

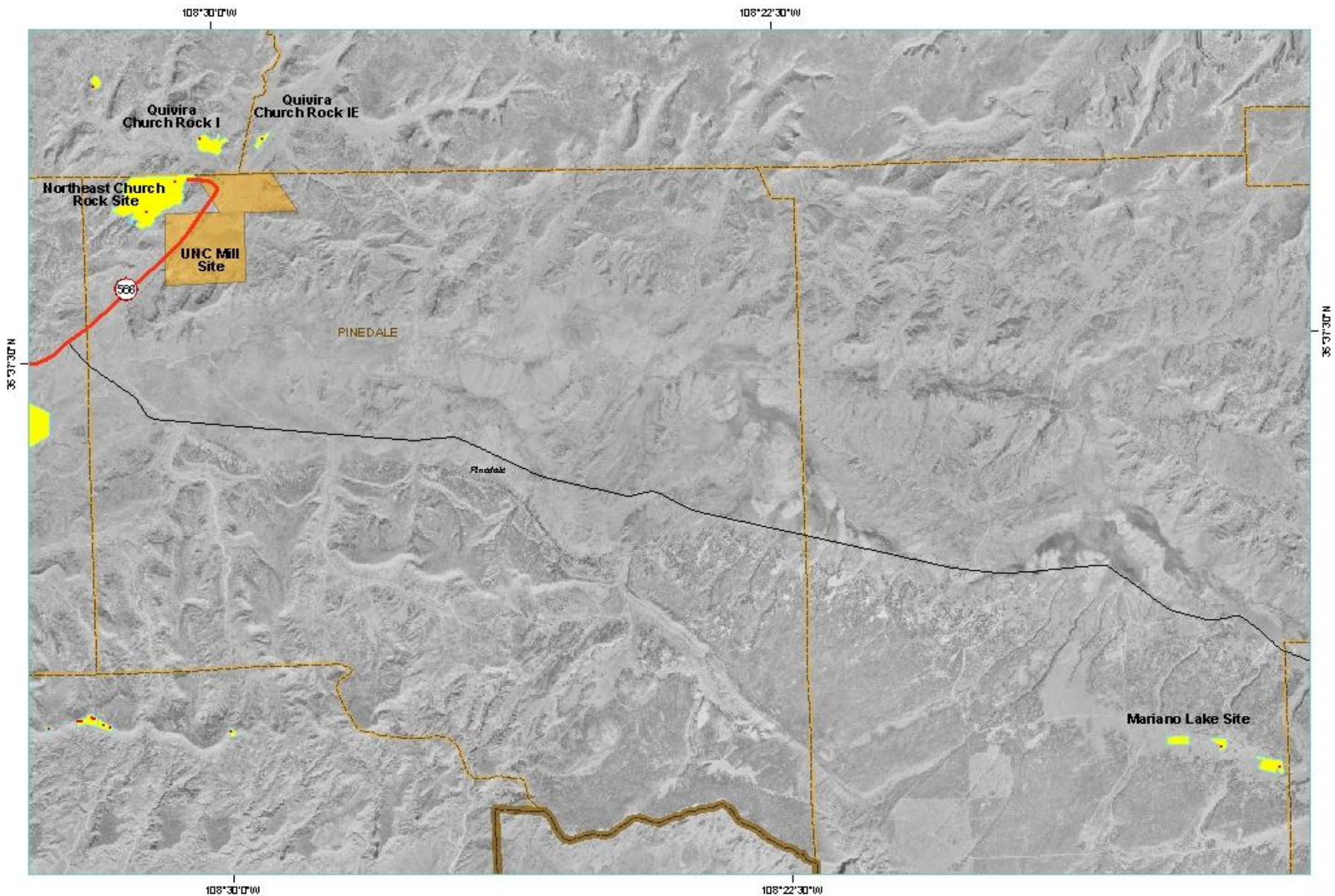
US EPA ARCHIVE DOCUMENT



# Navajo Abandoned Uranium Mines

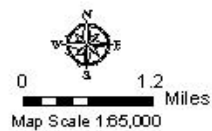
Stakeholder Workshop September 2010





Highway

# CHURCH ROCK AND MARIANO LAKE MINES



# Northeast Church Rock Mine

- ◆ Largest underground uranium mine in country and highest priority mine for Navajo Nation
- ◆ 2006-2008: Completed extensive site investigations
- ◆ 2007: Completed cleanup of 1 structure and 4 yards
- ◆ 2009: Completed Engineering Evaluation of cleanup options
- ◆ 2010: Completed the removal of 100,000 cubic yards of contaminated material



Northeast Church Rock 2007 Excavation



# Northeast Church Rock Mine – Next Steps

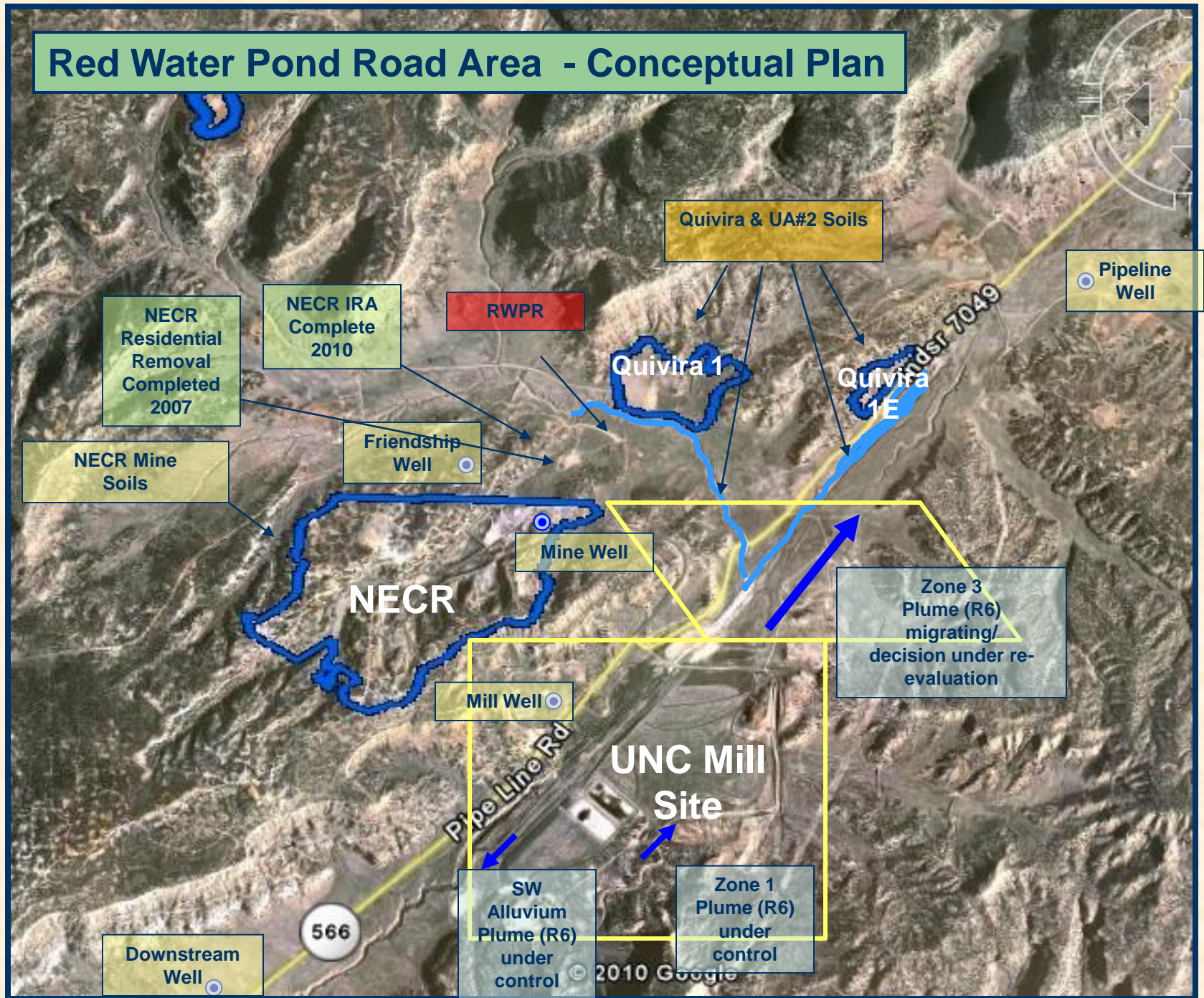
- ◆ Complete an evaluation of area groundwater in 2010
- ◆ Continue community participation and the healing process involving more than the NECR Site
- ◆ Goal to select a cleanup alternative for the NECR site in 2010



Northeast Church Rock and UNC Sites : South View



# Red Water Pond Road Area - Conceptual Plan



# Quivira Mines – Church Rock

- ◆ Signed an Administrative Order on Consent with Rio Algom September 3
- ◆ Pave Red Water Pond Road, fix fences and stabilize the waste pile this Fall

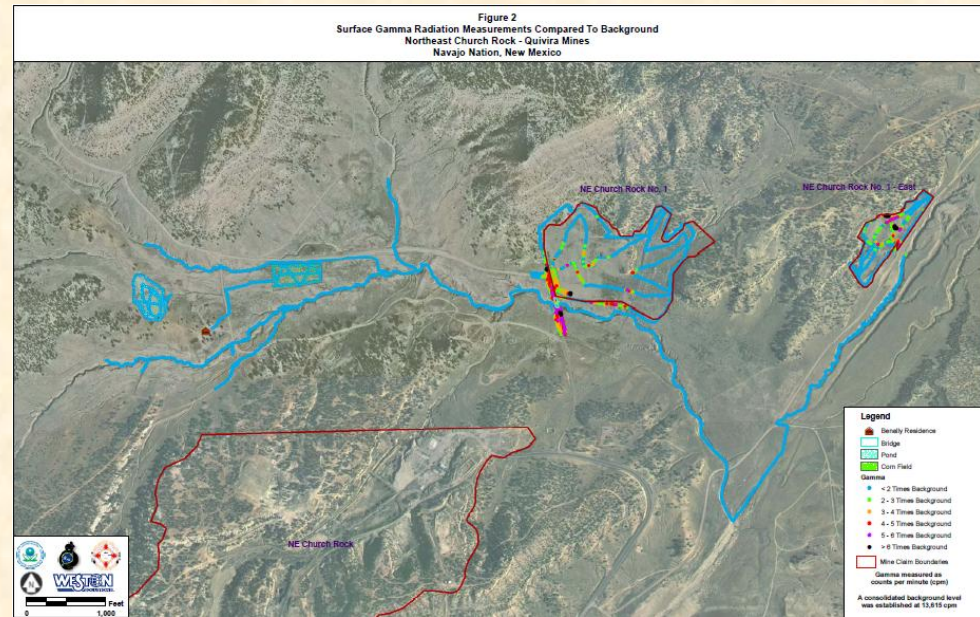


Screening at NE Church Rock 1 mine



# Quivira Mines – Next Steps

- ◆ Characterize soil contamination Quivira Mines and downstream arroyos
- ◆ Identify cleanup options
- ◆ Continue working closely with Red Water Pond Road Community Association



Screening – comparison to background



# Mariano Lake Mine

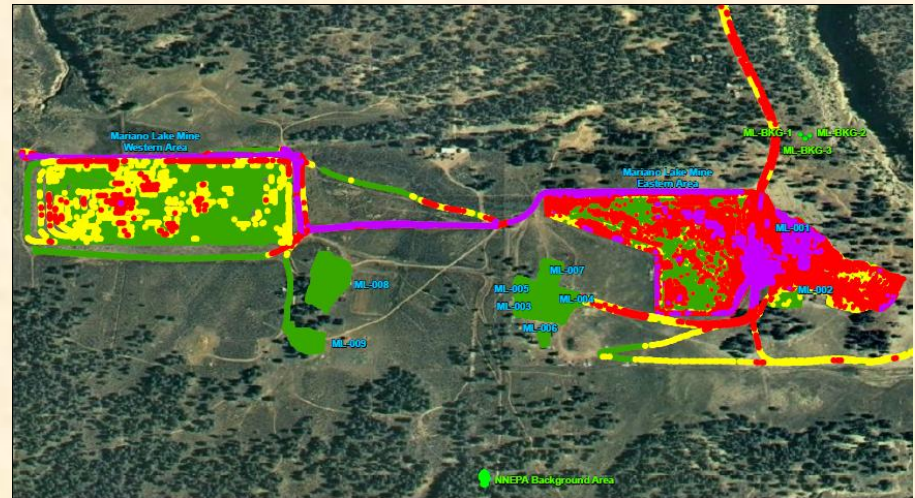
- ◆ From 1977 to 1982, Gulf Mineral mined site
- ◆ Single shaft approximately 519 feet deep
- ◆ Stope leaching process solution pumped to a dewatering pond in the western area
- ◆ Approximately 31 acres near seven residences
- ◆ Some surface areas appear reclaimed, but there are notable exceptions



**Horses inside the Mariano Lake Mine fence line**

# Mariano Lake Mine – Next Steps

- ◆ Emergency Response is working with one family to replace contaminated home items and ensure no one builds on former parking lot
- ◆ Work with Potentially Responsible Party to investigate and cleanup the site
- ◆ Site Assessment conducting Preliminary Assessment



**Mariano Lake Mine**



# Summary

- ◆ Real results at the NECR site
- ◆ Positive starts at Skyline, Quivira and Mariano Lake using model process and documents
- ◆ EPA has the benefit of lessons learned
- ◆ EPA will continue to tackle new sites in consultation with the Navajo Nation and the affected communities