



Biological Rock Drill Oil

Help to save money and meet ESG targets

DESCRIPTION

Black Diamond **Biological Rock Drill Oil** is an environmentally safe rock drill oil that delivers superior lubrication for DTH Down the Hole Hammers. This biological vegetable oil-based lubricant protects every part of the hammer due to its high polarity and lighter viscosity. It is also highly resistant to heat and high pressure. Black Diamond **Biological Rock Drill Oil** will extend the life of your DTH Hammer and improve overall performance.

APPLICATION

Black Diamond **Biological Rock Drill Oil** is a high-performance environmentally safe biological lubricant that extends and improves the performance of percussive hammers.

ENVIRONMENTAL BENEFITS

- Made from a sustainable vegetable oil base
- Environmentally safe
- Prevents contamination of ground water
- Easy disposal
- Less waste
- Less CO2 emissions

ECONOMIC BENEFITS

- Reduced consumption compared to mineral oils
- Extends hammer performance and lifespan
- Reduces heat build-up and piston scuffing

USAGE

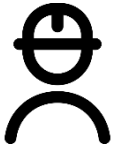
We recommend constant lubrication of hammers using an in-line lubrication method. Trials have shown that usage required is 70% of conventional rock drill oils.



THE BENEFITS OF USING BIOLOGICAL ROCK DRILL OIL



SAFE FOR THE ENVIRONMENT – Black Diamond Drilling Biological Rock Drill Oil is a Bio-based oil which is readily biodegradable. It was created without petroleum-based ingredients making it safer for the environment.



SAFER FOR WORKERS - Bio-based oils have lower VOC's (Volatile Organic Compounds) resulting in fewer harmful vapours, improved air quality and less irritation to the eyes and skin which improves operator safety.



INCREASED RATE OF PENETRATION – The low viscosity enables our Biological Rock Drill Oil to reach and protect all the internal moving parts of the hammer before they get hot. With all internal parts within manufacturers tolerances internal pressure is maintained, in turn maintaining penetration rates.



EXTEND HAMMER LIFE - Due to the high polarity and improved lubricity this Biological Rock Drill Oil can extend the lifespan of a DTH hammer up to 75%. The ultra lubricity of Biological Rock Drill Oil means a film is retained on the piston and other moving parts. This prevents wear on startup and corrosion when equipment is not being used.



REGULATORY COMPLIANCE - Better environmental compliance. Biological Rock Drill Oil is less harmful and comply with environmental regulations, this is important in mining where resources are located near sensitive areas, such as national parks and water catchment areas.

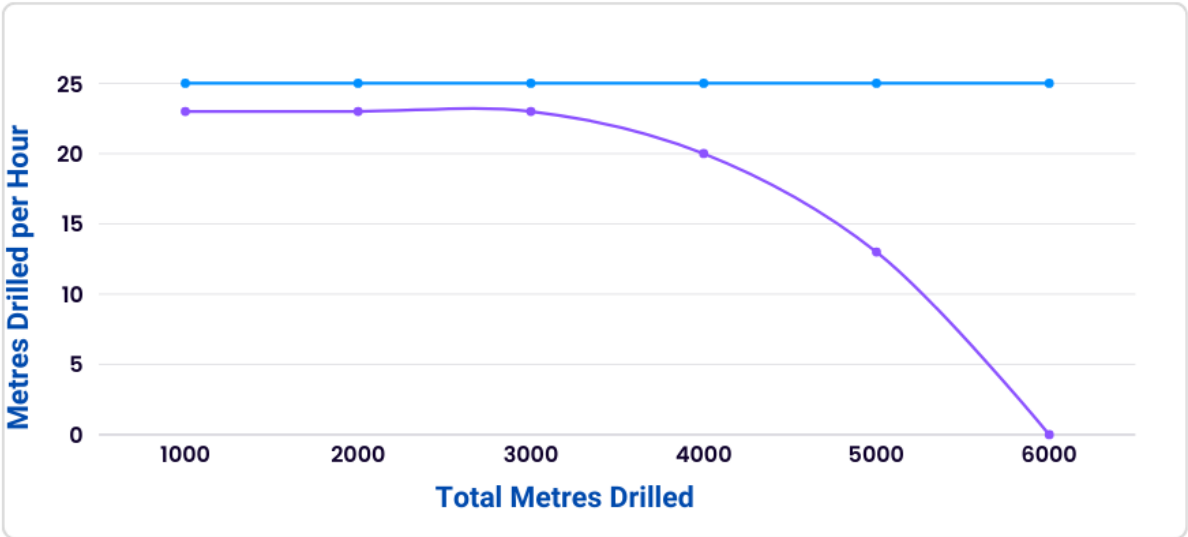


BLACK DIAMOND DRILLING BIOLOGICAL ROCK DRILL OIL CASE STUDY

In a recent trial Black Diamond Biological Rock Drill Oil provided increased ROP – Rate of Penetration when drilling in comparable conditions side by side on two identical drill rigs. The trial was to a depth of 5,000m and the Biological Rock Drill Oil outperformed the conventional Rock Drill Oil on every metric.

PARAMETER	BDDRILL STANDARD RDO	BDDRILL BIOLOGICAL RDO
TOTAL METRES DRILLED	20,000	20,000
METRES DRILLED PER HOUR	18	23
METRES DRILLED PER SHIFT	144	184
TOTAL SHIFTS (TO DRILL 20,000M)	132	100
TOTAL HOURS (TO DRILL 20,000M)	1080	800

Metres Drilled Comparison




 Conventional Rock Drill Oil  BDDrill Biological Rock Drill Oil

BLACK DIAMOND DRILLING BIOLOGICAL ROCK DRILL OIL

Black Diamond Biological Rock Drill Oil is an environmentally friendly alternative to conventional petroleum-based oils used in DTH Hammers. Derived from renewable sources and natural biodegradable compounds, it offers superior lubricity, excellent wear protection, and strong resistance to rust and corrosion. These properties contribute to improved equipment performance, extended service life, and lower fluid consumption. Biological rock drill oils are non-toxic and readily biodegradable, making them ideal for use in environmentally sensitive areas and helping companies meet sustainability and ESG goals without compromising drilling efficiency.

Black Diamond Biological Rock Drill Oil can be supplied in a variety of sizes.

Available sizes



5L



PAIL – 20L



DRUM – 200L



IBC – 1000L

Also
available
in bulk

BDDRILL ROCK DRILL OIL COMPARISON CHART		
	BDDRILL STANDARD RDO	BDDRILL BIOLOGICAL RDO
ISO GRADE	100	46
VISCOSITY AT 40° C	100	46
VISCOSITY AT 100° C	11.6	8.9
POUR POINT °C	-33	-35
FLASH POINT °C	230	280
BIODEGRADABILITY	ENVIRONMENTALLY PERISTENT	MORE THAN 99%