

OSE Aquifer Test Database Dictionary:

Prepared for

New Mexico Bureau of Geology and Mineral Resources

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The OSE Aquifer Test Database was imported into ArcGIS Pro in 2023 with the following fields and definitions.

***Table 1.** List of fields and definitions in the revised aquifer test geodatabase fields.*

| 2023 Geodatabase | Definition | |
|------------------------------|--|--|
| OSE_POD_ID | OSE Point of Diversion associated with well (pod_basin + pod_nbr + pod_suffix) | |
| ALT_WELL_NAME | Name used in report (i.e., MW-1, MW-2, etc.) | |
| POD_REC_NBR | This is the unique well identifier in WATERS. Not all wells have this ID in the geodatabase | |
| TEST_DATE | Approximate date of aquifer test, if date not specified. Use year of the year of report publication, or with an approximate date estimated from field notes. | |
| TEST_DATE_DT | Date of test specified as DDMMYYYY | |
| PRIMARY TEST TYPE | Test Type | Explanation |
| | Constant Discharge | Well is pumped at a constant rate |
| | Displacement Cylinder | Cylinder placed in well then removed, Bouwer and Rice (1976) |
| | Injection Test | Water injected over a specified time period |
| | Other | Unclear or combined with model or other approach |
| | Slug Test | Well casing filled and decline in water level is observed |
| | Specific Capacity | Simple test with no observation wells. Obtain the ratio of pumping rate to drawdown. |
| | Step-drawdown | pumping rate increased in intervals |
| | Aquifer Test | If type of test or multiple tests conducted use “aquifer test” as type |
| ADD AN ADDITIONAL TEST TYPE? | If multiple tests were done to arrive at one value for aquifer parameters, answer yes. If multiple tests were done on the | |

| 2023 Geodatabase | Definition |
|-----------------------------------|--|
| | same well with different results, create a new entry in the geodatabase |
| SECONDARY TEST TYPE | Provide the secondary test type here |
| FORMATION_NAME | Use dropdown list for data entry, see excel spreadsheet: Fields.xlsx/GeoCodes |
| GEOLOGIC_DESCRIPTION | Enter geologic description when formation name is not provided |
| WELL DEPTH | Completed Depth of Well (not depth drilled) is measured in feet below ground level (FT_BGL). |
| TOP OF SCREEN | The top of open screened interval measured in feet below ground level (FT_BGL). For wells with multiple screen intervals, the top of the highest screened interval is entered. |
| BOTTOM OF SCREEN | The bottom of the open screened interval is measured in feet below ground level (FT_BGL). For wells with multiple screen intervals, the bottom of the lowest screened interval is entered. |
| PUMPING_RATE_GPM | Pumping Rate is measured in gallons per minute (gpm). For step drawdown tests, only the final pumping rate is entered. |
| PUMPING TEST DURATION | Duration that well is pumping in minutes |
| RECOVERY TEST DURATION | Duration that recovery data are collected in minutes. |
| TRANSMISSIVITY DRAWDOWN | Transmissivity from the pumping portion of the aquifer test is measured in ft ² per day (FT2PD). If range is given, the lowest value is entered. |
| TRANSMISSIVITY RECOVERY | Transmissivity from the recovery portion of the aquifer test is measured in ft ² per day (FT2PD). If range is given, the lowest value is entered. |
| STORATIVITY | Storage coefficient. If range is given, lowest value is entered |
| SPECIFIC YIELD | Specific Yield. If range is given, lowest value is entered |
| SPECIFIC CAPACITY | SC in gallons per minute per foot (GPM_P_FT) of drawdown. If range is given, lowest value is entered |
| HORIZONTAL HYDRAULIC CONDUCTIVITY | Horizontal Hydraulic Conductivity is measured in ft per day (FTPD). If range is given, the lowest value is entered |
| VERTICAL HYDRAULIC CONDUCTIVITY | Vertical Hydraulic Conductivity is measured in ft per day (FTPD). If range is given, the lowest value is entered |
| PUMP_TEST_COMMENTS | Note exceptions, such as date not specified, multiple tests conducted at different levels during drilling. |

| 2023 Geodatabase | Definition |
|--------------------------|--|
| REFERENCE | Author, date, title, publication information |
| CREATED_USER | Individual who entered aquifer test data into geodatabase (automatic) |
| CREATED_DATE | Date aquifer test data was entered into geodatabase (Automatic) |
| LAST_EDITED_USER | The individual who edited data entry in geodatabase (Automatic) |
| LAST_EDITED_DATE | Date that aquifer test data was modified in geodatabase (automatic) |
| Entered By | Name of user entering data (drop down list) |
| URL_REFERENCE | URL Link for report if available |
| COUNTY | County name |
| BASIN | OSE Declared Groundwater Basin name |
| Latitude | Decimal degrees |
| Longitude | Decimal degrees |
| UTM Zone | 12 or 13 |
| X_UTM_Z13 | Primary coordinate system used for plotting in GIS, UTM NAD83, meters |
| Y_UTM_Z13 | |
| XYSource | Coordinate system reported in aquifer test report |
| | |
| TOP OF CASING ELEVATION | Elevation for top of casing (measuring point) is measured in feet above mean sea level |
| GROUND SURFACE ELEVATION | Elevation of ground in feet above mean sea level |
| SCREEN_LENGTH_FT | Feet of open screen |
| SCREEN_DIAM_INCHES | Well screen diameter is measured in inches |
| WELL_COMMENTS | Note exceptions, such as depth uncertain, location unclear. |
| START_WATER_LEVEL_FT_BMP | Water level at start of aquifer test, measured in feet below measuring point |
| START_WATER_LEVEL_DATE | Date of water level measurement (date for start of test) |
| END_WATER_LEVEL_BMP | Water level at end of test, measured in feet below measuring point |
| TOWNSHIP | Township (PLSS-Public Land Survey System) |
| RANGE | Range (PLSS) |
| SECTION | Section (PLSS) |
| qtr_4th | First quarter section (NW (1), NE (2), SW (3), SE (4) |
| qtr_16th | Second quarter section |

| 2023 Geodatabase | Definition |
|-------------------------------|---|
| qtr_64th | Third quarter section |
| qtr_256th | Fourth quarter section |
| SPC_X | State Plane Coordinate System |
| SPC_Y | |
| Secondary Reference Author | Review of aquifer test by OSE Hydrology Bureau staff or other (Author, date, title, publication or location of report) |