

OIL ANALYSIS REPORT



Machine Id **C-18** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 40 (--- 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

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.

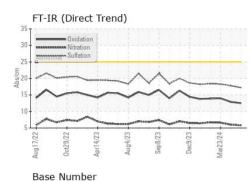
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0840566	WC0871050	WC0840561
Sample Date		Client Info		01 Jun 2024	27 Apr 2024	23 Mar 2024
Machine Age	hrs	Client Info		13249	13104	12953
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	۷	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	3	2	3
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	0
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	<1	0	0
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 250	current 14	history1 10	history2 0
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	250	14	10	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	14 0	10 0	0 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	14 0 48	10 0 54	0 0 57
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	14 0 48 <1	10 0 54 0	0 0 57 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	14 0 48 <1 723	10 0 54 0 873	0 0 57 0 1017
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	14 0 48 <1 723 1351	10 0 54 0 873 1368	0 0 57 0 1017 1320
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	250 10 100 450 3000 1150	14 0 48 <1 723 1351 1028	10 0 54 0 873 1368 1097	0 0 57 0 1017 1320 1152
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	250 10 100 450 3000 1150 1350	14 0 48 <1 723 1351 1028 1210	10 0 54 0 873 1368 1097 1368	0 0 57 0 1017 1320 1152 1358
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	250 10 100 450 3000 1150 1350 4250	14 0 48 <1 723 1351 1028 1210 3817	10 0 54 0 873 1368 1097 1368 4160	0 0 57 0 1017 1320 1152 1358 4165
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	250 10 100 450 3000 1150 1350 4250	14 0 48 <1 723 1351 1028 1210 3817 current	10 0 54 0 873 1368 1097 1368 4160 history1	0 0 57 0 1017 1320 1152 1358 4165 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	250 10 100 450 3000 1150 1350 4250 limit/base >25	14 0 48 <1 723 1351 1028 1210 3817 current 3	10 0 54 0 873 1368 1097 1368 4160 history1 2	0 0 57 0 1017 1320 1152 1358 4165 history2 1
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	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	14 0 48 <1 723 1351 1028 1210 3817 current 3 2	10 0 54 0 873 1368 1097 1368 4160 history1 2 <1	0 0 57 0 1017 1320 1152 1358 4165 history2 1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >216 >20	14 0 48 <1 723 1351 1028 1210 3817 current 3 2 1	10 0 54 0 873 1368 1097 1368 4160 history1 2 < <1 <1	0 0 57 0 1017 1320 1152 1358 4165 history2 1 <1 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >216 >20	14 0 48 <1 723 1351 1028 1210 3817 current 3 2 1 1 current	10 0 54 0 873 1368 1097 1368 4160 history1 2 <1 <1 <1 <1 history1	0 0 57 0 1017 1320 1152 1358 4165 history2 1 <1 <1 0 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	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >216 >216 >216 >20	14 0 48 <1 723 1351 1028 1210 3817 <u>current</u> 3 2 1 <u>current</u> 0.1	10 0 54 0 873 1368 1097 1368 4160 history1 2 <1 <1 <1 <1 0.1	0 0 57 0 1017 1320 1152 1358 4165 history2 1 <1 <1 0 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 ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 20 imit/base >25 >216 >20 imit/base	14 0 48 <1 723 1351 1028 1210 3817 current 3 2 1 2 1 current 0.1 5.8	10 0 54 0 873 1368 1097 1368 4160 history1 2 <1 <1 <1 history1 0.1 6.0	0 0 57 0 1017 1320 1152 1358 4165 history2 1 <1 <1 0 history2 0.1 6.6
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 D7624	250 10 100 450 3000 1150 1350 4250 imit/base >25 >216 >216 >20 imit/base >3 >20 >30	14 0 48 <1 723 1351 028 1210 3817 Current 3 2 1 2 1 0.1 5.8 17.2 Current	10 0 54 0 873 1368 1097 1368 4160 history1 2 <1 <1 <1 history1 0.1 6.0 17.8 history1	0 0 57 0 1017 1320 1152 1358 4165 history2 1
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	250 10 100 450 3000 1150 1350 4250 20 216 >216 >216 >20 >20 >3 >20 >30 >30	14 0 48 <1 723 1351 1028 1210 3817 current 3 2 1 2 1 0.1 5.8 17.2	10 0 54 0 873 1368 1097 1368 4160 history1 2 <1 <1 <1 history1 0.1 6.0 17.8	0 0 57 0 1017 1320 1152 1358 4165 history2 1 <1 <1 0 <i>history2</i> 0.1 6.6 18.3

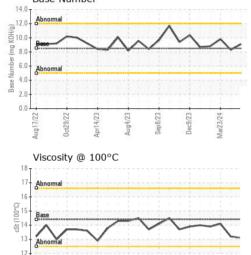


Aug17/22

Inr 14/23

OIL ANALYSIS REPORT





104/23

en8/73

lec9/23

Amr 22/24

250

200

150

100

50

50

40

30

10

400

300

la 200

100

Π

18

16 -St (100°C)

10

Laboratory

Sample No.

ppm



Certificate 12367

Contact/Location: Service Manager - ADESLA