

## Machine Id **12974** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

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. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		WC0841910	WC0826573	WC0742079
	Sample Date		Client Info		25 Jan 2024	30 Jun 2023	24 Apr 2023
	Machine Age	mls	Client Info		266637	261167	243736
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	26	27	30
	Chromium	ppm	ASTM D5185m	>20	1	2	1
	Nickel	ppm	ASTM D5185m		<1	<1	0
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	3	<1	2
	Lead	ppm	ASTM D5185m	>40	1	<1	0
	Copper	ppm	ASTM D5185m	>330	27	105	88
	Tin	ppm	ASTM D5185m	>15	<1	0	0
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	0'''				•		
CONTAMINATION	Silicon	ppm	ASTM D5185m		6	7	7
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		3	3	1
	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG NEG	NEG
	Glycol Soot %	0/	*ASTM D7844	. 0	NEG 1		NEG
	Nitration	% Abs/cm	*ASTM D7644	>3 >20	10.6	0.4 9.8	0.4
	Sulfation	Abs/.1mm	*ASTM D7024		22.2	21.9	19.7
	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		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	3	1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		2	0	0
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	100	67	67	67
	Manganese	ppm	ASTM D5185m	450	<1	<1	1
	Magnesium	ppm	ASTM D5185m		1026	1060	1095
	Calcium	ppm	ASTM D5185m	3000	1100	1153	1180
	Phosphorus	ppm	ASTM D5185m		972	1034	1061
	Zinc	ppm	ASTM D5185m	1350	1305	1277	1392

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m 4250

Abs/.1mm \*ASTM D7414 >25

ASTM D445 14.4

Base Number (BN) mg KOH/g ASTM D2896 8.5

19.2

8.4

13.2

3019

18.4

7.3

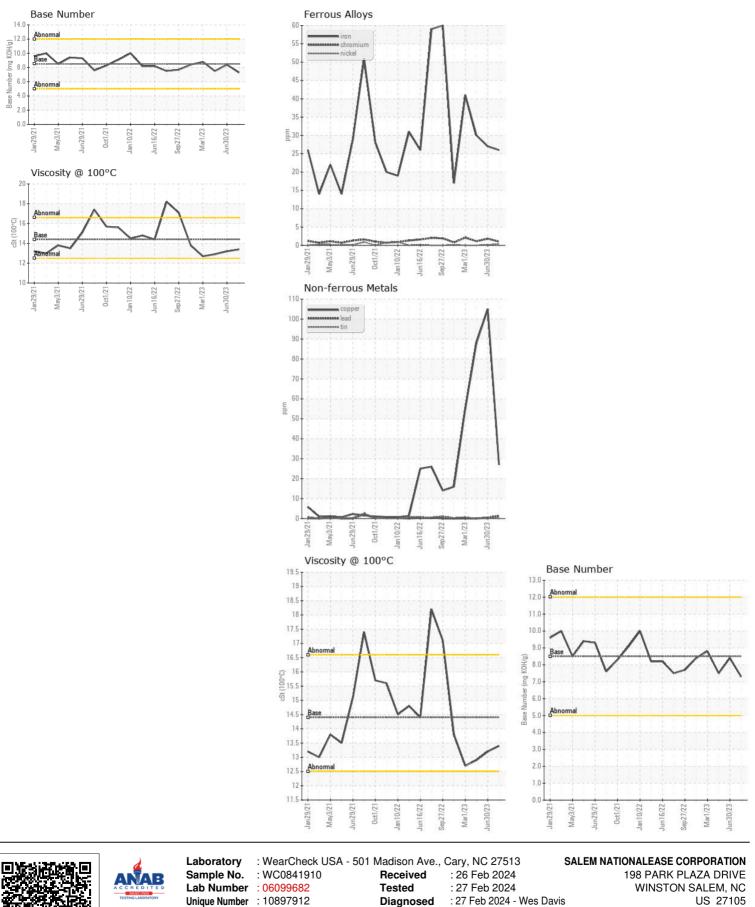
13.4

17.5

7.5

12.9

3288 3286



Test Package : FLEET **Contact: Audrey Hopkins** Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Audrey.Hopkins@salemcorp.com \* - 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)

Contact/Location: Audrey Hopkins - SALWIN

F: x:

T: (336)767-9642