

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

## Machine Id **30214** Component **Diesel Engine** Fluid **CHEVRON 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0905199	WC0882866	WC0857109
	Sample Date		Client Info		06 May 2024	07 Mar 2024	14 Dec 2023
	Machine Age	hrs	Client Info		3661	3336	3068
	Oil Age	hrs	Client Info		1500	250	250
	Filter Age	hrs	Client Info		1500	250	250
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	MARGINAL
WEAR	Iron	ppm	ASTM D5185m	<u>\100</u>	6	10	6
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0	<1	0
	Nickel	ppm	ASTM D5185m		0	<1	<1
	Titanium	ppm	ASTM D5185m	21	1	<1	<1
	Silver	ppm	ASTM D5185m	-3	0	<1	0
	Aluminum	ppm	ASTM D5185m		2	2	3
	Lead	ppm	ASTM D5185m		0	<1	0
	Copper	ppm	ASTM D5185m		3	<1	0
	Tin	ppm	ASTM D5185m		1	1	<1
	Vanadium	ppm	ASTM D5185m	10	0	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	8	10	12
There is no indication of any contamination in the oil	Potassium	ppm	ASTM D5185m	>20	0	2	2
There is no indication of any contamination in the oil.	Fuel		WC Method		<1.0	<1.0	<b>2</b> .1
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	6.3	10.2	6.4
	Sulfation	Abs/.1mm	*ASTM D7415		19.4	20.9	18.8
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>50	1	0	<1
	Boron	ppm	ASTM D5185m		400	131	368
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	<1
	Molybdenum	ppm	ASTM D5185m		79	49	82
	Manganese	ppm	ASTM D5185m		1	<1	<1
	Magnesium	ppm	ASTM D5185m		410	856	387
	Calcium	ppm	ASTM D5185m		1380	1319	1394
	Phosphorus	ppm	ASTM D5185m		984	744	979
	Zinc	ppm	ASTM D5185m		1182	867	1132
	Sulfur	ppm	ASTM D5185m		3502	2395	3048
	Oxidation		*ASTM D7414	>25	14.4	21.7	13.3
				-			

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445 14.4

Visc @ 100°C cSt

10.3

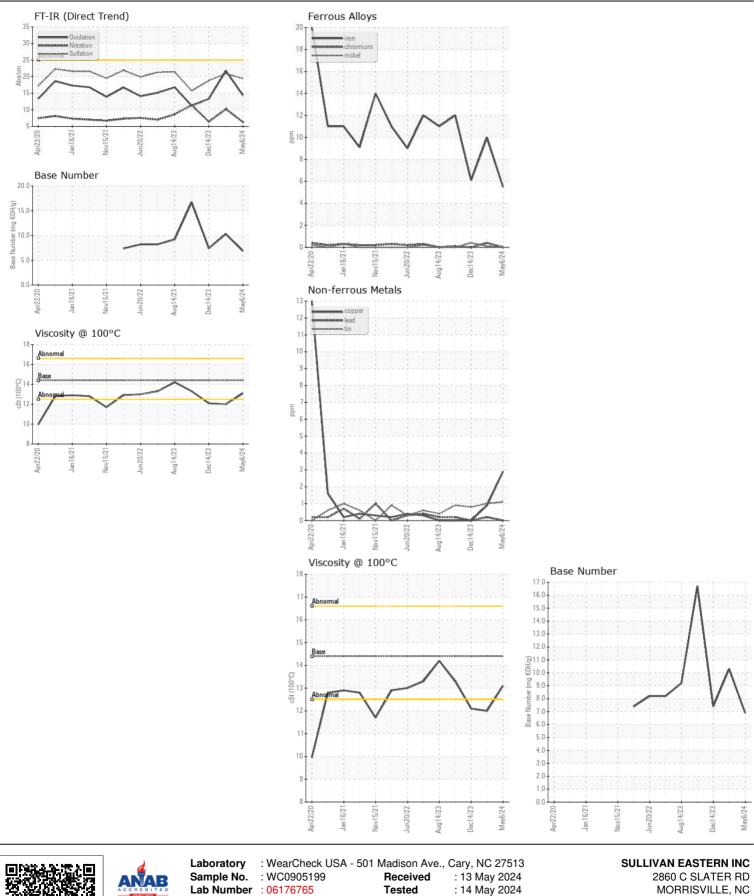
12.0

7.4

12.1

6.9

13.1



 Unique Number
 : 11022818
 Diagnosed
 : 14 May 2024 - Wes Davis
 US 27560

 Certificate 12367
 Test Package
 : CONST (Additional Tests: TBN)
 Contact: SCOTT SULLIVAN

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

 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 T: (919)484-8993

 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)
 F: (919)484-2136

Contact/Location: SCOTT SULLIVAN - MSCDUR Page 2 of 2