



# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id

**2445**

Component

**Diesel Engine**

Fluid

**CHEVRON DELO 400 SDE SAE 15W40 (--- GAL)**

## 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

Fuel content negligible. 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. Elemental level of silicon (Si) above normal indicating ingress of seal material.

### 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>WC0859261</b>	---	---
Sample Date	Client Info		<b>12 Apr 2024</b>	---	---
Machine Age	mls	Client Info	<b>21216</b>	---	---
Oil Age	mls	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<b>47</b>	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	---
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	---
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---
Aluminum	ppm	ASTM D5185m	>20	<b>46</b>	---
Lead	ppm	ASTM D5185m	>40	<b>2</b>	---
Copper	ppm	ASTM D5185m	>330	<b>27</b>	---
Tin	ppm	ASTM D5185m	>15	<b>2</b>	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>57</b>	---
Barium	ppm	ASTM D5185m		<b>6</b>	---
Molybdenum	ppm	ASTM D5185m		<b>22</b>	---
Manganese	ppm	ASTM D5185m		<b>6</b>	---
Magnesium	ppm	ASTM D5185m		<b>856</b>	---
Calcium	ppm	ASTM D5185m		<b>1403</b>	---
Phosphorus	ppm	ASTM D5185m	760	<b>816</b>	---
Zinc	ppm	ASTM D5185m	800	<b>944</b>	---
Sulfur	ppm	ASTM D5185m	3000	<b>3399</b>	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>▲ 40</b>	---
Sodium	ppm	ASTM D5185m		<b>5</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>152</b>	---
Fuel	%	ASTM D3524	>3.0	<b>0.9</b>	---

## INFRA-RED

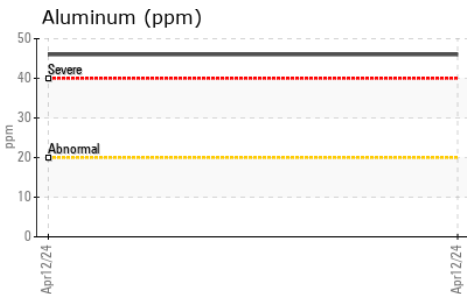
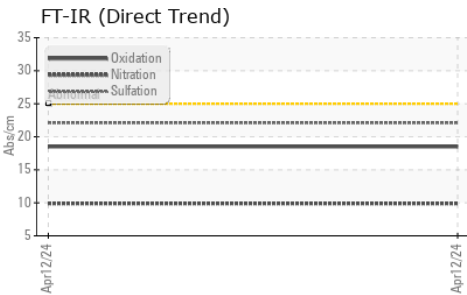
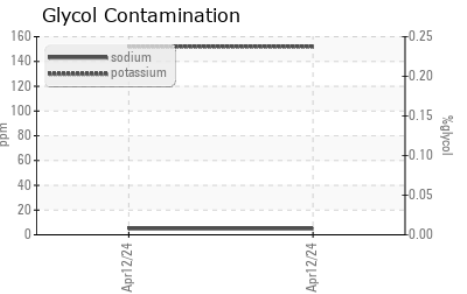
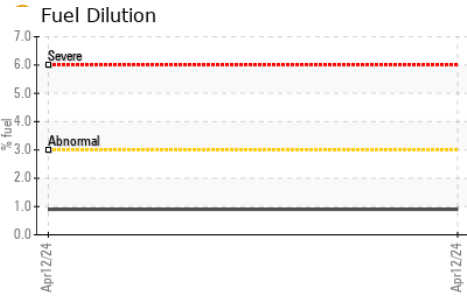
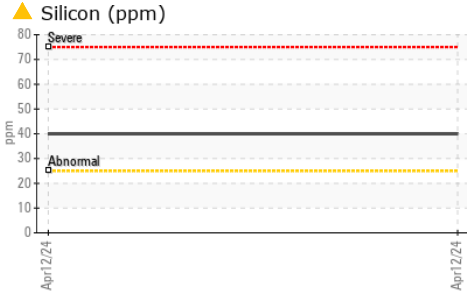
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	<b>0.2</b>	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.5</b>	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>5.6</b>	---



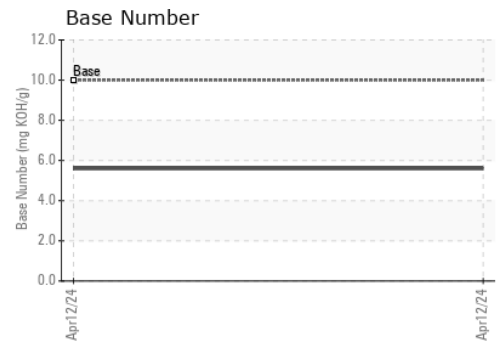
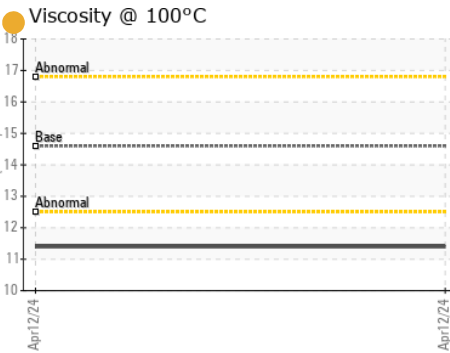
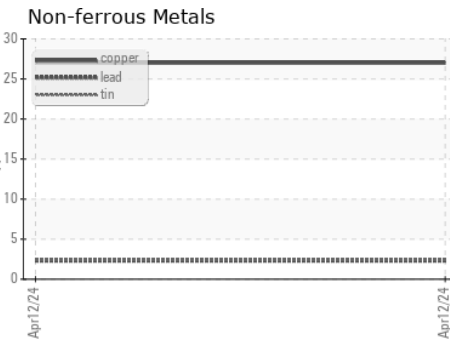
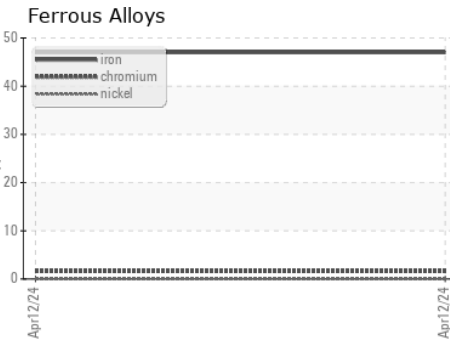
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14.6	<b>11.4</b>	---	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0859261 **Received** : 15 Apr 2024  
**Lab Number** : **06149360** **Tested** : 19 Apr 2024  
**Unique Number** : 10979438 **Diagnosed** : 19 Apr 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**Ergon Trucking Inc. - MAG601**  
 11337 State Route 800  
 Magnolia, OH  
 US 44643  
 Contact: JASON JULIAN  
 jason.julian@ergon.com

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)