NYE County NWRPO -Technical Data Report **Transmitter** Org. Receiver RID No. Org. Title/Description Key word1 T. S. Buqo, (Supersedes RIDs 3734, 4681, 5111, 5354, 5355, 5382 and **QARC** 6360 Bugo Nye 1DX, 1S, 5819) EWDP Manual Water Level Measurements through Doc. Date 8/11/2004 General Doc. Type Keyword2 MWL QA Program Doc June 2004 Keyword3 data Detailed Doc. Type Data Packet Entry Date 9/20/2004 Data Originator Thomas S. Bugo Preparer (Supersedes RIDs 3734, 4681, 5111, 5354, 5355, 5382 and 5819) EWDP Manual Water Level Measurements through June 2004 Title of Data Data package includes Nye County's Regional Groundwater Elevation Database (RGED V. 3.9.mdb) containing EWDP manual water level Description of measurements through June 2004, field forms, hydrographs, and exported data from database: "Export EWDP QA Data 0904.xls" (posted to Data nyecounty.com website as "RID6360.xls"). Water level data recorded after June 2004 is also shown in RGED V. 3.9.mdb. This data will be addressed in the next scheduled biannual data package submittal. NWRPO calibrated electric water level sounders in accordance with Work Plan 10 Rev. 0, Groundwater Level Monitoring and Evaluation, dated **Data Collection** Method 8/20/03. Data Location(s) NC-EWDP-1DX, -1S, -3D, -3S, -9SX, Washburn-1X, -12PA, 12PB, -12PC, -15P, -19D, -19P, -2DB, 4PA, 4PB, 5SB, -7S, -7SC, -10P, -10S, -18P, -19IM1, -19IM2, -22PA, -22PB, -22S, -23P, -16P, -19PB, -24P, -27P, -28P, and -29P Data Collection 3/99 to 6/04 Period(s) 1) M&O derived latitude and longitude for well location and elevation data for well pad elevation; 2) Depth to groundwater measured with electric Data Source(s) water level sounders as recorded either in the Scientific Notebook (SNB) dedicated to each well, EWDP Groundwater Level SNB, EWDP Westbay Instrumented Wells SNB, or as recorded on the NWRPO Water Level Measurement Field Form (Form TP-9.9-1 Rev 0, dated 9/4/03); and 3) NWRPO approved Well Completion Diagrams for each EWDP well for casing type, diameter, and measuring point stickup (as established with engineers steel tape and recorded in Scientific Notebook). Supporting data includes metadata for prior submittals of manual water level measurements in EWDP wells. This data review was the final step in qualifying Nye County's EWDP manual water level measurements. Previous submittals censored data collected Data Censoring during drilling and well development. Those censored data were not entered into the NWRPO RGED. Upon completion of data entry, the data was first reviewed to confirm the data entry. After the input had been verified, a final review was done. This record transmittal only addresses the data that were censored as a result of the final review. The procedure used in reviewing and censoring data is per WP 10 Rev. 0, Sect. 4.3. Hydrographs were prepared for each EWDP well that has manual water level measurements. Each hydrograph was visually examined for outliers or other anomalous data points that could represent errors, short-term fluctuations due to earth tides, barometric pressure changes, response to seismic events, nearby pumping wells, or other factors. Each identified anomalous data point was then checked against the Water Level Measurement Field Form and the Scientific Notebook for the well in question, and, in some cases, nearby wells when it was found that activities at other locations could have affected the water level measurement(s) in question. The results are listed in Attachment 1 to this metadata which includes a summary discussion of the suspect data; a table that lists the well, the dates of anomalous measurements, the rationale for censoring the data, and the RID referenced that contains the data to be censored; and Appendix 1 which contains the original annotated hydrographs which are available for review upon request. Anomalous measurements at 14 wells were censored. Data from 21 other wells identified no anomalous points that required censoring. Data processing is limited to the calculations of water level elevations made in the MS Access database (RGED v.3.9.mdb) and exports made from the Data Processing database to MS Excel. The water-level elevations presented must be considered approximate because of the potential error in the GPS-based elevation of the land surface at **Data Limitations** the well site which is believed to be on the order of +/- 1.75 ft. according to work performed by the Center for Nuclear Waste Regulatory Analyses. The potential error in the GPS-based elevations does not affect the depth to water nor the absolute change in water levels over time that may be calculated using the elevation datum for land surface. The potential error may, however, result in limitations in the use of these data for the calculation of hydraulic

gradients between wells with the error induced in such calculations being inversely proportional to the distance between the two wells being used to

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