

# Loma Linda University SPH RAC

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Principal Investigator



# LLU RAC

- LLU - Christian Health Sciences University
- 75 miles east of Los Angeles
- Catchment - Southwestern U.S. & Hawaii
- Aim: Capacity Building
- Major Clients:
  - California Conference of Directors of Environmental Health
  - Native American Tribes
  - Riverside and San Bernardino County DPH
  - Others



# Case Study: Native Americans

- Partners:
- Diné College - New Mexico & Arizona
- Native American Environmental Protection Coalition
- Capacity Building: Surveillance and Data Collection

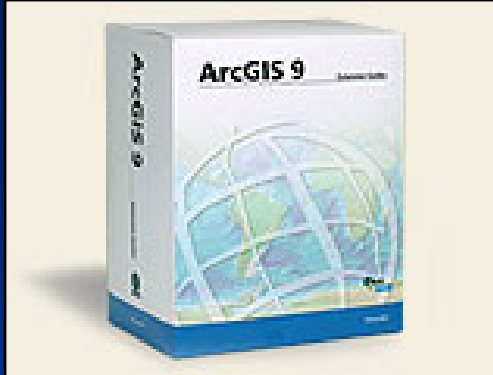


# Diné College

- Roughly 2000 contact hours
- Distance Education and F 2 F
- Environmental Spatial Analysis
- Undergraduate PH students
- MOU – articulation from AA to BSPH in Health Geoinformatics
- Visiting Professor from Diné at LLU



# Enhanced Surveillance through use of Technology



**GIS Software**



**Research Interns**



**Model 19 Micro R Meter**



**Trimble TSC 1 Unit**

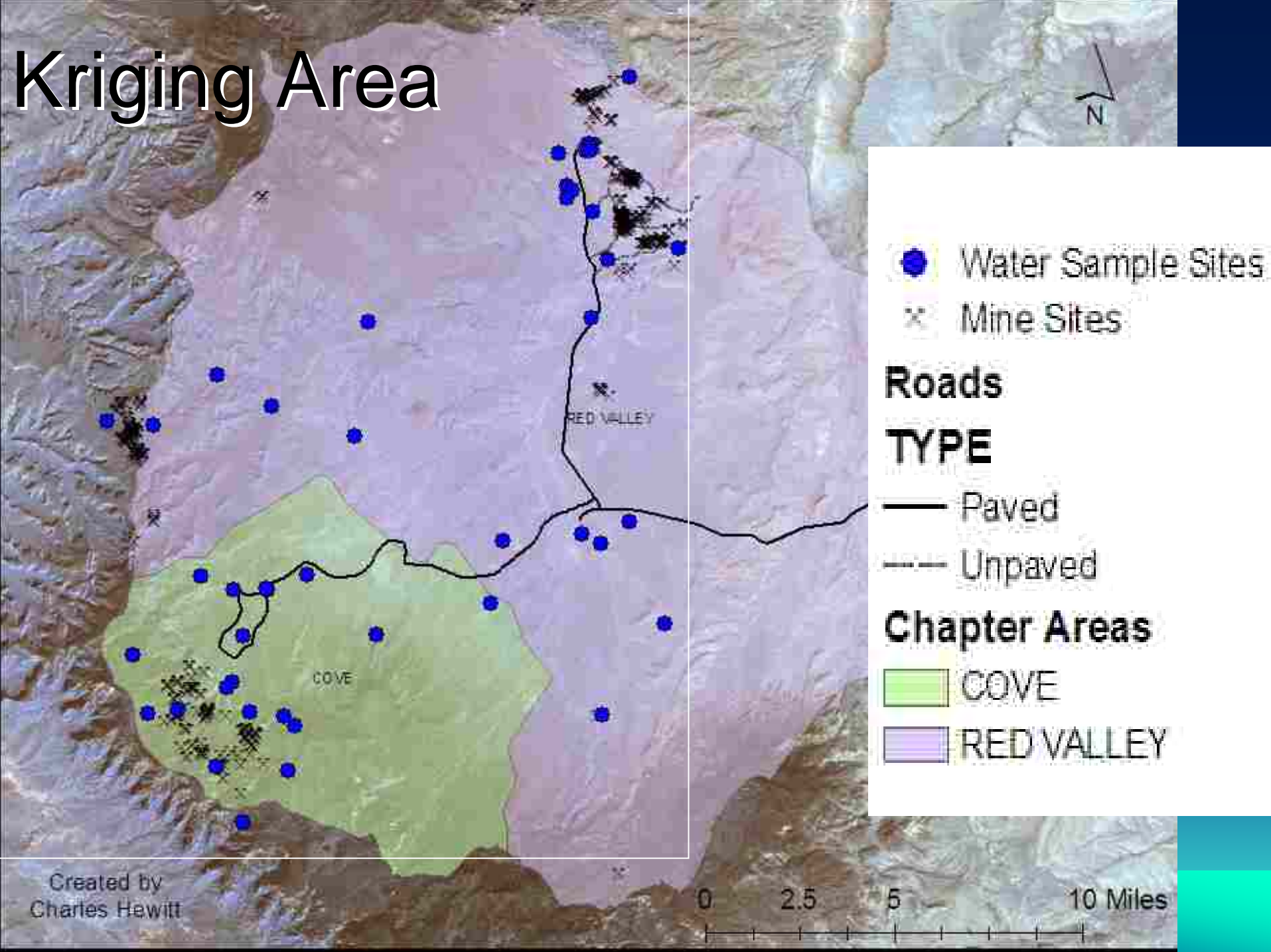
**Photos by Veronica  
Francisco-Lapahie**

# Spatial Analytic techniques

- Use of ArcMap software
- Interpolation of the various water sample sites
- Spatial Interpolation method - Kriging



# Kriging Area



- Water Sample Sites
- × Mine Sites

## Roads

### TYPE

- Paved
- - - Unpaved

## Chapter Areas

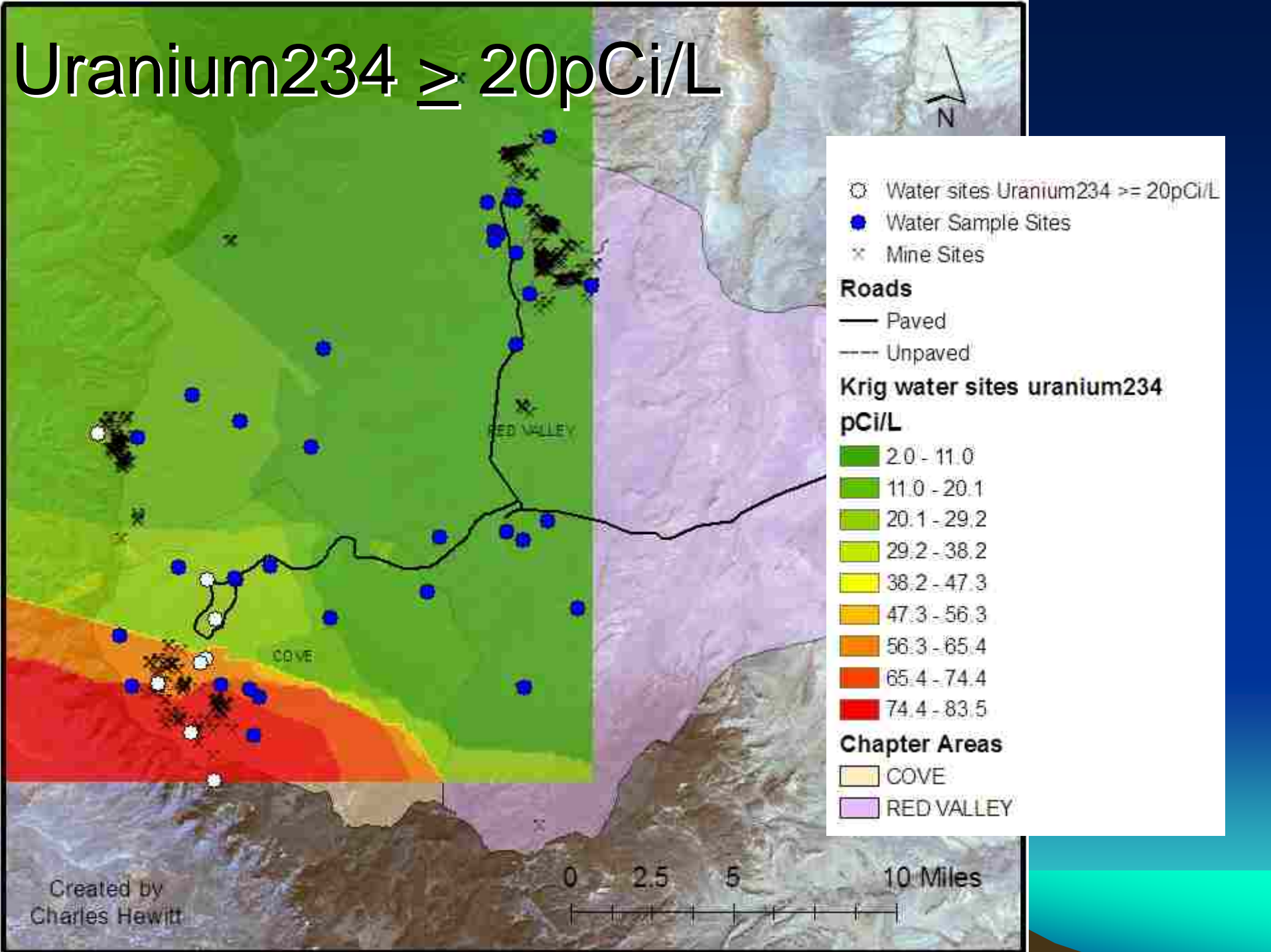
- COVE
- RED VALLEY

Created by  
Charles Hewitt

0 2.5 5 10 Miles

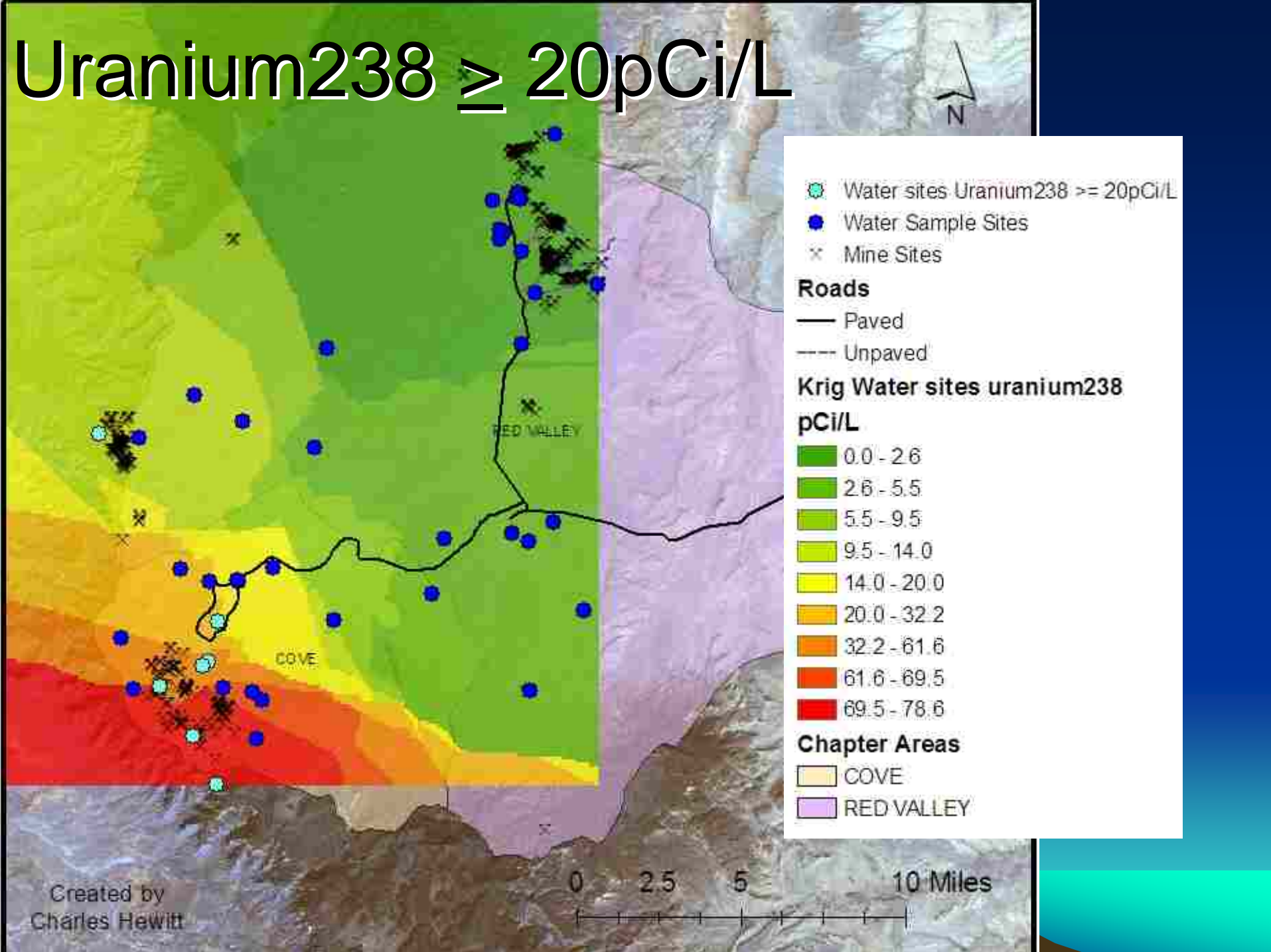


# Uranium234 $\geq 20\text{pCi/L}$

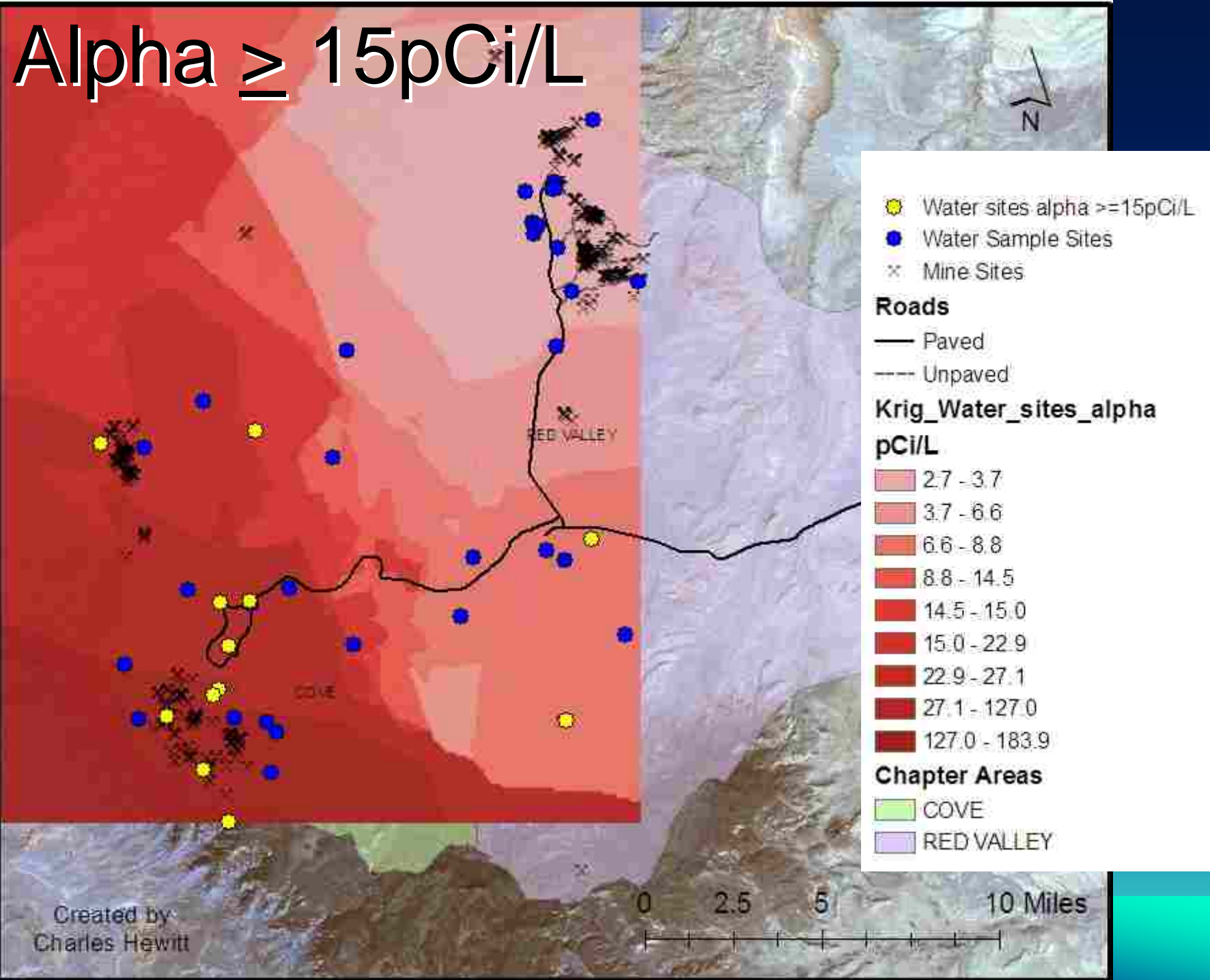




# Uranium238 $\geq 20\text{pCi/L}$



# Alpha $\geq$ 15pCi/L



# Other Native American Surveillance Training Programs

- GIS mapping of areas of at risk of Eutrophication in Lake Havasu (Chemehuevi Indian Tribe)  
GIS mapping of areas impacted by illegal landfills in Coachella Valley (Torres Martinez Indian Reservation)
- Intensive customized multi-day training sessions in N.A. Casinos and on campus (Pala Tribe)
- Grant and Proposal Writing (NAEPC)



# Sample Products

- 3 Peer Refereed Publications
- California EH Services Delivery Report
- New Mexico EH Services Delivery Report (in preparation)
- Food Handlers DVD in English and Spanish
- Technical Support for Healthy Homes program in Riverside County
  
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