

2019

CAPITALIZATION RATE STUDY FOR CENTRALLY ASSESSED PROPERTIES

FOR: JANUARY 1, 2019



UTAH STATE TAX COMMISSION

**PROPERTY TAX DIVISION
NATURAL RESOURCES SECTION
210 NORTH 1950 WEST, THIRD FLOOR
SALT LAKE CITY, UTAH 84134**

(801) 297-3600

www.propertytax.utah.gov



UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
SUMMARY OF EQUITY RATES AND CAPITAL STRUCTURE

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Industry	Page	Debt Rate	Debt/Equity	Equity Yield Rate	WACC
COAL MINING	3	9.34%	50% / 50%	12.41%	10.88%
PRECIOUS METALS	6	6.40%	25% / 75%	8.81%	8.21%
NON-PRECIOUS METALS	9	5.13%	20% / 80%	13.37%	11.73%
NON-METALS	12	6.40%	25% / 75%	11.51%	10.23%
OIL & GAS PRODUCTION/WD	15	7.24%	45% / 55%	16.28%	12.21%
OIL & GAS GATHERING	18	6.40%	55% / 45%	14.20%	9.91%
SAND AND GRAVEL	21	6.40%	20% / 80%	12.50%	11.28%
URANIUM MINING	24	9.76%	5% / 95%	11.51%	11.42%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
KEY RATES AND FIGURES**

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CORPORATE BONDS

Aaa	4.02%
Aa	4.20%
A	4.37%
Baa	5.13%
Ba1	6.40%
Ba2	6.82%
Ba3	7.24%
B1	7.66%
B2	8.08%
B3	8.50%
Caa1	8.92%
Caa2	9.34%
Caa3	9.76%
Ca	10.18%
C	10.60%

PUBLIC UTILITY BONDS

Aaa	N/A
Aa	4.24%
A	4.37%
Baa	4.92%

PREFERRED STOCKS

Aaa	N/A
Aa	N/A
A	N/A
Baa	N/A

MISCELLANEOUS RATES

Risk-Free Rate	2.87%
Market Risk Premium	6.91%
Default Income Tax Rate	25.00%
ValueLine GDP Price Deflator Forecast	0.00%

INFLATION FACTORS

Year	4th Quarter GDP Implicit Price Deflator	Annual Percent Change	Conversion Factor
2008	94.896	N/A	1.171
2009	95.269	0.39%	1.167
2010	96.781	1.59%	1.149
2011	98.676	1.96%	1.127
2012	100.728	2.08%	1.104
2013	102.551	1.81%	1.084
2014	104.184	1.59%	1.067
2015	105.097	0.88%	1.058
2016	106.703	1.53%	1.042
2017	108.807	1.97%	1.022
2018	111.161	2.16%	1.000

2019 - 2009 Average Change: 1.60%

Source:

U.S. Department of Commerce: Bureau of Economic Analysis
Gross Domestic Product: Implicit Price Deflator

Website:

<http://alfred.stlouisfed.org/series?seid=GDPDEF>

MISCELLANEOUS INFORMATION

NOMINAL RATE (NR) = Includes both the real rate and the impact of inflation (IR).

REAL RATE = $[(1+NR)/(1+IR)] - 1$

Coal Example = $[(1+0.1088)/(1+0.0160)] - 1 = 0.0913$

INDUSTRY	NOMINAL	REAL
Coal	10.88%	9.13%
Precious Metals	8.21%	6.51%
Non-Precious Metals	11.73%	9.97%
Non-Metals	10.23%	8.49%
Oil & Gas Production/WD	12.21%	10.44%
Oil & Gas Gathering	9.91%	8.18%
Sand & Gravel	11.28%	9.53%
Uranium	11.42%	9.67%

(tax-adjusted)

Coal	12.95%	11.17%
Precious Metals	10.41%	8.67%
Non-Precious Metals	15.29%	13.47%
Non-Metals	13.11%	11.33%
Oil & Gas Production/WD	15.20%	13.39%
Oil & Gas Gathering	12.04%	10.28%
Sand & Gravel	14.62%	12.81%
Uranium	15.07%	13.26%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
COAL MINING -- EQUITY RATE MODELS**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				12.41%
CAPM: Supply Side				11.34%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				11.09%
DGM: Earnings & Dividend				16.91%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				12.41%
Reconciled Equity Rate	12.41%	50.00%	6.21%	
Debt Rate (Corporate Caa2)	9.34%	50.00%	4.67%	
Weighted Average Cost of Capital				10.88%
Reconciled Equity Rate	12.41%			
Tax-Adjusted (25.00%)	16.55%	50.00%	8.28%	
Industry Debt Rate	9.34%	50.00%	4.67%	
Tax-Adjusted Weighted Average Cost of Capital				12.95%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Alliance Resource	NMF	1.00 (B+)	1.15
Cloud Peak Energy Inc	NMF	1.33 (C+)	1.35
CONSOL Coal Resources LP	NMF	1.22 (C++)	1.25
SunCoke Energy Inc	NMF	1.22 (C++)	1.75
Mean	25.00%	1.19	1.38

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	1.38
Industry Risk Premium	9.54%
Add: Risk-Free Rate	2.87%
Indicated Rate	12.41%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	1.38
Industry Risk Premium	8.47%
Add: Risk-Free Rate	2.87%
Indicated Rate	11.34%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.38
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	1.19
Industry Risk Premium	8.22%
Add: Risk-Free Rate	2.87%
Indicated Rate	11.09%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
COAL MINING -- DIVIDEND GROWTH MODELS**

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DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Alliance Resource	\$17.68	\$2.15	6.50%	3.00%	4.75%	16.91%
Cloud Peak Energy Inc	\$0.37	-	-	-	-	-
CONSOL Coal Resources LP	\$16.34	-	-	-	-	-
SunCoke Energy Inc	\$8.50	-	-	-	-	-
Indicated Rate						16.91%

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Alliance Resource	\$17.68	\$2.15	-	-	-	-
Cloud Peak Energy Inc	\$0.37	-	-	-	-	-
CONSOL Coal Resources LP	\$16.34	-	-	-	-	-
SunCoke Energy Inc	\$8.50	-	-	-	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE COAL MINING INDUSTRY



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
COAL MINING -- CAPITAL STRUCTURE**

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CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Alliance Resource	418.9	39.4	4.70%	421.4	-	-	-	17.68	130.7	2,310.8
Cloud Peak Energy Inc	403.7	-	-	403.7	-	-	-	0.37	75.2	27.8
CONSOL Coal Resources LP	176.5	-	-	176.5	-	-	-	16.34	27.4	447.7
SunCoke Energy Inc	796.0	-	-	796.0	-	-	-	8.50	64.5	548.3
Total				1,797.6			-			3,334.6

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Alliance Resource	15.42%	84.58%
Cloud Peak Energy Inc	93.56%	6.44%
CONSOL Coal Resources LP	28.28%	71.72%
SunCoke Energy Inc	59.21%	40.79%
Mean	49.12%	50.88%
Weighted Mean	35.03%	64.97%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 9.34% (Corporate Caa2)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
PRECIOUS METALS -- EQUITY RATE MODELS**

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RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				8.81%
CAPM: Supply Side				8.15%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.33%
DGM: Earnings & Dividend				13.07%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				8.81%
Reconciled Equity Rate	8.81%	75.00%		6.61%
Debt Rate (Corporate Ba1)	6.40%	25.00%		1.60%
Weighted Average Cost of Capital				8.21%
Reconciled Equity Rate	8.81%			
Tax-Adjusted (25.00%)	11.75%	75.00%		8.81%
Industry Debt Rate	6.40%	25.00%		1.60%
Tax-Adjusted Weighted Average Cost of Capital				10.41%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Agnico Eagle Mines	32.16%	1.00 (B+)	0.55
Barrick Gold	52.70%	1.11 (B)	0.70
Coeur Mining Inc.	72.64%	1.11 (B)	1.30
Goldcorp Inc.	NMF	0.89 (B++)	0.70
Hecla Mining	NMF	1.11 (B)	1.25
Kinross Gold	28.54%	1.22 (C++)	0.80
Newmont Mining	30.86%	1.00 (B+)	0.85
Pretium Resources	NMF	1.22 (C++)	0.70
Selected	25.00%	1.08	0.86

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	0.86
Industry Risk Premium	5.94%
Add: Risk-Free Rate	2.87%
Indicated Rate	8.81%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	0.86
Industry Risk Premium	5.28%
Add: Risk-Free Rate	2.87%
Indicated Rate	8.15%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	0.86
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	1.08
Industry Risk Premium	7.46%
Add: Risk-Free Rate	2.87%
Indicated Rate	10.33%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
PRECIOUS METALS -- DIVIDEND GROWTH MODELS**

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DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Agnico Eagle Mines	\$40.28	\$0.44	21.00%	9.00%	15.00%	16.09%
Barrick Gold	\$13.12	\$0.16	-2.00%	10.00%	4.00%	5.22%
Coeur Mining Inc.	\$4.42	-	-	-	-	-
Goldcorp Inc.	\$9.67	\$0.08	30.00%	-4.00%	13.00%	13.83%
Hecla Mining	\$2.33	-	1.00%	-	1.00%	-
Kinross Gold	\$3.18	-	37.50%	-	37.50%	-
Newmont Mining	\$34.47	\$0.56	5.00%	26.00%	15.50%	17.12%
Pretium Resources	\$8.15	-	-	-	-	-
Indicated Rate						13.07%

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Agnico Eagle Mines	\$40.28	\$0.44	-	-	-	-
Barrick Gold	\$13.12	\$0.16	-	-	-	-
Coeur Mining Inc.	\$4.42	-	-	-	-	-
Goldcorp Inc.	\$9.67	\$0.08	-	-	-	-
Hecla Mining	\$2.33	-	-	-	-	-
Kinross Gold	\$3.18	-	-	-	-	-
Newmont Mining	\$34.47	\$0.56	-	-	-	-
Pretium Resources	\$8.15	-	-	-	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE PRECIOUS METALS INDUSTRY



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
PRECIOUS METALS -- CAPITAL STRUCTURE**

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CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Agnico Eagle Mines	1,724.2	78.9	2.29%	1,372.2	-	-	-	40.28	232.3	9,357.0
Barrick Gold	5,745.0	525.0	4.57%	7,505.8	-	-	-	13.12	1,166.6	15,305.8
Coeur Mining Inc.	429.2	-	-	429.2	-	-	-	4.42	185.6	820.4
Goldcorp Inc.	2,969.0	129.0	2.17%	2,286.1	-	-	-	9.67	867.3	8,386.8
Hecla Mining	548.8	-	-	548.8	-	-	-	2.33	399.2	930.1
Kinross Gold	1,798.7	86.0	2.39%	1,472.8	-	-	-	3.18	1,247.0	3,965.5
Newmont Mining	4,063.0	200.0	2.46%	3,391.1	-	-	-	34.47	533.1	18,376.0
Pretium Resources	708.5	54.0	3.81%	805.4	-	-	-	8.15	182.3	1,485.7
Total				17,811.4			-			58,627.3

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Agnico Eagle Mines	12.79%	87.21%
Barrick Gold	32.90%	67.10%
Coeur Mining Inc.	34.35%	65.65%
Goldcorp Inc.	21.42%	78.58%
Hecla Mining	37.11%	62.89%
Kinross Gold	27.08%	72.92%
Newmont Mining	15.58%	84.42%
Pretium Resources	35.15%	64.85%
Mean	27.05%	72.95%
Weighted Mean	23.30%	76.70%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.40% (Corporate Ba1)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
NON-PRECIOUS METALS -- EQUITY RATE MODELS**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				13.37%
CAPM: Supply Side				12.20%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				9.78%
DGM: Earnings & Dividend				21.42%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				13.37%
Reconciled Equity Rate	13.37%	80.00%	10.70%	
Debt Rate (Corporate Baa)	5.13%	20.00%	1.03%	
Weighted Average Cost of Capital				11.73%
Reconciled Equity Rate	13.37%			
Tax-Adjusted (25.00%)	17.83%	80.00%	14.26%	
Industry Debt Rate	5.13%	20.00%	1.03%	
Tax-Adjusted Weighted Average Cost of Capital				15.29%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
BHP Group Ltd. ADR	47.50%	1.00 (B+)	1.40
Freeport-McMoRan Inc.	44.03%	1.22 (C++)	2.10
Materion Corp.	32.52%	1.00 (B+)	1.40
Rio Tinto plc	27.45%	0.78 (A)	1.30
Southern Copper	36.71%	0.89 (B++)	1.25
Teck Resources 'B'	36.97%	0.89 (B++)	1.60
Vale S.A. ADR	NMF	1.22 (C++)	1.60
Selected	25.00%	1.00	1.52

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	1.52
Industry Risk Premium	10.50%
Add: Risk-Free Rate	2.87%
Indicated Rate	13.37%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	1.52
Industry Risk Premium	9.33%
Add: Risk-Free Rate	2.87%
Indicated Rate	12.20%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.52
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	1.00
Industry Risk Premium	6.91%
Add: Risk-Free Rate	2.87%
Indicated Rate	9.78%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
NON-PRECIOUS METALS -- DIVIDEND GROWTH MODELS**

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DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
BHP Group Ltd. ADR	\$47.92	\$2.16	37.50%	10.50%	24.00%	28.51%
Freep't-McMoRan Inc.	\$10.47	\$0.24	-	17.50%	17.50%	19.79%
Materion Corp.	\$44.66	\$0.42	14.50%	5.00%	9.75%	10.69%
Rio Tinto plc	\$48.21	\$3.12	11.50%	11.50%	11.50%	17.97%
Southern Copper	\$30.59	\$1.60	22.50%	30.00%	26.25%	31.48%
Teck Resources 'B'	\$28.78	\$0.20	22.00%	-2.00%	10.00%	10.69%
Vale S.A. ADR	\$13.02	\$0.72	20.50%	30.00%	25.25%	30.78%
Indicated Rate						21.42%

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
BHP Group Ltd. ADR	\$47.92	\$2.16	-	-	-	-
Freep't-McMoRan Inc.	\$10.47	\$0.24	-	-	-	-
Materion Corp.	\$44.66	\$0.42	-	-	-	-
Rio Tinto plc	\$48.21	\$3.12	-	-	-	-
Southern Copper	\$30.59	\$1.60	-	-	-	-
Teck Resources 'B'	\$28.78	\$0.20	-	-	-	-
Vale S.A. ADR	\$13.02	\$0.72	-	-	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE NON-PRECIOUS METALS INDUSTRY



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
NON-PRECIOUS METALS -- CAPITAL STRUCTURE**

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CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
BHP Group Ltd. ADR	26,805.0	1,500.0	2.80%	28,355.7	-	-	-	47.92	2,661.8	127,553.5
Freep't-McMoRan Inc.	11,127.0	800.0	3.59%	13,972.4	-	-	-	10.47	1,448.0	15,160.6
Materion Corp.	3.1	0.2	3.23%	3.6	-	-	-	44.66	20.1	897.7
Rio Tinto plc	13,726.0	1,200.0	4.37%	19,882.1	-	-	-	48.21	1,754.5	84,584.4
Southern Copper	5,959.3	280.0	2.35%	5,640.1	-	-	-	30.59	773.0	23,646.1
Teck Resources 'B'	5,235.0	225.0	2.15%	4,694.3	-	-	-	28.78	565.5	16,275.1
Vale S.A. ADR	16,810.0	950.0	2.83%	17,898.1	-	-	-	13.02	5,197.4	67,670.1
Total				90,446.3			-			335,787.5

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
BHP Group Ltd. ADR	18.19%	81.81%
Freep't-McMoRan Inc.	47.96%	52.04%
Materion Corp.	0.40%	99.60%
Rio Tinto plc	19.03%	80.97%
Southern Copper	19.26%	80.74%
Teck Resources 'B'	22.39%	77.61%
Vale S.A. ADR	20.92%	79.08%
Mean	21.16%	78.84%
Weighted Mean	21.22%	78.78%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.13% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
NON-METALS -- EQUITY RATE MODELS**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				11.51%
CAPM: Supply Side				10.55%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				9.57%
DGM: Earnings & Dividend				10.69%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				11.51%
Reconciled Equity Rate	11.51%	75.00%	8.63%	
Debt Rate (Corporate Ba1)	6.40%	25.00%	1.60%	
Weighted Average Cost of Capital				10.23%
Reconciled Equity Rate	11.51%			
Tax-Adjusted (25.00%)	15.35%	75.00%	11.51%	
Industry Debt Rate	6.40%	25.00%	1.60%	
Tax-Adjusted Weighted Average Cost of Capital				13.11%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Cenovus Energy	NMF	1.11 (B)	1.20
Compass Minerals Int'l	NMF	1.00 (B+)	1.00
Eagle Materials	27.70%	0.78 (A)	1.45
Intrepid Potash Inc	NMF	1.11 (B)	1.40
Martin Marietta	26.44%	0.78 (A)	1.20
Mosaic Company	NMF	1.00 (B+)	1.35
USG Corp.	30.35%	1.11 (B)	1.20
Vulcan Materials	NMF	0.89 (B++)	1.20
Selected	25.00%	0.97	1.25

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	1.25
Industry Risk Premium	8.64%
Add: Risk-Free Rate	2.87%
Indicated Rate	11.51%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	1.25
Industry Risk Premium	7.68%
Add: Risk-Free Rate	2.87%
Indicated Rate	10.55%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.25
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	0.97
Industry Risk Premium	6.70%
Add: Risk-Free Rate	2.87%
Indicated Rate	9.57%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
NON-METALS -- DIVIDEND GROWTH MODELS**

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Cenovus Energy	\$9.38	\$0.20	7.50%	-11.50%	-2.00%	-
Compass Minerals Int'l	\$41.14	\$3.00	10.50%	4.00%	7.25%	14.54%
Eagle Materials	\$60.74	\$0.40	10.50%	6.50%	8.50%	9.16%
Intrepid Potash Inc	\$2.66	-	-	-	-	-
Martin Marietta	\$168.17	\$1.94	13.00%	5.00%	9.00%	10.15%
Mosaic Company	\$28.82	\$0.20	12.00%	-8.50%	1.75%	2.44%
USG Corp.	\$42.70	-	12.00%	-	12.00%	-
Vulcan Materials	\$97.07	\$1.12	18.00%	14.00%	16.00%	17.15%
Indicated Rate						10.69%

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Cenovus Energy	\$9.38	\$0.20	-	-	-	-
Compass Minerals Int'l	\$41.14	\$3.00	-	-	-	-
Eagle Materials	\$60.74	\$0.40	-	-	-	-
Intrepid Potash Inc	\$2.66	-	-	-	-	-
Martin Marietta	\$168.17	\$1.94	-	-	-	-
Mosaic Company	\$28.82	\$0.20	-	-	-	-
USG Corp.	\$42.70	-	-	-	-	-
Vulcan Materials	\$97.07	\$1.12	-	-	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE NON-METALS INDUSTRY



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
NON-METALS -- CAPITAL STRUCTURE**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Cenovus Energy	9,824.0	535.0	2.72%	8,774.8	8,268.0	-	-	9.38	1,228.8	11,526.1
Compass Minerals Int'l	1,340.2	60.0	2.24%	1,051.7	-	-	-	41.14	33.8	1,390.5
Eagle Materials	631.3	27.0	2.14%	481.3	452.0	-	-	60.74	48.3	2,933.7
Intrepid Potash Inc	59.5	-	-	59.5	59.5	-	-	2.66	127.6	339.4
Martin Marietta	3,209.7	139.0	2.17%	2,466.3	2,316.7	-	-	168.17	62.9	10,577.9
Mosaic Company	4,610.0	175.0	1.90%	3,266.4	3,062.7	-	-	28.82	351.0	10,115.8
USG Corp.	1,079.0	52.0	2.41%	888.1	835.5	-	-	42.70	140.9	6,016.4
Vulcan Materials	2,978.1	295.5	4.96%	4,152.2	3,938.8	-	-	97.07	132.3	12,842.4
Total				21,140.3			-			55,742.2

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Cenovus Energy	43.22%	56.78%
Compass Minerals Int'l	43.06%	56.94%
Eagle Materials	14.09%	85.91%
Intrepid Potash Inc	14.92%	85.08%
Martin Marietta	18.91%	81.09%
Mosaic Company	24.41%	75.59%
USG Corp.	12.86%	87.14%
Vulcan Materials	24.43%	75.57%
Mean	24.49%	75.51%
Weighted Mean	27.50%	72.50%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.40% (Corporate Ba1)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
OIL & GAS PRODUCTION/WD -- EQUITY RATE MODELS**

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RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				16.28%
CAPM: Supply Side				14.78%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.82%
DGM: Earnings & Dividend				45.46%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				16.28%
Reconciled Equity Rate	16.28%	55.00%	8.95%	
Debt Rate (Corporate Ba3)	7.24%	45.00%	3.26%	
Weighted Average Cost of Capital				12.21%
Reconciled Equity Rate	16.28%			
Tax-Adjusted (25.00%)	21.71%	55.00%	11.94%	
Industry Debt Rate	7.24%	45.00%	3.26%	
Tax-Adjusted Weighted Average Cost of Capital				15.20%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Abraxas Petrol	NMF	1.22 (C++)	2.05
Black Stone Minerals	NMF	1.11 (B)	0.90
Carrizo Oil & Gas	NMF	1.22 (C++)	2.10
Continental Resources	43.95%	1.11 (B)	1.85
Denbury Resources	35.78%	1.44 (C)	2.40
Encana Corp.	58.83%	1.00 (B+)	1.80
Legacy Reserves	NMF	1.33 (C+)	2.05
Newfield Exploration	NMF	1.00 (B+)	1.90
Pioneer Natural Res.	35.71%	0.89 (B++)	1.45
QEP Resources	NMF	1.11 (B)	1.85
Resolute Energy Corp	NMF	1.22 (C++)	2.35
SM Energy Co.	NMF	1.22 (C++)	2.30
Southwestern Energy	37.93%	1.11 (B)	1.45
Whiting Petroleum	NMF	1.22 (C++)	2.50
WPX Energy	NMF	1.11 (B)	2.10
Selected	25.00%	1.15	1.94

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	1.94
Industry Risk Premium	13.41%
Add: Risk-Free Rate	2.87%
Indicated Rate	16.28%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	1.94
Industry Risk Premium	11.91%
Add: Risk-Free Rate	2.87%
Indicated Rate	14.78%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.94
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	1.15
Industry Risk Premium	7.95%
Add: Risk-Free Rate	2.87%
Indicated Rate	10.82%



UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
OIL & GAS PRODUCTION/WD -- DIVIDEND GROWTH MODELS

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Abraxas Petrol	\$1.09	-	-	-	-	-
Black Stone Minerals	\$15.63	\$1.48	34.50%	11.50%	23.00%	32.47%
Carrizo Oil & Gas	\$11.27	-	-	-	-	-
Continental Resources	\$39.79	-	-	-	-	-
Denbury Resources	\$1.72	-	29.00%	-	29.00%	-
Encana Corp.	\$5.82	\$0.06	52.00%	-1.50%	25.25%	26.28%
Legacy Reserves	\$1.22	-	-	-	-	-
Newfield Exploration	\$14.33	-	25.00%	-	25.00%	-
Pioneer Natural Res.	\$130.51	\$0.50	77.00%	77.50%	77.25%	77.63%
QEP Resources	\$5.60	-	-	-	-	-
Resolute Energy Corp	\$28.84	-	-	-	-	-
SM Energy Co.	\$15.36	-	10.00%	-	10.00%	-
Southwestern Energy	\$3.53	-	36.00%	-	36.00%	-
Whiting Petroleum	\$22.21	-	-	-	-	-
WPX Energy	\$11.04	-	-	-	-	-
Indicated Rate						45.46%

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Abraxas Petrol	\$1.09	-	-	-	-	-
Black Stone Minerals	\$15.63	\$1.48	-	-	-	-
Carrizo Oil & Gas	\$11.27	-	-	-	-	-
Continental Resources	\$39.79	-	-	-	-	-
Denbury Resources	\$1.72	-	-	-	-	-
Encana Corp.	\$5.82	\$0.06	-	-	-	-
Legacy Reserves	\$1.22	-	-	-	-	-
Newfield Exploration	\$14.33	-	-	-	-	-
Pioneer Natural Res.	\$130.51	\$0.50	-	-	-	-
QEP Resources	\$5.60	-	-	-	-	-
Resolute Energy Corp	\$28.84	-	-	-	-	-
SM Energy Co.	\$15.36	-	-	-	-	-
Southwestern Energy	\$3.53	-	-	-	-	-
Whiting Petroleum	\$22.21	-	-	-	-	-
WPX Energy	\$11.04	-	-	-	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE OIL & GAS PRODUCTION/WD INDUSTRY



UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
OIL & GAS PRODUCTION/WD -- CAPITAL STRUCTURE

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CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Abraxas Petrol	115.5	-	-	115.5	-	-	-	1.09	165.9	180.8
Black Stone Minerals	421.0	18.6	2.21%	296.5	-	-	-	15.63	198.8	3,107.2
Carrizo Oil & Gas	1,502.3	-	-	1,502.3	-	-	-	11.27	81.5	918.5
Continental Resources	6,166.5	290.0	2.35%	4,526.6	-	-	-	39.79	375.2	14,929.2
Denbury Resources	2,800.9	95.0	1.70%	1,671.1	-	-	-	1.72	402.1	691.6
Encana Corp.	4,198.0	205.0	2.44%	3,161.0	-	-	-	5.82	973.1	5,663.4
Legacy Reserves	784.8	-	-	784.8	-	-	-	1.22	72.6	88.6
Newfield Exploration	2,436.0	115.0	2.36%	1,792.8	-	-	-	14.33	199.7	2,861.7
Pioneer Natural Res.	2,285.0	130.0	2.84%	1,913.6	-	-	-	130.51	170.2	22,212.8
QEP Resources	2,451.1	150.0	3.06%	2,163.3	-	-	-	5.60	241.0	1,349.6
Resolute Energy Corp	668.8	-	-	668.8	-	-	-	28.84	22.5	648.9
SM Energy Co.	2,915.7	-	-	2,915.7	-	-	-	15.36	111.7	1,715.7
Southwestern Energy	3,572.0	250.0	3.50%	3,481.7	-	-	-	3.53	512.1	1,807.7
Whiting Petroleum	2,778.2	190.0	3.42%	2,661.4	-	-	-	22.21	90.7	2,014.4
WPX Energy	2,243.0	189.0	4.21%	2,521.9	-	-	-	11.04	398.3	4,397.2
Total				30,177.0						62,587.3

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Abraxas Petrol	38.98%	61.02%
Black Stone Minerals	8.71%	91.29%
Carrizo Oil & Gas	62.06%	37.94%
Continental Resources	23.27%	76.73%
Denbury Resources	70.73%	29.27%
Encana Corp.	35.82%	64.18%
Legacy Reserves	89.86%	10.14%
Newfield Exploration	38.52%	61.48%
Pioneer Natural Res.	7.93%	92.07%
QEP Resources	61.58%	38.42%
Resolute Energy Corp	50.76%	49.24%
SM Energy Co.	62.96%	37.04%
Southwestern Energy	65.82%	34.18%
Whiting Petroleum	56.92%	43.08%
WPX Energy	36.45%	63.55%
Mean	47.36%	52.64%
Weighted Mean	32.53%	67.47%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 7.24% (Corporate Ba3)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
OIL & GAS GATHERING -- EQUITY RATE MODELS**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				14.20%
CAPM: Supply Side				12.94%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.33%
DGM: Earnings & Dividend				19.60%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				14.20%
Reconciled Equity Rate	14.20%	45.00%	6.39%	
Debt Rate (Corporate Ba1)	6.40%	55.00%	3.52%	
Weighted Average Cost of Capital				9.91%
Reconciled Equity Rate	14.20%			
Tax-Adjusted (25.00%)	18.93%	45.00%	8.52%	
Industry Debt Rate	6.40%	55.00%	3.52%	
Tax-Adjusted Weighted Average Cost of Capital				12.04%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Crestwood Equity Partners LP	NMF	1.22 (C++)	1.65
Dominion Energy Midstream	NMF	1.11 (B)	1.20
Energy Transfer LP	NMF	1.00 (B+)	2.20
Plains All Amer. Pipe.	NMF	1.00 (B+)	1.50
Summit Midstream Partners LP	NMF	1.22 (C++)	1.55
Tallgrass Energy LP	48.21%	1.11 (B)	1.65
Western Gas Equity Partners LP	NMF	1.00 (B+)	1.45
Williams Cos.	27.03%	1.00 (B+)	1.95
Selected	25.00%	1.08	1.64

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	1.64
Industry Risk Premium	11.33%
Add: Risk-Free Rate	2.87%
Indicated Rate	14.20%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	1.64
Industry Risk Premium	10.07%
Add: Risk-Free Rate	2.87%
Indicated Rate	12.94%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.64
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	1.08
Industry Risk Premium	7.46%
Add: Risk-Free Rate	2.87%
Indicated Rate	10.33%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
OIL & GAS GATHERING -- DIVIDEND GROWTH MODELS**

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DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Crestwood Equity Partners LP	\$28.51	-	5.00%	-	5.00%	-
Dominion Energy Midstream	\$18.50	-	-	-	-	-
Energy Transfer LP	\$12.77	\$1.24	17.50%	7.50%	12.50%	22.21%
Plains All Amer. Pipe.	\$19.98	\$1.25	23.00%	0.50%	11.75%	18.01%
Summit Midstream Partners LP	\$10.80	-	-	-	-	-
Tallgrass Energy LP	\$23.83	-	-	-	-	-
Western Gas Equity Partners LP	\$27.66	-	-	-	-	-
Williams Cos.	\$21.48	\$1.36	22.50%	2.00%	12.25%	18.58%
Indicated Rate						19.60%

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Crestwood Equity Partners LP	\$28.51	-	-	-	-	-
Dominion Energy Midstream	\$18.50	-	-	-	-	-
Energy Transfer LP	\$12.77	\$1.24	-	-	-	-
Plains All Amer. Pipe.	\$19.98	\$1.25	-	-	-	-
Summit Midstream Partners LP	\$10.80	-	-	-	-	-
Tallgrass Energy LP	\$23.83	-	-	-	-	-
Western Gas Equity Partners LP	\$27.66	-	-	-	-	-
Williams Cos.	\$21.48	\$1.36	-	-	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE OIL & GAS GATHERING INDUSTRY



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
OIL & GAS GATHERING -- CAPITAL STRUCTURE**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Crestwood Equity Partners LP	1,676.0	-	-	1,676.0	-	-	-	28.51	70.7	2,015.7
Dominion Energy Midstream	2,783.5	-	-	2,783.5	-	-	-	18.50	99.8	1,846.3
Energy Transfer LP	44,772.0	1,775.0	1.98%	32,567.4	-	-	-	12.77	1,079.1	13,780.1
Plains All Amer. Pipe.	9,569.0	406.0	2.12%	7,258.7	-	-	-	19.98	725.2	14,489.5
Summit Midstream Partners LP	1,175.3	-	-	1,175.3	-	-	-	10.80	74.6	805.7
Tallgrass Energy LP	3,033.7	-	-	3,033.7	-	-	-	23.83	58.1	1,384.5
Western Gas Equity Partners LP	4,566.5	-	-	4,566.5	-	-	-	27.66	218.9	6,054.8
Williams Cos.	22,265.0	1,300.0	2.92%	20,866.4	-	-	-	21.48	826.0	17,742.5
Total				73,927.5				-		58,119.1

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Crestwood Equity Partners LP	45.40%	54.60%
Dominion Energy Midstream	60.12%	39.88%
Energy Transfer LP	70.27%	29.73%
Plains All Amer. Pipe.	33.38%	66.62%
Summit Midstream Partners LP	59.33%	40.67%
Tallgrass Energy LP	68.66%	31.34%
Western Gas Equity Partners LP	42.99%	57.01%
Williams Cos.	54.05%	45.95%
Mean	54.27%	45.73%
Weighted Mean	55.99%	44.01%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.40% (Corporate Ba1)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
SAND AND GRAVEL -- EQUITY RATE MODELS**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				12.27%
CAPM: Supply Side				11.22%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				9.02%
DGM: Earnings & Dividend				13.19%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				12.50%
Reconciled Equity Rate	12.50%	80.00%	10.00%	
Debt Rate (Corporate Ba1)	6.40%	20.00%	1.28%	
Weighted Average Cost of Capital				11.28%
Reconciled Equity Rate	12.50%			
Tax-Adjusted (25.00%)	16.67%	80.00%	13.34%	
Industry Debt Rate	6.40%	20.00%	1.28%	
Tax-Adjusted Weighted Average Cost of Capital				14.62%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Eagle Materials	27.70%	0.78 (A)	1.45
Granite Construction	27.44%	1.00 (B+)	1.30
Martin Marietta	26.44%	0.78 (A)	1.20
Summit Materials	NMF	1.00 (B+)	1.65
Vulcan Materials	NMF	0.89 (B++)	1.20
Selected	25.00%	0.89	1.36

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	1.36
Industry Risk Premium	9.40%
Add: Risk-Free Rate	2.87%
Indicated Rate	12.27%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	1.36
Industry Risk Premium	8.35%
Add: Risk-Free Rate	2.87%
Indicated Rate	11.22%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.36
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	0.89
Industry Risk Premium	6.15%
Add: Risk-Free Rate	2.87%
Indicated Rate	9.02%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
SAND AND GRAVEL -- DIVIDEND GROWTH MODELS**

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DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Eagle Materials	\$60.74	\$0.40	10.50%	6.50%	8.50%	9.16%
Granite Construction	\$39.99	\$0.52	26.50%	3.50%	15.00%	16.30%
Martin Marietta	\$168.17	\$1.94	13.00%	5.00%	9.00%	10.15%
Summit Materials	\$12.30	-	18.50%	-	18.50%	-
Vulcan Materials	\$97.07	\$1.12	18.00%	14.00%	16.00%	17.15%
Indicated Rate						13.19%

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Eagle Materials	\$60.74	\$0.40	-	-	-	-
Granite Construction	\$39.99	\$0.52	-	-	-	-
Martin Marietta	\$168.17	\$1.94	-	-	-	-
Summit Materials	\$12.30	-	-	-	-	-
Vulcan Materials	\$97.07	\$1.12	-	-	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE SAND AND GRAVEL INDUSTRY



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
SAND AND GRAVEL -- CAPITAL STRUCTURE**

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CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Eagle Materials	631.3	27.0	2.14%	481.3	-	-	-	60.74	48.3	2,933.7
Granite Construction	433.7	20.0	2.31%	346.9	-	-	-	39.99	39.9	1,595.6
Martin Marietta	3,209.7	139.0	2.17%	2,466.3	-	-	-	168.17	62.9	10,577.9
Summit Materials	1,813.0	112.0	3.09%	1,767.9	-	-	-	12.30	110.4	1,357.9
Vulcan Materials	2,978.1	295.5	4.96%	4,152.2	-	-	-	97.07	132.3	12,842.4
Total				9,214.6			-			29,307.5

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Eagle Materials	14.09%	85.91%
Granite Construction	17.86%	82.14%
Martin Marietta	18.91%	81.09%
Summit Materials	56.56%	43.44%
Vulcan Materials	24.43%	75.57%
Mean	26.37%	73.63%
Weighted Mean	23.92%	76.08%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.40% (Corporate Ba1)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
URANIUM MINING -- EQUITY RATE MODELS**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				11.51%
CAPM: Supply Side				10.55%
CAPM: Implied ERP				2.87%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				9.78%
DGM: Earnings & Dividend				N/A
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				11.51%
Reconciled Equity Rate	11.51%	95.00%	10.93%	
Debt Rate (Corporate Caa3)	9.76%	5.00%	0.49%	
Weighted Average Cost of Capital				11.42%
Reconciled Equity Rate	11.51%			
Tax-Adjusted (25.00%)	15.35%	95.00%	14.58%	
Industry Debt Rate	9.76%	5.00%	0.49%	
Tax-Adjusted Weighted Average Cost of Capital				15.07%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Cameco Corp.	NMF	1.00 (B+)	1.25
Mean	25.00%	1.00	1.25

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	6.91%
x Industry Beta	1.25
Industry Risk Premium	8.64%
Add: Risk-Free Rate	2.87%
Indicated Rate	11.51%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.14%
x Industry Beta	1.25
Industry Risk Premium	7.68%
Add: Risk-Free Rate	2.87%
Indicated Rate	10.55%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.25
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.87%
Indicated Rate	2.87%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	6.91%
x Industry Financial Strength	1.00
Industry Risk Premium	6.91%
Add: Risk-Free Rate	2.87%
Indicated Rate	9.78%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
URANIUM MINING -- DIVIDEND GROWTH MODELS**

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Cameco Corp.	\$15.23	\$0.08	14.50%	-23.50%	-4.50%	-
Indicated Rate						N/A

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Cameco Corp.	\$15.23	\$0.08	0.00%	0.00%	-	-
Indicated Rate						N/A

COMMENTS ABOUT THE URANIUM MINING INDUSTRY



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
URANIUM MINING -- CAPITAL STRUCTURE**

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CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Cameco Corp.	1,549.2	75.0	2.42%	884.5	-	-	-	15.23	395.8	6,028.0
Total				884.5		-				6,028.0

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Cameco Corp.	12.80%	87.20%
Mean	12.80%	87.20%
Weighted Mean	12.80%	87.20%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 9.76% (Corporate Caa3)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)