UMmaps GPS Configuration Manual

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GPS Configuration

GPS Base Positioning

GPS Operational Settings

Advanced GPS Device Settings

GPS Device Config.
GET IT ON
Google Play
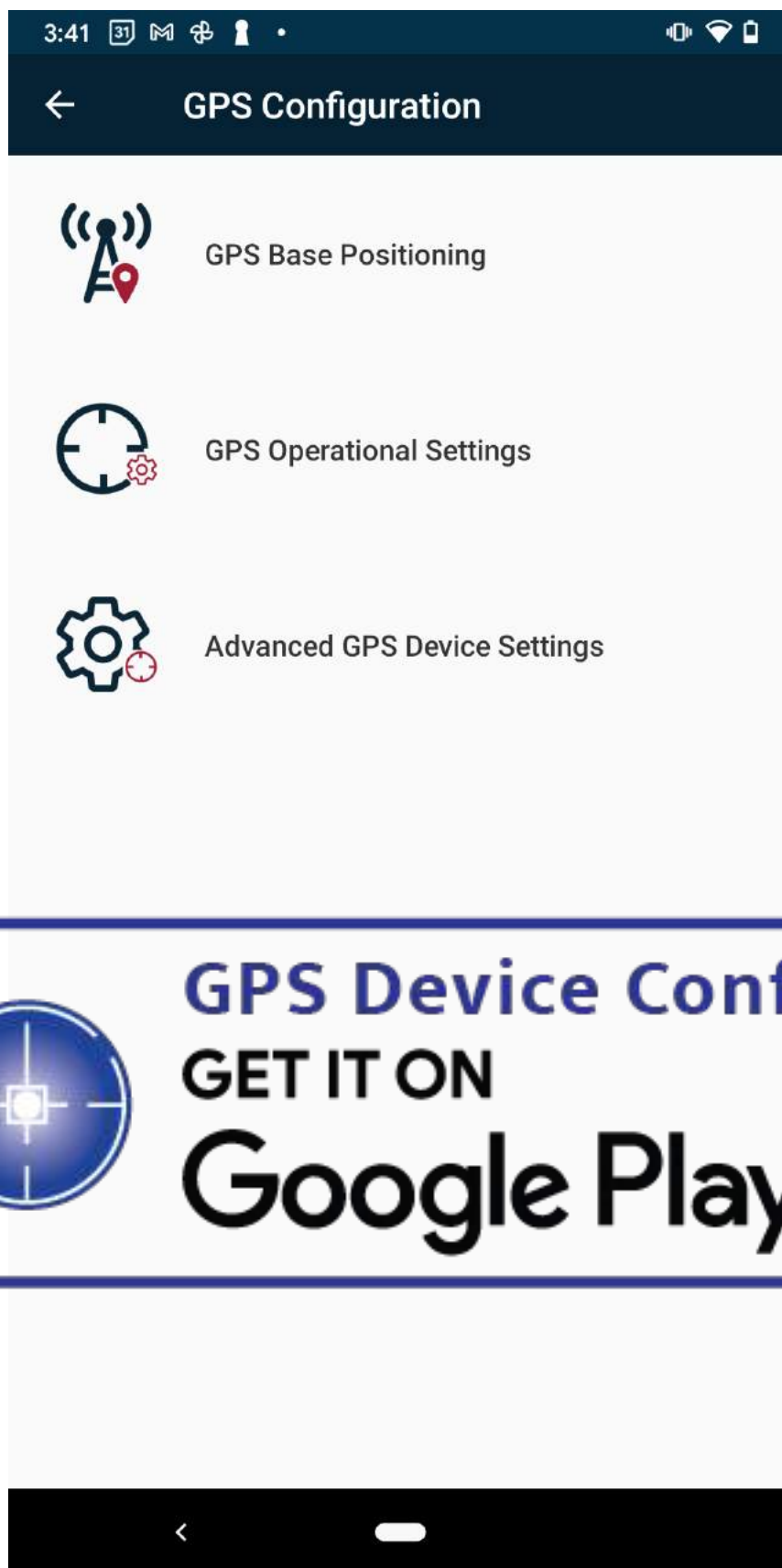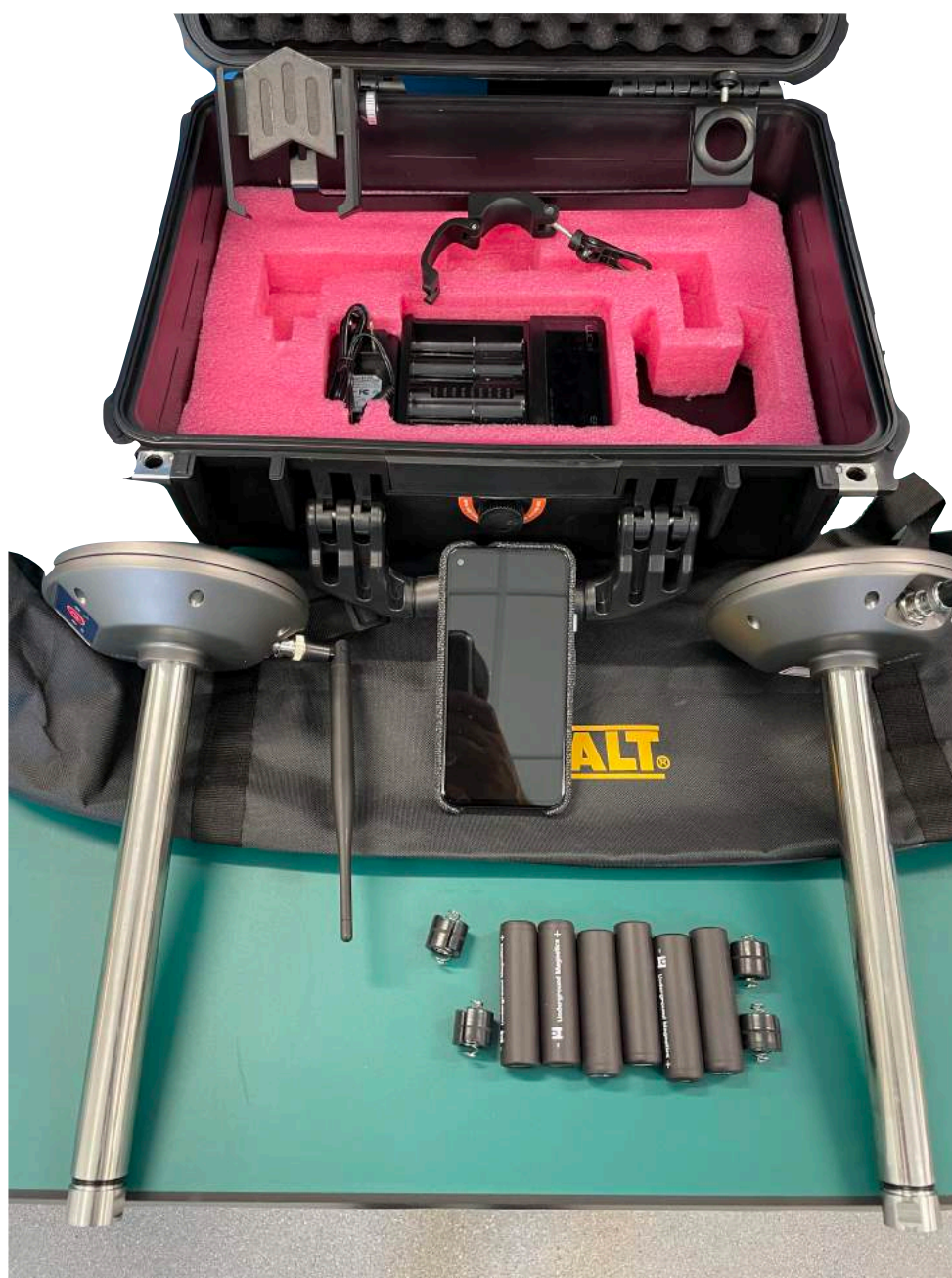
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When you receive the UMmaps GPS kit, included are two GPS receivers each with a battery tube compartment, six batteries and 4 battery spring spacers. Screw the battery tubes onto the GPS. Unscrew the battery tube end caps and install the batteries positive side down or toward the GPS receiver. The battery spring spacers are placed between each battery.

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STEP 1

If you have purchased a complete GPS package from UM, the GPS and UMmaps apps will already be installed on the phone that is include in the package. If you are using your own phone or tablet, you will need to download the apps from the Google Play Store. Android 11 operating system or higher is required.

Download GPS configuration app at Google Play Store: **UMmaps - GPS**
Download UMmaps app at Google Play Store: **UMmaps**

The UMmaps GPS system uses two GPS receivers, one as a Base Station and one as a Rover connected to the UM locating system. Using the Base Station as correction, the Rover will then have GPS Google maps location with accuracy as close as 3 inches left and right. This manual will go through step by step the procedure for setting up the Base Station, Rover, UM locator and connection to UMmaps App.

Connecting UM locator to phone

When you receive your UMmaps GPS system, the phone which is used for recording the data will be connected via Bluetooth to both the Base Station GPS and Rover GPS. You will want to connect your UM receiver to the phone before moving to the next steps.
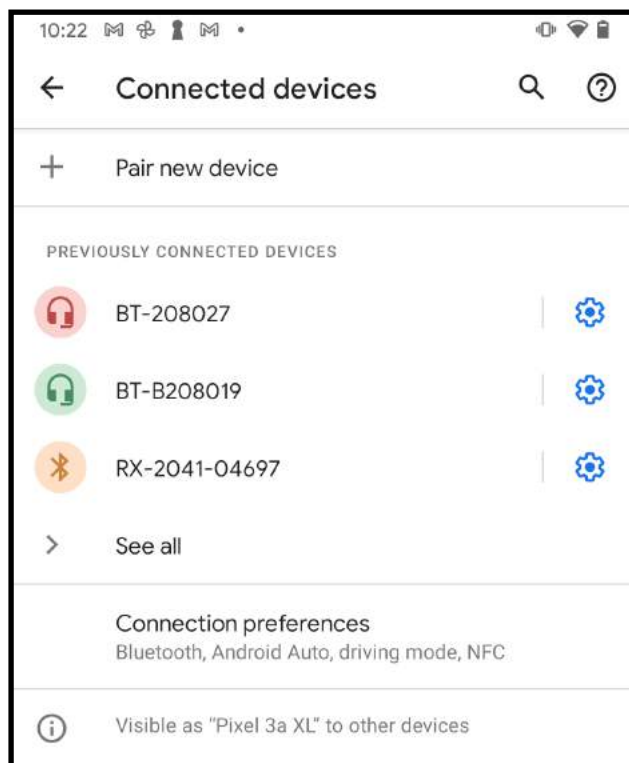

To connect your locator, turn your Mag locator on and have it set to the locate screen. Open the settings tab on the phone and tap on Connection preferences. Tap pair new device and wait for the phone to find your locator. You'll see a device code that starts with RX and your receivers serial number. Press pair and when finished, close the settings tab.

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STEP 2

Establishing Base Station Position on Bore Path
To setup the Base Station on the bore path. First find a landmark that is visible on Google Maps that is close to or in line with your bore path. Examples of landmarks would be fire hydrants, manhole covers, corners of sidewalks etc. Set your tripod with the Base Station over your landmark and turn the Base GPS on. (1) Open the GPS Configuration App (2) and tap on GPS Base Positioning. (3)

| 1 | 2 | 3 |
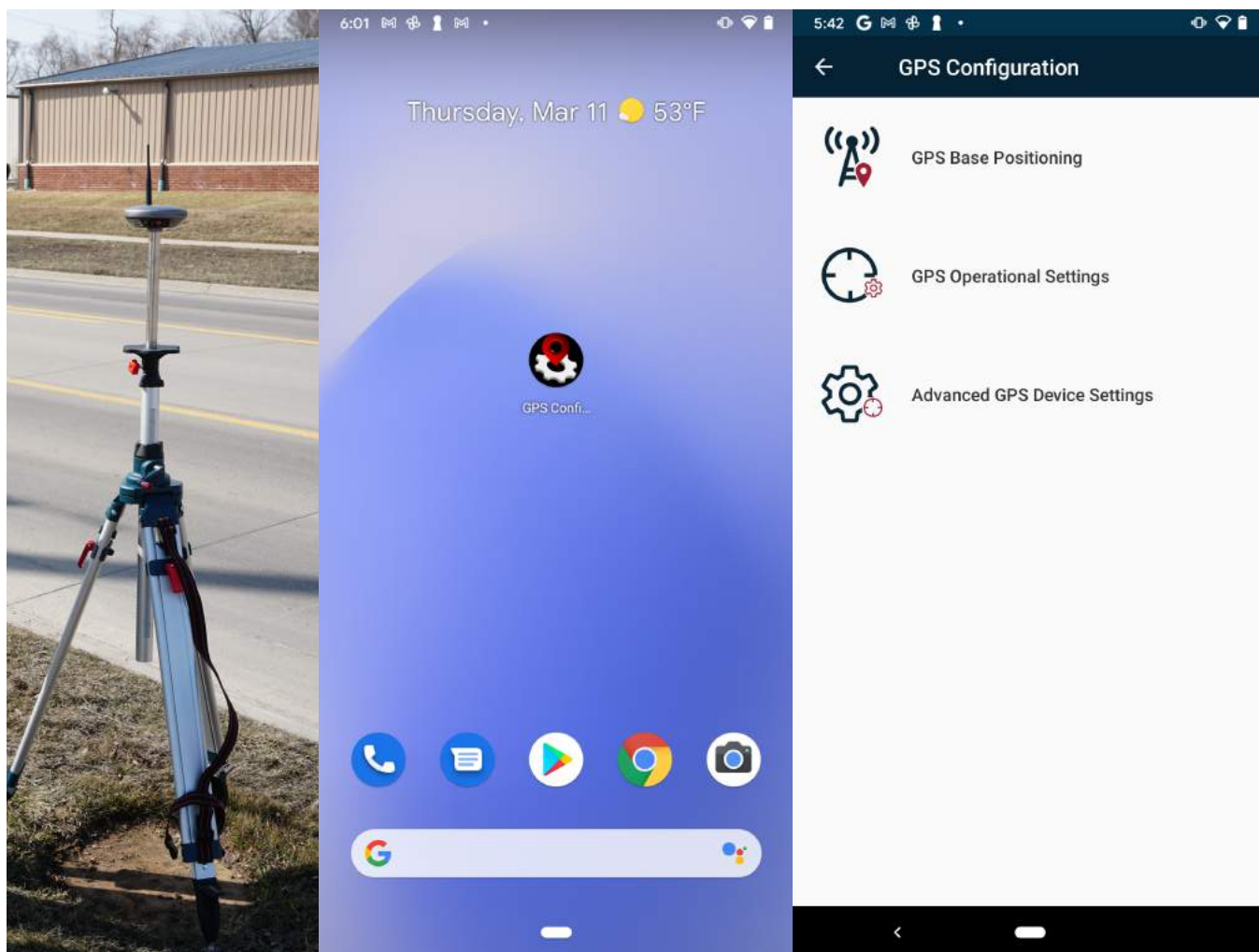
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STEP 3

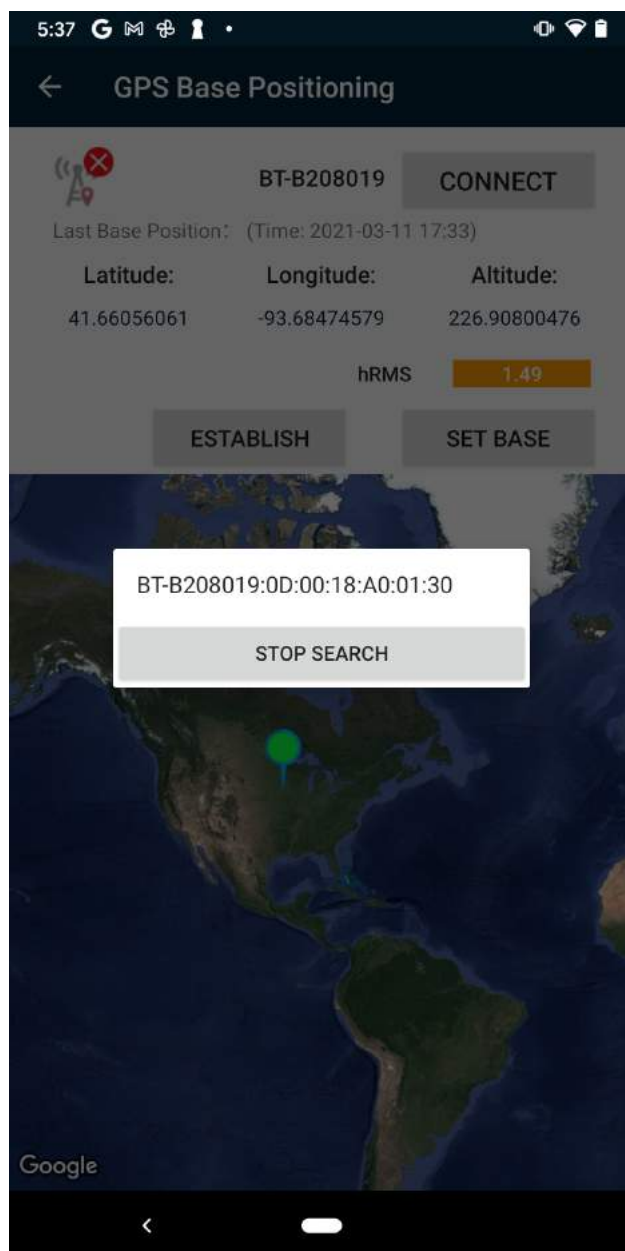**Establishing Base Station Position on Bore Path Cont.**
If not already connected to the Base Station, press the connect button (1), then tap on the BT-B208019 to connect. (Serial number of your Base) (2)

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STEP 4

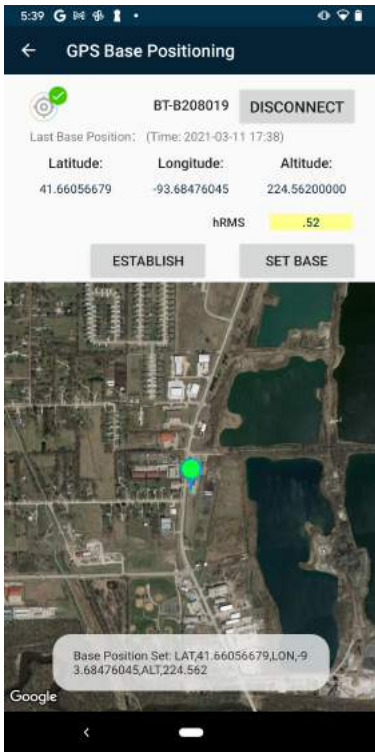### Establishing Base Station Position on Bore Path Cont.

Once connected to the Base Station, Tap the **ESTABLISH** button and wait for 3 minutes for GPS to establish location. (1) Once the hRMS reading is below 1.0, tap the **SET BASE.** (2) The map should zoom in to your location and both the establish and set button will highlight again. (3)


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STEP 5

Establishing Base Station Position on Bore Path Cont.
Zoom in to the location of the green dot by pinching the screen. (1) Your location should be close to the landmark. (for reference, the landmark in this manual was placed some distance away for illustration purposes.) With your finger or a stylus, touch the green dot and move it as close as possible to your visual landmark. The dot will turn red during the movement. (2) Once you have your location correct over the landmark, tap the **SET BASE** again and the red dot will turn green and the position over the landmark will remain there. You've now manually corrected your Base location and your data points when recorded will reflect the correction while viewing Google Maps. (3) Tap the back arrow to set GPS Operational Settings (Radio communication between Base and Rover).

1   2   3
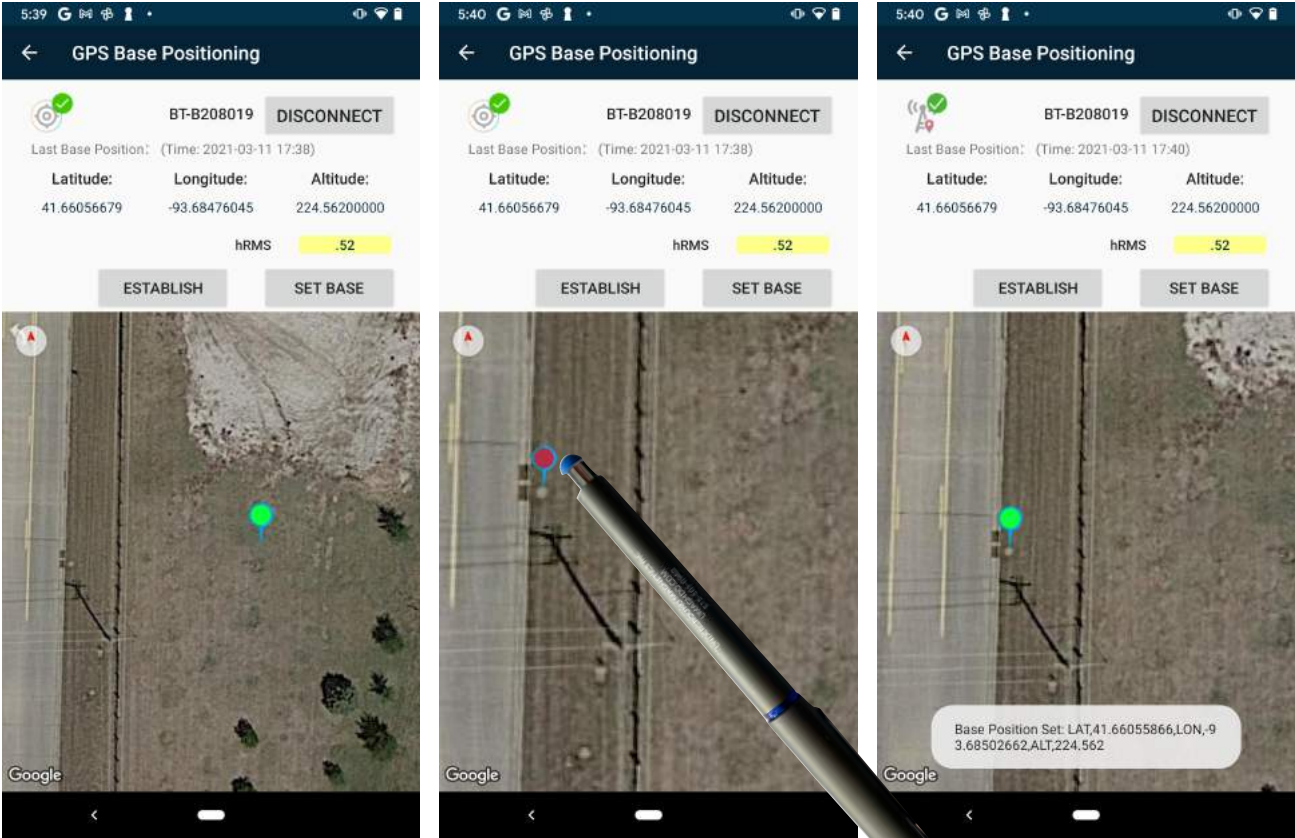
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STEP 6
Establishing Base Station Position on Bore Path Cont.
Press GPS Operational Settings. (1) If the Rover is not connected, make sure the GPS Rover is on and press Connect. (2) Tap BT-208027 (Serial number of your Rover) (3) Make sure you have three green check marks. The app will choose a radio frequency to communicate between the Rover and Base. You may choose a different frequency by tapping one of the 8 communication channels. (4)

1	2	3	4
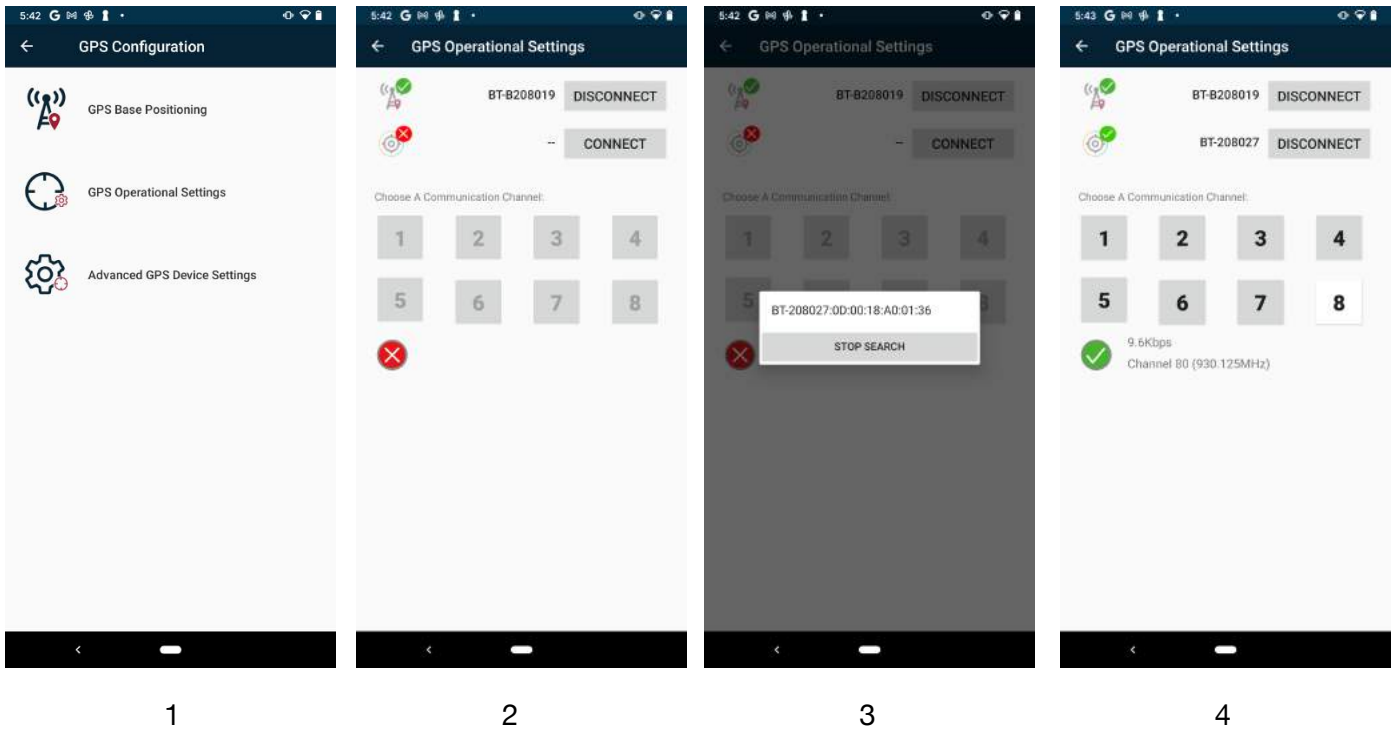
If the bore length requires the base to be moved during the boring process, follow these steps. 1. Leave Umag receiver at last data point. Take phone and base to new location and turn the GPS Base off and back on. Follow steps 2 through 5 to establish new location for base. There is no need to reconnect the RF signal between Base and Rover as this will start receiving data from Rover once unit is switched back on.
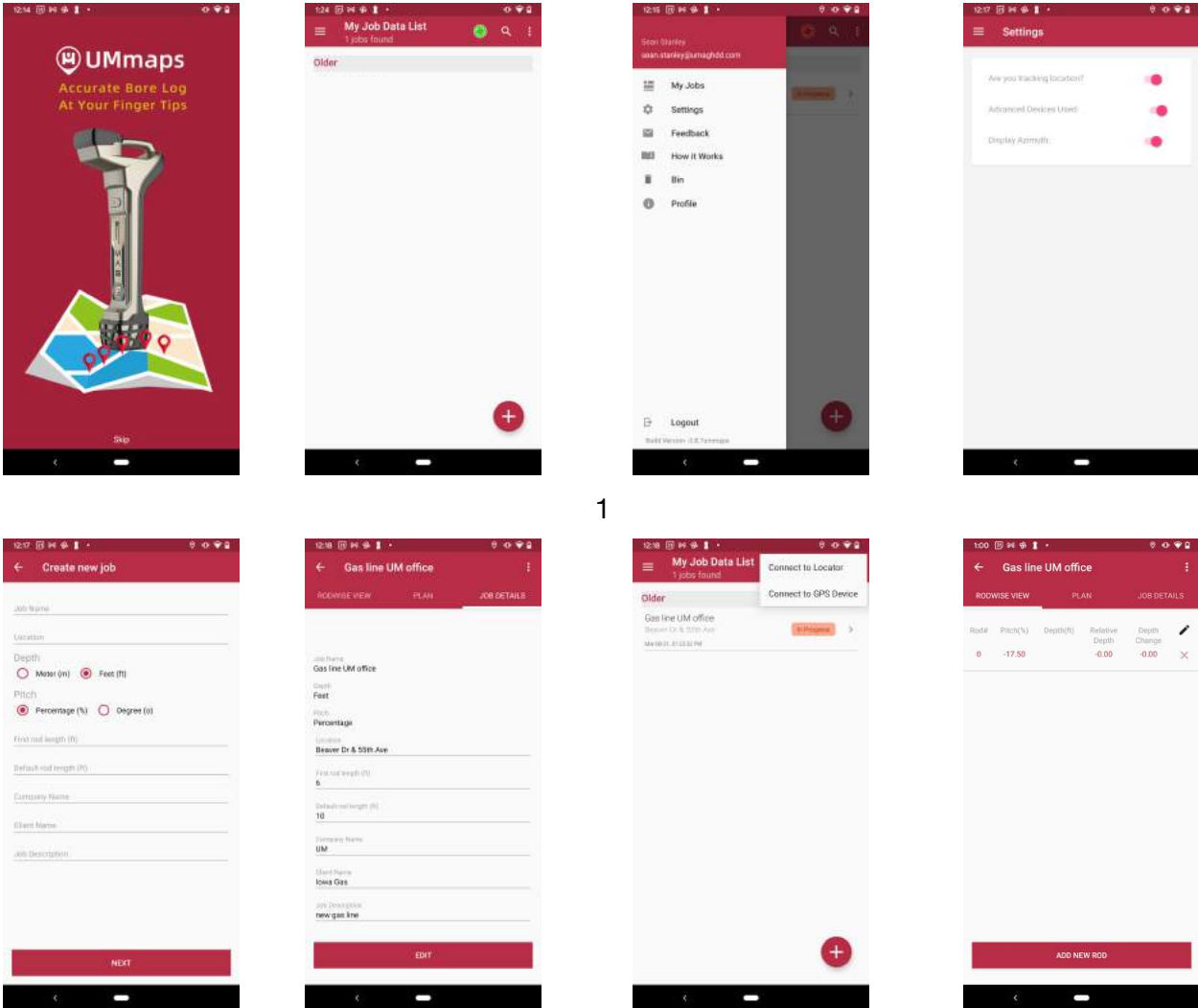
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STEP 7

Start New Job

Now that the GPS is set, you may close the GPS configuration app and open the UMmaps app. Go to settings by tapping the three bars in the upper left corner of your UMmaps app and turn on all tracking and advanced devices settings. (1) Back to My Job Data List to setup a new Job. Press the (+) at bottom right to open "Create new job". Fill the data in and press next. Tap upper right three dots and connect both the locator and GPS Rover to the app via bluetooth. (2)

For more information on recording data with UMmaps app, see UMmaps manual which can be downloaded from the website.

1

2

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Once you have your UMmaps app open and configured for your next bore. You can use the Pre Bore Planning tool in the app to create a birds eye view of your bore before starting. To create the plan, from the Rodwise View, tap on "PLAN". (1) Place your locator at the starting point of your bore path and press "SET START". (2) At any point along the bore path, tap "WAY POINT" to set location of utilities or a change in the bore path. (3) When finished, tap "SET END" to finish the bore path plan. (4)

| 1 | 2 | 3 | 4 |
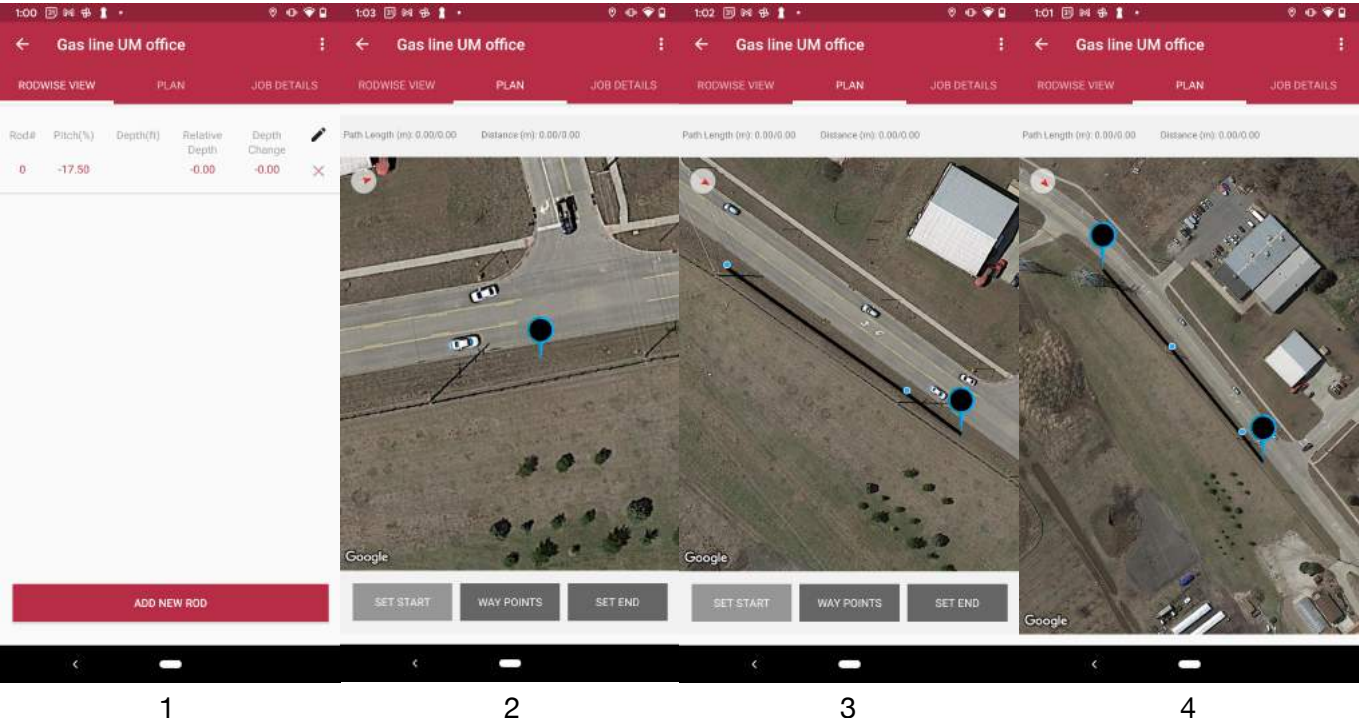
You are now able to check your drilled path to that of the bore path plan at any time during the drilling process by tapping the map icon.   Bore Plan in black and recorded bore path in blue below.