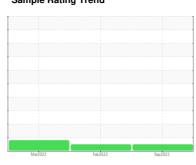


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 3085 Component Diesel Engine Fluid

AMERIGUARD 15W40 (--- GAL)

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Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

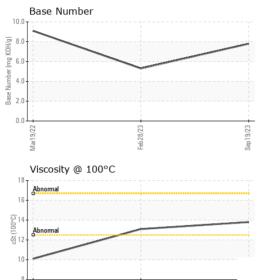
Fluid Condition

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

		Ma	2022	Feb 2023 Sep 20	23	
SAMPLE INFORM	NOITAN	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0005514	SBP0001642	SBP0000755
Sample Date		Client Info		19 Sep 2023	28 Feb 2023	19 Mar 2022
Machine Age	mls	Client Info		51907	41663	20469
Oil Age	mls	Client Info		10244	10000	20469
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	0.2
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	12	23	32
Chromium	ppm	ASTM D5185m	>5	<1	1	2
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>30	5	6	11
Lead	ppm	ASTM D5185m	>30	1	3	0
Copper	ppm	ASTM D5185m	>150	121	225	<u>^</u> 269
Tin	ppm	ASTM D5185m	>5	3	3	6
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	10	38
Barium	ppm	ASTM D5185m		0	0	0
Malyhdanim	PP	ASTIVI DOTOSITI			Ü	Ü
Molybdenum	ppm	ASTM D5185m		65	51	40
Manganese				65 <1		-
•	ppm	ASTM D5185m			51	40
Manganese	ppm	ASTM D5185m ASTM D5185m		<1	51 2	40
Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 1113	51 2 886	40 3 535
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 1113 1240 1069 1395	51 2 886 1306 894 1184	40 3 535 1844 766 918
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 1113 1240 1069	51 2 886 1306 894	40 3 535 1844 766
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 1113 1240 1069 1395	51 2 886 1306 894 1184	40 3 535 1844 766 918 1822 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m		<1 1113 1240 1069 1395 2542 current	51 2 886 1306 894 1184 2268 history1	40 3 535 1844 766 918 1822 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20	<1 1113 1240 1069 1395 2542 current 2 3	51 2 886 1306 894 1184 2268 history1 4	40 3 535 1844 766 918 1822 history2 7
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m		<1 1113 1240 1069 1395 2542 current	51 2 886 1306 894 1184 2268 history1	40 3 535 1844 766 918 1822 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20	<1 1113 1240 1069 1395 2542 current 2 3 14 current	51 2 886 1306 894 1184 2268 history1 4 2 18	40 3 535 1844 766 918 1822 history2 7 3 27
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>20 >20	<1 1113 1240 1069 1395 2542 current 2 3 14 current 0.3	51 2 886 1306 894 1184 2268 history1 4 2	40 3 535 1844 766 918 1822 history2 7 3 27
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m	>20 >20 limit/base >3	<1 1113 1240 1069 1395 2542 current 2 3 14 current	51 2 886 1306 894 1184 2268 history1 4 2 18	40 3 535 1844 766 918 1822 history2 7 3 27
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	>20 >20 limit/base >3 >20	<1 1113 1240 1069 1395 2542 current 2 3 14 current 0.3	51 2 886 1306 894 1184 2268 history1 4 2 18 history1 0.3	40 3 535 1844 766 918 1822 history2 7 3 27 history2 0.3
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 limit/base >3 >20	<1 1113 1240 1069 1395 2542 current 2 3 14 current 0.3 8.5	51 2 886 1306 894 1184 2268 history1 4 2 18 history1 0.3 9.6	40 3 535 1844 766 918 1822 history2 7 3 27 history2 0.3 10.6
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m Method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	>20 >20 limit/base >3 >20 >30	<1 1113 1240 1069 1395 2542	51 2 886 1306 894 1184 2268 history1 4 2 18 history1 0.3 9.6 21.6	40 3 535 1844 766 918 1822 history2 7 3 27 history2 0.3 10.6 23.9
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D78185m Method	>20	<1 1113 1240 1069 1395 2542 current 2 3 14 current 0.3 8.5 20.2 current	51 2 886 1306 894 1184 2268 history1 4 2 18 history1 0.3 9.6 21.6 history1	40 3 535 1844 766 918 1822 history2 7 3 27 history2 0.3 10.6 23.9 history2

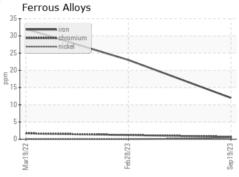


OIL ANALYSIS REPORT

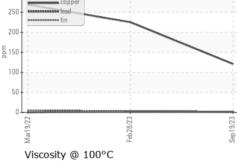


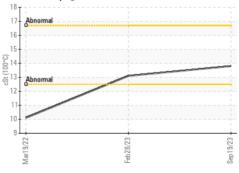
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
	scalar		>0.2	NEG		

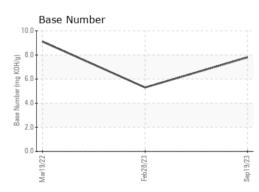
FLUID PROPER	TILS	method	ilmit/base		nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445		13.8	13.1	10.1



Non-ferrous Metals











Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10675149 Test Package : FLEET

: SBP0005514 : 05968598

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 04 Oct 2023

Diagnosed : 04 Oct 2023 Diagnostician : Wes Davis

Sapp Bros. Fleet - Ogallala Location

US Contact: Service Manager

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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