11.00</b>	<b>8.93</b>	<b>9.35%</b>	<b>11.82%</b>			<b>3.27</b>
<b>Median</b>					<b>16.40</b>	<b>14.46</b>	<b>6.10%</b>	<b>6.91%</b>			<b>11.42</b>	<b>9.01</b>	<b>8.75%</b>	<b>11.09%</b>			<b>3.51</b>
<b>Trimmed Average</b>					<b>16.57</b>	<b>15.41</b>	<b>6.04%</b>	<b>6.56%</b>			<b>10.87</b>	<b>8.70</b>	<b>9.28%</b>	<b>11.58%</b>			<b>3.37</b>
High					18.08	18.92	6.30%	7.88%			13.80	12.40	11.67%	16.26%			4.88
Low					15.87	12.69	5.53%	5.28%			8.57	6.15	7.25%	8.07%			1.32
<b>Say</b>					15.77		6.34%				9.23		10.83%				2.55

**MONTANA DEPARTMENT OF REVENUE**

Support for Direct Capitalization - Debt Capitalization Rate

Industry: Pipelines - Incorporated

2023 Assessment Year

(\$ in Millions)

A	B	C	D	E	F	G	H	I	J
Ticker	Company	Current Year Interest Exp.	Previous Year MV LT Debt	Previous Year BV LT Debt	Current Year MV LT Debt	Current Year BV LT Debt	Average MV LT Debt	Current Yield	MTBR
	<i>Source</i>	<i>10-K</i>	<i>10-K</i>	<i>10-K</i>	<i>10-K</i>	<i>10-K</i>	<i>(D+F)/2</i>	<i>(C/H)</i>	<i>(F/G)</i>
AM	Antero Midstream Corp.	190	3,288	3,123	3,239	3,361	3,263	5.82%	0.96
ENLC	EnLink Midstream LLC	245	4,520	4,364	4,386	4,724	4,453	5.50%	0.93
KMI	Kinder Morgan Inc.	1,513	37,775	33,320	30,070	31,788	33,923	4.46%	0.95
OKE	ONEOK Inc.	676	15,643	13,643	12,721	13,621	14,182	4.77%	0.93
WMB	Williams Cos.	1,167	27,768	23,675	21,569	22,554	24,669	4.73%	0.96
	<b>All Companies</b>	3,791			71,984	76,048	80,490	<b>4.71%</b>	<b>0.95</b>
	<b>Average</b>							<b>5.06%</b>	<b>0.95</b>
	<b>Median</b>							<b>4.77%</b>	<b>0.95</b>
	<b>Trimmed Average</b>							<b>5.00%</b>	<b>0.95</b>
	High							5.82%	0.96
	Low							4.46%	0.93
	<b>Say</b>							<b>5.06%</b>	<b>0.95</b>



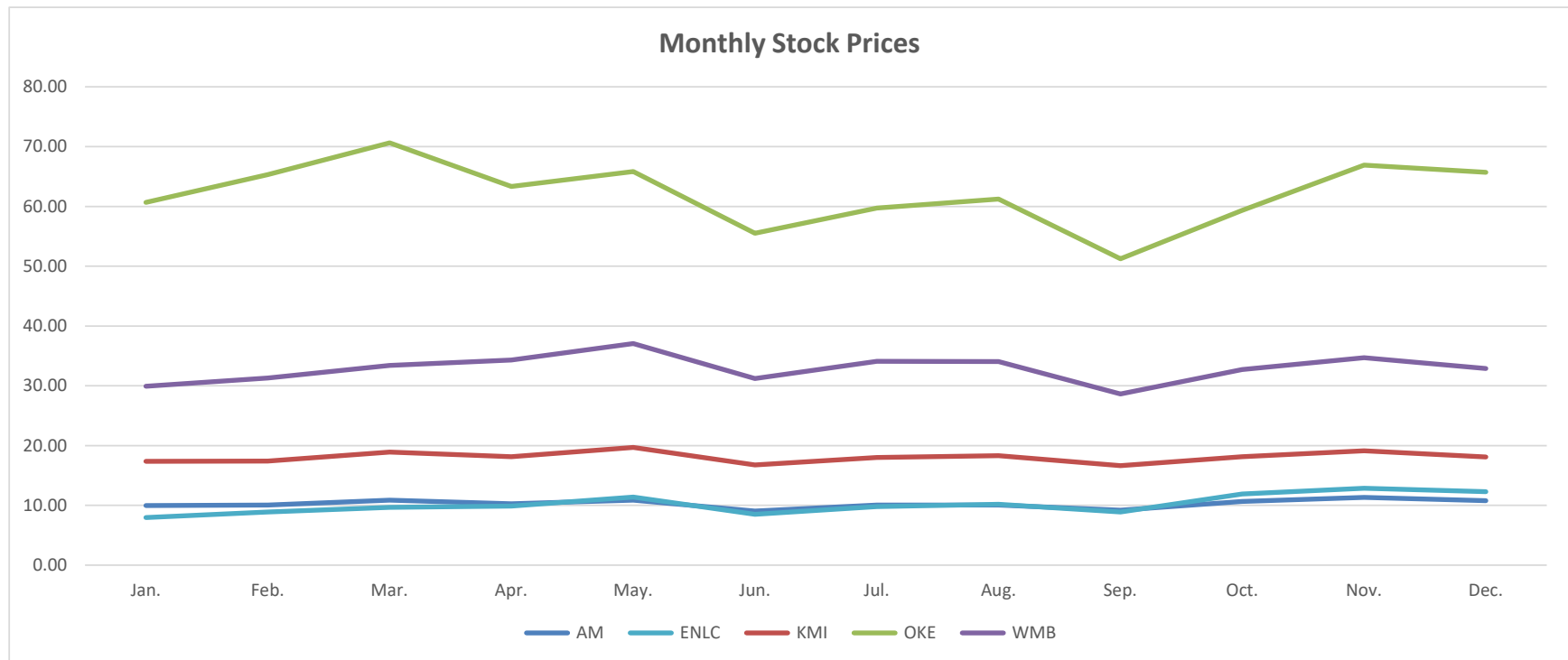
**MONTANA DEPARTMENT OF REVENUE**

Support of Stock Price - From YAHOO Finance

Industry: Pipelines - Incorporated

2023 Assessment Year

		End of Period Closing Stock Price											
1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Ticker	Company	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
AM	Antero Midstream Corp.	9.95	10.04	10.87	10.27	10.86	9.05	10.06	10.07	9.18	10.65	11.33	10.79
ENLC	EnLink Midstream LLC	7.96	8.90	9.65	9.87	11.40	8.50	9.80	10.16	8.89	11.88	12.86	12.30
KMI	Kinder Morgan Inc.	17.36	17.40	18.91	18.15	19.69	16.76	17.99	18.32	16.64	18.12	19.12	18.08
OKE	ONEOK Inc.	60.68	65.30	70.63	63.33	65.85	55.50	59.74	61.23	51.24	59.32	66.92	65.70
WMB	Williams Cos.	29.94	31.28	33.41	34.29	37.06	31.21	34.09	34.03	28.63	32.73	34.70	32.90



**MONTANA DEPARTMENT OF REVENUE**

**Maintenance Capital Expenditures Estimate Based on Guideline Companies**

**Industry: Pipelines - Incorporated**

**2023 Assessment Year**

(\$ In Millions)

1	2		3	4	5	6	7	8	9	10	11
A	B	C	D	E	F	G	H	I	J	K	L
Ticker	Company	Inflation	PP&E, Gross	PP&E, Gross	Average PP&E	Depreciation Expense	Average Life of Assets			Replacement Cost (RC)	RC as % of Depreciation
			Current Year	Previous Year		Current Year		Note [1]	Note [1]	Note [1]	
		MTDOR (CPI)	10-K, Notes	10-K, Notes	(D+E)/2	10-K	F/G	C*H	1/(1+C)^H	G*I/(1-J)	K/G
AM	Antero Midstream Corp.	2.45%	4,149	3,661	3,905	132	30	0.73	0.49	187	141.83%
ENLC	EnLink Midstream LLC	2.45%	11,331	10,720	11,025	639	17	0.42	0.66	792	123.81%
KMI	Kinder Morgan Inc.	2.45%	56,011	54,445	55,228	1,905	29	0.71	0.50	2,683	140.85%
OKE	ONEOK Inc.	2.45%	25,015	23,821	24,418	626	39	0.96	0.39	979	156.40%
WMB	Williams Cos.	2.45%	47,057	44,184	45,621	1,498	30	0.75	0.48	2,143	143.07%
<b>Average</b>											141.19%
<b>Median</b>											141.83%
<b>Trimmed Average</b>											141.92%
High											156.40%
Low											123.81%
<b>Selected</b>											<b>141.19%</b>

Notes

[1] Cornell, B. & Gerger, R. (2017). Estimating Terminal Values with Inflation: The Inputs Matter-It Is Not a Formulaic Exercise. *Business Valuation Review*, Volume 36, Number 4, 117-123.