

Technology Metals for a **New** Generation™



ucore
uranium

The logo graphic for Ucore uranium, featuring three stylized leaves in blue and yellow colors.



Heavy Rare Earth Exploration in Alaska





Disclaimer

■ Cautionary Notes and Disclaimers

This presentation may contain forward-looking statements including, but not limited to, comments regarding the timing and content of upcoming work programs, geological interpretations, receipt of property titles, potential mineral recovery processes, and other related matters. Forward-looking statements address future events and conditions and therefore involve inherent risks and uncertainties. The Ucore Uranium Inc properties are at an early stage. More work is required before the mineralization and the Projects' economic aspects can be confidently modeled. Actual results may differ materially from those currently anticipated in this presentation. No representation or prediction is intended as to the results of future work, nor can there be any promise that the estimates and projections herein will be sustained in future work or that the Projects will otherwise prove to be economic.



1. Ucore Overview

- TSX-V:UCU / OTC:UURAF
- Three years of rapid growth:
 - » Recent Market Cap - \$40 Million+
 - » Shares Issued/Outstanding – 87M
 - » Cash - \$2Million+
- Specializing in Rare Metals exploration:
 - 2007 Merger – TSX-V:LML
 - 100% Control of Bokan Mountain
 - Operating in U.S. as **rare earth One**™
 - Focus on HREE's & U3O8

2. *Primer on*

Rare Earths



- Unique Group -17 Lanthanoids
- The “***Technology Metals***”
- Essential to green tech, hi tech, medical & military.
- U.S. largest global consumer
- Chinese monopoly & staged export withdrawal (5 year plan)
- One of the hottest junior sectors

3. Heavy vs Light REE's

3.1 More Valuable.

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<u>Pure Metal Oxide</u>	<u>Principal Uses</u>	<u>Price US\$ / kg*</u>
Lanthanum Oxide	Re-chargeable batteries	\$6
Cerium Oxide	Catalysts, glass, polishing	\$5
Praseodymium Oxide	Magnets, glass colourant	\$26
Neodymium Oxide	Magnets, lasers, glass	\$28
Samarium Oxide	Magnets, lighting, lasers	\$5
Europium Oxide	TV colour phosphors: red	\$500
Terbium Oxide	Military Apps: guided missiles, smart weapons	\$400
Dysprosium Oxide	Military Apps: lasers, high powered magnets	\$140
Gadolinium Oxide	Magnets, superconductors	\$8.00
Yttrium Oxide	Phosphors, ceramics, lasers	\$10.00







* Rounded from source: metalpages.com; Feb 2010



Heavy vs Light REE's (cont..)

3.2. More Scarce.

HREO Content (as a percent of TREO):

- Mt Weld (5%) 
- Dubbo (7%) 
- Mountain Pass (9%) 
- Bear Lodge (10%) 
- Thor Lake (20%) 
- **Bokan Mtn. (50%)** 

4. Bokan Advantages

4.1 World Class HREE Positioning

- One of very few primarily **HREE** enriched deposits in the world with near term capability;
 - Among the highest known **HREE vs LREE** skews (up to **95%**)
- Among the highest absolute **HREE** grades on record (**11%+ HREO**)



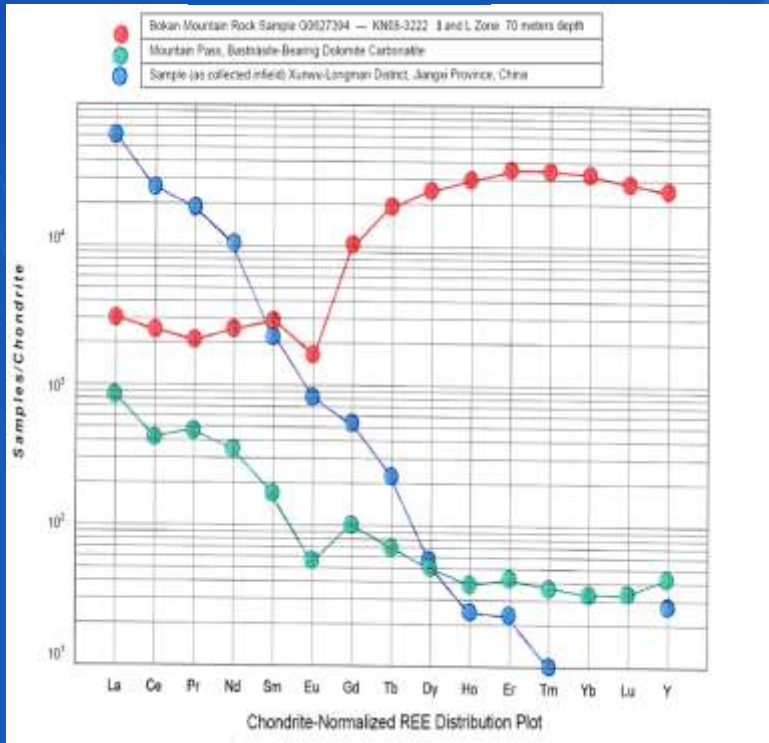
Bokan

S.China

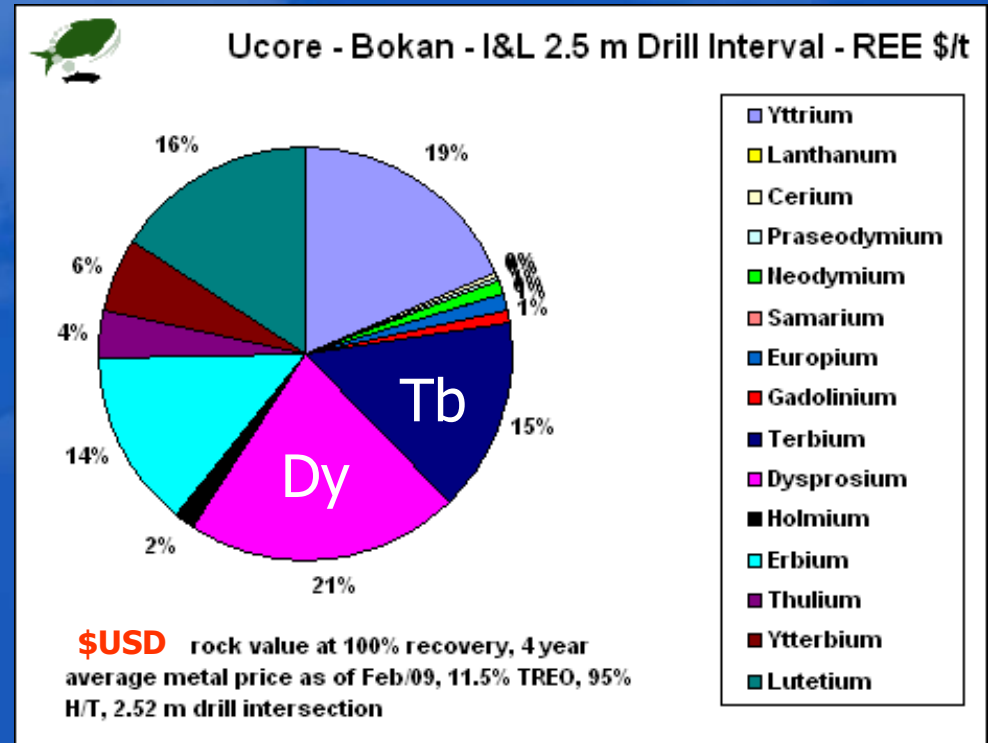
Pitinga

Near Term
HREE Prospects
(**<5yrs**) 

4.2 Unique Mineralized Signature



Source: A. Mariano Sept/09



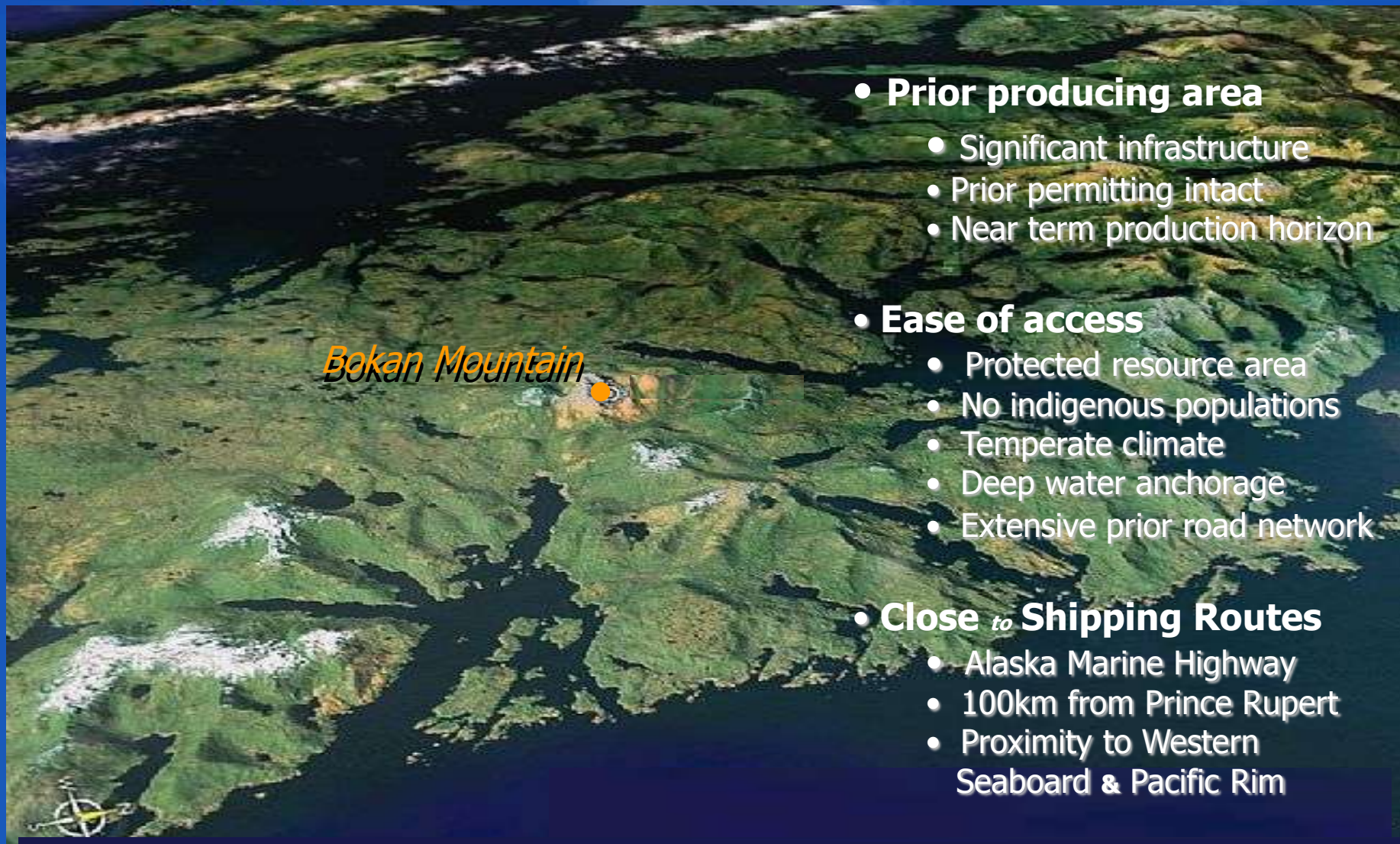
Source: Kaiser Bottom Fish Sept/09

- Unusual **HREE** content.
- Anomalous presence of the “strategic REE’s”:
Dysprosium (Dy)
& Terbium (Tb)*

- Exceptional **Values per Ton**
 Hole 34 figures available via
ucoreuranium.com & metalpages.com.

* Dy & Tb: Chinese embargo; 5 yr plan: 2010-15

4.3 Excellent Logistics



- **Prior producing area**
 - Significant infrastructure
 - Prior permitting intact
 - Near term production horizon
- **Ease of access**
 - Protected resource area
 - No indigenous populations
 - Temperate climate
 - Deep water anchorage
 - Extensive prior road network
- **Close to Shipping Routes**
 - Alaska Marine Highway
 - 100km from Prince Rupert
 - Proximity to Western Seaboard & Pacific Rim

4.4 U.S. Location



- Fully secure mineral title & political domain
- Significant historical resource: 374M lbs TREO @ 50%HREE*
In situ value: \$USD Billions
**USGS; 1989; non 43-101 compliant*
- Largest historically documented HREE deposit in U.S.(USGS/USBM); “Perfect Complement” to Mtn. Pass & Bear Lodge LREE’s.
“US self sufficiency.” – Dines/09
- Nearest American HREE deposit to production - *Lifton/09*

4.5 Bokan: a Critical Strategic U.S. Asset




- U.S. deeply dependent on HREE's, particularly **Tb & Dy**, for military, national defense & homeland security applications.
- Examples include:
 - *Aircraft control*
 - *Guided missiles & smart bombs*
 - *Lasers, radar, sonar, mine detection*
 - *Computer technologies*
 - *Displays & optical equipment*
 - *Power generation*
 - *Coatings & ceramics*











5. Competitive Positioning

	Avalon Rare Metals	Commerce Resources	Great Western Minerals	Quest Uranium	Ucore Uranium
Light REE	AVL	CCE	GWG	QUC	UCU
Cerium (Ce)		✓	✓	✓	✓
Lanthanum (La)		✓	✓	✓	✓
Neodymium (Nd)	✓		✓	✓	✓
Praseodymium (Pr)			✓		✓
Samarium (Sm)	✓		✓		
Heavy REE					
Dysprosium (Dy)			✓	✓	✓
Erbium (Er)			✓		✓
Europium (Eu)	✓		✓		✓
Gadolinium (Gd)	✓		✓		✓
Holmium (Ho)			✓		✓
Lutetium (Lu)					✓
Terbium (Tb)	✓		✓		✓
Thulium (Tm)			✓		
Ytterbium (Yb)			✓		✓
Yttrium (Y)	✓	✓	✓	✓	✓

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Light REE	AVL	CCE	GWG	QUC	UCU
Cerium (Ce)		✓	✓	✓	✓
Lanthanum (La)		✓	✓	✓	✓
Neodymium (Nd)	✓		✓	✓	✓
Praseodymium (Pr)			✓		✓
Samarium (Sm)	✓		✓		
Heavy REE					
Dysprosium (Dy)			✓	✓	✓
Erbium (Er)			✓		✓
Europium (Eu)	✓		✓		✓
Gadolinium (Gd)	✓		✓		✓
Holmium (Ho)			✓		✓
Lutetium (Lu)					✓
Terbium (Tb)	✓		✓		✓
Thulium (Tm)			✓		
Ytterbium (Yb)			✓		✓
Yttrium (Y)	✓	✓	✓	✓	✓

5. Competitive Positioning

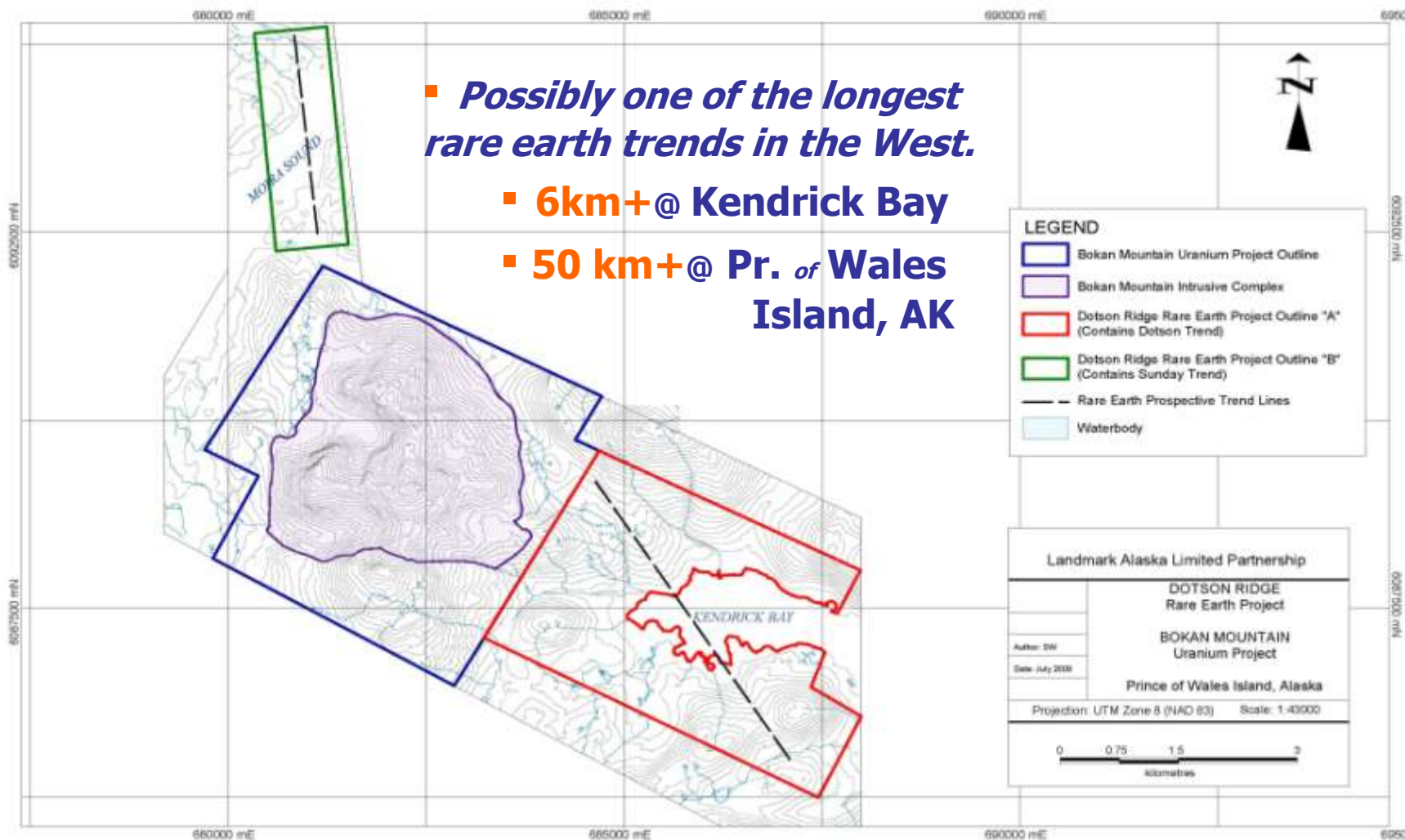
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	AVL	CCE	GWG	QUC	UCU
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Neodymium (Nd)	✓		✓	✓	✓
Praseodymium (Pr)			✓		✓
Samarium (Sm)	✓		✓		
Heavy REE					
Dysprosium (Dy)			✓	✓	
Erbium (Er)			✓		
Europium (Eu)	✓		✓		
Gadolinium (Gd)	✓		✓		
Holmium (Ho)			✓		
Lutetium (Lu)					
Terbium (Tb)	✓		✓		
Thulium (Tm)			✓		
Ytterbium (Yb)			✓		
Yttrium (Y)	✓	✓	✓	✓	

6. Exploration Highlights (2007-09)



- 73 Drill Holes Completed:
86% Hit Rate
- Highest documented HREE vs LREE
skews in N. America:
95%+ HREO vs TREO*
* Holes 32 & 65
- Among highest absolute HREE
grades on record:
11%+ Absolute HREO*
* Hole 32; 2.5m intercept
- Exceptionally high Tb + Dy grades;
(among scarcest / highest value REE's known):
1.13 lbs/ton Tb₂O₃*
7.69 lbs/ton Dy₂O₃*
* Hole 65

Identification of REE Macro Trend: 2009



- *Possibly one of the longest rare earth trends in the West.*

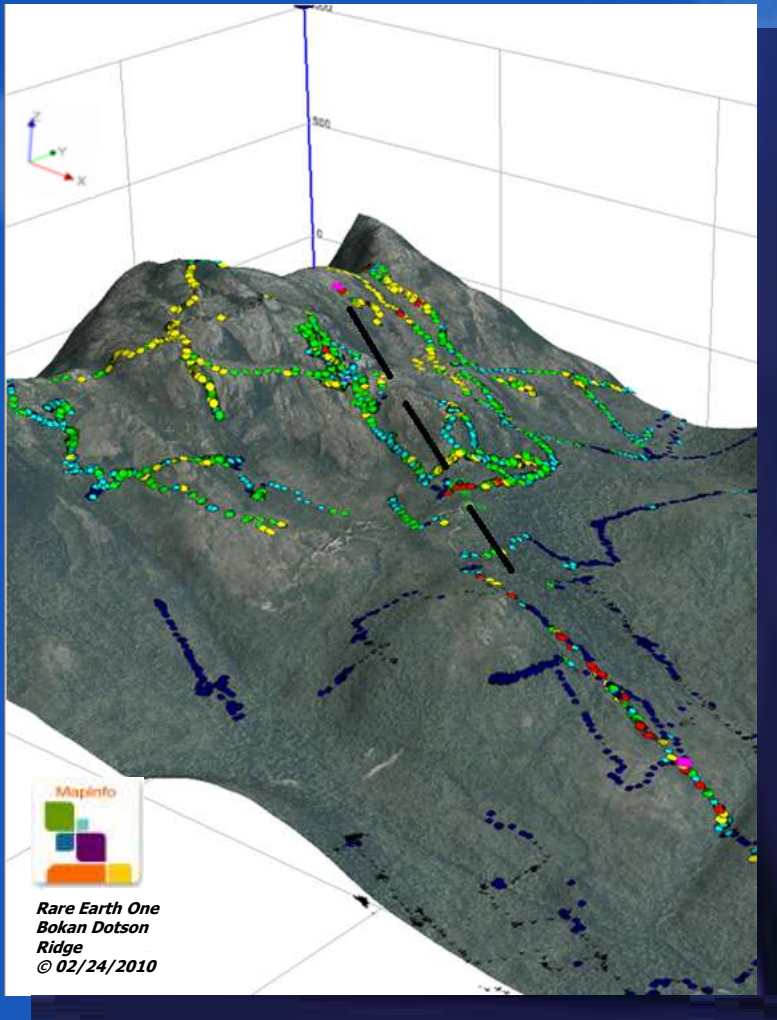
- **6km+@ Kendrick Bay**

- **50 km+@ Pr. of Wales Island, AK**

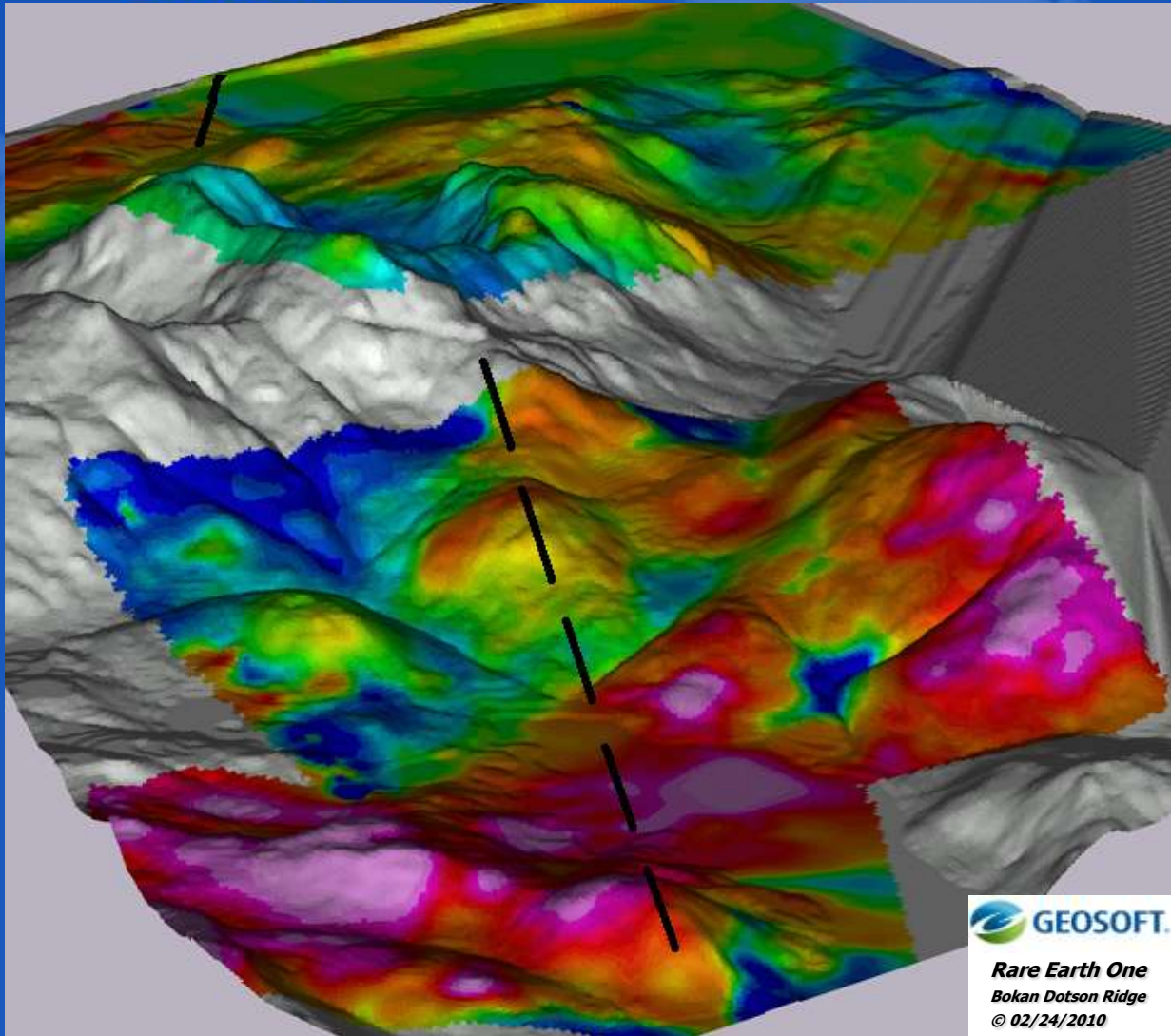
7. Exploration Program (2010)

7.1 Planning & Scoping

- Data Compilation (*Internal*)
- Preliminary Scoping Study:
Mining methods
& logistics
(*Collison & Associates*)
- Conceptual Resource
Estimate: Pre 43-101
(*Aurora Geosciences*)

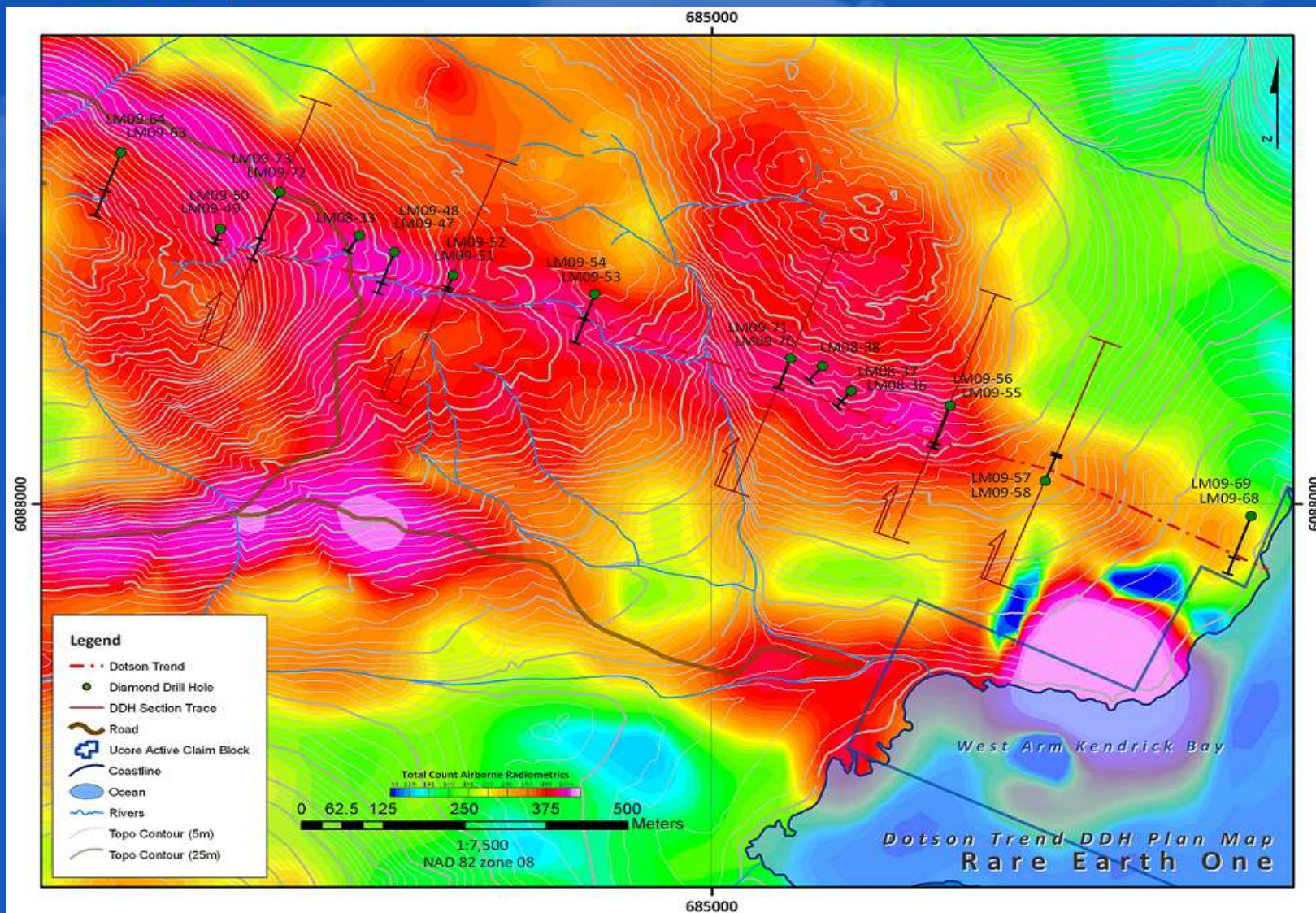


7.2 Mapping & Imaging

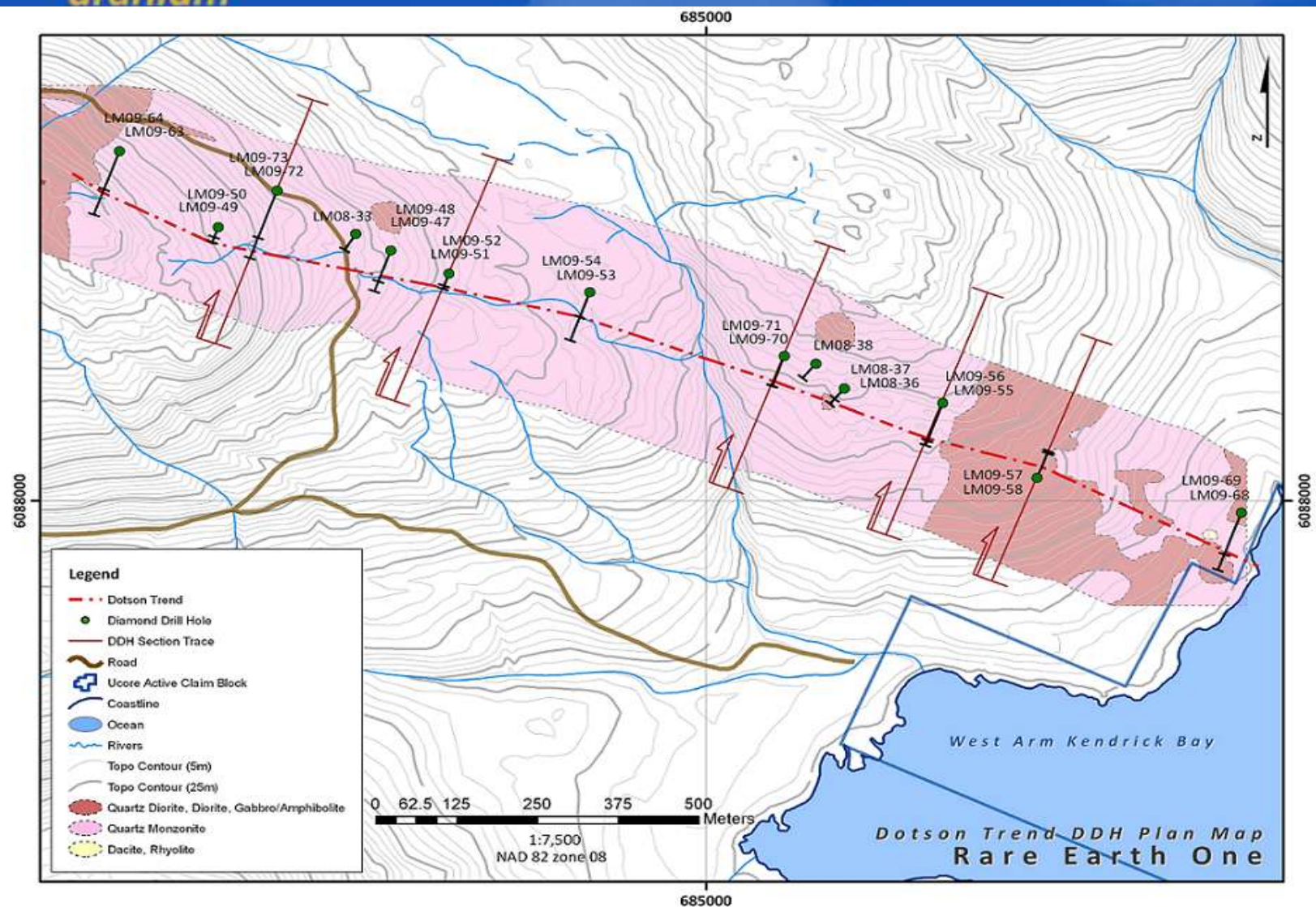


- Comprehensive suite of geological mapping (*MapInfo™*)
- 3D imaging of area topography & subsurface deposit (*Geosoft™*)

7.3 Prior Drill Data, Ground Recon & Geophysics



7.4 Drilling 2010



7.5 Key Deliverables 2010



- **Minimum 3000 m
infill & exploratory drilling:**
 - **Dotson Trend (Southeast)**
 - **Sunday Trend (Northwest)**
- **Full spectrum assays**
- **Metallurgy & Mineral
Characterization**
- **Pre-Feasibility Scoping**
- **Conceptual Resource Estimate**
- **NI 43-101 Compliant
Inferred Resource**



UCU – TSX.V

UURAF - OTC

9. Summary

- One of very few primarily **HREE** skewed deposits in the world; among highest known absolute **HREE** grades
- Historical resource 374M lbs **TREO** (USBM OFR 33/89; non 43-101 compliant)
- Largest historically documented **HREE** deposit in the U.S. (USGS/USBM)
- Unusually high **Tb** & **Dy** content (“strategic REE’s”); two HREE’s specified for possible embargo (Chinese 5 yr plan)
- **HREE** content absolutely critical to U.S. military & green technologies; on U.S. soil
- Nearest U.S. **HREE** deposit to production - Lifton/09
- Geopolitical support for REE’s: Senate (report due April 09) / State of AK / USDOD & USGS)
- Aggressive drill & analysis program in 2010



Bonus Slides



The **U.S.**
Heavy Rare Earth
Crisis

1. U.S. HREE Supply Crisis

- Critical to U.S. Military & High Tech viability
- Threat of near-term full embargo by China (*Dy+Tb*)
- Almost no alternative supplies globally (*97% S. China supply*)
- Impending crisis; only **one** near term source in U.S. (Bokan)
- Note: LREE supplies are far less threatened (Mtn.Pass; Mt. Weld; etc)



2. U.S. Geopolitical Response



- **US D.O.D.** – Senate Sub Committee *on* REE Procurement for Military & National Security Purposes (Report due April 2010)
- **US D.O.E.** – Senate Sub Committee *on* Energy & Natural Resources (CENR) Senator Murkowski (R-Alaska)
- **USDOA /USGS/ USFS** - Reserved Resource Area 2009 REE Research Grant *to* Ucore
- **State of Alaska** – 100% historical mine approval State Senate Resolution 56; 1998
- **US REE Lobby** – “Restart” Bill / REITA

3. Bokan: *The Leading Short Term Source*

3.1 U.S. Location:

"The United States is self-reliant in the lighter REE ... however, deposits investigated at Bokan, in contrast to REE deposits elsewhere in the U.S., are enriched in the heavy REE."

– USBM; Barker & Warner; 1989

3.2 Scarcity of Bokan HREE's:

"Dysprosium and terbium are among the scarcest, most valuable and sought after metals... the miracle ingredients of green technology and military applications."

- New York Times; Dec 2009

3. Bokan: *The Leading Short Term Source* (cont...)

3.3 U.S. Defense Strategy:

*"Just as the \$600 billion annual US defense budget is guided by **strategic logic** ... so could a Bokan Mountain rare earth mine be operated to serve **strategic needs.**"*

- J. Kaiser; KBFO; Dec 2009

3.4 U.S. Military Supply:

*"...now that rare earth production is dominated by an emerging long term rival to the United States, the possibility that Bokan could supply **all of the military's needs** if all other sources were shut down is bound to get serious attention in Washington."*

- J. Kaiser; KBFO; Dec 2009