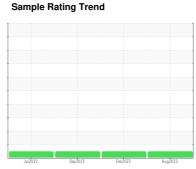


OIL ANALYSIS REPORT

San



NORMAL



36087 Component

Diesel Engine

DIESEL ENGINE OIL SAE 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. 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

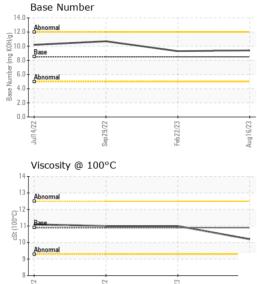
Fluid Condition

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

		Jul2022	Sep.2022	Feb 2023 An	ug2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL05967544	IL05783701	IL05682681
Sample Date		Client Info		16 Aug 2023	22 Feb 2023	29 Sep 2022
Machine Age	hrs	Client Info		3306	2586	2012
Oil Age	hrs	Client Info		500	500	500
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	1.3
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	29	40	23
Chromium	ppm	ASTM D5185m	>20	1	2	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	18	16
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
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	250	32	38	39
	ppm		250 10	32 0		39 0
Boron		ASTM D5185m			38	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	10	0	38 0	0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	10	0 42	38 0 43	0 43
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100	0 42 <1	38 0 43 <1	0 43
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450	0 42 <1 467	38 0 43 <1 447	0 43 1 527
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000	0 42 <1 467 1544	38 0 43 <1 447 1593	0 43 1 527 1640
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000 1150	0 42 <1 467 1544 684	38 0 43 <1 447 1593 691	0 43 1 527 1640 693
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000 1150 1350	0 42 <1 467 1544 684 839	38 0 43 <1 447 1593 691 831	0 43 1 527 1640 693 919
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 ASTM D5185m	10 100 450 3000 1150 1350 4250	0 42 <1 467 1544 684 839 2300	38 0 43 <1 447 1593 691 831 2651	0 43 1 527 1640 693 919 2521
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250	0 42 <1 467 1544 684 839 2300	38 0 43 <1 447 1593 691 831 2651 history1	0 43 1 527 1640 693 919 2521 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250	0 42 <1 467 1544 684 839 2300 current	38 0 43 <1 447 1593 691 831 2651 history1	0 43 1 527 1640 693 919 2521 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base	0 42 <1 467 1544 684 839 2300 current 6	38 0 43 <1 447 1593 691 831 2651 history1 6 4	0 43 1 527 1640 693 919 2521 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base >25 >20	0 42 <1 467 1544 684 839 2300 current 6 2 6	38 0 43 <1 447 1593 691 831 2651 history1 6 4 32	0 43 1 527 1640 693 919 2521 history2 5 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base >25 >20	0 42 <1 467 1544 684 839 2300 current 6 2 6	38 0 43 <1 447 1593 691 831 2651 history1 6 4 32	0 43 1 527 1640 693 919 2521 history2 5 1 33
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base >25 >20 limit/base	0 42 <1 467 1544 684 839 2300 current 6 2 6 current	38 0 43 <1 447 1593 691 831 2651 history1 6 4 32 history1 1.2	0 43 1 527 1640 693 919 2521 history2 5 1 33 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 method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base >25 >20 limit/base >3 >20	0 42 <1 467 1544 684 839 2300 current 6 2 6 current 1 10.6	38 0 43 <1 447 1593 691 831 2651 history1 6 4 32 history1 1.2 10.5	0 43 1 527 1640 693 919 2521 history2 5 1 33 history2 0.7 8.7
Boron Barium Molybdenum 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 D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415 method	10 100 450 3000 1150 1350 4250 limit/base >25 >20 limit/base >3 >20 >30 limit/base	0 42 <1 467 1544 684 839 2300 current 6 2 6 current 1 10.6 22.1 current	38 0 43 <1 447 1593 691 831 2651 history1 6 4 32 history1 1.2 10.5 22.8 history1	0 43 1 527 1640 693 919 2521 history2 5 1 33 history2 0.7 8.7 23.9
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 D7844 *ASTM D7624 *ASTM D76145	10 100 450 3000 1150 1350 4250 limit/base >25 >20 limit/base >3 >20 >30 limit/base	0 42 <1 467 1544 684 839 2300 current 6 2 6 current 1 10.6 22.1	38 0 43 <1 447 1593 691 831 2651 history1 6 4 32 history1 1.2 10.5 22.8	0 43 1 527 1640 693 919 2521 history2 5 1 33 history2 0.7 8.7 23.9



OIL ANALYSIS REPORT



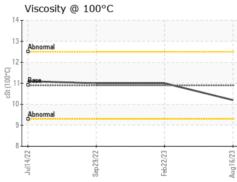
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

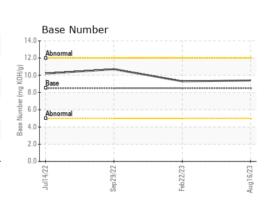
FLUID PROPER	THES	method	ilmit/base		nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445	10.9	10.2	11.0	11.0

GRAPHS

Ferrous Alloys

Non-fer	rous Metals		
8			
6	tin		
E dd 4			
2			
0			
Jul14/22	Sep29/22	Feb22/23	Aug16/23
Viscosit	v @ 100°C		







Laboratory Sample No. Lab Number Unique Number : 10674095 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : IL05967544 : 05967544

Received Diagnosed

: 03 Oct 2023 : 04 Oct 2023 Diagnostician : Wes Davis

IDEALEASE OF ATLANTA - FULTON 4675 BAKERS FERRY ROAD ATLANTA, GA

US 30331 Contact: DAVID JOHNS

davidjohns@idealease.com T: (404)699-5571

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)

Report Id: IDEATLGA [WUSCAR] 05967544 (Generated: 10/04/2023 14:07:14) Rev: 1

Contact/Location: DAVID JOHNS - IDEATLGA

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