



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
WESTERN STAR 425509
Component
Diesel Engine
Fluid
CHEVRON DELO 400 SAE 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0720872	WC0720870	WC0720877
Sample Date		Client Info		02 Apr 2024	22 Mar 2023	18 Oct 2022
Machine Age	kms	Client Info		798496	731645	700262
Oil Age	kms	Client Info		8368	50000	19000
Filter Age	kms	Client Info		8368	50000	19000
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	11	6	9
Chromium	ppm	ASTM D5185(m)	>6	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>3	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>50	2	2	3
Lead	ppm	ASTM D5185(m)	>10	0	0	0
Copper	ppm	ASTM D5185(m)	>50	<1	1	1
Tin	ppm	ASTM D5185(m)	>6	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

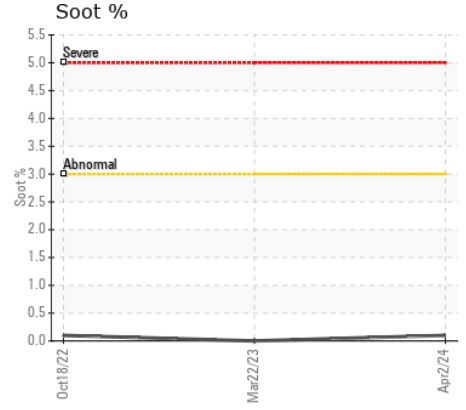
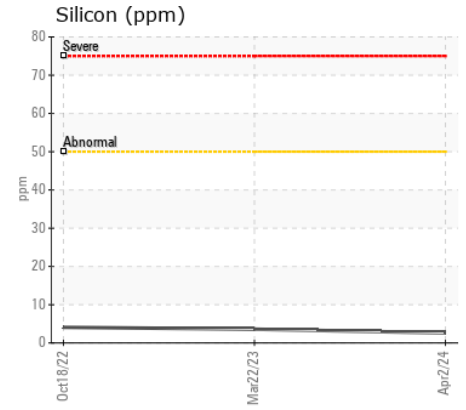
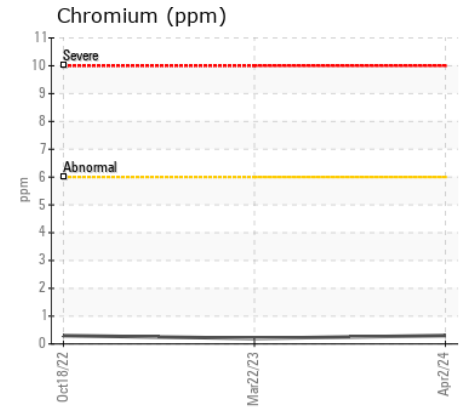
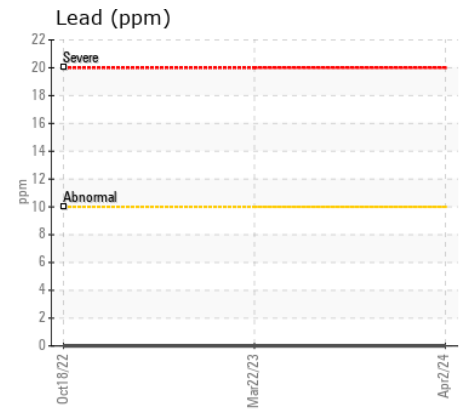
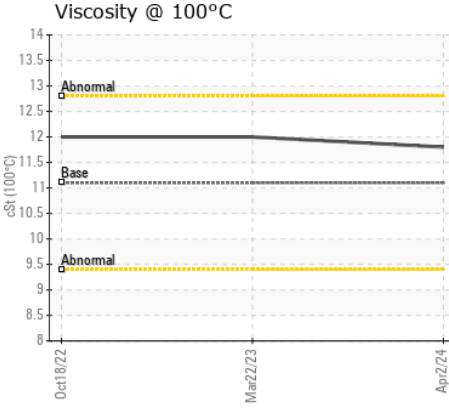
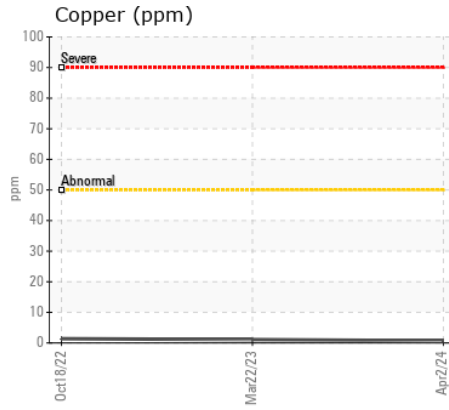
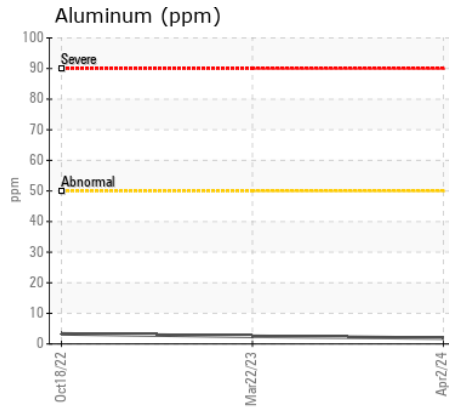
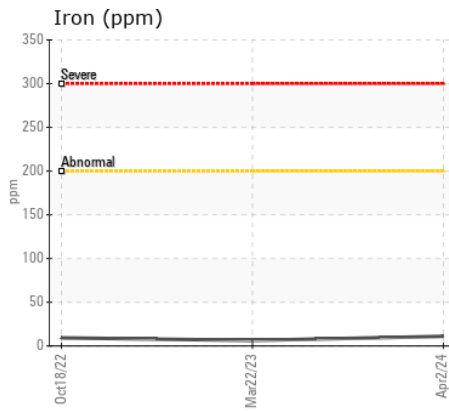
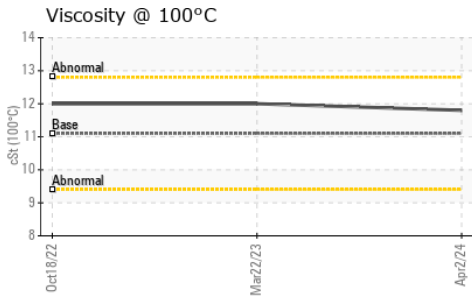
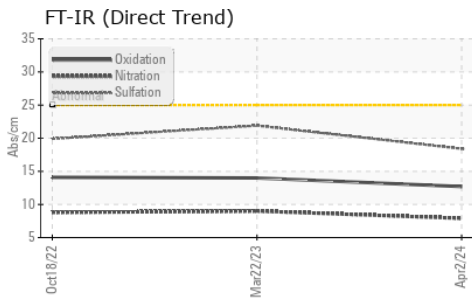
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	3	4	4
Potassium	ppm	ASTM D5185(m)	>20	2	2	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.1	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	7.9	9.0	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.4	21.9	19.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		2	3	3
Boron	ppm	ASTM D5185(m)		70	61	42
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		2	4	1
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		710	739	698
Calcium	ppm	ASTM D5185(m)		1330	1414	1397
Phosphorus	ppm	ASTM D5185(m)	1260	684	752	716
Zinc	ppm	ASTM D5185(m)	1400	764	780	779
Sulfur	ppm	ASTM D5185(m)		2442	2583	2478
Oxidation	Abs/.1mm	ASTM D7414*	>25	12.7	14.0	14.1
Visc @ 100°C	cSt	ASTM D7279(m)	11.1	11.8	12.0	12.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0720872
Lab Number : 02629567
Unique Number : 5762699
Test Package : MOB 1
Received : 17 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 17 Apr 2024 - Wes Davis

MCS MECHANICAL CONTRACTING SERVICE
 5 CATTAIL PLACE
 KINGSTON, ON
 CA K7K 6Y9
 Contact: Rex Asselstine
 basselstine@sympatico.ca
 T: (613)389-9484
 F: (613)389-8918

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.