



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
WESTERN STAR 169
Component
Diesel Engine
Fluid
{not provided} (35 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0083434	---	---
Sample Date		Client Info		12 Apr 2024	---	---
Machine Age	kms	Client Info		30700	---	---
Oil Age	kms	Client Info		30700	---	---
Filter Age	kms	Client Info		30700	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a components first oil change.

Iron	ppm	ASTM D5185(m)	>100	61	---	---
Chromium	ppm	ASTM D5185(m)	>20	3	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	<1	---	---
Aluminum	ppm	ASTM D5185(m)	>20	30	---	---
Lead	ppm	ASTM D5185(m)	>40	6	---	---
Copper	ppm	ASTM D5185(m)	>330	253	---	---
Tin	ppm	ASTM D5185(m)	>15	4	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---

CONTAMINATION

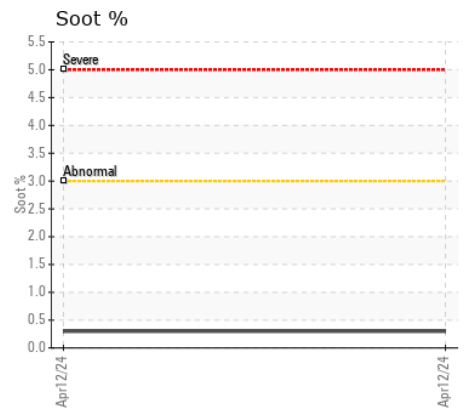
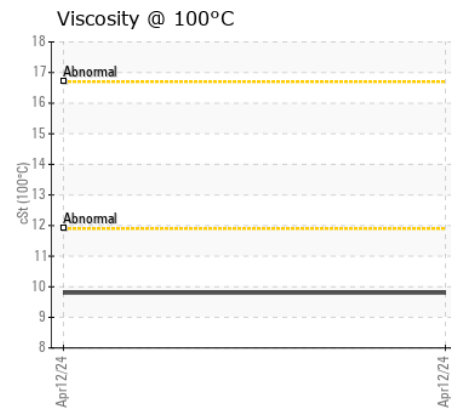
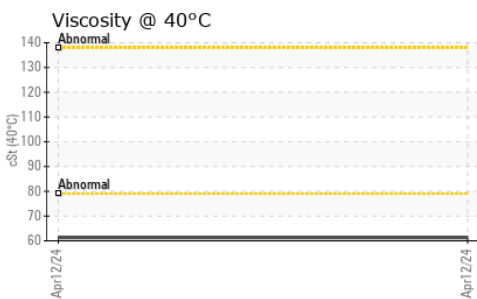
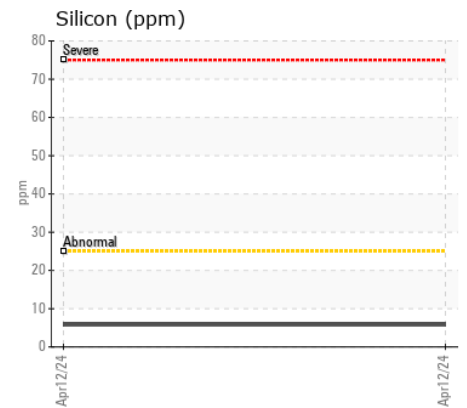
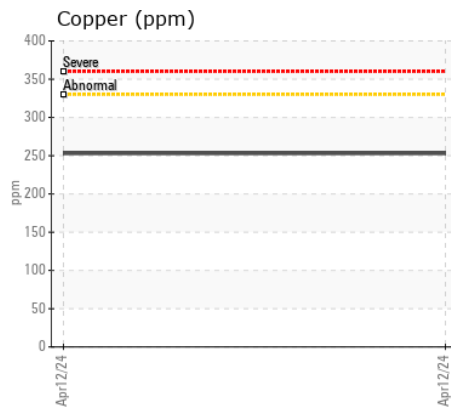
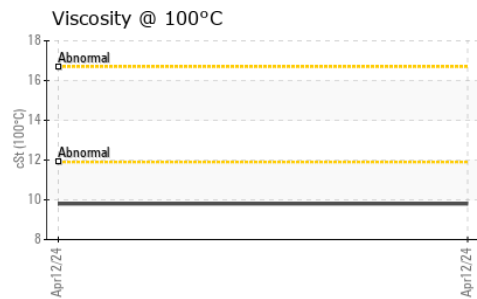
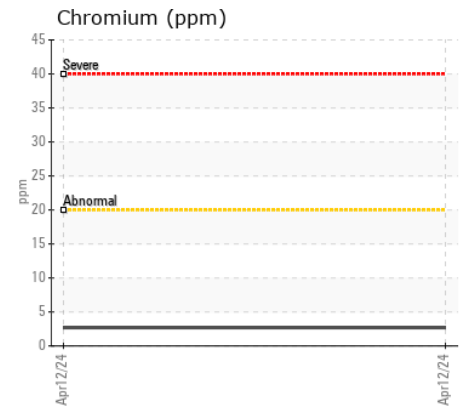
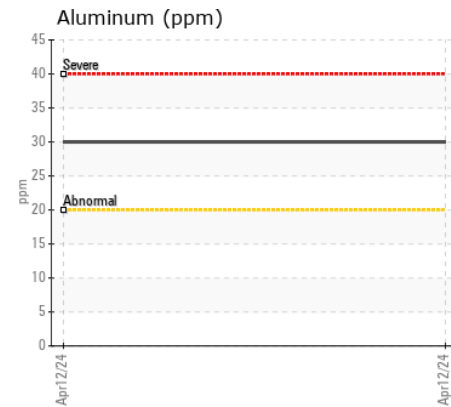
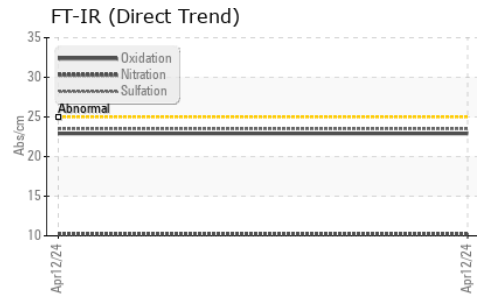
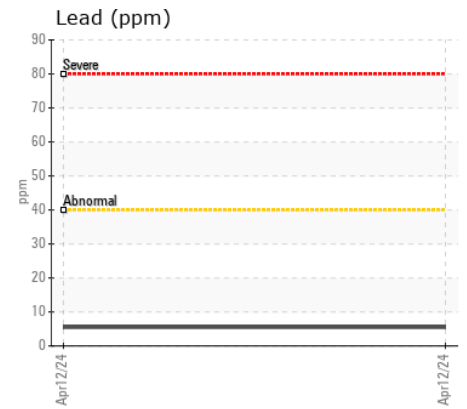
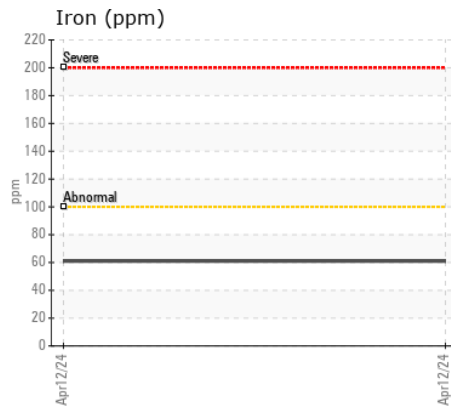
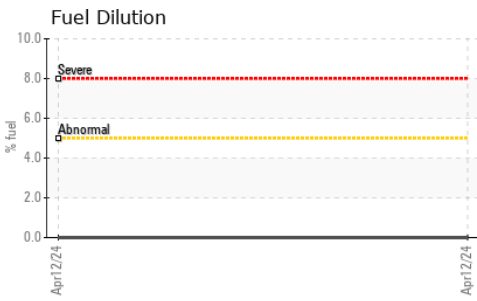
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	---	---
Potassium	ppm	ASTM D5185(m)	>20	100	---	---
Fuel	%	ASTM D7593*	>5	0.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0.3	---	---
Nitration	Abs/cm	ASTM D7624*	>20	10.2	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.5	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		5	---	---
Boron	ppm	ASTM D5185(m)		35	---	---
Barium	ppm	ASTM D5185(m)		<1	---	---
Molybdenum	ppm	ASTM D5185(m)		43	---	---
Manganese	ppm	ASTM D5185(m)		4	---	---
Magnesium	ppm	ASTM D5185(m)		552	---	---
Calcium	ppm	ASTM D5185(m)		1648	---	---
Phosphorus	ppm	ASTM D5185(m)		729	---	---
Zinc	ppm	ASTM D5185(m)		866	---	---
Sulfur	ppm	ASTM D5185(m)		1790	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.9	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		61.3	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		9.8	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		144	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083434
Lab Number : 02635488
Unique Number : 5776641
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI, Visual)

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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.