



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**SPARTAN TECUMSEH RESCUE #2**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 LE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0877863</b>	WC0702395	WC0623542
Sample Date		Client Info		<b>22 Dec 2023</b>	15 Dec 2022	10 Dec 2021
Machine Age	kms	Client Info		<b>2113</b>	28799	0
Oil Age	kms	Client Info		<b>116</b>	1500	2000
Filter Age	kms	Client Info		<b>116</b>	1500	2000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	<b>8</b>	8	8
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>3	<b>1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	3	1
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

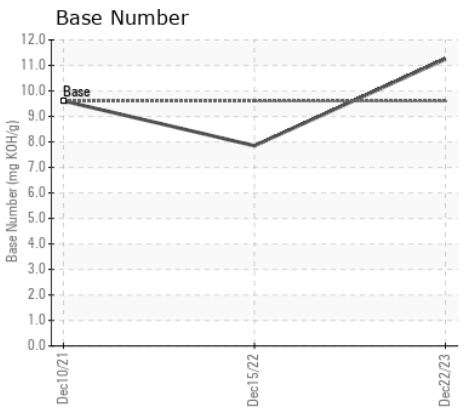
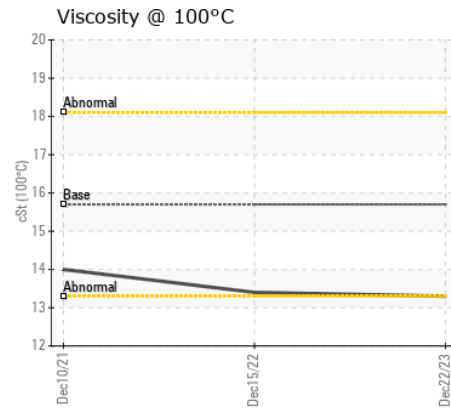
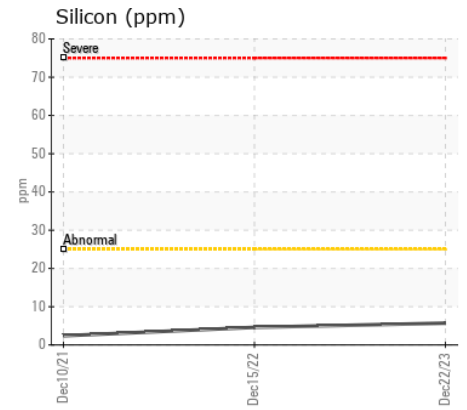
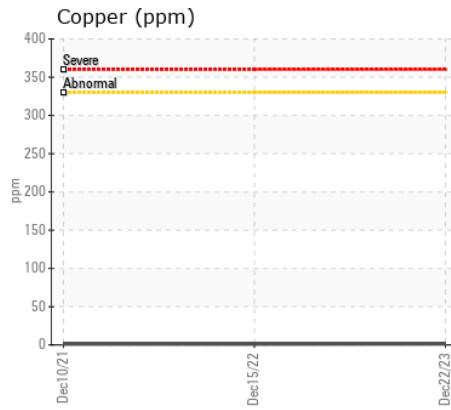
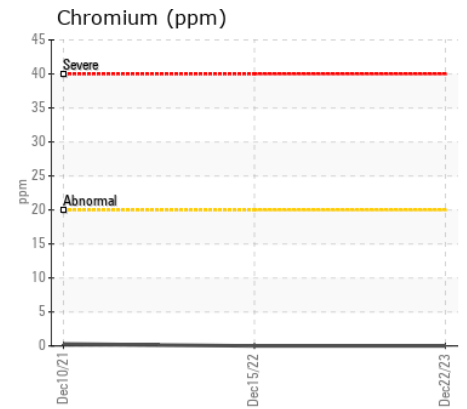
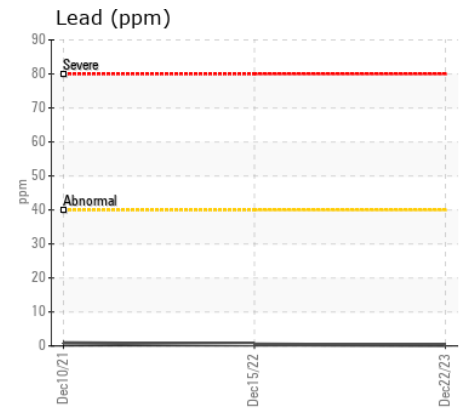
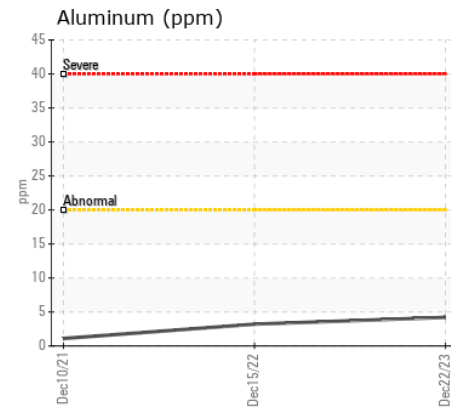
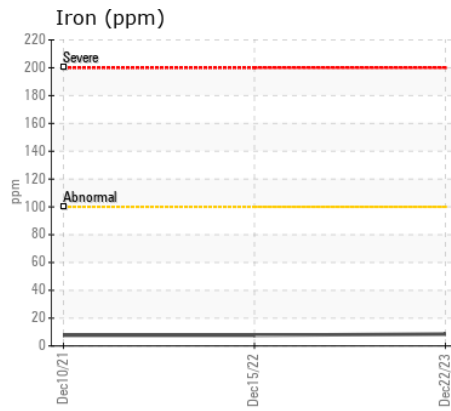
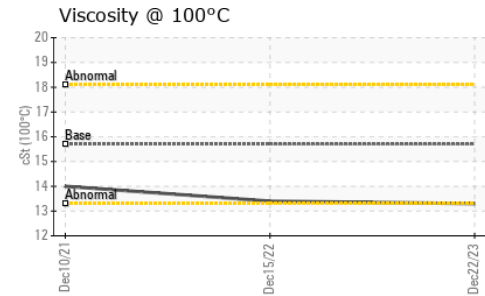
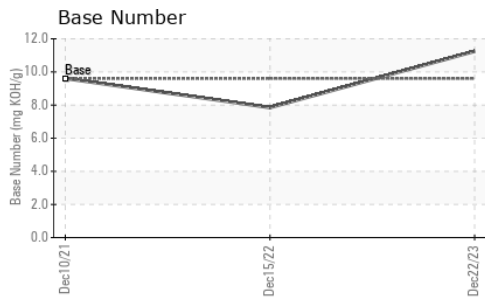
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	5	2
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.2</b>	4.5	3.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.1</b>	17.7	13.4
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	<1
Boron	ppm	ASTM D5185(m)		<b>299</b>	264	14
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>128</b>	110	54
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>692</b>	685	911
Calcium	ppm	ASTM D5185(m)		<b>1531</b>	1485	1148
Phosphorus	ppm	ASTM D5185(m)	1200	<b>715</b>	804	1051
Zinc	ppm	ASTM D5185(m)	1300	<b>800</b>	845	1192
Sulfur	ppm	ASTM D5185(m)	3200	<b>2212</b>	2218	2638
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.1</b>	9.8	6.2
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>11.25</b>	7.85	9.61
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>13.3</b>	13.4	14.0



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0877863 **Received** : 22 Dec 2023  
**Lab Number** : 02604875 **Tested** : 27 Dec 2023  
**Unique Number** : 5697960 **Diagnosed** : 27 Dec 2023 - Wes Davis  
**Test Package** : MOB 2

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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.