

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

TAKEUCHI TL10V2 410005400

Diesel Engine

Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

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		ML0002672	VCP386500	
Sample Date		Client Info		12 Jul 2024	11 Nov 2022	
Machine Age	hrs	Client Info		889	368	
Oil Age	hrs	Client Info		889	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	ABNORMAL	
CONTAMINATION	۷	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	35	a 235	
Chromium	ppm	ASTM D5185m	>20	1	3	
Nickel	ppm	ASTM D5185m	>4	0	1	
Titanium	ppm	ASTM D5185m		0	2	
Silver	ppm	ASTM D5185m	>3	0	2	
Aluminum	ppm	ASTM D5185m	>20	4	▲ 77	
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m	>330	93	30	
Tin	ppm	ASTM D5185m	>15	0	12	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	<1	
				-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 250			history2
	ppm ppm			current	history1	, in the second s
Boron		ASTM D5185m ASTM D5185m ASTM D5185m	250	current 41	history1 80 0 19	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10 100	current 41 0	history1 80 0 19 4	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	Current 41 0 35 2 892	history1 80 0 19 4 527	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	Current 41 0 35 2 892 1745	history1 80 0 19 4 527 1196	
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	Current 41 0 35 2 892 1745 849	history1 80 0 19 4 527 1196 654	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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	Current 41 0 35 2 892 1745 849 1209	history1 80 0 19 4 527 1196 654 810	
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	Current 41 0 35 2 892 1745 849	history1 80 0 19 4 527 1196 654 810 2916	
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	250 10 100 450 3000 1150 1350	Current 41 0 35 2 892 1745 849 1209	history1 80 0 19 4 527 1196 654 810	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	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	Current 41 0 35 2 892 1745 849 1209 2971 current 10	history1 80 0 19 4 527 1196 654 810 2916 history1 41	
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 ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158	Current 41 0 35 2 892 1745 849 1209 2971 Current 10 5	history1 80 0 19 4 527 1196 654 810 2916 history1 41 4	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	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 >158 >20	current 41 0 35 2 892 1745 849 1209 2971 current 10 5 3	history1 80 0 19 4 527 1196 654 810 2916 history1 41	 history2
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	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >158 >20 Imit/base	Current 41 0 35 2 892 1745 849 1209 2971 Current 10 5 3 3 Current	history1 80 0 19 4 527 1196 654 810 2916 history1 41 42 8 41 43 53 65 10 2916 10 10 10 10 10 10 10 10 10 10 10 10 11 11 11 11 11 11 12 13 14 14 15 10 11 12 13 14 15 15 16 17 18 10 <	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Iimit/base >25 >158 >20 Iimit/base >3	current 41 0 35 2 892 1745 849 1209 2971 current 10 5 3 current 0.3	history1 80 0 19 4 527 1196 654 810 2916 history1 4 527 1196 654 810 2916 history1 4 50 0.2	 history2
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 imit/base >25 >158 >20 imit/base >3 >20	current 41 0 35 2 892 1745 849 1209 2971 current 10 5 3 current 0.3 12.2	history1 80 0 19 4 527 1196 654 810 2916 history1 41 4 8 0.2 8.1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Iimit/base >25 >158 >20 Iimit/base >3	current 41 0 35 2 892 1745 849 1209 2971 current 10 5 3 current 0.3	history1 80 0 19 4 527 1196 654 810 2916 history1 4 527 1196 654 810 2916 history1 4 50 0.2	 history2 history2
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 imit/base >25 >158 >20 imit/base >3 >20	current 41 0 35 2 892 1745 849 1209 2971 current 10 5 3 current 0.3 12.2	history1 80 0 19 4 527 1196 654 810 2916 history1 41 4 8 0.2 8.1	 history2 history2 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	250 10 100 450 3000 1150 1350 4250 imit/base >25 >158 >20 imit/base >3 >20	Current 41 0 35 2 892 1745 849 1209 2971 current 10 5 3 current 0.3 12.2 23.9	history1 80 0 19 4 527 1196 654 810 2916 history1 4 527 1196 654 810 2916 history1 0 10 0.2 8.1 0.2 8.1 20.6	 history2 history2 history2



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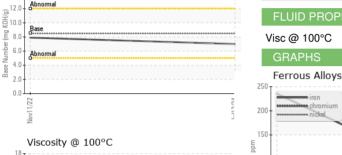
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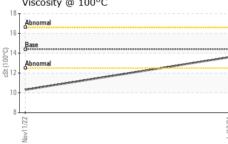
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OIL ANALYSIS REPORT

FT-IR (Direct Trend)	VISUAL		method	
Oxidation Nitration	White Metal	scalar	*Visual	NONE
and Sulfation	Yellow Metal	scalar	*Visual	NONE
***************************************	Precipitate	scalar	*Visual	NONE
	Silt	scalar	*Visual	NONE
	Debris	scalar	*Visual	NONE
7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-	Sand/Dirt	scalar	*Visual	NONE
lov11/22 Jul12/24	Appearance	scalar	*Visual	NORMI
Nov Jul	Odor	scalar	*Visual	NORMI
Base Number	Emulsified Water	scalar	*Visual	>0.2
T	Free Water	scalar	*Visual	
Abnormal				





NONE NONE NONE NONE NONE NONE NONE NONE NONE NORML NORML NORML NORML NORML NORML 0.2 NEG NEG NEG NEG FLUID PROPERTIES 10.3 Visc @ 100°C cSt ASTM D445 14.4 13.6

NONE

NONE

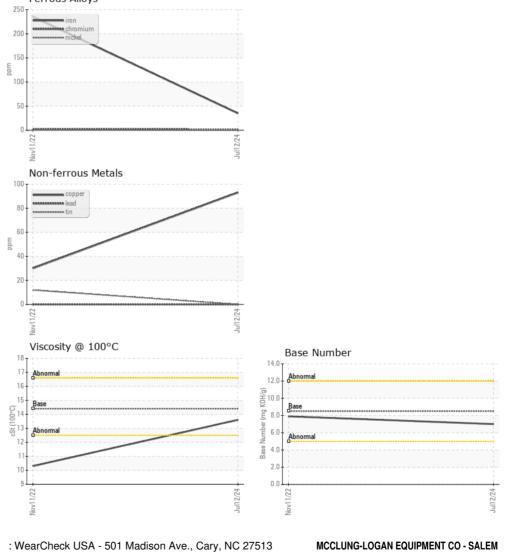
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GRAPHS



Laboratory Sample No. : ML0002672 Received : 16 Jul 2024 2025 COOK DRIVE Lab Number : 06237620 Tested : 17 Jul 2024 SALEM, VA Unique Number : 11126454 Diagnosed : 18 Jul 2024 - Don Baldridge US 24153 Test Package : CONST (Additional Tests: TBN) Contact: SCOTT CARR Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. scarr@mcclung-logan.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (540)418-5218 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Submitted By: Service - Alex Anderson