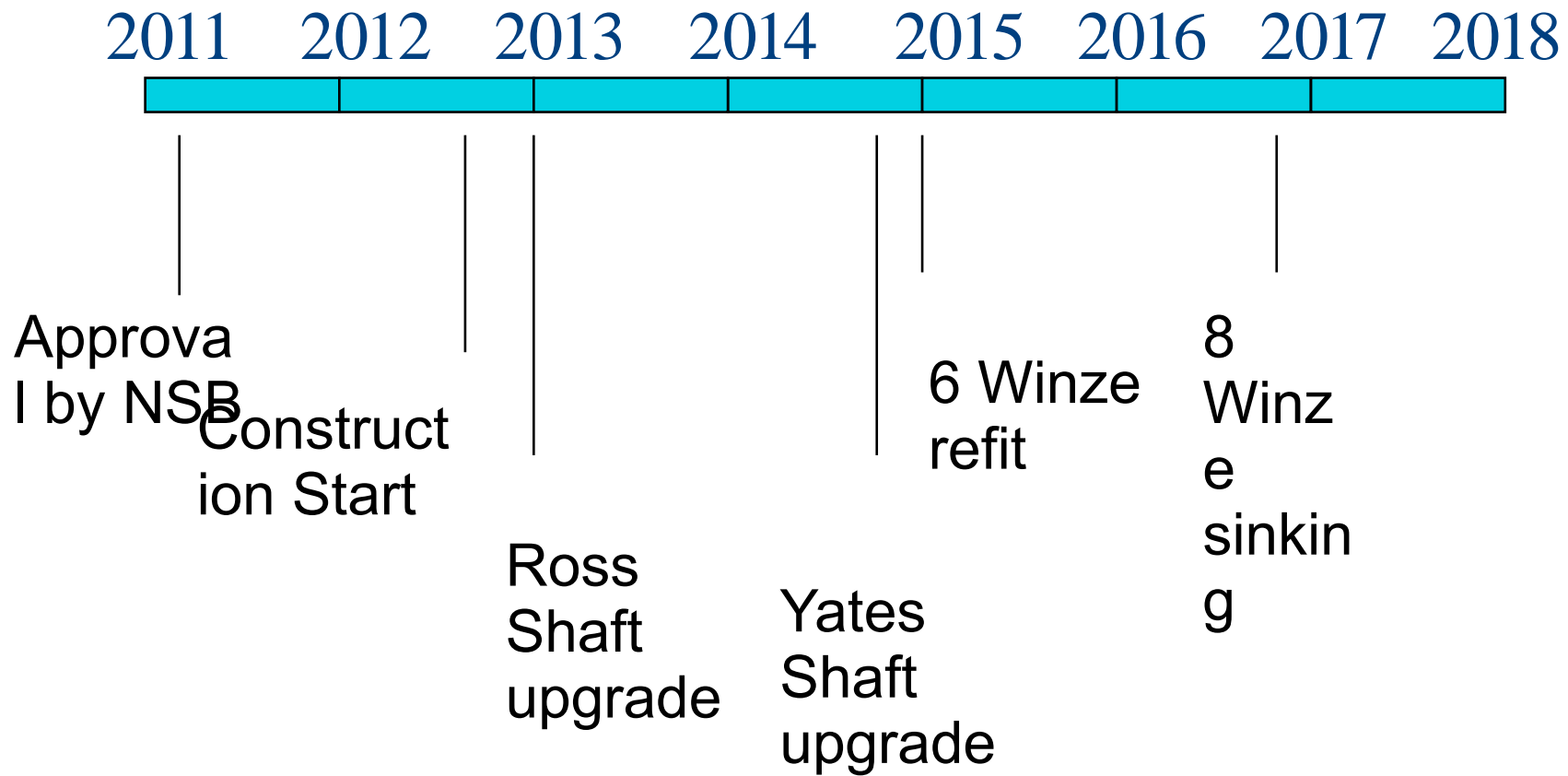
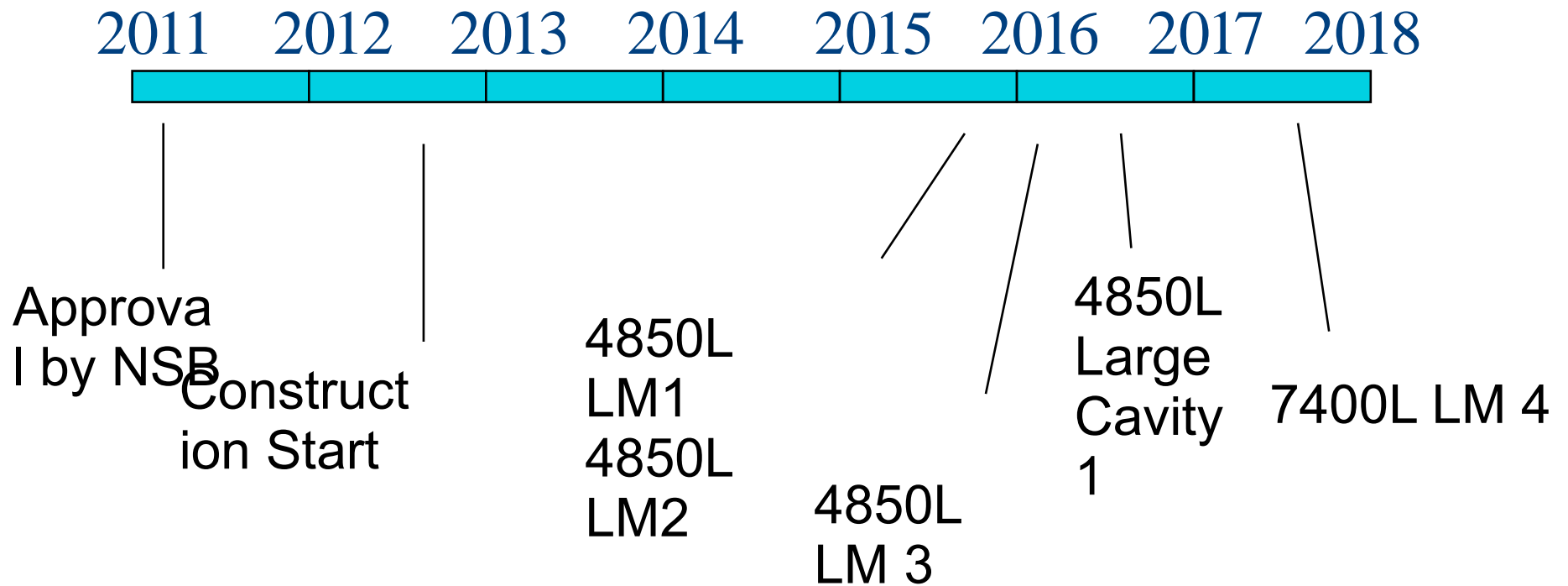


Access Work



Lab Modules Work



Complexities and Cautions

(Historical)

Unification of community following “competition” phase

Cross agency communications

Keeping the process apolitical

Identification of Integrated Suite of Experiments

Mining is a “hot industry”, finding equipment and qualified labor is competitive

Complexities and Cautions

(resolved)

□ Unification of community following “competition” phase

- Cross agency communications

Keeping the process apolitical

Identification of Integrated Suite of Experiments

- Mining is a “hot industry”, finding equipment and qualified labor is competitive
- 

Complexities and Cautions

Concurrent efforts: Sanford Lab and DUSEL
Parallel Funding and Management

Combined change control board

Transition planning becoming more
advanced

Considerations

LONGSECTION OF THE HOMESTAKE MINE

Underground Environment

Hazard Identification and Mitigation

Safety

Operating in an underground environment

- Early-on = a construction environment
- Transition to a laboratory environment important

Laboratory environment challenges

- Large amounts of cryogenics underground
- Construction occurring at the same time as experiment operation



Safety and Hazard Assessments

LONGSECTION OF THE HOMESTAKE MINE

Assessments and Safety

hazard assessments

process safety

Codes and Requirements

Training Requirements

Challenges

Complex project

Funding sources variable

Many players

“Manage Expectations”

Complexities

Mixing of Cultures (Operations vs. Project)

Production Mining

Science

- Physics (big and small science)
- Earth science (geo, bio, hydro, chem)
- Engineering
- E&O

Use the existing early science program to “desensitize” the existing operations system to the demands of the science

Challenges

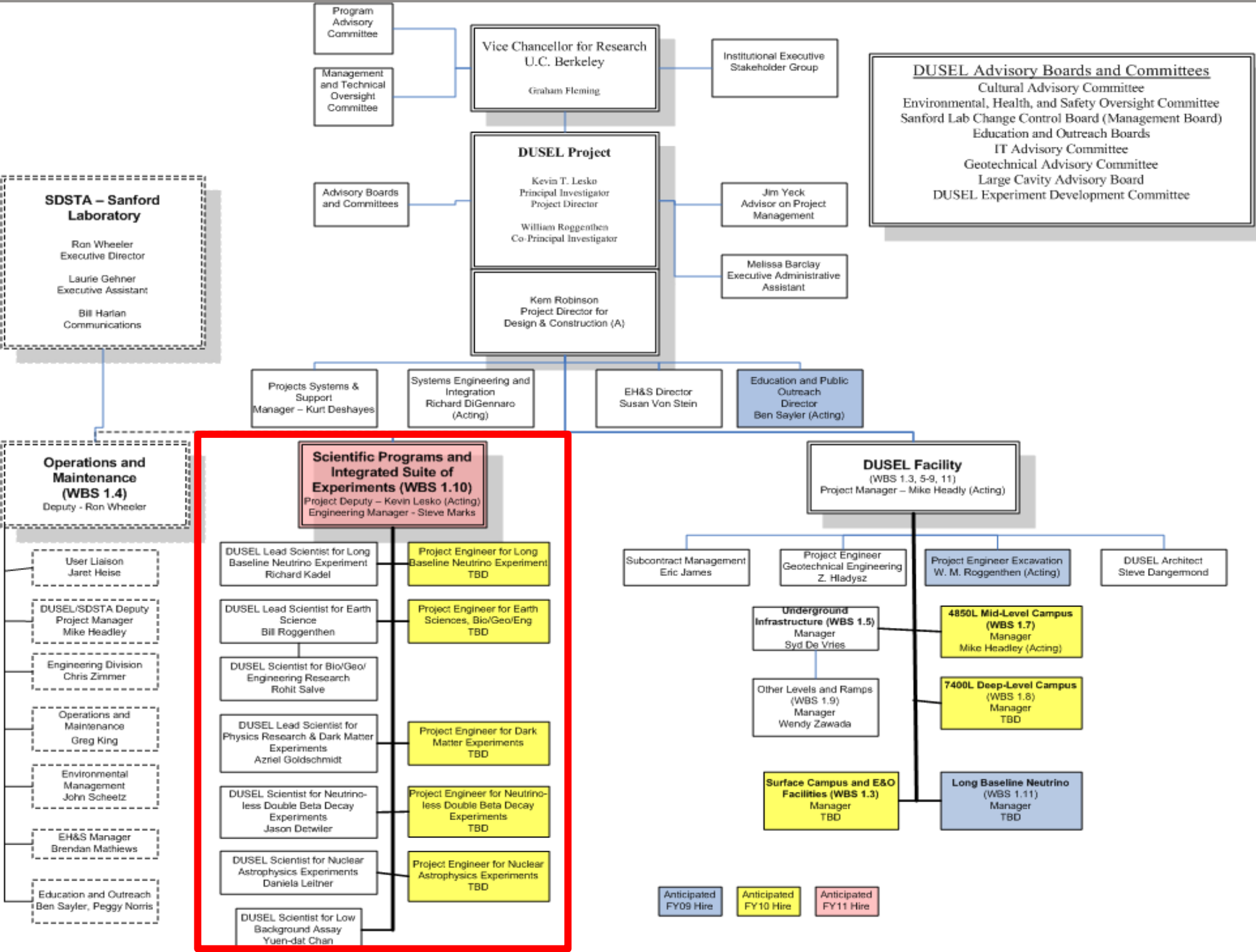
Management of experiment collaborations

MREFC will consist of both the facility and the associated Integrated Suite of Experiments (ISE)

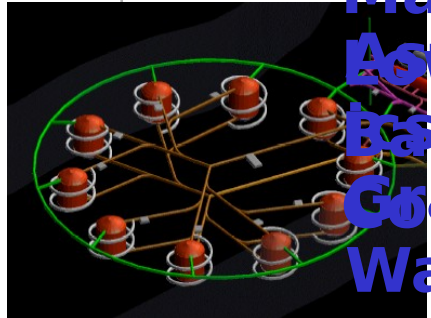
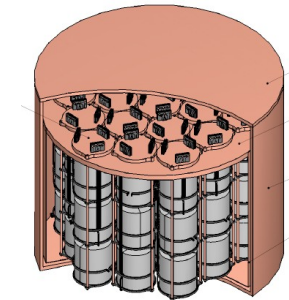
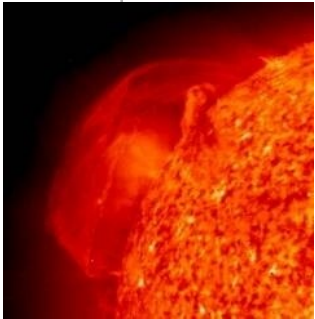
ISE at a different degree of maturity than the facility

Manage Interfaces

Manage “desirements vs. requirements”



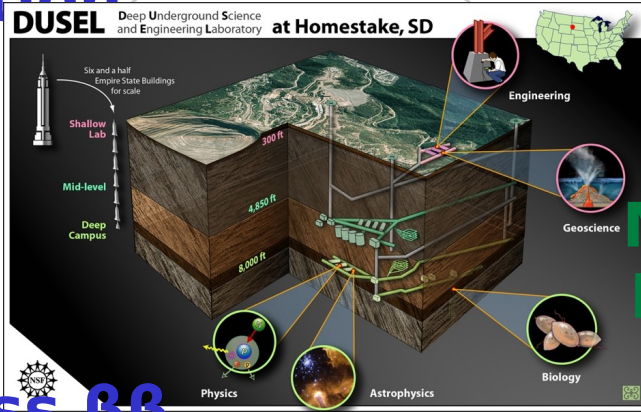
DUSEL: the Big Picture



Dark Matter
Cosmology
Astrophysics
Neutron

Solar Oscillation
Neutrinos
Geoneutrinos
Underground

Neutrinoless $\beta\beta$
Accelerator
Long-baseline ν
Manufacturing
Astrophysics
Background Matrix
Graviton Decay
Atmospheric Neutrinos



Education &

Public Outreach

Geo-

Database
Geophysics
Seismology
Fracture
Study

Processes

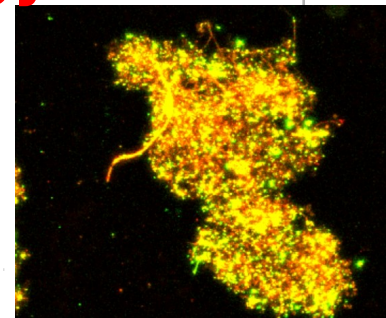
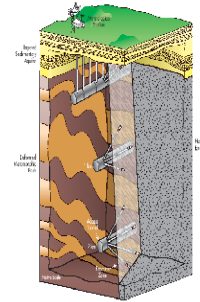
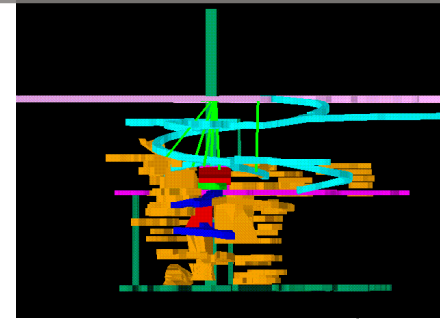
Mechanics
Hydrology

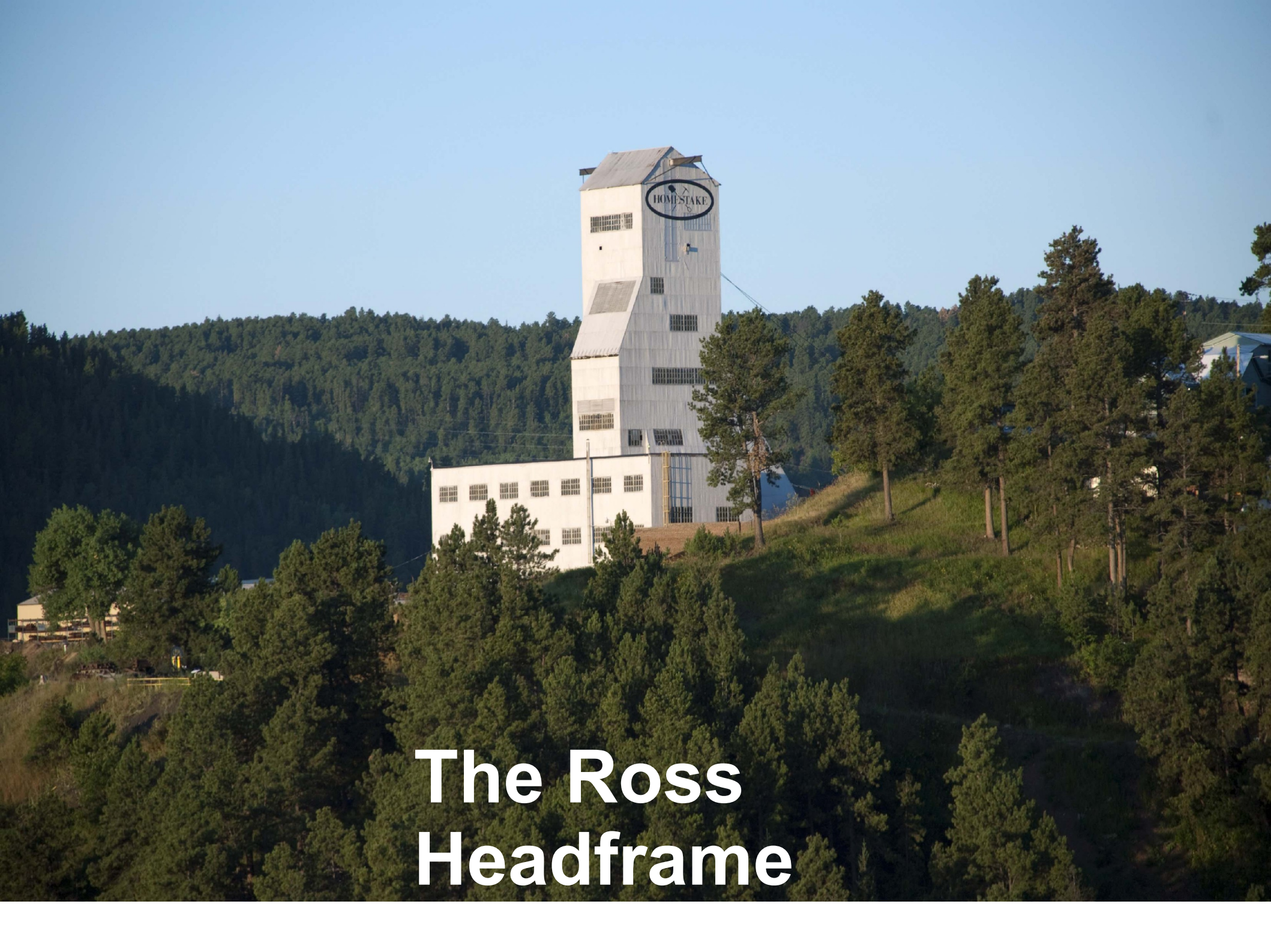
Mineral
Studies

Economic
Geomicrobiology

Underground
Engineering
Geochemistry
Bioprospecting

Ecology
Life at Extreme Environmental Conditions
Homeland Security
Studies





The Ross Headframe



**The Yates Headframe from
Main Street**

