

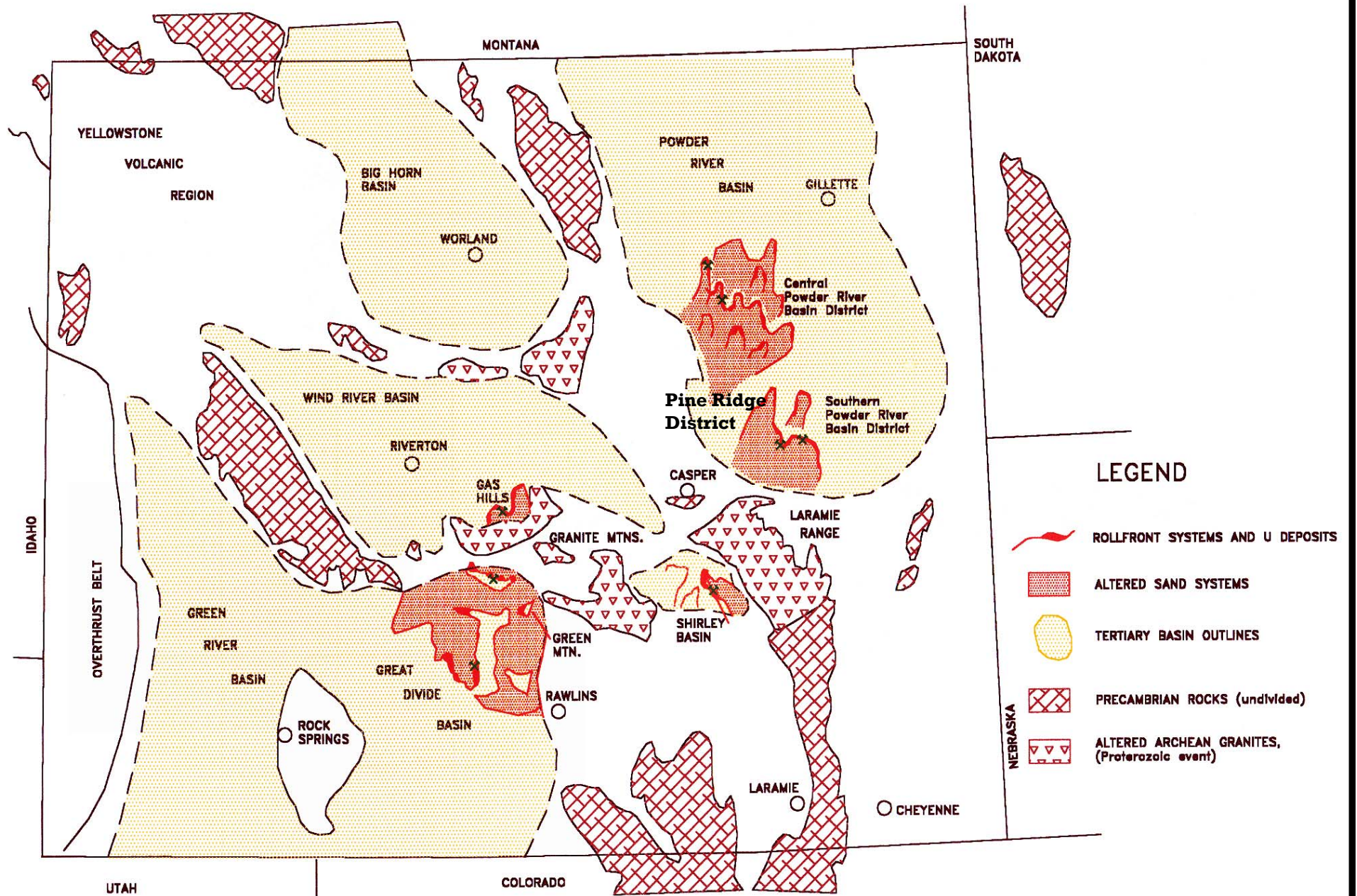
# Exploration of the Pine Ridge Uranium Deposits, Powder River Basin, Wyoming

Authors: Mark J. Doelger, Dr. Kent A. Sundell, – Stakeholder Energy, LLC –  
Casper, Wyoming



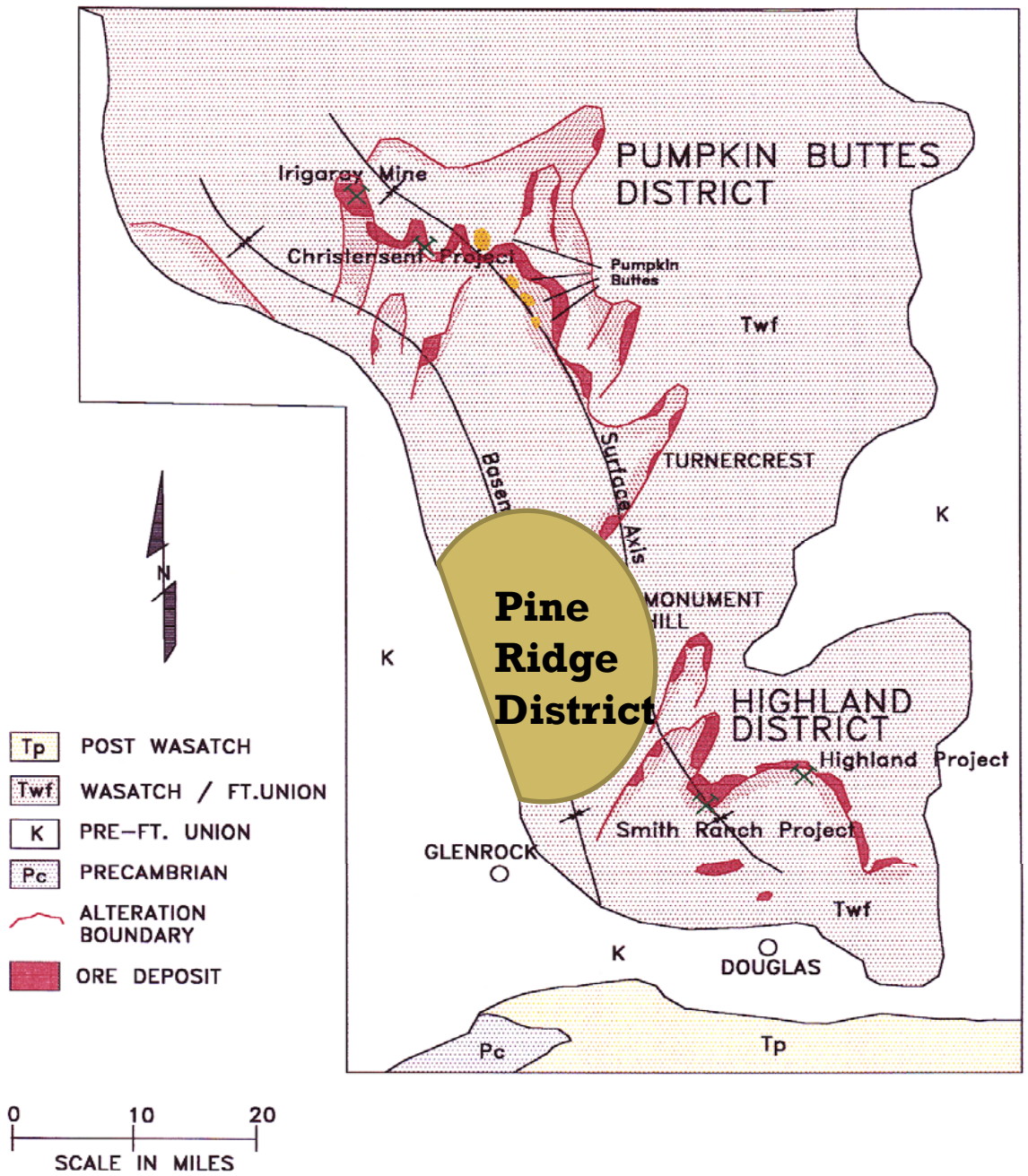


# WYOMING'S MAJOR PRODUCING BASINS



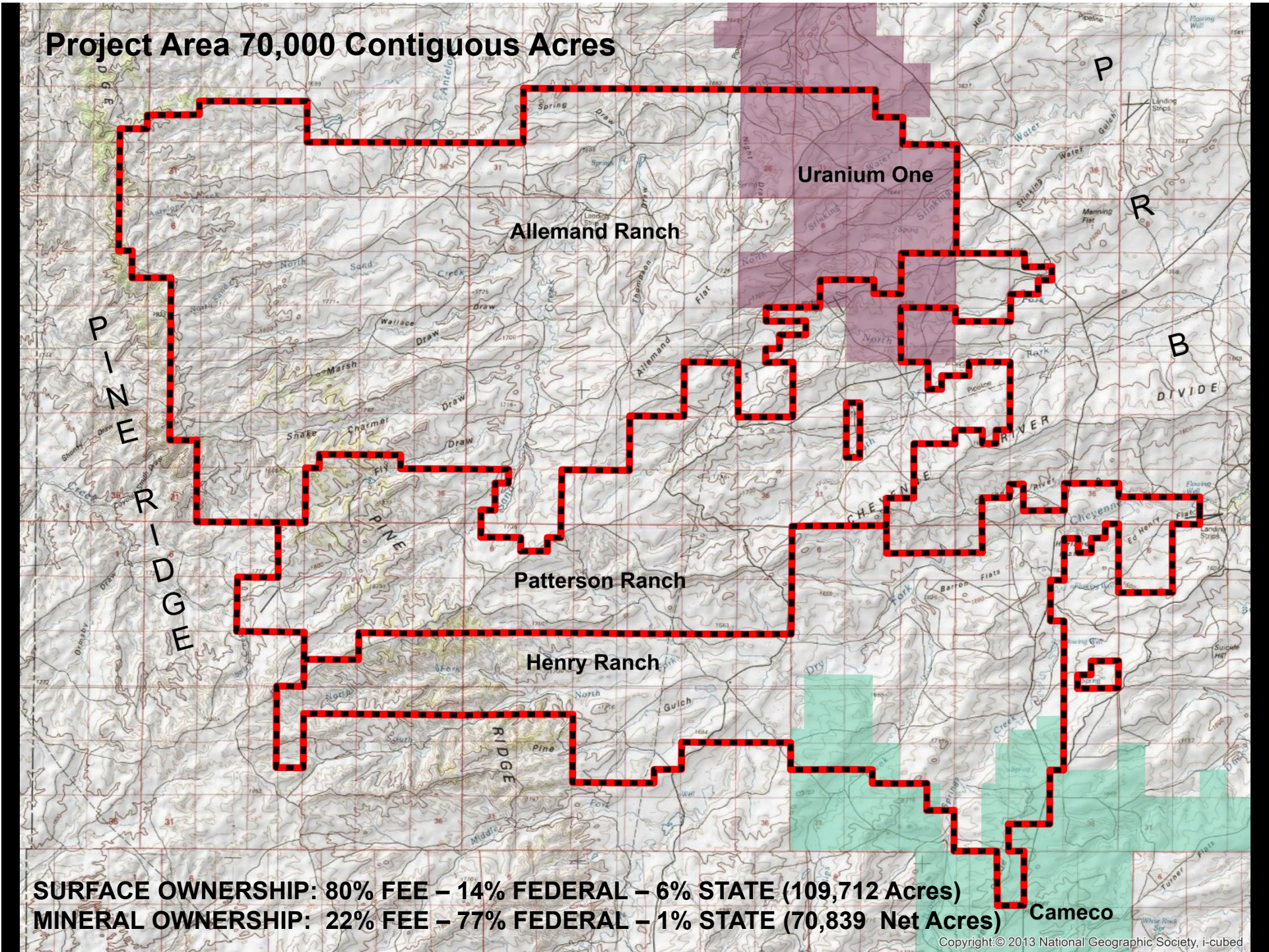


# POWDER RIVER BASIN



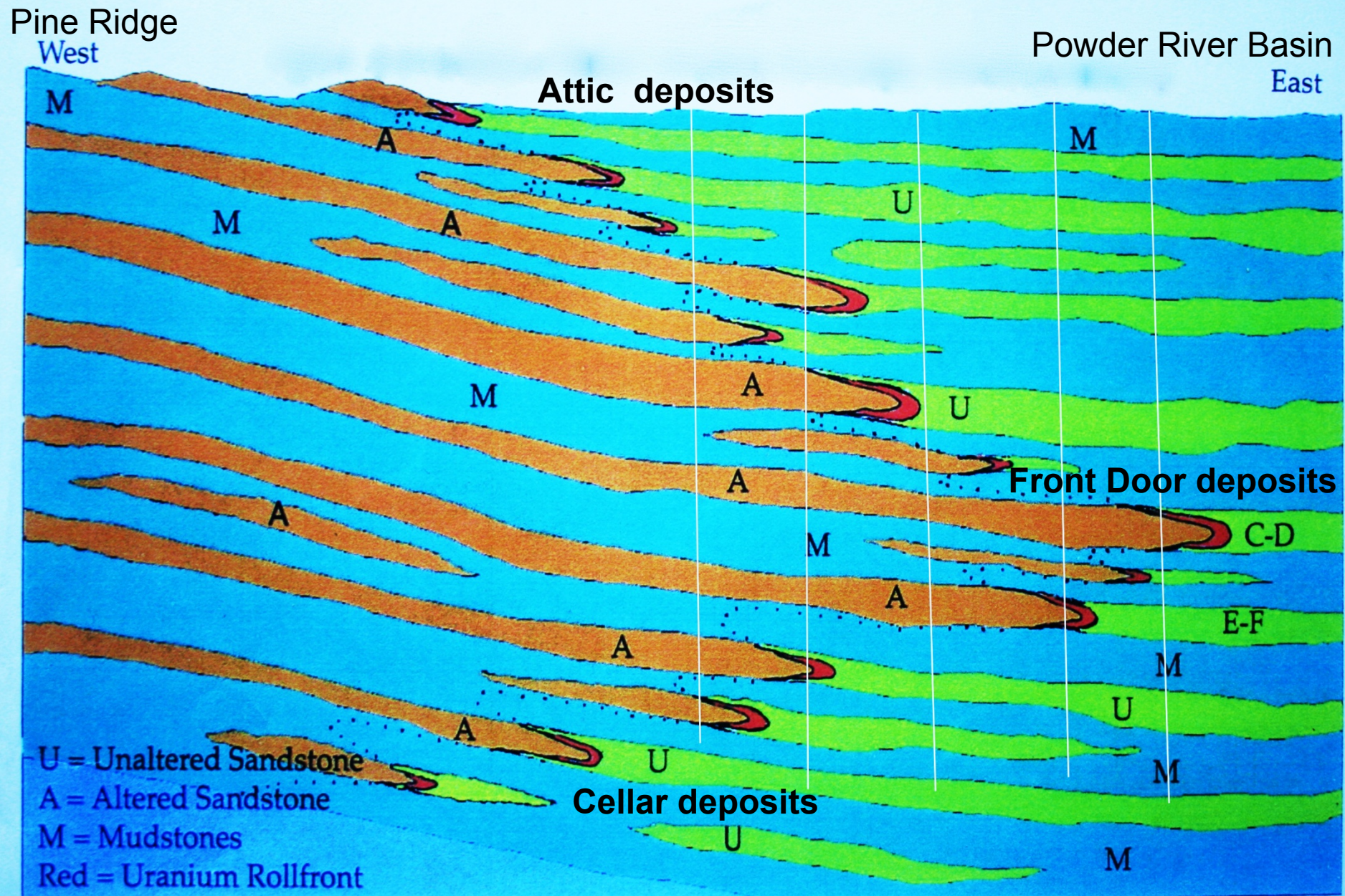


# Project Area 70,000 Contiguous Acres



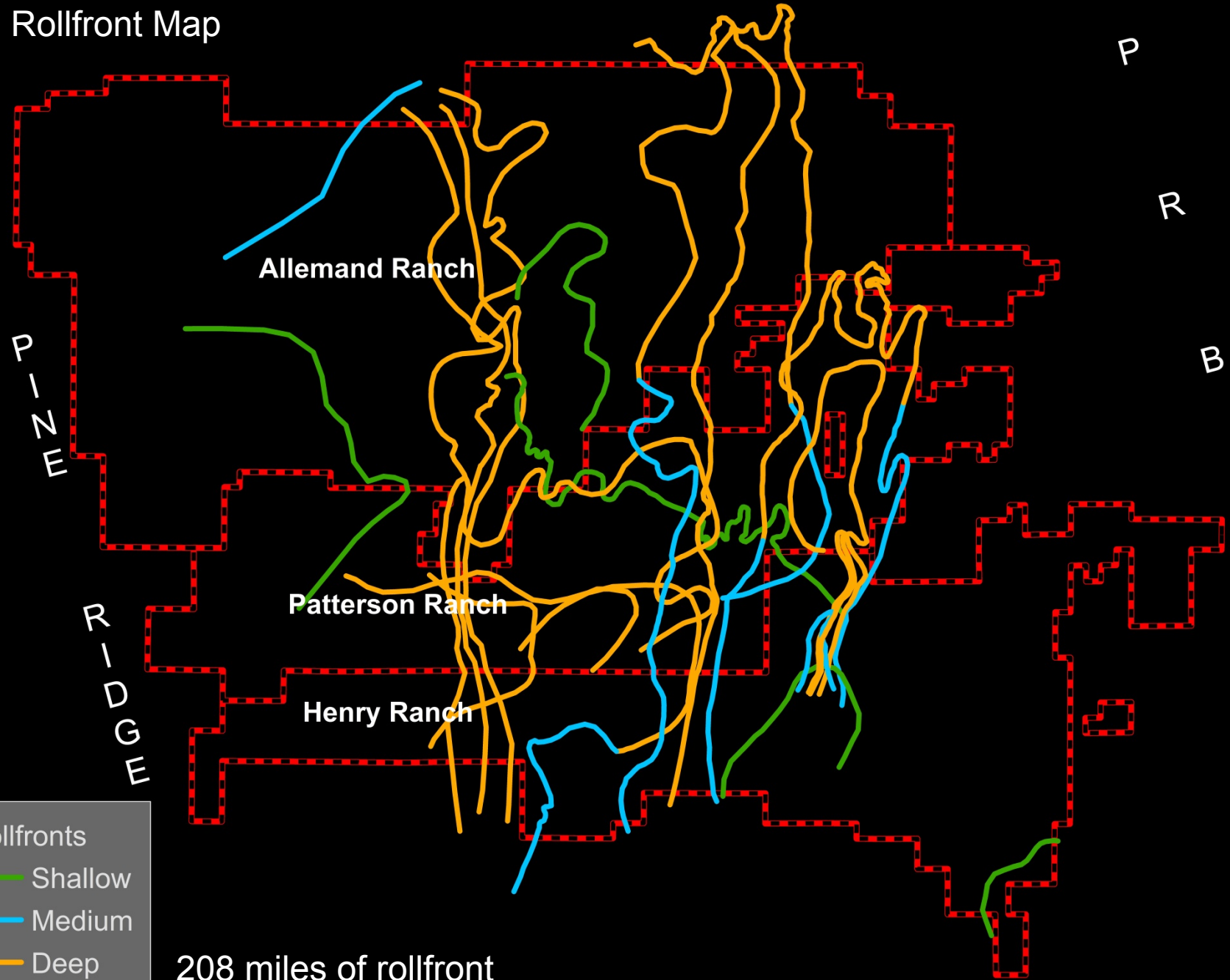


# Model of typical stacked sandstone (paleo-river system) alteration cell





# Rollfront Map



- Rollfronts
- Shallow
- Medium
- Deep

208 miles of rollfront



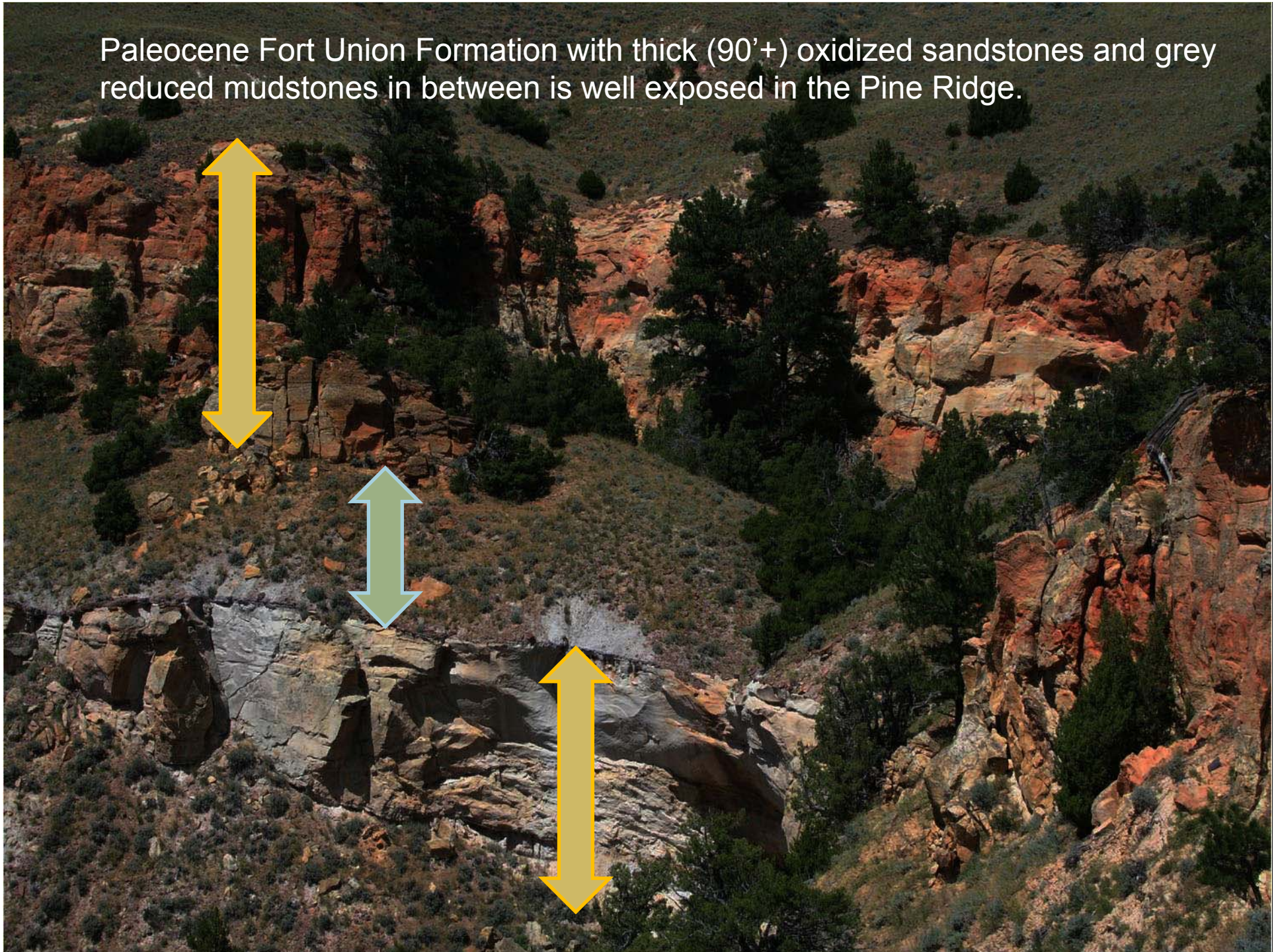
Pumpkin Buttes

Pine Ridge

Five stacked Sandstones  
in the Snake Charmer  
Paleo-River System  
dipping 1 to 2° eastward  
into the Powder River  
Basin



Paleocene Fort Union Formation with thick (90'+) oxidized sandstones and grey reduced mudstones in between is well exposed in the Pine Ridge.





# Lithology samples of well cuttings from 1,500 foot well





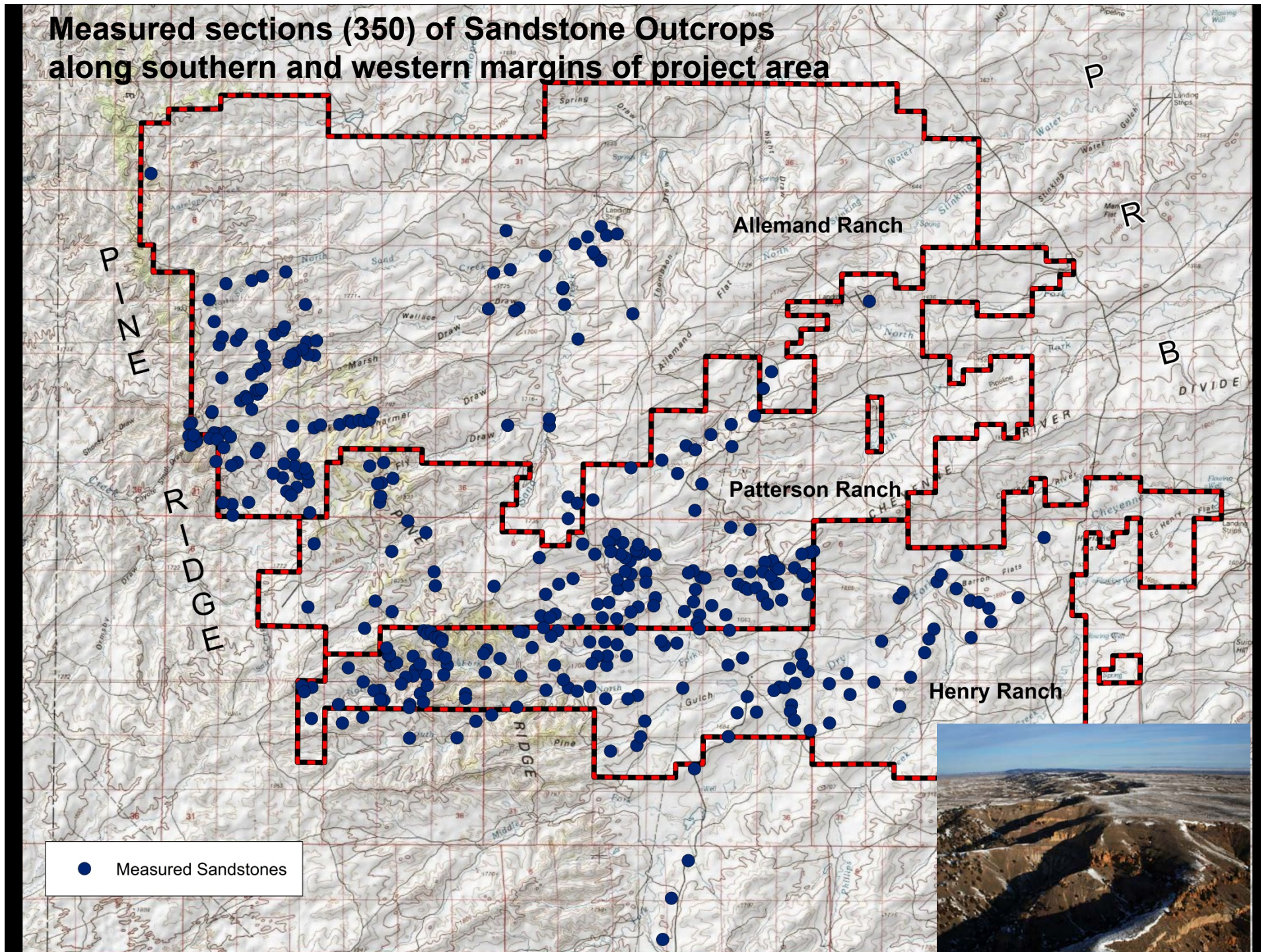


## Measured Section Data

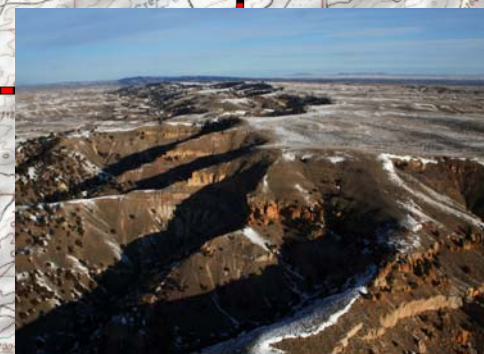
- 1) Location
- 2) Elevation
- 3) Thickness Grain size
- 4) Grain shape
- 5) Cementation
- 6) Oxidation
- 7) Alteration (feldspars)
- 8) Hematite/Limonite
- 9) Carbon content
- 10) Color
- 11) Lateral continuity
- 12) Sedimentary structures
- 13) Ironstone concretions
- 14) Channel trend
- 15) Pipi trend (=ground water flow)



# Measured sections (350) of Sandstone Outcrops along southern and western margins of project area

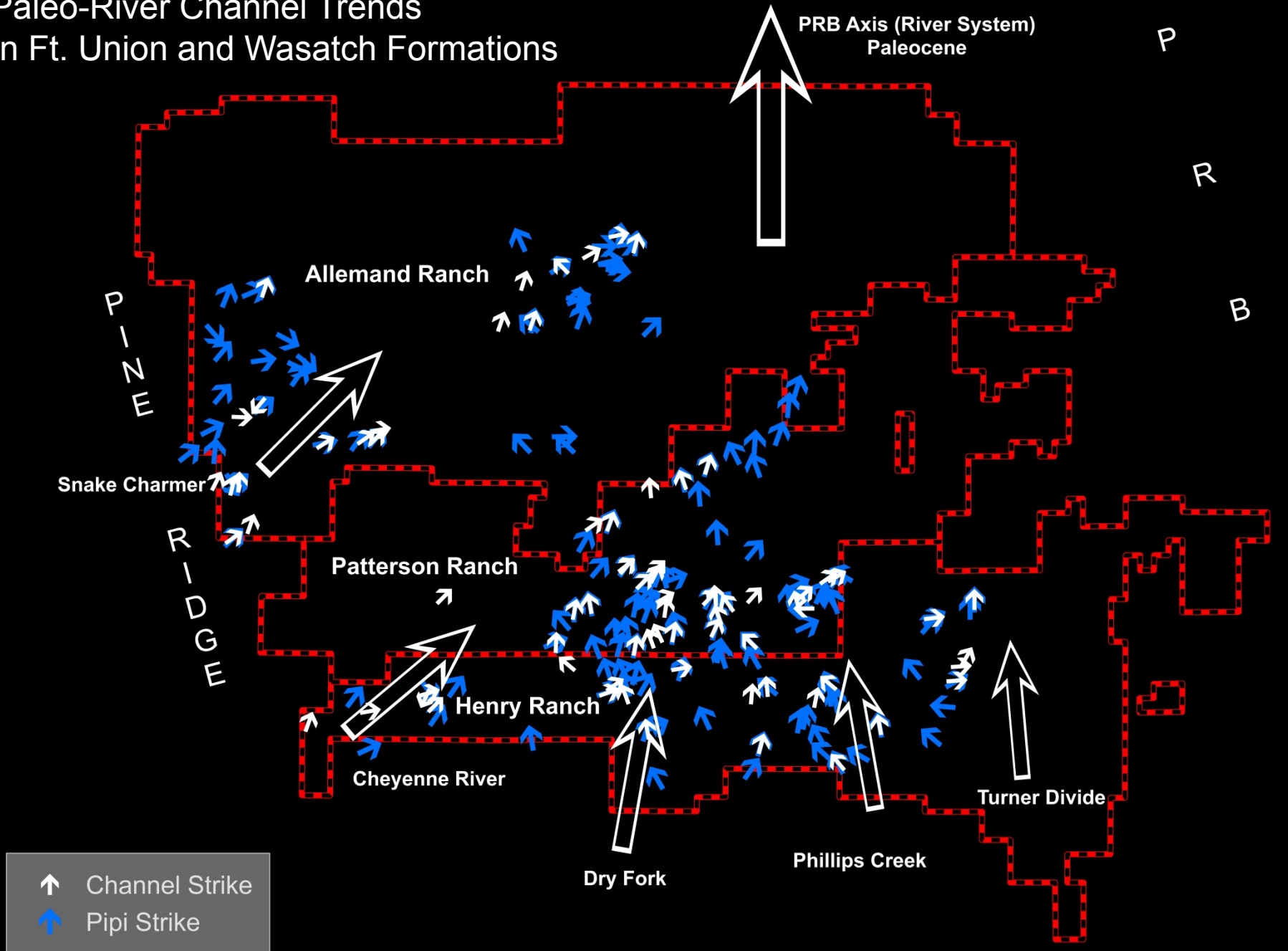


● Measured Sandstones



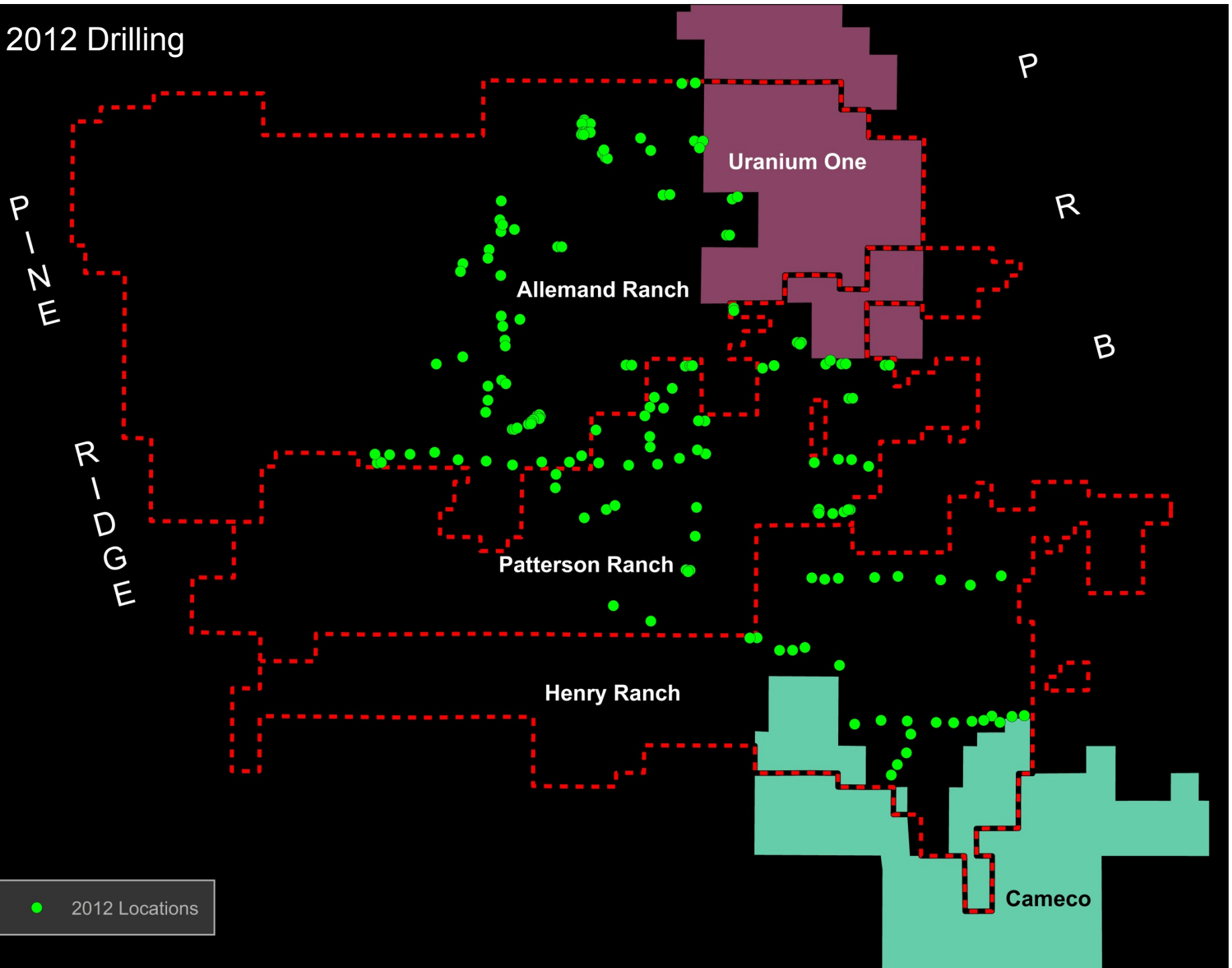


# Paleo-River Channel Trends In Ft. Union and Wasatch Formations



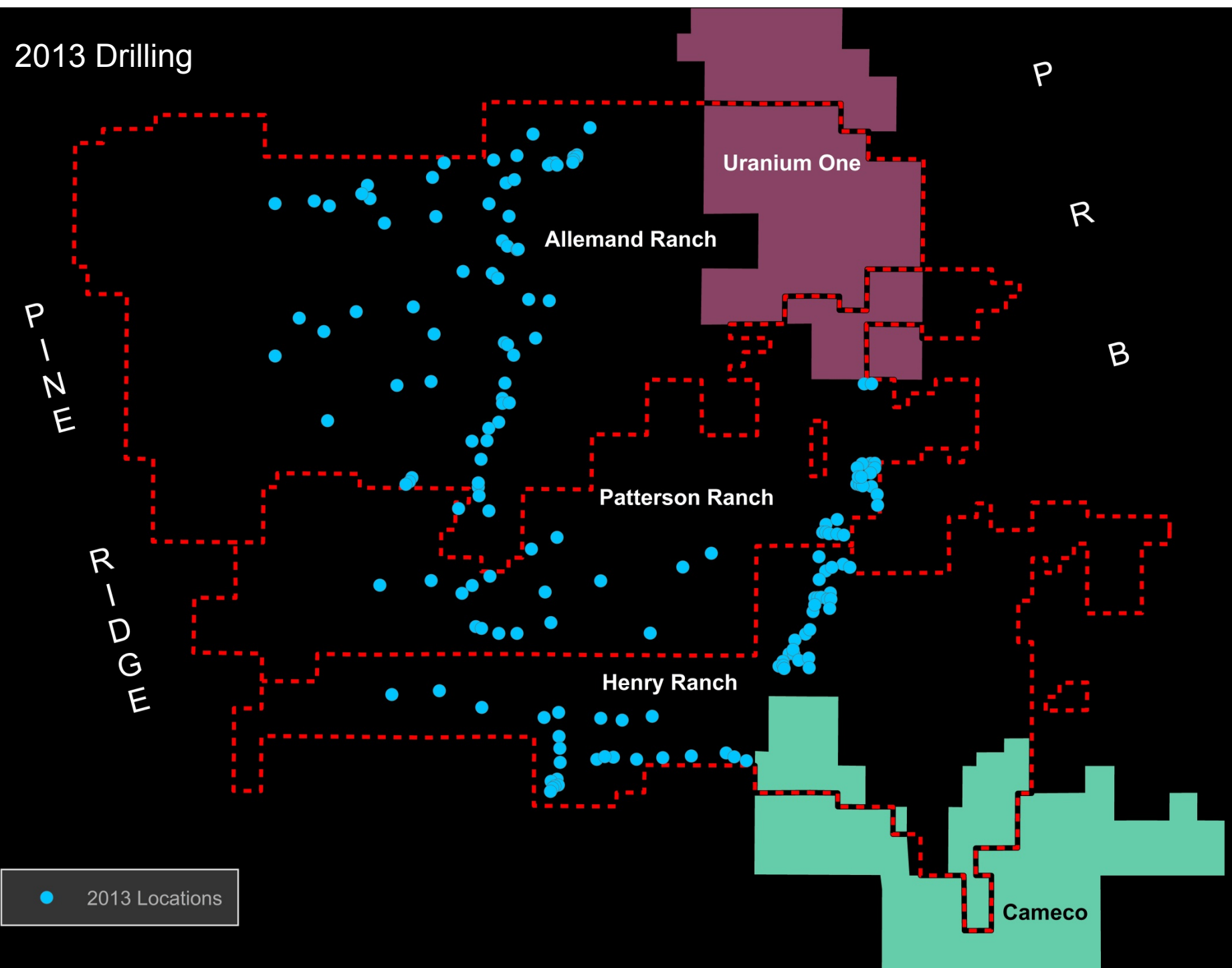


# 2012 Drilling





# 2013 Drilling

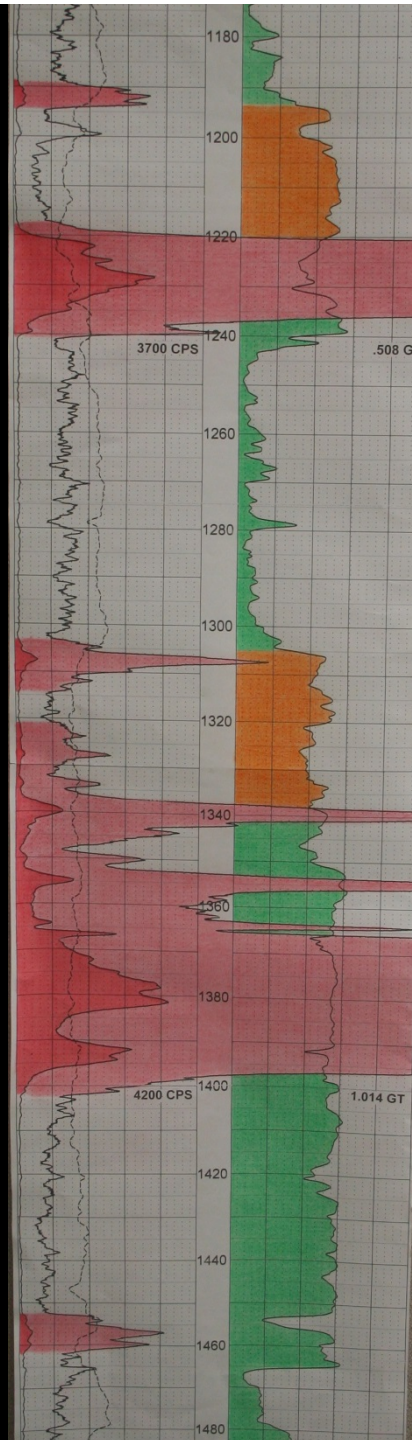


● 2013 Locations



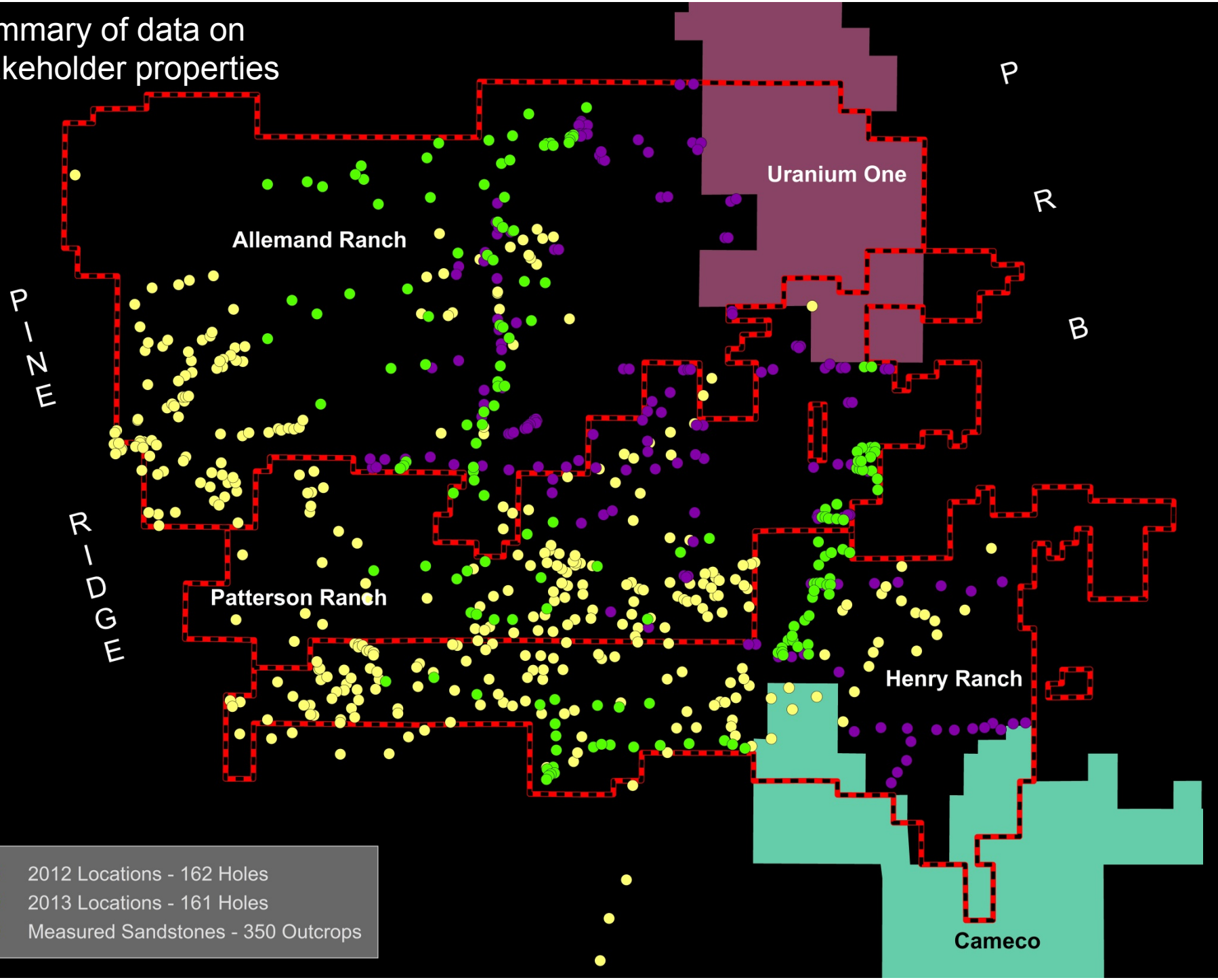
## Example of 2013 Drilling

- Exploratory Well
- No prior drilling in area
- Thick sandstone sequence
- Total well GT 1.5





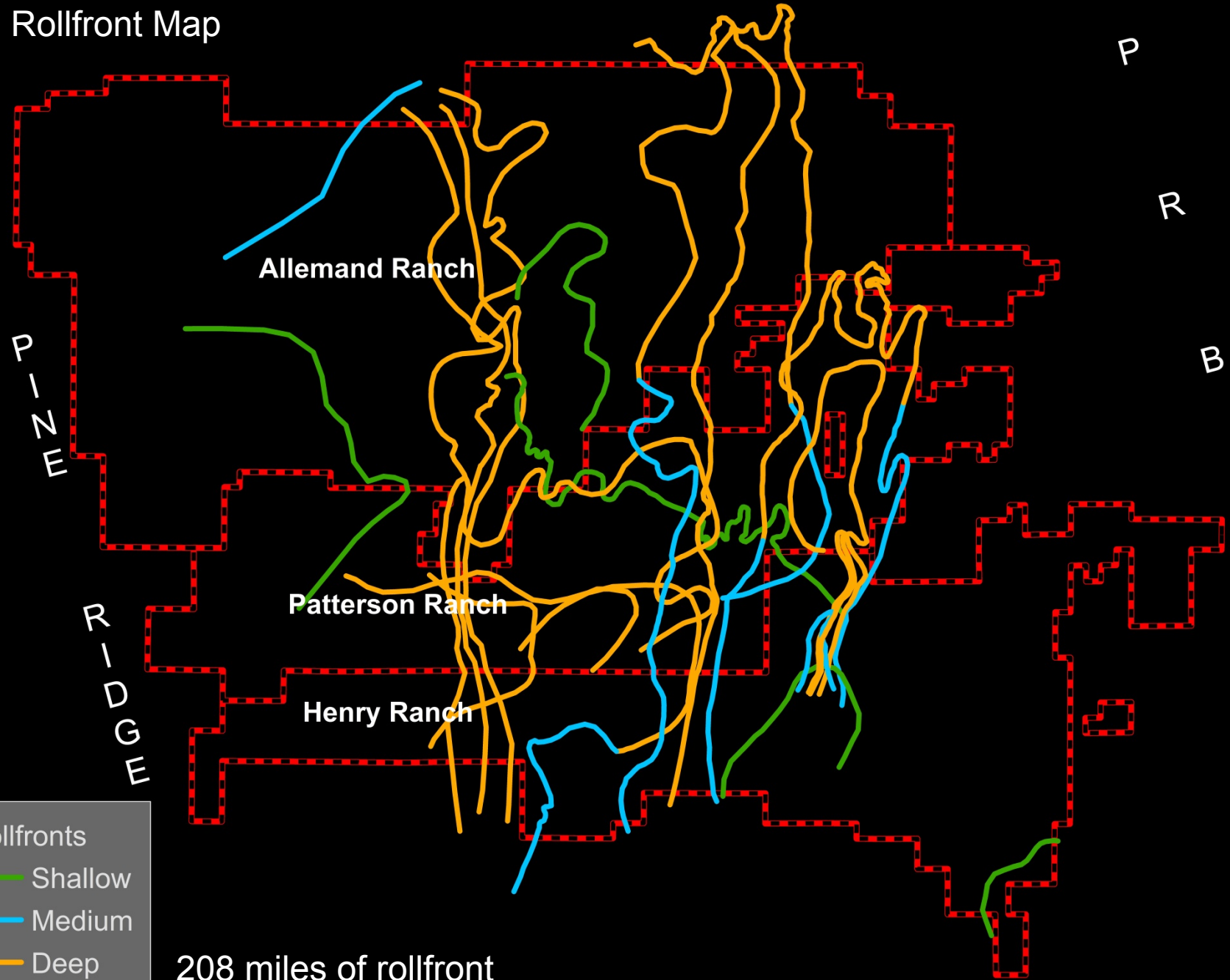
# Summary of data on Stakeholder properties



- 2012 Locations - 162 Holes
- 2013 Locations - 161 Holes
- Measured Sandstones - 350 Outcrops



# Rollfront Map

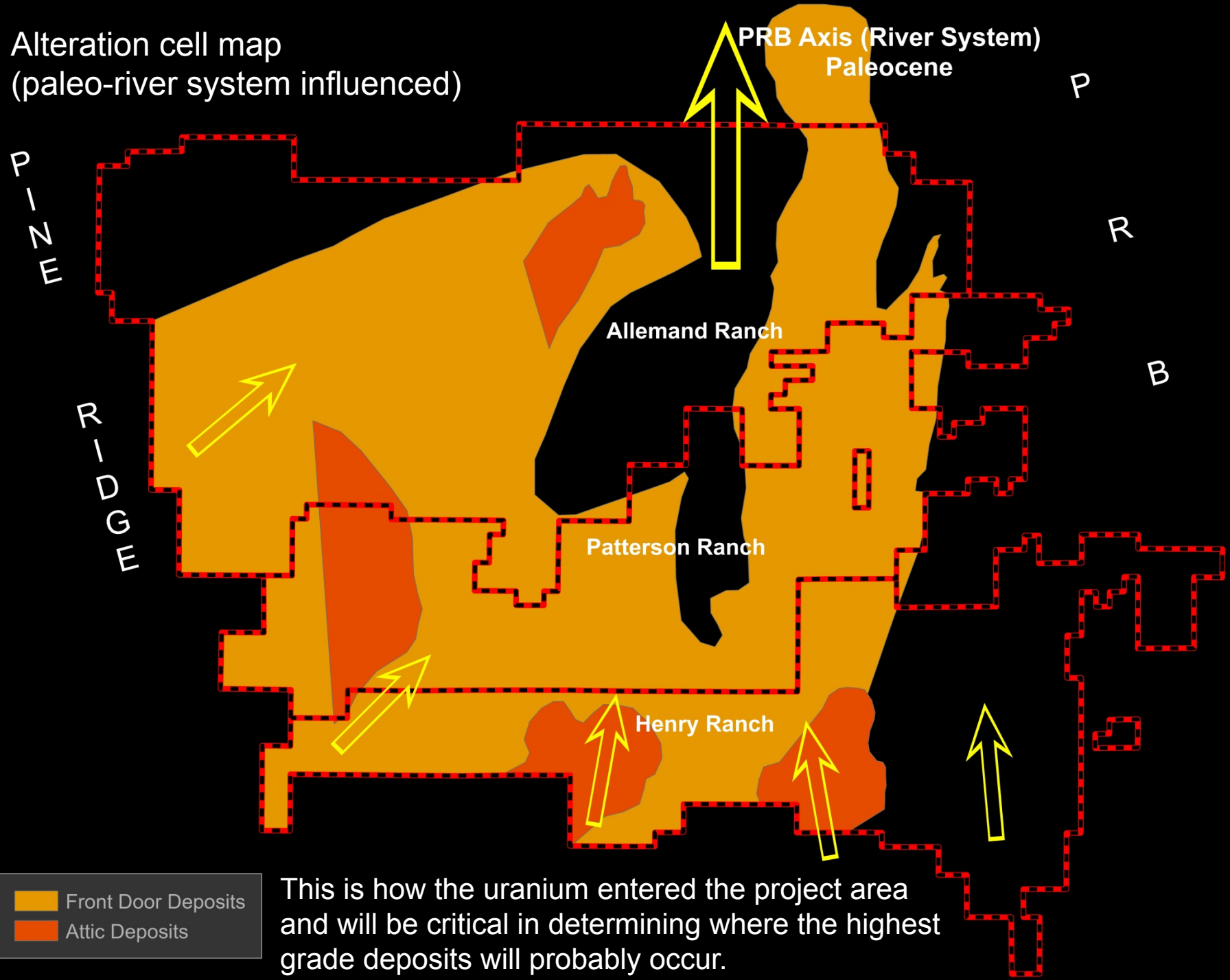


- Rollfronts
- Shallow
- Medium
- Deep

208 miles of rollfront



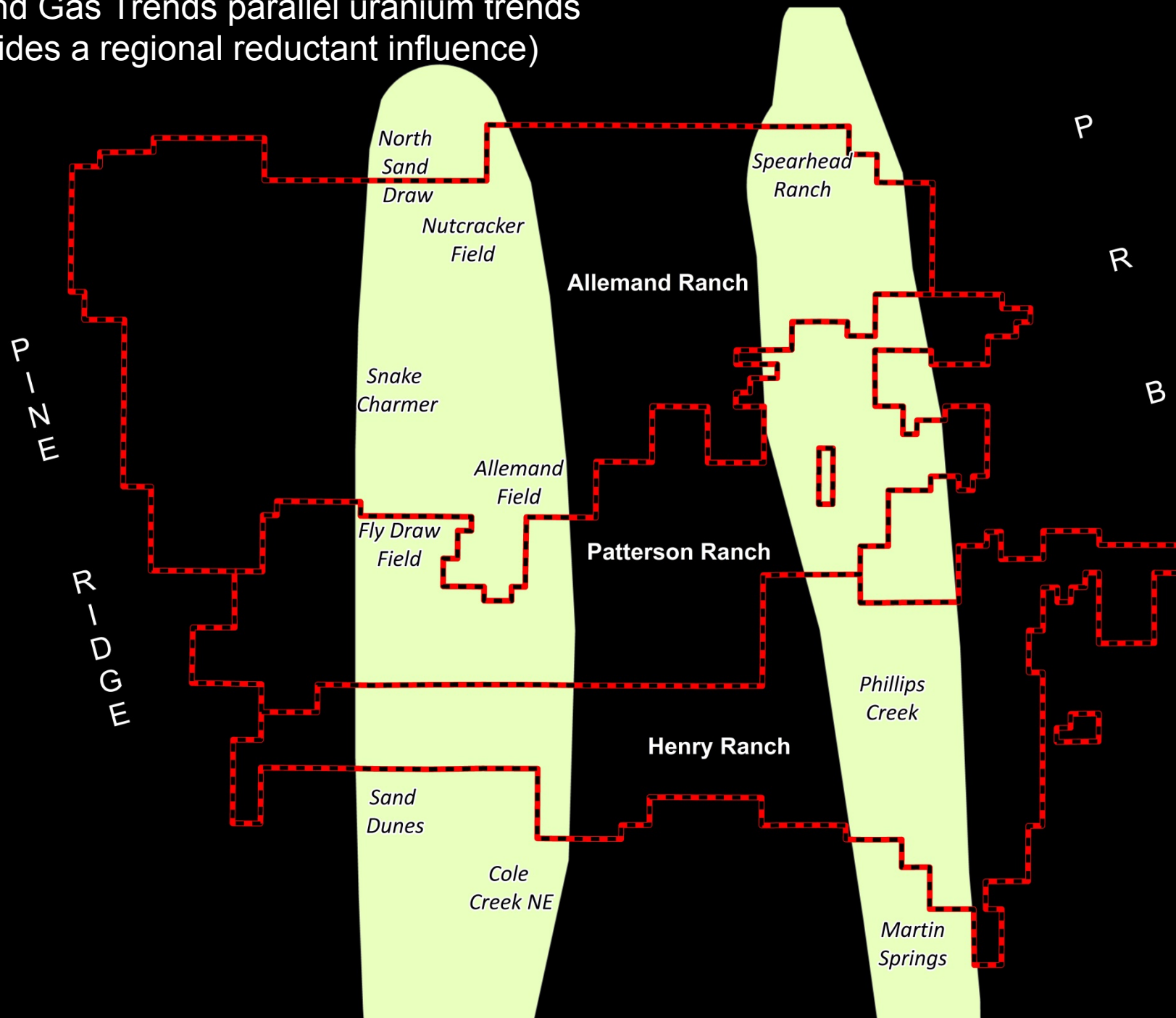
Alteration cell map  
(paleo-river system influenced)



This is how the uranium entered the project area and will be critical in determining where the highest grade deposits will probably occur.

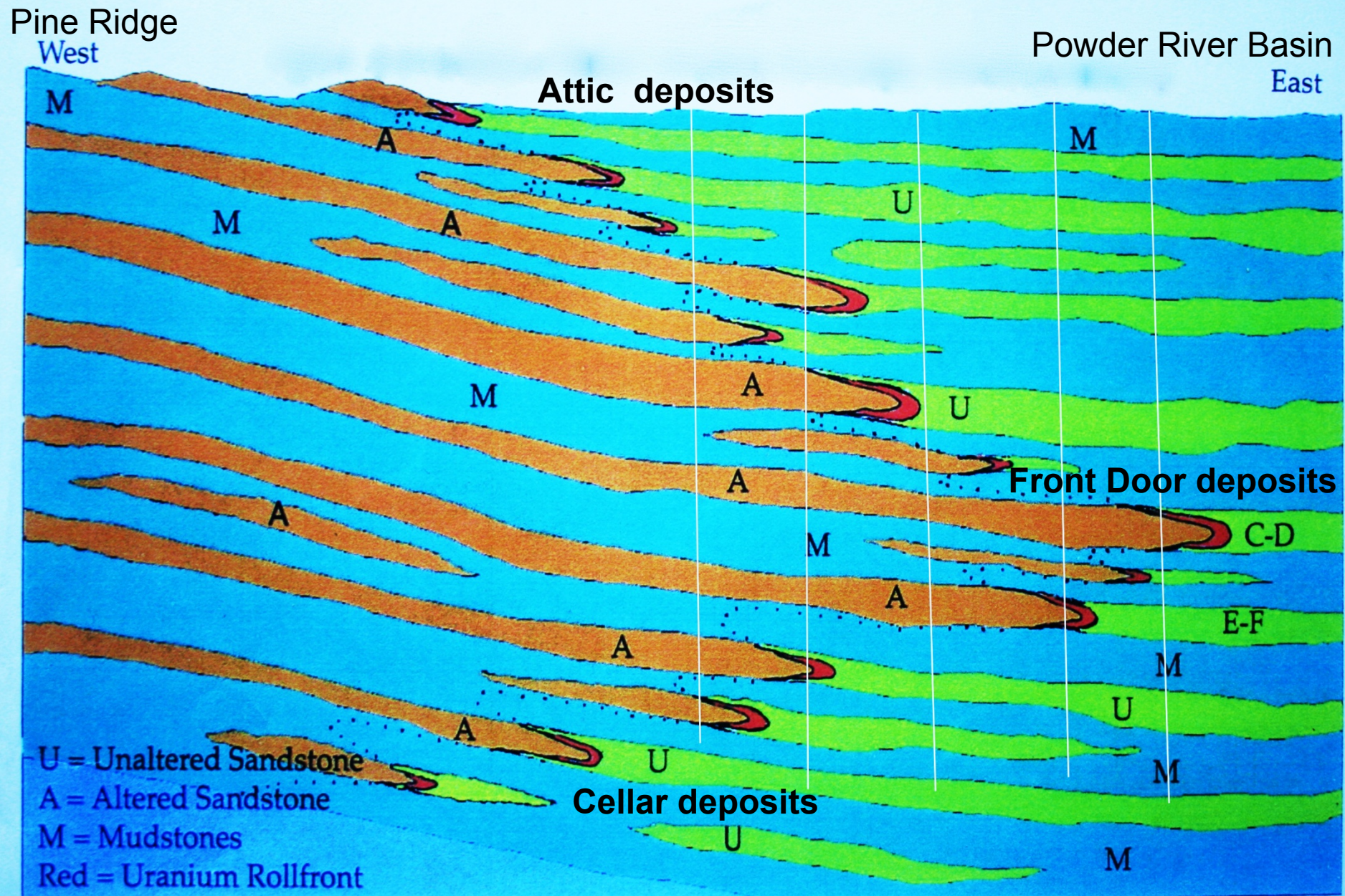


Oil and Gas Trends parallel uranium trends  
(provides a regional reductant influence)





# Model of typical stacked sandstone (paleo-river system) alteration cell

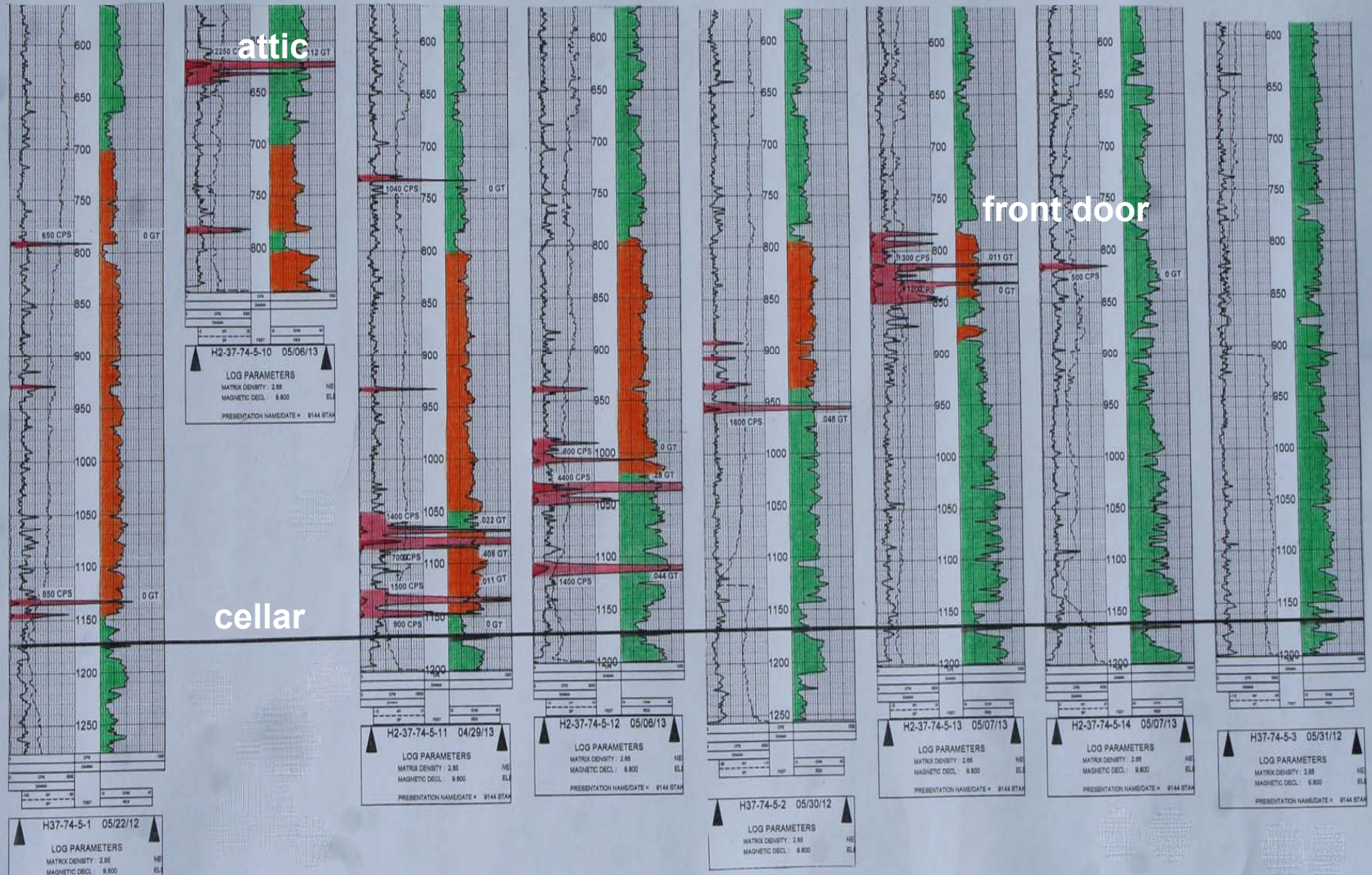




HENRY EAST  
SEC. 5 P2-1

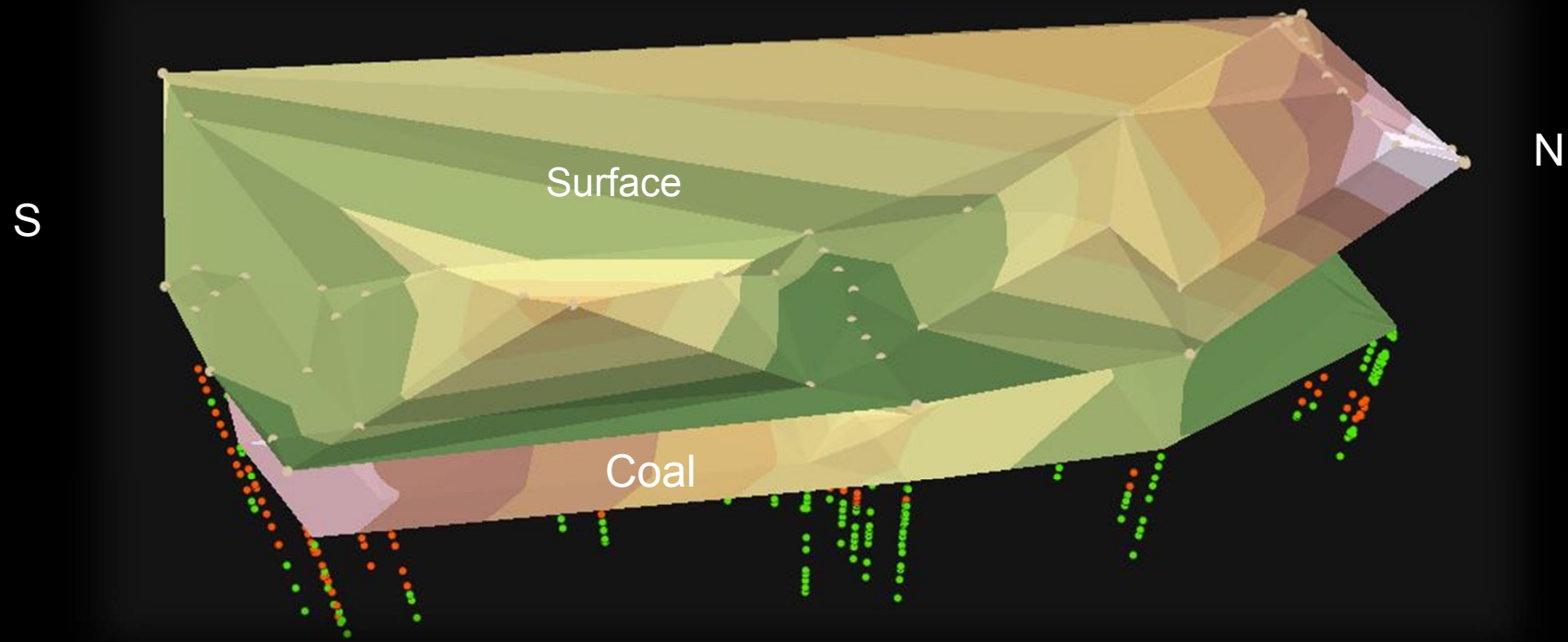
Green = unaltered  
Orange = altered  
Red = Gamma Ray

Log cross section showing Gamma Ray anomalies

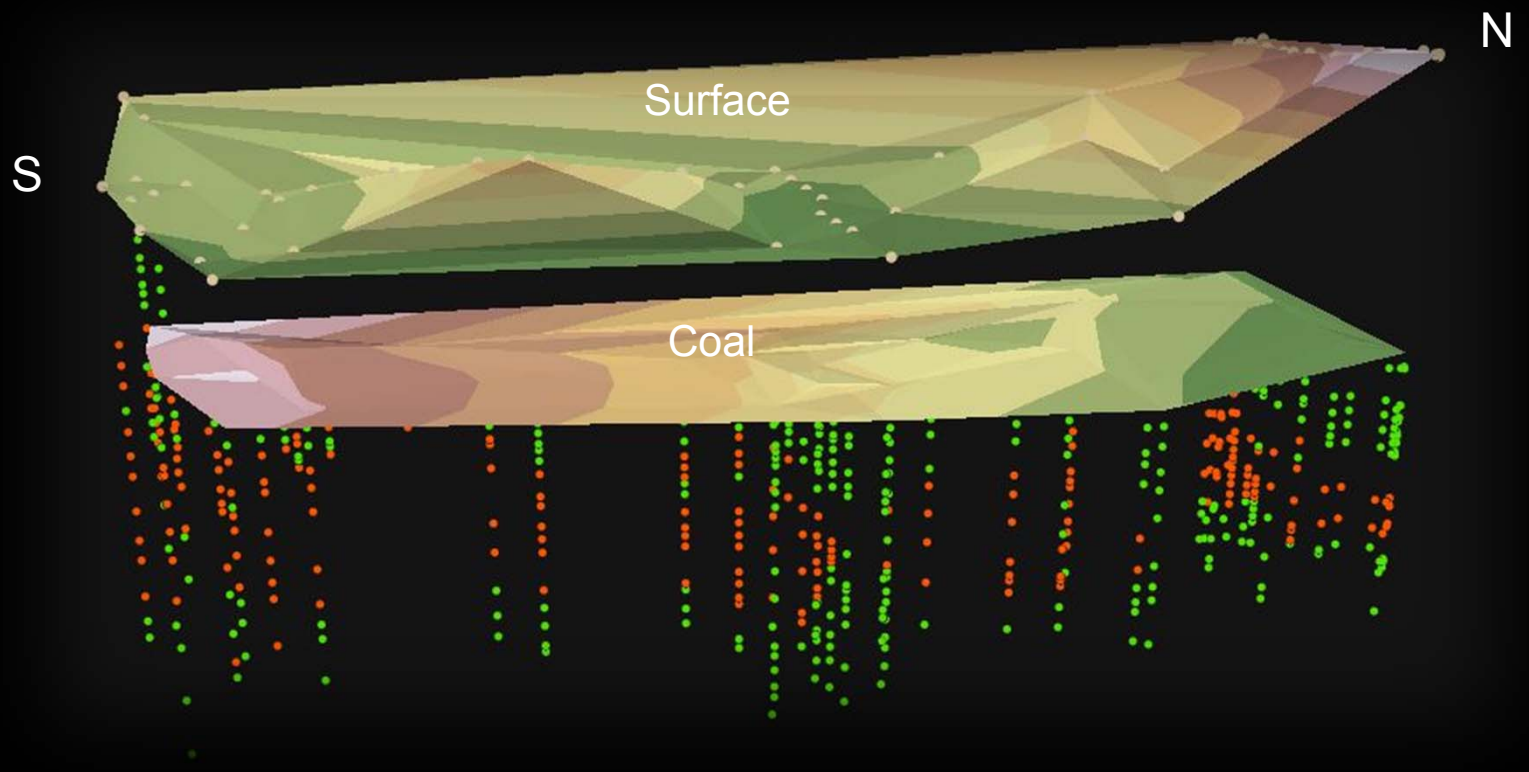




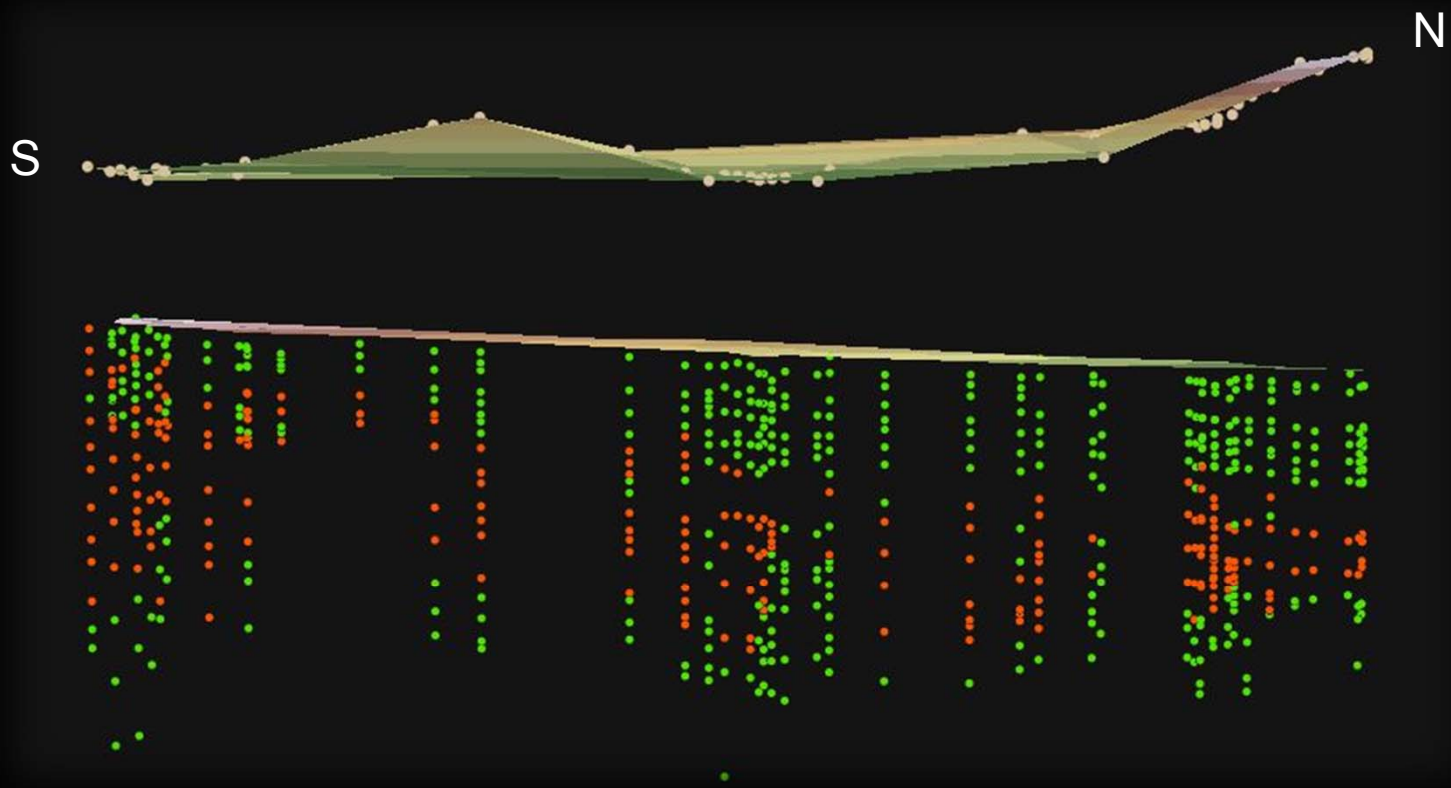
# ArcScene 3D Model





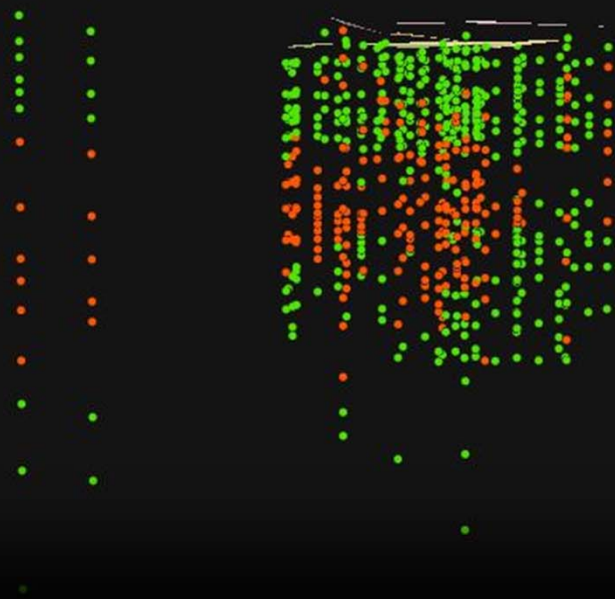
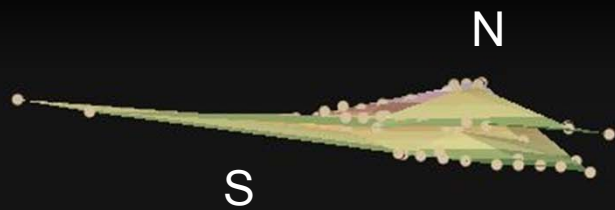














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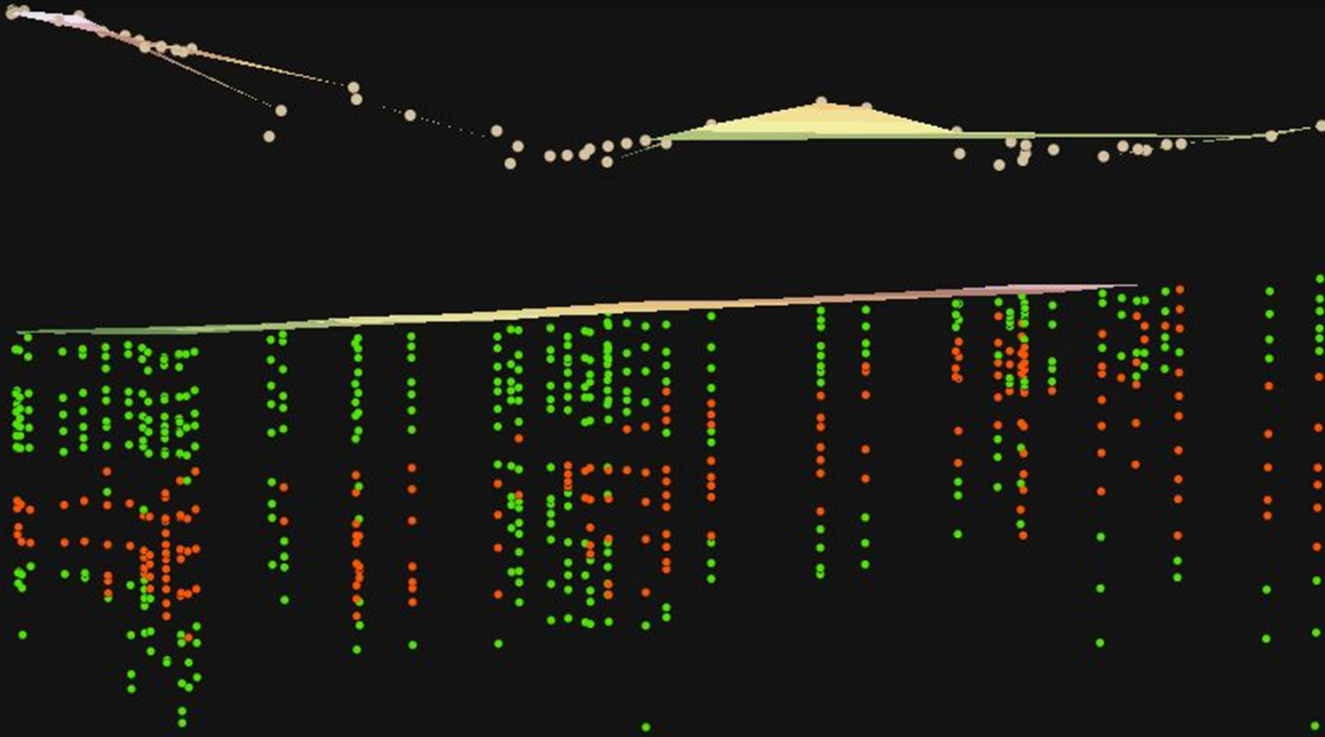


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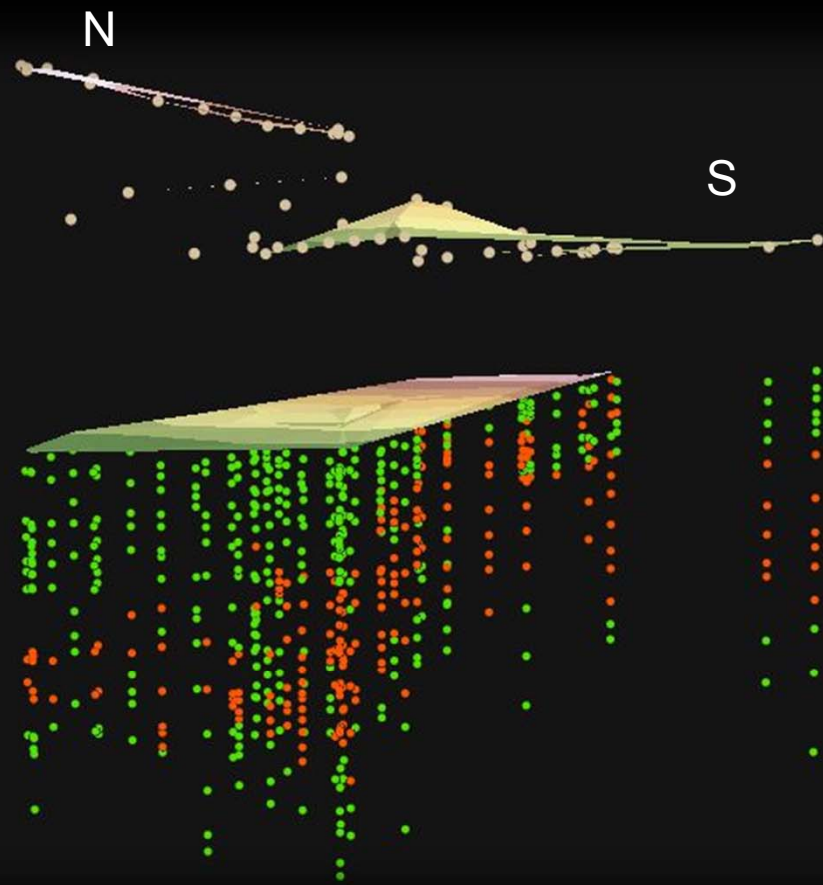


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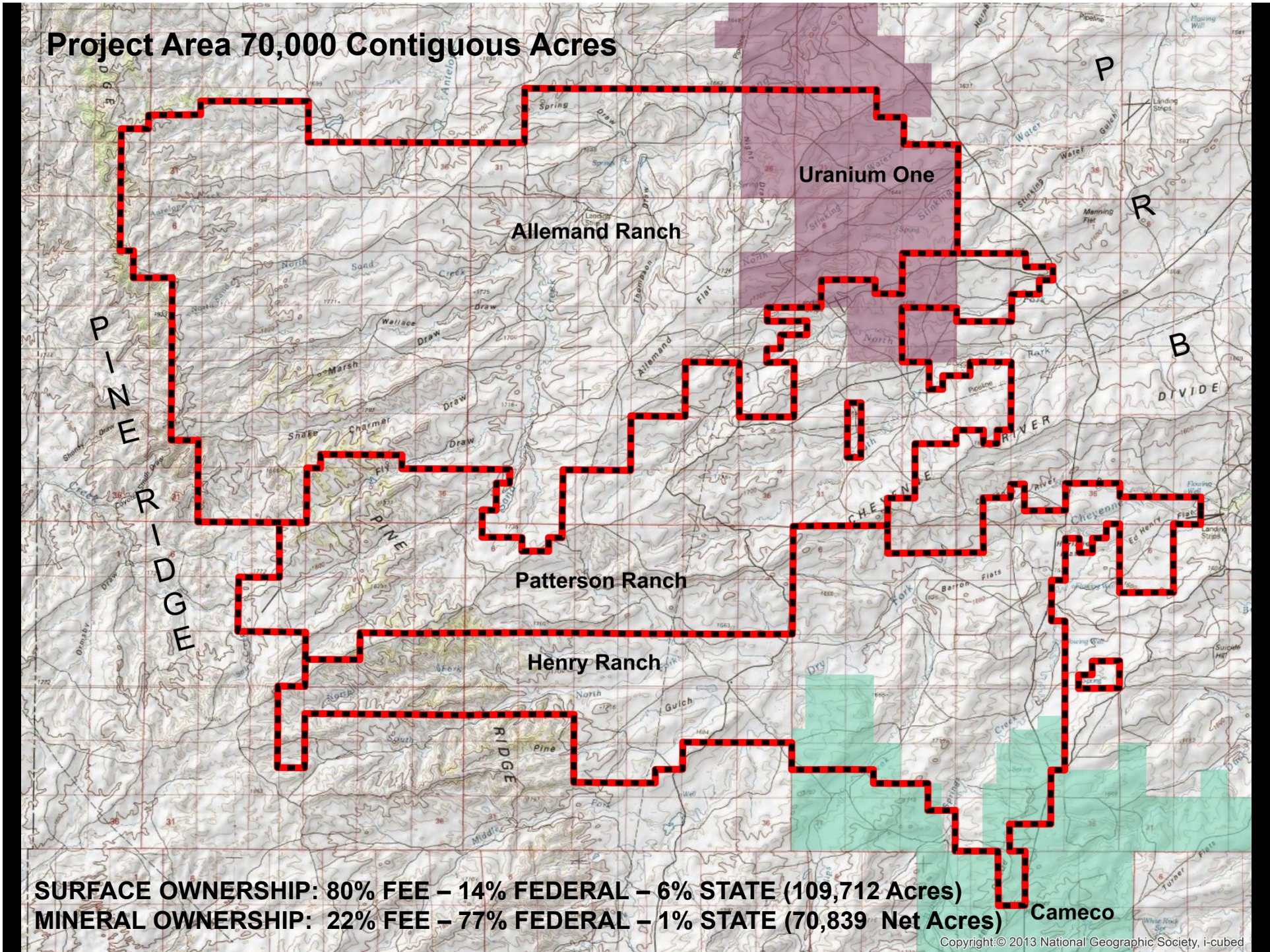








# Project Area 70,000 Contiguous Acres





Staked claims in 2008 – 2009 using GPS and ArcGIS (3,219 claims)



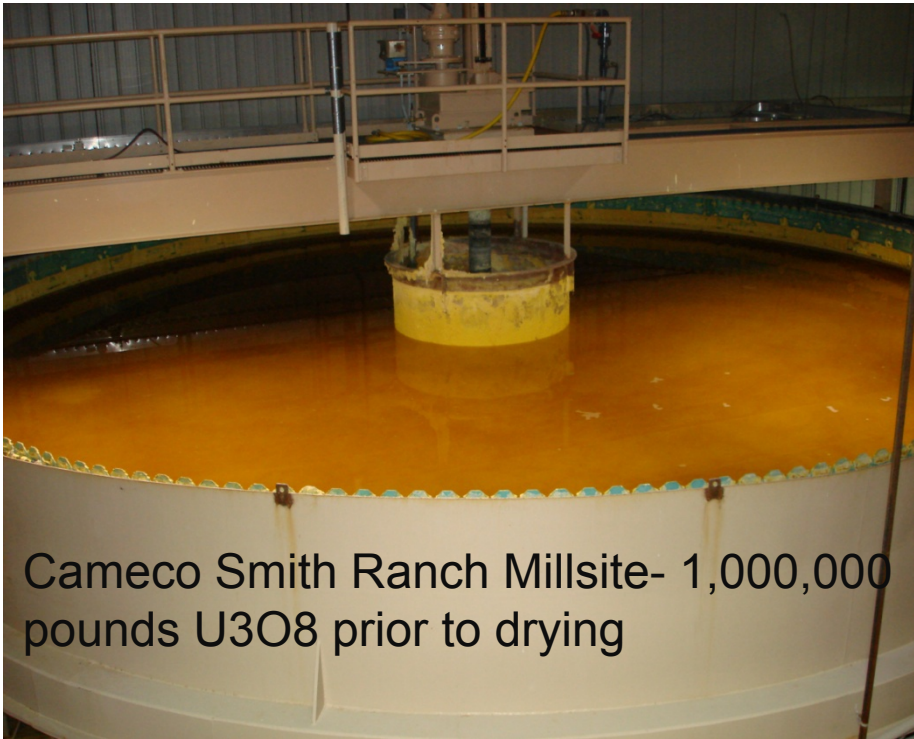
Exploration drilling on Stakeholder properties looking west towards the Pine Ridge











Cameco Smith Ranch Millsite- 1,000,000 pounds U3O8 prior to drying



Cameco ISR Uranium Processing Facility



Smith Ranch Mine sites (winter/summer)





# Summary of Exploration in Pine Ridge District

Use of outcrop mapping integrated with oil and gas subsurface data and available well logs resulted in a geologic model for this previously unexplored area.

Proprietary drilling by Stakeholder over the past two years has confirmed the geologic model of large mineralized alteration cells in staked fluvial sandstone sequences.

The target-rich area of potential extends over nine contiguous townships where Stakeholder has leased over 70,000 acres.

Adjacent mature in-situ projects provide strong analogs and demonstrate amenability for the ore bodies at shallow, intermediate, and deep depths.

These project attributes, with discoveries by Stakeholder are expected to result in future yellow cake production with partner or successor to Stakeholder, and warrants naming this the Pine Ridge District.

Potential resource is an estimated 66 to 72 million pounds



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