

The Next Generation of Phosphate

The J.R. Simplot's Company 75 years of making phosphate fertilizers in SE Idaho and future plans



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Education and Experience

M.Sc.: Forest Products
University of Idaho, College of Forestry,
Wildlife and Range Sciences
(College of Natural Resources)

B.Sc.: Chemistry
Idaho State University

Vice President, Environmental & Regulatory
Affairs
J.R. Simplot Company (2001-present)

Environmental Engineering Manager
Pottatch Corp. (1995-2001)

Chemist/Sr. Environmental Engineer
James River Corp (1987-1995)

Process Analyst
Wastewater Division, City of Pullman, WA
(1984-1987)

Hellicack/Fire & Aviation Management
U.S. Forest Service: Payette & Nez Perce
National Forests
(1979-1983 – seasonal)

Public Affairs and Association Activities

Idaho National Forest Roadless Commission (2009-Present)
Appointed by Governor Otter

Federal Advisory Committee – Bureau of Land Management
(2017-2019)
Appointed by Interior Secretary Jewell for eastern Idaho
RAC.

Treasure Valley Air Quality Commission (2005-2014)
Appointed by Governor Kempthorne

College of Natural Resources Advisory Board, University of
Idaho. (2016-present)
Board, Chair

Idaho Association of Commerce and Industry (2003-2006,
2008-present)
Chair, Environmental Committee

Idaho Mining Association (2018-present)
President, Board

Food Northwest (2007-2012, 2017-present)
Chair of Environmental Committee, Board

National Mining Association (2017-present)
Board

Northwest Pulp and Paper Association (1996-2000)
Board

75 years of phosphate production in SE Idaho.

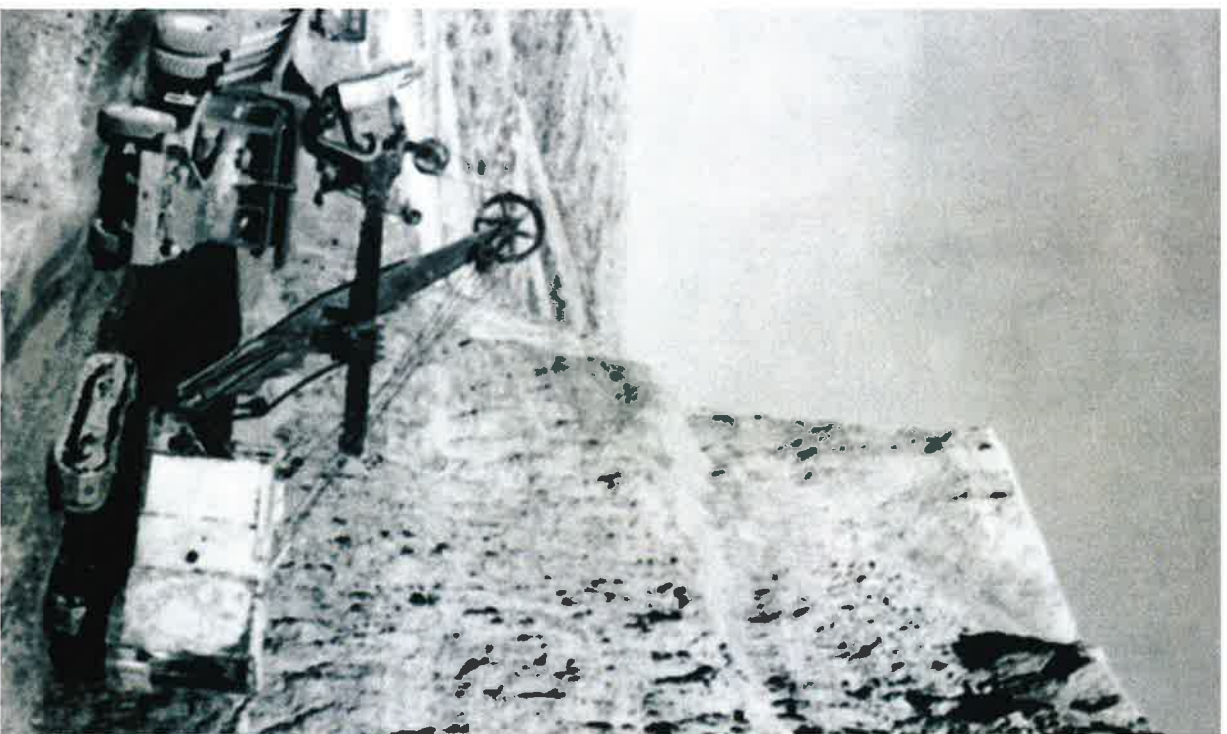
Simplot began operation in 1944 of a basic phosphate fertilizer plant just to the west of Pocatello.





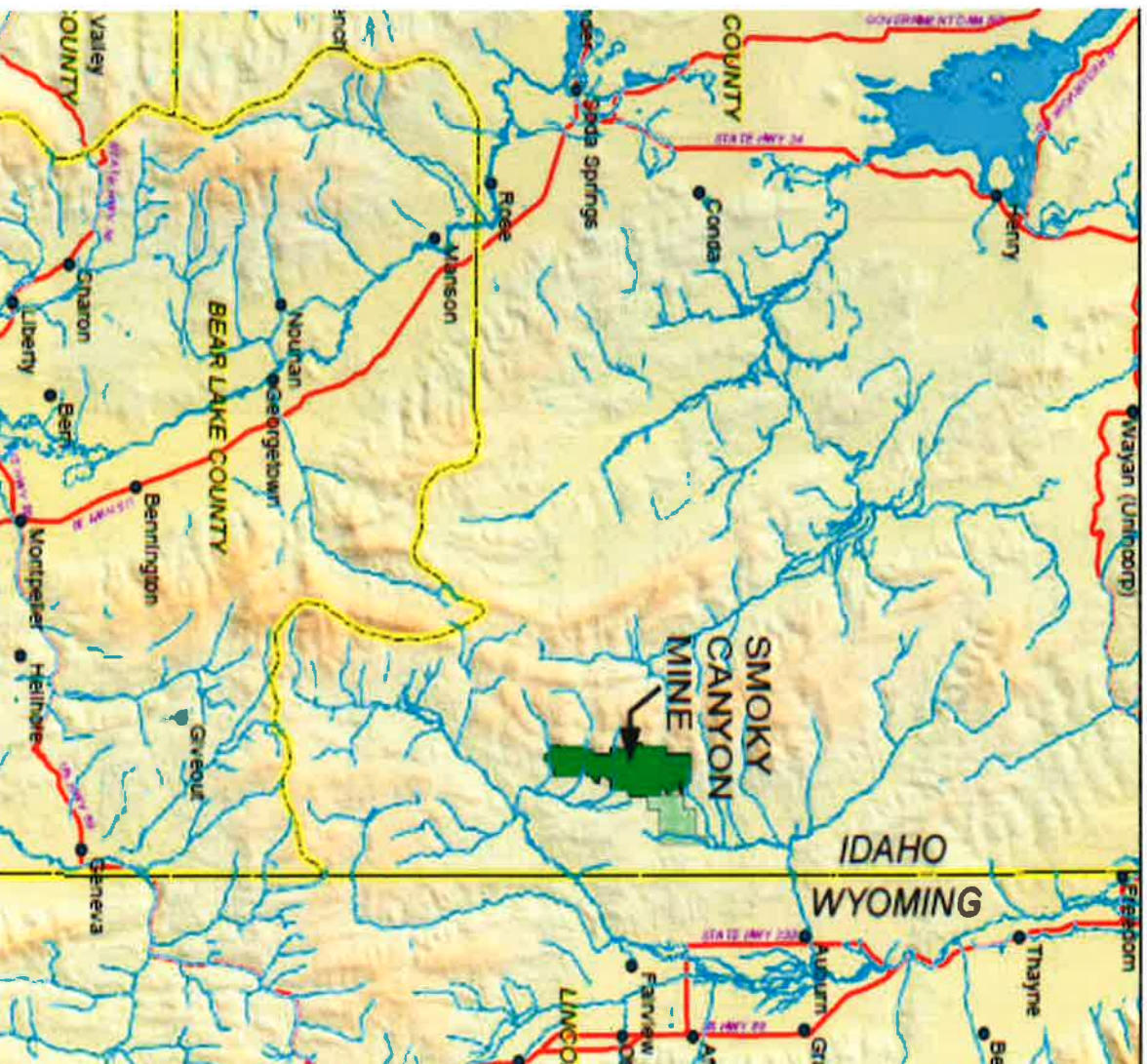
Early Phosphate Mining

- Ore came from Gay Mine beginning in 1946; began joint mining with FMC in 1949.
- Anaconda Copper Mining Co. began underground mining at Conda in the 1920's. Simplot acquired and began open pit mining in 1959.



SMOKY CANYON MINE

- Began mining in 1983 on U.S. Forest Service surface.
- Estimated 15 years of mine life remaining.
- Permitting:
 - 3 Env Impact Statements
 - 1 Supplemental Env Impact Statements
- Over \$100 million in financial assurance for reclamation.



SMOKY CANYON MINE

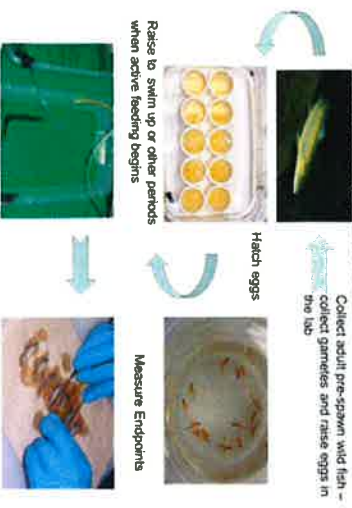


- 255 employees at mine
- Average salary at the mine is \$98,700, including benefits
- Annual payroll of ~\$25,100,000
- Sole source of phosphate ore to the Don Plant
- 374 employees at Don Plant
- Average salary at the plant is \$95,800, including benefits
- Don Plant annual payroll ~\$36,000,000
- Local tax payments of \$3,322,000

ENVIRONMENTAL PROTECTION

Addressing Releases to the Environment

Adult Reproduction Studies



Research on aquatic effects and monitoring effects in the aquatic system.

Understanding basic "release" chemistry of source.



Treatment research and pilot plant.

Changes in mine practices, new cover designs for minimizing potential for releases to environment.

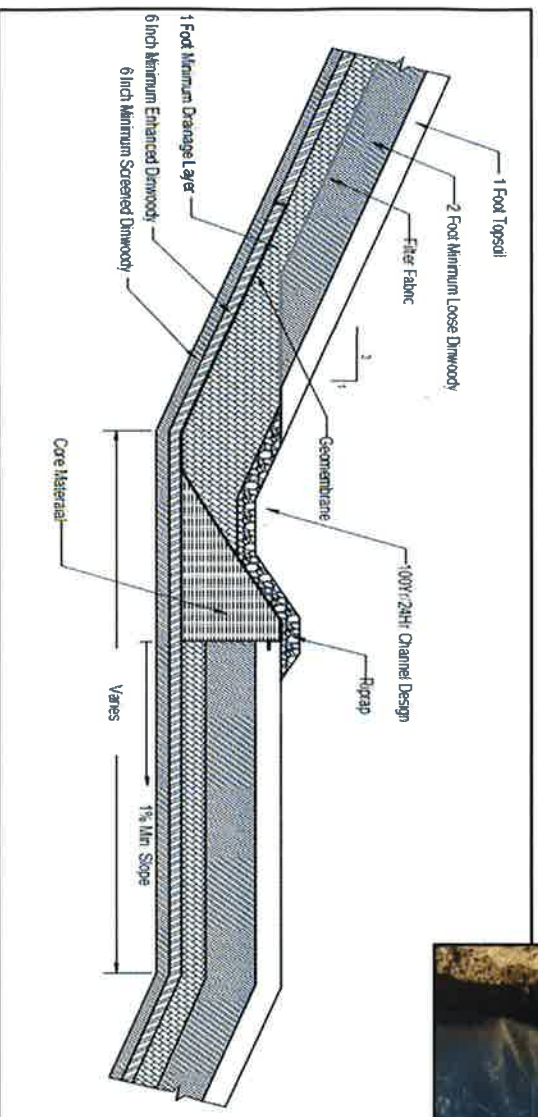
Large scale remedial actions to reduce releases to the environment.



ENVIRONMENTAL PROTECTION

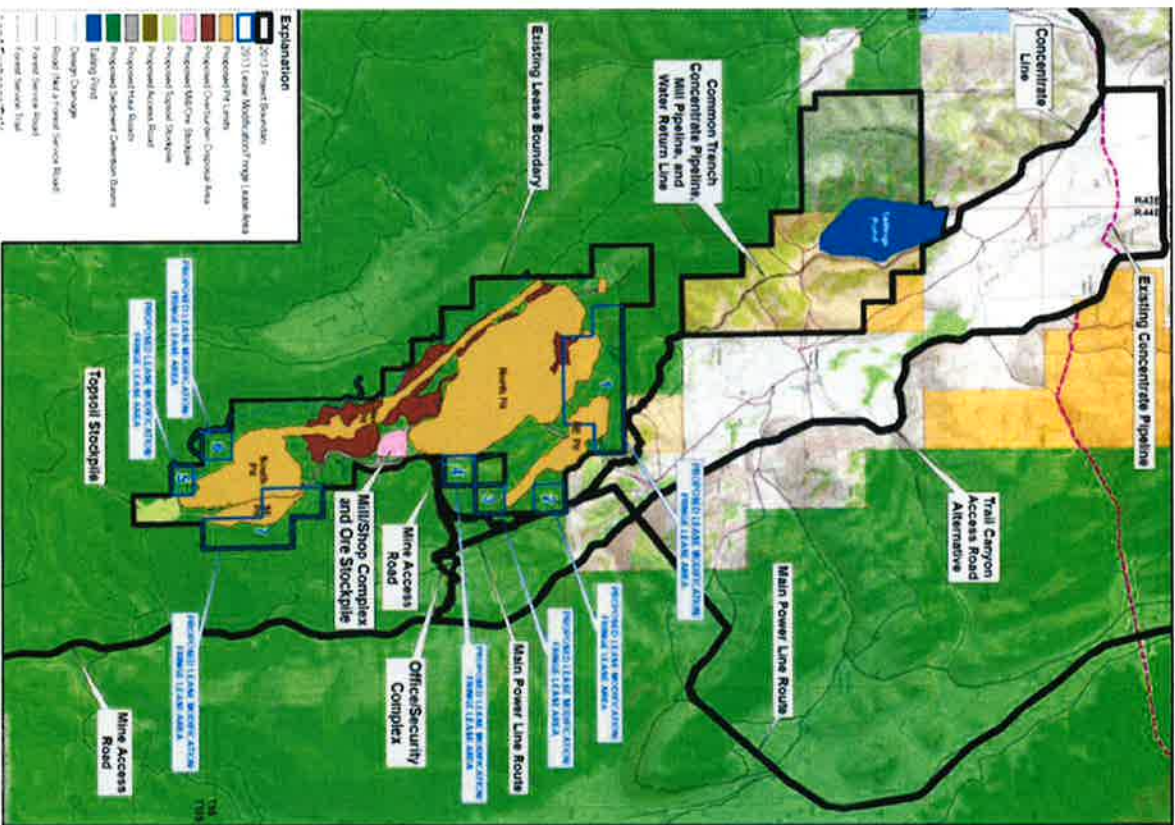
State of the Art Reclamation Cover

- “Enhanced Dinwoody”
 - Synthetic lined drainage ditches
 - Bentonite enhanced barrier layer
- Limits infiltration by over 90%



PROPOSED DAIRY SYNCLINE MINE

- ~ 30 years of ore
- New mine, mill and tailings impoundment.
- Net gain of 420 acres of public land through USFS land exchange and BLM land sale.
- Sage grouse mitigation.
- \$380,000 in monetary mitigation to the USFS for forest restoration.
- Investment in recreation equipment.
- Over 25 acres of wetland mitigation at Trail Creek
- Record of Decision is expected in March 2020.





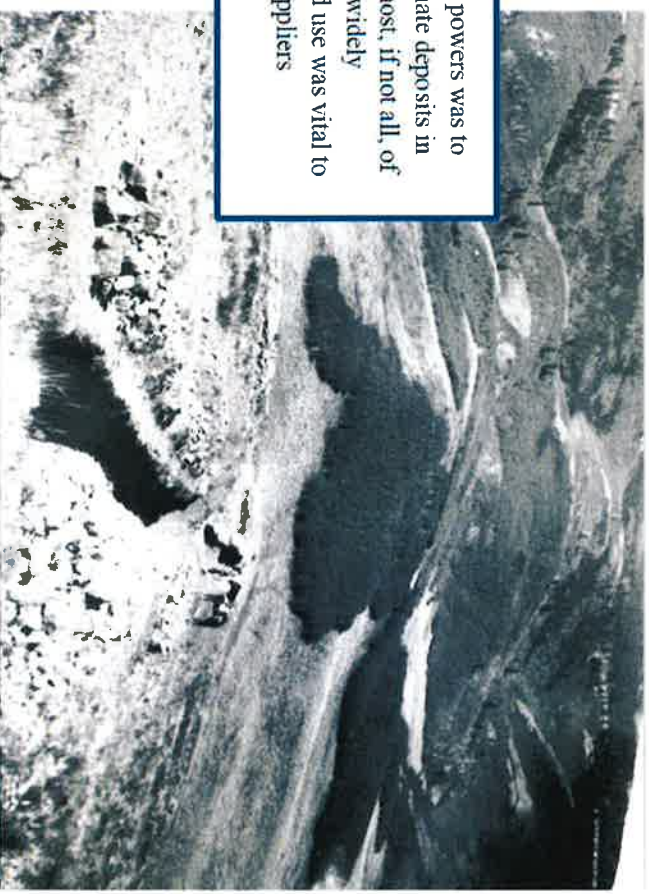
Looking forward to another
75 years of phosphate mining
and production in eastern
Idaho



FEDERAL PHOSPHATE MINING HISTORY

The Western Phosphate Reserve

One of the underlying and fundamental reasons for the need for executive withdrawal powers was to protect the western phosphate resources from foreign acquisition. The eastern phosphate deposits in Tennessee and the Carolinas were owned or controlled by European companies and most, if not all, of that ore was being exported for the use of European farmers (Brunelle, 1978). It was widely recognized that domestic sources of phosphate for domestic fertilizer manufacture and use was vital to the development of this country, and that we should not be dependant on European suppliers (principally German).



Prospect Trench, date unknown, USGS Photo Library.



President Taft

- 1920; Mineral Leasing Act is passed by Congress
- 1927; G.R. Mansfield maps significant deposits of phosphate in Southeast Idaho
- 1946 USGS studies the stratigraphy of the Phosphoria
- ~1950 BLM issues phosphate leases on federal land in SE Idaho