



***Clyde Yancey, BSc, MSc, PGeo  
Vice President of Exploration***

***Education***

- 1978 MSc Geology,  
South Dakota School of Mines and Technology
- 1975 BA Geology  
Trinity University
- 1999 Introduction to Groundwater Vistas (Groundwater  
Modeling) Albuquerque, New Mexico
- 1995 Process Elements and Techniques,  
Remedial Investigations/Feasibility Studies
- 1994 Environmental Geophysical Applications
- 1992 Resource Conservation and Recovery Act Training  
Geraghty & Miller

***Professional Experience***

- 1999 - **Maxim Technologies Inc**  
2005 Senior Vice President, Senior Project Manager
- 1996 - **Yancey & Associates Inc**  
1999 Principal Hydrogeologist
- 1991 - **Geraghty & Miller Inc**  
1996 Senior Hydrogeologist
- 1989 - **Geraghty & Miller Inc**  
1991 Hydrogeologist
- 1983 - **Moore Energy Corp**  
1989 Senior Uranium Geologist

*Professional Experience, cont'd*

1981 - 1983	<b>Mobil Oil Corp</b> Uranium Exploration Geologist
1980 - 1981	<b>Caithness Mining Corp</b> Uranium Mining Geologist
1979 - 1980	<b>Wyoming Mineral Corp</b> Senior Uranium Mine Geologist
1978 - 1979	<b>US Geological Survey</b> Geologist - Uranium & Thorium Division

**USDOE UMTRA Groundwater Project**

Site Manager

Responsible for management and creation of EAs and EISs on state, federal, and tribal lands. These NEPA documents evaluated impacts from remedial investigations and restoration projects undertaken to permanently stabilize uranium mill tailings within engineered impoundments as well as cleanup of associated groundwater efforts. Participated in numerous public meetings to gather public input on these activities.

**USDOE UMTRA Groundwater Project**

Site Manager

Participated in development of a programmatic environmental impact statement (PEIS) used during public scoping meetings held at 24 locations throughout the West. Site-specific groundwater strategies were developed in EAs that tiered off the PEIS.

**Hydrogeologic Assessment of Leaking Uranium Mill Tailings Pond**

Project Manager

Analyzed and compiled all available hydrogeologic data into a site conceptual model. The model indicated that the tailings pond was leaking. The client utilized results of the assessment when negotiating a multi-million dollar corporate acquisition.

**Former Uranium Milling Facility**

Project Manager

Managed the assessment of a groundwater treatment system at the facility. Prepared a mass balance calculation and a two-dimensional MODFLOW groundwater flow model with particle tracking. Submitted the subsequent

reports to the state regulatory agency to support no further action as a groundwater compliance strategy

### **Vanadium Mine and Milling Site**

Project Manager

Managed hydrogeologic evaluation involving three-dimensional flow (MODFLOW) and transport (MT3D) modeling to assess aquifer conditions underlying the site to determine the extent and nature of groundwater contamination.

### **Former Uranium Mill Site**

Project Manager

Provided technical oversight of groundwater remediation planning and implementation for the Hopi Tribe. Attended USDOE-sponsored meetings where remediation planning and implementation was discussed, reviewed USDOE work plans and groundwater flow models, and advised the Tribe on the potential course of action for groundwater restoration.

### **Former Uranium Milling Site**

Project Manager

Managed preparation and submission of an ACL application to the U.S. Nuclear Regulatory Commission (NRC). This work involved flow (MODFLOW) and transport (MT3D) modeling, cost-benefit analyses, and discussions with NRC and the state regulatory agency.

### **Uranium Mill Site**

Project Manager

Utilized a relatively inexpensive groundwater analytical model (QuickFlow) to evaluate the effectiveness of the current groundwater pump and treat system. Developed a technical site conceptual model designed to support the application of ACLs at the site.

### **Former Uranium Milling Site**

Project Manager

Managed preparation and submission of an ACL application to the U.S. Nuclear Regulatory Commission. Work involved groundwater flow modeling (MODFLOW), geochemical modeling, and a risk assessment to determine if the current corrective action plan is ALARA.

*Professional Experience, cont'd***USDOE UMTRA Project**

Department Manager

Managed a multi-disciplinary group of 15 hydrologists, geotechnical engineers, and health physicists (radiological engineers) in support of the USDOE UMTRA project. Responsible for staffing recommendations, report review, budgeting, prioritizing of work, and review and approval of department work products.

**USDOE UMTRA Project**

Site Manager

Managed multidisciplinary site teams for planning, design, remedial action, closure monitoring, and Nuclear Regulatory Agency licensing of six inactive uranium mill tailings sites being remediated under the UMTRA program. Also responsible for preparation of schedules and budgets, site characterizations, regulatory compliance strategies, disposal site identification and characterizations, review of conceptual and final designs, coordination of public meetings, generation of remedial action plans and environmental documents, coordination with state and local agencies, and oversight of construction activities.

**Former Uranium Milling Site**

Project Manager

Managed preparation and submission of an ACL application to the NRC. Work involved flow and transport modeling, cost-benefit analyses, and active discussions both with NRC and the state regulatory agency.

**Geochemical Surveys**

Geologist

Designed, implemented and interpreted reconnaissance and detailed geochemical surveys under the National Uranium Resource Evaluation (NURE) directed by USDOE. The objective of the NURE project was to identify all potential uranium reserves within the United States. The geochemical surveys involved extensive stream sediment and water well sampling.

*Professional Experience, cont'd***Design, Development, and Operation of Well Fields at in situ Uranium Solution Mines**

Senior Geologist

Work conducted at in situ uranium solution mines in Wyoming and southern Texas. Responsible for planning, designing, and developing new well fields; conducting hydrologic testing and analysis; supervising permitting and licensing programs; and monitoring budgets in excess of \$1 million. Following mining of the uranium ore bodies, aquifer restoration was required to return groundwater conditions to baseline values. Aquifer restoration was typically accomplished by extraction of numerous groundwater pore volumes, groundwater treatment by reverse osmosis, and injection of waste streams down deep disposal wells. State agencies and NRC provided regulatory guidance.

***Professional Designations***

1990	Certified Professional Geologist American Institute of Professional Geologists
1992	Registered Professional Geologist State of Wyoming
2003	Registered Professional Geologist State of Texas
	Society of Mining Engineers (SME) of A.I.M.E.
1986 and 1987	South Texas Minerals Section of SME – Vice Chairman; Chairman
1988	South Texas Minerals Section of SME – Chairman
	SME, Environmental Division, Water Resources Committee
	Association of Ground Water Scientists and Engineers, NWWA
1997 - 1998	American Institute of Professional Geologists, New Mexico Section Secretary
	New Mexico Geological Society
	Albuquerque Geological Society

***Presentations***

- December 2001 Alluvial Groundwater Compliance At A Uranium Mill Tailings Site, Ambrosia Lake Valley, NM. In: Proceedings, Northwest Mining Association 107th Annual Meeting, Spokane WA, Erskine, D.W., A.C. Stringer, W.P. Goranson, P.J. Luthiger, and C.L. Yancey.
- 1998 Natural CO<sub>2</sub>-produced acidity in the vicinity of a sulfide ore deposit: Wilson Springs Mine, Hot Springs, Arkansas. Tailings and Mine Waste Conference. D.W. Erskine, C.L. Yancey, E.P. Lawrence, and C.O. Sealy. January.
- January 1998 Groundwater evaluation of the Wilson Springs vanadium mine site, Hot Springs, Arkansas. Tailings and Mine Waste Conference. E.P. Lawrence, D.W. Erskine, and C.L. Yancey.
- January 1997 Natural attenuation of hazardous constituents in groundwater at uranium mill tailings sites. Tailings and Mine Waste Conference. D.W. Erskine, C.L. Yancey, and E.P. Lawrence
- January 1997 Evaluation of groundwater remediation at a uranium mill site in Uravan, Colorado. Tailings and Mine Waste Conference. E.P. Lawrence, D.W. Erskine, and C.L. Yancey
- January 1997 Groundwater compliance - is it possible in this lifetime? Tailings and Mine Waste Conference. C.L. Yancey and J. P. Gibb.

***Publications***

- May 1998 *Groundwater compliance at mining and milling sites.*  
The Professional Geologist