

2018

CAPITALIZATION RATE STUDY FOR CENTRALLY ASSESSED PROPERTIES

FOR: JANUARY 1, 2018



UTAH STATE TAX COMMISSION

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

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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	7.88%	50% / 50%	12.76%	10.32%
PRECIOUS METALS	6	6.92%	25% / 75%	8.59%	8.17%
NON-PRECIOUS METALS	9	6.92%	25% / 75%	13.19%	11.62%
NON-METALS	12	6.92%	15% / 85%	11.35%	10.69%
OIL & GAS PRODUCTION/WD	15	7.88%	45% / 55%	16.15%	12.43%
OIL & GAS GATHERING	18	6.92%	40% / 60%	13.11%	10.64%
SAND AND GRAVEL	21	6.92%	15% / 85%	12.34%	11.53%
URANIUM MINING	24	9.47%	5% / 95%	12.69%	12.53%



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

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CORPORATE BONDS

Aaa	3.51%
Aa	3.61%
A	3.79%
Baa	4.22%
Ba1	6.92%
Ba2	6.92%
Ba3	6.92%
B1	7.88%
B2	7.88%
B3	7.88%
Caa1	9.47%
Caa2	9.47%
Caa3	9.47%
Ca	12.38%
C	12.54%

PUBLIC UTILITY BONDS

Aaa	N/A
Aa	3.62%
A	3.79%
Baa	4.14%

PREFERRED STOCKS

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

MISCELLANEOUS RATES

Risk-Free Rate	2.58%
Market Risk Premium	7.07%
Default Income Tax Rate	25.00%
ValueLine GDP Price Deflator Forecast	2.30%

INFLATION FACTORS

Year	4th Quarter GDP Implicit Price Deflator	Annual Percent Change	Conversion Factor
2007	97.950	N/A	1.167
2008	99.810	1.90%	1.145
2009	100.180	0.37%	1.141
2010	101.960	1.78%	1.121
2011	103.910	1.91%	1.100
2012	105.940	1.95%	1.079
2013	107.670	1.63%	1.061
2014	109.360	1.57%	1.045
2015	110.510	1.05%	1.034
2016	112.190	1.52%	1.019
2017	114.290	1.87%	1.000

2018 - 2008 Average Change: 1.56%

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).

$$\text{REAL RATE} = [(1+NR)/(1+IR)] - 1$$

$$\text{Coal Example} = [(1+0.1032)/(1+0.0156)] - 1 = 0.0864$$

INDUSTRY	NOMINAL	REAL
Coal	10.32%	8.64%
Precious Metals	8.17%	6.51%
Non-Precious Metals	11.62%	9.91%
Non-Metals	10.69%	8.99%
Oil & Gas Production/WD	12.43%	10.70%
Oil & Gas Gathering	10.64%	8.94%
Sand & Gravel	11.53%	9.82%
Uranium	12.53%	10.80%

(tax-adjusted)	NOMINAL	REAL
Coal	12.45%	10.72%
Precious Metals	10.32%	8.63%
Non-Precious Metals	14.92%	13.15%
Non-Metals	13.90%	12.15%
Oil & Gas Production/WD	15.39%	13.62%
Oil & Gas Gathering	13.26%	11.52%
Sand & Gravel	15.02%	13.25%
Uranium	16.54%	14.75%



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

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				12.76%
CAPM: Supply Side				11.28%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				11.49%
DGM: Earnings & Dividend				11.76%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				12.76%
Reconciled Equity Rate	12.76%	50.00%	6.38%	
Debt Rate (Corporate B3)	7.88%	50.00%	3.94%	
Weighted Average Cost of Capital				10.32%
Reconciled Equity Rate	12.76%			
Tax-Adjusted (25.00%)	17.01%	50.00%	8.51%	
Industry Debt Rate	7.88%	50.00%	3.94%	
Tax-Adjusted Weighted Average Cost of Capital				12.45%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Alliance Resource	NMF	1.00 (B+)	1.20
Cloud Peak Energy Inc	NMF	1.33 (C+)	1.25
CONSOL Coal Resources LP	NMF	1.22 (C++)	1.40
SunCoke Energy Inc	NMF	1.33 (C+)	1.70
Westmoreland Coal Co.	NMF	1.44 (C)	1.65
Selected	25.00%	1.26	1.44

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	1.44
Industry Risk Premium	10.18%
Add: Risk-Free Rate	2.58%
Indicated Rate	12.76%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	1.44
Industry Risk Premium	8.70%
Add: Risk-Free Rate	2.58%
Indicated Rate	11.28%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.44
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	1.26
Industry Risk Premium	8.91%
Add: Risk-Free Rate	2.58%
Indicated Rate	11.49%



**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	\$19.70	\$2.07	2.00%	0.50%	1.25%	11.76%
Cloud Peak Energy Inc	\$4.45	-	-	-	-	-
CONSOL Coal Resources LP	\$15.65	-	-	-	-	-
SunCoke Energy Inc	\$11.99	-	-	-	-	-
Westmoreland Coal Co.	\$1.21	-	-	-	-	-
Indicated Rate						11.76%

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	\$19.70	\$2.07	-	-	-	-
Cloud Peak Energy Inc	\$4.45	-	-	-	-	-
CONSOL Coal Resources LP	\$15.65	-	-	-	-	-
SunCoke Energy Inc	\$11.99	-	-	-	-	-
Westmoreland Coal Co.	\$1.21	-	-	-	-	-
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	578.0	29.5	2.55%	417.8	-	-	-	19.70	74.4	1,465.7
Cloud Peak Energy Inc	410.4	-	-	410.4	-	-	-	4.45	61.5	273.7
CONSOL Coal Resources LP	185.7	-	-	185.7	-	-	-	15.65	23.2	363.1
SunCoke Energy Inc	818.9	-	-	818.9	-	-	-	11.99	64.2	769.8
Westmoreland Coal Co.	1,071.1	-	-	1,071.1	-	-	-	1.21	18.6	22.5
Total				2,903.9			-			2,894.8

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Alliance Resource	22.18%	77.82%
Cloud Peak Energy Inc	59.99%	40.01%
CONSOL Coal Resources LP	33.84%	66.16%
SunCoke Energy Inc	51.55%	48.45%
Westmoreland Coal Co.	97.94%	2.06%
Mean	53.10%	46.90%
Weighted Mean	50.08%	49.92%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 7.88% (Corporate B3)

*** 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**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				8.59%
CAPM: Supply Side				7.71%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.22%
DGM: Earnings & Dividend				13.80%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				8.59%
Reconciled Equity Rate	8.59%	75.00%		6.44%
Debt Rate (Corporate Ba1)	6.92%	25.00%		1.73%
Weighted Average Cost of Capital				8.17%
Reconciled Equity Rate	8.59%			
Tax-Adjusted (25.00%)	11.45%	75.00%		8.59%
Industry Debt Rate	6.92%	25.00%		1.73%
Tax-Adjusted Weighted Average Cost of Capital				10.32%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Agnico Eagle Mines	27.00%	1.00 (B+)	0.55
Barrick Gold	45.00%	1.11 (B)	0.80
Coeur Mining Inc.	NMF	1.11 (B)	1.30
Goldcorp Inc.	29.00%	0.89 (B++)	0.75
Hecla Mining	28.30%	1.11 (B)	1.20
Kinross Gold	26.00%	1.22 (C++)	0.85
Newmont Mining	32.00%	1.00 (B+)	0.85
Pretium Resources	26.00%	1.22 (C++)	0.50
Selected	25.00%	1.08	0.85

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	0.85
Industry Risk Premium	6.01%
Add: Risk-Free Rate	2.58%
Indicated Rate	8.59%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	0.85
Industry Risk Premium	5.13%
Add: Risk-Free Rate	2.58%
Indicated Rate	7.71%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	0.85
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	1.08
Industry Risk Premium	7.64%
Add: Risk-Free Rate	2.58%
Indicated Rate	10.22%



**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	\$46.02	\$0.44	28.00%	10.50%	19.25%	20.21%
Barrick Gold	\$14.57	\$0.12	9.50%	-2.50%	3.50%	4.32%
Coeur Mining Inc.	\$7.64	-	-	-	-	-
Goldcorp Inc.	\$12.72	\$0.08	45.50%	-13.50%	16.00%	16.63%
Hecla Mining	\$4.12	-	-	-	-	-
Kinross Gold	\$4.32	-	49.50%	-	49.50%	-
Newmont Mining	\$37.57	\$0.30	9.00%	17.50%	13.25%	14.05%
Pretium Resources	\$11.65	-	-	-	-	-

Indicated Rate

13.80%

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	\$46.02	\$0.44	-	-	-	-
Barrick Gold	\$14.57	\$0.12	-	-	-	-
Coeur Mining Inc.	\$7.64	-	-	-	-	-
Goldcorp Inc.	\$12.72	\$0.08	-	-	-	-
Hecla Mining	\$4.12	-	-	-	-	-
Kinross Gold	\$4.32	-	-	-	-	-
Newmont Mining	\$37.57	\$0.30	-	-	-	-
Pretium Resources	\$11.65	-	-	-	-	-

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	1,372.4	63.1	2.30%	1,030.0	-	-	-	46.02	230.2	10,593.8
Barrick Gold	6,447.0	625.0	4.85%	8,368.8	-	-	-	14.57	1,166.2	16,991.5
Coeur Mining Inc.	288.9	-	-	288.9	-	-	-	7.64	181.4	1,385.9
Goldcorp Inc.	2,826.0	129.0	2.28%	2,110.9	-	-	-	12.72	867.0	11,028.2
Hecla Mining	515.2	-	-	515.2	-	-	-	4.12	394.5	1,625.3
Kinross Gold	1,732.0	86.0	2.48%	1,368.3	-	-	-	4.32	1,247.0	5,387.0
Newmont Mining	4,050.0	225.0	2.78%	3,456.3	-	-	-	37.57	533.3	20,036.1
Pretium Resources	715.2	37.4	2.61%	585.3	-	-	-	11.65	181.5	2,114.5
Total				17,723.7						69,162.3

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Agnico Eagle Mines	8.86%	91.14%
Barrick Gold	33.00%	67.00%
Coeur Mining Inc.	17.25%	82.75%
Goldcorp Inc.	16.07%	83.93%
Hecla Mining	24.07%	75.93%
Kinross Gold	20.26%	79.74%
Newmont Mining	14.71%	85.29%
Pretium Resources	21.68%	78.32%
Mean	19.49%	80.51%
Weighted Mean	20.40%	79.60%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.92% (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				13.19%
CAPM: Supply Side				11.64%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				9.65%
DGM: Earnings & Dividend				14.43%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				13.19%
Reconciled Equity Rate	13.19%	75.00%	9.89%	
Debt Rate (Corporate Ba1)	6.92%	25.00%	1.73%	
Weighted Average Cost of Capital				11.62%
Reconciled Equity Rate	13.19%			
Tax-Adjusted (25.00%)	17.59%	75.00%	13.19%	
Industry Debt Rate	6.92%	25.00%	1.73%	
Tax-Adjusted Weighted Average Cost of Capital				14.92%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
BHP Billiton Ltd. ADR	35.00%	1.00 (B+)	1.40
Freeport-McMoRan Inc.	30.00%	1.22 (C++)	1.95
Materion Corp.	21.00%	1.00 (B+)	1.40
Rio Tinto plc	32.00%	0.78 (A)	1.30
Southern Copper	30.00%	0.89 (B++)	1.25
Teck Resources 'B'	35.00%	1.00 (B+)	1.60
Vale S.A. ADR	25.00%	1.11 (B)	1.60
Selected	25.00%	1.00	1.50

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	1.50
Industry Risk Premium	10.61%
Add: Risk-Free Rate	2.58%
Indicated Rate	13.19%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	1.50
Industry Risk Premium	9.06%
Add: Risk-Free Rate	2.58%
Indicated Rate	11.64%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.50
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	1.00
Industry Risk Premium	7.07%
Add: Risk-Free Rate	2.58%
Indicated Rate	9.65%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
NON-PRECIOUS 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
BHP Billiton Ltd. ADR	\$45.35	\$1.72	-	4.00%	4.00%	7.79%
Freep't-McMoRan Inc.	\$18.67	-	-	-16.00%	-16.00%	-
Materion Corp.	\$48.90	\$0.40	8.50%	3.00%	5.75%	6.57%
Rio Tinto plc	\$51.42	\$2.60	8.00%	9.50%	8.75%	13.81%
Southern Copper	\$46.57	\$1.00	23.00%	22.50%	22.75%	24.90%
Teck Resources 'B'	\$32.33	\$0.20	29.50%	-5.00%	12.25%	12.87%
Vale S.A. ADR	\$12.08	\$0.38	27.00%	8.00%	17.50%	20.65%

Indicated Rate

14.43%

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 Billiton Ltd. ADR	\$45.35	\$1.72	-	-	-	-
Freep't-McMoRan Inc.	\$18.67	-	-	-	-	-
Materion Corp.	\$48.90	\$0.40	-	-	-	-
Rio Tinto plc	\$51.42	\$2.60	-	-	-	-
Southern Copper	\$46.57	\$1.00	-	-	-	-
Teck Resources 'B'	\$32.33	\$0.20	-	-	-	-
Vale S.A. ADR	\$12.08	\$0.38	-	-	-	-

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 Billiton Ltd. ADR	30,474.0	1,500.0	2.46%	23,933.0	-	-	-	45.35	5,323.6	241,425.3
Freep't-McMoRan Inc.	14,782.0	755.0	2.55%	11,903.5	-	-	-	18.67	1,447.6	27,026.7
Materion Corp.	3.7	0.2	2.70%	3.1	-	-	-	48.90	20.0	978.0
Rio Tinto plc	15,848.0	1,200.0	3.79%	16,958.1	-	-	-	51.42	1,792.9	92,190.9
Southern Copper	5,956.3	330.0	2.77%	5,073.4	-	-	-	46.57	773.0	35,998.6
Teck Resources 'B'	6,122.0	354.0	2.89%	5,373.8	-	-	-	32.33	577.6	18,673.8
Vale S.A. ADR	25,790.0	1,460.0	2.83%	22,301.7	-	-	-	12.08	491.1	5,932.5
Total				85,546.6			-			422,225.8

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
BHP Billiton Ltd. ADR	9.02%	90.98%
Freep't-McMoRan Inc.	30.58%	69.42%
Materion Corp.	0.32%	99.68%
Rio Tinto plc	15.54%	84.46%
Southern Copper	12.35%	87.65%
Teck Resources 'B'	22.35%	77.65%
Vale S.A. ADR	78.99%	21.01%
Mean	24.16%	75.84%
Weighted Mean	16.85%	83.15%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.92% (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-METALS -- EQUITY RATE MODELS**

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				11.35%
CAPM: Supply Side				10.07%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				9.58%
DGM: Earnings & Dividend				10.82%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				11.35%
Reconciled Equity Rate	11.35%	85.00%	9.65%	
Debt Rate (Corporate Ba1)	6.92%	15.00%	1.04%	
Weighted Average Cost of Capital				10.69%
Reconciled Equity Rate	11.35%			
Tax-Adjusted (25.00%)	15.13%	85.00%	12.86%	
Industry Debt Rate	6.92%	15.00%	1.04%	
Tax-Adjusted Weighted Average Cost of Capital				13.90%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Compass Minerals Int'l	21.00%	1.00 (B+)	0.95
Eagle Materials	32.50%	0.89 (B++)	1.50
Intrepid Potash Inc	NMF	1.22 (C++)	1.35
Martin Marietta	37.00%	0.89 (B++)	1.25
Mosaic Company	NMF	1.00 (B+)	1.35
U S Lime & Minerals	24.83%	0.89 (B++)	0.90
USG Corp.	33.00%	1.11 (B)	1.40
Vulcan Materials	32.00%	0.89 (B++)	1.25
Selected	25.00%	0.99	1.24

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	1.24
Industry Risk Premium	8.77%
Add: Risk-Free Rate	2.58%
Indicated Rate	11.35%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	1.24
Industry Risk Premium	7.49%
Add: Risk-Free Rate	2.58%
Indicated Rate	10.07%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.24
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	0.99
Industry Risk Premium	7.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	9.58%



**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
Compass Minerals Int'l	\$70.30	\$3.00	7.50%	5.00%	6.25%	10.52%
Eagle Materials	\$112.25	\$0.40	10.50%	4.50%	7.50%	7.86%
Intrepid Potash Inc	\$4.18	-	-	-	-	-
Martin Marietta	\$207.25	\$1.72	17.50%	2.00%	9.75%	10.58%
Mosaic Company	\$25.50	\$0.10	3.00%	-	3.00%	3.39%
U S Lime & Minerals	\$77.21	-	-	-	-	-
USG Corp.	\$36.92	-	12.50%	-	12.50%	-
Vulcan Materials	\$121.51	\$1.20	19.00%	22.50%	20.75%	21.74%
Indicated Rate						10.82%

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
Compass Minerals Int'l	\$70.30	\$3.00	-	-	-	-
Eagle Materials	\$112.25	\$0.40	-	-	-	-
Intrepid Potash Inc	\$4.18	-	-	-	-	-
Martin Marietta	\$207.25	\$1.72	-	-	-	-
Mosaic Company	\$25.50	\$0.10	-	-	-	-
U S Lime & Minerals	\$77.21	-	-	-	-	-
USG Corp.	\$36.92	-	-	-	-	-
Vulcan Materials	\$121.51	\$1.20	-	-	-	-
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
Compass Minerals Int'l	1,329.6	50.0	1.88%	878.3	-	-	-	70.30	33.8	2,378.2
Eagle Materials	656.8	28.0	2.13%	469.3	-	-	-	112.25	48.6	5,458.7
Intrepid Potash Inc	59.4	-	-	59.4	-	-	-	4.18	127.0	530.9
Martin Marietta	1,722.5	81.7	2.37%	1,319.6	-	-	-	207.25	62.9	13,027.7
Mosaic Company	3,915.1	130.0	1.66%	2,401.0	-	-	-	25.50	351.1	8,951.8
U S Lime & Minerals	-	-	-	-	-	-	-	77.21	5.6	430.8
USG Corp.	1,077.0	75.0	3.48%	1,082.1	-	-	-	36.92	141.5	5,223.4
Vulcan Materials	2,814.8	134.1	2.38%	2,162.8	-	-	-	121.51	132.3	16,073.3
Total				8,372.5			-			52,074.8

CAPITAL STRUCTURE		
Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Compass Minerals Int'l	26.97%	73.03%
Eagle Materials	7.92%	92.08%
Intrepid Potash Inc	10.06%	89.94%
Martin Marietta	9.20%	90.80%
Mosaic Company	21.15%	78.85%
U S Lime & Minerals	-	100.00%
USG Corp.	17.16%	82.84%
Vulcan Materials	11.86%	88.14%
Mean	13.04%	86.96%
Weighted Mean	13.85%	86.15%

REMARKS
* Implied Coupon Rate is a semi-annual rate.
** Market Value of Debt: 6.92% (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

RECONCILIATION

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				16.15%
CAPM: Supply Side				14.18%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				11.06%
DGM: Earnings & Dividend				26.62%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				16.15%
Reconciled Equity Rate	16.15%	55.00%	8.88%	
Debt Rate (Corporate B2)	7.88%	45.00%	3.55%	
Weighted Average Cost of Capital				12.43%
Reconciled Equity Rate	16.15%			
Tax-Adjusted (25.00%)	21.53%	55.00%	11.84%	
Industry Debt Rate	7.88%	45.00%	3.55%	
Tax-Adjusted Weighted Average Cost of Capital				15.39%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Abraxas Petrol	NMF	1.11 (B)	2.10
Bill Barrett Corp	NMF	1.33 (C+)	2.45
Black Stone Minerals	NMF	1.11 (B)	0.95
Carrizo Oil & Gas	NMF	1.22 (C++)	2.00
Continental Energy Corp.	NMF		1.90
Denbury Resources	50.87%	1.44 (C)	2.25
Encana Corp.	NMF	1.22 (C++)	1.70
Legacy Reserves	NMF	1.44 (C)	1.90
Newfield Exploration	NMF	1.00 (B+)	1.90
Pioneer Natural Res.	NMF	0.89 (B++)	1.45
QEP Resources	NMF	1.11 (B)	1.75
Resolute Energy Corp	NMF	1.22 (C++)	2.30
SM Energy Co.	NMF	1.22 (C++)	2.25
Southwestern Energy	NMF	1.11 (B)	1.35
Whiting Petroleum	NMF	1.22 (C++)	2.40
WPX Energy	NMF	1.33 (C+)	2.10
Selected	25.00%	1.20	1.92

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	1.92
Industry Risk Premium	13.57%
Add: Risk-Free Rate	2.58%
Indicated Rate	16.15%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	1.92
Industry Risk Premium	11.60%
Add: Risk-Free Rate	2.58%
Indicated Rate	14.18%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.92
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	1.20
Industry Risk Premium	8.48%
Add: Risk-Free Rate	2.58%
Indicated Rate	11.06%



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	\$2.46	-	-	-	-	-
Bill Barrett Corp	\$5.13	-	-	-	-	-
Black Stone Minerals	\$17.94	\$1.25	-	-	-	-
Carrizo Oil & Gas	\$21.28	-	-	-	-	-
Continental Energy Corp.	\$0.02	-	-	-	-	-
Denbury Resources	\$2.21	-	-3.00%	-	-3.00%	-
Encana Corp.	\$13.33	\$0.06	24.00%	-8.50%	7.75%	8.20%
Legacy Reserves	\$1.61	-	-	-	-	-
Newfield Exploration	\$31.53	-	18.00%	-	18.00%	-
Pioneer Natural Res.	\$172.85	\$0.08	37.50%	52.50%	45.00%	45.05%
QEP Resources	\$9.57	-	-	-	-	-
Resolute Energy Corp	\$31.47	-	-	-	-	-
SM Energy Co.	\$22.08	-	-	-	-	-
Southwestern Energy	\$5.58	-	8.00%	-	8.00%	-
Whiting Petroleum	\$26.48	-	-	-	-	-
WPX Energy	\$14.07	-	-	-	-	-
Indicated Rate						26.62%

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	\$2.46	-	-	-	-	-
Bill Barrett Corp	\$5.13	-	-	-	-	-
Black Stone Minerals	\$17.94	\$1.25	-	-	-	-
Carrizo Oil & Gas	\$21.28	-	-	-	-	-
Continental Energy Corp.	\$0.02	-	-	-	-	-
Denbury Resources	\$2.21	-	-	-	-	-
Encana Corp.	\$13.33	\$0.06	-	-	-	-
Legacy Reserves	\$1.61	-	-	-	-	-
Newfield Exploration	\$31.53	-	-	-	-	-
Pioneer Natural Res.	\$172.85	\$0.08	-	-	-	-
QEP Resources	\$9.57	-	-	-	-	-
Resolute Energy Corp	\$31.47	-	-	-	-	-
SM Energy Co.	\$22.08	-	-	-	-	-
Southwestern Energy	\$5.58	-	-	-	-	-
Whiting Petroleum	\$26.48	-	-	-	-	-
WPX Energy	\$14.07	-	-	-	-	-
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	67.7	-	-	67.7	-	-	-	2.46	135.1	332.3
Bill Barrett Corp	669.2	-	-	669.2	-	-	-	5.13	75.7	388.3
Black Stone Minerals	393.0	12.6	1.60%	209.6	-	-	-	17.94	190.9	3,424.7
Carrizo Oil & Gas	1,701.4	310.0	9.11%	3,458.1	-	-	-	21.28	65.1	1,385.3
Continental Energy Corp.	6,556.0	290.0	2.21%	4,293.2	-	-	-	0.02	123.0	2.5
Denbury Resources	3,143.5	105.0	1.67%	1,718.5	-	-	-	2.21	398.4	880.5
Encana Corp.	4,197.0	185.0	2.20%	2,741.9	-	-	-	13.33	973.0	12,970.1
Legacy Reserves	1,330.8	-	-	1,330.8	-	-	-	1.61	72.6	116.9
Newfield Exploration	2,433.0	101.0	2.08%	1,527.1	-	-	-	31.53	200.1	6,309.2
Pioneer Natural Res.	2,730.0	130.0	2.38%	1,880.0	-	-	-	172.85	169.7	29,332.6
QEP Resources	2,024.6	135.0	3.33%	1,779.6	-	-	-	9.57	239.6	2,293.0
Resolute Energy Corp	645.2	-	-	645.2	-	-	-	31.47	21.9	689.2
SM Energy Co.	2,905.4	-	-	2,905.4	-	-	-	22.08	111.3	2,457.5
Southwestern Energy	4,436.0	235.0	2.65%	3,292.1	-	-	-	5.58	495.2	2,763.2
Whiting Petroleum	2,931.4	525.0	8.95%	5,867.2	-	-	-	26.48	90.5	2,396.4
WPX Energy	2,859.0	189.0	3.31%	2,496.6	-	-	-	14.07	344.7	4,849.9
Total				34,882.2						70,591.6

CAPITAL STRUCTURE		
Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Abraxas Petrol	16.93%	83.08%
Bill Barrett Corp	63.28%	36.72%
Black Stone Minerals	5.77%	94.23%
Carrizo Oil & Gas	71.40%	28.60%
Continental Energy Corp.	99.94%	0.06%
Denbury Resources	66.12%	33.88%
Encana Corp.	17.45%	82.55%
Legacy Reserves	91.93%	8.07%
Newfield Exploration	19.49%	80.51%
Pioneer Natural Res.	6.02%	93.98%
QEP Resources	43.70%	56.30%
Resolute Energy Corp	48.35%	51.65%
SM Energy Co.	54.18%	45.82%
Southwestern Energy	54.37%	45.63%
Whiting Petroleum	71.00%	29.00%
WPX Energy	33.98%	66.02%
Mean	47.74%	52.26%
Weighted Mean	33.07%	66.93%

REMARKS
* Implied Coupon Rate is a semi-annual rate.
** Market Value of Debt: 7.88% (Corporate B2)
*** 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				13.11%
CAPM: Supply Side				11.58%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.07%
DGM: Earnings & Dividend				14.45%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				13.11%
Reconciled Equity Rate	13.11%	60.00%		7.87%
Debt Rate (Corporate Ba1)	6.92%	40.00%		2.77%
Weighted Average Cost of Capital				10.64%
Reconciled Equity Rate	13.11%			
Tax-Adjusted (25.00%)	17.48%	60.00%		10.49%
Industry Debt Rate	6.92%	40.00%		2.77%
Tax-Adjusted Weighted Average Cost of Capital				13.26%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Crestwood Equity Partners LP	NMF	1.22 (C++)	1.75
Dominion Energy Midstream	NMF	1.00 (B+)	1.20
Energy Transfer Part.	NMF	1.00 (B+)	1.55
Plains All Amer. Pipe.	NMF	1.00 (B+)	1.50
Summit Midstream Partners LP	NMF	1.11 (B)	1.55
Tallgrass Energy Partners LP	NMF	1.11 (B)	1.30
Western Gas Equity Partners LP	NMF	1.00 (B+)	1.50
Williams Cos.	29.48%	1.00 (B+)	1.55
Selected	25.00%	1.06	1.49

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	1.49
Industry Risk Premium	10.53%
Add: Risk-Free Rate	2.58%
Indicated Rate	13.11%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	1.49
Industry Risk Premium	9.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	11.58%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.49
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	1.06
Industry Risk Premium	7.49%
Add: Risk-Free Rate	2.58%
Indicated Rate	10.07%



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	\$25.80	-	3.00%	-	3.00%	-
Dominion Energy Midstream	\$30.45	-	18.00%	-	18.00%	-
Energy Transfer Part.	\$17.92	\$2.26	8.50%	5.50%	7.00%	19.61%
Plains All Amer. Pipe.	\$20.64	\$1.20	13.00%	-1.00%	6.00%	11.81%
Summit Midstream Partners LP	\$20.50	-	-	-	-	-
Tallgrass Energy Partners LP	\$45.85	-	-	-	-	-
Western Gas Equity Partners LP	\$37.16	-	-	-	-	-
Williams Cos.	\$30.49	\$1.20	18.50%	-2.50%	8.00%	11.94%

Indicated Rate

14.45%

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	\$25.80	-	-	-	-	-
Dominion Energy Midstream	\$30.45	-	-	-	-	-
Energy Transfer Part.	\$17.92	\$2.26	-	-	-	-
Plains All Amer. Pipe.	\$20.64	\$1.20	-	-	-	-
Summit Midstream Partners LP	\$20.50	-	-	-	-	-
Tallgrass Energy Partners LP	\$45.85	-	-	-	-	-
Western Gas Equity Partners LP	\$37.16	-	-	-	-	-
Williams Cos.	\$30.49	\$1.20	-	-	-	-

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	1,617.4	-	-	1,617.4	-	-	-	25.80	69.5	1,793.1
Dominion Energy Midstream	730.2	-	-	730.2	-	-	-	30.45	99.2	3,020.6
Energy Transfer Part.	34,300.0	1,400.0	2.04%	23,840.0	-	-	-	17.92	322.4	5,777.4
Plains All Amer. Pipe.	11,407.0	465.0	2.04%	7,922.0	-	-	-	20.64	669.2	13,812.3
Summit Midstream Partners LP	1,295.8	-	-	1,295.8	-	-	-	20.50	73.6	1,508.8
Tallgrass Energy Partners LP	2,115.1	-	-	2,115.1	-	-	-	45.85	72.5	3,324.1
Western Gas Equity Partners LP	3,371.9	-	-	3,371.9	-	-	-	37.16	218.9	8,134.3
Williams Cos.	16,502.0	730.0	2.21%	12,076.1	-	-	-	30.49	750.0	22,867.5
Total				52,968.5				-		60,238.1

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Crestwood Equity Partners LP	47.42%	52.58%
Dominion Energy Midstream	19.47%	80.53%
Energy Transfer Part.	80.49%	19.51%
Plains All Amer. Pipe.	36.45%	63.55%
Summit Midstream Partners LP	46.20%	53.80%
Tallgrass Energy Partners LP	38.89%	61.11%
Western Gas Equity Partners LP	29.31%	70.69%
Williams Cos.	34.56%	65.44%
Mean	41.60%	58.40%
Weighted Mean	46.79%	53.21%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.92% (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				12.34%
CAPM: Supply Side				10.92%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				9.16%
DGM: Earnings & Dividend				13.87%
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				12.34%
Reconciled Equity Rate	12.34%	85.00%		
Debt Rate (Corporate Ba1)	6.92%	15.00%		
Weighted Average Cost of Capital				11.53%
Reconciled Equity Rate	12.34%			
Tax-Adjusted (25.00%)	16.45%	85.00%		
Industry Debt Rate	6.92%	15.00%		
Tax-Adjusted Weighted Average Cost of Capital				15.02%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Eagle Materials	32.70%	0.89 (B++)	1.50
Granite Construction	31.30%	1.00 (B+)	1.25
Martin Marietta	29.91%	0.89 (B++)	1.25
Summit Materials	NMF	1.00 (B+)	1.65
Vulcan Materials	22.81%	0.89 (B++)	1.25
Selected	25.00%	0.93	1.38

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	1.38
Industry Risk Premium	9.76%
Add: Risk-Free Rate	2.58%
Indicated Rate	12.34%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	1.38
Industry Risk Premium	8.34%
Add: Risk-Free Rate	2.58%
Indicated Rate	10.92%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.38
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	0.93
Industry Risk Premium	6.58%
Add: Risk-Free Rate	2.58%
Indicated Rate	9.16%



**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	\$113.30	\$0.40	10.50%	4.50%	7.50%	7.85%
Granite Construction	\$63.43	\$0.52	26.00%	3.50%	14.75%	15.57%
Martin Marietta	\$221.04	\$1.76	17.50%	2.00%	9.75%	10.55%
Summit Materials	\$31.44	-	-	-	-	-
Vulcan Materials	\$128.37	\$1.00	19.00%	22.50%	20.75%	21.53%
Indicated Rate						13.87%

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	\$113.30	\$0.40	-	-	-	-
Granite Construction	\$63.43	\$0.52	-	-	-	-
Martin Marietta	\$221.04	\$1.76	-	-	-	-
Summit Materials	\$31.44	-	-	-	-	-
Vulcan Materials	\$128.37	\$1.00	-	-	-	-
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	656.8	28.0	2.13%	469.3	-	-	-	113.30	48.5	5,495.1
Granite Construction	240.7	20.0	4.15%	276.6	-	-	-	63.43	39.6	2,511.8
Martin Marietta	1,722.5	81.7	2.37%	1,319.6	-	-	-	221.04	63.2	13,969.7
Summit Materials	1,813.6	97.5	2.69%	1,512.8	-	-	-	31.44	97.4	3,062.3
Vulcan Materials	2,814.8	134.1	2.38%	2,162.8	-	-	-	128.37	132.3	16,983.4
Total				5,741.1			-			42,022.3

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Eagle Materials	7.87%	92.13%
Granite Construction	9.92%	90.08%
Martin Marietta	8.63%	91.37%
Summit Materials	33.07%	66.93%
Vulcan Materials	11.30%	88.70%
Mean	14.16%	85.84%
Weighted Mean	12.02%	87.98%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 6.92% (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				12.69%
CAPM: Supply Side				11.22%
CAPM: Implied ERP				2.58%
CAPM: Total NYSE				N/A
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.43%
DGM: Earnings & Dividend				N/A
DGM: Plowback Ratio				N/A
Reconciled Equity Rate				12.69%
Reconciled Equity Rate	12.69%	95.00%	12.06%	
Debt Rate (Corporate Caa3)	9.47%	5.00%	0.47%	
Weighted Average Cost of Capital				12.53%
Reconciled Equity Rate	12.69%			
Tax-Adjusted (25.00%)	16.92%	95.00%	16.07%	
Industry Debt Rate	9.47%	5.00%	0.47%	
Tax-Adjusted Weighted Average Cost of Capital				16.54%

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Cameco Corp.	NMF	1.00 (B+)	1.30
Uranium Energy Corp	NMF	1.11 (B)	1.70
Ur-Energy Inc	NMF	1.22 (C++)	1.30
Selected	25.00%	1.11	1.43

CAPM: RULE 62 COMPLIANT

Item	Rate
Market Risk Premium	7.07%
x Industry Beta	1.43
Industry Risk Premium	10.11%
Add: Risk-Free Rate	2.58%
Indicated Rate	12.69%

CAPM: SUPPLY SIDE

Item	Rate
Market Risk Premium	6.04%
x Industry Beta	1.43
Industry Risk Premium	8.64%
Add: Risk-Free Rate	2.58%
Indicated Rate	11.22%

CAPM: IMPLIED ERP

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.43
Industry Risk Premium	0.00%
Add: Risk-Free Rate	2.58%
Indicated Rate	2.58%

DIVISION'S RISK PREMIUM

Item	Rate
Market Risk Premium	7.07%
x Industry Financial Strength	1.11
Industry Risk Premium	7.85%
Add: Risk-Free Rate	2.58%
Indicated Rate	10.43%



**UTAH STATE TAX COMMISSION
PROPERTY TAX DIVISION
URANIUM 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
Cameco Corp.	\$11.61	\$0.08	6.50%	-23.50%	-8.50%	-
Uranium Energy Corp	\$1.77	-	-	-	-	-
Ur-Energy Inc	\$0.68	-	-	-	-	-

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.	\$11.61	\$0.08	-	-	-	-
Uranium Energy Corp	\$1.77	-	-	-	-	-
Ur-Energy Inc	\$0.68	-	-	-	-	-

Indicated Rate

N/A

COMMENTS ABOUT THE URANIUM MINING INDUSTRY



**UTAH STATE TAX COMMISSION
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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.	1,540.3	75.0	2.43%	909.6	-	-	-	11.61	395.8	4,595.2
Uranium Energy Corp	-	-	-	-	-	-	-	1.77	139.8	247.4
Ur-Energy Inc	-	-	-	-	-	-	-	0.68	143.7	97.7
Total				909.6			-			4,940.3

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Cameco Corp.	16.52%	83.48%
Uranium Energy Corp	-	100.00%
Ur-Energy Inc	-	100.00%
Mean	5.51%	94.49%
Weighted Mean	15.55%	84.45%

REMARKS

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 9.47% (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)