



Machine Id
PETERBILT DEVIN

Component
Diesel Engine

Fluid
SHELL ROTELLA T 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a moderate concentration of dirt present in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0071732	---	---
Sample Date	Client Info			24 Feb 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Oil Changed	Client Info			Changed	---	---
Sample Status				ABNORMAL	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	---	---
Water	WC Method	>0.2		NEG	---	---
Glycol	WC Method			NEG	---	---

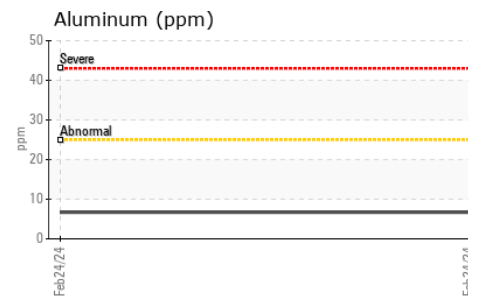
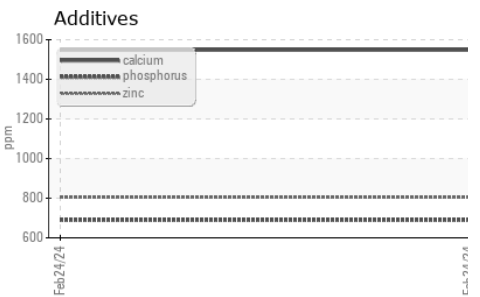
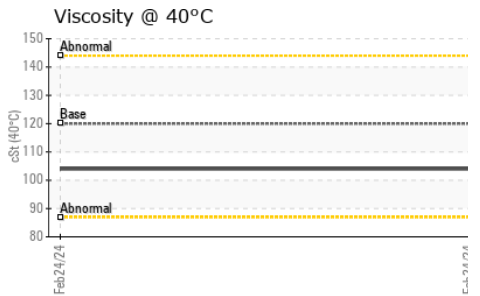
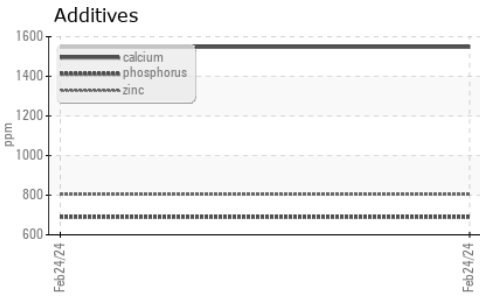
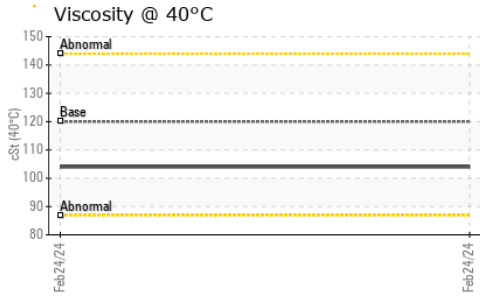
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>110	49	---	---
Chromium	ppm	ASTM D5185(m)	>4	2	---	---
Nickel	ppm	ASTM D5185(m)	>2	1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>25	7	---	---
Lead	ppm	ASTM D5185(m)	>45	5	---	---
Copper	ppm	ASTM D5185(m)	>85	6	---	---
Tin	ppm	ASTM D5185(m)	>4	1	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	35	163	---	---
Barium	ppm	ASTM D5185(m)	0	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	0	122	---	---
Manganese	ppm	ASTM D5185(m)	0	2	---	---
Magnesium	ppm	ASTM D5185(m)	10	644	---	---
Calcium	ppm	ASTM D5185(m)	2340	1548	---	---
Phosphorus	ppm	ASTM D5185(m)	1110	690	---	---
Zinc	ppm	ASTM D5185(m)	1210	804	---	---
Sulfur	ppm	ASTM D5185(m)	3890	2173	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	▲ 30	---	---
Sodium	ppm	ASTM D5185(m)		10	---	---
Potassium	ppm	ASTM D5185(m)	>20	15	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	1.1	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.9	---	---
Sulfation	Abs./1mm	ASTM D7415*	>30	25.7	---	---

OIL ANALYSIS REPORT

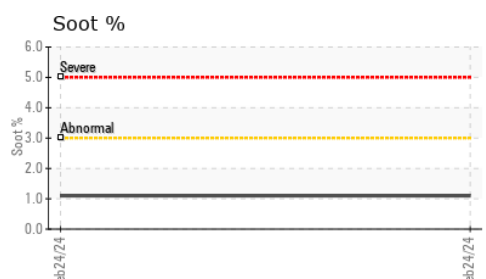
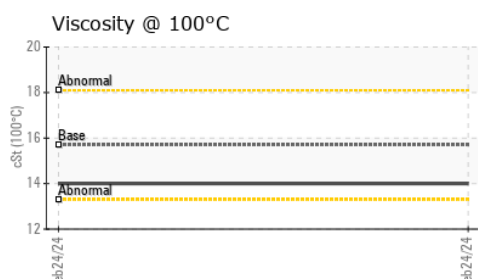
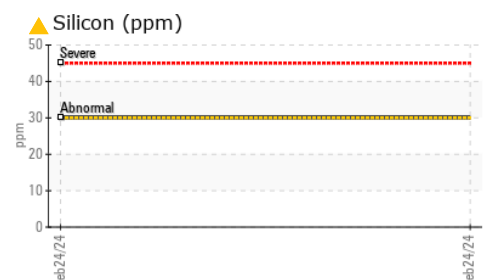
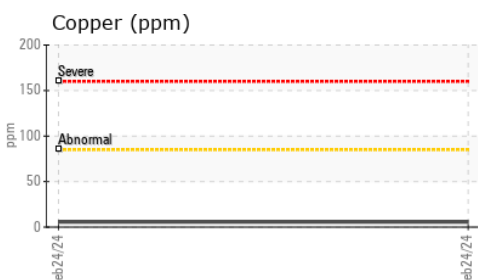
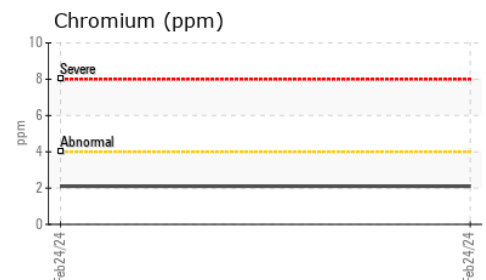
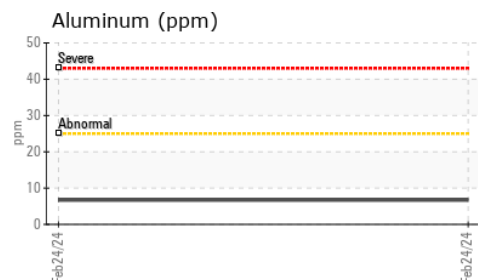
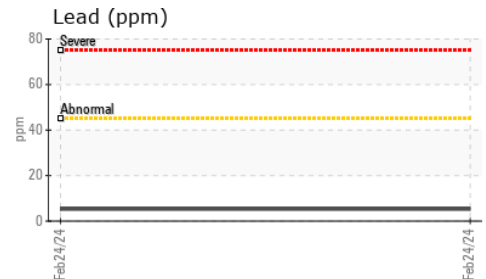
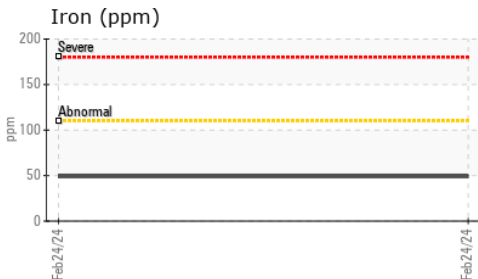


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.4	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	120.	104	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	14.0	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	136	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0071732 **Received** : 27 Feb 2024
Lab Number : **02618287** **Tested** : 27 Feb 2024
Unique Number : 5735397 **Diagnosed** : 27 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI)

J&M HEAVY EQUIPMENT
 4406 VANDERVAL DR
 PETROLIA, ON
 CA N0N 1R0
 Contact: Jeff Daley
 jmheavyequipmentrepair@yahoo.ca

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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F: