

ANNUAL SUMMARY OF GROUND WATER CONDITIONS IN THE SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA CALENDAR YEAR 2007

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 stable during the last several years with 21 monitoring sites (see Figure 1). Monitoring frequency is monthly or quarterly. Data from all cooperators is submitted electronically to IDWR. Beginning in 2007, IDWR began updating the database bi-monthly, rather than the semi-annual cycle. All of the wells monitored by Micron are now on a monthly schedule. It does not appear that this has caused a decline in the quality of the information or difficulty in monitoring the water level trends.

The new well at the Blacks Creek Rest Area was completed and added to the network during 2007. With the assistance of Terry Scanlan the Agenbroad well in the vicinity of Indian Creek Reservoir was also added to the monitoring network. This well was previously monitored by the USGS as part of the Treasure Valley Hydrologic Project. The location of this site along with the rest area well, will provide useful information about ground water level conditions south and east of the designated GWMA boundary.

Several large residential developments have been proposed between Boise to the area around Mayfield. We are exploring the possibilities for additional monitoring wells in that area to provide baseline information in anticipation of future development.

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 2006.

Ground water level trends show a mix of conditions. Most wells show stable or increasing water levels. Wells shown on Figure 4 that showed significant changes in water levels during 2006 resulting from changes in the system that accompanied the use of the new production well appear to have stabilized. 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 Train, Columbia Test, and Micron No. 2 wells have multiple peaks during the year: (see 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. I anticipate the addition of new wells in the Blacks Creek and Indian Creek areas.

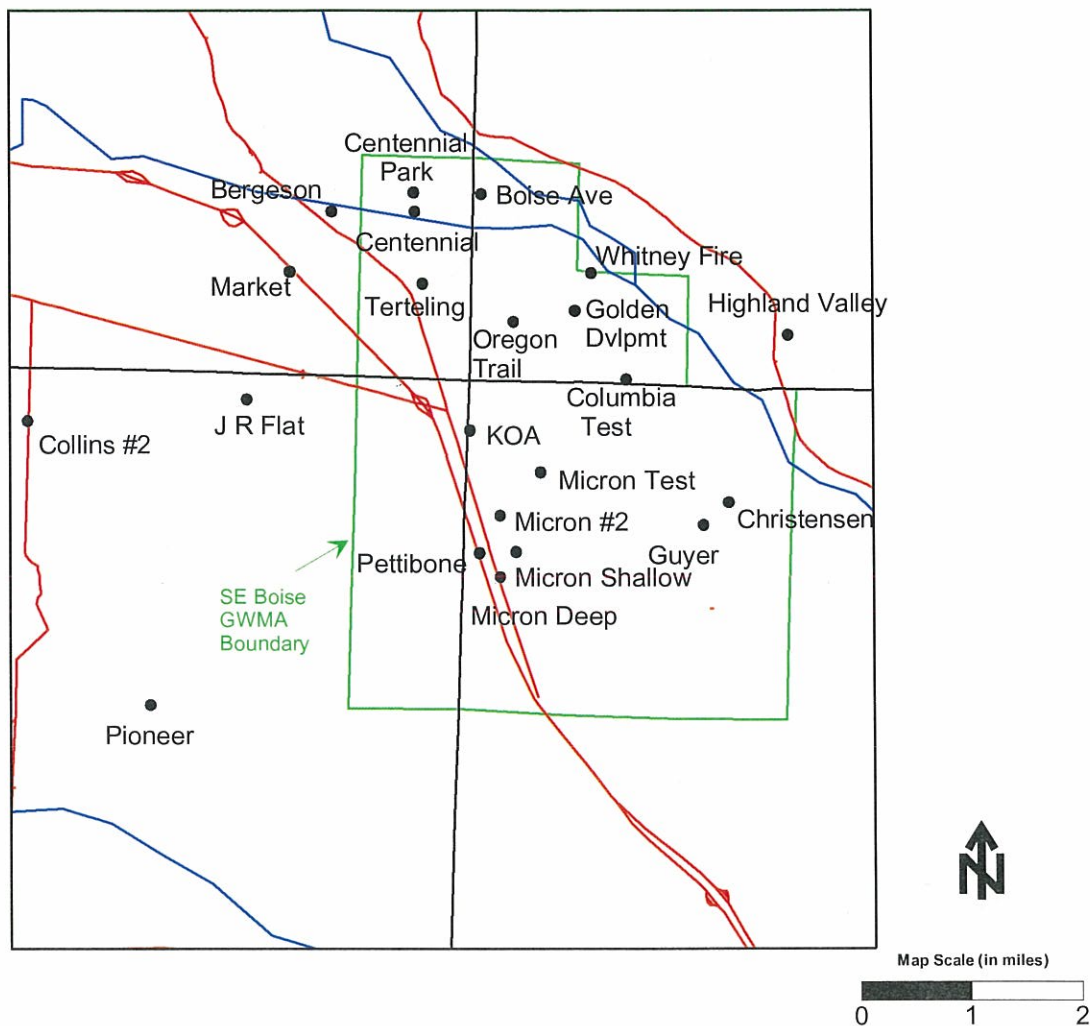
For the near term, the network will continue to be measured at the current frequencies. IDWR is considering changing to bi-monthly monitoring for several networks, so that may happen in the SE Boise area as well.

Figures

1. Map of Observation Well Network as of 2007
2. Selected Hydrographs, 1970-2007 (North)
3. Selected Hydrographs, 1970-2007 (South)
4. Selected Hydrographs, 1995-2007

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SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA Monitoring Network 2007



2007 Monitoring Sites

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

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Figure 1

SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA

Hydrographs of Observation Well Network as of 12/31/2007

North Portion

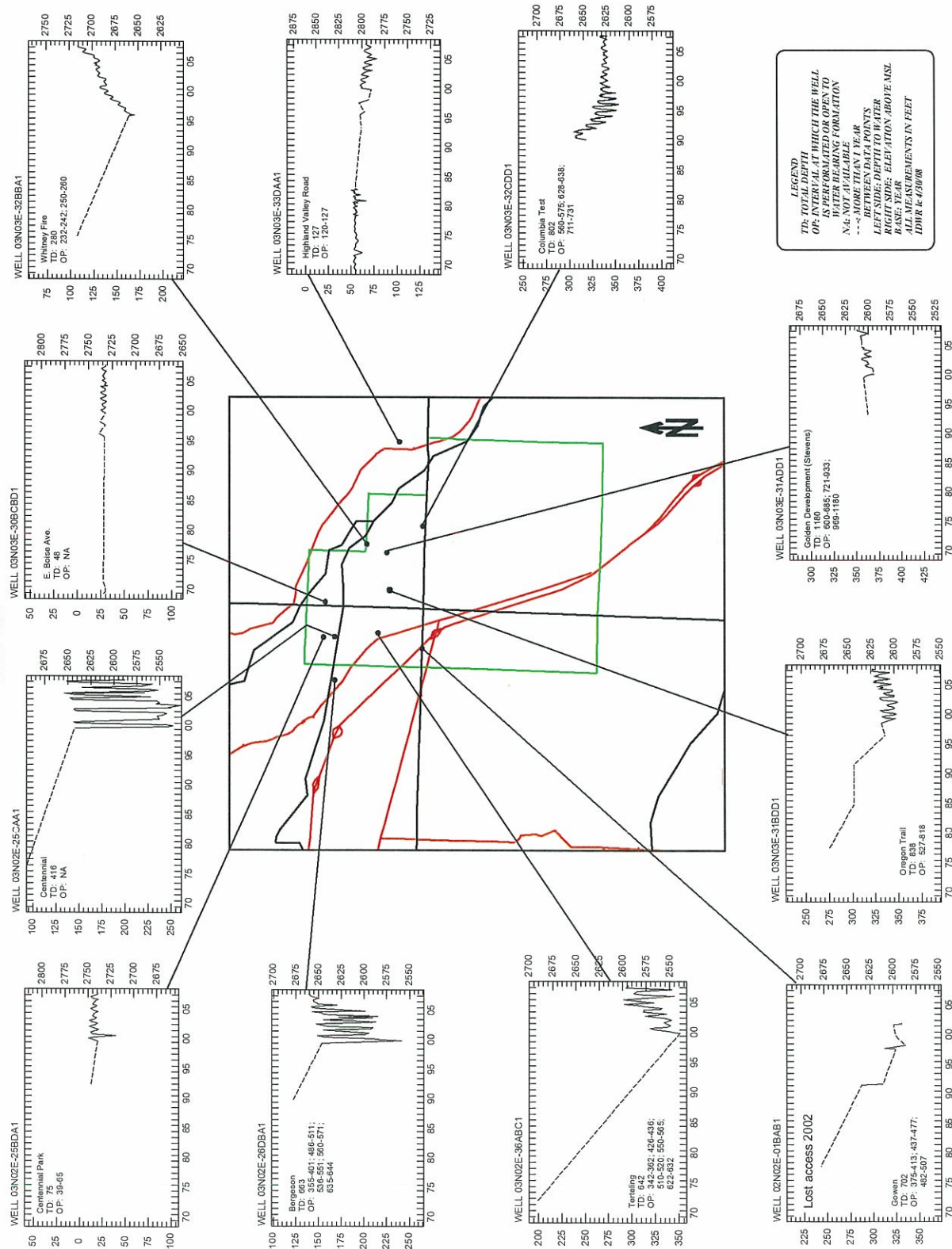


Figure 2

SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA Hydrographs of Observation Well Network as of 12/31/2007

South Portion

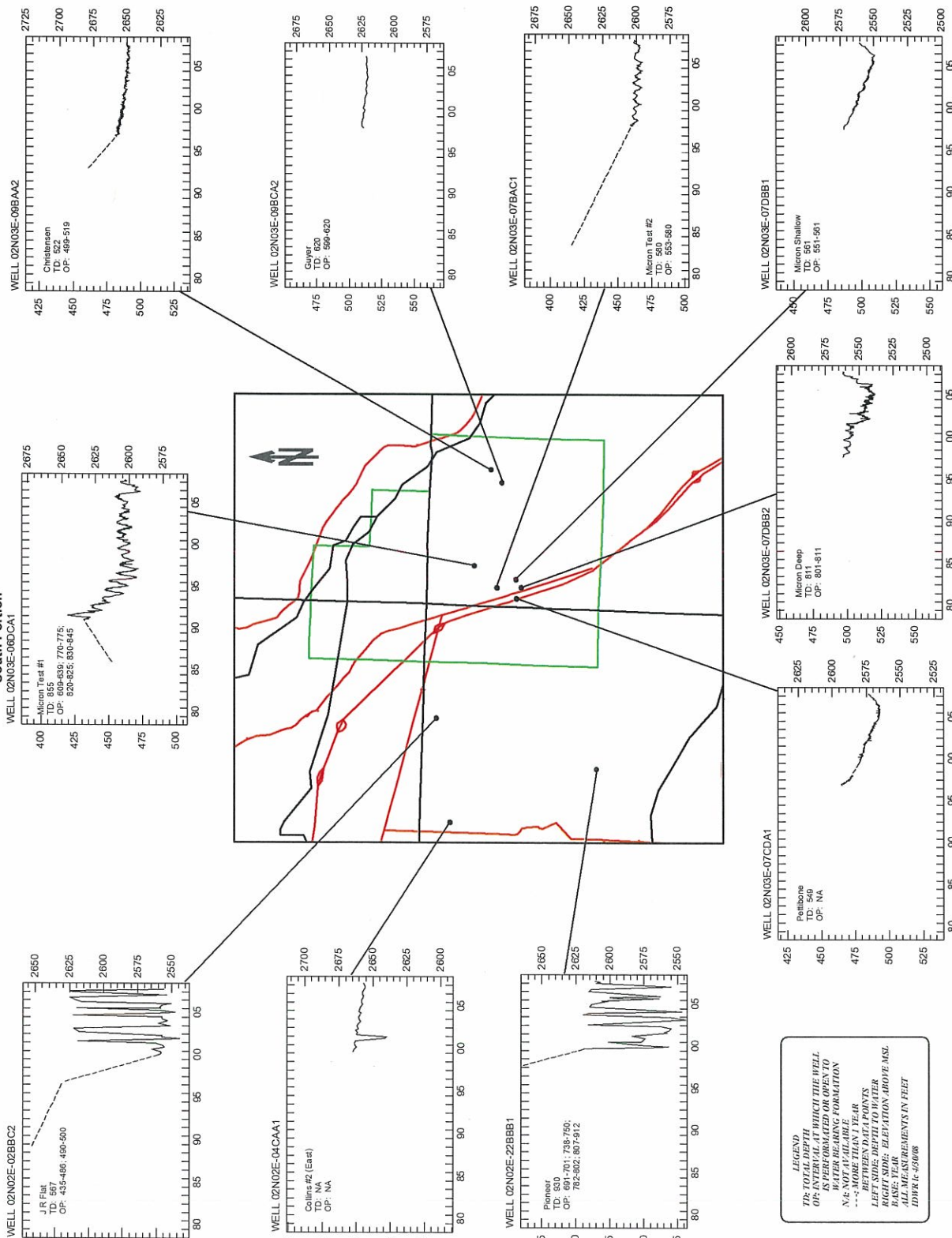


Figure 3

SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA

Hydrographs of Selected Observation Wells
1995-2007

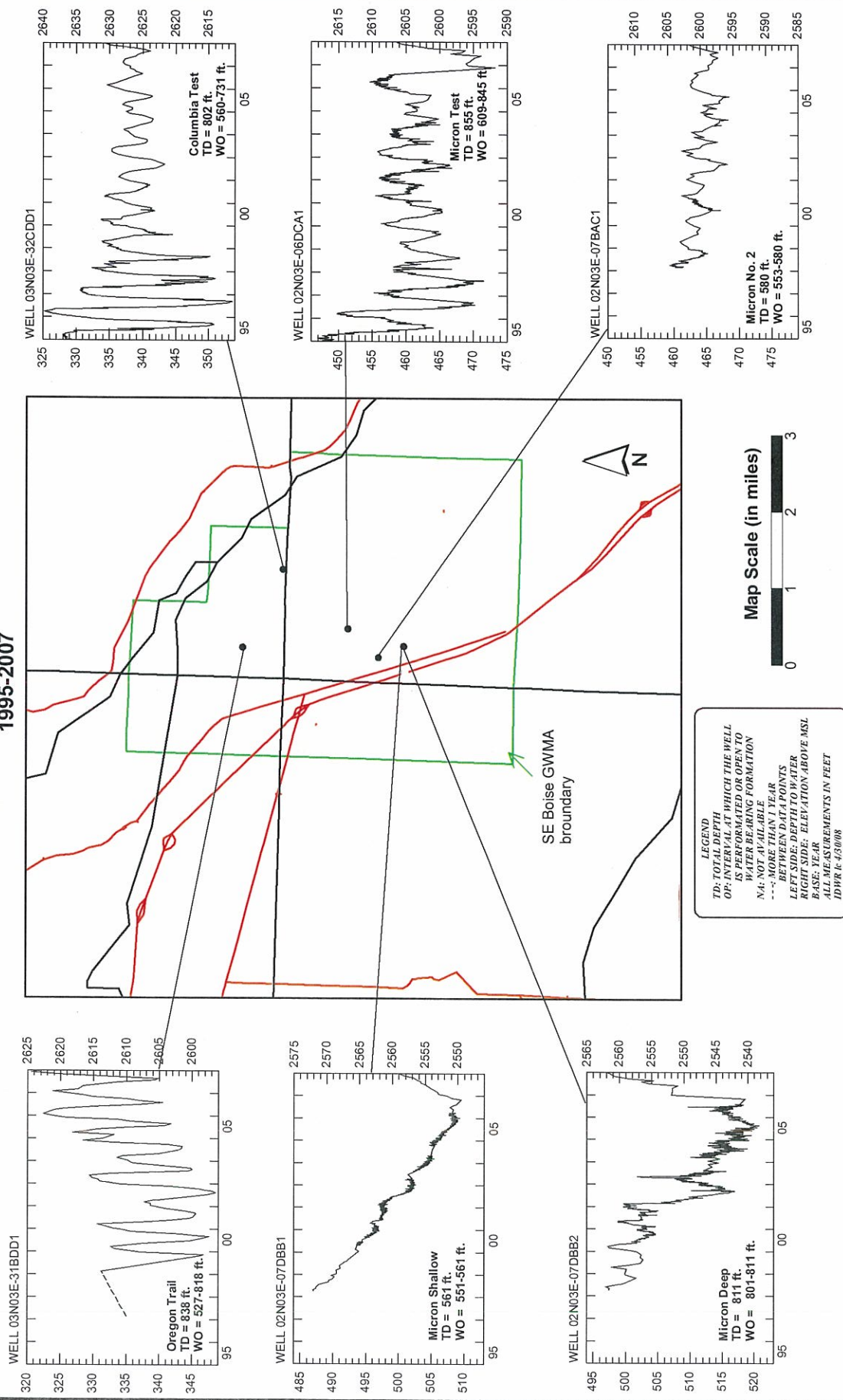


Figure 4