**BRIEF EXPLANATION OF THE RAW DATA HEADERS THAT WERE GIVEN AS AN EXCEL FILE**

1. S/N: Serial Number – a simple index or counter for each row/record.
2. Timestamp: The date and time the measurement was recorded.
3. Longitude: The geographic coordinate (east-west position) where the data was captured.
4. Latitude: The geographic coordinate (north-south position) where the data was captured.
5. Speed: The vehicle's speed at the measurement time during the drive test (typically in km/h).
6. Operator name: The name of the mobile network operator (e.g., Globacom).
7. Operator: The numeric code representing the mobile network operator (MCC+MNC).
8. CGI: Cell Global Identity – a unique identifier for a cell in the network.
9. Node: The unique ID representing the base station serving the signal.
10. Cell ID: The unique identifier for the specific sector or cell of the Node.
11. LAC: Location Area Code – a grouping of cells used for location tracking and mobility management.
12. Network Tech: The radio access technology (e.g., LTE, WCDMA, GSM).
13. Distance (m): In meters, the distance from the device to the serving cell.
14. RSRP (dBm): Reference Signal Received Power. Which is the measured LTE signal strength.
15. Qual: A general quality metric; may refer to signal quality depending on the radio access technology.
16. SNR: Signal-to-Noise Ratio – indicates the clarity of the signal relative to noise.
17. ARFCN: Absolute Radio Frequency Channel Number – identifies the radio frequency channel.
18. PSC: Primary Scrambling Code (used to distinguish cell transmissions).
19. Altitude: The height above sea level at the measurement point.
20. Accuracy: The estimated accuracy of the GPS coordinates (in meters). Accuracy given as 1 m means the logging app believes the proper location is within approximately ±1 meter of the reported latitude/longitude.
21. Location: Human-readable name or address of the location (if reverse geocoded). The ‘G’ means ground.
22. Data Connection Type: The type of data connection (e.g., Mobile or WiFi).
23. Data Connection\_Info: Additional APN or session details. Seeing 1000 in DataConnection\_Info means “the phone uses the APN whose internal database ID is 1000.
24. Layer: OSI or protocol layer being probed (e.g. L1).
25. IP: IP address assigned to the mobile device.
26. TA: Timing Advance – indicates the device's distance from the cell in time units.
27. SERVING TIME: Duration for which the device remained connected to the serving cell (in seconds).
28. CELLHEX: Hexadecimal representation of the Cell ID.
29. NODEHEX: Hexadecimal representation of the Node ID.
30. LACHEX: Hexadecimal representation of the LAC.
31. RAWCELLID: Combined or complete representation of Cell ID, including Node and sector.
32. VERSION\_NAME: The version name of the GNetTrack Pro app used for testing.
33. VERSION\_CODE: The version code of the GNetTrack Pro app.
34. DEVICE: The mobile device model used for the test.
35. BAND: The frequency band used (e.g., Band 3, Band 20, Band 41).
36. BANDWIDTH: The channel bandwidth used by the connection (e.g., 10 MHz, 20 MHz).
37. Network Type Num: A numeric representation of the network type.
38. CA: Carrier Aggregation status (whether CA is active or not).
39. BATTERY: Battery level of the device at time of measurement (in %).
40. CHARGING: Indicates whether the device was charging (true/false).
41. FOREGROUND: Indicates whether the GNetTrack Pro app was in the foreground (true/false). True if it is foreground, while false if it is in the background.