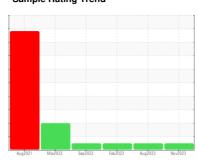


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **6118462**

Component **Diesel Engine**

VALVOLINE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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

Fuel content negligible. There is no indication of any contamination in the oil.

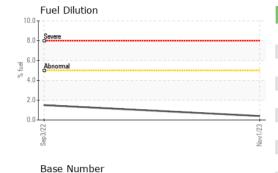
Fluid Condition

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

		Aug2021	Mar2022 Sep2022	Feb2023 Aug2023	Nov2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL0035108	IL05952588	IL05782797
Sample Date		Client Info		01 Nov 2023	15 Aug 2023	23 Feb 2023
Machine Age	mls	Client Info		0	103473	84462
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
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	14	22	25
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	2	10
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	<1	1	2
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
	1-1-	7.0 20.00		U	U	O
ADDITIVES	1-1-	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base			
		method		current	history1	history2
Boron	ppm	method ASTM D5185m	39	current 37	history1	history2
Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	39 1	current 37 0	history1 36 0	history2 66 0
Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	39 1 49	current 37 0 72	history1 36 0 61	history2 66 0 74
Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	39 1 49 1	current 37 0 72 <1	history1 36 0 61 <1	history2 66 0 74 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	39 1 49 1 616	current 37 0 72 <1 758	history1 36 0 61 <1 801	history2 66 0 74 <1 670
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	39 1 49 1 616 1554	current 37 0 72 <1 758 1263	history1 36 0 61 <1 801 1382	history2 66 0 74 <1 670 1373
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899	current 37 0 72 <1 758 1263 811	history1 36 0 61 <1 801 1382 768	history2 66 0 74 <1 670 1373 765
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069	current 37 0 72 <1 758 1263 811 967	history1 36 0 61 <1 801 1382 768 1023	history2 66 0 74 <1 670 1373 765 988
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624	current 37 0 72 <1 758 1263 811 967 2450	history1 36 0 61 <1 801 1382 768 1023 3078	history2 66 0 74 <1 670 1373 765 988 2987
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624	current 37 0 72 <1 758 1263 811 967 2450 current	history1 36 0 61 <1 801 1382 768 1023 3078 history1	history2 66 0 74 <1 670 1373 765 988 2987 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624	current 37 0 72 <1 758 1263 811 967 2450 current 6	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6	history2 66 0 74 <1 670 1373 765 988 2987 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624 limit/base >25	current 37 0 72 <1 758 1263 811 967 2450 current 6 3	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6 3	history2 66 0 74 <1 670 1373 765 988 2987 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624 limit/base >25 >20	current 37 0 72 <1 758 1263 811 967 2450 current 6 3 10	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6 3 16	history2 66 0 74 <1 670 1373 765 988 2987 history2 7 2 14
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624 limit/base >25 >20 >5	current 37 0 72 <1 758 1263 811 967 2450 current 6 3 10 0.4	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6 3 16 <1.0	history2 66 0 74 <1 670 1373 765 988 2987 history2 7 2 14 <1.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624 limit/base >25 >20 >5	current 37 0 72 <1 758 1263 811 967 2450 current 6 3 10 0.4 current	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6 3 16 <1.0 history1	history2 66 0 74 <1 670 1373 765 988 2987 history2 7 2 14 <1.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	39 1 49 1 616 1554 899 1069 2624 limit/base >25 >20 >5	current 37 0 72 <1 758 1263 811 967 2450 current 6 3 10 0.4 current 0.2	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6 3 16 <1.0 history1 0.3	history2 66 0 74 <1 670 1373 765 988 2987 history2 7 2 14 <1.0 history2 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624	39 1 49 1 616 1554 899 1069 2624 limit/base >25 >20 >5 limit/base >3 >20	current 37 0 72 <1 758 1263 811 967 2450 current 6 3 10 0.4 current 0.2 10.6	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6 3 16 <1.0 history1 0.3 12.0	history2 66 0 74 <1 670 1373 765 988 2987 history2 7 2 14 <1.0 history2 0.5 11.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	39 1 49 1 616 1554 899 1069 2624 limit/base >25 >20 >5 limit/base >3 >20 >30	current 37 0 72 <1 758 1263 811 967 2450 current 6 3 10 0.4 current 0.2 10.6 20.8	history1 36 0 61 <1 801 1382 768 1023 3078 history1 6 3 16 <1.0 history1 0.3 12.0 23.6	history2 66 0 74 <1 670 1373 765 988 2987 history2 7 2 14 <1.0 history2 0.5 11.0 23.4

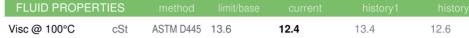


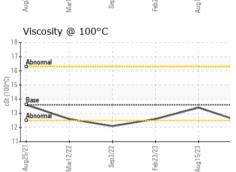
OIL ANALYSIS REPORT

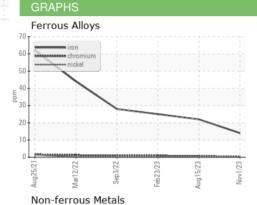


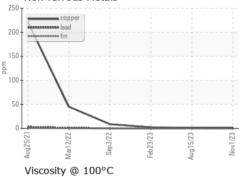
VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

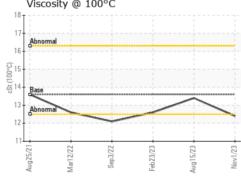
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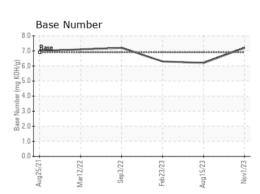














Laboratory Sample No. Lab Number Unique Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : IL0035108 : 06056417

Recieved

: 10 Jan 2024 Diagnosed : 12 Jan 2024

: 10822366 Diagnostician : Wes Davis **Test Package**: FLEET (Additional Tests: FuelDilution, PercentFuel)

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)

TAMPA IDEALEASE 5951 ORIENT ROAD

TAMPA, FL US 33610-9565 Contact: Russ Cook

russcook@idealease.com

T: (813)626-9285 F: (844)270-1356