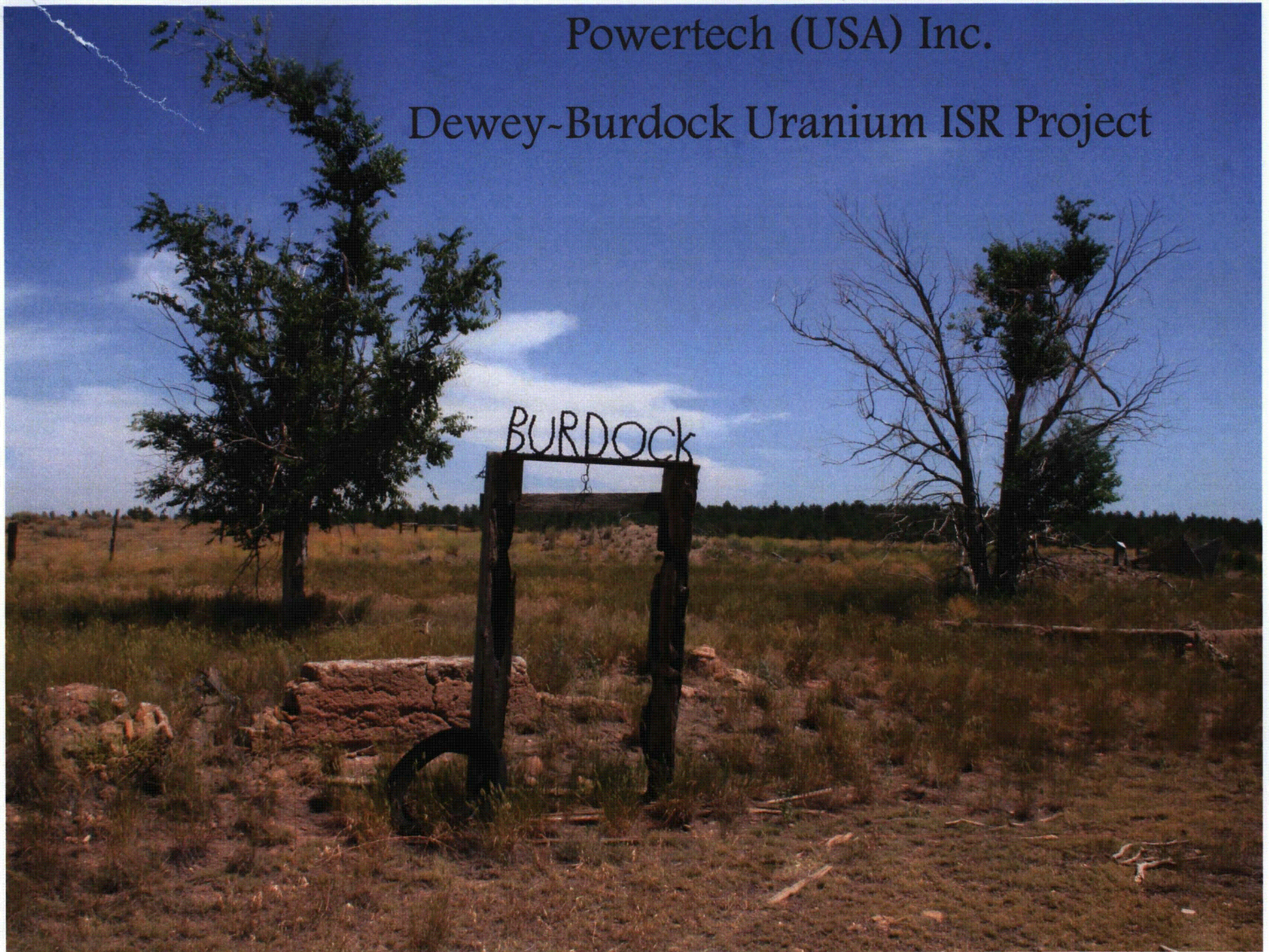


Powertech (USA) Inc.

Dewey-Burdock Uranium ISR Project

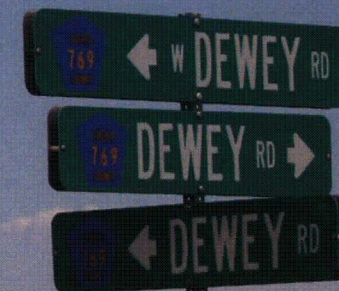


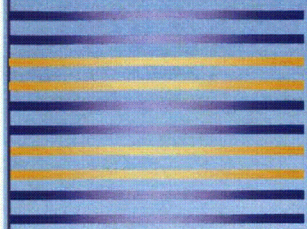
❖ Objective of the Meeting

- ➔ *Information About Project*
- ➔ *Feedback on Baseline Sampling Plan*
- ➔ *Decide on Communication Plan and protocol*

❖ Outline

- ➔ *Introduction*
- ➔ *Project Approach*
- ➔ *Project Team*
- ➔ *Base Line Study*
- ➔ *Closing*





Powertech (USA) Inc.

❖ Mission

→ *Acquire and develop through in situ process, quality ore bodies that can be produced at low cost*

❖ Overview

Management has:

permitted and constructed more than eight mines and pilot operations on quality uranium ore bodies.

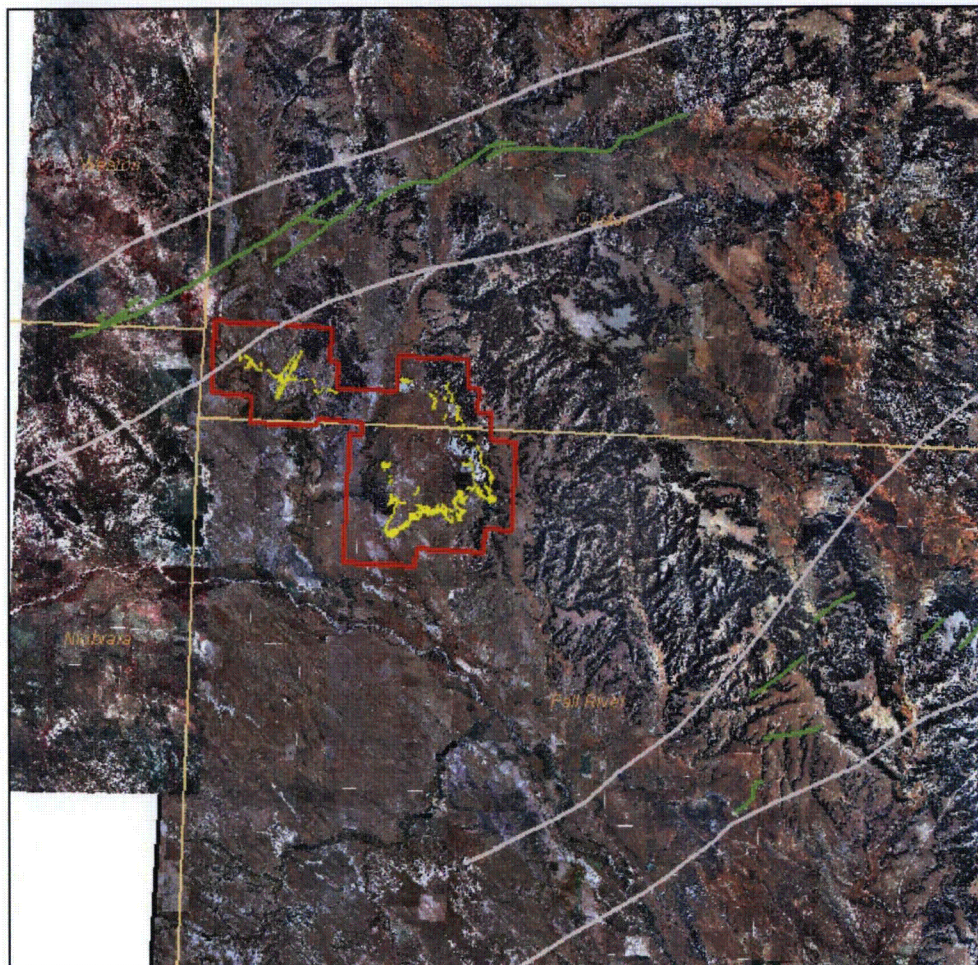
brought more than 12 in situ operations to both mining and closure stage.



Current Prospects



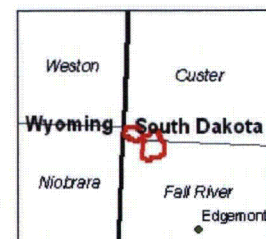
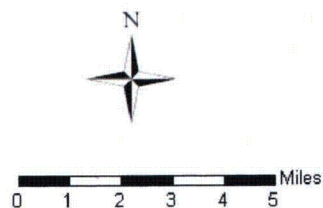
Dewey Burdock Prospect



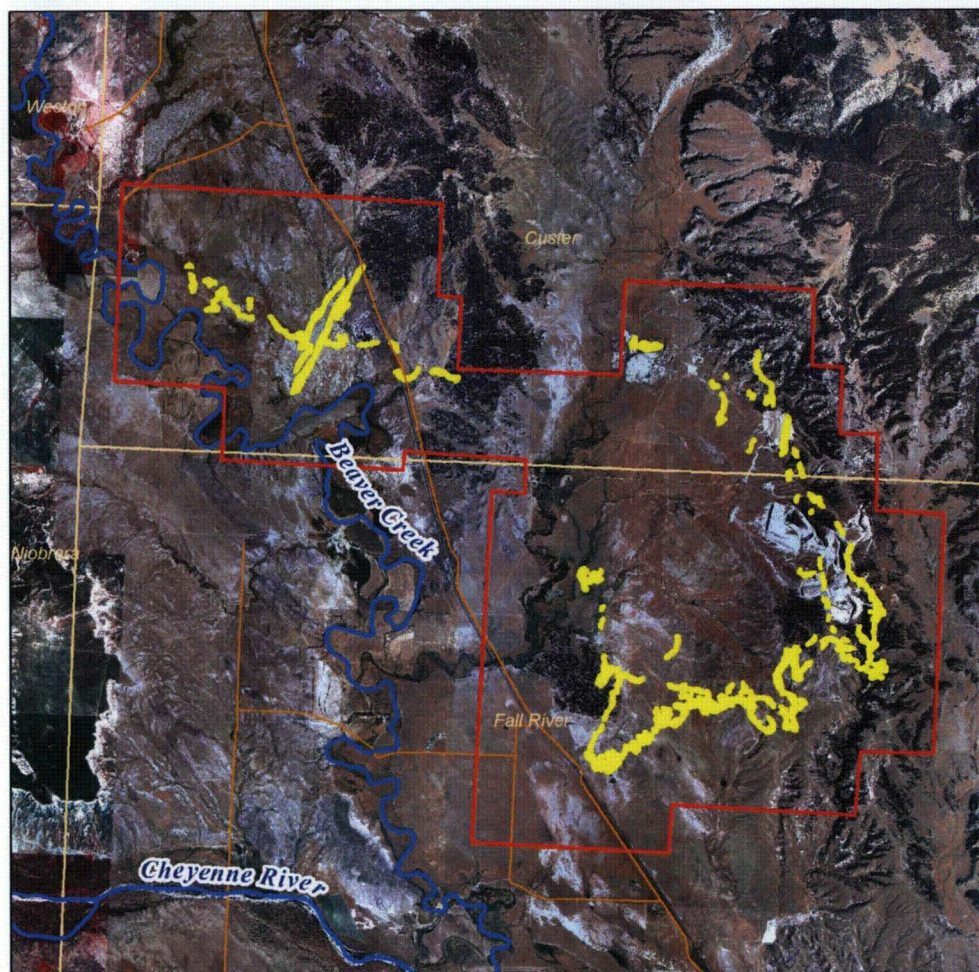
Legend

Faults

-  Fault
-  Fault Zone Boundary
-  Ore Bodies
-  Permit Boundary



Dewey Burdock Prospect

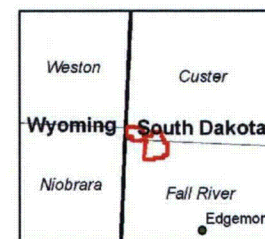


Legend

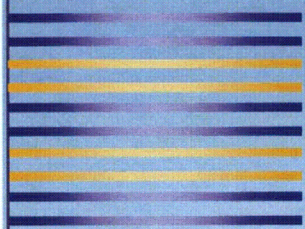
- Permit Boundary
- Streams
- Roads
- Ore Bodies



0 0.5 1 1.5 2 Miles





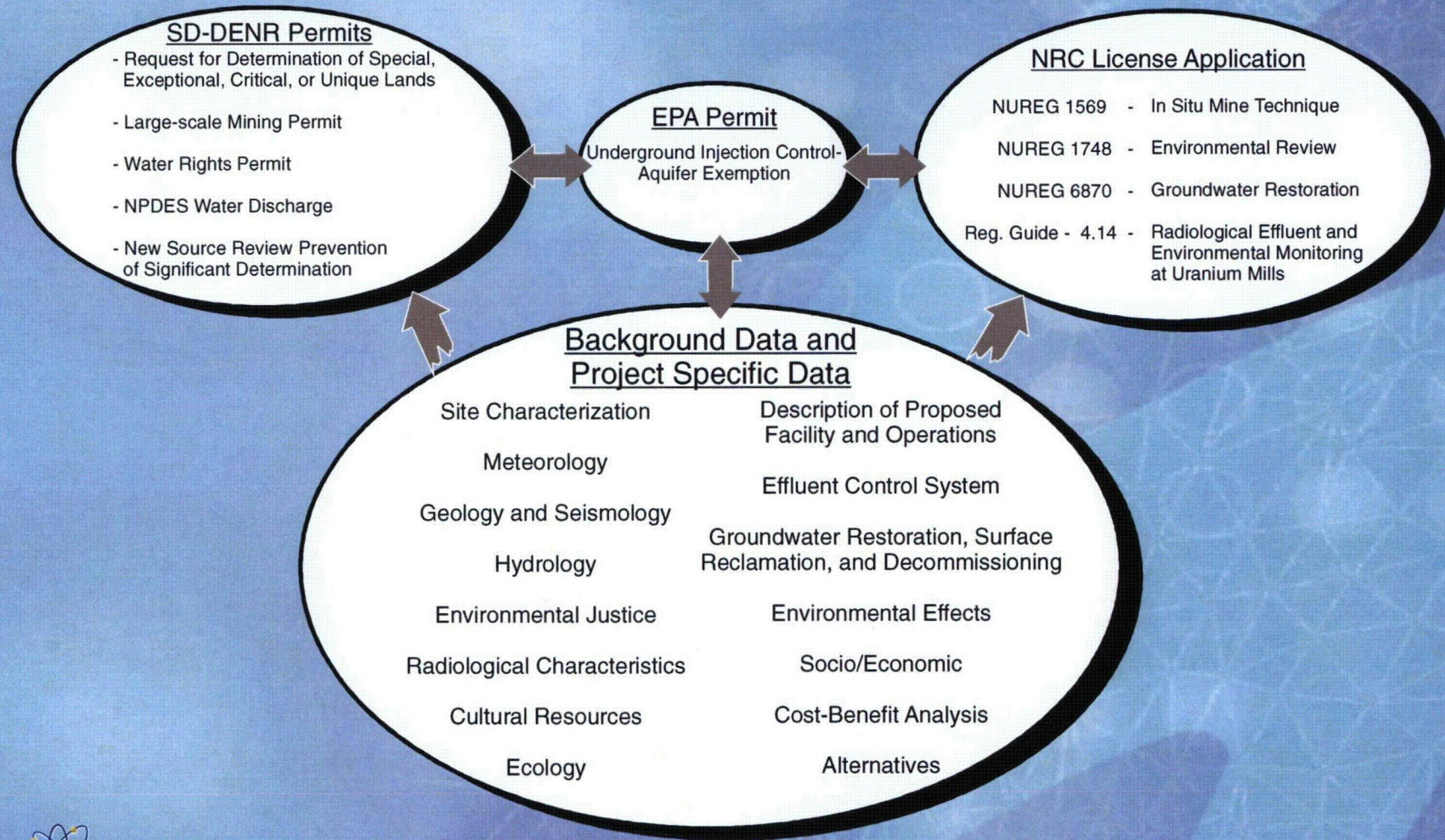


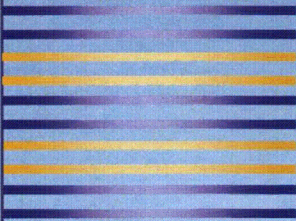
Dewey-Burdock History

- ❖ **Three Major Open Pit Mines Operated in 1950s**
- ❖ **USGS Investigations in 1955, 1965**
- ❖ **Tennessee Valley Authority Explored, Tested, and Went Through Permitting Process for Underground Mine and Processing Facility 1980s**
- ❖ **PowerTech has leases and claims on 11,180 acres of Federal and Private Minerals**
- ❖ **PowerTech Certified Resources is 7.9 Million Pounds and Expects to Spend \$15-20M**



Project Approach



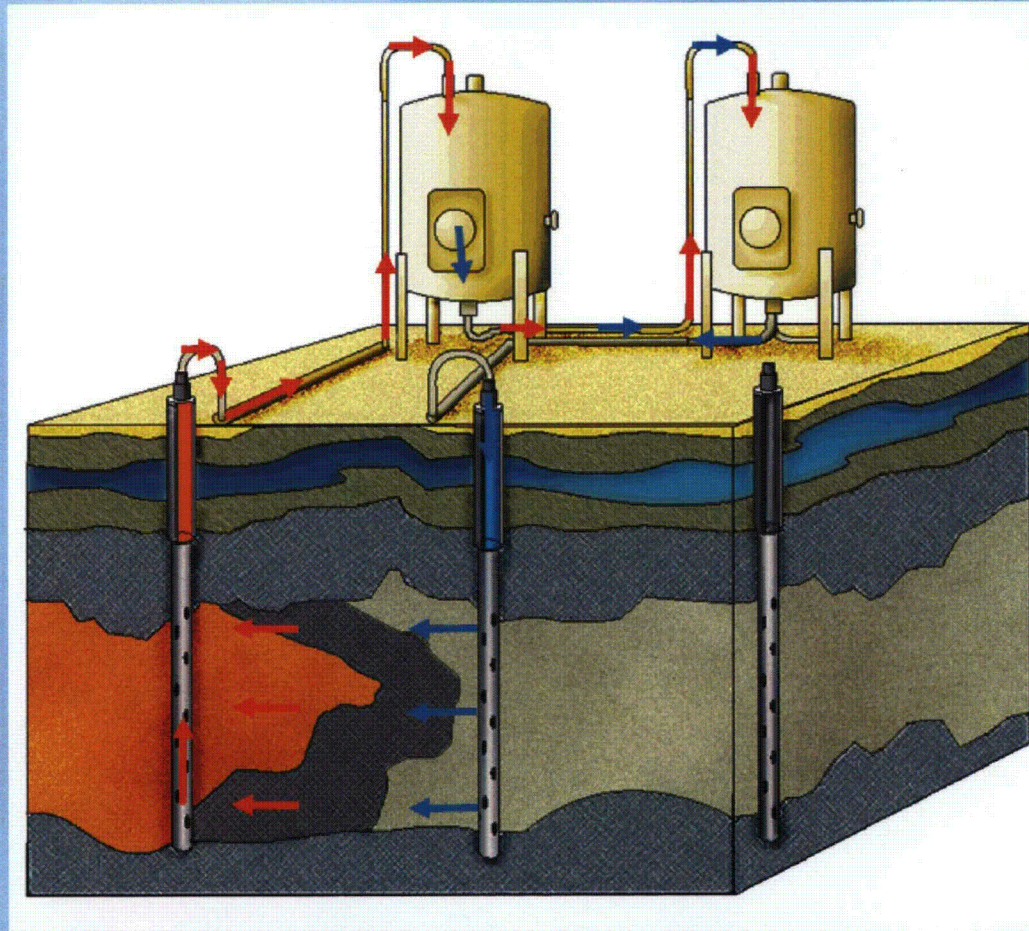


Project Team Responsibilities

- ❖ **Powertech**
 - ➔ *Project Manager – Mark Hollenbeck*
- ❖ **Knight Piésold**
 - ➔ *Prime contractor*
 - ➔ *USNRC licensing and EPA UIC permitting*
- ❖ **RESPEC/SDSMT**
 - ➔ *Groundwater and surface water characterization*
 - ➔ *Meteorology*
 - ➔ *DENR permitting*
- ❖ **Environmental Restoration Group, Inc. (ERG)**
 - ➔ *Field radiological characterization*
 - ➔ *Risk assessments*
- ❖ **BKS Environmental Associates**
 - ➔ *Vegetation, Soils, and Wetlands*
- ❖ **Jones & Stokes**
 - ➔ *Wildlife and Fisheries*



In-Situ Recovery Process



** This diagram is merely a representation of the recovery process and does not represent actual hydrogeologic conditions at the Dewey Burdock site.



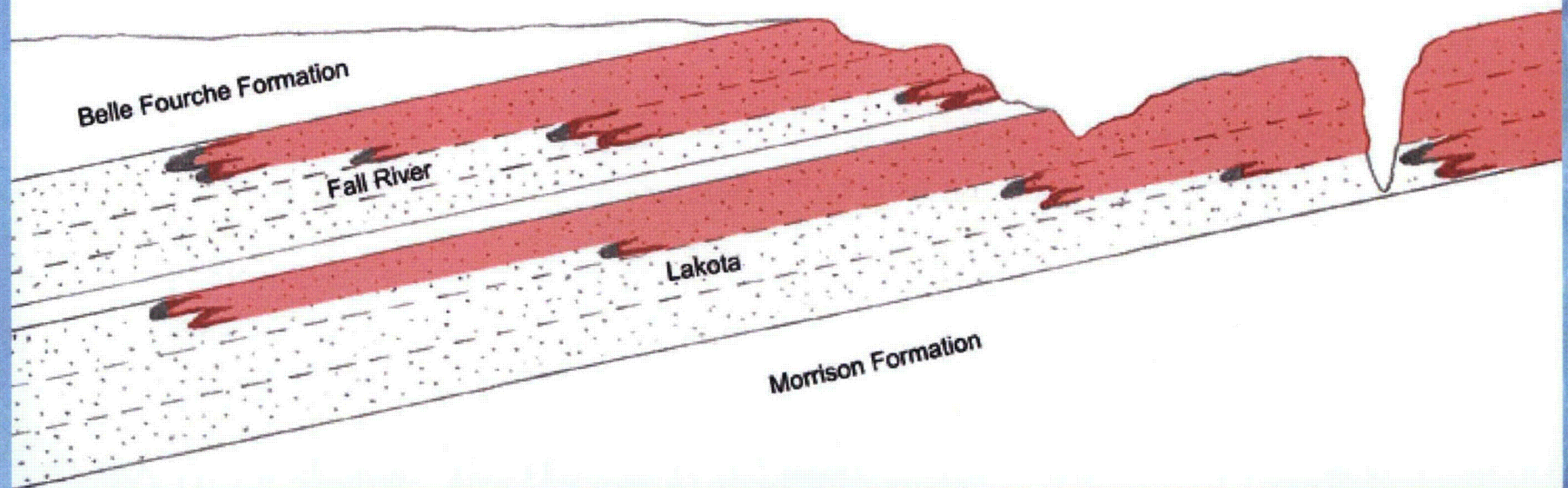
POWERTECH (USA) INC.

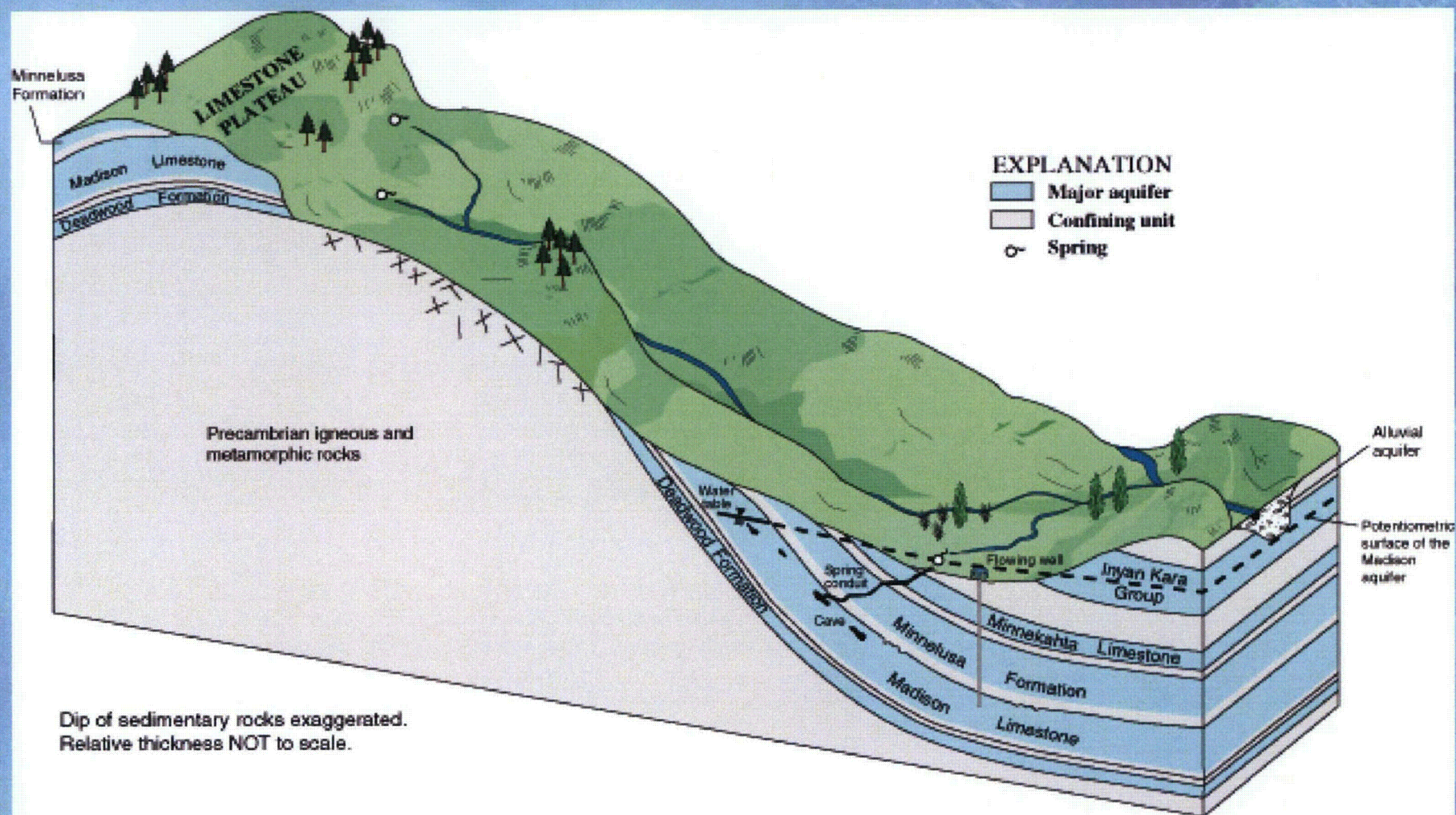
Baseline Studies Goals

- ❖ **Provide Support for Three Major Permit Efforts for SD DENR, USNRC and USEPA**
- ❖ **Determine Current Background Values for all Media (water, soil, air, flora, fauna)**
- ❖ **Design and Plan Cost-Effective Mitigation and Restoration Measures**
- ❖ **Impact Assessments**



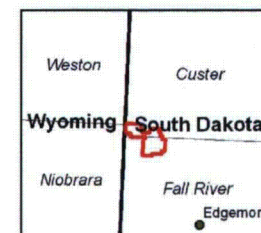
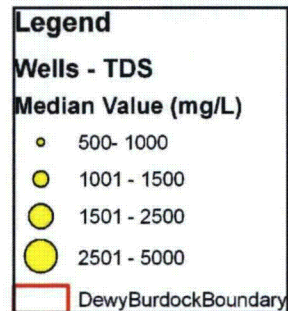
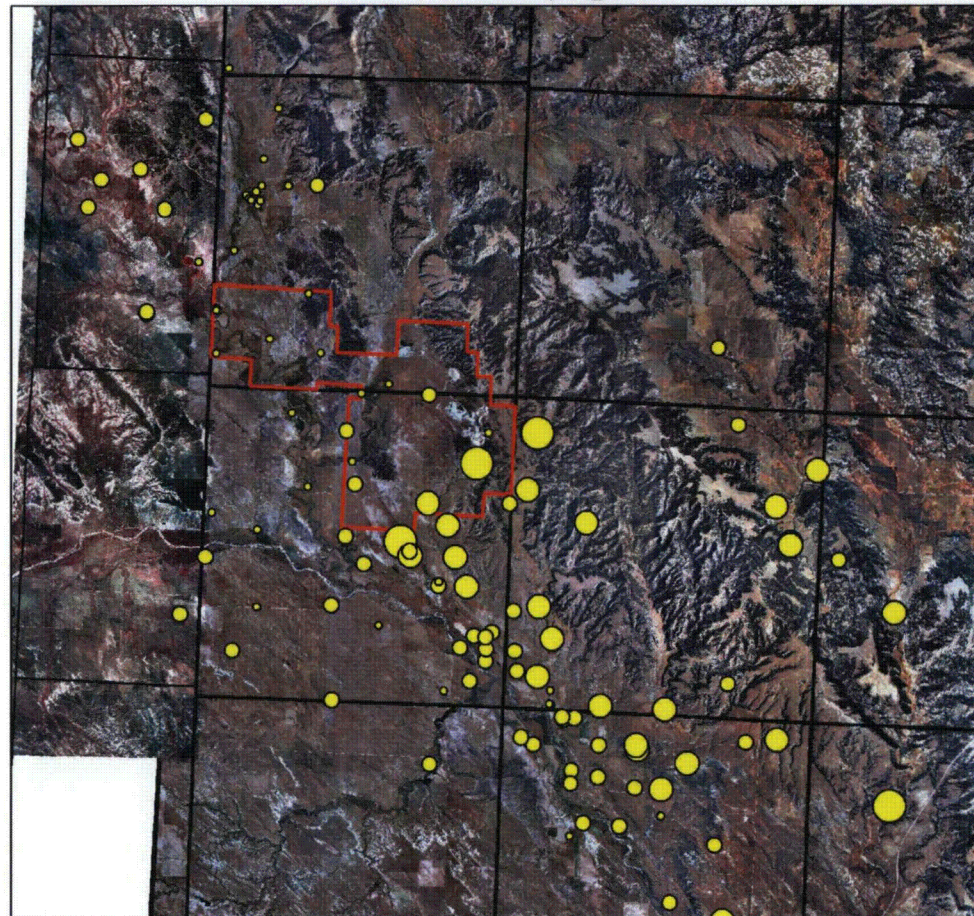
CROSS-SECTION OF URANIUM OCCURANCES BLACK HILLS URANIUM DISTRICT



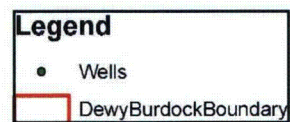
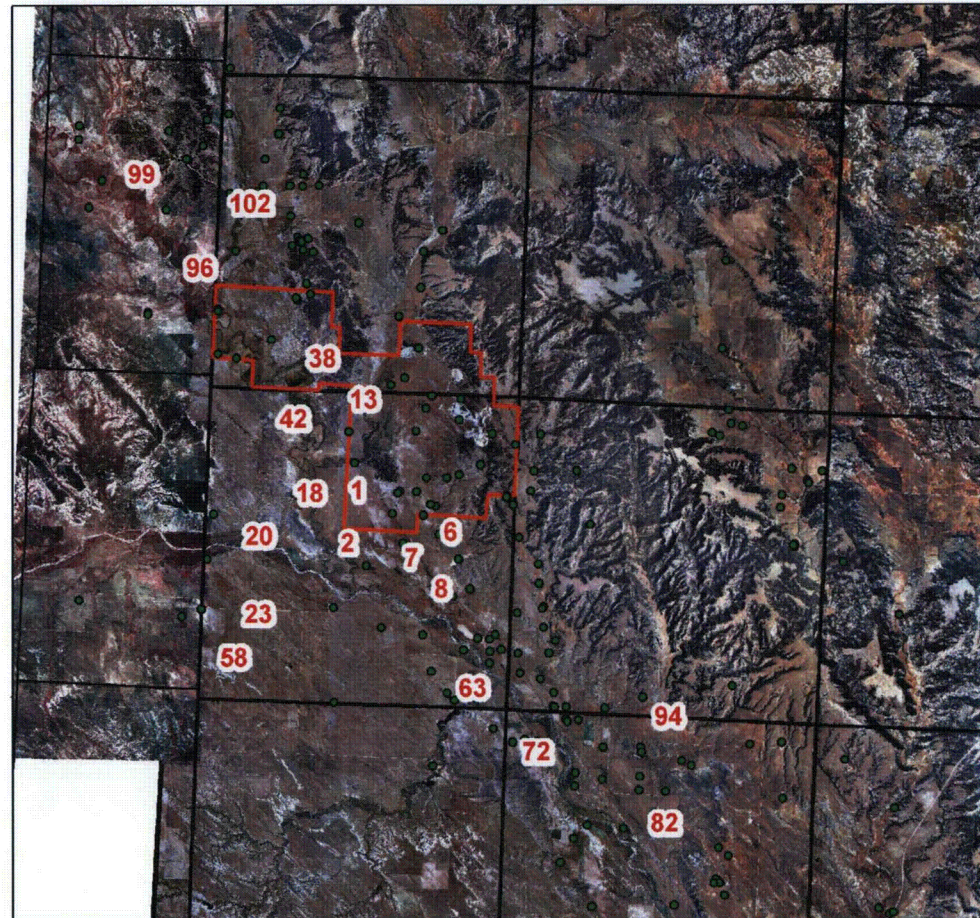


Schematic diagram showing simplified hydrologic setting of the Black Hills area. Schematic diagram generally corresponds with geologic cross section shown in figure 5.

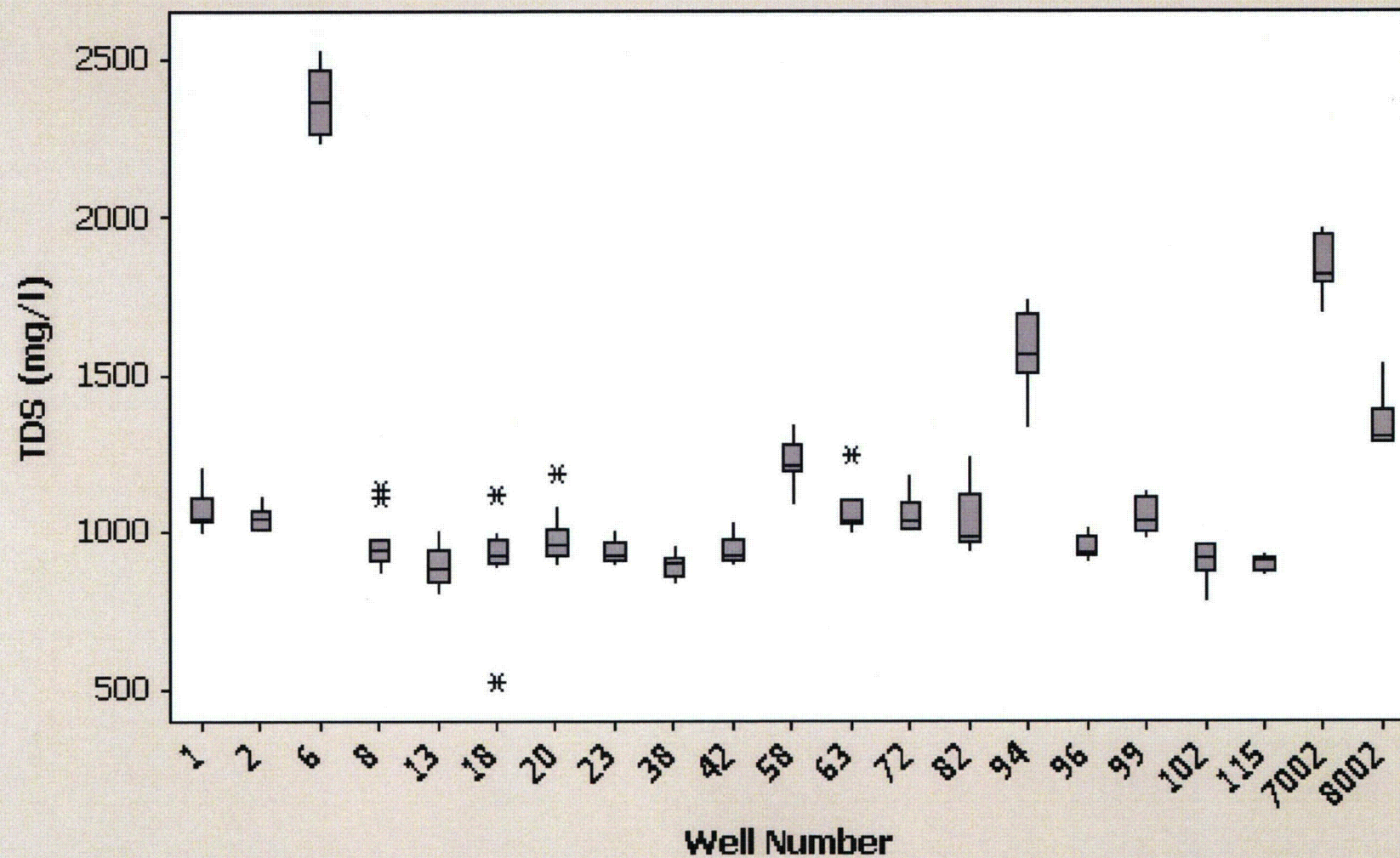
Ground Water Quality Median TDS (mg/L)



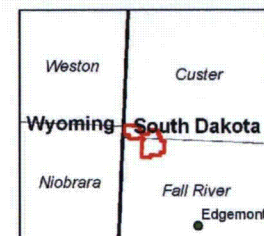
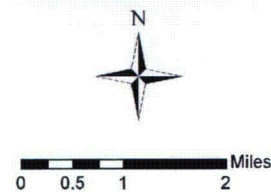
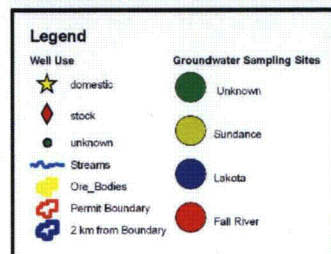
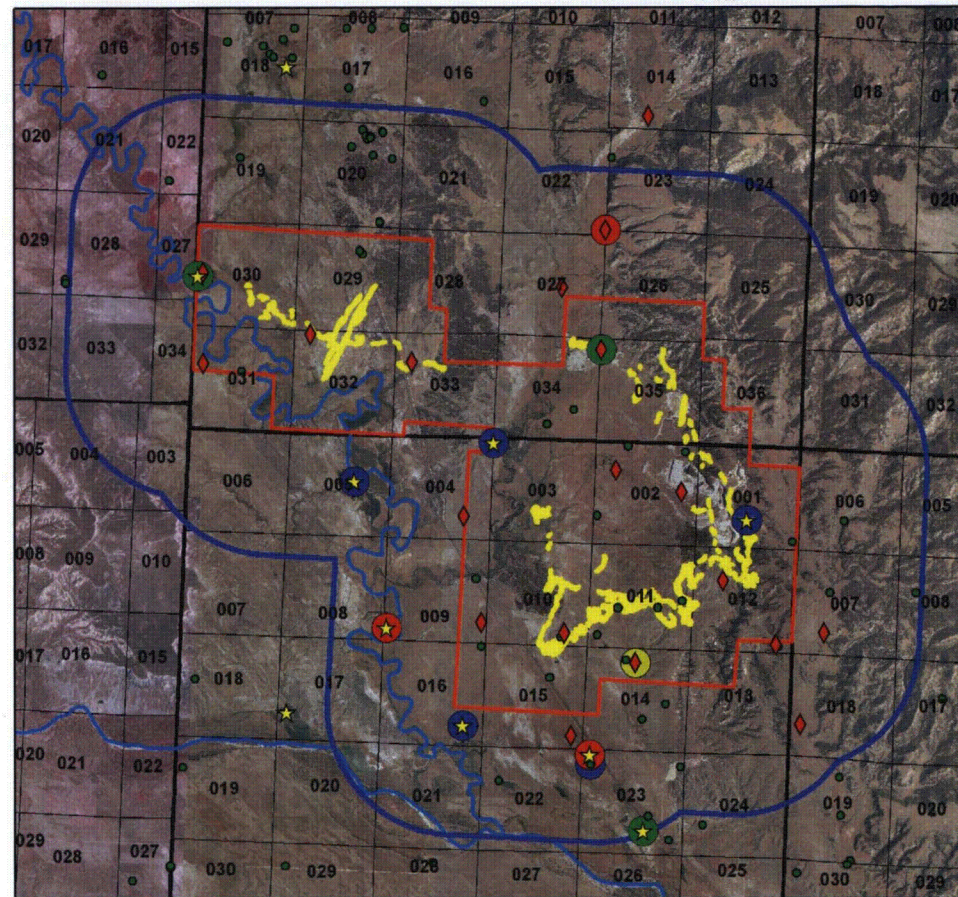
Ground Water Quality Wells w/ Statistics

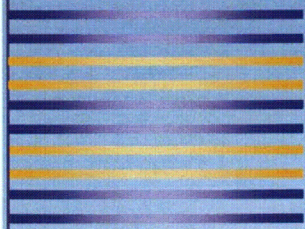


Total Dissolved Solids Well



Ground Water Sampling Sites





Groundwater

❖ **Sample and Measure Water Level and Flow on Representative Wells Within 2 km of Project**

→ ***Assume 12 wells at four samples per year***

→ ***Chemical analyses***

☞ **1569 constituents (U, Th-230, Ra-226)**

☞ **If Th-232 elevated, analyze for Ra-228**

☞ **Additional Pb-210 and Po-210 (Reg. Guide 4.14)**

→ ***Potentiometric surfaces***

→ ***Develop trilinear diagrams and cluster analysis for formation waters***



Groundwater

❖ Model

- *Model hydrology at aquifer scale with ModFlow, well tests with AQTESOLV*
- *Use dewatering tests and drawdown data from three TVA tests in 1977, 1979, 1982*
- *Develop Pump Test Plan*

