

Analysis Tools

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Overview



T3RRA Cutta Desktop offers several tools for analysis beyond what is included in our In-cab packages. These tools allow the user to further analyze and understand how their design will perform once implementation has been completed.

Circle Guide - Creates a circle for reference on the surface.

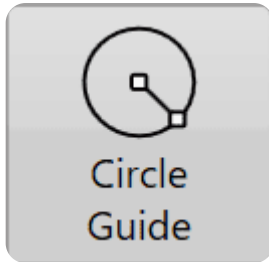
Elevation Grid - Overlays a grid with elevation values at each junction.

Flow Paths - Overlays arrows in a grid pattern that show the estimated direction of flow at each junction.

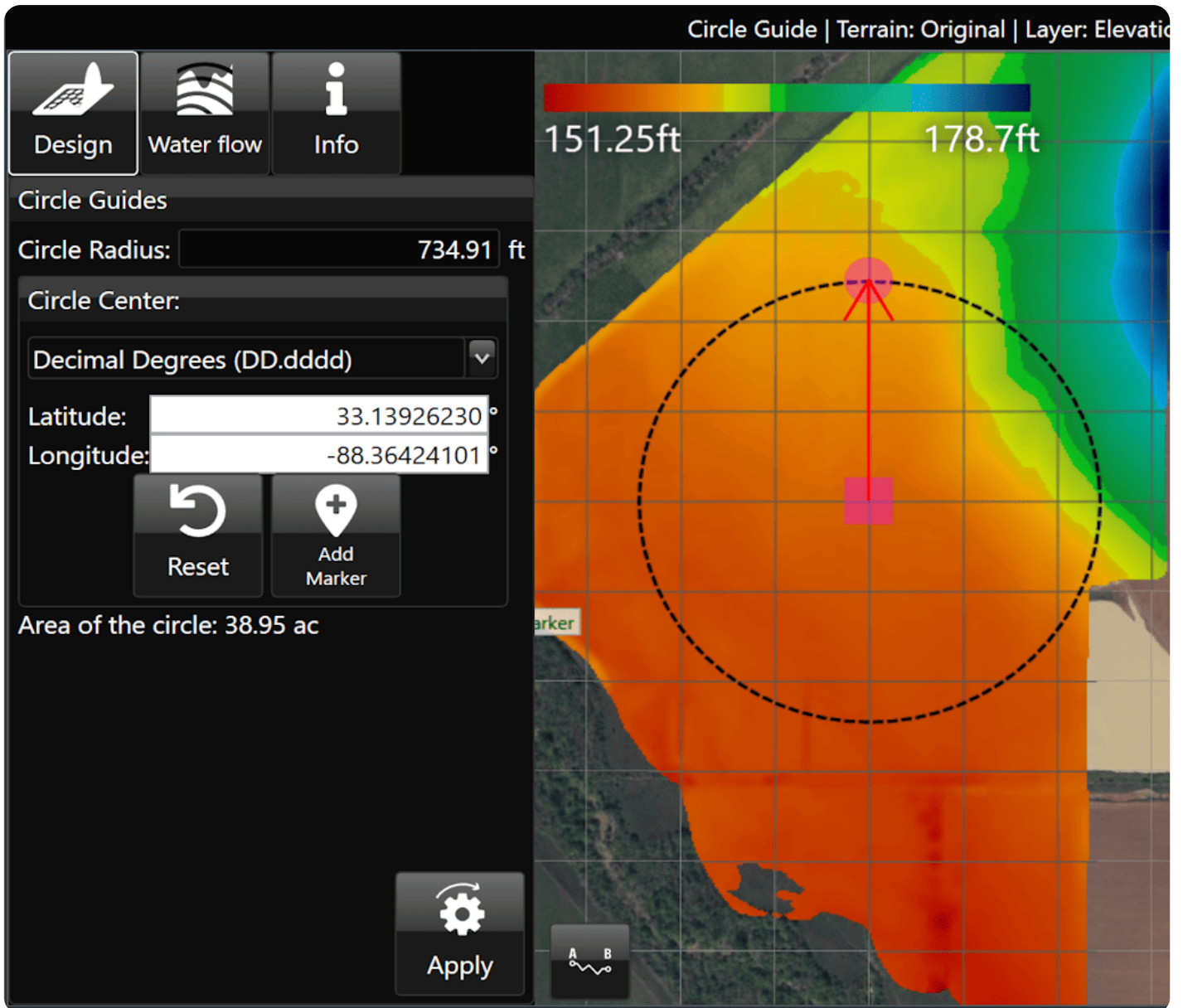
Watershed - Identifies the areas of the surface that will flow together to the same exit point on the field.

Edit Markers - allows you to view, edit, and create markers on the elevation surface.

Circle Guide

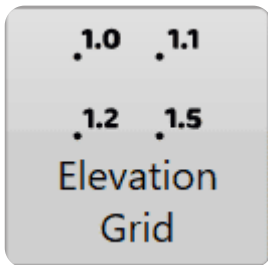


The 'Circle guide' tool will display the radius and total area covered by the set circle. To use the tool, drag the square center marker of the circle to the desired point or enter the coordinates. Then, click on the node at the perimeter of the circle and drag it in or out until the desired radius is achieved. Alternatively, you can enter the circle radius if it is known. Hit apply to overlay the circle outline onto the map.



Here is a video on the [Circle Guide Tool](#).

Elevation Grid



The 'Elevations guide' imposes a grid design on a field in the working area and displays the elevation of points at each junction on the grid.

- 'Grid cell size'. This option controls the size of the grid. Setting the size to 100m will result in each junction being 100 meters away from its neighbors.
- 'Alignment angle' is a method of rotating the grid.
- 'Decimal places'. Sets how many decimal places will be visible on the grid values.
- 'Show Raw Elevations' and 'Show offset from mean elevation': These options will adjust what data is present on the grid.

Elevation Grid | Terrain: Original | Layer: Elevati

Design | **Water flow** | **Info**

Elevation Grid

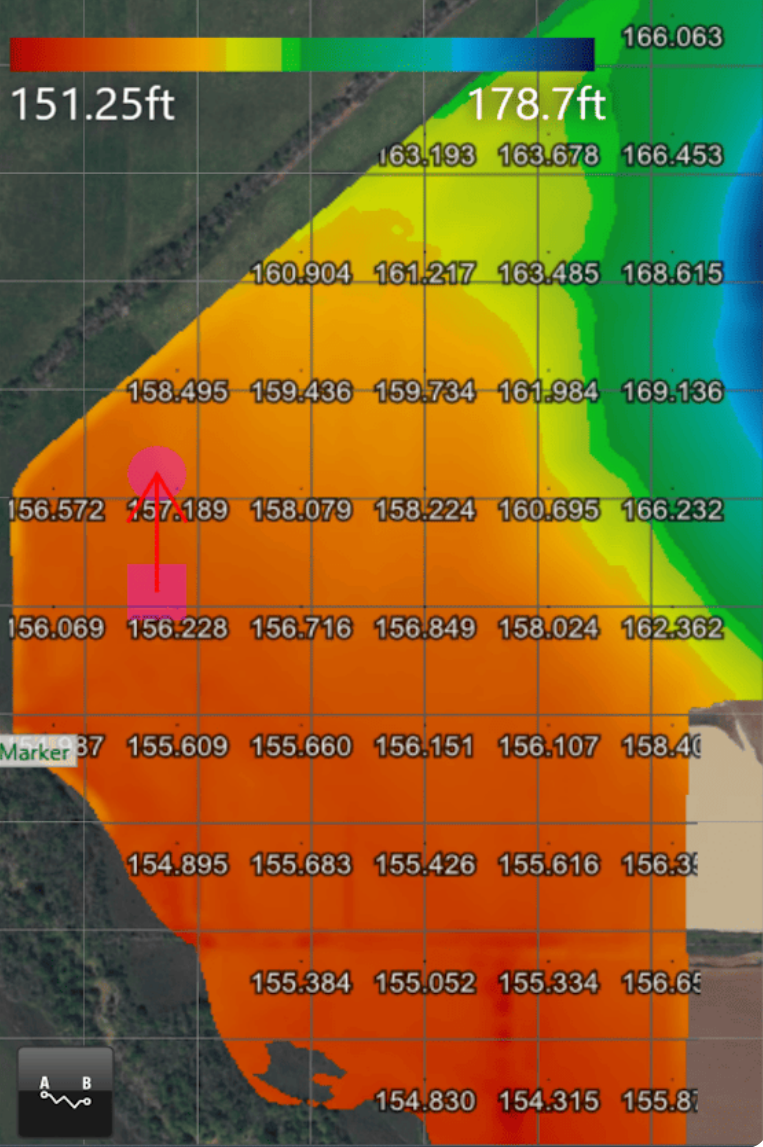
Grid size: ft

Alignment angle: °

Decimal places:

Show Raw Elevations
 Show offset from mean elevation

Remove | **Apply**



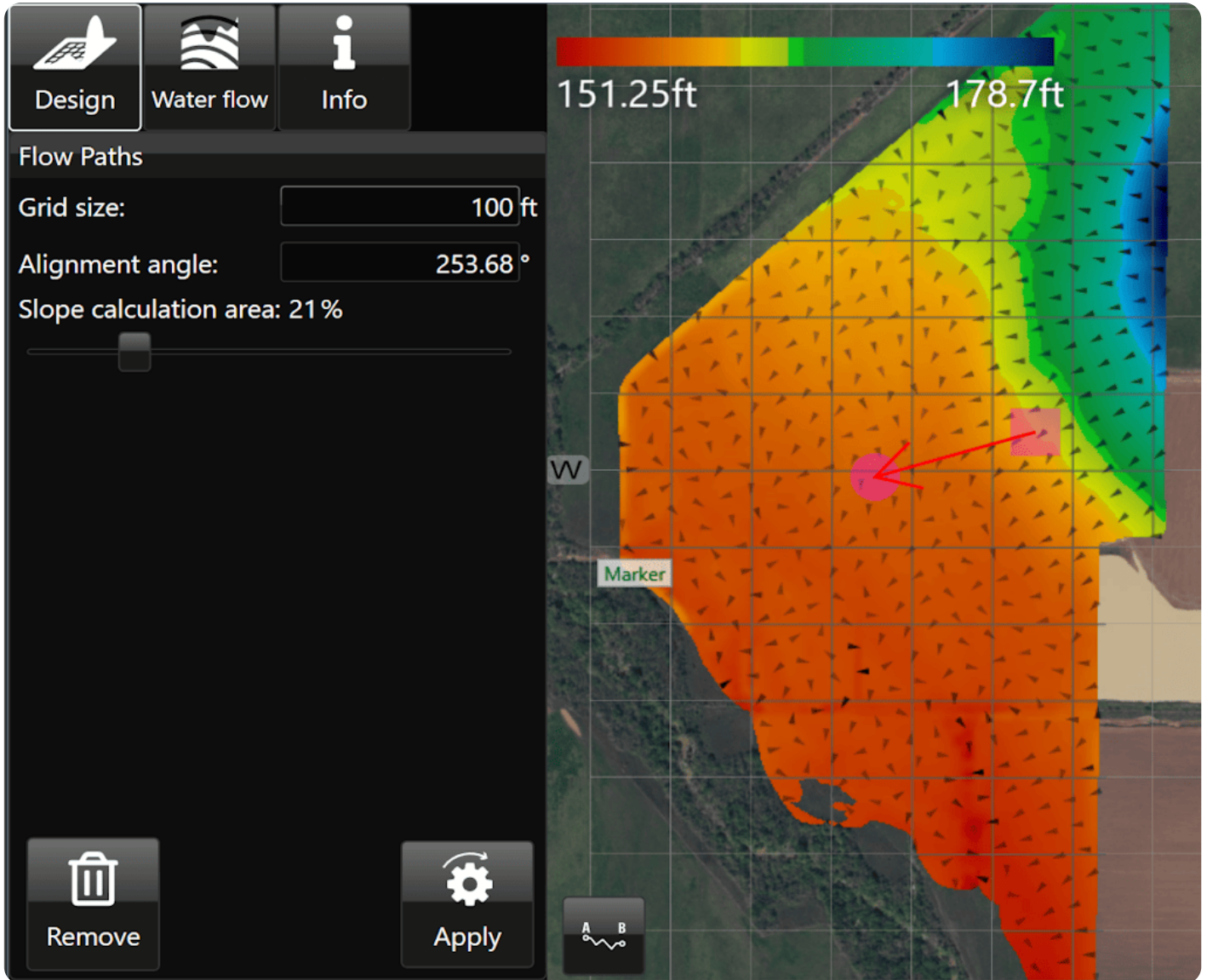
Row	Col 1	Col 2	Col 3	Col 4	Col 5
1	151.25ft				178.7ft
2		163.193	163.678	166.453	
3		160.904	161.217	163.485	168.615
4		158.495	159.436	159.734	161.984
5	156.572	157.189	158.079	158.224	160.695
6	156.069	156.228	156.716	156.849	158.024
7	Marker 37	155.609	155.660	156.151	156.107
8		154.895	155.683	155.426	155.616
9		155.384	155.052	155.334	156.65
10			154.830	154.315	155.87

Flow Paths



'Flow Paths' creates a grid on the field with arrows at each junction that point in the direction that water is expected to flow.

- 'Grid size'. Adjusting this value will make the individual squares of the grid larger or smaller.
- 'Alignment angle'. This option allows you to change the direction of the grid. The direction is set as the position of the yellow circle in relation to the yellow square.
- 'Slope calculation area'. The further to the right that the slider is, the larger the area that T3RRA Cutta Desktop takes as a sample to find the water flow direction.



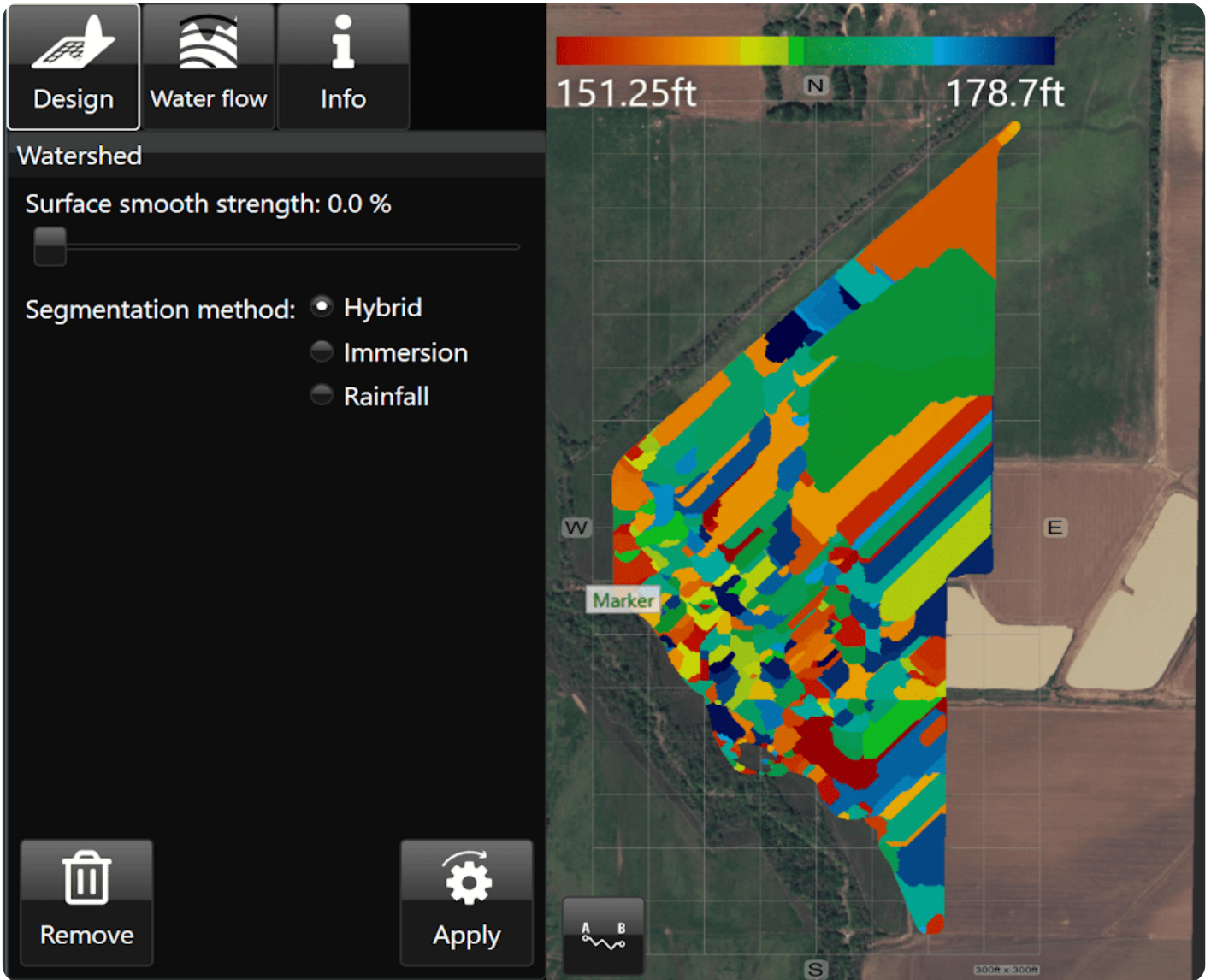
Here is a video on the [Flow Paths Tool](#).

Watershed



The Watershed tool identifies the areas of the surface that will flow together to the same exit point on a field. The working area will display the surface in a patchwork of colors, these indicate your watersheds and what will flow out where. The specific colors do not matter, they are only to help identify individual watersheds.

- 'Surface smooth strength' provides control to adjust the level of detail on the surface.
- 'Segmentation method' will select a general water event to display watersheds. The options are:
 - Hybrid - Immersion and Rainfall event happening simultaneously.
 - Immersion - submersion of the surface by water as it engulfs the area as in a flooding event.
 - Rainfall- a fall or shower of rain.



Here is a video on the [Watershed Tool](#).

Edit Markers









'Edit Markers' allows you to view, edit, and create markers on the elevation surface. Each marker is listed by name and includes the Latitude/Longitude as well as the elevation. **Markers** can be moved, renamed, or deleted as desired. Additionally, coordinates and elevation can be entered manually.

Edit Markers | Terrain: Original | Layer: Elevation

Design Water flow Info

Markers

Culvert   

Rock   


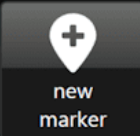
Cursor location

Decimal Degrees (DD.dddd)

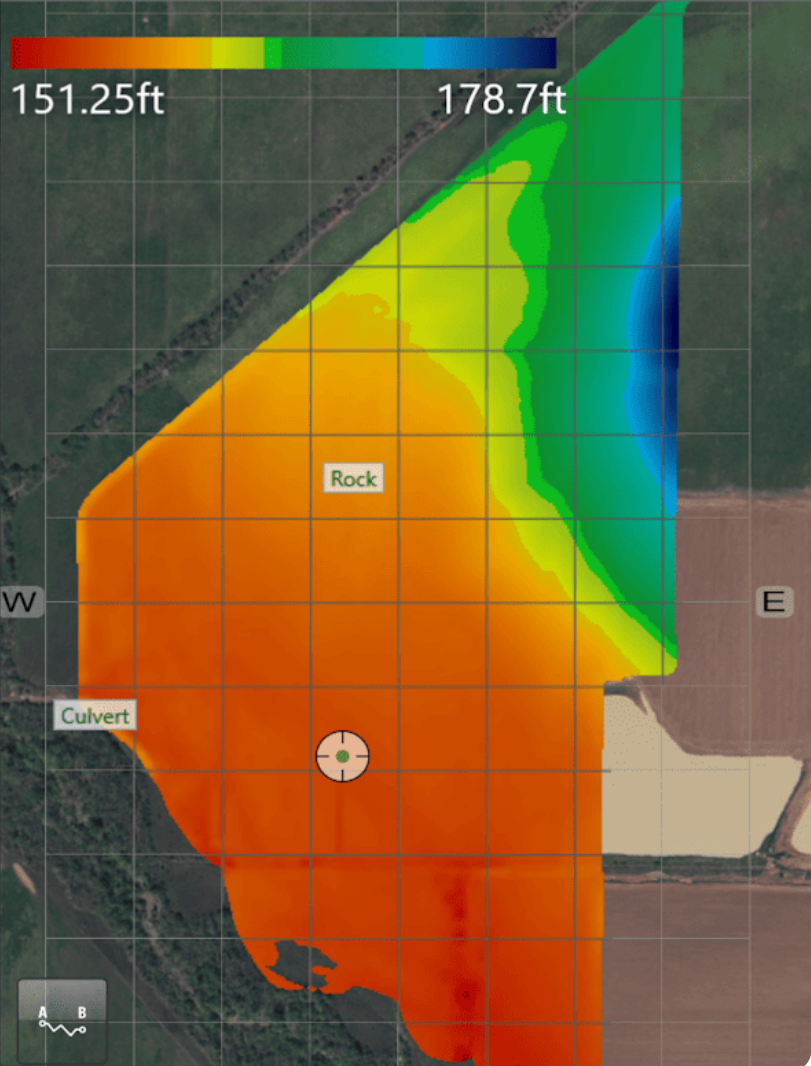
Latitude: °

Longitude: °

Elevation: ft

Reset new marker



151.25ft 178.7ft

Rock

Culvert

W E

A B