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Department of Energy

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Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

AUG 25 1992

92-WOB-317

Mr. David B. Jansen, P.E.  
Hanford Project Manager  
State of Washington  
Department of Ecology  
P. O. Box 47600  
Olympia, Washington 98504-7600

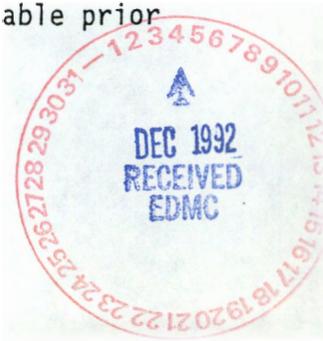
Dear Mr. Jansen:

REQUEST FOR APPROVAL TO INSTALL LONGER WELL SCREENS IN NON-RADIOACTIVE DANGEROUS WASTE LANDFILL GROUNDWATER MONITORING WELLS

Appendix D to the Action Plan of the Hanford Federal Facility Agreement and Consent Order (Milestone M-24-00) stipulates that, "Installation of groundwater wells shall mean that wells have been drilled, adequately sealed, and screened over no more than 15 feet of the aquifer unless otherwise approved by Ecology,..." U.S. Department of Energy (DOE) proposes the installation of longer screens in future Resource Conservation and Recovery Act Standard groundwater monitoring wells at the Non-Radioactive Dangerous Waste Landfill (NRDWL) to accommodate declining groundwater levels at this site. Longer screens will extend the life of new wells constructed at this site, lead to fewer replacement wells, and make maximum use of resources.

The NRDWL, part of the Hanford Central Landfill Complex, is located approximately 4 km (2.5 mi) southeast of the southeast corner of the 200 East Area of the Hanford Site (Enclosure 1). Liquid effluent discharges, principally in the 200 East Area, have resulted in a rise in the water table beneath the NRDWL of at least 17 feet since 1944. This increase in water table elevation is illustrated by the hydrograph of well 699-24-33 (Enclosure 2). Well 699-24-33 was completed in 1948 and is located approximately 500 feet east of the adjacent Solid Waste Landfill (Enclosure 3).

The water table at the NRDWL has decreased by approximately three feet since the end of 1988, principally as a result of decreased effluent discharge to B-Pond (216-B-3). This decrease is shown by the hydrograph for the five top-of-the-water table wells at the NRDWL (Enclosure 4). If water table decline continues at the current rate water levels will drop below the bottoms of the screens on the existing monitoring wells at the NRDWL in approximately ten years and the wells would become unusable prior to that time.



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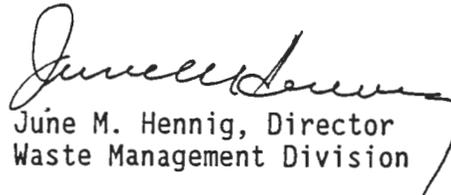
AUG 25 1992

Because of the magnitude of water table decline at the NRDWL it is prudent to install longer screens in new wells at the NRDWL. The increased screen length will greatly extend the useful life of the wells and may eliminate the need for future replacement of these wells. On this basis it is recommended that 35 foot screens be placed in all new wells at the NRDWL and that the screens be placed so that five feet of the screen extends above the water table.

Your written approval of this request is needed prior to the initiation of drilling fiscal year 1992 wells at the NRDWL. Drilling is planned to start on August 14, 1992. This approval will facilitate planning for wells at the NRDWL and will reduce cost of constructing groundwater monitoring wells by reducing the number of replacement wells that must be constructed.

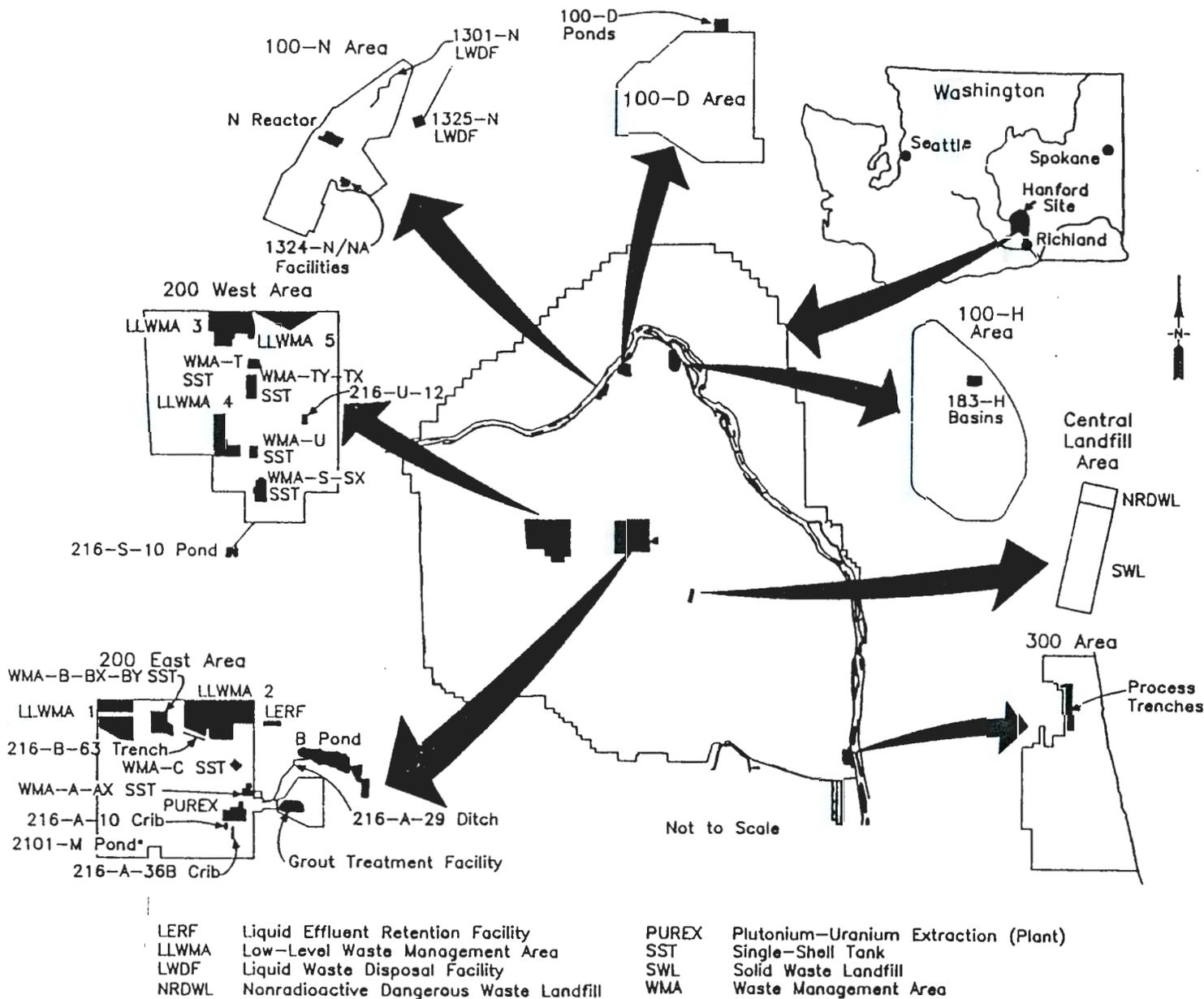
If there are any questions regarding this matter, please contact M. J. Furman of my staff on (509) 376-7062.

Sincerely,

  
June M. Hennig, Director  
Waste Management Division

Enclosures:  
Hanford Site Location Map  
Hydrograph - Well 699-24-33  
Well Location Map - Central Landfill Complex  
Hydrograph - Five Wells at the NRDWL

cc w/encl:  
K. R. Fecht, WHC  
R. E. Lerch, WHC



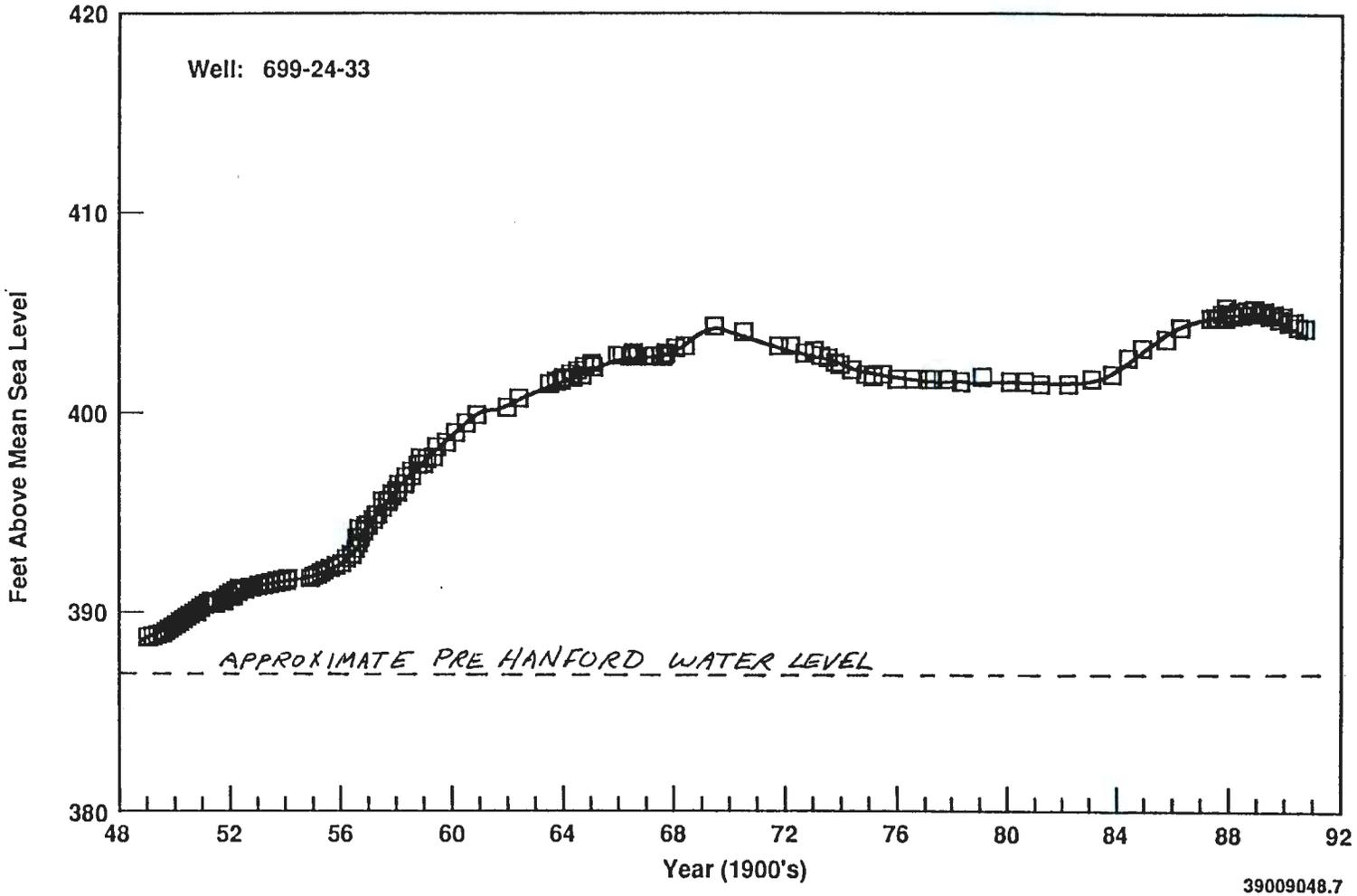
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Figure 1-1. Locations of the RCRA Groundwater Monitoring Projects and Landmarks on the Hanford Site.

1 Figure 4-18. Historical Water Level Data for Well 699-24-33.

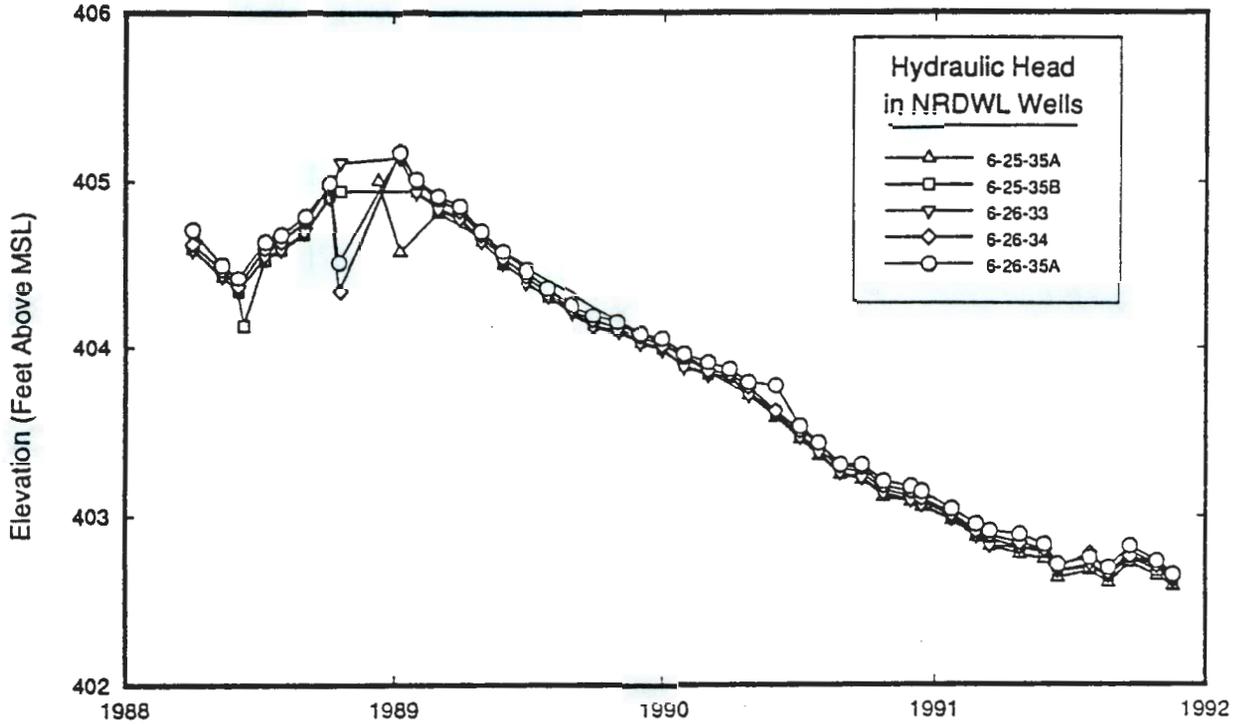
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Figure 18-3. Hydrographs of Monthly Water Level Measurements (Feet Above Mean Sea Level) at the Nonradioactive Dangerous Waste Landfill.



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9255611

Subject: Request for Approval to Install Longer Well Screens in Non-Radioactive  
Dangerous Waste Landfill Groundwater Monitoring Wells

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