

# **OIL ANALYSIS REPORT**

Sample Rating Trend



## Machine Id **3463L** Component **Diesel Engine** Fluid **MOBIL 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

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

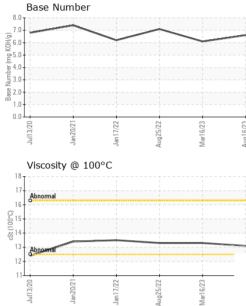
# **Fluid Condition**

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

IATION	method	limit/base	current	history1	history2
	Client Info		IL0032421	IL0025822	IL0027996
	Client Info		16 Aug 2023	16 Mar 2023	25 Aug 2022
mls	Client Info		107565	96982	80632
mls	Client Info		0	0	20000
	Client Info		Changed	N/A	Changed
			NORMAL	NORMAL	ABNORMAL
١	method	limit/base	current	history1	history2
	WC Method	>5	<1.0	<1.0	<1.0
	WC Method		NEG	NEG	NEG
	method	limit/base	current	history1	history2
ppm	ASTM D5185m	>100	49	70	116
	ASTM D5185m	>20	<1	1	2
	ASTM D5185m	>4	0	<1	0
ppm	ASTM D5185m		0	<1	<1
ppm		>3	0	0	<1
	ASTM D5185m	>20	9	19	<b>4</b> 5
	ASTM D5185m	>40	0	<1	<1
	ASTM D5185m	>330	2	3	6
	ASTM D5185m	>15	0	<1	<1
	ASTM D5185m				
	ASTM D5185m		0	0	<1
ppm	ASTM D5185m		0	0	0
	method	limit/base	current	history1	history2
ppm	ASTM D5185m		<1	3	34
	ASTM D5185m		0	0	0
	ASTM D5185m		56	60	46
	ASTM D5185m		<1	<1	1
	ASTM D5185m		943	873	500
	ASTM D5185m		1072	1183	1673
ppm	ASTM D5185m		959	915	758
	ASTM D5185m		1269	1202	982
ppm	ASTM D5185m		3616	2954	2479
	method	limit/base	current	history1	history2
ppm	ASTM D5185m	>25	4	6	9
ppm	ASTM D5185m	>118	<1	<1	2
ppm	ASTM D5185m	>20	10	20	53
	method	limit/base	current	history1	history2
%	*ASTM D7844	>3	0.9	1.2	1.5
Abs/cm	*ASTM D7624	>20	12.6	14.6	16.8
Abs/.1mm	*ASTM D7415	>30	25.4	27.3	30.8
TION	method	limit/base	current	history1	history2
Abs/.1mm	*ASTM D7414	>25	24.7	26.7	36.4
	mls       mls       mls       mls       mls       mls       mls       pmls       ppm       ppm  ppm	Client InfomlsClient InfoClient InfoClient InfoClient InfoClient InfoVWC MethodWC MethodWC Methodwc MathodWC MethodppmASTM D5185mppmASTM D5185mppmA	mis Client Info mis Client Info Client Info Client Info Client Info MC Method >5 MC Method >5 MC Method >5 MC Method >1 method limit/base MC Method >1 method 1 ppm ASTM D5185m >100 ppm ASTM D5185m >20 ppm ASTM D5185m >3 ppm ASTM D5185m >3 ppm ASTM D5185m >3 ppm ASTM D5185m >30 ppm ASTM D5185m >10 ppm ASTM D5185m >15 ppm ASTM D5185m >15 ppm ASTM D5185m >15 ppm ASTM D5185m ppm ASTM D	mlsClient Info107565mlsClient Info0Client InfoChangedClient InfoChangedClient InfoNORMALImathematical Client InfoNORMALWC Method>5<1.0	mlsClient Info10756596982mlsClient Info00Client InfoChangedN/ANORMALNORMALNORMALWC Method>5<1.0



# **OIL ANALYSIS REPORT**



	White Metal Yellow Metal	scalar scalar	*Visual *Visual	NONE NONE	NONE NONE	NONE	NONE NONE
		scalar	*Visual	NONE	NONE	NONE	NONE
	Precipitate Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	_ Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
(23 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Mar16/23 - Aug16/23 -	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445		13.1	13.3	13.3
	GRAPHS						
	Ferrous Alloys						
6/23	100-						
Mar16/23	80-						
	Ē 60 -						
	40 -						
	20 -						
	0			4488baaaa			
	Jul13/20 Jan 20/21	Jan 17/22	Mar16/23	Aug16/23			
	Jan	Audi	Mar	Bud			
	Non-ferrous Meta	als					
	30 copper	1 1					
	25- copper						
	copper						
	25 - copper lead 20 -						
	25 20 <u>E</u> 15						
	25 - copper lead 20 -						
	25 20 <u>E</u> 15						
	25 20 <u>E</u> 15 10 5 0						
	25 20 <u>E</u> 15 10 5 0	11/22	16/23	16/23			
	copper lead tin 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jani 7/22 Aura 5/22	Mait 6/23	Aug16/23			
	viscosity @ 100°		Mar18/23	Aug16/23	Base Number	r	
	copper lead tin copper lead tin copper lead tin copper lead tin copper lead copper copper coper coppe		Mari 6/23	8.0	Т	r	
	viscosity @ 100°		Mai16/23	8.0		r	
	viscosity @ 100°		Mar16/23	8.0		r	
	viscosity @ 100°		Mar16.23	8.0		r	
	viscosity @ 100°		Mari 6.23	8.0		r	
	Copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper log copper log copper copper copper log copper log copper log copper copper copper log copper copper copper log copper c		Mart 16/23	8.( 7.( 96.6.) 95.( 94.) 94.( 94.) 93.( 94.)		r	
	25 20 15 10 0 0 0 0 0 15 10 0 0 0 10 10 10 10 10 10 1		Mail6/23	8.0			
	Copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper log cop	C		8.( 7.( )()()()()()()()()()()()()()()()()()()			
	Copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper log cop	C		8.( 7.( )()()()()()()()()()()()()()()()()()()			16/23
	Copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper lead copper log cop			8.( 7.( 96.( 900) 94.( 900) 95.( 98.) 94.( 98.) 98.( 9.) 98.( 9.) 98.( 9.) 98.( 9.) 98.( 9.) 98.( 9.) 99.( 9.) 90.( 90.( 9.) 90.( 90.( 90.( 90.( 90.( 90.( 90.( 90.(		Jan 17/22	Mart 6/23
	Copper lead tin Cocciling Viscosity @ 100° Cicling Cocciling Cicling C	Jan 17/2/2 C	Mar16/23	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Jan 20/21	Jan17/22	
oratory	Viscosity @ 100°	C 22/[luer 501 Madi	son Ave., Ca	8.( 7.( (9)(0)(5.( 1.0)(10)(10)(10)(10)(10)(10)(10)(10)(10)(1	d d d d d d d d d d d d d d d d d d d	ZZ/LI luer ZZ/SZBuhA RUCK CENTER - CH	HICAGO IDEALEA
nple No.	Viscosity @ 100°	C ZZI[Ium] 501 Madi Received	son Ave., Ca	8.( 9.6.6. 9.6.6. 9.6.7. 9.6.7. 9.6.7. 9.7.7.7. 9.7.7.7. 9.7.7.7. 9.7.7.7.7. 9.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7	d d d d d d d d d d d d d d d d d d d	Jan17/22	<b>IICAGO IDEALEA</b> ITRAL AVENU
	Viscosity @ 100° Viscosity @ 100° Viscosity @ 100° Viscosity @ 100° Viscosity @ 100° Viscosity @ 100°	C 22/[luer 501 Madi	son Ave., Ca d : 24 ed : 24	8.( 7.( (9)(0)(5.( 1.0)(10)(10)(10)(10)(10)(10)(10)(10)(10)(1	d d d d d d d d d d d d d d d d d d d	ZZ/LI luer ZZ/SZBuhA RUCK CENTER - CH	HICAGO IDEALEA
nple No. Number ue Number t Package	Viscosity @ 100° Viscosity @ 100° Viscosity @ 100° Viscosity @ 100° Viscosity @ 100° Viscosity @ 100°	C 501 Madi Receiver Diagnos Diagnos	son Ave., Ca d : 24 ed : 24 tician : We	8.( 7.( 9.6.6 9.6.7 9.7.7 0.7.7 9.7.7 9.7.7 0.7.7	d d d d d d d d d d d d d d d d d d d	ZZZSZÓWY ZZZLLINE RUCK CENTER - CH 55 SOUTH CEN	HICAGO IDEALEA NTRAL AVENU CHICAGO, US 606 t: MIKE LINLI

To discuss this sample re \* - Denotes test methods Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

Contact/Location: MIKE LINLEY - IDECHIIL