

The Coles Hill Progress



FUEL FOR AMERICA. JOBS FOR VIRGINIA. | WWW.VIRGINIAURANIUM.COM | SUMMER 2011

On the Record With Stewart East

Stewart East is a geologic technician with Virginia Uranium, Inc., and a life-long resident of the Sheva community.

My wife and I were both born and raised within a few miles of the Coles Hill uranium deposit. It's a dream come true to be able to use skills I have developed during my education and work experiences elsewhere right here at home. Four generations of my family have worked the land in the Sheva area raising tobacco. My father and I still raise beef cattle on the same land. My wife and I recently bought a home next to this property, where we now live with our four-year-old son. I cannot convey how much the farming lifestyle and this land mean to me, my family, and my neighbors. I would never pursue mining in this area if I thought it could possibly cause harm to local farms or the people of this area.



Continued on page 3

Governor McDonnell: "If it can be done safely then I'm all for it."

Governor Bob McDonnell has publicly endorsed the idea that if uranium mining can be done safely in Virginia, it should be done. McDonnell, who was elected to office on a 'Bob's for Jobs' campaign platform, stated in a July radio interview, "It will be a tremendous number of jobs, tax revenues and opportunities to support the nuclear industry." The Governor is awaiting the results of the National Academy of Sciences study on the safety of uranium mining in Southside Virginia, and notes that the state stands "to gain a lot by a safe and vibrant nuclear industry."



The Virginia Beach Water Study: Fatally Flawed

A recent analysis by Kleinfelder – an environmental engineering firm – found that claims by the City of Virginia Beach that uranium mining would pose risks to their water supply are not credible. The City of Virginia Beach Department of Public Utilities employed flawed assumptions in their analysis of potential impacts of mining and milling operations on downstream drinking water supplies. In critiquing the City's approach to the issue, Kleinfelder uncovered flaws that render the study's conclusions not just implausible, but virtually impossible. Among other findings, Kleinfelder noted:

- The Virginia Beach study's assumption of locating a tailings site in the upper Roanoke River basin is illogical, making the model of the basin irrelevant in assessing potential impacts from future operations by VUI. Tailings impoundments are typically located next to a mill, which is usually as close as possible to the mine when the ore comes from a single source, as at Coles Hill. Both the mine and mill will most likely be located at Coles Hill, within the Whitethorn Creek watershed, a tributary of the Banister River, not on the Roanoke River (15 miles from Coles Hill), as the Virginia Beach study states.
- The Virginia Beach study ignores Federal and State regulatory guidelines created expressly to protect public health and the environment – regulations that VUI must follow while mining and milling at Coles Hill. For example, the Virginia Beach

Continued on page 3

Water, Water, Water: What You Need to Know

Water plays a significant role in the mining of uranium. Reasonable questions exist about the role of water in mining; people want to know how it will be used, how much is needed, and how its quality can be protected. It is important that the public understand water's role in uranium mining and the multiple technologies and regulations that exist to ensure that the water supply remains safe. As stewards of the land at Coles Hill since the 1700s, the principal owners of Virginia Uranium are committed to maintaining water quality for generations to come.

The Basics

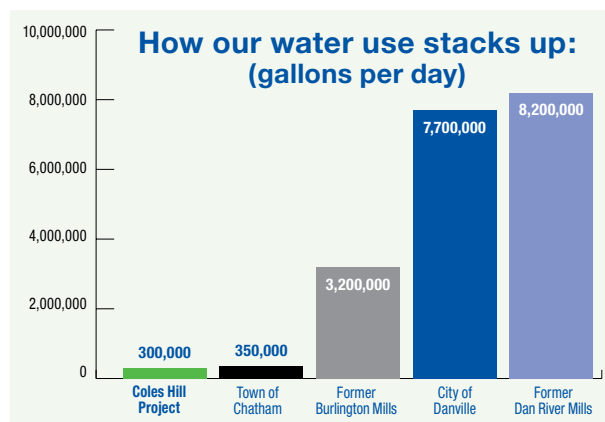
In the largely underground methods currently being contemplated for developing the Coles Hill uranium deposit, water would be used to suppress dust during the excavation and movement of ore, and to ensure that tailings (byproduct generated during milling) are never exposed to the air. All water used in the mining operation will come from ground sources as well as rainfall on the 3,500-acre Coles Hill property – not from nearby lakes or streams. A fully operational mine and mill would use an estimated 300,000 gallons of water per day. (Compare this to the former Burlington Mills in Pittsylvania County, which used 3.2 million gallons per day.)

Protecting the Water Supply

Numerous regulatory agencies will oversee water quality during the lifespan of a uranium mine and mill at Coles Hill and beyond, including the Nuclear Regulatory Commission (NRC), the Environmental Protection Agency (EPA), the U.S. Department of Energy (DOE), and the Commonwealth of Virginia. It is important to note that the stringent requirements of the NRC will ensure that adequate waste management facilities will be designed and constructed.

A modern water treatment system (much like that which cleans the water in municipal systems) will be constructed on the mine site, where it will treat all waste and runoff

water and bring it up to the safe-water drinking standards enforced by the Environmental Protection Agency. The Safe Drinking Water Act, a federal law that establishes Maximum Contaminant Levels, or MCLs, regulates the levels of uranium and other contaminants in drinking water. The uranium limit is 30 µg/l (micrograms per liter) in drinking water.



During the life span of the mine and mill, water quality monitoring will be conducted by VUI in accordance with state and federal requirements. The data will be maintained in real time on a GIS system and reported to the appropriate agencies. The Department of Energy has responsibility for monitoring the site upon completion of operations, in perpetuity.

Conclusion

It is worth remembering that uranium is a naturally occurring element found in rocks, soil, and water in our daily environment. The Virginia Department of Health's website reminds us that people ingest a small amount of natural uranium every day through food, and a small amount for every liter of water they drink. Systems are in place to protect the public health from over exposure to these elements. Just as these systems are employed to ensure water quality against everyday elements, Virginia Uranium will fully comply with laws, guidelines, and technological best practices to protect the precious natural resources, including water, at Coles Hill.

VUI Hits the Road

VUI's new mobile educational exhibit made its debut in July at the Food Lion parking lot in Gretna. VUI staffers met with visitors, handed out brochures, and answered questions about the company. You may expect to see the VUI trailer on the road again soon and parked at the July 30th Tomahawk Mill Festival, the August 6th Altavista Trade Lot Show, and the September 17th Tomahawk Mill Festival at the Avoca Museum in Lynchburg. Stop by for a visit!



Bringing Home Our Best & Brightest

Five interns have spent the summer cataloguing the rock samples from the Coles Hill site, doing research, and becoming acquainted with the environmental and engineering aspects of the mining industry. They have also had the opportunity to meet some of Virginia's leading scientists, including Professor Robert Bodnar, Virginia's Scientist of the Year in 2010. The picture at right shows the interns in the core shed, where the rock samples are stored. From the left: Clayton Moss, Brigham-Young University; Aaron Jacks, Lynchburg College; Mitchell Fitzgerald, Virginia Polytechnic Institute; John Reutter, University of Virginia; and Michael Mayhew, Virginia Military Institute.



The Virginia Beach Water Study: Fatally Flawed *Continued from page 1*

study assumes that tailings impoundments will be located adjacent to the river channel, which is contrary to Nuclear Regulatory Commission criteria that require impoundments to be located away from rivers and as far upstream as possible in a watershed to minimize the amount of flood water that could affect the impoundment. State and Federal regulations require that tailings impoundments must be designed to withstand flood events greater than Virginia Beach's assumed worst-case.

- The Virginia Beach study assumes that radioactive waste will leave the site during a catastrophic tailings dam failure, based on designs that failed in the past. This scenario fails to consider current engineering and strict design requirements necessary for Federal and State licensing. In fact, the probability that Virginia Beach's worst-case scenario would happen is less than 1 in 10 million, or

**IN FACT, THE
PROBABILITY THAT
VIRGINIA BEACH'S
WORST-CASE SCENARIO
WOULD HAPPEN IS LESS
THAN 1 IN 10 MILLION,
OR EFFECTIVELY ZERO.**

effectively zero. It is 10 times more likely that a person would be struck by lightning.

- The Virginia Beach study analysis inexplicably stopped at the Kerr Reservoir and not at the drinking water taps of citizens in Virginia Beach. Before reaching Virginia Beach taps, water from Kerr Reservoir is pumped to other reservoirs and mixed with other surface and ground water sources and must pass through a water treatment system designed to monitor and remove any impurities from the water, including radioactive particles and sediment.

Notably, a recent study by the Arizona Geological Survey, an agency of Arizona state government, modeled a hypothetical, worst-case scenario at a uranium mine and found "trivial" impact on the Colorado River.

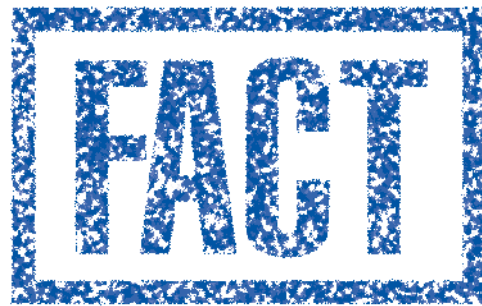
On the Record With Stewart East *Continued from page 1*

Working for Virginia Uranium has been a real blessing for me. Tobacco has all but left this area and good factory jobs are increasingly hard to come by. Like so many of my friends, I thought I would have to leave home to find employment. I dreaded the day that I would not be able to take my son fishing in our pond or help my father with hay in the summer. Instead, working for the company has enabled me to use various skills I've learned on the farm, in industry, and through my education at Danville Community College. Moreover, I have the opportunity to complete my bachelor's degree at Averett University.

My wife and I don't have the slightest hesitation in raising our growing family close to the uranium operation. With countless federal and state safeguards regulating the industry today, we are confident that this operation will be a tremendous asset for the community now and for generations to come. My great hope is that the state of Virginia will understand how vitally important and beneficial this project is for Southside Virginia and help us make mining and milling at the Coles Hill deposit a reality. I feel so fortunate that this has come my way. My hope is that opportunities from Virginia Uranium will soon be available to others in Southside Virginia.



VS.



It's no surprise that many of Virginia's prominent, well-funded environmental advocacy organizations oppose uranium mining at Coles Hill. In the *Richmond Times-Dispatch*, representatives of the three leading opponents of uranium mining in Virginia – the **Southern Environmental Law Center**, the **Piedmont Environmental Council** and the **Virginia League of Conservation Voters** – went so far as to dismiss the ongoing National Academy of Sciences study of uranium mining in Virginia, saying that they “did not want the study in the first place.” Their promotion of myths in this important public policy debate obscures the issues and misleads the public. See the examples below from many of these groups...and the rebuttals. VUI's position is clear: If the National Academy of Sciences' findings indicate that it is feasible for uranium mining to proceed in Virginia, we hope the Legislature will move forthwith on promulgating regulations.



THE PIEDMONT ENVIRONMENTAL COUNCIL HAS CIRCULATED A MAP OF VIRGINIA ENTITLED 'WATER SUPPLIES POTENTIALLY IMPACTED BY URANIUM MINING' THAT INCLUDES FAIRFAX, TOWN OF ORANGE, FREDERICKSBURG AND SPOTSYLVANIA, AS WELL AS HALIFAX, CLARKSVILLE, AND MECKLENBURG.

– *Piedmont Environmental Council website, February 21, 2011*



These water supplies are not threatened by Coles Hill or any other uranium deposit. As state regulators have testified, Coles Hill is the only deposit in Virginia worth mining. “With the exception of Coles Hill, none of the occurrences identified to date are presently considered economic deposits due to low grade and/or limited extent.”

– William L. Lassetter, Jr., Economic Geology Manager, Virginia Department of Mines, Minerals, and Energy, Division of Geology and Mineral Resources.



“URANIUM MINING IN VIRGINIA WOULD BE THE FIRST TO TAKE PLACE EAST OF THE MISSISSIPPI.” “HISTORICALLY, URANIUM HAS BEEN MINED IN DRY, ARID CLIMATES.”

– *Kay Slaughter, Southern Environmental Law Center video, You Tube*



Contrary to this mantra from uranium opponents, the facts are that uranium recovery has occurred in Florida, Louisiana, and Elliot Lake (in Ontario, now a thriving recreational and retirement community) – all east of the Mississippi. Other semi-arid and even wet climates have hosted uranium mining in Australia, Canada, Texas, and South Africa.

MYTH

DUE TO URANIUM'S VOLATILE MARKET PRICE, "THE COMPANY MAY SUSPEND OPERATIONS FOR AN EXTENDED PERIOD OF TIME OR EVEN GO OUT OF BUSINESS ALTOGETHER, PUTTING PEOPLE OUT OF WORK AND A COMMUNITY LEFT TO CLEAN UP THE MESS."

– Keep the Ban Economic Fact Sheet, 2011

FACT

It is standard practice for mining companies to sign long-term selling contracts which last up to twenty years. Such contracts secure the price of uranium for an extended time period while providing long-term job stability for miners and predictable revenues for the communities in which they work. Moreover, no uranium-mining company can extract an ounce of ore before posting surety bonds sufficient to restore the land it will disturb; for example, Pinion Ridge in Colorado is setting aside \$11 million in bonds and Homestake Grants in New Mexico \$33 million.

MYTH

"URANIUM MINING CAN LEAD TO RADIOACTIVE CONTAMINATION OF AIR AND GROUND WATER, CAUSING CANCER AND BIRTH DEFECTS."

– Virginia League of Conservation Voters Press Release on Congressman Robert Hurt campaign ads, October 13, 2010

FACT

Seven mines operated on the Arizona Strip, an area north of the Grand Canyon known for its high-grade uranium ore, between 1980 and 1991, producing more than 19 million pounds of uranium without any recorded damage to the environment, wildlife or the health of workers and neighboring communities."

– Dr. Madan Singh, director of the Arizona Department of Mines and Mineral Resources, Associated Press reports, April 2010

MYTH

"THERE WILL BE A DEAD ZONE WITHIN A 30 MILE RADIUS OF THE MINE. NOTHING WILL GROW. ANIMALS WILL DIE. THE RADIATION GENETICALLY ALTERS TISSUE. ANIMALS WILL NOT BE ABLE TO REPRODUCE. WE'LL SEE MALFORMED FETUSES."

– Jack Dunavant, Southside Concerned Citizens

FACT

"The proposed mining endeavors can be carried out with minimal impact on the environmental quality of the surrounding areas while simultaneously stimulating the economy of Southside Virginia, filling a vacancy in our country's energy needs, and reducing the United State's dependency on foreign sources of energy."

– Carter Ficklen, President of the Virginia Health Physics Society

MYTH

DRINKING WATER FOR VIRGINIA AND NORTH CAROLINA WOULD BE AT RISK. THE PROPOSED SITE IN PITTSYLVANIA COUNTY IS UPSTREAM FROM LAKE GASTON, THE PRIMARY SOURCE OF DRINKING WATER FOR VIRGINIA BEACH AND COMMUNITIES IN NORTH CAROLINA.

FACT

Based on NRC, EPA and other regulatory standards and the characteristics of the Coles Hill site, the probability of a tailings release from the Coles Hill site is effectively zero, or 1-in-10,000,000.

– (Kleinfelder, May 2011)

What Others Are Saying... About the Possibilities for Southside

"IF THE PROFESSIONAL STUDY NOW UNDER WAY CONCLUDES THE URANIUM DEPOSITS IN PITTSYLVANIA CAN BE EXTRACTED AND TRANSPORTED WITHOUT THREATENING THEIR SURROUNDINGS, THEN WE WILL ENDORSE MINING." – *Richmond Times-Dispatch Editorial Board, July 16, 2011*

"IT SEEMS TO ME THAT, IF IT CAN BE DONE SAFELY, VIRGINIA URANIUM COULD JUST VERY WELL BE A MAJOR BENEFACITOR OF THE UNDER-EMPLOYED AND UNEMPLOYED IN MARTINSVILLE AND HENRY COUNTY AS WELL AS ALL OF SOUTHSIDE VIRGINIA." – *R.M. Fitzgerald, Cascade, May 25, 2011, Chatham Star-Tribune*

"THE ECONOMIC IMPACT FROM THE MINE WILL BE 400 PERCENT GREATER THAN OUR CURRENT LARGEST INDUSTRY – AGRICULTURE/FARMING." – *S. Wayne Roach, Sr., June 29, 2011, Chatham Star-Tribune*

"I WOULD LIKE VIRGINIA'S GENERAL ASSEMBLY TO APPROVE THE SITE AS A NEW LOCATION FOR MINING AND MILLING. THAT SITE WILL CREATE A \$9 BILLION ECONOMIC IMPACT TO SOUTHSIDE OVER THE NEXT 35 YEARS OF OPERATION." – *Dan Reynolds, June 29, 2011, Chatham Star-Tribune*

"MINING AND PROCESSING THE COLES HILL DEPOSIT WILL HELP OUR SOCIETY MOVE TOWARD ENERGY INDEPENDENCE, WHICH HAS BOTH STRATEGIC AND ECONOMIC BENEFITS." – *Mike Lawless, president of the Virginias Section of the American Institute of Professional Geologists, July 12, 2011*