

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **4386L** 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

There is no indication of any contamination in the oil.

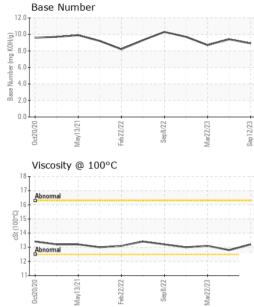
Fluid Condition

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

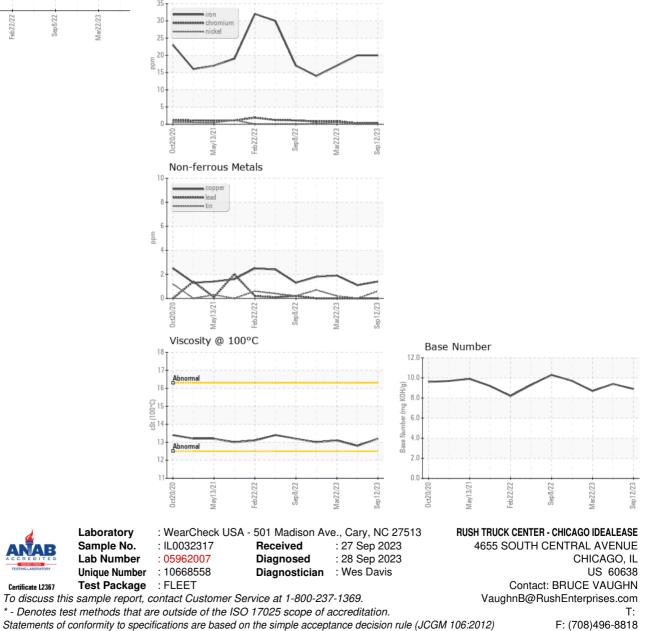
		Oct2020	May2021 Feb2022	Sep2022 Mar2023	Sep 2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL0032317	IL0028885	IL0028909
Sample Date		Client Info		12 Sep 2023	06 Jun 2023	22 Mar 2023
Machine Age	mls	Client Info		250948	233237	214852
Oil Age	mls	Client Info		17801	18615	14741
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	20	20	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	9	4	6
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	1	1	2
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
	ppin	ASTIVI DUTOJITI		v	0	0
Barium	ppm	ASTM D5185m		0	0	0
				-		
Molybdenum	ppm	ASTM D5185m		0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		0 62	0 63	0 59
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 62 <1	0 63 0	0 59 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 62 <1 1037	0 63 0 1006	0 59 <1 892
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 62 <1 1037 1079	0 63 0 1006 1141	0 59 <1 892 1055
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 62 <1 1037 1079 1056	0 63 0 1006 1141 1093	0 59 <1 892 1055 984
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 62 <1 1037 1079 1056 1315	0 63 0 1006 1141 1093 1346	0 59 <1 892 1055 984 1194
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25	0 62 <1 1037 1079 1056 1315 3351	0 63 0 1006 1141 1093 1346 3999	0 59 <1 892 1055 984 1194 3013
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 62 <1 1037 1079 1056 1315 3351 current	0 63 0 1006 1141 1093 1346 3999 history1	0 59 <1 892 1055 984 1194 3013 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>25	0 62 <1 1037 1079 1056 1315 3351 current 4	0 63 0 1006 1141 1093 1346 3999 history1 4	0 59 <1 892 1055 984 1194 3013 history2 4
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>25 >118	0 62 <1 1037 1079 1056 1315 3351 current 4 <1	0 63 0 1006 1141 1093 1346 3999 history1 4 1	0 59 <1 892 1055 984 1194 3013 history2 4 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >118 >20	0 62 <1 1037 1079 1056 1315 3351 current 4 <1 9	0 63 0 1006 1141 1093 1346 3999 history1 4 1 7	0 59 <1 892 1055 984 1194 3013 history2 4 0 6
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >118 >20 limit/base	0 62 <1 1037 1079 1056 1315 3351 current 4 <1 9 current	0 63 0 1006 1141 1093 1346 3999 history1 4 1 7 history1	0 59 <1 892 1055 984 1194 3013 history2 4 0 6 kistory2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >118 >20 limit/base >3	0 62 <1 1037 1079 1056 1315 3351 current 4 <1 9 current 0.5	0 63 0 1006 1141 1093 1346 3999 history1 4 1 7 <i>history1</i> 0.5	0 59 <1 892 1055 984 1194 3013 history2 4 0 6 history2 0.4
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	ASTM D5185m ASTM D5185m	>25 >118 >20 limit/base >3 >20	0 62 <1 1037 1079 1056 1315 3351 <u>current</u> 4 <1 9 <u>current</u> 0.5 10.6	0 63 0 1006 1141 1093 1346 3999 history1 4 1 7 <i>history1</i> 0.5 10.5	0 59 <1 892 1055 984 1194 3013 history2 4 0 6 history2 0.4 10.7
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	ASTM D5185m ASTM D7844 *ASTM D7824	>25 >118 >20 limit/base >3 >20 >30	0 62 <1 1037 1079 1056 1315 3351 current 4 <1 9 current 0.5 10.6 20.4	0 63 0 1006 1141 1093 1346 3999 history1 4 1 7 <u>history1</u> 0.5 10.5 20.7	0 59 <1 892 1055 984 1194 3013 history2 4 0 6 history2 0.4 10.7 20.1



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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	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 PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		13.2	12.8	13.1
GRAPHS						
Ferrous Alloys						



Contact/Location: BRUCE VAUGHN - IDECHIIL