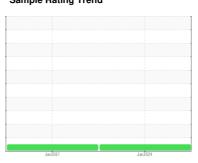


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



SAKAI VSV16-50707

Component **Diesel Engine**

DIESEL ENGINE OIL SAE 15W40 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

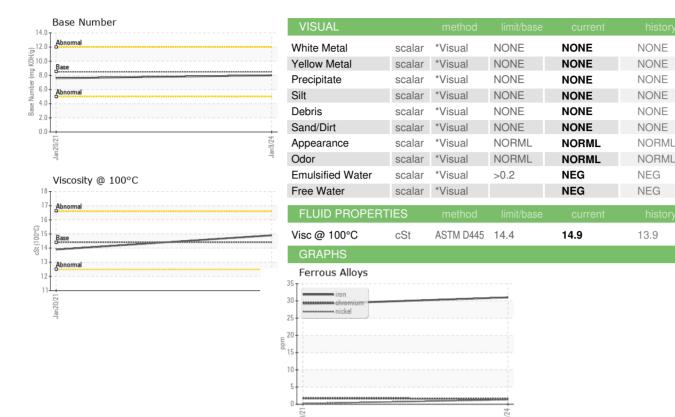
Fluid Condition

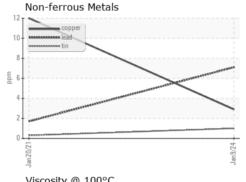
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

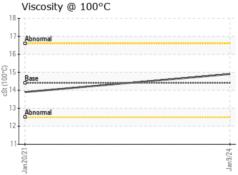
CAMPLE INCOR	ATION		Jan 2021	Jan 2024		1:
SAMPLE INFORM	1A HON	method	limit/base	current	history1	history2
Sample Number		Client Info		JR0180546	JR0076390	
Sample Date		Client Info		09 Jan 2024	20 Jan 2021	
Machine Age	hrs	Client Info		1933	1335	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	١	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	31	29	
Chromium	ppm	ASTM D5185m	>20	2	2	
Nickel	ppm	ASTM D5185m	>4	1	<1	
Titanium	ppm	ASTM D5185m		<1	1	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>20	6	4	
Lead	ppm	ASTM D5185m	>40	7	2	
Copper	ppm	ASTM D5185m	>330	3	12	
Tin	ppm	ASTM D5185m	>15	1	<1	
Antimony	ppm	ASTM D5185m			0	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	138	311	
Barium	ppm	ASTM D5185m	10	0	0	
Molybdenum					0	
•	ppm	ASTM D5185m	100	162	132	
Manganese	ppm	ASTM D5185m		1	132 <1	
Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m	450	1 593	132 <1 589	
Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	450 3000	1 593 1784	132 <1 589 1764	
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150	1 593 1784 961	132 <1 589 1764 862	
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 1350	1 593 1784 961 1207	132 <1 589 1764 862 1052	
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250	1 593 1784 961 1207 3243	132 <1 589 1764 862 1052 2582	
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 1350	1 593 1784 961 1207	132 <1 589 1764 862 1052	
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	450 3000 1150 1350 4250 limit/base >25	1 593 1784 961 1207 3243 current	132 <1 589 1764 862 1052 2582 history1	
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 limit/base	1 593 1784 961 1207 3243	132 <1 589 1764 862 1052 2582 history1 8	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	450 3000 1150 1350 4250 limit/base >25	1 593 1784 961 1207 3243 current	132 <1 589 1764 862 1052 2582 history1	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 limit/base >25 >158	1 593 1784 961 1207 3243 current 9	132 <1 589 1764 862 1052 2582 history1 8	history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm	ASTM D5185m	450 3000 1150 1350 4250 limit/base >25 >158 >20	1 593 1784 961 1207 3243 current 9 0 3	132 <1 589 1764 862 1052 2582 history1 8 4 7	history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	450 3000 1150 1350 4250 limit/base >25 >158 >20	1 593 1784 961 1207 3243 current 9 0 3	132 <1 589 1764 862 1052 2582 history1 8 4 7	history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base >3	1 593 1784 961 1207 3243 current 9 0 3 current	132 <1 589 1764 862 1052 2582 history1 8 4 7 history1 0.4	history2 history2
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 Method ASTM D5185m	450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base >3 >20	1 593 1784 961 1207 3243 current 9 0 3 current 0.5 9.9	132 <1 589 1764 862 1052 2582 history1 8 4 7 history1 0.4 8.9	history2 history2
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 Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D7415	450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base >3 >20 >30	1 593 1784 961 1207 3243 current 9 0 3 current 0.5 9.9 25.1	132 <1 589 1764 862 1052 2582 history1 8 4 7 history1 0.4 8.9 24.3	history2 history2
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	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415 method	450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base >3 >20 >30 limit/base	1 593 1784 961 1207 3243 current 9 0 3 current 0.5 9.9 25.1	132 <1 589 1764 862 1052 2582 history1 8 4 7 history1 0.4 8.9 24.3 history1	history2 history2 history2 history2

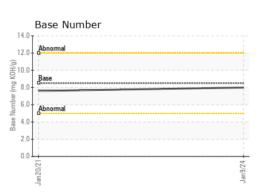


OIL ANALYSIS REPORT











Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: JR0180546 : 06057927

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 10829309

: 11 Jan 2024 Diagnosed : 12 Jan 2024 Diagnostician : Wes Davis

Test Package : CONST (Additional Tests: TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: DAVID ZIEG dzieg@jamesriverequipment.com

* - 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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T: (804)798-6001

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