

KIBALI GOLD MINE

SCOPE OF WORK FOR GPS TRACKING SYSTEM

Document Title	Scope of work for Additional GPS Tracking System
Project Lead	Melchi Mulaba
Department	Engineering
Date of Service Required	ASAP
Service Term	1 Year
Number of Assets	300

1. INTRODUCTION

1.1 Company Presentation

Kibali Gold Mine is one of Africa's largest gold mining operations located in the north-eastern region of the Democratic Republic of Congo. The mine operates both open-pit and underground mining activities supported by processing plants, power generation facilities, workshops, warehouses, transport systems, and administration facilities.

The operation utilizes a large fleet of mobile equipment including light vehicles, buses, tractors, heavy-duty trucks, generators, cranes, service vehicles, and other specialized mining equipment to support production and workforce transportation.

Kibali Gold Mine is committed to maintaining world-class operational standards with a strong focus on safety, security, operational efficiency, and environmental compliance.

1.2 Background

Kibali Gold Mine relies heavily on mobile equipment for mining operations, workforce transportation, logistics support, maintenance activities, and emergency response operations.

Considering that mobile equipment forms part of the site's Critical Risk Management and Fatal Risk Control systems, the mine continuously improves its safety systems and operational controls by advanced technologies.

The implementation of an advanced GPS Tracking and Fleet Management System is required to strengthen operational safety, improve visibility of fleet operations, optimize maintenance planning, and enhance workforce protection.

1.3 Objective

The objective of this project is to implement an advanced GPS Tracking and Fleet Management System including a centralized monitoring and control room to :

- Improve fleet safety and security
- Monitor driver behavior and fatigue
- Improve workforce transportation safety
- Monitor operational efficiency of mobile assets
- Improve incident investigation capability
- Reduce unauthorized vehicle usage
- Enhance reporting and operational visibility

1.4 Justification

The implementation of a modern GPS Tracking and Fleet Management System will improve the mine's capability to monitor mobile assets in real time and proactively manage operational risks.

2. KEY ASSUMPTIONS

The successful contractor shall demonstrate and ensure the following:

- Possesses the necessary technical expertise, resources, and organizational capability to successfully execute the project
- Employs qualified, competent, and certified personnel with proven experience in GPS tracking and fleet management systems
- Has previous experience implementing similar solutions within mining, industrial, or heavy-equipment operating environments
- Has the capacity to provide both on-site and remote technical support throughout the contract period

- Can supply reliable, high-quality equipment compliant with mining operational standards and harsh environmental conditions
- Can provide installation, commissioning, training, maintenance, and troubleshooting services in accordance with Kibali Gold Mine operational requirements
- Has the ability to ensure system reliability, scalability, data security, and long-term operational sustainability
- Comply with all applicable safety, environmental, and operational standards required for work within a mining environment

3. CONTRACTOR RESPONSIBILITIES

The contractor shall supply, install, configure, commission, maintain, and support a GPS Tracking and Fleet Management System with the following minimum functionalities:

Hardware Requirements:

N*	Feature	Description	LV	HV
1	Backup battery	<i>Battery Life of at least 1 month when unplugged</i>	✓	✓
2	Local data storage	<i>In the event of a network outage, the tracking device must be able to store all the data and send it once network is operational</i>	✓	✓
3	Driver ID	<i>The tracking device must be able to read RFID cards for driver identification</i>	✓	✓
4	Panic Button	<i>The driver should be able to send an SOS to ask for help</i>	✓	✓
5	Network GSM/GPRS	<i>The unit should be able to send and receive data via SMS GPS or Internet data connection</i>	✓	✓
6	Buzzer	<i>The device should have an audible warning which should be customizable by the user</i>	✓	✓
7	Remote immobilizer	<i>The tracking device must interrupt the starter and receive remote stop signal.</i>	✓	✓
8	Satellite communication	<i>The device should be able to update the position even without GSM</i>	✓	✓
9	Speedometer reader	<i>For UG vehicles, the tracker should have a speed sensor to accurately read the vehicle's actual speed</i>	✓	✓
10	CAN BUS (OBD II)	<i>Device should be able to connect to vehicle CAN BUS Network</i>	-	✓

Software Requirements:

N*	Feature	Description	LV	HV
1	Accident Detection	<i>The GPS tracking system should be able to differentiate an incident from a High Ge-force, from Severe Ge-force, from Hash Braking, from Harsh cornering, from Harsh bump, Rollover, etc.</i>	✓	✓
2	Alarm Priority	<i>The user must be able to personalize the alarms, define an order of appearance (Very High, High, Medium, Low) and assign them a color.</i>	✓	✓
3	Real Time Tracking	<i>Service proactively manages drivers in real-time.</i>	✓	✓
4	Historical Tracking	<i>The user should be able to go back in time and play trips and pull reports.</i>	✓	✓
5	Driver management	<i>Identification, Assignment, driving license management,</i>	✓	✓
6	Driver behaviors	<i>The system should keep track of driver behaviors</i>	✓	✓
7	Geofencing	<i>The user should be able to set up Geo-fence (Free zone, No-go, Preferred zone) Speed related zones</i>	✓	✓
8	Remote immobilizer & De-immobilizer	<i>The user should the able to immobilize a vehicle remotely.</i>	✓	✓
9	User-friendly Map	<i>Updated Google map, Heat Map (High risky area based on alarms)</i>	✓	✓
10	User account management (Admin & user)	<i>The system should be multi-user, should provide a way to setup privileges and access rights to users.</i>	✓	✓
11	Trip replay	<i>A user should be able to play a trip on a certain date back in time (1year)</i>	✓	✓
12	Automated reports (Scheduling)	<i>The user should be able to schedule reports (Daily, weekly, Monthly, Biweekly, etc.)</i>	✓	✓
13	Dashboard (KPI)	<i>Key Performance Indicator</i>	✓	✓
14	Reporting services	<i>create, deploy and manage reports, as well as programming functions to extend the standard reporting functionalities</i>	✓	✓
15	Warning beep	<i>Warning beep based on the speed limit of an area</i>	✓	✓
16	Following distance monitoring	<i>Following distance monitoring</i>	✓	✓

Reporting Requirements:

N*	Feature	Description	LV	HV
1	Daily event reports	<i>Summary of all fleet activities and events recorded each day</i>	✓	✓
2	Vehicle utilization reports	<i>Tracks vehicle usage based on distance traveled, Drivers and operating days.</i>	✓	✓
3	Overspeed reports	<i>Identifies vehicles and drivers exceeding speed limits.</i>	✓	✓
4	Driver behavior reports	<i>Monitors driving habits such as harsh braking, acceleration, and cornering.</i>	✓	✓
5	GPS health reports	<i>Shows the operational status and connectivity of GPS devices.</i>	✓	✓
6	Alarm reports	<i>Lists all triggered alerts such as panic, geofence, or safety violations.</i>	✓	✓
7	Incident investigation reports	<i>Provides trip and event data used to analyze accidents or incidents.</i>	✓	✓
8	Others report	<i>Any other customizable report.</i>	✓	✓

4. OWNER RESPONSIBILITIES

Kibali Gold Mine shall provide:

- Network infrastructure
- Internet connectivity
- Access to vehicles and equipment
- Site induction and safety orientation
- Control room infrastructure where applicable

5. HEALTH, SAFETY, ENVIRONMENT & SECURITY REQUIREMENTS

The contractor shall comply with all Kibali Gold Mine HSE requirements including:

- Site safety procedures
- Permit to work systems
- PPE requirements
- Environmental management procedures
- Emergency response requirements

6. TRAINING AND OWNERSHIP REQUIREMENTS

All data, reports, user accounts, databases, and system configurations related to the GPS Tracking and Fleet Management System shall belong to Kibali Gold Mine. Third-party cloud platforms and subscription services are excluded from this ownership.

Upon completion of installation and commissioning, the contractor shall hand over the entire system to Kibali Gold Mine under full operational control.

The contractor shall provide comprehensive training to Kibali personnel on system administration, operation, customized or specific reporting, installation, troubleshooting, and maintenance.

Training shall include Fleet Controllers, Dispatchers, Operators, Mechanics, Auto Electricians, Supervisors, and System Administrators.

Kibali personnel shall be fully capable of independently operating, maintaining, troubleshooting, reinstalling, and managing the GPS tracking system without continuous contractor involvement.

Following commissioning, the Contractor's responsibilities shall be limited to: warranty support, provision of agreed technical assistance, renewal of required software subscription licenses, and the generation of daily, weekly, and ad hoc reports as requested by the Client.

The system shall not depend on exclusive contractor access or proprietary restrictions that prevent Kibali from independently managing the system.

All passwords, access credentials, configuration files, installation procedures, technical manuals, and maintenance documentation shall be handed over to Kibali Gold Mine at project completion.

7. DATA CONFIDENTIALITY & CYBERSECURITY

All GPS tracking system data, operational records, reports, configurations, and databases shall remain the sole property of Kibali Gold Mine.

The contractor and all its personnel shall sign confidentiality and non-disclosure agreements prior to accessing any Kibali operational information or systems.

The contractor shall implement appropriate cybersecurity and data protection measures to ensure that all system information is secured against unauthorized access, disclosure, modification, loss, or misuse.

8. PRICING AND PAYMENT

The Contractor shall provide a detailed commercial proposal outlining all costs related to the execution of the project. The proposal shall include unit prices, quantities, and total costs for each item, as well as the overall project cost. The pricing breakdown shall include, but not be limited to, the following: Supply of GPS tracking device and related accessories

- Installation, configuration, testing, and commissioning costs
- Annual subscription and software licensing fees aligned with regional market standards and OEM policies
- Technical support, system maintenance, and warranty service costs
- Training costs for Kibali Gold Mine personnel, including system administration, maintenance, troubleshooting, and reporting
- Optional equipment, spare parts, and additional service pricing where applicable
- Reports fees (Daily/Weekly)

9. DELIVERABLES

The contractor shall provide the following deliverables upon project completion:

1. A fully operational and commissioned GPS Tracking and Fleet Management System ready for production use
2. Complete installation, configuration, testing, and commissioning of all tracking devices, accessories, and related equipment
3. Comprehensive user manuals, technical documentation, system architecture diagrams, and installation procedures
4. Training materials and practical knowledge transfer documentation for Kibali Gold Mine personnel
5. Full administrative access credentials, configuration files, and system management documentation
6. Warranty certificates and support documentation for all supplied hardware and software components
7. Asset registers and installed equipment inventory lists
8. Preventive maintenance guidelines and troubleshooting procedures for Kibali maintenance teams

9. Final handover documentation confirming that the system is under full Kibali Gold Mine operational control
10. Generate and circulate Daily/Weekly/Monthly Reports
11. Dashboard screen and setup for live monitoring.

10. WARRANTY REQUIREMENTS

The contractor shall provide:

- A minimum twelve (12) month warranty for all supplied hardware and installed equipment
- Technical support, troubleshooting, and replacement of defective components during the warranty period
- Software updates, patches, and system support at no additional cost during the warranty period
- Timely remote and on-site support to ensure minimum operational downtime

Low Risk Scope of Work Form

Document Reference:	Revision Number	Original Issue Date	Review Date
BGC-CORP-FORM-003	0	January 20, 2025	January 18, 2030

Project Name	Supply, Installation, and Commissioning of Fleet Tracking System
Site Location:	Kibali
Risk Rating of SOW: (Based on Pre-Bid Risk Assessment)	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <i>(Check one)</i>

Approver	Name	Signature	Date
Technical Representative	Melchi Mulaba	<div style="font-size: 8px; margin-left: 10px; display: inline-block;"> Digitally signed by Melchi Mulaba DN: CN=Melchi Mulaba, DC=goldbar, OU=Users Reason: I am approving this document Location: Date: 2026.06.04 09:05:29+02'00' Foxit PDF Editor Version: 2026.1.0 </div>	01 June 2026
Safety <small>Only Required for medium risk projects</small>	Click or tap here to enter text.		Click or tap to enter a date.

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1. PROJECT OVERVIEW

Outline the specific deliverables, objectives and boundaries of the project.

This project aims to procure, implement, and commission a comprehensive vehicle tracking system across the Kibali site.

The system shall provide:

- Real-time vehicle tracking and monitoring
- Speed control and geofencing capabilities
- Driver identification and accountability
- Centralized data storage and reporting

The selected contractor will be responsible for the supply, installation, configuration, integration, and commissioning of the complete solution.

The system must be suitable for a mining environment, scalable for future expansion, and capable of integrating with existing site infrastructure.

The project duration is estimated at 1 month from award to commissioning.

2. GENERAL DESCRIPTION OF WORK**2.1. DELIVERABLES (KPI'S)**

Deliverable	Description	Expected Date
Deliverable 01	A fully operational and commissioned GPS Tracking and Fleet Management System ready for production use	2026/07/15
Deliverable 02	Complete installation, configuration, testing, and commissioning of all tracking devices, accessories, and related equipment	2026/07/15
Deliverable 03	Comprehensive user manuals, technical documentation, system architecture diagrams, and installation procedures	2026/07/15
Deliverable 04	Training materials and practical knowledge transfer documentation for Kibali Gold Mine personnel	2026/07/15
Deliverable 05	Full administrative access credentials, configuration files, and system management documentation	2026/07/15
Deliverable 06	Asset registers and installed equipment inventory lists	2026/07/15

2.2. PROJECT LOCATION

Provide an address and describe the specific location of the scope of work.

Kibali Gold Mine Site, including all operational areas where vehicles are deployed.

2.3. EQUIPMENT AND TOOLS REQUIRED

List all equipment and tools required to perform the Job.

Items supplied by Contractor

The Contractor shall supply all necessary equipment and tools required for the execution of the project, including but not limited to:

- Vehicle tracking devices (GPS or equivalent technology)
- Driver identification system (RFID tags/cards or equivalent)
- Communication infrastructure (SIM cards, antennas, gateways if required)
- Centralized server and/or storage solution
- Software platform, dashboard, and reporting tools
- Wi-Fi integration capability for data offloading
- Installation hardware, cabling, and mounting accessories
- Any specialized tools required for installation and commissioning

Items supplied by Barrick

- Access to LV vehicles for installation
- Access to site network infrastructure (if required for integration)
- Defined geofencing zones and operational requirements
- Designated installation and staging areas

2.4. INSURANCE AND WARRANTY REQUIREMENTS

Provide list of applicable insurances or warranties.

Requirements to be identified by the Contract Specialist

- To be defined by Contract Specialist
- Contractor shall provide standard warranty for all supplied equipment and systems
- Contractor shall ensure coverage for installation activities and personnel

2.5. PROJECT RISK IDENTIFICATION

All project risks shall be identified within the Pre-Bid Risk Assessment taking into consideration all safety, environmental and community risks. Please attach the Pre-Bid Risk assessment to this document.

3. HEALTH AND SAFETY REQUIREMENTS

The Contractor shall apply all requirements established in Barrick's Health and Safety standards, as well as policies and procedures. The Contractor must consider all the requirements to prepare and submit a specific health and safety plan for the project using Barrick's Safe Work Plan form (please attach).

3.1 SPECIFIC SAFETY REQUIREMENTS

List the specific safety requirements associated with the job/work and all applicable procedures.

- All installation activities on vehicles must follow **LOTOTO** procedures where applicable
- Safe work practices when working on mobile equipment
- Compliance with site traffic and operational safety rules
- Proper use of PPE at all times
- Safe handling of electrical connections and low-voltage systems

3.2 HEALTH AND SAFETY PROCEDURES

List all applicable Health and Safety operational procedures.

Barrick Safety Standards for Contractors
Safe Work Plan (SWP) submission and approval
Risk Assessment (JSA/JHA) before work execution
Permit to Work system
LOTOTO procedures
Working on mobile equipment procedures

4. ENVIRONMENTAL REQUIREMENTS

The Contractor shall apply all the requirements established in Barrick’s Environmental Guidelines for Contractors, comply with Barrick’s Environmental Policy, and meet all other applicable environmental requirements, procedures or standards to present the specific environmental management plan for the project if applicable.

4.1 ENVIRONMENTAL SPECIFIC REQUIREMENTS

List the specific Environmental requirements associated with the job/work and all applicable procedures.

Click or tap here to enter text.

4.2 ENVIRONMENTAL PROCEDURES

List all applicable Environmental operational procedures.

Click or tap here to enter text.

5. SOCIAL REQUIREMENTS

For the development of this project, the Contractor must apply all the social requirements established in Barrick's social performance policy, with the objective to support the company's social commitment to sustainable development.

5.1 SOCIAL SPECIFIC REQUIREMENTS

List the specific social requirements associated with the job/work and all applicable procedures.

Click or tap here to enter text.

5.2 SOCIAL PROCEDURES
<i>List all applicable Social operational procedures.</i>
Click or tap here to enter text.

6. CERTIFICATIONS AND COMPETENCIES			
<i>Mark an X in the box next to all applicable certifications and competencies.</i>			
COMPETENCE	Applies	COMPETENCE	Applies
Fall From Heights	<input type="checkbox"/>	Fire (Hot Work)	<input type="checkbox"/>
Confined Space	<input type="checkbox"/>	Hazardous Substances	<input type="checkbox"/>
Stored Energy (LOTOTO)	<input type="checkbox"/>	Excavations and Penetration (trenching)	<input type="checkbox"/>
Lifting	<input type="checkbox"/>	Working with High Voltage Lines	<input type="checkbox"/>
Hazards Recognition/ Risk Assessment	<input type="checkbox"/>	Mobile Equipment	<input type="checkbox"/>
Blasting and Explosives	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Other Applicable Competencies/Certifications			
Low voltage electrical installation Vehicle electrical systems integration Network and communication systems IT/OT system configuration			

7. SOW MANAGEMENT

The following documents must be attached when submitting this form to the Contract Specialist:

- Pre-Bid Risk Assessment
- Reference Documents: Images, documents, drawings
- Other: Detailed Scope of Work

8. APPENDIX

Documents:

Drag and drop documents from your files here...

Images/drawings:

Drag and drop images from your files here...

1 Hardware Supply

Item No. Description

- 1 GPS Tracking Device with remote immobilizer relay kit
- 2 RFID Driver Identification Reader
- 3 RFID Driver Identification Cards/Tags
- 4 Panic Button Assembly
- 5 Audible Buzzer/Warning Device
- 7 Installation Accessories (cables, connectors, harnesses, fuses, mounting hardware, consumables)

2 Software License & Subscription per year

3 Installation Configuration & Commissioning

- 1 Device Hardware Installation
Software Installation and configuration including the below:
Dashboard for Live Monitoring
- 2 Geofencing and Alarm Setup
Driver Behaviour Monitoring
User Account Setup and Access Rights

4 System Administration and Operator Training

5 Support/Report Configuration and Customization (Daily, Weekly, Monthly and Ad-hoc Reports)

6 Warranty Support (12 Months Minimum)

Veillez transmettre vos offres dans l'adresse: Kibali.ServiceContract@barrick.com

Quantity	Unit	Unit Cost (USD)	Total (USD)
300	Each		\$ -
300	Each		\$ -
300	Each		\$ -
300	Each		\$ -
300	Each		\$ -
1	LS		\$ -
300	Each		\$ -
300	Each		\$ -
300	LS		\$ -
1	LS		\$ -
1	LS		\$ -
1	LS		\$ -
		Grand Total:	\$ -