

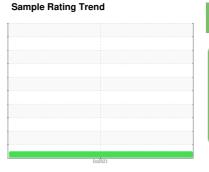
OIL ANALYSIS REPORT



MACK 60119 Component

Diesel Engine

KENDALL 15W40 (--- QTS)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

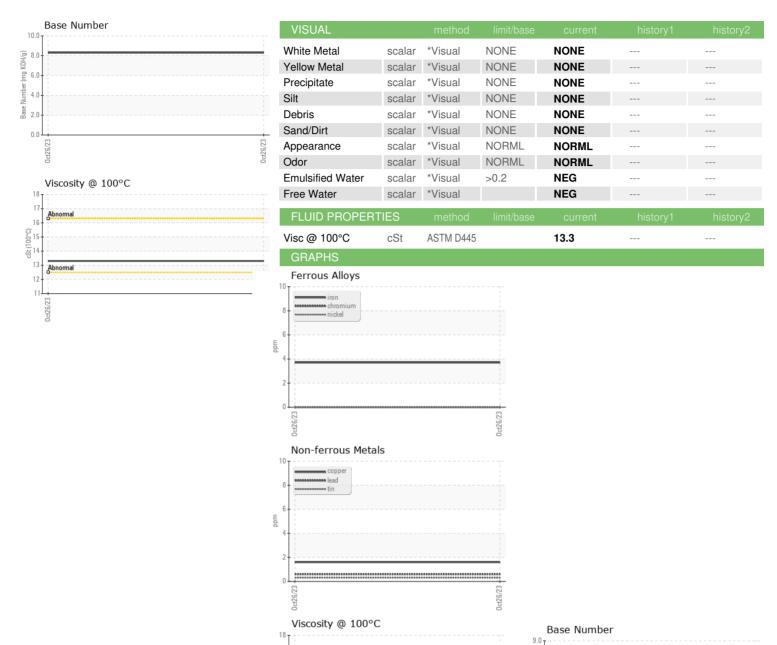
Fluid Condition

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

(TS)				Oct2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0867798		
Sample Date		Client Info		26 Oct 2023		
Machine Age	hrs	Client Info		25314		
Oil Age	hrs	Client Info		219		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATIO	Ν	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	4		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m	>2	72		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	2		
Tin	ppm	ASTM D5185m	>15	<1		
1111	le le					
Vanadium	ppm	ASTM D5185m		1		
		ASTM D5185m ASTM D5185m		1 0		
Vanadium	ppm		limit/base			history2
Vanadium Cadmium ADDITIVES	ppm	ASTM D5185m	limit/base 6.3	0		
Vanadium Cadmium ADDITIVES Boron	ppm	ASTM D5185m method		o current		
Vanadium Cadmium ADDITIVES Boron Barium	ppm ppm	ASTM D5185m method ASTM D5185m	6.3	0 current 107	history1	
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	6.3 0.6	0 current 107 0	history1	
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	6.3 0.6	0 current 107 0 22	history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	6.3 0.6 0.4	0 current 107 0 22 <1	history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	6.3 0.6 0.4	0 current 107 0 22 <1 311	history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514	0 current 107 0 22 <1 311 1931	history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514 634	0 current 107 0 22 <1 311 1931 1110	history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514 634 743	0 current 107 0 22 <1 311 1931 1110 1274	history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514 634 743 2592 limit/base	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4	history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514 634 743 2592 limit/base >25	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4	history1 history1	history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514 634 743 2592 limit/base	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4	history1 history1 history1	history2 history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m method ASTM D5185m Method	6.3 0.6 0.4 277 1514 634 743 2592 limit/base >25	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4 2 0 current	history1 history1 history1	history2 history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm	MSTM D5185m method ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514 634 743 2592 limit/base >25	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4 2 0 current	history1 history1 history1	history2 history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m method ASTM D5185m Method	6.3 0.6 0.4 277 1514 634 743 2592 limit/base >25 >20	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4 2 0 current	history1 history1 history1	history2 history2 history2 history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	MSTM D5185m method ASTM D5185m method ASTM D5185m	6.3 0.6 0.4 277 1514 634 743 2592 limit/base >25 >20 limit/base	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4 2 0 current	history1 history1 history1 history1	history2 history2 history2 history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method ASTM D5185m method ASTM D5185m D7624	6.3 0.6 0.4 277 1514 634 743 2592 limit/base >25 >20 limit/base >4 >20	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4 2 0 current 0 5.4	history1 history1 history1 history1	history2 history2 history2 history2
Vanadium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m method ASTM D5185m *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	6.3 0.6 0.4 277 1514 634 743 2592 limit/base >25 >20 limit/base >4 >20 >30	0 current 107 0 22 <1 311 1931 1110 1274 3896 current 4 2 0 current 0 5.4 17.1	history1 history1 history1 history1	history2 history2 history2 history2



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number Unique Number Test Package : FLEET

: WC0867798 : 05999712 : 10728072

cSt (100°C)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 06 Nov 2023

Diagnosed : 08 Nov 2023 : Don Baldridge Diagnostician

8.0 (B/T.0 (B/HO) 6.0

£ 5.0 0.4 an 2.0 1.0 0.0

> **GREENEVILLE OIL & PETROLEUM INC** 860 WEST ANDREW JOHNSON HWY GREENEVILLE, TN

US 37745

Contact: SHOP

shop@burkhartenterprises.com T:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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