

### Status of Summer Wells

UW #29 remains in “reserve” mode. The reservoir is currently being discharged to the storm sewer and then refilled once a week to maintain the proper chlorine residual. Demand for water in this area is being evaluated on a weekly basis. If it is determined that water from this well is needed to meet demand, then this well will go into “standby” mode (reservoir filled and then pumped twice a week into the distribution system for four hours.)

UW #10 is currently out of service. Given the saturated ground conditions this year, water from this well has not been needed. Staff has been evaluating demand for water in this area on a weekly basis to determine if this well needs to be put into “reserve” mode (reservoir filled and then discharged to the storm sewer once a week.) At this point, it does not appear that water from this well will be needed during the remainder of this year. The Utility does however still need to conduct water sampling for the WDNR. Plans have been made to put this well in service on September 9<sup>th</sup>. The well will be prepped, started, and run for a period of 24 to 48 hours, depending on how fast the water quality stabilizes. All water generated during this sampling event will be discharged to the storm sewer.

### UW #29 Sentinel Well

Utility staff has been meeting with the Water Quality Technical Advisory Committee and Montgomery Associates to finalize the plans for the sentinel monitoring well system proposed for UW #29. It was decided that the monitoring well system would be installed approximately half the distance between UW #29 and the Sycamore Landfill. The proposed location lies at the edge of Sycamore Park, just west of the intersection of Jana and Kim Lanes. Modeling results indicate that this location is ideal for intercepting any well water from the Sycamore Landfill area.

The monitoring well will consist of a single borehole 815’ deep equipped with a FLUT sampling system. FLUT stands for Flexible Liner Underground Technology (see attached.) The well will have a total of six sampling ports set at different elevations. This will allow water samples and head data to be collected over the entire depth of the aquifer. Ken Bradbury of the WGNHS has agreed to assist with this project. The Survey will log the borehole after it is drilled and Ken will help in determining at which levels to place the sampling ports.

Staff visited a site that had three of these monitoring systems already in place and were given a demonstration on how they function. All came away impressed. The professional drilling services will be bid as a Public Works Project. The FLUT system will be sole-sourced as they are the only providers of this technology. Montgomery Associates will be retained to provide some on-site services, including water testing and sedimentological logging, during the drilling. It is hopeful that this well be installed and fully functional by the end of this year.

### 5802 Femrite Drive - Groundwater Monitoring Well

A groundwater monitoring well is being proposed for the Water Utility’s property located at 5802 Femrite Drive (see attached figure.) The proposed monitoring well is part of a WDNR approved groundwater investigation being conducted by GE Healthcare for their Datex-Ohmeda facility located to the northeast. The well would be installed and paid for by the GE Healthcare Corporation.

A release of chlorinated solvents at the Datex-Ohmeda facility occurred several years ago and GE Healthcare is in the process of remediation. They have defined the vertical and horizontal extent of the soil/groundwater contamination at their facility and are now trying to define its extent off-site. They have installed a number of monitoring wells on properties located to the north and west of the Water Utility property but have found no

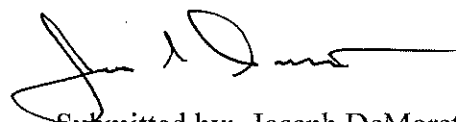
evidence of solvents. The proposed well will be located down gradient and closer to the Datex-Ohmeda facility. It will be screened at a depth of 170' below the surface near the bottom of the Tunnel City Group, the formation that the compounds are thought to be traveling within. This is above the Eau Claire Shale.

In 2004, several VOCs were detected at low levels in the deep test well drilled at the Femrite Drive property. It is not known if these compounds originated from the Datex-Ohmeda facility. The installation and sampling of this monitoring well will benefit the Water Utility as it will provide more detail on the quality of the area's groundwater. Staff is putting together an easement and permit which would allow the installation to move forward.

### SCADA Update

The conversion of sites UW #30 and the Felland Road Reservoir to the new Wonderware SCADA system is currently underway. The central control module, which will be housed in the operator's room, has been built and is ready to be installed. L.W. Allen, Inc. is doing the software programming and estimate it will be ready September 1<sup>st</sup>.

The automated database management system the Operators use for trending, reporting, and recording site data is being upgraded by IntelliSys. They have made progress and estimate that the upgrades will be ready for a September 1st installation also. Training for staff will begin shortly thereafter.

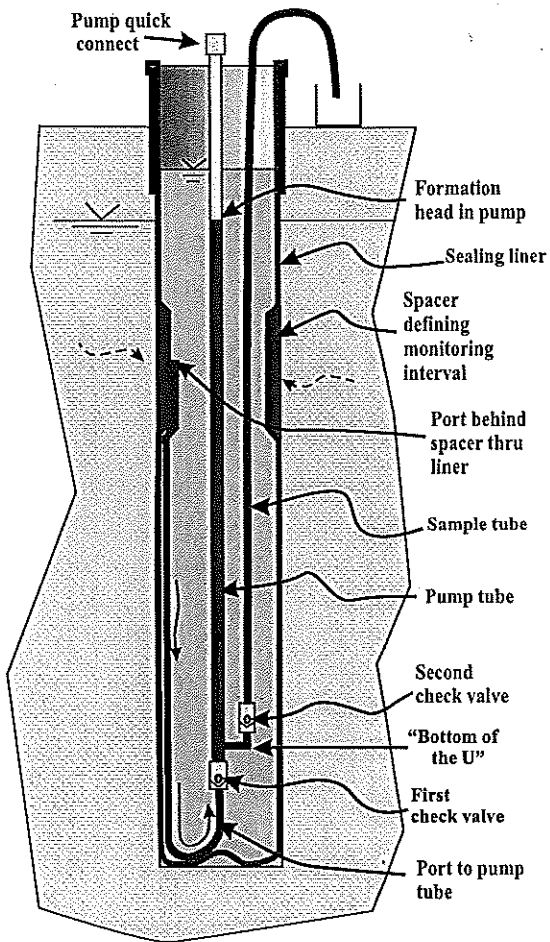


Submitted by: Joseph DeMorett

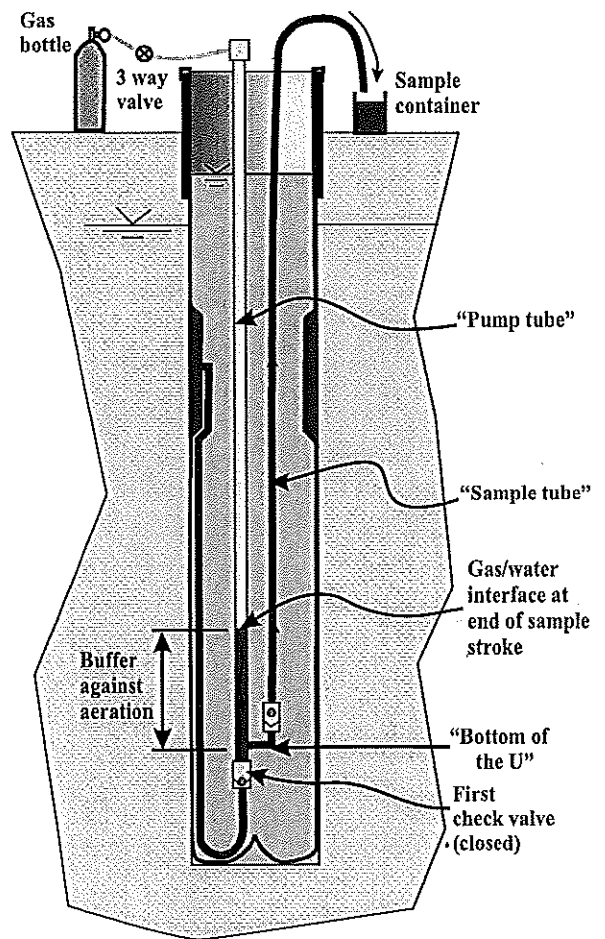
# Water FLUTE® Multi-Level Sampling System

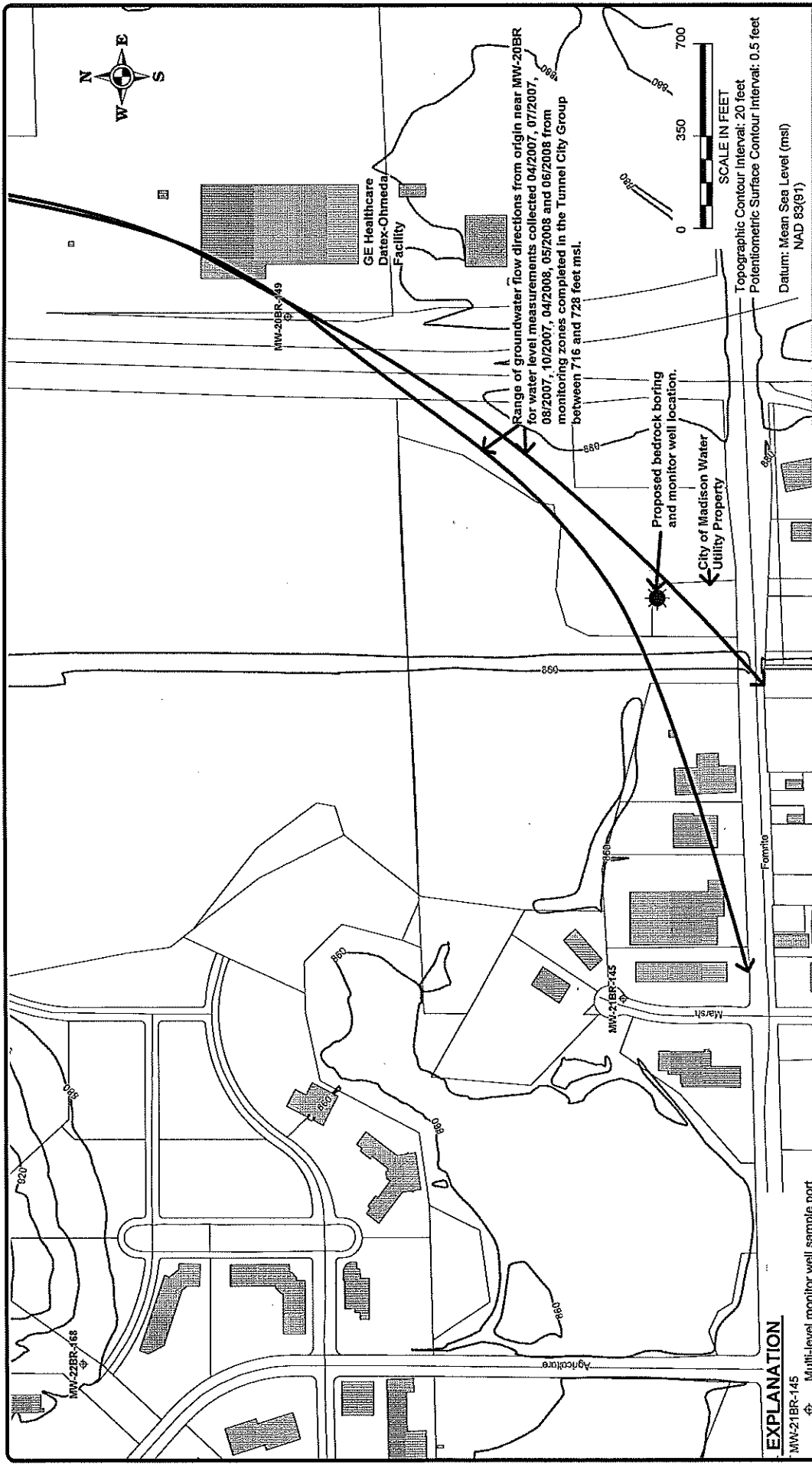
(Single port system shown for clarity)

## Filling from Formation



## Pumping Procedure





**EXPLANATION**

- MW-21BR-145 Multi-level monitor well sample port location and designation.
- Building footprint
- Parcel
- Topographic Contour and elevation (feet msl)
- Road centerline
- Direction of groundwater flow in Tunnel City Group.

**Credits:**  
 Parcels, building footprints, road centerlines and topographic contours from (c) Dane County Land Information Office, Madison, WI. Challenges for each are as follows:  
 Parcels: Dane County Land Information Office, 1990, Dane County (WI), Dane County Parcel Database  
 Building Footprints: Dane County Land Information Office, 20060823, Dane County (WI) 2005 Building Footprints.  
 Road Centerlines and Address Ranges: Dane County Land Information Office and Fly Dane Partnership, 20060428, Dane County (WI) 2005 Digital Four-Foot Contours.

**FIGURE:**  
 1

**TITLE:** TUNNEL CITY GROUP SAMPLE PORTS FLOW PATHS

**LOCATION:** GE Healthcare Datex-Ohmeda Facility, Madison, Wisconsin

**CHECKED (M.A.M.):** [ ]  
**DRAFTED (M.A.M.):** [ ]  
**PROJECT:** 220A.178  
**DATE:** 07/20/08

**GeoTrans, Inc.**  
 A TRINITY TECHNOLOGIES COMPANY