



CONSTRUCTION EQUIPMENT

3635BR NEAL EQUIP TAKEUCHI TB290 185107673 - DIESEL ENGINE



Sample No: VCP415389
Oil Type: MOBIL 15W40
Job No: 3635BR NEAL EQUIP



SAMPLE INFORMATION

Sample Number	VCP415389	---	---	---
Sample Date	24 Oct 2023	---	---	---
Machine Hours	1314	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Changed	---	---	---
Sample Status	SEVERE	---	---	---

HIGHWAY EQUIPMENT AND SUPPLY CO

200 BURKHOLDER DR.

EPHRATA, PA

US 17522

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OIL CONDITION

Visc @ 100°C	cSt	▲ 10.0	---	---	---
Base Number (BN)	mg KOH/g	■ 8.3	---	---	---
Oxidation (PA)	%	■ 39	---	---	---

Diagnosis

We advise that you check for the source of the coolant leak. The oil is near the end of it's useful service life, recommend schedule an oil change. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. Aluminum ppm levels are abnormal. Piston wear is indicated. Fuel content negligible. Test for glycol is positive. There is a high concentration of glycol present in the oil. Calcium ppm levels are abnormally low. Visc @ 100°C is abnormally low. Sodium ppm levels are notably high. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



CONTAMINATION

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	■ 61	---	---	---
Sulfation (PA)	%	■ 42	---	---	---
Glycol	%	■ 0.10	---	---	---
Fuel	%	■ 0.7	---	---	---
Silicon	ppm	■ 15	---	---	---
Sodium	ppm	▲ 211	---	---	---
Potassium	ppm	▲ 253	---	---	---



WEAR METALS

Iron	ppm	■ 71	---	---	---
Copper	ppm	■ 311	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	▲ 29	---	---	---
Chromium	ppm	■ 5	---	---	---
Molybdenum	ppm	■ 96	---	---	---
Nickel	ppm	■ 3	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 2	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	▲ 984	---	---	---
Magnesium	ppm	■ 485	---	---	---
Zinc	ppm	■ 704	---	---	---
Phosphorus	ppm	■ 707	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 37	---	---	---

Depot: INSEPH

Unique No: 10714100

Signed: Wes Davis

Report Date: 31 Oct 2023



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GRAPHS

