

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



FMC014

Component **Diesel Engine**

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

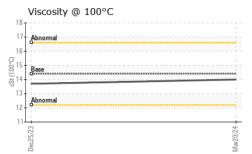
Fluid Condition

The condition of the oil is acceptable for the time in service.

			Dec2023	Mar2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0883792	WC0883832	
Sample Date		Client Info		20 Mar 2024	25 Dec 2023	
Machine Age	hrs	Client Info		16824	5657	
Oil Age	hrs	Client Info		250	250	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	23	23	
Chromium	ppm	ASTM D5185(m)	>20	<1	1	
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>3	0	0	
Aluminum	ppm	ASTM D5185(m)	>20	6	5	
Lead	ppm	ASTM D5185(m)	>40	4	3	
Copper	ppm	ASTM D5185(m)	>330	1	1	
Tin	ppm	ASTM D5185(m)	>15	0	<1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	40	38	
Barium	ppm	ASTM D5185(m)	10	0	0	
Molybdenum	ppm	ASTM D5185(m)	100	41	41	
Manganese	ppm	ASTM D5185(m)		0	0	
Magnesium	ppm	ASTM D5185(m)	450	517	514	
Calcium	ppm	ASTM D5185(m)	3000	1709	1728	
Phosphorus	ppm	ASTM D5185(m)	1150	730	749	
Zinc	ppm	ASTM D5185(m)	1350	885	888	
Sulfur	ppm	ASTM D5185(m)	4250	1959	2169	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	7	
Sodium	ppm	ASTM D5185(m)	>158	3	3	
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	1	0.7	
Nitration	Abs/cm	ASTM D7624*	>20	8.7	8.1	
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.8	24.1	



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Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.0	13.7	
GRAPHS		_			_	_
Iron (ppm)				Lead (ppm)		
250 Severe				Severe		
200				00 3		
150 Abnormal				Abnormal		
100				TO T 3		
50				20		
Dec25/23 +			Mar20/24 +	5/23		0/24
			Mar2	Dec25/23		Mar20/24
Aluminum (ppm	1)			Chromium (ppm)	
Severe				Severe		
30				30		
Abnormal 20				Abnormal		
10				10		
0				0		
Dec25/23			Mar20/24	Dec25/23		Mar20/24
පී Copper (ppm)			M	్రి Silicon (ppm	.)	Ma
400 Severe				80 T Severe	·	
350 - Abnormal				70		
250 E 200				50 +		
150				30 - Abnormal		
50				10		
23 0			24	23 0		24+
Dec25/23			Mar20/24	Dec25/23		Mar20/24
Viscosity @ 100	°C			Soot %		
18 Abnormal				6.0 Severe		
16				4.0		
(2015 Base Base Base Base Base Base Base Base				53.0 Abnormal		
13 Abnormal				2.0		
12				0.0	····	
Dec25/23			Mar20/24	Dec25/23		Mar20/24 -
39			Mar	Dec		Mar



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02624633 Unique Number : 5749752

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0883792 Received **Tested**

Diagnosed Test Package : MOB 1

: 26 Mar 2024

: 26 Mar 2024 : 26 Mar 2024 - Wes Davis

Agnico Eagle Canada 1350 Government Rd. W, MACASSA COMPLEX Kirkland Lake, ON

CA P2N 3J1 Contact: Mitch Lamontagne AEM_KL_macassaoilsampleresults@agnicoeagle.com

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.

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