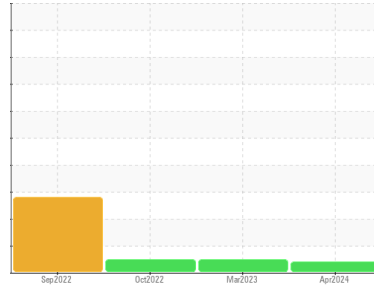




# OIL ANALYSIS REPORT

## Sample Rating Trend



## VISCOSITY



Machine Id

### KENWORTH 3155

Component

Diesel Engine

Fluid

CHEVRON DELO 400 XLE 15W40 (44 QTS)

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### 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 no indication of any contamination in the oil.

#### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WCMFB92794</b>	WCMFB92812	WCMFB92526
Sample Date	Client Info		<b>19 Apr 2024</b>	26 Mar 2023	19 Oct 2022
Machine Age	mls	Client Info	<b>218430</b>	171236	128340
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ATTENTION</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	<b>28</b>	38	23
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>4	<b>7</b>	3	6
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>18</b>	33	13
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>16</b>	12	8
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>27</b>	32	85
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>18</b>	14	10
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>689</b>	823	778
Calcium	ppm	ASTM D5185m		<b>1387</b>	1595	1530
Phosphorus	ppm	ASTM D5185m	760	<b>706</b>	803	773
Zinc	ppm	ASTM D5185m	830	<b>857</b>	974	956
Sulfur	ppm	ASTM D5185m	2770	<b>3026</b>	3477	3536

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	8	6
Sodium	ppm	ASTM D5185m		<b>38</b>	32	12
Potassium	ppm	ASTM D5185m	>20	<b>47</b>	77	34
Fuel	%	ASTM D3524	>5	<b>&lt;1.0</b>	0.5	<1.0
Glycol	%	*ASTM D2982		<b>NEG</b>	0.0	NEG

### INFRA-RED

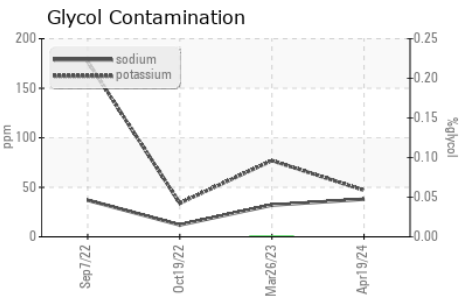
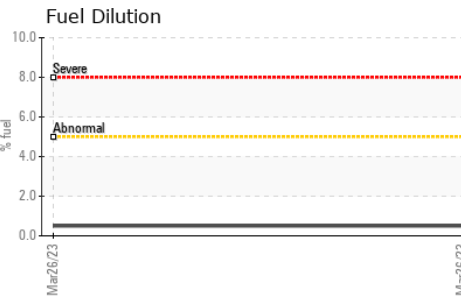
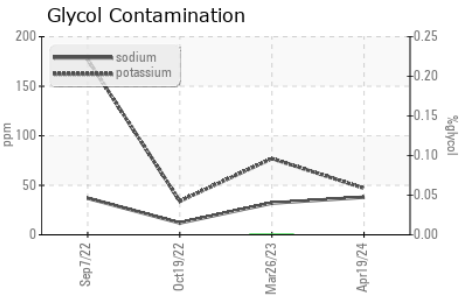
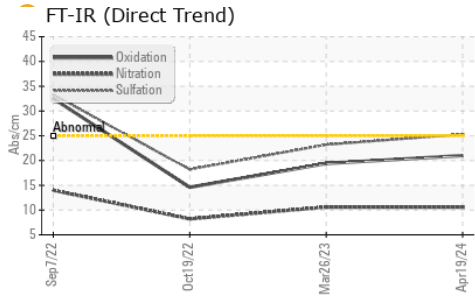
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.5	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	10.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.3</b>	23.2	18.2

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.0</b>	19.4	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>4.9</b>	4.1	6.7



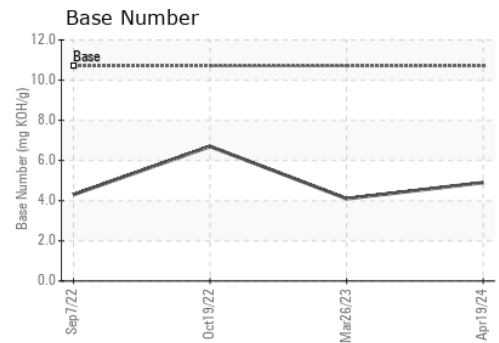
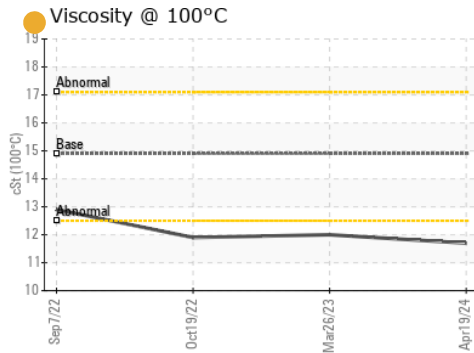
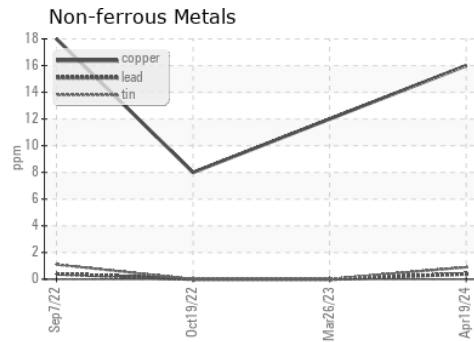
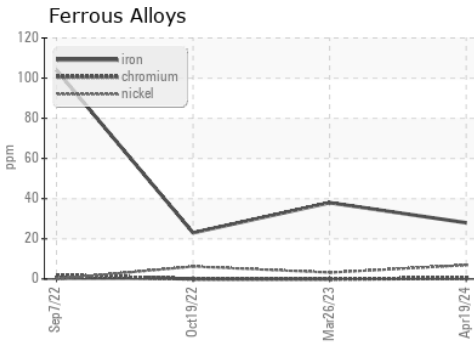
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	● 11.7	12.0

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WCMFB92794      **Received** : 13 May 2024  
**Lab Number** : 06178044      **Tested** : 15 May 2024  
**Unique Number** : 11029370      **Diagnosed** : 15 May 2024 - Sean Felton  
**Test Package** : FLEET ( Additional Tests: FuelDilution, Glycol )

**LTI/MILKY WAY - JEROME**  
P.O. BOX 348  
JEROME, ID  
US 83338  
Contact: Cesar ESPINO  
cespino@lynden.com  
T: (208)731-3822  
F: (208)324-1176

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)