

WEAR	
CONTAMINATION	
FLUID CONDITION	NORMAL

Machine Id **55939** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Becomple at the payt convice interval to manitar. Places encode the	Sample Number		Client Info		DC0036013	DC0029339	DC0031651
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Date		Client Info		13 May 2024	04 Dec 2023	08 Sep 2023
	Machine Age	hrs	Client Info		6417	6208	6048
	Oil Age	hrs	Client Info		200	0	200
	Filter Age	hrs	Client Info		200	0	200
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
				400	40	40	4
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m		13	13	4
	Chromium	ppm	ASTM D5185m		0	<1	<1
	Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
	Titanium	ppm	ASTM D5185m	-	0	<1	0
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m		2	2	3
	Lead	ppm	ASTM D5185m		<1	0	0
	Copper	ppm	ASTM D5185m		<1	1	<1
	Tin	ppm	ASTM D5185m	>15	<1	<1	0
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4	4	4
CONTAMINATION	Potassium	ppm	ASTM D5185m		3	3	2
There is no indication of any contamination in the oil.	Fuel	ррпп	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	~3	0.2	0.2	0
	Nitration	Abs/cm	*ASTM D7624	>20	6.4	6.1	6.9
	Sulfation	Abs/.1mm	*ASTM D7415		16.4	16.0	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		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	0	<1
	Boron	ppm	ASTM D5185m	250	2	2	1
The BN result indicates that there is suitable alkalinity remaining in the	Barium	ppm	ASTM D5185m	10	0	12	0
oil. The condition of the oil is suitable for further service.	Molybdenum	ppm	ASTM D5185m	100	3	4	3
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	450	51	46	42
	Calcium	ppm	ASTM D5185m	3000	2363	2338	2449
	Phosphorus	ppm	ASTM D5185m	1150	927	903	922
	Zinc	ppm	ASTM D5185m	1350	1083	1048	1110
	Sulfur	ppm	ASTM D5185m	4250	4267	4194	4385
	Oxidation	Abs/.1mm	*ASTM D7414	>25	9.4	9.3	11.0
	Dees Number (DNI)	ma 1/011/a		0.5	7 5	7 5	7.0

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

ASTM D445 14.4

Visc @ 100°C cSt

7.5

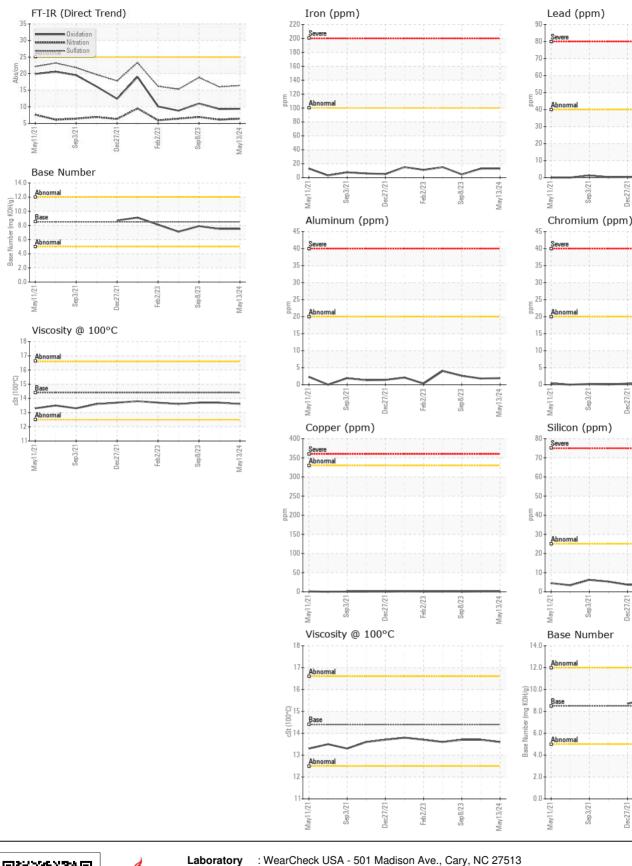
13.7

7.9

13.7

7.5

13.6



FRANCIS O DAY 14900 SOUTHLAWN LN ROCKVILLE, MD US 20850 Contact: JAMIE FORESTER

Feb2/23

Dec27/21

Sep8/23.

May13/24

T:

F:

Sep 8/23.

/lav13/24

Feb2/23

Feb2/23

Dec77/7

C/LCool

Feb 2/73

San 8/73

Sep 8/23

C/LCool



: 30 May 2024 - Wes Davis Unique Number : 11050170 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Certificate L2367 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)

Received

Tested

: 28 May 2024

: 30 May 2024

Contact/Location: JAMIE FORESTER - FRAROCDC

Report Id: FRAROCDC [WUSCAR] 06193418 (Generated: 05/30/2024 14:24:23) Rev: 1

: DC0036013

Sample No.

Lab Number : 06193418

Page 2 of 2