Virginia Energy Resources, Inc. and Virginia Uranium, Inc.

Corporate Identity & Financial Disclosure Issues

Virginia Uranium, Inc: "Virginia-Owned, Virginia-Managed"?

### **TimesDispatch**

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### "My Fellow Americans..."

In March of 2014, Walter Coles, CEO of Virginia Uranium, Inc., penned an editorial in the Richmond Times Dispatch to defend the humble beginnings and noble intentions of Virginia Uranium, Inc. and its investors.

# Uranium offers clean path to economic revival

Daily Daily Deal Richmond

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Posted: Saturday, March 22, 2014 4:00 pm | Updated: 12:06 am, Mon Mar 24, 2014.

BY WALTER COLES

Virginia Uranium Inc. has made encouraging progress in advancing the Coles Hill project in Pittsylvania County over the past seven years. Unfortunately, recent veto threats by Gov. Terry McAuliffe caused us to take a step back and not pursue legislation in 2014 as we had hoped.

While we are disappointed, we are not deterred. We will move forward, committed to finding common-ground solutions that focus on safety, environmental stewardship, private property rights and private-sector job creation.

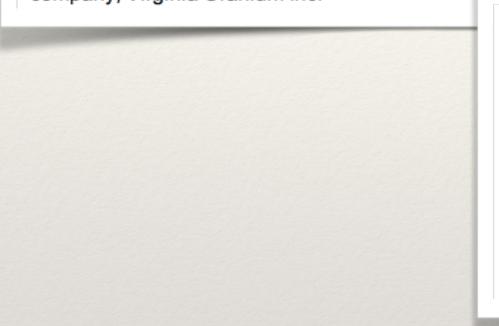
Every week we learn about new and outrageous examples of the assault by environmental groups, overzealous government regulators and fearmongers on the very lifeblood of the free enterprise system that has created and sustained our country's prosperity.

To most citizens, these incidents are far-off abstractions. They were to me, too, until the day in 2006 when my neighbors and I agreed to form a company to develop the world-

class uranium deposit that lies beneath our farmlands in Pittsylvania. In the spring of 2006, mining companies from around the world approached me and my neighbors to explain that our deposit was worth billions of dollars — and to offer us unimaginable sums of money so they could mine it.

As tempting as these offers were, our families decided there was a better way to protect the environment and preserve our rural, agricultural heritage. We formed our own company, Virginia Uranium Inc. To most citizens, these incidents are far-off abstractions. They were to me, too, until the day in 2006 when my neighbors and I agreed to form a company to develop the worldclass uranium deposit that lies beneath our farmlands in Pittsylvania. In the spring of 2006, mining companies from around the world approached me and my neighbors to explain that our deposit was worth billions of dollars — and to offer us unimaginable sums of money so they could mine it.

As tempting as these offers were, our families decided there was a better way to protect the environment and preserve our rural, agricultural heritage. We formed our own company, Virginia Uranium Inc.



As entrepreneurs who believe in the free enterprise system, we never asked for a dime of taxpayer money or preferential treatment. Rather, we are happy to pay our own way. All we asked was for the state to take the very reasonable step of developing regulations for uranium mining so that our company could demonstrate in official regulatory forums that we could meet the strictest standards for protection of public health and the environment.

After years of costly scientific studies, commissions and work groups, not a single stateauthorized study concluded that our project could not be done safely, or that it would impede economic progress on other fronts.

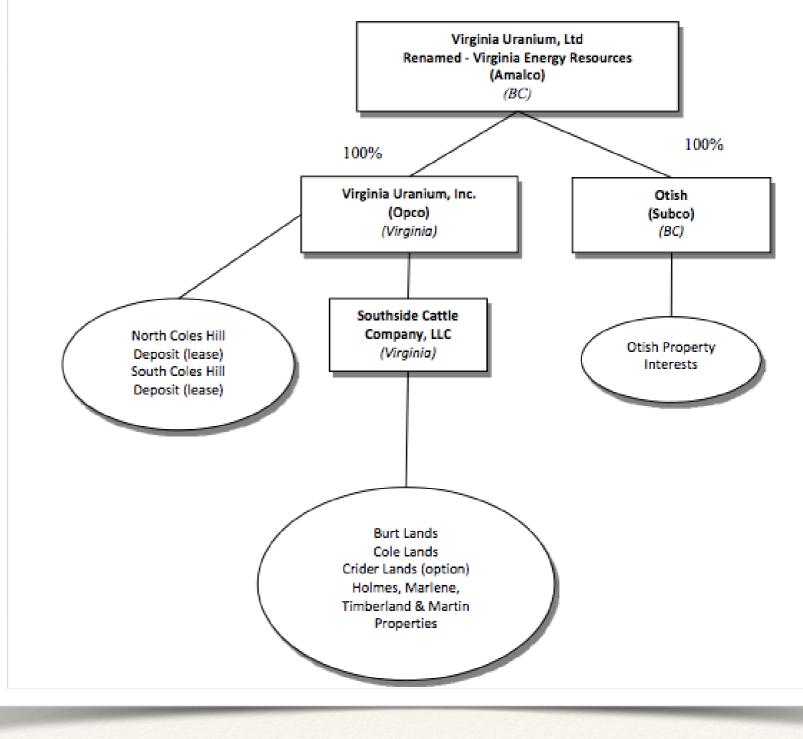
Among other things, Coles' editorial claimed that VUI was created to *prevent* exploitation by foreign mining interests, that they have never asked for the Commonwealth of Virginia to bear *any* costs, and that no studies or reports found issues with their proposal. Walter Coles Editorial -Richmond Times Dispatch, March 22, 2014

"In the Spring of 2006, mining companies from around the world approached me and my neighbors to explain that our deposit was worth billions of dollars - and to offer us unimaginable sums of money so they could mine it. As tempting as these offers were, our families decided there was a better way to protect the environment and preserve our rural, agricultural heritage. We formed our own company, Virginia Uranium, Inc."

 Richmond Times Dispatch Op-Ed by Walter Coles, CEO of Virginia Uranium, Inc.

### Fact:

Virginia Uranium, Inc. is 100% owned by Virginia Energy Resources, Inc., a mining exploration company based in Vancouver, British Columbia. The following chart illustrates the Company's Corporate Structure at the Plan of Arrangement completion:



Virginia Energy Resources, Inc -Organizational Chart

This organizational chart, found on the Virginia Energy Resources, Inc. website, outlines the North American holdings of the Canadian firm. "Virginia Energy's most important asset is the 100% interest in the Coles Hill deposit in southern Virginia, USA, which is the largest undeveloped uranium deposit in the USA and one of the largest in the world. Virginia Energy's ownership in Coles Hill is held through its subsidiary, Virginia Uranium, Inc., which controls the mineral rights, surface rights, and leasehold development and operating rights on the Coles Hill property."

–Virginia Energy Resources, Inc. website <u>www.virginiaenergyresources.com/s/ColesHill.asp</u> Virginia Energy Resources Inc owns 100% interest in the Coles Hill uranium development project in Virginia and the Otish Basin uranium exploration project in central Quebec.



CORPORATE OFFICE

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 www.virginiaenergyresources.com

Virginia-Owned, Virginia-Managed?

This map from Virginia Energy Resources website shows the locations of their two projects, one in Quebec and one in Virginia. The black star on the west coast of Canada is their corporate headquarters, in Vancouver, BC.



A Google map search reveals that the drive from Virginia Energy Resources, Inc's headquarters in Vancouver, BC to the Coles Hill Mine takes 43-44 hours, depending on Chicago traffic. That's quite a commute.



Status: Development Commodity: Uranium Ownership: 100% ownership Operator: Virginia Energy Resources Inc. Location: 10 kilometres northeast of Chatham, Virginia, USA Mineral Rights: 2960 hectares

### Virginia Energy Resources Inc.

PROFILE

Mailing Address:	611 - 675 West Hastings Street Vancouver, British Columbia V6B 1N2	Head Office Address:	611 - 675 West Hastings Street Vancouver, British Columbia V6B 1N2
Contact Name:	Karen A. Allan	Principal Regulator:	British Columbia
Business e-mail address:	karen@forde.ca	Short Form Prospectus Issuer:	No
Telephone Number:	<u>604 669-4799</u>	Reporting Jurisdictions:	British Columbia, Alberta, Quebec
Fax Number:	<u>604 669-2543</u>	Stock Exchange:	TSX Venture
Date of Formation:	Sep 27 2012	Stock Symbol:	VUI
Jurisdiction Where Formed:	British Columbia	Auditor:	KPMG LLP
Industry Classification:	metals and minerals - mining	General Partner:	
CUSIP Number:	92780V	Transfer Agent:	Computershare Investor Services Inc.
Financial Year-End:	Dec 31	Size of Issuer (Assets):	Under \$5,000,000

This is Virginia Energy Resources, Inc.'s SEDAR profile showing the company's clear Canadian roots. SEDAR is the official clearinghouse for filings and information on publicly traded Canadian companies. In fact, the *only* place where "Virginia" appears in the company's SEDAR profile is in the name. Virginia-Owned, Virginia-Managed? Where is Virginia Uranium spending money?

"As entrepreneurs who believe in the free enterprise system, we never asked for a dime of taxpayer money or preferential treatment."

 Richmond Times Dispatch Op-Ed by Walter Coles, CEO of Virginia Uranium, Inc.

### FACT:

Virginia Uranium, Inc spent \$572,607 lobbying Virginia public officials last year.

That's the most of any group in Virginia over the last five years, and nearly double that of Dominion Power, the number two spender.

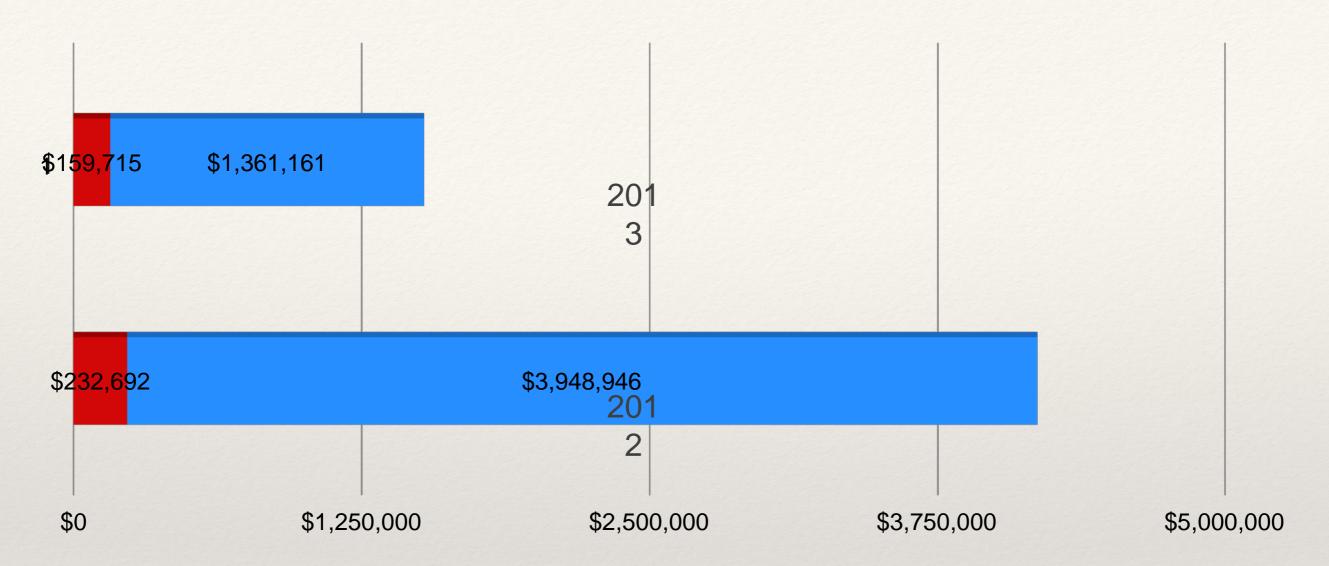


Select Expense Type: Total Reported +

Rank	Amount	Client
1	<u>\$572,607</u>	Va Uranium
2	<u>\$299,753</u>	Dominion
3	<u>\$273,791</u>	Altria
4	<u>\$251,468</u>	Va Transportation Construction Alliance
5	<u>\$164,838</u>	Medical Society of Va
6	<u>\$147,492</u>	Va Municipal League
7	<u>\$143,849</u>	Transurban USA Inc
8	<u>\$130,290</u>	Va Sheriffs Assn
9	<u>\$127,773</u>	Va Auto Dealers Assn
10	<u>\$124,468</u>	City of Norfolk
11	<u>\$121,254</u>	Va Assn of Realtors
12	<u>\$113,922</u>	Bon Secours Health System (Virginia)
13	<u>\$111,684</u>	State Farm Insurance Co
14	<u>\$110,424</u>	Nationwide Insurance Co
15	\$109,248	Va Beer Wholesalers Assn

Mining company or marketing company?

Overhead, Professional Services, and Community Outreach



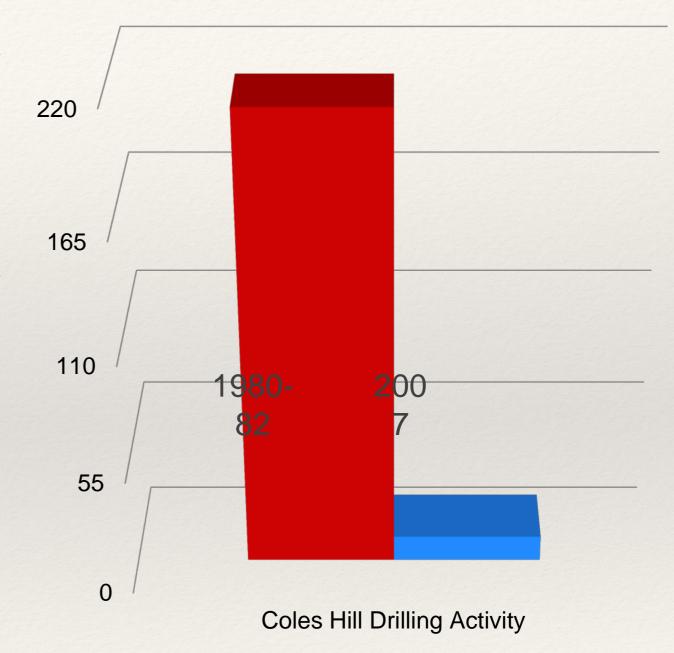
# Mining company or marketing company?

Beyond lobbying expenditures, company records show that the bulk of Virginia Uranium's expenses over the past few years have gone to overhead, professional services, and "community outreach," rather than geological studies or exploration of the Coles Hill property.

Marline/Union Carbide (1980-82) 210 holes
Virginia Uranium, Inc. (2007) 12 holes

### Mining company or marketing company?

More than 220 test holes have been drilled at Coles Hill since the discovery of the deposit, yet only 12 were dug by Virginia Uranium.



## Expanding the bureaucracy -What is the regulatory burden to Virginia?

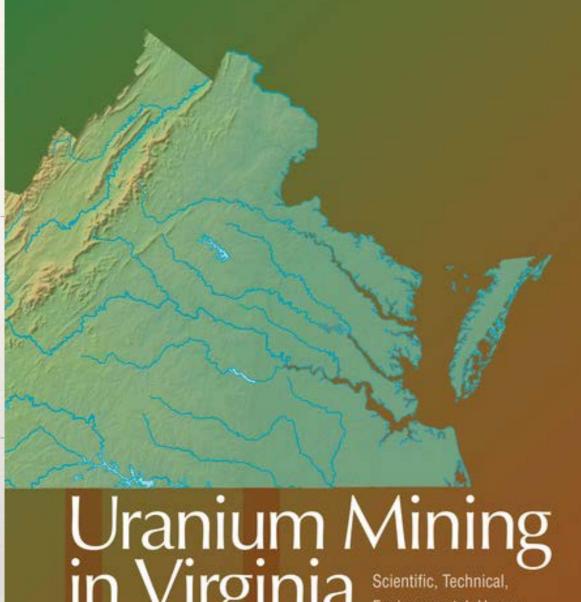
"As entrepreneurs who believe in the free enterprise system, we never asked for a dime of taxpayer money or preferential treatment."

 Richmond Times Dispatch Op-Ed by Walter Coles, CEO of Virginia Uranium, Inc.

### Uranium Mining in Virginia Scientific, Technical, Environmental, Human

Environmental, Human Health and Safety, and Regulatory Aspects of Uranium Mining and Processing in Virginia

NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES In August of 2009 the Virginia Coal and Energy Commission requested that the National Academy of Sciences conduct a study of the issues related to uranium mining in Virginia. That report, "Uranium Mining in Virginia", was completed and published in December of 2011 thanks to funding provided by Virginia Uranium, Inc., the US subsidiary of Vancouver, Canada-based Virginia Energy Resources, Inc.

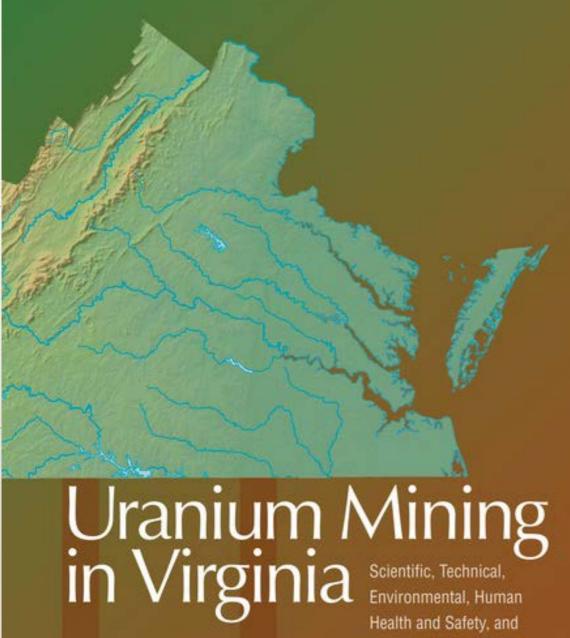


The report concluded that Virginia lacked the regulatory infrastructure necessary to permit uranium mining.

# Uranium Mining in Virginia Scientific, Technical, Environmental, Human

Health and Safety, and **Regulatory Aspects of** Uranium Mining and Processing in Virginia

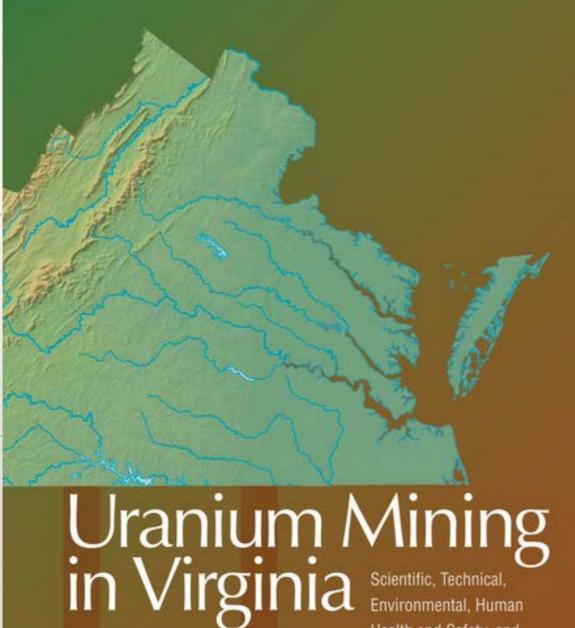
NATIONAL RESEARCH COUNCIL



Environmental, Human Health and Safety, and Regulatory Aspects of Uranium Mining and Processing in Virginia

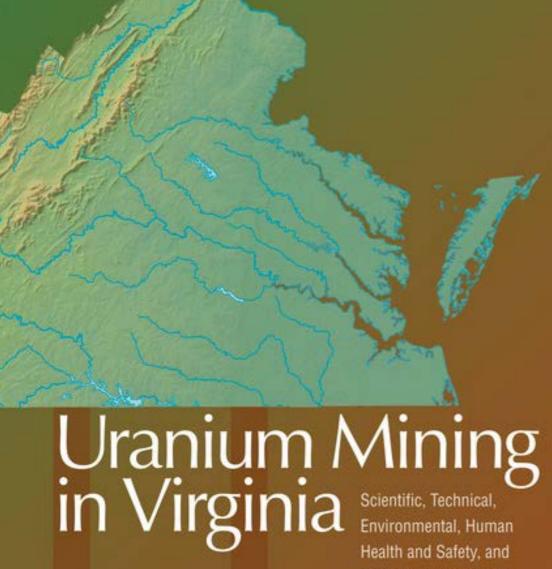
NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES The report concluded that Virginia lacked the regulatory infrastructure necessary to permit uranium mining.

"Because the Commonwealth of Virginia enacted a moratorium on uranium mining in 1982, the state has essentially no experience regulating uranium mining and there is no existing regulatory infrastructure specifically for uranium mining."



Scientific, Technical, Environmental, Human Health and Safety, and Regulatory Aspects of Uranium Mining and Processing in Virginia

NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES Further, due to the uniquely wet conditions in Virginia, the federal government was similarly inexperienced and unprepared.



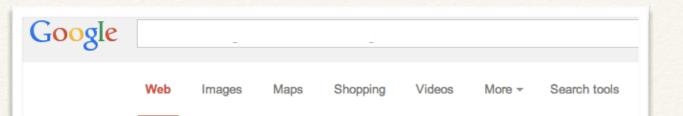
**Regulatory Aspects of** Uranium Mining and Processing in Virginia

NATIONAL RESEARCH COUNCIL

Further, due to the uniquely wet conditions in Virginia, the federal government was similarly inexperienced and unprepared.

"The U.S. federal government has only limited recent experience regulating conventional processing facilities. Because almost all uranium mining and processing to date has taken place in parts of the United States that have a negative water balance, federal agencies have limited experience applying laws and regulations in positive water balance situations."

# How much uranium are we talking about?



About 33,700 results (0.39 seconds)

Virginia Uranium Mining: Draft Regulations Now, Lift Moratorium Later www.heritage.org/.../virginia-uranium-mining-draft-regulations-now-lift... -May 29, 2013 - Virginia itself is to blame for keeping its uranium deposits off limits, but ... pounds of ore is worth somewhere between \$6 billion and \$7 billion, ...

<u>Rift Widens Over Mining Uranium in Virginia - NYTimes.com</u> www.nytimes.com/.../rift-widens-over-mining-uranium-in-virginia.html Jan 19, 2013 - Proponents of extracting Virginia's uranium, worth an estimated \$7 billion, argue that national security demands more domestic mining, ...

Proposed East Coast uranium mine dividing Va. - USA Today www.usatoday.com/story/news/nation/2013/.../virginia...mine/1866489/ -Jan 26, 2013 - Deposit's worth estimated at \$7 billion; Va. storms could make mine environmental hazard; Mine could create 300 jobs in low-employment area. You visited this page on 12/8/13.

#### Virginia Keeps Ban on Uranium Mining - WSJ.com

online.wsj.com/.../SB1000142412788732392610457827630107754623... 
Jan 31, 2013 - John C. Watkins, was backed by a company that wanted to mine an estimated **\$7 billion** worth of **uranium** from a farm in southern **Virginia**. You visited this page on 12/8/13.

NC opposition builds to proposed Virginia uranium mine :: WRAL.com www.wral.com/nc-opposition...to...virginia-uranium-mine/11955458/ -Jan 8, 2013 - As legislation that would allow uranium mining in Virginia advances ... Va., where a 119 million-pound deposit of uranium – the \$7 billion vein ...

### Business leaders, legislators worry about uranium mining's impact

Posted: Jan 18, 2012 10:41 PM EST

#### By Ray Reed

Businessmen, hospital administrators and Southside Virginia legislators said they're worried uranium mining could hurt efforts to rebuild the region's economy.

Halifax County hospital executive Chris Lumsden said a scientific study of a uranium deposit near Chatham indicates "ill health and death will be a byproduct of uranium mining."

Lumsden and other Southside leaders spoke at a state capitol news conference they organized to express opposition to mining the Coles Hill uranium deposit in Pittsylvania County.

Several scientific and economic reports on the estimated \$7 billion deposit have been submitted the past three months to a General Assembly committee reviewing Virginia's moratorium on mining.

#### February 01, 2013

### Despite Legislative Stall, Virginia Mining Debate Grinds On

#### by Brian Padden

One of the largest uranium-ore deposits in the world, valued at about \$7 billion, is located in an economically-depressed, rural area of the southern U.S. state of Virginia.

Deep underground at Coles Hill, a spread of mostly pasture and farmland, lies more than 53 million kilos [119 million pounds] of uranium ore, which a company called Virginia Uranium is seeking state approval to mine.

As recently as June 2013, VUI's website contained the following: *"Containing approximately 119 million pounds of uranium oxide, the deposit is estimated to be worth more than \$7 billion."* VUI has since scrubbed the statement from all of its materials because speculation as to the value of a mineral resource in promotional materials is a violation of Canadian securities law. The damage, however, has already been done - this statement has become the accepted value of the project and widely reported in the media.

 TABLE 1.3: PORTION OF INDICATED MINERAL RESOURCE CONSIDERED IN THE PRELIMINARY ECONOMIC ASSESSMENT

 Total North and South Coles Hill

 Category
 Cutoff
 Tons (million)\*
 wt %eU<sub>3</sub>O<sub>8</sub>
 Ibs (million)

 Indicated
 0.06
 32.9
 0.098
 64.2

 \*Long Tons

NI 43	- 101 PRELIMINARY ECONOMIC ASSESSMENT
	UPDATE (REVISED)
	COLES HILL URANIUM PROPERTY PITTSYLVANIA COUNTY, VIRGINIA UNITED STATES OF AMERICA
-1	PREPARED FOR:
	VirginiaEnergy
	Virginia Energy Resources Inc. Suite 611 - 675 West Hastings Street Vancouver, BC Canada V6B 1N2

August 19, 2013

Revised Updated Preliminary Economic Assessment - Coles Hill Uranium Property

"Assuming a plant recovery rate of 85%, the total uranium ranges from 1,225,000 lbs to 2,646,000 lbs and averages 1,885,000 lbs U<sub>3</sub>O<sub>8</sub>/year."

A closer examination of VUI's Revised Preliminary Economic Assessment reveals that the company expects to produce just under 65,000,000 pounds of uranium over the 35 year life of the mine. A far cry from the 119,000,000 pounds touted on VUI's website.

#### 1.6 Preliminary Economic Assessment

A cash flow model was developed for a 3,000 tpd case that models annual periods of cash inflow and outflow, without the financing cost of capital. The project schedule, sequence of mining, mining rate and mining costs were used to develop the cash flow model. It is assumed that production commences one year after all mining permits and licenses have been received. The primary mining rates are 700,000 tons in year one, 1,050,000 tons from years two through four, 700,000 long tons per year for years five through twenty-five, and 467,000 tons per year from year twenty-six through year thirty-five. In addition to this production, mining pillars accounts for 350,000 tons per year for years five through twenty-five, and 233,000 tons per year from year twenty-six through year thirty-five. The predicted grade of production, which is based upon mine plans through the geologic model, appropriately diluted, show a range of grades from 0.079% to 0.126% U<sub>3</sub>O<sub>8</sub>, with an average of 0.0965% U<sub>3</sub>O<sub>8</sub>. Assuming a plant recovery of 85%, the total uranium production ranges from 1,225,000 lbs to 2,646,000 lbs. and averages

Project 10001

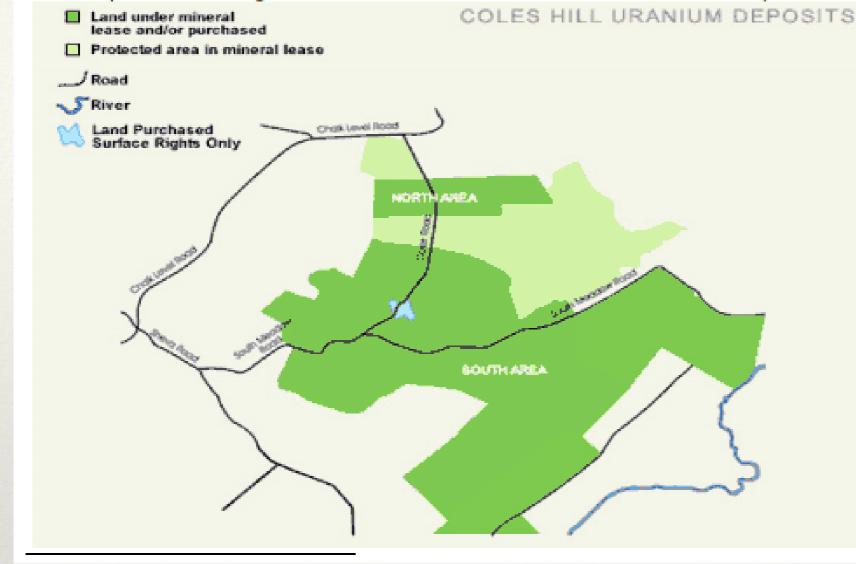
Lyntek, Inc.

Revised Updated Preliminary Economic Assessment - Coles Hill Uranium Property August 19, 2013

11

1,885,000 lbs. U<sub>3</sub>O<sub>8</sub>/year. The mill design and recovery rate is based upon prior metallurgic studies, which have been augmented by recent testing.

### The total minable uranium resource of the Coles Hill site is estimated to be 63.3 million pounds<sup>22</sup> of uranium, based on 0.06 percent cutoff grade.<sup>23</sup> The South Coles Hill site has 49.7 million pounds while North Coles Hill has a

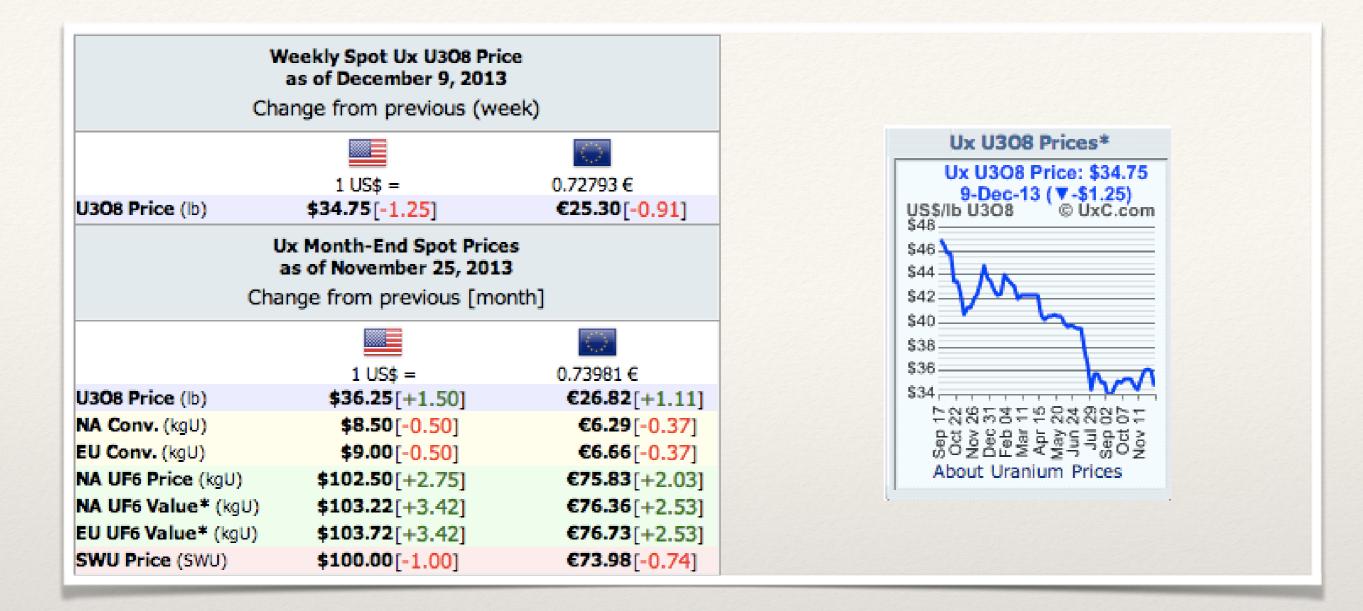


smaller deposit at 13.7 million pounds. The average grade of the Coles Hill site is 0.109 percent (of total weight), implying that a total of 29.0 million tons of uranium ore have to be extracted from underground. This minable uranium is considered by VUI to be the portion of the total uranium deposits "with sufficient grade, size and spatial distribution to be potentially mined at a profit under current foreseeable economic conditions."24

# False hopes, broken promises.

The Socioeconomic Impact of Uranium Mining in the Chatham Labor Shed, Virginia (Chmura, 2011), a study commissioned by the Virginia Coal and Energy Commission, cited a similar estimate of 63.3 million pounds of "minable" uranium at Coles Hill.

# What is Uranium worth on the world market?



# Current Uranium Spot Price

These charts show the most current information on the spot price for uranium on the world market (in both US\$ and Euros). Currently, uranium is trading at less than \$35 per pound.



# Long-Term Contract Prices

This chart from Cameco, the world's largest publicly traded uranium mining company, compares the declining trend in uranium spot prices to the similar path of long-term contract prices currently at around \$50 per pound and dropping. Historical evidence shows that uranium price spikes above \$60 per pound have not been sustained for even short periods of time—let alone for 30-to-35 years. In fact, prices have only been over \$64 for 3 out of the last 18 years. This chart from the National Academy of Sciences report on Uranium Mining in Virginia (including both uranium and oil prices), goes back to 1974.

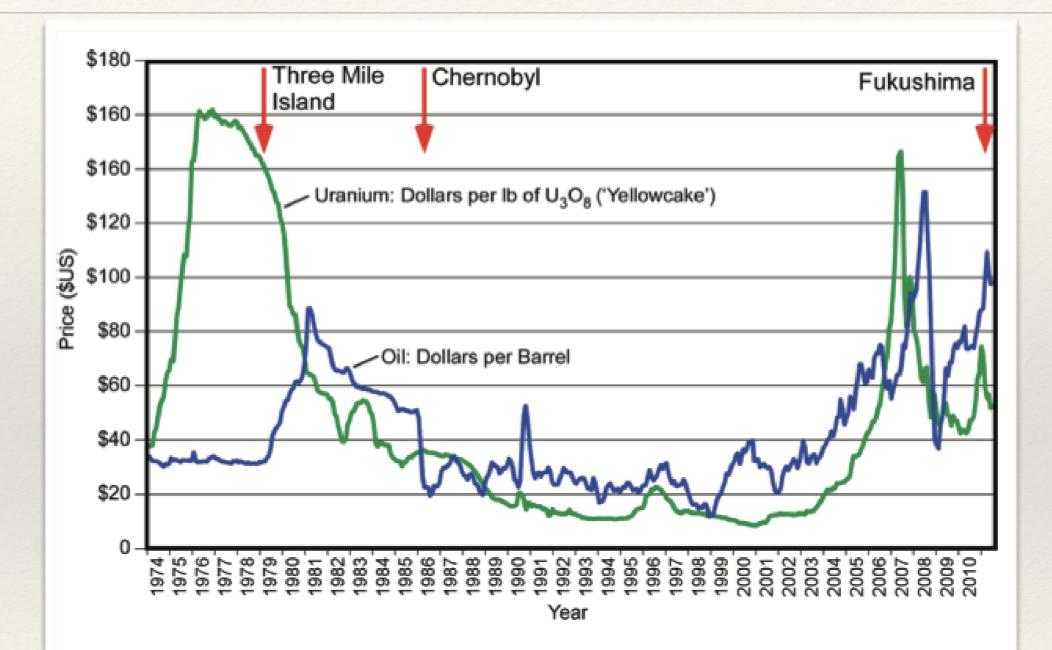


FIGURE 3.22 History of monthly inflation-adjusted spot uranium prices and oil prices from 1974 to 2011, together with the major accidents at nuclear power plants. SOURCES: TradeTech (uranium) and U.S. Energy Information Administration (oil); inflation adjustment from U.S. Department of Labor's Bureau of Labor Statistics.

How does a depressed uranium market impact Virginia Uranium's proposed Coles Hill project?



### British Columbia Securities Commission

### 2012 Mining Report

#### MINING TECHNICAL REVIEWS

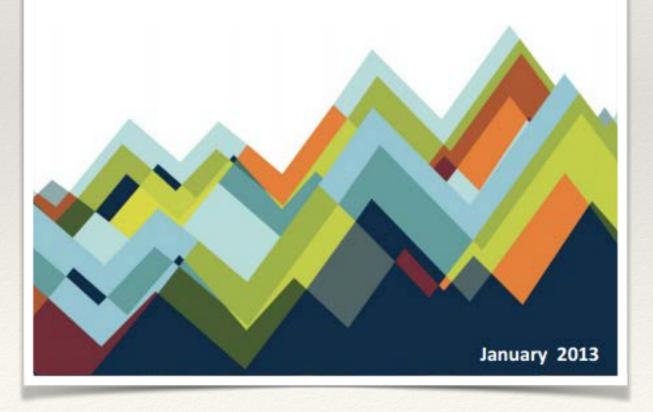
#### b) Discussion of results

The review measures the extent to which the sample of mining companies is compliant in specific areas of their technical disclosure. We assess each company's relative compliance level with each applicable category on a subjective scale of 0 to 3. For the purpose of this assessment, we consider that a score of two or higher is generally acceptable because it indicates the company is making an effort to comply with the requirement in most cases. The company's overall score represents an average of all applicable categories, converted to percentage. Due to the relatively small annual sample size, we are reporting the results from 2009 - 2012 in aggregate, as shown in the following chart.

The results of our annual compliance reviews indicate that a company's voluntary disclosure is less likely to comply with the requirements of the Mining Rule than its required filings.

On average, disclosure in the required filings we measured was 65% compliant with the requirements of the Mining Rule, compared to only 50% for voluntary disclosure. The discrepancy between the two forms of disclosure is especially apparent in reporting the results of PEA, historical estimates, Quality Assurance/Quality Control (QA/QC) results, laboratory procedures, and naming the QP.

### **British Columbia Securities Commission**



In January 2013, the British Columbia Securities Commission issued a report criticizing the mining industry for improper and misleading disclosure practices.

Home       Corporate       Projects       News       Investors       Contact	TSX.V: VUI OTCQX: VEGYF
NEWS RELEASES	
VIRGINIA ENERGY ANNOUNCES CLARIFICATION OF TECHNICAL DISCLOSURE AND REVISION OF COLES HILL 43-101 TECHNICAL REPORT	RECENT POSTS  Virginia Energy Announces Clarification of Technical Disclosure and Revision of Coles Hill 43-101 Technical Report
Aug 16, 2013	Virginia Energy Announces Appointment of Investor Relations Consultant
NR:13-07 Virginia Energy Resources Inc. (TSX.V: VUI; OTCQX: VEGYF) ("Virginia Energy" or the "Company") announces that as a result of a review by the British Columbia Securities Commission, Virginia Energy is issuing the following news release to clarify the technical disclosure on its website. In addition, problems were identified in	<ul> <li>&gt; Virginia Energy Grants Incentive Stock Options</li> <li>&gt; Virginia Energy Comments on Quebec Uranium Study</li> </ul>
The Company filed a technical report dated September 6, 2012 titled "NI 43-101 Preliminary Economic Assessment Update, Coles Hill Uranium Property, Pittsylvania County, Virginia, United States of America"by	<ul> <li>Virginia Energy Provides Legislative Update</li> <li>ARCHIVES</li> </ul>

Eight months later, in August 2013, VERI responded with a "technical clarification" to their September 2012 43-101 Technical Report. This release acknowledged the price sensitivity issue and provided a formula to adjust the *net present value* according to current market conditions. No formula was provided to adjust the value of the uranium deposit or the economic impacts of the proposed mine based on the same price sensitivity.

With respect to the Company's disclosure of the Coles Hill PEA on its website and corporate presentations, the economic analysis appears unbalanced because the Company discloses upside uranium price sensitivity without providing equal downside sensitivity. These references have been removed from the website and replaced with the following wording:

"a change of US\$5 per pound in uranium selling prices causes the project NPV to rise or fall by US\$110 M"

"a change of US\$5 per pound in uranium selling prices causes the project NPV to rise or fall by US\$110 M"

# Net Present Value (NPV)

Net present value is an approach to evaluating investments that assesses the difference between all the revenue the investment can be expected to achieve over its life, less all the costs involved, while accounting for inflation and discounting the future costs and revenue at an appropriate rate.

"The economic analysis at a yellowcake price of \$64/lb shows an internal rate of return of 36.3% before income taxes; at a discount rate of 7% the net present value is \$427 million, including a 25% contingency. The economics indicate a project worthy of further consideration."

Despite announcing the addition of a formula to adjust VUI's net present value in their press release, the "Revised Updated" PEA failed to apply that formula to the NPV calculation in the same report. Nor did they take the opportunity while revising the report to adjust the \$64/lb price estimate to reflect realistic market conditions.

NI 43 - 101 PRELIMINARY ECONOMIC ASSESSMENT UPDATE (REVISED) - Coles Hill Uranium Property August 19, 2013 COLES HILL URANIUM PROPERTY PITTSYLVANIA COUNTY, VIRGINIA UNITED STATES OF AMERICA covery rate is based upon prior metallurgic studies, ent prior to production is \$147 million, however, the Virainia Enerav 00 million is a better estimate of initial capital due to 25% contingency, the total capital spending over rate excludes any other specific non-project related ample, it would be reasonable to expect that further nge up to an additional \$40 million in an effort to oject goals. Total direct and indirect operating costs th an average of \$35/lb. U<sub>1</sub>O<sub>8</sub> over the life of mine.

> The economic analysis at a yellowcake price of \$64/lb shows an internal rate of return of 36.3% before income taxes; at a discount rate of 7% the net present value is \$427 million, including a 25% contingency. The economics indicate a project worthy of further evaluation.

#### 1.7 Conclusions and Recommendations

August 19, 2013

1.7.1 Conclusions

Revised Updated Preliminary Economic Assessment - Coles Hill Uranium Property

PREPARED FOR:

Virginia Energy Resources Inc. Suite 611 - 675 West Hastings Street Vancouver, BC Canada V6B 1N2

VIRGINIA

URANIUMING

Lyntek and BRS as a result of this updated study have arrived at the following conclusions:

The mine and mineral processing development alternatives presented herein demonstrate a potential for economically viable mineral resources, based on the cost and price estimates as discussed in this report. It must be noted that this evaluation is based upon mineral resources and not mineral reserves and mineral resources that are not mineral reserves do not have demonstrated economic viability. The preferred alternative for the development of the Coles Hill Uranium Project includes a Sub Level Open Stope (SLOS) underground conventional mine operation with on-site mineral processing via a conventional, alkaline mill. Surface mine alternatives were also evaluated and appear to have merit especially in light of the need for subsurface tailings disposal.

The technical risks related to the project are low as the mining and recovery methods are proven. The mining methods recommended have been employed successfully at similar projects in the past. The mineral processing methods employed are typical of those used in the industry for decades and are supported by metallurgical tests done to date and are available.

Primary risks related to permitting are rescinding the moratorium to allow mining in Virginia and gaining the confidence of the local community that the mining and milling can be safely conducted to protect human health and the environment. The remainder of the permitting issues is tied to obtaining the necessary permits to operate the mine and mill.

The authors are not aware of any other specific risks or uncertainties that might significantly affect the mineral resource estimates or the consequent economic analysis.

Estimation of costs and uranium price for the purposes of the economic analysis over the life of mine is by its nature forward-looking and subject to various risks and uncertainties. No forward-looking statement can be guaranteed and actual future results may vary materially.

The following conclusions have been made as a result of this study:

- The continuity of mineralization through to the surface in both the north and south deposits could support either open pit or underground mining, however underground mining is recommended (open pit is not discounted);
- · Underground mining can be performed by sub-level open stoping (SLOS), a historically productive and a safe mining method;

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Project 10001

Lyntek, Inc.

Had VUI taken the logical step of adjusting the information in their 43-101 Preliminary Economic Assessment to reflect market realities, the result would be quite difficult to sell to investors.

\$427,000,000	VUI's Net Present Value (NPV) as stated in their 43-101 Preliminary Economic Assessment and based on a uranium price of \$64 per pound
-\$660,000,000	Adjustment to NPV based on current Uranium spot price of \$35/lb according to the formula provided by VUI in their 43-101 Preliminary Economic Assessment - "a change of US\$5 per pound in uranium selling prices causes the project NPV to rise or fall by
US\$110M"	

### \$(233,000,000)

Application of VUI's formula results in the Net Present Value of the project falling to reflect a loss of \$233,000,000 over the life of the mine.

# What is the Economic Impact for Virginia?

11.29.2011

### False hopes, broken promises.

In 2011, the Virginia Coal and Energy Commission paid for a socioeconomic study on the impacts of uranium mining in Southside Virginia. The results of that study have been highly touted by Virginia Uranium. In particular, they have focused on the anticipated "economic benefit" to the region anticipated by the proposed Coles Hill project.



The Socioeconomic Impact of Uranium Mining and Milling in the Chatham Labor Shed, Virginia

CHMURAECONOMICS&ANALYTICS

Prepared

for

Virginia Coal and Energy Commission c/o Marty Farber, Division of Legislative Services 910 Capitol Street, 2nd Floor Richmond, Virginia 23219

#### Richmond, Virginia

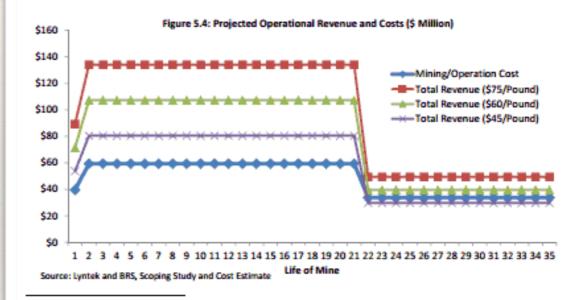
1309 East Cary Street Richmond, Virginia 23219 804.649.1107 (phone) 804.644.2828 (fax) Cleveland, Ohio

1025 East Huron Road Cleveland, Ohio 44115 216.357.4730 (phone) 216.357.4730 (fax) and France, have no plan to reduce their nucl such as China, Russia, South Korea, and Ind 7 years.<sup>35</sup> While both the Japanese disaster a movement in uranium prices since March 201 and will be at the current level (\$50-\$60 in U.3. The price of uranium will have a significant effect on the profitability of the uranium mining and milling
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### operations."

Now rather outdated, the 2011 study forecasts stabilization in the uranium market in the \$50-\$60 per pound range "for the foreseeable future." Given today's uranium spot price of \$35/lb, Chmura's assumptions greatly exaggerate the profitability and economic benefit of the project. In fact, the current market price for uranium falls \$10/lb short of Chmura's *low-end* revenue model, as well as their operational cost estimates. The 2011 Japan nuclear power plant accident notwithstanding, most economists predict that the demand for uranium will be increasing, as the United States and other industrial countries strive to reduce greenhouse gas emissions and shift energy source fuels to those with low or no greenhouse gas emissions.<sup>3233</sup> Nuclear energy is a key component of the strategy to reduce greenhouse gas emissions. However, the nuclear accident in Japan has highlighted the risk of nuclear energy, and some countries, such as Germany, announced that it would phase out nuclear power plants completely by 2022.<sup>34</sup> Other major nuclear generation countries, such as the United States and France, have no plan to reduce their nuclear energy-generating capabilities. Several developing countries, such as China, Russia, South Korea, and India, are planning major expansions in nuclear power over the next 5 to 7 years.<sup>35</sup> While both the Japanese disaster and the change in German nuclear policy have dampened the upward movement in uranium prices since March 2011, it is expected that the spot price of uranium may have stabilized and will be at the current level (\$50-\$60 in U.S. dollars) for the foreseeable future.<sup>36</sup>

The price of uranium will have a significant effect on the profitability of the uranium mining and milling operations. Under the baseline price of \$60 per pound, the annual revenue can reach \$107.3 million from years 2 to 21, and \$39.5 million from years 22 to 35, with accumulative revenues of \$2.8 billion during the life of the mine. Under the high-scenario price of \$75 per pound, holding the production level constant, the accumulative total revenues during the life of the mine will be \$3.5 billion. Under the low-scenario price of \$45 per pound, holding the production level constant, the accumulative total revenues during the life of the mine will be \$2.1 billion.



<sup>&</sup>lt;sup>20</sup> \*Uranium: Re-Assessing Uranium and Uranium Equities Post Japanese Nuclear Disaster\* Royal Bank of Scotland, 2011.

<sup>&</sup>lt;sup>26</sup> For example, some industry consultants have forecasted that the price of uranium will be \$55 per pound through 2021. Source: <u>http://www.clearonmoney.com/dw/doku.php?id=investment:commentary:2011:08:02-</u> uranium\_value\_and\_volatility\_assured.



<sup>&</sup>lt;sup>20</sup> "U<sub>2</sub>O<sub>8</sub>: Demand Hit Priced In – Supply Strips Not Yet Factored" Bank of America/Merrill Lynch, July 2011.

<sup>&</sup>lt;sup>34</sup> Source: http://www.ndtv.com/article/world/germany-announces-end-to-nuclear-power-by-2022-108997.

<sup>&</sup>lt;sup>25</sup> \*UsOx: Demand Hit Priced In – Supply Strips Not Yet Factored\*. Bank of America/Merrill Lynch, July 2011.



The Socioeconomic Impact of Uranium Mining and Milling in the Chatham Labor Shed, Virginia

Prepared 6

red for Richmond, Virginia 23219

11.29.2011

"The Scoping Study indicates that should the average price VUI receives for its uranium fall below \$45 per pound, then the net present value of the entire operation would approach zero."

Richmond, Virginia

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CHMURAECONOMICS&ANALYTICS

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"Additional unforeseen regulatory burdens - as well as a general bias among scoping studies to underestimate the initial capital costs - argue that VUI's actual break-even point will be higher than \$45 per pound."

Unfortunately, Chmura's uranium market price range of \$75/lb, \$60/lb, \$45/lb doesn't go low enough to give an accurate assessment of the economic benefit to the region at today's uranium spot price of \$35/lb. The study does, however, note that market prices below \$45/lb will result in a project that is not, in fact, profitable. Given the low grade quality of the uranium deposits at the Coles Hill site and the uniqueness of the physical environment of Pittsylvania County-particularly its high levels of precipitation and population density compared to the American southwest-it is unlikely the VUI will be a low cost producer of uranium. The Scoping Study indicates that should the average price VUI receives for its uranium fall below \$45 per pound, then the net present value of the entire operation would approach zero.38 Additional unforeseen regulatory burdens-as well as a general bias among scoping studies to underestimate the initial capital costs<sup>96 97</sup>-argue that VUI's actual break-even point will be higher than \$45 per pound. For instance, the Scoping Study explicitly states the tailings holding cells' design is tentative as it is based on scientific measurements taken in the 1980s and represent "approximate" results.<sup>38</sup> While additional research by VUI<sup>99</sup> has indicated they may be able to realize greater efficiencies than what was assumed by their Scoping Study, their consultants conclude than even small changes in some of their assumptions could greatly increase their costs estimates.<sup>100</sup> For these reasons specific to VUI as well as the track record of the only other functioning US-based uranium mill, we judge there is a non-trivial chance that VUI's operation could suffer extended periods of reduced production or may even be idled. This would necessarily entail that some of the economic benefits-both jobs and taxes-would be foregone. Regulations would need to be developed to establish protective measures necessary to ensure public health and safety while the plant was idled and VUI was unready or unwilling to implement full remediation and reclamation efforts.

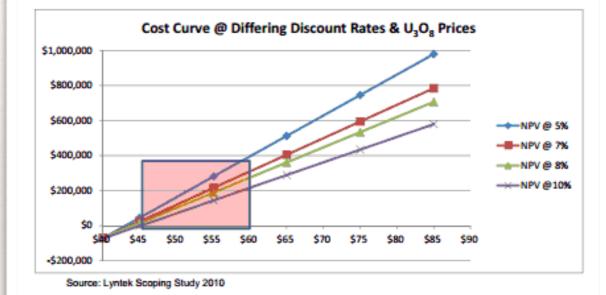


Figure 6.0: VUI Profitability (Net Present Value-NPV) at Different Prices for Yellowcake and Discount Rates

<sup>46</sup> "Coles Hill Uranium Project Scoping Study and Cost Estimate" (Table 1-2), Lyntek & BRS, October 2010.

- <sup>66</sup> The VUI Scoping Study does contain 25% contingency cost provisions, but so have other engineering assessments that ultimately prove to have estimated costs too conservatively.
- \*\* \*Bias and Error in Mine Project Capital Cost Estimation\* Jasper Bertisen & Graham Davis, 2008.
- <sup>98</sup> "Coles Hill Uranium Project Scoping Study and Cost Estimate", pp. 28-30, Lyntek and BRS, October 2010.
- 99 "Update on Metallurgical Studies for Coles Hill" VUI News Release, 26-Sep-2011.

100 "Coles Hill Uranium Project Scoping Study and Cost Estimate", pp. 28-30, Lyntek and BRS, October 2010.



#### 5.9. Spending and Employment Impact of the cessation of Mining and Milling

#### 5.9.1. Temporary Idling of Mining and Milling Operations

The temporary idling of mining and milling operations has been the norm in the industry since the price of uranium dropped in the early 1980s and remained below \$20 per pound for nearly 25 years. The sole functioning uranium mill (White Mesa) in the United States is located near Blanding, Utah and is operated by Denison Mines, a Canadian mining company. White Mesa was opened in 1979, but has been repeatedly idled and has not run at full capacity since the late 1980s.<sup>93</sup> Throughout the last decade White Mesa has operated at partial capacity and relied heavily on processing "alternate feed" material, rather than milling traditional uranium feed stock.<sup>94</sup>

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Given the low grade quality of the uranium deposits at the Coles Hill site and the uniqueness of the physical environment of Pittsylvania County-particularly its high levels of precipitation and population density compared to the American southwest-it is unlikely the VUI will be a low cost producer of uranium. The Scoping Study indicates that should the average price VUI receives for its uranium fall below \$45 per pound, then the net present value of the entire operation would approach zero.95 Additional unforeseen regulatory burdens—as well as a general bias among scoping studies to underestimate the initial capital costs<sup>96 97</sup>-argue that VUI's actual break-even point will be higher than \$45 per pound. For instance, the Scoping Study explicitly states the tailings holding cells' design is tentative as it is based on scientific measurements taken in the 1980s and represent "approximate" results.98 While additional research by VUI<sup>99</sup> has indicated they may be able to realize greater efficiencies than what was assumed by their Scoping Study, their consultants conclude than even small changes in some of their assumptions could greatly increase their costs estimates.<sup>100</sup> For these reasons specific to VUI as well as the track record of the only other functioning US-based uranium mill, we judge there is a non-trivial chance that VUI's operation could suffer extended periods of reduced production or may even be idled. This would necessarily entail that some of the economic benefits-both jobs and taxes-would be foregone. Regulations would need to be developed to establish protective measures necessary to ensure public health and safety while the plant was idled and VUI was unready or unwilling to implement full remediation and reclamation efforts.

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Profitability is not just an issue for VUI and its investors. Another troubling aspect of the uranium mining industry discussed in the Chmura study is its history of idling operations during periods of unfavorable pricing on the world market. The study goes on to point out that Coles Hill is particularly susceptible to this scenario due to the low grade of the deposit and the high cost of extraction.

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Disturbingly, the quite likely scenario of extended idling also creates a costly regulatory burden beyond the multimillion dollar annual expense the Commonwealth would shoulder to regulate the Coles Hill Mine.

### Virginia Uranium and its parent company, Virginia Energy Resources, Inc, has deceived regulators, investors, and the people of Virginia

- VUI is not a "Virginia-owned, Virginia-managed" company They are 100% owned by Virginia Energy Resources, Inc, a British Columbia-based exploratory mining interest.
- VUI & VERI have spent millions attempting to influence public officials and sway public opinion in favor of their plan.
- Lifting the moratorium and permitting uranium mining in Virginia would create a huge regulatory burden and expense to taxpayers.
- VUI is only expecting to recover and process about 64 million pounds of uranium at Coles Hill, far less than their original claims.
- VUI has consistently used an unrealistic market price for uranium of \$64/lb in their public filings and reports. The current spot price for uranium is less than \$35/lb and the current long-term contract price is approximately \$50/lb and dropping.
- VUI's net present value is dramatically different than their stated NPV of \$427 million. Based on current conditions, and using VUI's own formulas, their NPV is currently *negative, at* -\$233 million.
- \*According to the Chmura study, current market conditions would likely lead to prolonged idling and the reduction or outright elimination of any real economic benefit to Virginia.
- In place of much-touted economic benefit, VUI would leave an unfunded regulatory and remediation tab for the Commonwealth of Virginia to pay.

## Questions?

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