

OpenWells® 5000.1.2.1 TVD Calculations

The OpenWells® application now allows Administrators to select how they want the application to respond when the current MD does not have an active survey available to calculate the current TVD.

A new System Setting “AllowProjectedTvdCalc” has been added to the EDM™ Administration Utility to define how OpenWells handles the calculation of the current TVD when a survey is not available for the current MD.

The “AllowProjectedTvdCalc” System Setting defines the TVD calculation as follows:

- When set to FALSE, the application will not calculate the TVD for a MD that has no active survey and will display a null value.
- When set to TRUE, the application uses the closest survey to calculate the TVD of a MD that has no active survey.

The following table illustrates TVD calculations when using the new System Setting.

Scenario	TVD Calculation Behaviour
MD and today's survey station have been recorded by the drilling supervisor.	Calculate TVD using the survey being recorded by the drilling supervisor. (Independent of the system setting for survey projection)
MD has been recorded by the drilling supervisor on a day with no survey stations being recorded.	Calculate TVD using the survey being recorded by the drilling supervisor, even though a station was not recorded today. (Independent of the system setting for survey projection)
Days with ongoing operations (i.e. Casing/ Cementing) but no progress in MD and no further survey stations recorded past the last station during drilling.	TVD is that of the last day of drilling prior to the operations with no progress. This TVD should not change until progress is made and a new survey entered (i.e. even if a survey is entered for a deeper interval it should not affect the TVD during ongoing operations with no progress). (Independent of system setting for survey projection)
Vertical well ("post hole") with a survey in a depth interval drilled prior to the current depth interval.	Calculate TVD using the survey from the previous interval when the system setting for survey projection is enabled. TVD is blank when the system setting for survey projection is disabled.
A depth interval that does not deviate from the last inclination and azimuth of the previous interval (non-vertical, non-deviating hole section).	Calculate TVD using the survey from the previous interval when the system setting for survey projection is enabled. TVD is blank when the system setting for survey projection is disabled.

Scenario	TVD Calculation Behaviour
A depth interval that deviates from the last inclination and azimuth in the previous interval.	<p>Calculate TVD using the survey from the previous interval when the system setting for survey projection is enabled.</p> <p>TVD is blank when the system setting for survey projection is disabled.</p>
Vertical well ("post hole") with no surveys for any depth intervals.	<p>Calculate TVD equal to MD when the system setting for survey projection is enabled.</p> <p>TVD is blank when the system setting for survey projection is disabled.</p>