

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id 53.171L [] Component Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (3 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Fluic

Wear

Metal levels are typical for a new component breaking in.

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		WC0857269	WC0821734	WC0741824
Sample Date		Client Info		23 Oct 2023	05 Jun 2023	13 Dec 2022
Machine Age	hrs	Client Info		678	438	3
Oil Age	hrs	Client Info		240	225	3
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ATTENTION	ATTENTION
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	0.2
Glycol		WC Method		NEG	NEG	NEG
,	_					
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	11	22	9
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	4	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	3	12	10
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 45	history1 53	history2 61
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	0	45	53	61
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	45 5	53 2	61 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	45 5 43	53 2 35	61 0 35
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	45 5 43 <1	53 2 35 3	61 0 35 3
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	45 5 43 <1 495	53 2 35 3 442	61 0 35 3 401
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	45 5 43 <1 495 1696	53 2 35 3 442 2110	61 0 35 3 401 1842
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	45 5 43 <1 495 1696 795	53 2 35 3 442 2110 900	61 0 35 3 401 1842 851
Boron Barium 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 ASTM D5185m	0 0 0	45 5 43 <1 495 1696 795 908	53 2 35 3 442 2110 900 1135	61 0 35 3 401 1842 851 995
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 limit/base	45 5 43 <1 495 1696 795 908 2733	53 2 35 3 442 2110 900 1135 3760	61 0 35 3 401 1842 851 995 3516
Boron Barium 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 ASTM D5185m	0 0 0 0 0 limit/base	45 5 43 <1 495 1696 795 908 2733 current	53 2 35 3 442 2110 900 1135 3760 history1	61 0 35 3 401 1842 851 995 3516 history2
Boron Barium 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 method	0 0 0 0 0 	45 5 43 <1 495 1696 795 908 2733 current 6	53 2 35 3 442 2110 900 1135 3760 history1 10	61 0 35 3 401 1842 851 995 3516 history2 16
Boron Barium 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 ASTM D5185m method ASTM D5185m	0 0 0 0 0 	45 5 43 <1 495 1696 795 908 2733 2733 current 6 <	53 2 35 3 442 2110 900 1135 3760 history1 10 4	61 0 35 3 401 1842 851 995 3516 history2 16 3
Boron Barium 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	0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	45 5 43 <1 495 1696 795 908 2733 current 6 <1 2 2	53 2 35 3 442 2110 900 1135 3760 history1 10 4 1 1 10 4 1 1	61 0 35 3 401 1842 851 995 3516 history2 16 3 2 2 history2
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	ASTM D5185m ASTM D5185m	0 0 0 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0	45 5 43 <1 495 1696 795 908 2733 <u>current</u> 6 <1 2 <u>current</u> 0.2	53 2 35 3 442 2110 900 1135 3760 history1 10 4 1 1 10 4 1 1 0.2	61 0 35 3 401 1842 851 995 3516 history2 16 3 2 16 3 2 history2 0.1
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	ASTM D5185m ASTM D5185m	0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	45 5 43 <1 495 1696 795 908 2733 <i>current</i> 6 <1 2 <i>current</i> 0.2 8.6	53 2 35 3 442 2110 900 1135 3760 history1 10 4 1 10 4 1 10 .2 9.1	61 0 35 3 401 1842 851 995 3516 history2 16 3 2 history2 0.1 5.3
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	ASTM D5185m ASTM D5185m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	45 5 43 <1 495 1696 795 908 2733 current 6 <1 2 current 0.2 8.6 23.6	53 2 35 3 442 2110 900 1135 3760 history1 10 4 1 1 0.2 9.1 23.5	61 0 35 3 401 1842 851 995 3516 history2 16 3 2 16 3 2 0.1 5.3 2 2.5
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	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	45 5 43 <1 495 1696 795 908 2733 current 6 <1 2 current 0.2 8.6 23.6 current	53 2 35 3 442 2110 900 1135 3760 history1 10 4 1 10 4 1 1 0.2 9.1 23.5 history1	61 0 35 3 401 1842 851 995 3516 history2 16 3 2 history2 0.1 5.3 22.5 history2
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	ASTM D5185m ASTM D5185m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	45 5 43 <1 495 1696 795 908 2733 current 6 <1 2 current 0.2 8.6 23.6	53 2 35 3 442 2110 900 1135 3760 history1 10 4 1 1 0.2 9.1 23.5	61 0 35 3 401 1842 851 995 3516 history2 16 3 2 16 3 2 bistory2 0.1 5.3 22.5



16 () 15 () 10 () 14 () 15

10

E

Dec1:

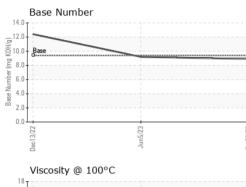
Base

Abnorma

OIL ANALYSIS REPORT

scalar

White Metal





NONE

*Visual

NONE

NONE

NONE

