

**TERMS OF REFERENCE**

**for the purchase of lubricants to be used by the Fleet & Light Vehicle Maintenance department at the Kumtor mine site**

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| **Item****№** | **List of basic** **data and requirements** | **Basic data and requirements** |
| 1. | Delivery location  | Balykchy Marshalling Yard (BMY), Balykchy, Kyrgyz Republic. |
| 2. | Client  | Kumtor Gold Company CJSC |
| 3. | Contractor | To be selected according to the competition results. |
| 4. | Purpose of the purchase | Purchase of lubricants to be used by the Fleet & Light vehicles in high altitude environment, including low temperatures and significant altitude difference, at the Kumtor Mine in Kyrgyzstan. |
| 5. | Types of heavy-duty equipment models:  | * Mack truck tractors: RD688S CV713, GU813E, CXU613E.
* Volvo truck tractors: FM64T, FMX6.
* KAMAZ truck tractors: 6460–26001, 65806-002-68.
* Mack special equipment: CV713, GR64BX.
* KAMAZ bus: 43114-1061-15 / NEFAZ 4208.
* KAMAZ special equipment: 43118–10, 43118–46, 43118-1098-10.
* XCMG cranes: QY25K-II, QY50KA, QY70K-I, QY25K5D5.
* Heli forklift trucks: CPD30, CPCD50, CPCD100.
* Hyundai forklift trucks: 25DT-7, 35D-9S, 50D-S9.
* Telehandlers: XC6-3007V, MT-X 625H.
* Toyota pickup trucks: HILUX TGN126L / KUN125, L/C HZJ79L.
* UAZ pickup trucks: PATRIOT 23632-155-03.
* Isuzu flatbed truck: NPS75H, NPS75L-K.
* Lighting masts: Noram/ Himoinsa/ MS6K-9/ PROMAC.
* Compressors: Alas Copco/ Sullair.
* Aksa generators: ADP13A/ ADP17A/ ADP20A/ ADP50A.
* Cat generators: D50/ D200P3/ DE200/ D125P1/ DE250/ DE220.
* PSM generators: AD60/ AD120/ AD250/ AD400.
* Lees generators: 68 kW/ 160 kW.
* Aosif generators: 92 kW.
* Godwin pumps: HL250M/ HL160M/ CD500M/ CD300M/ HL100M/ HL225M/ HL80M/ CD103M/ CD150M/ CD180M.
* PSM pumps: 360/50, 1080/50, 240/140, 720/20,500/40.
* Flygt submersible pumps: 4.1 kW/ 5.6 kW/ 10 kW/ 13 kW/ 18 kW/ 37 kW/ 54 kW/ 90 kW.
* Miller welding machines: BIG 40 C/ BIG BLUE 400 CX/ BIG BLUE 400X PRO/ BIG BLUE 600 Air Pac/ BIG BLUE 800 Air Pak.
* McELROY welding machines: 1236/ 412.
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| 6. | General requirements / Tolerances and standards. | * **1. Motor oil requirements:**

**1.1** Viscosity: SAE 15W-40.Volume: IBC (1000 l)Compliance with requirements and classifications:  API: CI-4, CH-4, Caterpillar: ECF-2.Cummins: CES 20078, CES 20077, CES 20076, approved on the CES 20078 list of registered oils. **1.2** Viscosity: SAE 5W-40.Volume: IBC (1000 l)Type: Synthetics, (Low SAPS)Compliance with requirements and classifications:API: CK-4/CJ-4 / CI-4 plus / CI-4 / CH-4 SM / SL / SJACEA: E7, E9Mack: EO-O Premium Plus, EOS-4.5, EOS-4Cummins: CES 20081Volvo: VDS-5, VDS-4Caterpillar: ECF-3, ECF-2.* **2. Transmission and gear oil requirements:**

Viscosity: SAE 75W90.Volume: Barrel (208 l).Type: Synthetics.API: GL-4, GL-5, * **3. Automatic transmission oil requirements:**

Viscosity: ISO VG 32Volume: Barrel (208 l).Dexron IIIATF MD-3Caterpillar TO-2* **4. Compressor oil requirements:**

Viscosity: ISO 32.Volume: Barrel (208 l).Type: Synthetics polyalphaolefin-based (PAO).DIN 51506 VD-L.* **5. Hydraulic oil requirements:**

Viscosity: ISO VG 46, VG32, SAE 10W.Volume: IBC (1000 l)Type: zinc free hydraulic fluid/Zinc Free,DIN 51524-2 HVL, DIN 51524-3 HVLP. * **6. Antifreeze requirements:**

OAT (Organic Acid Technology) antifreeze: XLC (Extra Life Coolant), ELC (Extended Life Coolant):Volume: IBC (1000 l).Type: Concentrate.**Notes:**Antifreeze shall be compatible with rubber, plastic and metal components of the cooling system to prevent damage to them.* **8. Plastic grease: No. 1**

NLGI: 1 and 2. Type: MineralTemperature range: -40°C to +160°C.Thickener Type: Polyurea. Other thickener types that are compatible with polyurea.Additives: extreme pressure (EP).Excellent water resistance and corrosion protection.Volume: Barrel (Drum).* **9. Plastic grease: No. 2**

NLGI: 2. Type: Lithium hydroxystearate grease.Temperature range: up to +150°C.Thickener Type: Lithium complexes. Other thickener types that are compatible with lithium.High temperature bearing grease LGHB 2/0.4.Anti-friction and anti-corrosion properties.Volume: Cartridge 420 ml.**Notes:**Lubricant shall not destroy the rubber or polyurethane seals used in the equipment components. |
| 7. | Individual requirements | 1. **Quality and Compliance**:
* Lubricant supplied shall comply with international quality standards (e.g. ACEA, API, SAE, ISO).
* Products shall be certified according to international safety standards and environmental requirements.
* Product quality shall be confirmed by quality passports for each batch.
* Guarantee of stability of physical and chemical properties and characteristics of the oil during the entire service life.
1. **Technical support and consultation**:
* Supplier shall provide technical consultation on the selection of optimal lubricants, considering the specifics of the fleet & light vehicles operation and the mine climatic conditions.
* Supplier shall, at the written request of the Client, provide a safe plan for transitioning to a new lubricant, considering the risks of mixing different types of oils, to prevent downtime. The plan shall consider the specifics of the Fleet & Light Vehicle Maintenance Department and the mine climatic conditions.
* Supplier shall organize “Lubricant Fundamentals” and “Oil Analysis Programs” trainings for the Fleet & Light Vehicle Maintenance Department personnel.
* Technical audit: A team of specialists from the supplier's plant shall arrive to improve the “Lube Management System” processes in the Fleet & Light Vehicle Maintenance Department, the specialists shall provide reports on the maintenance process improvement and if possible, propose projects to reduce the lubricant consumption costs.
* Supplier shall maintain a high level of service and promptly resolve all issues arising related to delivery and product quality.
1. **References and confirmation of reliability**:
* Supplier shall provide references from other clients confirming successful experience in supplying similar lubricants. References shall include examples of materials used to demonstrate that there is no equipment problems related to their quality.
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| 8.  | Warranty and Liability: | 1. In case of delivery of lubricants that do not meet the requirements specified in the Terms of Reference, related to the use of low-quality lubricants and if it leads to downtime or failure of the main units of the Fleet & Light Vehicle Maintenance Department equipment, Supplier shall be responsible for the damage caused.
2. Supplier shall provide a warranty for its products with the obligation to replace materials in case of non-compliance with technical specifications or presence of defects.
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| 9. | Warranty period | According to the Agreement. |
| 10. | Payment procedure | According to the Agreement. |
| 11. | Confidentiality | All data obtained during the work conducted by the Contractor shall be the Client's property and confidential. Disclosure to third parties shall be prohibited.  |
| 12. | Safety  | According to the Agreement. |

**Information from Manas system on 2025 lubricant consumption forecast:**

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| **№** | **Oil type** | **Container** | **Volume** | **Units** | **2025 consumption forecast (kg/l)** |
| 1 | Oil 75W-90 | Barrel | 208 | L | 13936 |
| 2 | Antifreeze (concentrate) | IBC | 1000 | L | 14000 |
| 3 | Oil 5W40 | IBC | 1000 | L | 55000 |
| 4 | Automatic transmission oil ATF MD-3 | Barrel | 208 | L | 2080 |
| 5 | Plastic grease EP-1 | Barrel | 180 | kg | 1620 |
| 6 | Oil 10W | IBC | 1000 | L | 1000 |
| 7 | Oil 15W-40 | IBC | 1000 | L | 1000 |
| 8 | High-temperature grease | Paste/tube | 420 ml | L  | 211 |