

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

Component Diesel Engine

Fluid

MOBIL DELVAC 1300 SUPER15W40 (20 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL0018560	IL0007164	IL0012599
Sample Date		Client Info		08 Aug 2023	21 Dec 2021	13 May 2020
Machine Age	hrs	Client Info		266188	242861	6710
Oil Age	hrs	Client Info		7250	7763	341
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	1.6	▲ 5.0
Glycol		WC Method		NEG	NEG	NEG
		un otto o d	line it /le e e e		late to met	bioto m.O
WEAR METALS		method	limit/base	current	nistory i	nistory2
Iron	ppm	ASTM D5185m	>100	38	17	14
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	27	14	2
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	2	<1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	nnm	ASTM D5185m		0	0	0
e da mam	ppm			U	0	0
ADDITIVES	ppin	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 0	current	history1 66	history2 59
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0	current 19 0	history1 66 0	history2 59 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0	current 19 0 62	history1 66 0 4	history2 59 0 3
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0	C current 19 0 62 <1	<pre> history1 66 0 4 <1 </pre>	59 0 3 <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 0 0 0 0	Current 19 0 62 <1 943	66 0 4 <1 707	59 0 3 <1 673
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0	C current 19 0 62 <1 943 1340	history1 66 0 4 <1 707 1304	history2 59 0 3 <1 673 1235
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0	C Current 19 0 62 <1 943 1340 997	history1 66 0 4 <1 707 1304 714	history2 59 0 3 <1 673 1235 659
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm 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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C Current 19 0 62 <1 943 1340 997 1221	history1 66 0 4 <1 707 1304 714 755	bistory2 59 0 3 <1 673 1235 659 698
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0	Current 19 0 62 <1 943 1340 997 1221 3444	history1 66 0 4 <1 707 1304 714 755 2601	bistory2 59 0 3 <1 673 1235 659 698 2141
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 0 0 0 0 0 limit/base	C current 19 0 62 <1 943 1340 997 1221 3444 current	history1 66 0 4 <1 707 1304 714 755 2601 history1	- history2 59 0 3 <1 673 1235 659 698 2141 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 0 0 0 0 1 0 1 1 1 1 1 1 1 1 2 5	C Current 19 0 62 <1 943 1340 997 1221 3444 Current 7	history1 66 0 4 <1 707 1304 714 755 2601 history1 5	- history2 59 0 3 <1 673 1235 659 698 2141 history2 4 4
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 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	C Current 19 0 62 <1 943 1340 997 1221 3444 Current 7 5	history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 5	- history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m	limit/base 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1	current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29	history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18	history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13
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 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0	C current 19 0 62 <1 943 1340 997 1221 3444 Current 7 5 29 current	history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1	history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 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 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0	current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29 current 0.7	history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1 0.4	- history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 history2 0.8
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm	method ASTM D5185m	limit/base 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1	current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29 current 0.7 11.4	history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1 0.4 10	- history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 history2 0.8 9.4
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 D7844 *ASTM D7624	imit/base 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29 current 0.7 11.4 22.5	history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1 0.4 10 21.3	- history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 history2 0.8 9.4 20.6
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 D7844 *ASTM D7624 *ASTM D7415 method	imit/base 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29 current 0.7 11.4 22.5 current	- history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1 0.4 10 21.3 history1	- history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 history2 0.8 9.4 20.6 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7415 method *ASTM D7414	imit/base 0 <tr< th=""><th>current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29 current 0.7 11.4 22.5 current</th><th>- history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1 0.4 10 21.3 history1 15.4</th><th>J history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 history2 0.8 9.4 20.6 history2 13.8</th></tr<>	current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29 current 0.7 11.4 22.5 current	- history1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1 0.4 10 21.3 history1 15.4	J history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 history2 0.8 9.4 20.6 history2 13.8
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation Base Number (BN)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D78145 *ASTM D7624 *ASTM D7414 *ASTM D7414	imit/base 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 19 0 62 <1 943 1340 997 1221 3444 current 7 5 29 current 0.7 11.4 22.5 current 20.0 8.2	bistory1 66 0 4 <1 707 1304 714 755 2601 history1 5 5 18 history1 0.4 10 21.3 history1 15.4 7.9	- history2 59 0 3 <1 673 1235 659 698 2141 history2 4 12 13 history2 0.8 9.4 20.6 history2 13.8 7.6

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

Certificate L2367

Laboratory

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