

# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

### **1901** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

#### DIAGNOSIS

## Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

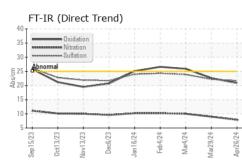
# Fluid Condition

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

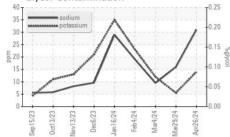
SAMPLE INFORM	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0897864	WC0878770	WC0894056	
Sample Date		Client Info		26 Apr 2024	29 Mar 2024	04 Mar 2024	
Machine Age	mls	Client Info		341953	0	0	
Oil Age	mls	Client Info		0	0	0	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATIO	N	method	limit/base	current	history1	history2	
Fuel		WC Method	>5	<1.0	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	5	6	10	
Chromium	ppm	ASTM D5185m	>20	<1	0	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	0	
Titanium	ppm	ASTM D5185m		<1	0	<1	
Silver	ppm	ASTM D5185m	>3	0	0	<1	
Aluminum	ppm	ASTM D5185m	>20	2	<1	3	
Lead	ppm	ASTM D5185m	>40	<1	<1	<1	
Copper	ppm	ASTM D5185m	>330	1	<1	1	
Tin	ppm	ASTM D5185m	>15	<1	0	<1	
Vanadium	ppm	ASTM D5185m		<1	<1	<1	
Cadmium	ppm	ASTM D5185m		<1	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	250	0	<1	<1	
Barium	ppm	ASTM D5185m	10	2	0	2	
Molybdenum	ppm	ASTM D5185m	100	62	56	61	
Manganese	ppm	ASTM D5185m		<1	0	0	
Magnesium	ppm	ASTM D5185m	450	938	905	927	
Calcium	ppm	ASTM D5185m	3000	1095	1062	1128	
Phosphorus	ppm	ASTM D5185m	1150	1144	988	1058	
Zinc	ppm	ASTM D5185m	1350	1246	1169	1231	
Sulfur	ppm	ASTM D5185m	4250	3426	3339	3313	
CONTAMINANTS	\$	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m		12	9	6	
Sodium	ppm	ASTM D5185m	>158	31	16	10	
Potassium	ppm	ASTM D5185m	>20	14	6	12	
Glycol	%	*ASTM D2982		NEG	NEG	NEG	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3	
Nitration	Abs/cm	*ASTM D7624	>20	7.9	9.0	10.0	
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	22.2	23.9	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.9	22.6	25.9	
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.9	7.0	6.5	

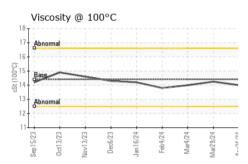


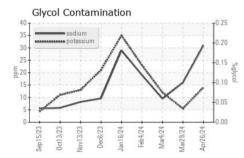
# **OIL ANALYSIS REPORT**











	VISUAL		method	limit/base	current	history1	history2						
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE						
	Yellow Metal		*Visual	NONE	NONE	NONE	NONE						
and the second division of the second divisio	Precipitate		*Visual	NONE	NONE	NONE	NONE						
	Silt		*Visual	NONE	NONE	NONE	NONE						
	Debris		*Visual	NONE	NONE	NONE	NONE						
	Sand/Dirt		*Visual	NONE	NONE	NONE	NONE						
Mar4/24 Mar29/24 Apr26/24	Appearance		*Visual	NORML	NORML	NORML	NORML						
Ma Ma	Odor	scalar	*Visual	NORML	NORML	NORML	NORML						
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG						
0.25	Free Water	scalar	*Visual		NEG	NEG	NEG						
0.20	FLUID PROPERT		method	limit/base	current	history1	history2						
0.15 %glycol	Visc @ 100°C	cSt	ASTM D445	14.4	14.0	14.25	14.0						
0.05	Iron (ppm)	GRAPHS Iron (ppm) Lead (ppm)											
0.00	250 Severe			10	Severe								
Mar29/24 - Apr26/24 -	200 - Severe	1		8									
Ap	150 100 - Abnormal			e 6	Abnormal								
	50			4									
1 1					0								
	Sep 15/23 Oct13/23 Nov13/23 Dec6/23	Jan 16/24	Feb4/24 Mar4/24 Mar29/24	Apr26/24	Sep15/23 Oct13/23 Nov13/23	Dec6/23 Jan 16/24 Feb 4/24	Mar4/24 Mar29/24 Apr26/24						
	Sep Nov De	Jan	Mari Mari	Apri	Sep Oct Nov	Jan Fei	Mar Mar						
	Aluminum (ppm)			, - 5	Chromium (p	pm)							
	40 Severe			4	Severe								
				2									
Mar29/24 - Mar29/24 -	and a second sec		· · · · ·		Abnormal								
Mar2 Mar2	10-				0								
						+ + +	et et et						
T <sup>0.25</sup>	Sep 15/23 Oct13/23 Nov13/23 Dec6/23	Jan 16/24	Feb4/24 Mar4/24 Mar29/24	Apr26/24 -	Sep15/23 Oct13/23 Nov13/23	Dec6/23 Jan16/24 Feb4/24	Mar4/24 Mar29/24 Apr26/24						
-0.20	Copper (ppm)	7	2	4	Silicon (ppm)		2 4						
0.15 %glycol	400 Severe	+	++-	8	O Severe		1 1 1						
0.10 8	300			6									
-0.05	톱 200 -			Ed 4	0								
l0.00	100-			2	Abnormal								
Mar29/24 Apr26/24	0				0								
Ap	Sep 15/23 Oct13/23 Nov13/23 Dec6/23	Jan 16/24	Feb4/24 Mar4/24 Mar29/24	Apr26/24 -	Sep15/23 Oct13/23 Vov13/23	Dec6/23 Jan 16/24 Feb 4/24	Mar4/24 - Mar29/24 - Apr26/24 -						
	ی میں Viscosity @ 100°C	-		Ag	జింత జి Base Number	7	M. M.						
	18 T												
	Abnormal			(B)HOX Buses Number (B)HOX	Abnormal								
	ि 0014 Abnormal			ш ш	Base								
	र्हे 12	1			0 - Abnormal								
				ase Ba									
		3/24 -	4/24 + 1/24 + 1/24 +	-++0.	1/23 +	3/23 - 5/24 -	1/24 +						
	Sep15/23 Oct13/23 Nov13/23 Dec6/23	Jan 16/24	Heb 4/24 Mar4/24 Mar29/24	Apr26/24	Sep15/23 Oct13/23 Nov13/23	Dec6/23 Jan 16/24 Feb4/24	Mar4/24 Mar29/24 Apr26/24						
Laboratory Sample No. Lab Number Unique Number	: 11022852	Recei Teste Diagr	ived : 13 ed : 14 nosed : 14	y, NC 27513 3 May 2024 4 May 2024 9 May 2024 - Se	ean Felton	1903 FAY	RHAM - RAPT ETTEVILLE ST DURHAM, NC US 27701						
	e : MOB 1 (Additional Tests: Glycol, TBN ) Contact: Robert losiniecl												

Certificate 12367

Test Package : MOB 1 (Additional Tests: Glycol, TBN) 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)

Report Id: GODDUR [WUSCAR] 06176799 (Generated: 05/14/2024 17:47:20) Rev: 1

Contact/Location: Robert Iosiniecki - GODDUR

Page 2 of 2

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