

ANNUAL SUMMARY OF GROUND WATER CONDITIONS IN THE SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA CALENDAR YEAR 2009

This report describes the ground water conditions in and around the Southeast Boise Ground Water Management Area (GWMA) based on the ground water level observation network established in spring 2000 under the guidance of the Southeast Boise Ground Water Advisory Committee. The network is a coordinated effort among Micron Technologies, Inc., United Water Idaho, and the Idaho Department of Water Resources (IDWR). J. R. Simplot Co. also provides access to some wells. Each cooperator submits water level data to IDWR which is maintained in a single database.

Status of Monitoring Network

The monitoring network has remained fairly stable during the last several years but now stands at 23 monitoring sites (see Figure 1). Access to the Guyer well was lost in May of 2007. The Agenbroad well near the Mayfield exit from Interstate 84, the Westbound Rest Stop well, and the Croman Industries (not shown) well were added in late 2007 - 2008. Monitoring frequency ranges from monthly to quarterly. Data from all cooperators is submitted electronically to IDWR.

In addition to the Rest Area and Agenbroad well, seven other wells in the vicinity of Mayfield have also been added to the monitoring network and will be reported in the 2010 Annual Summary. These include wells at the the Boise Stage Stop and other community and irrigation wells along Indian Creek. We expect that these will provide useful information about ground water level conditions south and east of the designated GWMA boundary as well as support the East Ada and Mountain Home Comprehensive Aquifer Management Project (CAMP) efforts. The well sometimes referred to as the "Prigge Well" on Kuna-Mora Road was instrumented for a brief period in 2009, but has some construction problems that we are attempting to resolve. One well on Boise Avenue and one on Bergeson Avenue will be included in the Southeast Boise network beginning in 2010.

Ground Water Level Trends

Ground water level hydrographs for wells in the network are shown in Figures 2 and 3. Figure 4 shows hydrographs for six wells in greater detail for the period 1995 through 2009.

Ground water level trends show a mix of conditions. Most wells show stable or increasing water levels. Only the Collins #2 and perhaps the Christensen hydrographs demonstrate a downward trend. Wells shown on Figure 4 that showed significant changes in water levels in 2006 resulting from changes in the system that accompanied the use of the new production well appear to have stabilized. The Micron Shallow and Micron Deep wells continue to show rising water levels due

to increased injection in their proximity. Future monitoring will demonstrate if these changes are short term or if they reflect long-term changes to the trends.

Water levels in several wells show changes in their annual cycles. Oregon Trail, Columbia Test, and Micron No. 2 wells have multiple peaks during the year: (Figure 4). Previously, these wells appeared to have a single annual peak. These altered annual trends may be a result of different monitoring frequencies as wells are switched to monthly monitoring from transducers. Several of these wells are monitored monthly; previously, Columbia Test and Micron No. 2 had transducers installed for continuous monitoring.

Recommendations

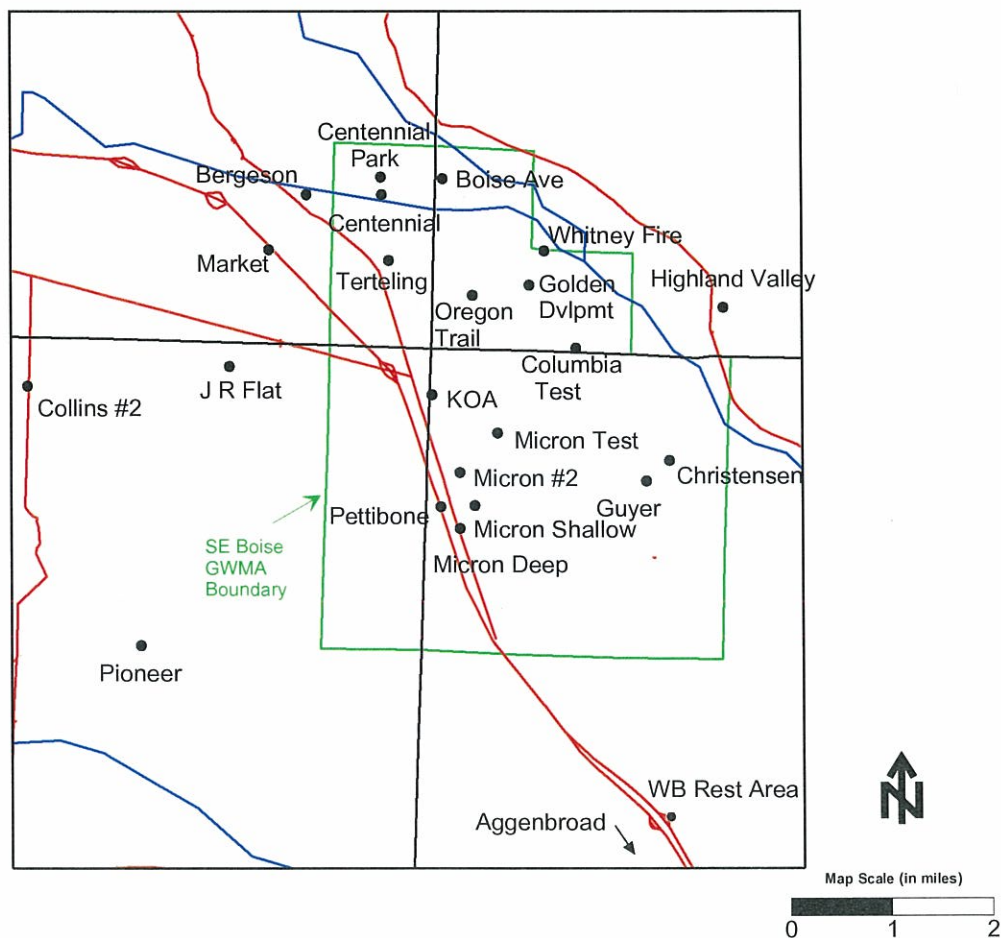
The network will benefit from adding monitoring sites around the perimeter of the designated boundaries. IDWR continues to investigate potential additions to the network. For the near term, the network will continue to be measured at the current frequencies. IDWR needs additional location information for the Croman well in order to enter the data into our database and generate hydrographs.

Figures

1. Map of Observation Well Network as of 2009
2. Selected Hydrographs, 1980-2009 (North)
3. Selected Hydrographs, 1980-2009 (South)
4. Selected Hydrographs, 1995-2009

Prepared by Lin Campbell, IDWR Hydrology Section, 5/2010

SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA Monitoring Network 2009



2009 Monitoring Sites

01N04E-28CAC1	AGENBROAD	03N02E-25BDA1	CENTENNIAL PARK
02N02E-02BBC2	J R FLAT	03N02E-25CAA1	CENTENNIAL
02N02E-04CAA1	COLLINS #2 (EAST)	03N02E-26DBA1	BERGESON
02N02E-22BBB1	PIONEER	03N02E-35BAB1	MARKET
02N03E-06DCA1	MICRON TEST #1	03N02E-36ABC1	TERTELING
02N03E-07BAC1	MICRON TEST #2	03N03E-30BCBD1	E BOISE AVE
02N03E-07CDA1	PETTIBONE	03N03E-31ADD1	GOLDEN DEVELOPMENT
02N03E-07DBB1	MICRON SHALLOW OBS	03N03E-31BDD1	OREGON TRAIL
02N03E-07DBB2	MICRON DEEP OBS	03N03E-32BBA1	WHITNEY FIRE
02N03E-09BAA2	CHRISTENSEN	03N03E-32CDD1	COLUMBIA TEST
02N03E-09BCA2	GUYER (discontinued)	03N03E-33DAA1	HIGHLAND VALLEY RD
		02N03E-28CAA1	WB REST AREA

IDWR/lc 5/2010

Figure 1

SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA **Hydrographs of Observation Well Network as of 12/31/2009**

South Portion

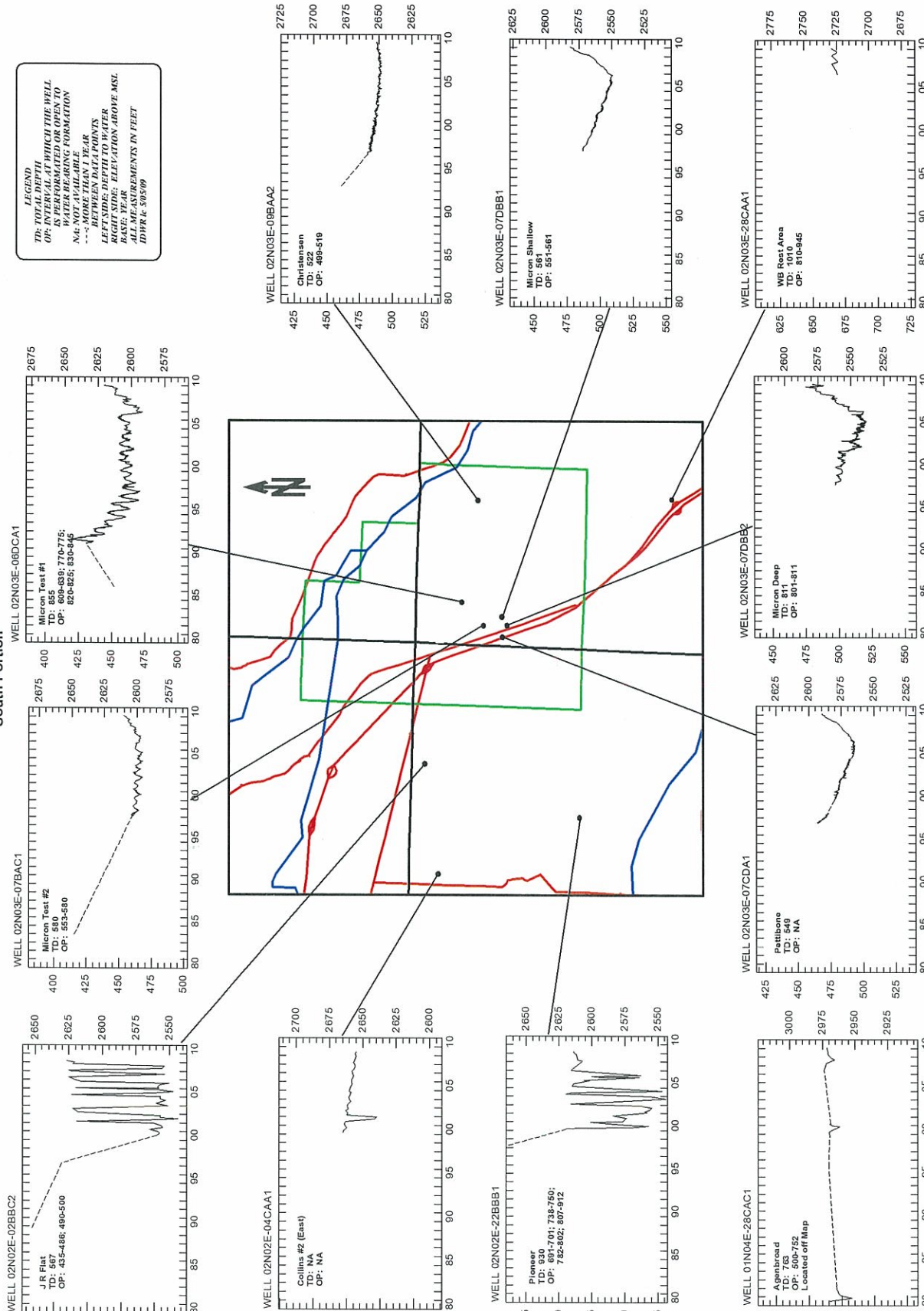


Figure 3

SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA

Hydrographs of Selected Observation Wells
1995-2009

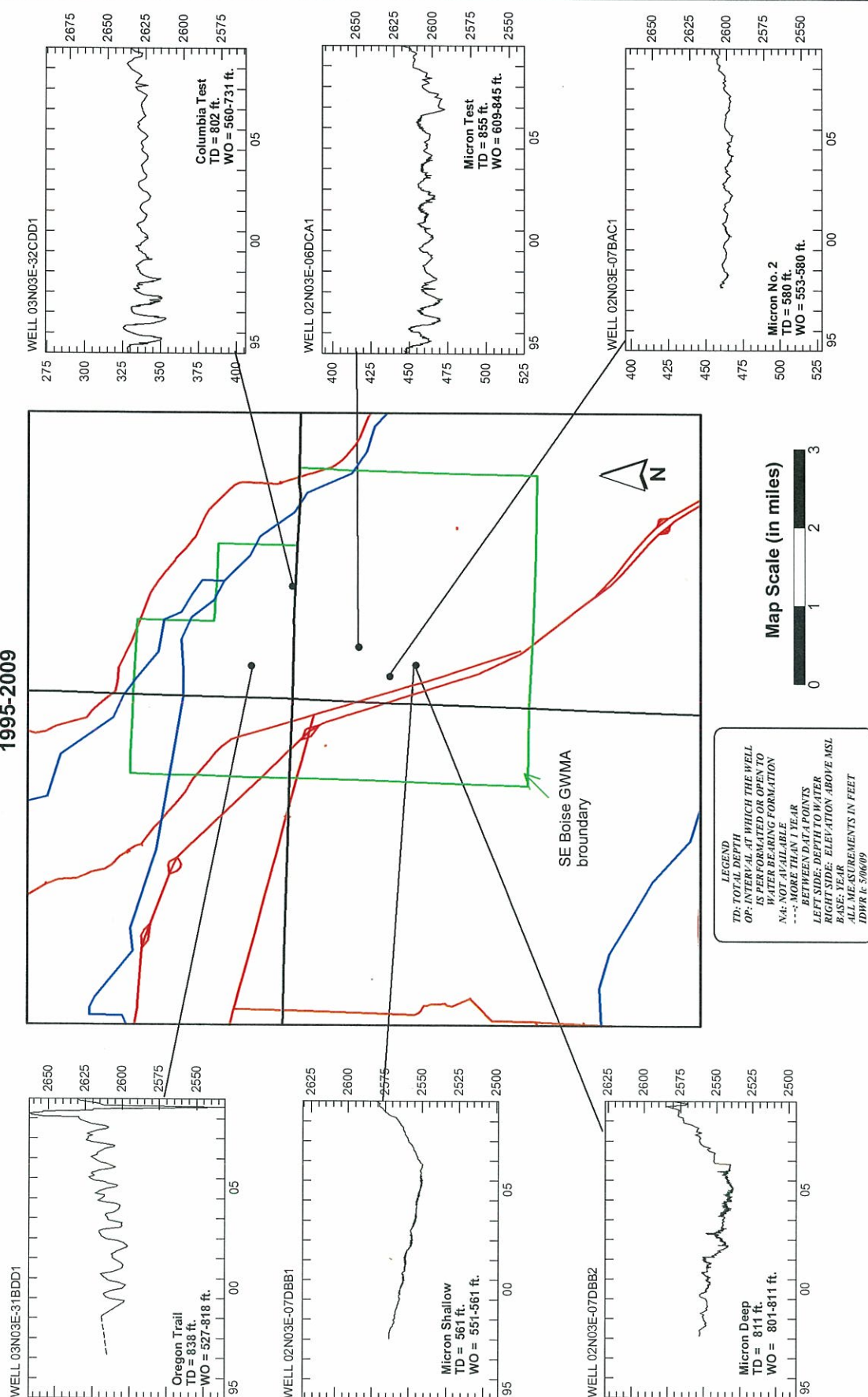


Figure 4