



MONTANA
DEPARTMENT OF
REVENUE

**2023 Capitalization Rate Study
Pipelines - Gas**

Final

Completed: April 28, 2023

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Conclusion

Industry: Pipelines - Gas

2023 Assessment Year

Capital Structure ^[1]

Equity	50.00%
Debt	50.00%

Equity Cost of Capital

		Weighting
Capital Asset Pricing Model - Ex Post ^[2]	13.10%	48%
Capital Asset Pricing Model - Ex Ante ^[2]	11.24%	12%
3 Stage Dividend Discount Model - Dividends ^[3]	20.05%	20%
3 Stage Dividend Discount Model - Earnings ^[3]	15.76%	<u>20%</u>
Weighted Average	<u>14.80%</u>	100%
Selected Cost of Equity	<u>14.80%</u>	

Debt Cost of Capital

		Weighting
A - Mergent's - Avg. YTM of A Rated Corporate Bonds ^[4]	5.12%	0%
Baa - Mergent's - Avg. YTM of Baa Rated Corporate Bonds ^[4]	5.59%	20%
Ba - Avg. of MTDOR Debt Study, Bloomberg and Capital IQ	7.04%	60%
B - Avg. of MTDOR Debt Study, Bloomberg and Capital IQ	<u>9.15%</u>	<u>20%</u>
Weighted Average	<u>7.17%</u>	100%
Selected Cost of Debt	<u>7.17%</u>	

Weighted Average Cost of Capital (WACC)

Source of Capital	Capital Structure	Capital Cost of Capital	Marginal Tax Rate	Pre-tax Cost of Capital	After-tax Cost of Capital
Equity	50.00%	14.80%		7.40%	7.40%
Debt	50.00%	7.17%	24.00%	3.59%	2.72%
WACC	100.00%			10.99%	10.12%
WACC (Rounded)					10.15%

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

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Conclusion

Industry: Pipelines - Gas

2023 Assessment Year

Capital Structure ^[1]

Equity	50.00%
Debt	50.00%

Equity Capitalization Rate ^[2]

NOI After-tax	11.12%
GCF	14.83%

Debt Capitalization Rate ^[3]

Calculated Current Yield	5.32%
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NOI After-tax Direct Capitalization Rate

Source of Capital	Capital Structure	Capitalization Rate	Marginal Tax Rate	Pre-tax Capitalization Rate	After-tax Capitalization Rate
Equity	50.00%	11.12%		5.56%	5.56%
Debt	50.00%	5.32%	24.00%	2.66%	2.02%
Total	100.00%			8.22%	7.58%
Total (Rounded)					7.60%

GCF Direct Capitalization Rate

Source of Capital	Capital Structure	Capitalization Rate	Marginal Tax Rate	Pre-tax Capitalization Rate	After-tax Capitalization Rate
Equity	50.00%	14.83%		7.42%	7.42%
Debt	50.00%	5.32%	24.00%	2.66%	2.02%
WACC	100.00%			10.08%	9.44%
Total (Rounded)					9.45%

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 - Gas

2023 Assessment Year

Screening Requirements:

The universe of companies is all companies listed in Value Line under the Pipeline MLPs industry.

Companies were then selected using the following screening criteria:

1. Primarily engaged in the gathering, treating, processing, and/or transportation of natural gas and natural gas liquids.
2. Actively traded on an American exchange.
3. Incorporated as a limited partnership.
4. Primarily onshore operations.
5. No significant merger & acquisition activity during the year.

Company Ticker	Transportation etc. of NG & NGL's	Actively traded on an American Exchange	Incorporated as LP	Primarily Onshore Operations	Consider as Potential Guideline Company	Not Engaged in Material M&A Activity	Use as Guideline Company	Note
CAPL	No				No			
CEQP	No				No			[1]
CQP	No				No			
DCP	Yes	Yes	Yes	Yes	Yes	No		[2]
DKL	No				No			
EPD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
ET	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
GEL	No				No			
GLP	No				No			
GPP	No				No			
HEP	No				No			
HESM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

MONTANA DEPARTMENT OF REVENUE

Selection of Guideline Companies

Industry: Pipelines - Gas

2023 Assessment Year

Screening Requirements:

The universe of companies is all companies listed in Value Line under the Pipeline MLPs industry.

Companies were then selected using the following screening criteria:

1. Primarily engaged in the gathering, treating, processing, and/or transportation of natural gas and natural gas liquids.
2. Actively traded on an American exchange.
3. Incorporated as a limited partnership.
4. Primarily onshore operations.
5. No significant merger & acquisition activity during the year.

Company Ticker	Transportation etc. of NG & NGL's	Actively traded on an American Exchange	Incorporated as LP	Primarily Onshore Operations	Consider as Potential Guideline Company	Not Engaged in Material M&A Activity	Use as Guideline Company	Note
MMLP	Yes	Yes	Yes	No	No			
MMP	No				No			
MPLX	No				No			
NGL	No				No			
NS	No				No			
PAA	No				No			
PAGP	No				No			
SMLP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
SPH	No				No			
WES	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

[1] Acquired Oasis Midstream in February

[2] Agreed to be acquired by Phillips 66

MONTANA DEPARTMENT OF REVENUE

Support for Capital Structure
Industry: Pipelines - Gas
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	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
		<i>Value Line</i>	<i>Value Line</i>	<i>10-K</i>	<i>Yahoo</i>	<i>ExF</i>	<i>10-K</i>	<i>10-K</i>	<i>10-K</i>	<i>G+H+I+J</i>	<i>G/K</i>	<i>H/K</i>	<i>(I+J)/K</i>
							<i>Note [1]</i>	<i>Note [2]</i>					
EPD	Enterprise Products	PIPEMLP	B++	2,170.81	24.12	52,360	49	24,995	401	77,805	67%	0%	33%
ET	Energy Transfer LP	PIPEMLP	B+	3,094.45	11.87	36,731	6,051	45,422	843	89,047	41%	7%	52%
HESM	Hess Midstream LP	PIPEMLP	C++	44.00	29.92	1,317	0	2,721	0	4,037	33%	0%	67%
SMLP	Summit Midstream Partners LP	PIPEMLP	C	10.18	16.68	170	204	1,419	12	1,805	9%	11%	79%
WES	Western Midstream	PIPEMLP	B	384.07	26.85	10,312	0	6,115	44	16,471	63%	0%	37%
All Companies						100,890	6,304	80,672	1,300	189,165	53%	3%	43%
Average											43%	4%	54%
Median											41%	0%	52%
Trimmed Average											45%	2%	52%
High											67%	11%	79%
Low											9%	0%	33%
Selected											50%		50%

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 - Added ET
Removed DCP, acquisition activity

		Median	
Current Year	41%	0%	52%
Prior Year	45%	0%	49%
2 Years Prior	34%	0%	61%
3 Year Average	40%	0%	54%

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model (CAPM)

Industry: Pipelines - Gas

2023 Assessment Year

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

		<i>Ex Post</i>	<i>Ex Ante</i>
$k_e =$	Cost of Equity	13.10%	11.24%
$R_f =$	Risk Free Rate	4.14%	4.14%
$\beta =$	Beta	1.25	1.25
$ERP =$	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^[1]

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^[2]

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>R_m</u>	<u>R_f</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%
Ex Post Equity Risk Premium Selected		<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 - Gas

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_m</u>	<u>R_f</u>	<u>ERP</u>
ERP - <i>Ex Ante</i>	8.81%	4.14%	4.67%

Kroll, 2023 Cost of Capital Navigator

	<u>R_m</u>	<u>R_f</u>	<u>ERP</u>
ERP "Conditional" - <i>Ex Ante</i>	9.50%	3.50%	6.00%

Damodaran Implied ERP (Jan 1, 2023)

	<u>R_m</u>	<u>R_f</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_m</u>	<u>R_f</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

9.82%	4.14%	5.68%
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MONTANA DEPARTMENT OF REVENUE

Support for Beta Selection in CAPM

Industry: Pipelines - Gas

2023 Assessment Year

A	B	C	D	E
Ticker	Company	Industry Group	Financial Strength	Beta
		<i>Value Line</i>	<i>Value Line</i>	<i>Value Line</i>
EPD	Enterprise Products	PIPEMLP	B++	1.05
ET	Energy Transfer LP	PIPEMLP	B+	1.15
HESM	Hess Midstream LP	PIPEMLP	C++	1.05
SMLP	Summit Midstream Partners LP	PIPEMLP	C	1.60
WES	Western Midstream	PIPEMLP	B	1.35
	Average			1.24
	Median			1.15
	Trimmed Average			1.18
	High			1.60
	Low			1.05
	Selected			1.25

MONTANA DEPARTMENT OF REVENUE

**Inflation & Real Growth
Industry: Pipelines - Gas
2023 Assessment Year**

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

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 - Gas

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 ^[1]	Sustainable Long-Term Growth Rate ^[1]	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
EPD	Enterprise Products	24.12	1.96	8.13%	13.48%	4.34%	21.60%	12.47%
ET	Energy Transfer LP	11.87	0.92	7.75%	8.52%	11.55%	16.27%	19.30%
HESM	Hess Midstream LP	29.92	2.30	7.69%	10.36%	9.73%	18.05%	17.41%
SMLP	Summit Midstream Partners LP	16.68	0.00	0.00%	0.00%	0.00%		
WES	Western Midstream	26.85	2.15	8.01%	16.28%	5.86%	24.29%	13.86%
Average							20.05%	15.76%
Median							19.83%	15.64%
Trimmed Average							19.83%	15.64%
High							24.29%	19.30%
Low							16.27%	12.47%
Selected							20.05%	15.76%

Notes:

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

Implied Sustainable LTG:

12.16%

7.87%

MONTANA DEPARTMENT OF REVENUE

Support for DDM - Short Term Growth Rate Calculations

Industry: Pipelines - Gas

2023 Assessment Year

A	B	C	D	E	F	G
Ticker	Company	End of Year Closing Stock Price	Div'ds Decl'd per sh 2023 Est	Expected Dividend Yield	Div'ds Decl'd per sh 2025-2027 Est	Short-Term Growth Rate
		<i>Yahoo</i>	<i>Value Line</i>	<i>D / C</i>	<i>Value Line</i>	<i>Note [1]</i>
EPD	Enterprise Products	24.12	1.96	8.13%	3.05	15.88%
ET	Energy Transfer LP	11.87	0.92	7.75%	1.22	9.86%
HESM	Hess Midstream LP	29.92	2.30	7.69%	3.25	12.22%
SMLP	Summit Midstream Partners LP	16.68				
WES	Western Midstream	26.85	2.15	8.01%	3.65	19.29%

A	B	C	D	E
Ticker	Company	Earnings per share 2023 Est	Earnings per share 2025-2027 Est	Short-Term Growth Rate
		<i>Value Line</i>	<i>Value Line</i>	<i>Note [1]</i>
EPD	Enterprise Products	2.60	2.95	4.30%
ET	Energy Transfer LP	1.60	2.35	13.67%
HESM	Hess Midstream LP	2.35	3.25	11.41%
SMLP	Summit Midstream Partners LP			
WES	Western Midstream	3.20	3.85	6.36%

Notes:

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

MONTANA DEPARTMENT OF REVENUE

Support for DDM - Sustainable Long Term Growth

Industry: Pipelines - Gas

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 ₁	D ₂	D ₃	D ₄	D ₅
		Yahoo	Note [1]	Note [2]	D_1/P_0	$K_e = IRR \text{ of } D_1 : D_{500}$	$g = IRR - Div. \text{ Yield}$						
EPD	Enterprise Products	24.12	15.88%	4.45%	8.13%	21.60%	13.48%	(24.12)	1.96	2.27	2.63	3.05	3.53
ET	Energy Transfer LP	11.87	9.86%	4.45%	7.75%	16.27%	8.52%	(11.87)	0.92	1.01	1.11	1.22	1.34
HESM	Hess Midstream LP	29.92	12.22%	4.45%	7.69%	18.05%	10.36%	(29.92)	2.30	2.58	2.90	3.25	3.65
SMLP	Summit Midstream Partners LP	16.68	0.00%	4.45%	0.00%			(16.68)	0.00	0.00	0.00	0.00	0.00
WES	Western Midstream	26.85	19.29%	4.45%	8.01%	24.29%	16.28%	(26.85)	2.15	2.56	3.06	3.65	4.35

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 ₁	D ₂	D ₃	D ₄	D ₅
		Yahoo	Note [1]	Note [2]	D_1/P_0	$K_e = IRR \text{ of } D_1 : D_{500}$	$g = IRR - Div. \text{ Yield}$						
EPD	Enterprise Products	24.12	4.30%	4.45%	8.13%	12.47%	4.34%	(24.12)	1.96	2.04	2.13	2.22	2.32
ET	Energy Transfer LP	11.87	13.67%	4.45%	7.75%	19.30%	11.55%	(11.87)	0.92	1.05	1.19	1.35	1.54
HESM	Hess Midstream LP	29.92	11.41%	4.45%	7.69%	17.41%	9.73%	(29.92)	2.30	2.56	2.85	3.18	3.54
SMLP	Summit Midstream Partners LP	16.68	0.00%	4.45%	0.00%			(16.68)	0.00	0.00	0.00	0.00	0.00
WES	Western Midstream	26.85	6.36%	4.45%	8.01%	13.86%	5.86%	(26.85)	2.15	2.29	2.43	2.59	2.75

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 - Gas

2023 Assessment Year

Dividend	Stage 2															Stage 3		
Ticker	D ₆	D ₇	D ₈	D ₉	D ₁₀	D ₁₁	D ₁₂	D ₁₃	D ₁₄	D ₁₅	D ₁₆	D ₁₇	D ₁₈	D ₁₉	D ₂₀	D ₂₁	D ₂₂	D ₅₀₀
EPD	4.07	4.68	5.39	6.21	7.15	8.23	9.47	10.90	12.55	14.45	16.63	19.15	22.04	25.37	29.21	30.51	31.87	34,801,842,890
ET	1.47	1.61	1.76	1.93	2.11	2.31	2.53	2.77	3.03	3.32	3.64	3.98	4.36	4.78	5.23	5.46	5.71	6,232,922,657
HESM	4.07	4.55	5.08	5.68	6.34	7.08	7.91	8.84	9.87	11.02	12.31	13.75	15.36	17.16	19.17	20.02	20.91	22,837,239,042
SMLP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
WES	5.15	6.09	7.21	8.53	10.09	11.94	14.12	16.71	19.77	23.38	27.66	32.73	38.72	45.81	54.19	56.60	59.12	64,561,133,993

Earnings	Stage 2															Stage 3		
Ticker	D ₆	D ₇	D ₈	D ₉	D ₁₀	D ₁₁	D ₁₂	D ₁₃	D ₁₄	D ₁₅	D ₁₆	D ₁₇	D ₁₈	D ₁₉	D ₂₀	D ₂₁	D ₂₂	D ₅₀₀
EPD	2.42	2.52	2.63	2.75	2.86	2.99	3.12	3.25	3.39	3.54	3.69	3.85	4.01	4.19	4.37	4.56	4.77	5,203,675,620
ET	1.74	1.96	2.22	2.51	2.84	3.21	3.63	4.10	4.63	5.24	5.92	6.70	7.57	8.56	9.68	10.11	10.56	11,530,613,642
HESM	3.93	4.36	4.84	5.37	5.96	6.61	7.33	8.14	9.03	10.02	11.11	12.33	13.68	15.18	16.84	17.59	18.37	20,063,709,660
SMLP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
WES	2.92	3.10	3.30	3.50	3.72	3.95	4.20	4.46	4.74	5.04	5.35	5.68	6.04	6.41	6.81	7.12	7.43	8,115,789,089

MONTANA DEPARTMENT OF REVENUE

Support for Yield Capitalization Rate - Debt Rating

Industry: Pipelines - Gas

2023 Assessment Year

A	B	C	D	E	F
Ticker	Company	Industry Group	Financial Strength	Moody's Long Term Rating	Yield to Maturity
		<i>Value Line</i>	<i>Value Line</i>	<i>Moodys.com</i>	
EPD	Enterprise Products	PIPEMLP	B++	Ba1	7.04%
ET	Energy Transfer LP	PIPEMLP	B+	Baa2	5.59%
HESM	Hess Midstream LP	PIPEMLP	C++	Ba2	7.04%
SMLP	Summit Midstream Partners LP	PIPEMLP	C	B3	9.15%
WES	Western Midstream	PIPEMLP	B	Ba2	7.04%
All Companies					
	Average				7.17%
	Median				7.04%
	Trimmed Average				7.04%
	High				9.15%
	Low				5.59%
	Selected				7.17%

**Highlighted ratings are estimated based on financial strength and historical interest coverage ratios*

MONTANA DEPARTMENT OF REVENUE

Support for Direct Capitalization - Equity Capitalization Rates

Industry: Pipelines - Gas

2023 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Ticker	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
		Yahoo	Value Line	Value Line	C/D	C/E	1/F	1/G	Value Line	Value Line	C/J	C/K	1/L	1/M	Price x Shrs	Value Line	P/Q
EPD	Enterprise Products	24.12	2.50	2.60	9.65	9.28	10.36%	10.78%	3.22	3.60	7.49	6.70	13.35%	14.93%	52,360	25,329	2.07
ET	Energy Transfer LP	11.87	1.39	1.60	8.54	7.42	11.71%	13.48%	3.01	2.80	3.94	4.24	25.36%	23.59%	36,731	31,300	1.17
HESM	Hess Midstream LP	29.92	2.01	2.30	14.89	13.01	6.72%	7.69%	0.87	1.10	34.39	27.20	2.91%	3.68%	1,317	204	6.45
SMLP	Summit Midstream Partners LP	16.68	(12.52)	0.00	(1.33)				(0.88)	0.00	(18.95)				170	1,011	0.17
WES	Western Midstream	26.85	3.00	3.20	8.95	8.39	11.17%	11.92%	3.64	4.45	7.38	6.03	13.56%	16.57%	10,312	2,958	3.49
Average					8.14	9.52	9.99%	10.97%			6.85	11.04	13.79%	14.69%			2.67
Median					8.95	8.83	10.77%	11.35%			7.38	6.37	13.45%	15.75%			2.07
Trimmed Average					9.05	8.83	10.77%	11.35%			6.27	6.37	13.45%	15.75%			2.24
High					14.89	13.01	11.71%	13.48%			34.39	27.20	25.36%	23.59%			6.45
Low					(1.33)	7.42	6.72%	7.69%			(18.95)	4.24	2.91%	3.68%			0.17
Selected					9.00		11.12%				6.74		14.83%				2.47

MONTANA DEPARTMENT OF REVENUE

Support for Direct Capitalization - Debt Capitalization Rate

Industry: Pipelines - Gas

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
	Source	10-K	10-K	10-K	10-K	10-K	(D+F)/2	(C/H)	(F/G)
EPD	Enterprise Products	1,244	33,435	29,535	24,995	28,295	29,215	4.26%	0.88
ET	Energy Transfer LP	2,306	54,972	49,702	45,422	48,262	50,197	4.59%	0.94
HESM	Hess Midstream LP	149	2,649	2,564	2,721	2,886	2,685	5.56%	0.94
SMLP	Summit Midstream Partners LP	102	1,349	1,355	1,419	1,490	1,384	7.41%	0.95
WES	Western Midstream	334	7,794	6,907	6,115	6,785	6,954	4.80%	0.90
All Companies		4,136			80,672	87,718	90,435	4.57%	0.92
Average								5.32%	0.92
Median								4.80%	0.94
Trimmed Average								4.99%	0.93
High								7.41%	0.95
Low								4.26%	0.88
Selected								5.32%	0.92

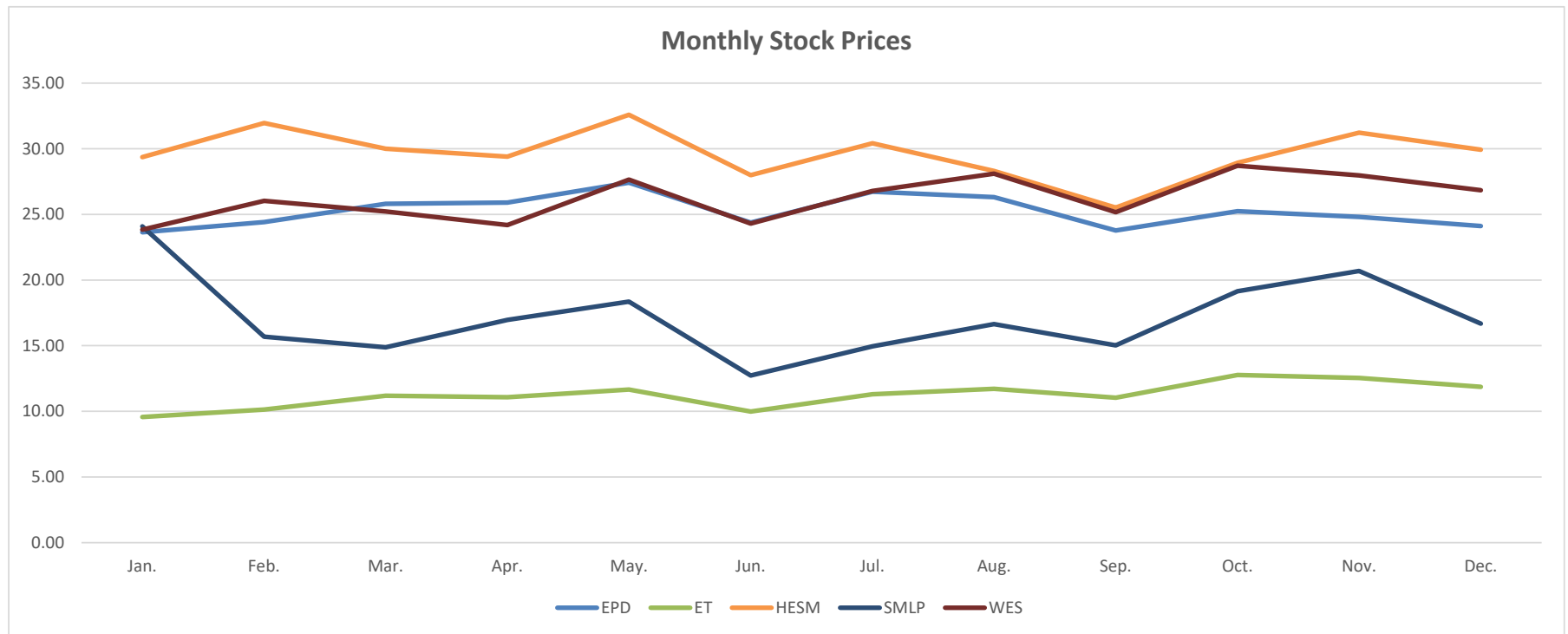
MONTANA DEPARTMENT OF REVENUE

Support of Stock Price - From YAHOO Finance

Industry: Pipelines - Gas

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.
EPD	Enterprise Products	23.64	24.42	25.81	25.91	27.42	24.37	26.73	26.32	23.78	25.25	24.81	24.12
ET	Energy Transfer LP	9.57	10.14	11.19	11.08	11.66	9.98	11.31	11.71	11.03	12.77	12.54	11.87
HESM	Hess Midstream LP	29.36	31.96	30.00	29.41	32.59	28.00	30.42	28.31	25.52	28.94	31.23	29.92
SMLP	Summit Midstream Partners LP	24.09	15.68	14.88	16.96	18.35	12.73	14.95	16.65	15.02	19.15	20.70	16.68
WES	Western Midstream	23.84	26.04	25.22	24.19	27.65	24.31	26.79	28.11	25.16	28.71	27.98	26.85



MONTANA DEPARTMENT OF REVENUE

Maintenance Capital Expenditures Estimate Based on Guideline Companies

Industry: Pipelines - Gas

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
EPD	Enterprise Products	2.45%	63,122	59,085	61,104	1,779	34	0.84	0.44	2,652	149.06%
ET	Energy Transfer LP	2.45%	105,996	103,991	104,994	3,774	28	0.68	0.51	5,249	139.10%
HESM	Hess Midstream LP	2.45%	4,571	4,341	4,456	181	25	0.60	0.55	243	134.30%
SMLP	Summit Midstream Partners LP	2.45%	2,395	2,337	2,366	93	25	0.62	0.54	127	135.38%
WES	Western Midstream	2.45%	13,366	12,846	13,106	582	23	0.55	0.58	765	131.28%
Average											137.82%
Median											135.38%
Trimmed Average											136.26%
High											149.06%
Low											131.28%
Selected											137.82%

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.