

Release notes

D-Geo Pipeline 20.1.1.30040

09-06-2020

Fixed bugs

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| MDR-1603 | For HDD with horizontal bending(s), the determination of the Y-coordinate of the characteristic points used for the calculation of the pulling forces was incorrect and could lead to an error message (Invalid floating point error) during the calculation. |
| MDR-1684 | The calculation of the equivalent wall thickness and equivalent pipe unit weight for bundle was incorrect. |
| MDR-1741 | HDD Stress analysis with PE pipe: The calculation of the maximum tangential stress in load combination 1B was incorrect (the tensile factor should be applied). |
| MDR-1704 | HDD Stress analysis per vertical with PE pipe: the implosion was incorrect. |
| MDR-1573 | The calculated stresses in section "Check on Calculated Stresses" of the <i>Report</i> for steel material with CEN standard were incorrect. |
| MDR-1551 | The incorrect diameter was used for the determination of the average soil parameters during the calculation of the maximum drilling fluid pressure: the outer diameter of the product pipe was used instead of the outer diameter of the hole (different for the 3 phases pilot, pre-reaming and pull-back). |
| MDR-1542 | In the <i>Operation Parameter Plots</i> window, the line representing the required safety hydraulic heave was incorrect (it used the value given for uplift in the <i>Default-Factors</i> window instead of the value given for hydraulic heave). |
| MDR-1562 & MDR-1635 & MDR-1595 & MDR-1603 | Got an "Invalid floating point operation" message in the <i>Pipeline Configuration</i> window and then all input was lost. |
| MDR-1585 | When a warning message on the ratio H/Do is generated during the calculation, the <i>Report</i> couldn't be opened (got an "Access violation" error). |
| MDR-1670 | Traffic Loads inputted in HDD model were still visible when selecting model Trench. |
| MDR-1554 | Drawing of the pipeline was inconsistent with the geometry. |
| MDR-1701 | Determination of the shear modulus G for the calculation of the maximum drilling fluid pressures in drained layer was incorrect when an undrained layer is present. |

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| MDR-1721 | In <i>Factors</i> window, the <i>Pore pressure</i> was not visible for Direct Pipe model with CEN standard. |
| MDR-1577 | The option <i>Use stress calculation data</i> in the <i>Start Calculation</i> window was only working in batch. |
| MGEOLIB-908 | The warning message displayed when opening old files is corrected. It no longer assumes that an old file was made with version 17.1. |
| MGEOLIB-921 | The send button in the support dialogue does now work for Windows 10. |
| MGEOLIB-941 | The <i>Send to</i> option in the <i>File</i> menu has been removed. |
| DGS-672 & DGS-673 & DGS-674 | Small corrections to user manuals (such as updates for hyperlinks and addresses). |

Improvements

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| | The error message about <i>Traffic Load</i> was not always clear and correct, it is therefore improved: |
| MDR-1688 | <ul style="list-style-type: none"> • The check on the diameter and the depth of the traffic load is performed only for the verticals along a traffic load. |
| MDR-1698 | <ul style="list-style-type: none"> • Traffic load combined with pipe diameter less than 200 or more than 1600 mm gives now a warning message (instead of an error message) and the calculation of the traffic load is performed using a diameter of 200 mm or 1600 mm. |
| MDR-1732 | <ul style="list-style-type: none"> • If the depth below the traffic load is less than 0.8 m, a warning message is displayed (instead of an error message) and the calculation of the traffic load is performed using a depth of 0.8 m. |
| MDR-1699 | <ul style="list-style-type: none"> • A new check for traffic load is added: minimum one vertical must be present along each traffic load. |
| | The content of the <i>Report</i> is improved: |
| MDR-568 | <ul style="list-style-type: none"> • HDD model with traffic loads: a column with the results of the traffic loads per vertical is added in the “Soil Mechanical Results” section of the <i>Report</i>. |
| MDR-1589 | <ul style="list-style-type: none"> • In the <i>Report</i> for Micro-tunneling, section “Subsidence” refer to W but it is not clear what it is. |
| MDR-1637 | <ul style="list-style-type: none"> • The calculated equivalent diameter, equivalent wall thickness and equivalent unit weight for a bundle calculation are now available in the <i>Report</i>. |
| MDR-1584 | <ul style="list-style-type: none"> • Paragraph number of section “Check for implosion” is incorrect. |
| MDR-817 | <ul style="list-style-type: none"> • In the <i>Report</i>, the Y and Z co-ordinates of the entry and exits points of the pipeline configuration are exchanged. |
| MDR-1640 | <ul style="list-style-type: none"> • In the <i>Report</i> in “Material Data”, an incorrect value for the unit weight is displayed. |
| MDR-1636 | <ul style="list-style-type: none"> • After exporting the <i>Report</i> in PDF, the last column of Young’s modulus table is now completely visible. |

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| MDR-1583 | <ul style="list-style-type: none"> • For HDD calculation with option <i>Not ends at surface</i>, the results of the Soil Mechanical and Stress Analysis are now visible in the <i>Report</i>. |
| MDR-1553 | <ul style="list-style-type: none"> • The number of decimals of the “Pump flow rate” is increased to 4. |
| MDR-1739 | In the <i>Start Calculation - Use stress data</i> window, the maximum value for “Modulus of subgrade reaction” is changed to 1 000 000 000 kN/m ³ and the minimum value for “Soil load on top of the pipe” is changed to 0 kN/m ² . |
| MDR-283 | When generating verticals, the existing verticals are not removed and a warning message is displayed if no new verticals were added. |
| MDR-1641 | The check “pipe diameter > 2 times the wall thickness” is added in the <i>Product Pipe Material Data</i> window. |
| MDR-1576 | In the section “Buoyancy Control” of the Report, for the conversion of the forces from kN/m to kg/m, a gravity of 9.81 m/s is now used (instead of 10). |
| MDR-1545 | In <i>Pipeline Configuration</i> window for model <i>Construction in trench</i> , the tab-order is corrected. |
| MDR-1544 & MDR-1529 | In <i>Traffic Loads</i> window, if no traffic load is present, the sub-window <i>Load model</i> is grayed and the layout of the window is improved. |
| MDR-1504 | Restarting a calculation after fixing an error does now work directly. |
| MDR-999 | In the <i>View Input</i> window, the zoom is now kept when switching from the <i>Geometry</i> tab to the <i>Input</i> tab and vice-versa. |
| MDR-1580 | The block names of the input file are improved. |
| MDR-1289 | The structure and the content of the dumpfile (*.drd) is improved: |
| MDR-1576 | <ul style="list-style-type: none"> • Results in table format are written in a new block [TABLE]. |
| MDR-1596 until MDR-1599 | <ul style="list-style-type: none"> • The result of the buoyancy control is written in the dumpfile. • The warning messages displayed during a calculation are written in the dumpfile. |
| MDR-1575 | <ul style="list-style-type: none"> • The maximum soil stress given at the end of section “Soil mechanical data” in the <i>Report</i> is written in the dumpfile. |
| MDR-1678 | <ul style="list-style-type: none"> • The traffic load is written in the [SOIL MECHANICAL DATA PER PIPE] block of the dumpfile. |
| MDR-1570 | <ul style="list-style-type: none"> • The calculated volume loss for micro tunneling is written in the dumpfile. |
| MDR-1569 | <ul style="list-style-type: none"> • The results of subsidence are written in the dumpfile. |
| MDR-1648 & MGEOLIB-951 MGEOLIB-957 & MGEOLIB-960 & MGEOLIB-963 & MGEOLIB-969 | License structure has been changed: within a application there are no longer modules, all released features are now available for all users. The new License tab is adapted to the new licensing structure (including borrowing). |
| MINSTALL-897 | All installers now give a correct error message when the common files are missing or too old. |

DGS-653 &
DGS-655 &
DGS-657

Small improvements for the new licensing system including a new watermark for pictures and reports made with evaluation versions.

User manual

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| MDR-1694 | The User Manual is updated for removing modules (see improvement MDR-1648). |
| MDR-1676 | Some explanation are added in paragraph “25.2.2 Maximum allowable drilling fluid pressure in drained layers” about the determination of the soil parameters. |
| MDR-1736 | The steps of the tutorials are improved. |
| MDR-1607 | Two figures are incorrect (Tutorial 12). |

Verification report

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| MDR-1471 | New benchmarks (4-3 and 3-31) have been added for HDD to test the use of the high and low values for the soil parameters. |
| MDR-1592 | The results of the volume loss have been added for the Micro-tunneling benchmarks. |
| MDR-1619 & MDR-1620 | The results in section “Material Data of Pipe” and “General Data” in chapter “Stress Analysis” of the <i>Report</i> have been added for all HDD benchmarks. |
| MDR-964 | A new benchmark (3-32) have been added for the calculation of the Young’s modulus from E_{100} . |