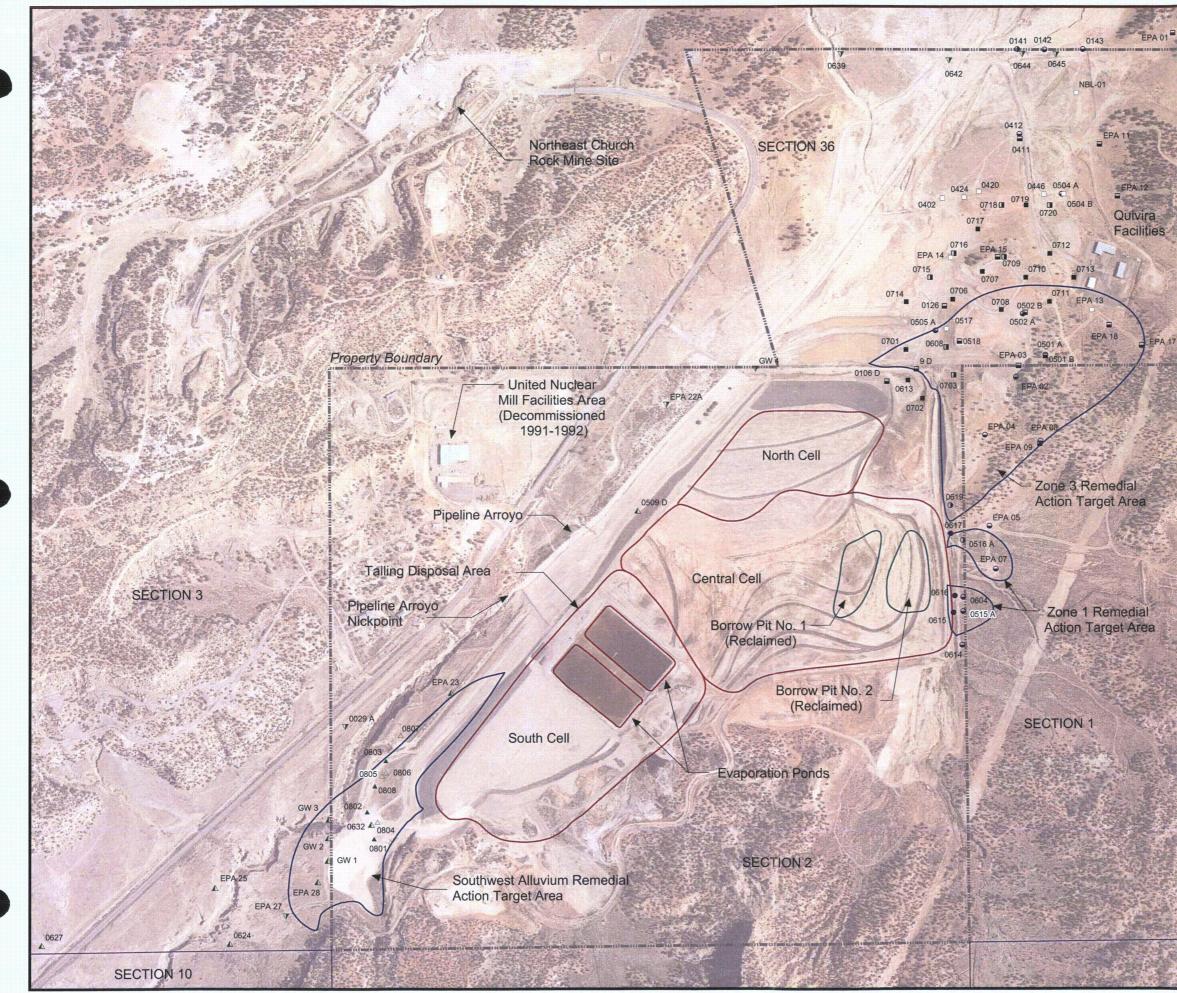


Z:\databases\6209\_GE\_CR\GISDATA\arcmap\_doc\2008\_annual\_report\f01\_site\_location.mxd; January 13, 2009



Z:\databases\6209 GE\_CR\GISDATA\arcmap\_doc\2008\_annual\_report\f02\_site\_layout.mxd; January 13, 2009

# Legend

## Southwest Alluvium

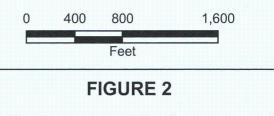
- Idled Extraction Well
- ▲ Monitoring Well
- Water Level Monitoring Well
- Dry Monitoring Well

### Zone 3

- Idled Extraction Well Used for Monitoring
- Decommissioned or Idle Extraction Well
- Monitoring Well
- Dry or Decommissioned Monitoring Well

### Zone 1

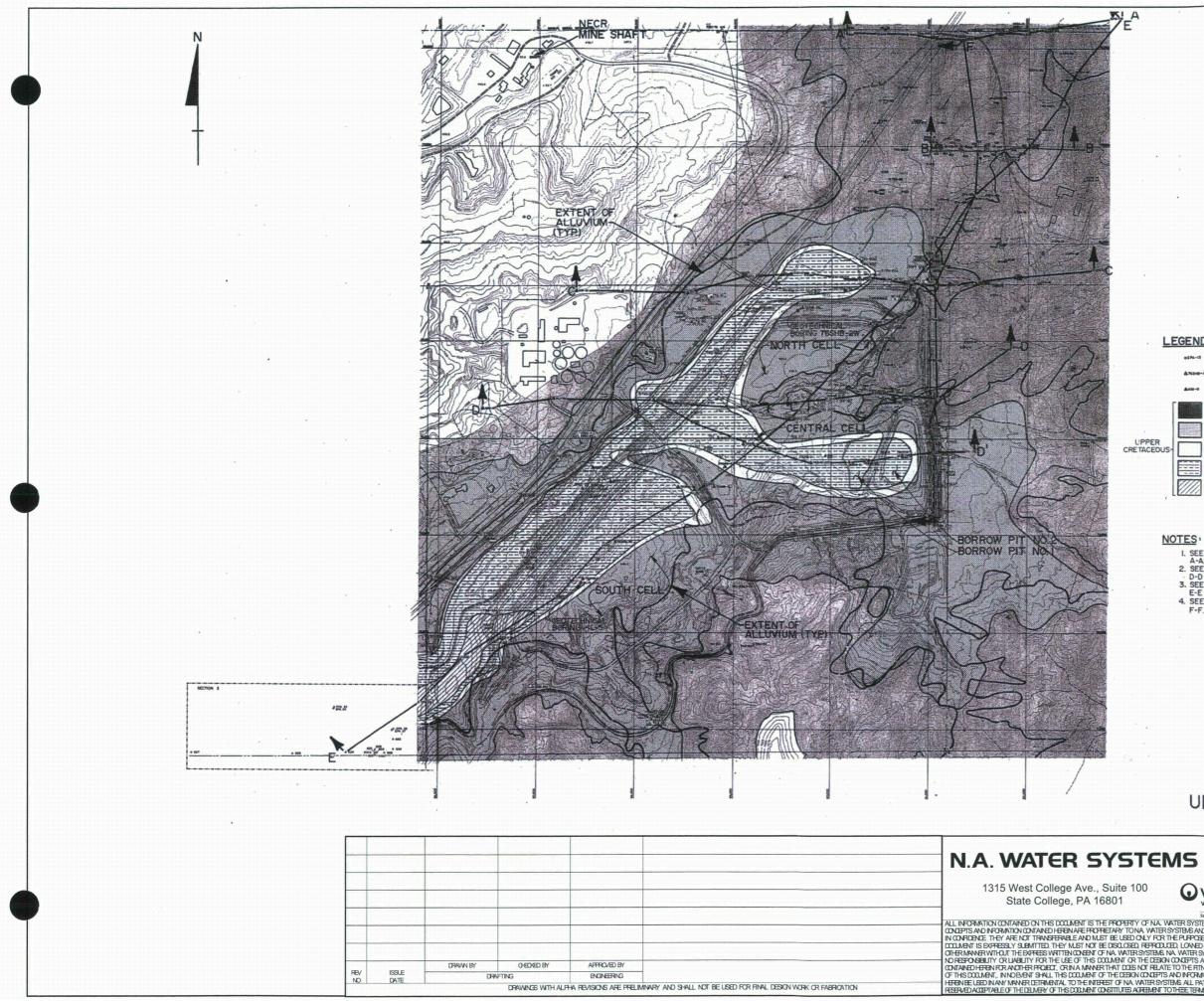
- Decommissioned Extraction Well
- Decommissioned Monitoring Well
- Monitoring Well



Site Layout and Performance Monitoring Well Locations 2010 Operating Year

United Nuclear Corporation Church Rock Site, Church Rock, New Mexico





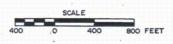
#### LEGEND:

WELL.

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GEOTECHNICAL BOREHOLE
DEEP BOREHOLE
CREVASSE CANYON FORMATION DILCO COAL MEMBER (Kodc)
UPPER GALLUP SANDSTONE-ZONE 3 (KguZ3)
UPPER GALLUP SANDSTONE - ZONE 2 (KguZ2)
UPPER GALLUP SANDSTONE-ZONE 1 (KguZ1)
MANCOS SHALE- UPPER D-CROSS (Kmdu) TONGUE MEMBER

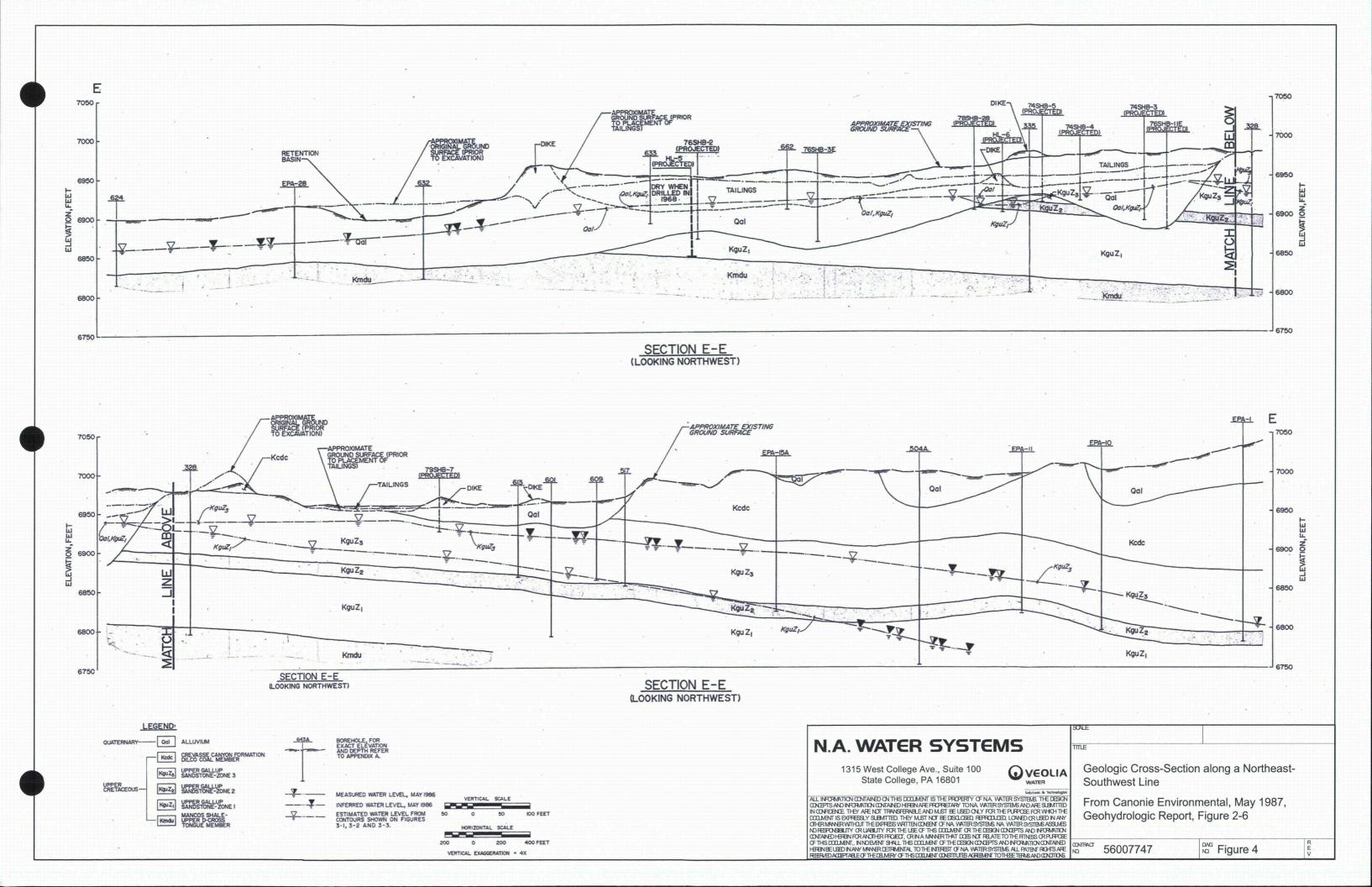
I. SEE FIGURE 2-3 FOR SECTIONS A-A, B-B AND C-C. 2. SEE FIGURE 2-4 FOR SECTIONS D-D AND D-D. 3. SEE FIGURE 2-5 FOR SECTION E-E. 4. SEE FIGURE 2-6 FOR SECTION F-F.

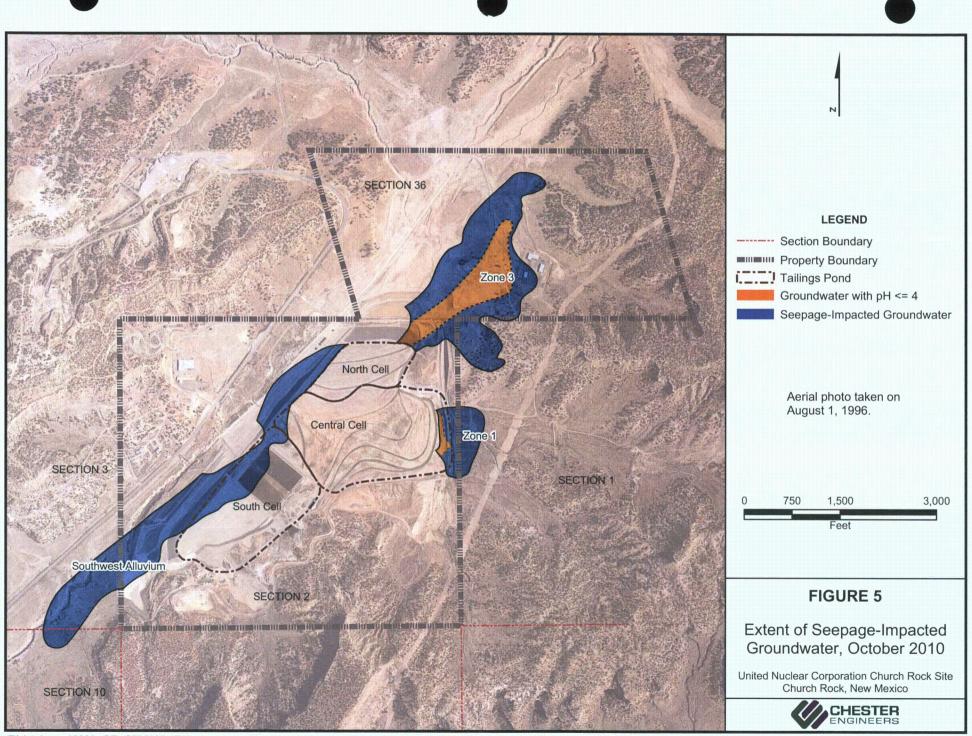


# GEOLOGIC MAP SECTION 2, T IG N, R IGW PREPARED FOR

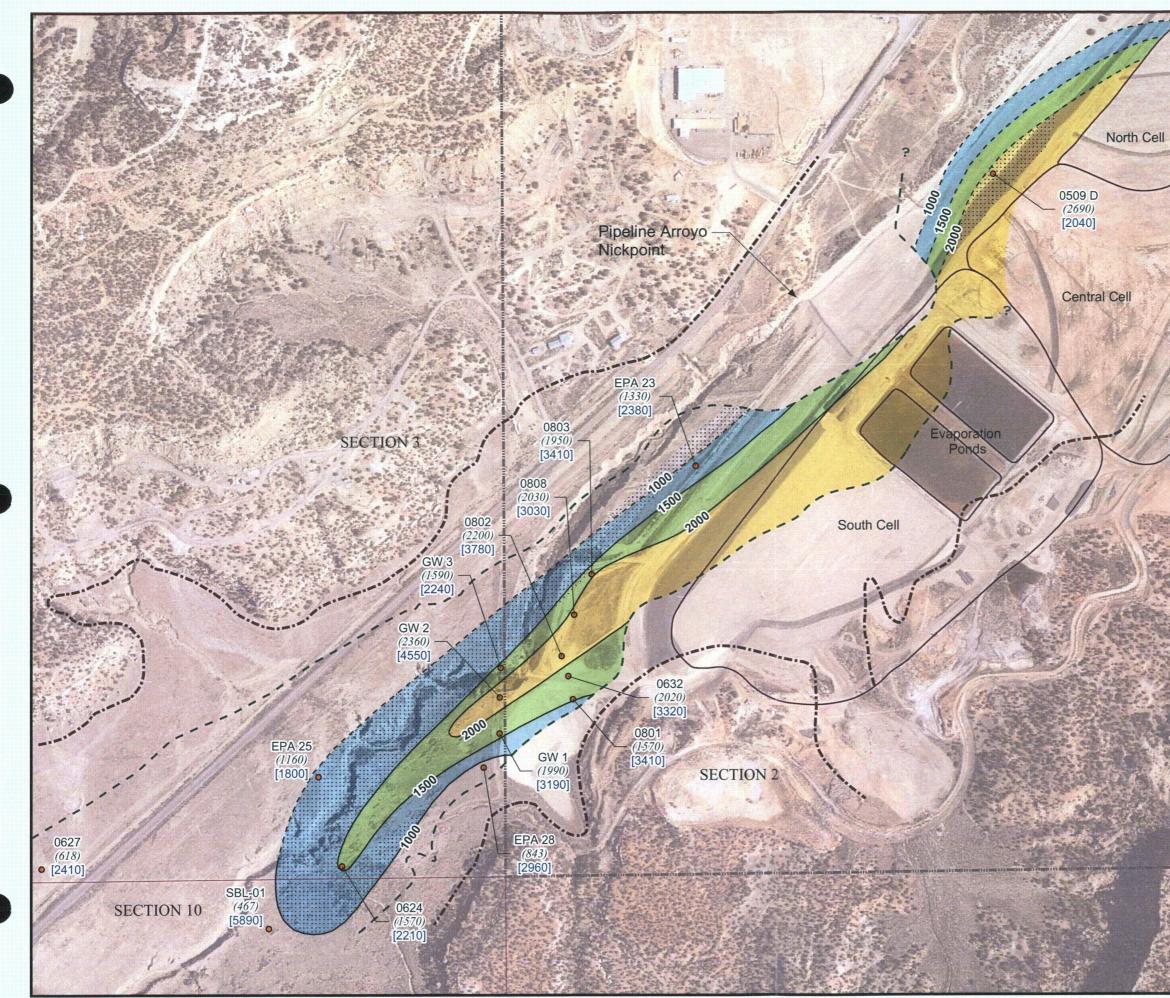
# UNC MINING AND MILLING GALLUP NEW MEXICO

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WATER Statister & Technologie Statister & Te			he Site vironmental, May 198 port, Figure 2-3	
D INFORMATION CONTAINED S. ALL. PATENT RIGHTS ARE ESE THEMIS AND CONTINUES	ND	56007747	№ Figure 3	R E V



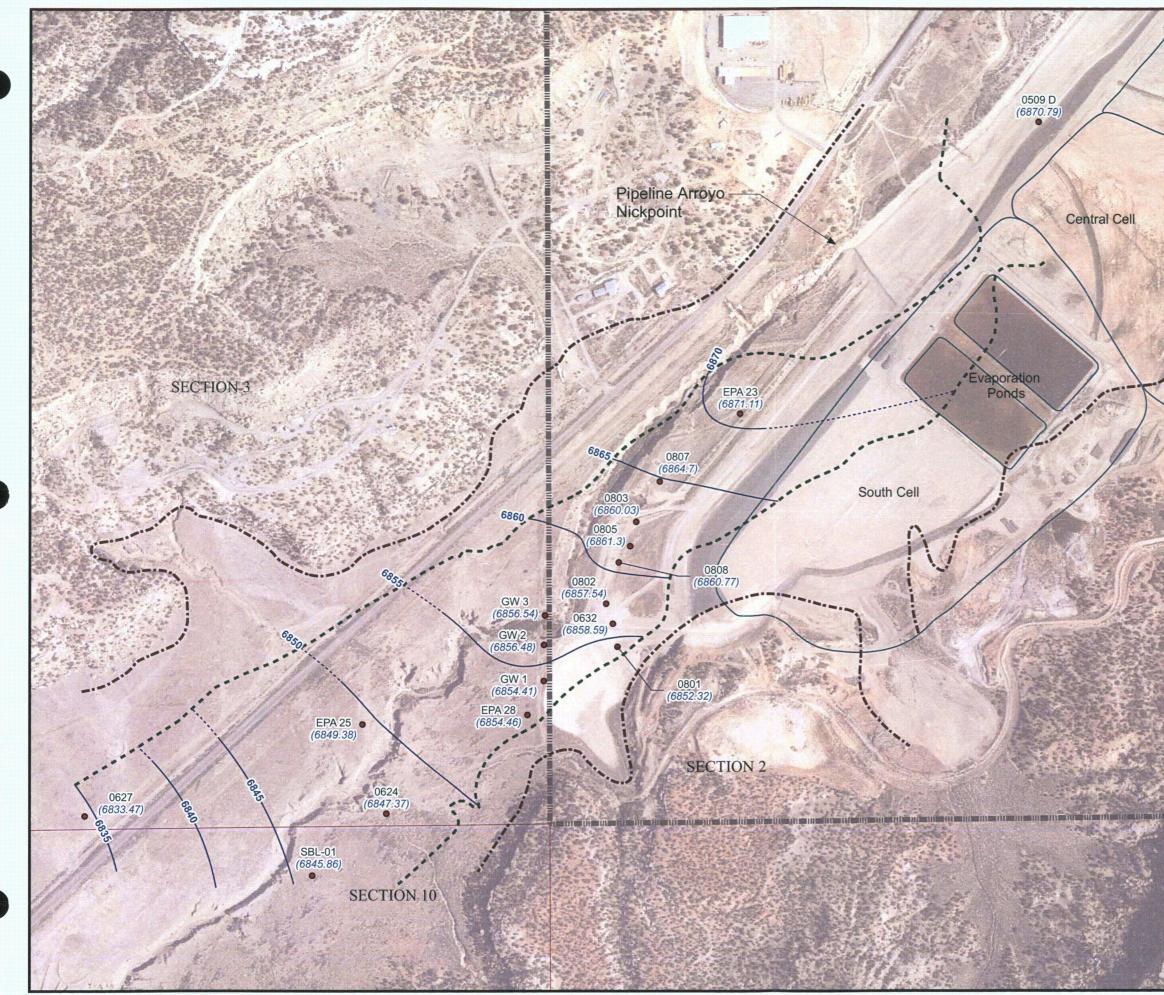


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Z:\databases\6209\_GE\_CR\GISDATA\arcmap\_doc\2010\_annual\_report\f08\_swa\_sulfate.mxd; January 4, 2011

Legend	
Southwest Alluvium Well	
<ul> <li>– – Approximate Extent of Saturated Alluvium</li> </ul>	
Approximate Extent of Alluvium	
Bicarbonate Isoconcentration Contour in mg/L	
Inferred Bicarbonate Isoconcentration Contour in mg/L	
Bicarbonate Concentrations (mg/L)	
1000 - 1500	
1500 - 2000	
>2000	
Property Boundary	
Section Boundary	
——— Tailings Pond	
Sulfate Below 2125 mg/L	
(2350) Bicarbonate result in mg/L	
[3580] Sulfate result in mg/L	
<b>Notes:</b> 1. Well names are displayed with black text. 2. Aerial photo taken on August 1, 1996.	
0 250 500 1,000	
Feet	
FIGURE 6	
Southwest Alluvium Bicarbonate Isoconcentration Map and Distribution o Sulfate Below 2125 mg/L, October 2010	
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico	
CHESTER	

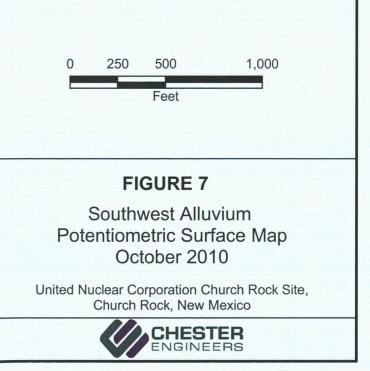


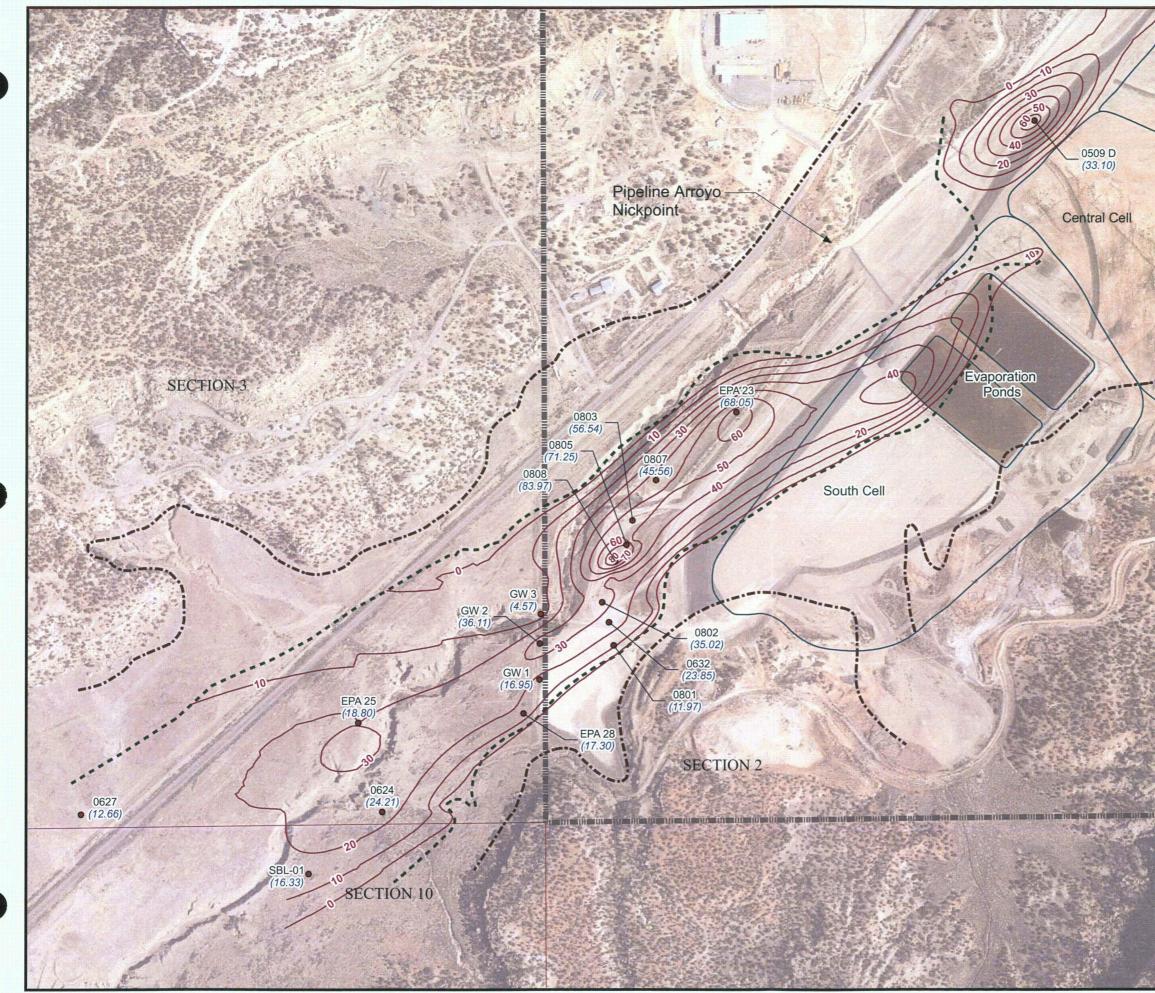
Z:\databases\6209\_GE\_CR\GISDATA\arcmap\_doc\2010\_annual\_report\f03\_swa\_piezo.mxd; January 3, 2011

- Southwest Alluvium Monitoring Well
- ----- Groundwater Elevation Contour
- ----- Inferred Groundwater Elevation Contour
- ----- Approximate Extent of Alluvium
- ---- Approximate Extent of Saturated Alluvium
- Property Boundary
- Section Boundary
- ----- Cell Boundary

### Notes:

- 1. Groundwater elevation values are displayed in feet above mean sea level.
- 2. Well names are displayed with black text.
- 3. Groundwater elevations are shown with blue text and enclosed in parentheses.
- 4. Aerial photo taken on August 1, 1996.



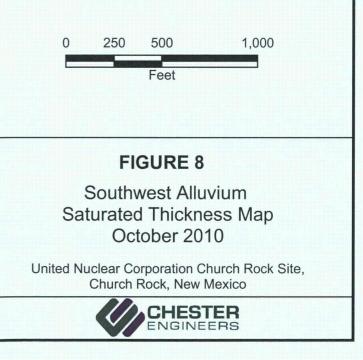


Z:\databases\6209\_GE\_CR\GISDATA\arcmap\_doc\2010\_annual\_report\f03b\_swa\_sat\_thick.mxd; January 3, 2011

- Southwest Alluvium Monitoring Well
- ----- Approximate Extent of Alluvium
- ---- Approximate Extent of Saturated Alluvium
- Property Boundary
- ----- Section Boundary
- ----- Cell Boundary
- ——— Saturated Thickness Contours (feet)

#### Notes:

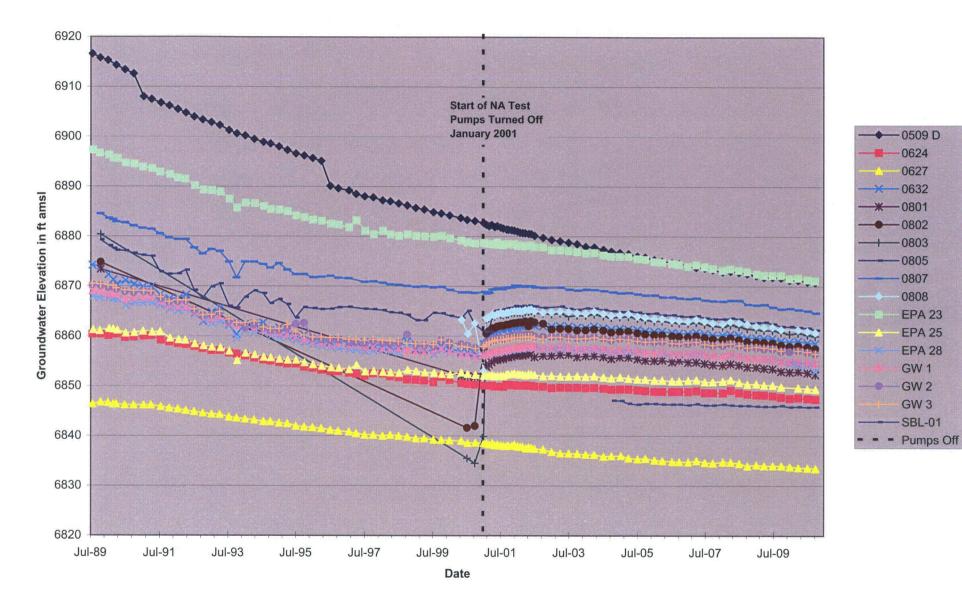
- 1. Well names are displayed with black text.
- 2. Saturated thicknesses (feet) are shown with blue text and enclosed in parentheses.
- 3. Aerial photo taken on August 1, 1996.
- 4. The posted value of saturated thickness at well 0509 D derives from reference to the screen bottom. The alluvium extends as much as 38 feet below this depth in the vicinity of this well.

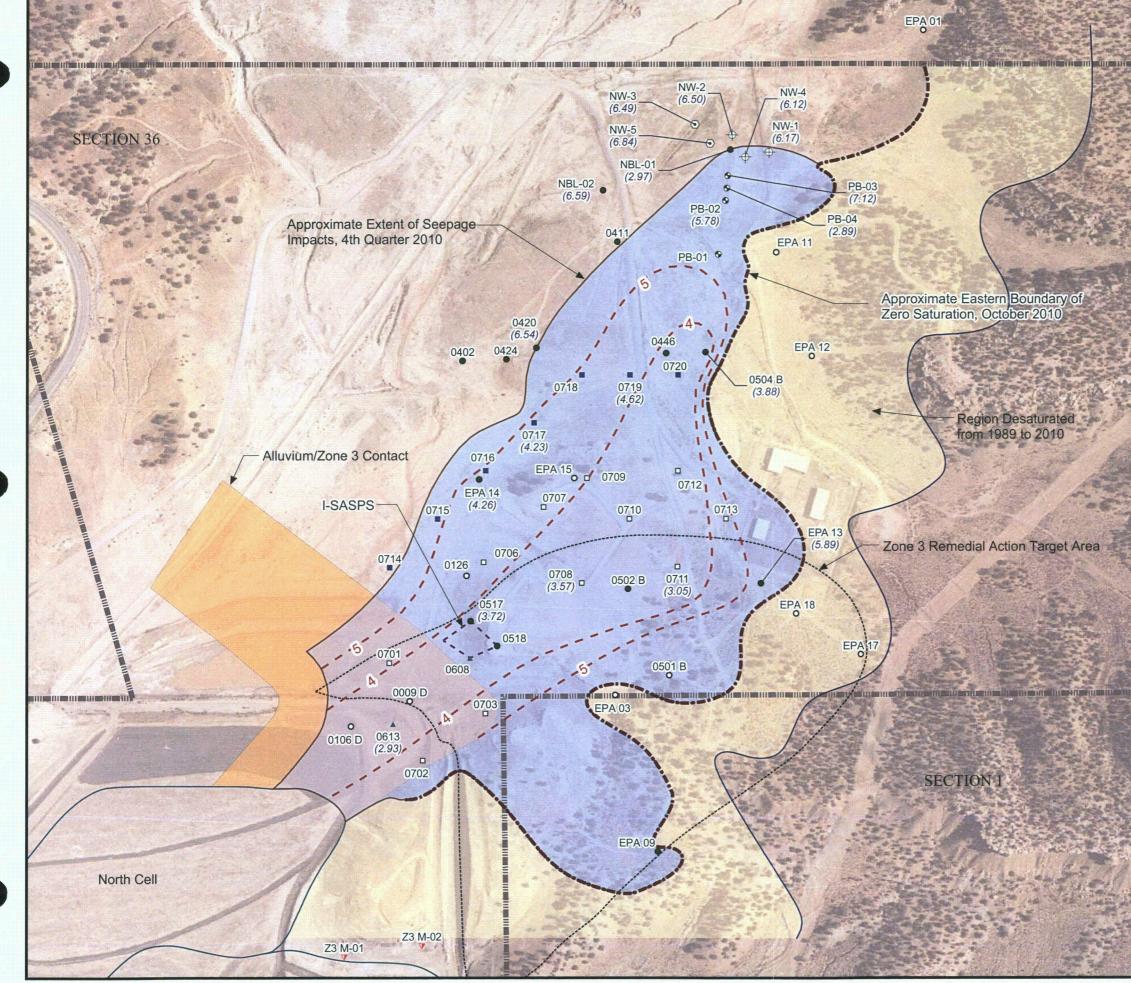




#### **FIGURE 9**

Southwest Alluvium Water Levels Over Time United Nuclear Corporation, Church Rock Site, Church Rock New Mexico





Z:\databases\6209 GE\_CR\GISDATA\arcmap\_doc\2011\f10\_z3\_seepage\_ISASPS.mxd; April 19, 2011

### Legend

Property Boundary

- ----- Zone 3 Target Remedial Action Area
- Section Boundary

Cell Boundary

Approximate Area Impacted by Tailings Seepage

#### Well Type

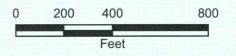
- Monitoring •
- Northernmost Pumping Wells  $\oplus$
- Northernmost Pumping Wells (Off)  $\odot$
- Dry Monitoring 0
- Stage I Extraction
- Stage II Extraction
- **Plume Boundary** 9
- Northeast Pump-Back
- Piezometer

Approximate Eastern Boundary ---of Zero Saturation

- pH contour
- ---- I-SASPS

#### Notes:

- Well names are displayed with black text.
   Values for field measured pH are shown with purple text and enclosed in parentheses.
- 3. Aerial photo taken on August 1, 1996.
- 4. I-SASPS is defined as "In-Situ Alkalinity Stabilization Pilot Study, 2006-2007."

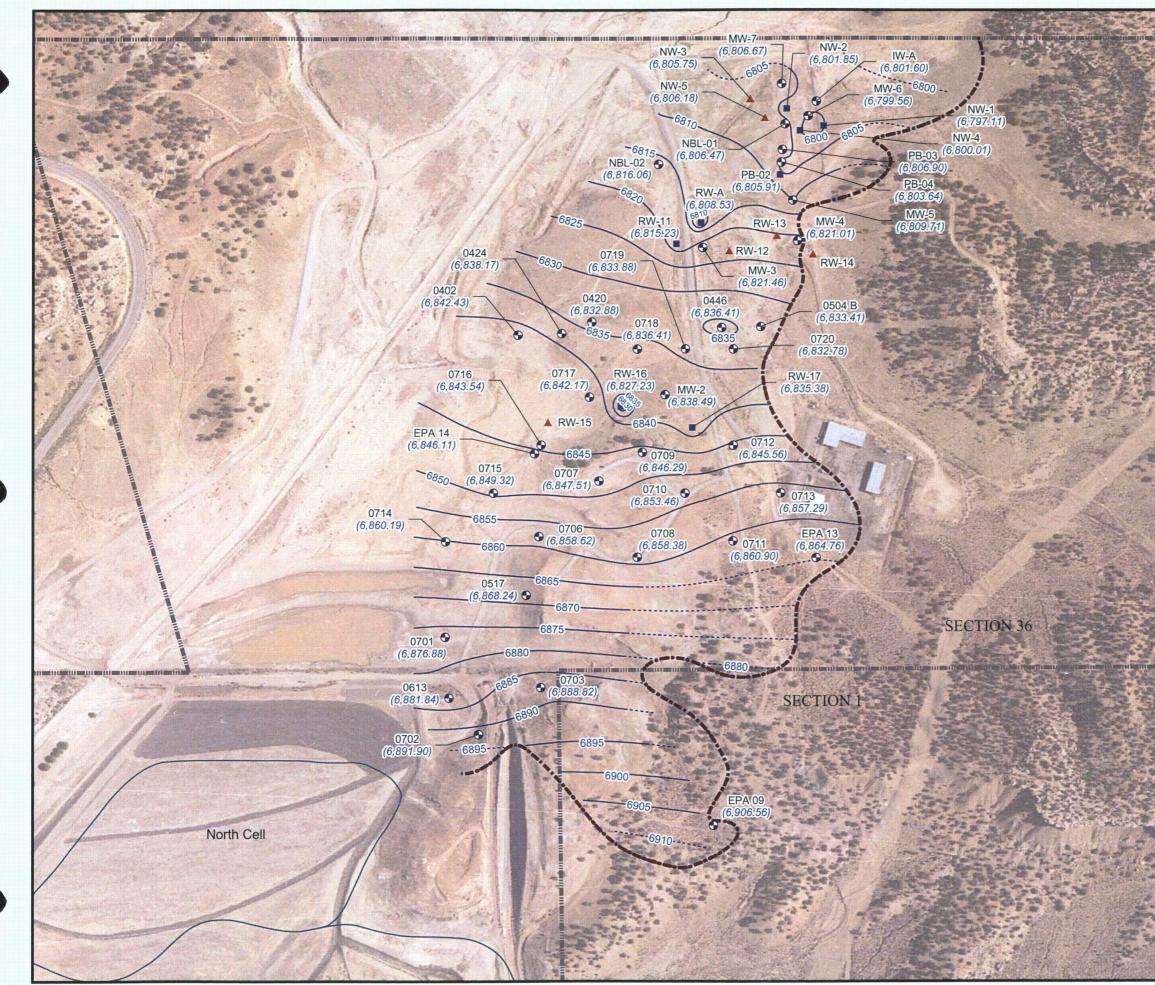


# **FIGURE 10**

Zone 3 Approximate Extent of Seepage Impacts, October 2010

United Nuclear Corporation Church Rock Site, Church Rock, New Mexico





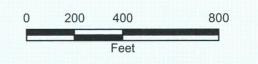
Z:\databases\6209\_GE\_CR\GISDATA\arcmap\_doc\2010\_annual\_report\f37\_z3\_piezo.mxd; January 4, 2011

- Monitoring Well
- Non-Pumping Well
- Pumping Well
- Cell Boundary
- Property Boundary
- Approximate Eastern Boundary of Zero Saturation
- ----- Groundwater Elevation Contour
- ----- Inferred Groundwater Elevation Contour

(6906.46) Measured Groundwater Elevation

#### Notes:

- 1. Groundwater elevation values are displayed in feet above mean sea level.
- 2. Well names are displayed with black text.
- 3. Aerial photo taken on August 1, 1996.

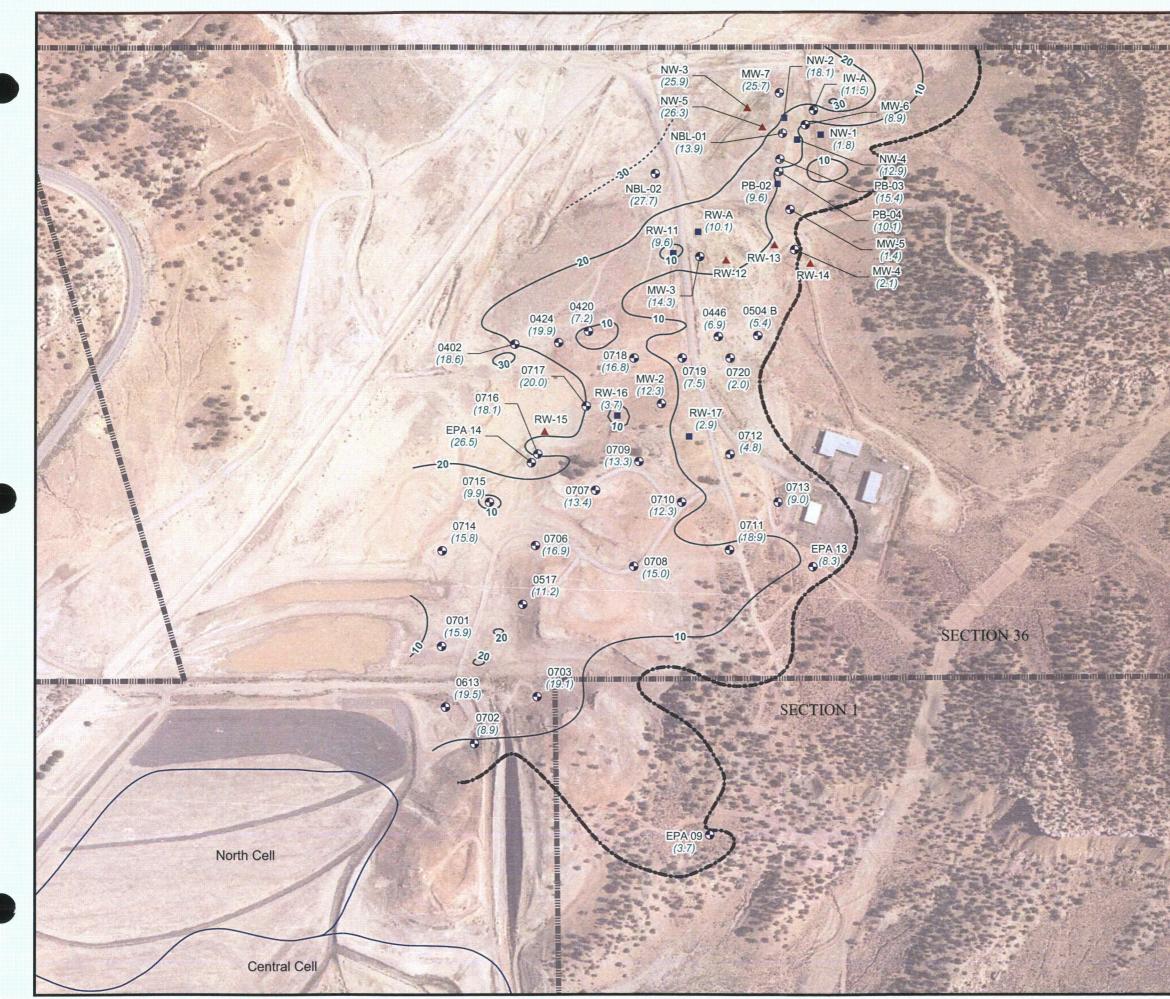


# **FIGURE 11**

Zone 3 Potentiometric Surface Map October 2010

United Nuclear Corporation Church Rock Site, Church Rock, New Mexico





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Leye	ild .
•	Monitoring Well
	Non-Pumping Well
	Pumping Well
-	Saturated Thickness Contour
	Inferred Saturated Thickness Contour
	Approximate Eastern Boundary of Zero Saturation
	Cell Boundary
MANDA A A MANDA A A MANDA A	Property Boundary
(3.6)	Measured Saturated Thickness

#### Notes:

- 1. Saturated thickness values shown in feet.
- 2. Well names are displayed with black text.
- 3. Aerial photo taken on August 1, 1996.

