

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 228003 Component Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (24 LTR)

DIAGNOSIS	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
A Recommendation	Sample Number		Client Info		GFL0102847	GFL0097318	GFL0090846
No corrective action is recommended at this time.	Sample Date		Client Info		12 Feb 2024	25 Oct 2023	17 Aug 2023
Resample at the next service interval to monitor.	Machine Age	hrs	Client Info		0	0	197795
Wear	Oil Age	hrs	Client Info		0	8201	0
All component wear rates are normal.	Oil Changed		Client Info		N/A	N/A	N/A
Contamination	Sample Status				MARGINAL	NORMAL	ABNORMAL
Light fuel dilution occurring. No other contaminants were detected in the oil.	CONTAMINAT	ION	method	limit/base	current	history1	history2
Fluid Condition	Water		WC Method	>0.2	NEG	NEG	NEG
The condition of the oil is acceptable for the time in	Glycol		WC Method		NEG	NEG	NEG
service.	WEAR METAL	S	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185(m)	>90	23	14	25
	Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185(m)	>2	<1	0	0
	Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
	Silver	ppm	ASTM D5185(m)	>2	0	<1	0
	Aluminum	ppm	ASTM D5185(m)	>20	4	3	5
	Lead	ppm	ASTM D5185(m)	>40	0	0	0
	Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
	Tin	ppm	ASTM D5185(m)	>15	0	0	0
	Antimony	ppm	ASTM D5185(m)		0	0	0
	Vanadium	ppm	ASTM D5185(m)		0	0	0
	Beryllium	ppm	ASTM D5185(m)		0	0	0
	Cadmium	ppm	ASTM D5185(m)		0	0	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185(m)	250	42	6	27
	Barium	ppm	ASTM D5185(m)	10	0	0	0
	Molybdenum	ppm	ASTM D5185(m)	100	24	54	42
	Manganese	ppm	ASTM D5185(m)		0	0	<1
	Magnesium	ppm	ASTM D5185(m)	450	196	807	497
	Calcium	ppm	ASTM D5185(m)	3000	1958	1037	1664
	Phosphorus	ppm	ASTM D5185(m)	1150	901	914	807
	Zinc	ppm	ASTM D5185(m)	1350	1060	1077	896
	Sulfur	ppm	ASTM D5185(m)	4250	2792	2315	2111
	Lithium	ppm	ASTM D5185(m)		<1	<1	<1
	CONTAMINAN	ITS	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185(m)	>25	4	3	5
	Sodium	ppm	ASTM D5185(m)	>158	2	2	2
	Potassium	ppm	ASTM D5185(m)	>20	3	<1	4
	Fuel	%	ASTM D7593*	>3.0	A 2.5	<1.0	<u></u> 2
	INFRA-RED		method	limit/base	current	history1	history2
	Soot %	%	ASTM D7844*	>6	1	0.6	0.8
	Nitration	Abs/cm	ASTM D7624*	>20	10.6	8.1	10.0

Abs/.1mm ASTM D7415* >30

24.3

Sulfation

23.9

19.8



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FLUID DEGRAD	DATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.6	15.7	21.9	
VISUAL		method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE			
Yellow Metal	scalar	Visual*	NONE	NONE			
Precipitate	scalar	Visual*	NONE	NONE			
Silt	scalar	Visual*	NONE	NONE			
Debris	scalar	Visual*	NONE	NONE			
Sand/Dirt	scalar	Visual*	NONE	NONE			
Appearance	scalar	Visual*	NORML	NORML			
Odor	scalar	Visual*	NORML	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	11.9	13.7	▲ 11.3	
GRAPHS							
Iron (ppm)			100	Lead (ppm)			
200 Severe			80	Severe			
150			e. 60	Abaamal			
100 Abnormal	1		⁻ 40	Abnorma			
			20				
1/20 - 1/20 - 1/20 - 1/22 - 1/	5/22 -	9/23 .	2/24	1/20 -	3/23 -	9/23 - 7/23 - 5/23 - 2/24 -	
Jul3 Aug May1 Jun1	Dec Mar2	May1 Aug1	Feb1	Jul3 Auq May1	Jun1 Dec Mar2	May1 Aug1 Oct2 Feb1	
Aluminum (ppm)				Chromium (p	pm)		
40 Severe			50	Severe			
F 30							
a Abnormal	~		[₫] 20	Abnormal			
10	/ `		10				
22	722	723	24	720	722 - 722 -	723 - 723 - 723 -	
Jul31. Aug6 Aay10 Jun17	Dec5 Mar23	Aug 17.	Feb12	Jul31, Aug6 //ay10,	Jun17 Dec5 Mar23	Aay19 Aug17 Oct25 Feb12	
Copper (ppm)	_	~ ~		Silicon (ppm)	, -	2 7	
400 Severe			80	Severe			
300 -			60				
<u>200</u>			<u>특</u> 40	Abnormal			
100-			20	0			
21	22	5 5 5 5	0	21	23-		
av10/2 av10/2	Dec5/2 ar23/2	ay19/2 ug17/2	eb12/2	ul31/2 Aug6// ay10/2	un 17/2 Dec5/2 lar23/2	ay 1 9/2 ug 1 7/2 lot 2 5/2	
ີ ຮິ⊰ິ Viscositv @ 100°C	Σ	M AI	ب بت ۸	Euel Dilution	÷ - ≥	A. A.	
18 Abnormal			8.0				
ale Base			6.0	Severe G			
014			³ ² 4.0 ^{3²}	Abnormal		· · · · · · · · · · · · · · · · · · ·	
^o 12 - G		\checkmark	2.0			\frown /	
	22 - 23 - 23 -	23	0.0	20	22	23+ 23+ 24+	
Jul31/ Aug6/ lay10/./ un17/.	Dec5/	ug17/.	eb12/	Jul31) Aug6/ lay10/2	un17/ Dec5/	lay19/ ug17// Jct25//	
· ¥ ŕ	2	2 A U	- LL	. 2	ר ≥	A A A	
: WearCheck - C8-1175	5 Appleby	Line, Burlir	ngton, ON L7L	. 5H9 GFL E	nvironmenta	- 246 - Windsor	
: GFL0102847	Recei	ved : 13	3 Feb 2024			2700 Deziel Dr	
: 02615241 : 5724336	Teste	0 :14 0 sed :17	4 ⊢eb 2024 1 Feb 2024 - ₩/	es Davis		WINDSOR, ON	
	Biagli			oo Duno		0111010010	



Lab Number ISO 17025:2017 Accredited Laboratory Unique Number : 5724336 Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, Visual) 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.

CALA

Laboratory

Sample No.

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