

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **4731L** Component **Diesel Engine** Fluid **MOBIL 15W40 (--- QTS)**

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.

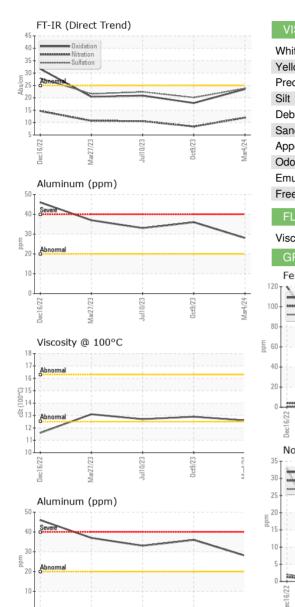
Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL06142900	IL0032496	IL0028936
Sample Date		Client Info		04 Mar 2024	09 Oct 2023	10 Jul 2023
Machine Age	mls	Client Info		79922	62406	49846
Oil Age	mls	Client Info		17517	15000	15000
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	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
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	36	29	40
Chromium	ppm	ASTM D5185m	>20	3	2	4
Nickel	ppm	ASTM D5185m	>4	1	<1	0
Titanium	ppm	ASTM D5185m	~ 1	<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	28	36	33
Lead	ppm	ASTM D5185m	>40	_=0 <1	0	0
Copper	ppm			2	1	<1
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
	le le					
Cadmium	ppm	ASTM D5185m		<1	0	0
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	0 history1	0 history2
	ppm ppm		limit/base		-	-
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1 0	history2 1
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 0 <1	history1 0 0	history2 1 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 <1 57	history1 0 0 77	history2 1 0 63
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 <1 57 1	history1 0 0 77 <1	history2 1 0 63 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	ourrent 0 <1 57 1 903	history1 0 0 77 <1 1201	history2 1 0 63 <1 1034
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 <1 57 1 903 1046	history1 0 0 77 <1 1201 1254	history2 1 0 63 <1 1034 1110
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 <1 57 1 903 1046 925	history1 0 0 77 <1 1201 1254 1251	history2 1 0 63 <1 1034 1110 1092
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 <1 57 1 903 1046 925 1183	history1 0 0 777 <1 1201 1254 1251 1548	history2 1 0 63 <1 1034 1110 1092 1378
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 0 <1 57 1 903 1046 925 1183 3253	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6	history2 1 0 63 <1 1034 1110 1092 1378 4069
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 0 <1 57 1 903 1046 925 1183 3253 Current	history1 0 0 77 <1 1201 1254 1251 1254 1251 1548 4524 history1	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >118	current 0 <1 57 1 903 1046 925 1183 3253 current 6	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118	current 0 <1 57 1 903 1046 925 1183 3253 current 6 2	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6 3	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2 5 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118 >20 limit/base	o 0 <1 57 1 903 1046 925 1183 3253 current 6 2 53	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6 3 72	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2 5 1 5 1 53
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118 >20 limit/base >3	Current 0 <1 57 1 903 1046 925 1183 3253 Current 6 2 53 Current	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6 3 72 history1	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2 5 1 53 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118 >20 limit/base >3 >20	current 0 <1 57 1 903 1046 925 1183 3253 current 6 2 53 current 0.7	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6 3 72 history1 0.4	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2 5 1 53 history2 0.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118 >20 limit/base >3 >20	current 0 <1 57 1 903 1046 925 1183 3253 current 6 2 53 current 0.7 12.0	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6 3 72 history1 0.4 8.4	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2 5 1 53 history2 0.6 10.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >25 >118 >20 limit/base >3 >20 >30 limit/base	0 <1 57 1 903 1046 925 1183 3253 current 6 2 53 current 0.7 12.0 23.8	history1 0 0 77 <1 1201 1254 1251 1548 4524 history1 6 3 72 history1 0.4 8.4 20.1	history2 1 0 63 <1 1034 1110 1092 1378 4069 history2 5 1 53 history2 0.6 10.6 22.4

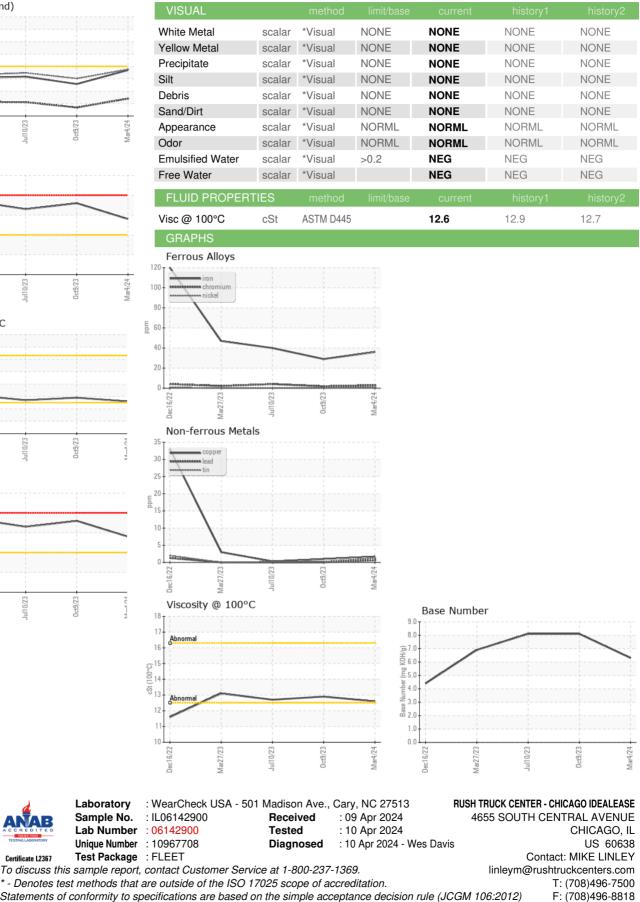


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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Certificate 12367

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