

Figure 1 Water-level data in screens 1 and 2 of R-20, showing period when packer was underinflated, allowing commingling between screens

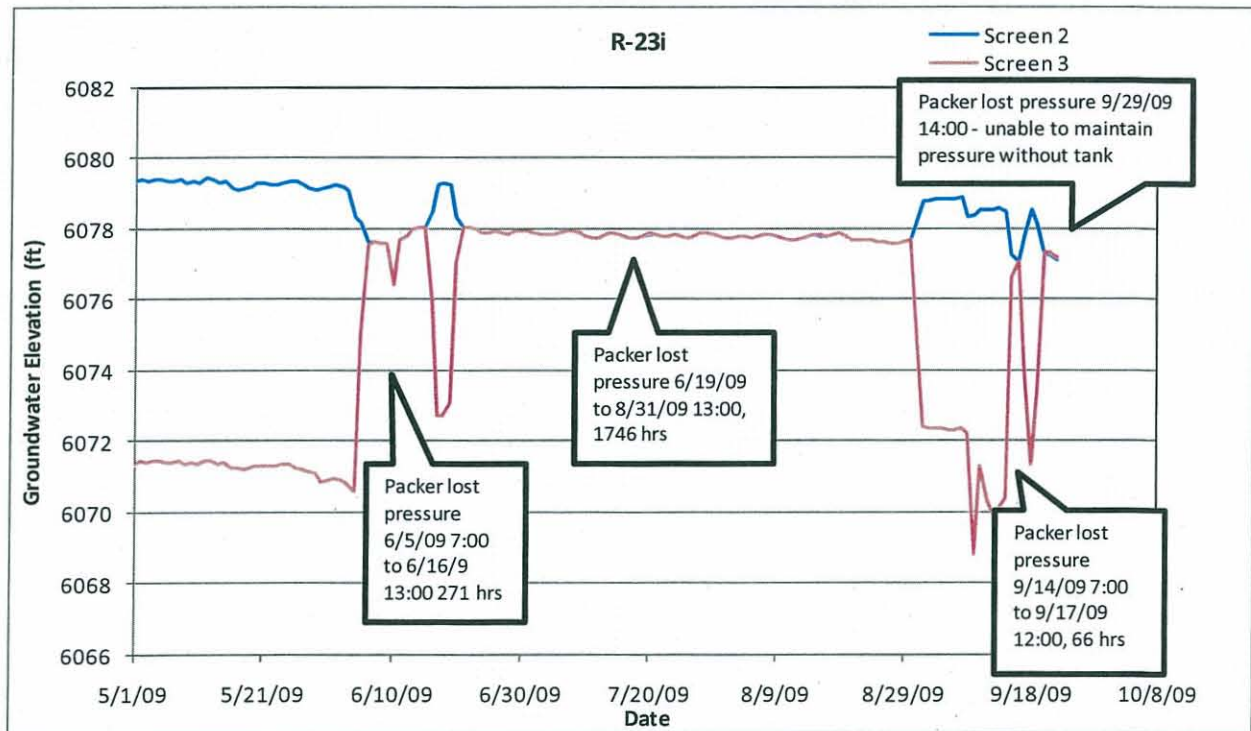


Figure 2 Water-level data in screens 1 and 2 of R-23i, showing period when packer was underinflated, allowing commingling between screens

Table 1
Summary of Baski and Temporary Packer Systems
in Monitoring Wells at Los Alamos National Laboratory

Well	Packer Type	Screened Interval*	Packer Pressure Issues
R-12	Baski Dual Pump	I/I	No packer pressure issues identified.
R-20	Baski Dual Pump	R/R	Low pressure observed in packer on 9/01/2009; packer reinflated. Water level data showed commingled water levels in R-20 from 6/20/09 to 9/1/09. Corrective action includes frequent pressure checks and plans for nitrogen tank at well head to maintain pressure. Plans are being made to remove and repair the system.
R-23i	Baski Dual Pump	I/I	Packer leaks at ~30 pounds per square inch (psi) daily, and pressure is maintained using nitrogen tank at well head with frequent pressure checks. Water level data show commingled water levels intermittently from 6/5/2009 to 9/22/2009. Plans are being made to remove and repair the system.
R-40	Baski Dual Pump	I/R	No packer pressure issues identified.
R-10	Baski Dual Valve	R/R	No packer pressure issues identified.
R-17	Baski Dual Valve	R/R	No packer pressure issues identified.
R-33	Baski Dual Valve	R/R	No packer pressure issues identified.
R-43	Baski Dual Valve	R/R	No packer pressure issues identified.
R-44	Baski Dual Valve	R/R	R-44 packer leaks at estimated rate of 4 psi/day. However, system is closely monitored, and water level data show no commingling between screens. Near-term solution is to install nitrogen tank at wellhead to maintain pressure while a long-term solution is evaluated.
R-45	Baski Dual Valve	R/R	No packer pressure issues identified.
R-49	Baski Dual Valve	R/R	No packer pressure issues identified.
R-16	Temporary Packer/Replaced with Baski Dual Valve	R/R	Packer observed to be deflated on 10/8/2009. Baski dual valve system installed 10/14/2009. No subsequent problems observed.
R-22	Temporary Packers	R/R	Lower-most packers leaked; packer system removed on 10/16/09. Third and fourth packers were damaged and replaced. System reinstalled with new packers on 10/17/09. No subsequent problems observed.
R-37	Temporary Packer/Replaced with Baski Dual Pump	I/R	No problems with temporary packer. Baski dual pump system installed week of 11/9/09.

*I = Perched intermediate aquifer, R = regional aquifer.