



CONSTRUCTION EQUIPMENT

SW00068541 TAKEUCHI TL12V2-CRR 412003313 - DIESEL ENGINE



Sample No: VCP429356
Oil Type: DIESEL ENGINE OIL SAE 30
Job No: SWO0068541



SAMPLE INFORMATION

Sample Number	VCP429356	---	---	---
Sample Date	09 Jan 2024	---	---	---
Machine Hours	2353	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	ABNORMAL	---	---	---

COWIN EQUIPMENT - ATLANTA

5710 RIVERVIEW RD
MABLETON, GA
US 30126

Contact: MIKE ANDREWS
mandrews@cowin.com

T: (404)690-7210

F:



OIL CONDITION

Visc @ 100°C	cSt	█ 11.9	---	---	---
Base Number (BN)	mg KOH/g	█ 10.0	---	---	---
Oxidation (PA)	%	80	---	---	---

Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. Cylinder, crank, or cam shaft wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	56	---	---	---
Sulfation (PA)	%	60	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	▲ 3.5	---	---	---
Silicon	ppm	▲ 30	---	---	---
Sodium	ppm	█ 4	---	---	---
Potassium	ppm	█ <1	---	---	---



WEAR METALS

Iron	ppm	▲ 104	---	---	---
Copper	ppm	█ 8	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ 3	---	---	---
Aluminum	ppm	▲ 21	---	---	---
Chromium	ppm	█ 7	---	---	---
Molybdenum	ppm	█ 38	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 1533	---	---	---
Magnesium	ppm	█ 483	---	---	---
Zinc	ppm	█ 1064	---	---	---
Phosphorus	ppm	█ 816	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 43	---	---	---

Depot: COWMAB

Unique No: 10823682

Signed: Don Baldrige

Report Date: 14 Jan 2024

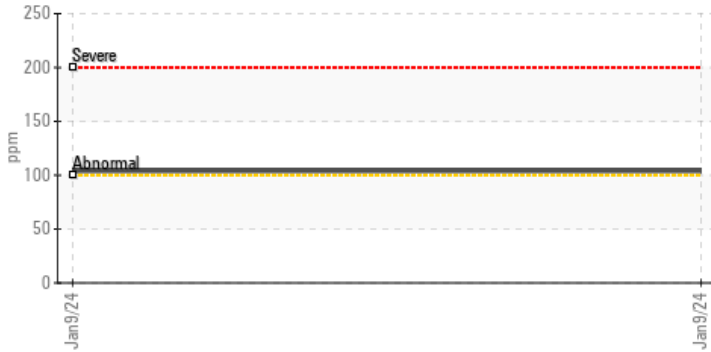


CONSTRUCTION EQUIPMENT

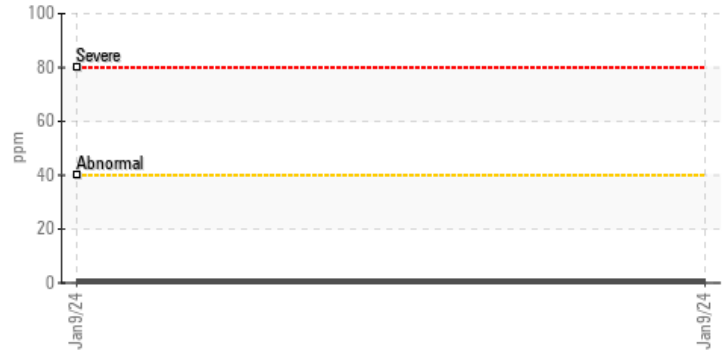


GRAPHS

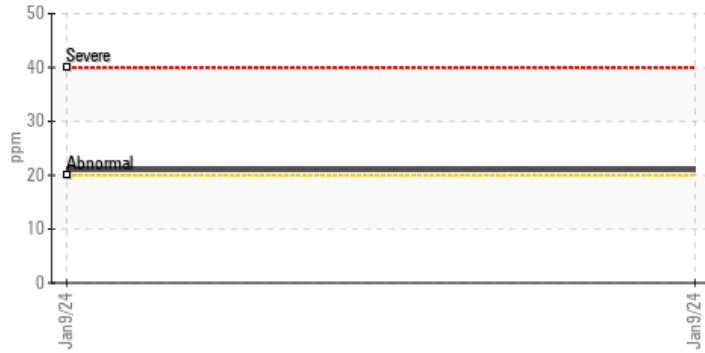
▲ Iron (ppm)



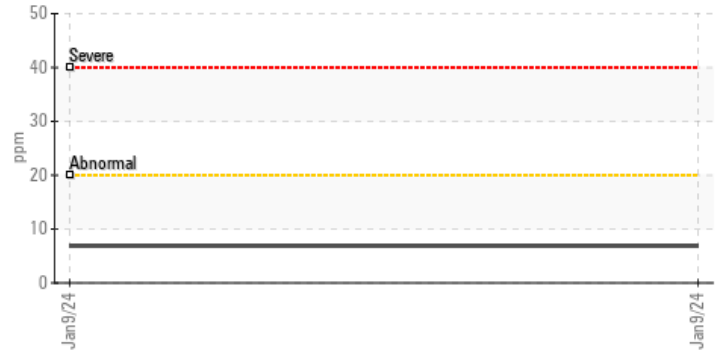
Lead (ppm)



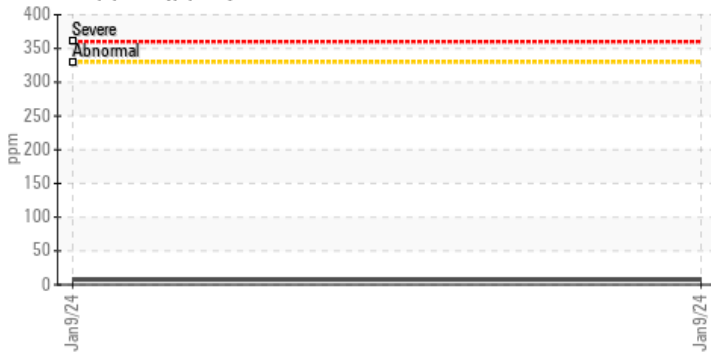
▲ Aluminum (ppm)



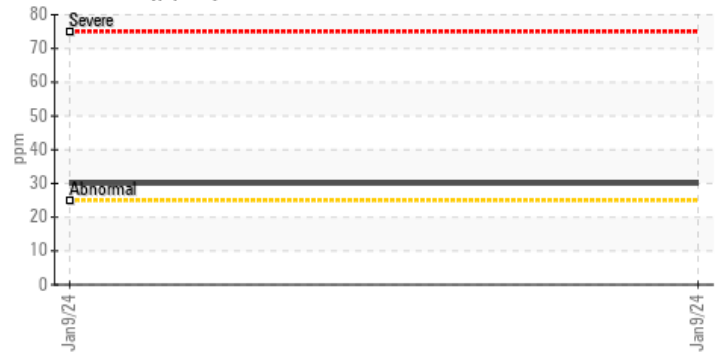
Chromium (ppm)



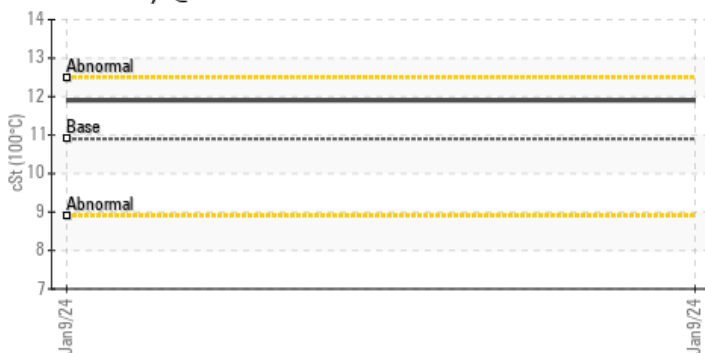
Copper (ppm)



▲ Silicon (ppm)



Viscosity @ 100°C



Base Number

