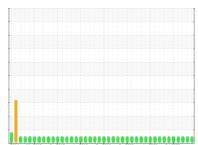


OIL ANALYSIS REPORT

Sample Rating Trend







OKLAHOMA/102 Machine Id 39.60 [OKLAHOMA^102]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

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

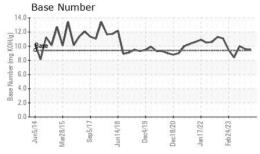
Fluid Condition

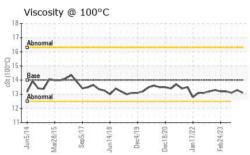
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	//ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0834023	WC0834122	WC0800891
Sample Date		Client Info		02 Aug 2023	19 Jul 2023	16 May 2023
Machine Age	hrs	Client Info		14212	14100	13800
Oil Age	hrs	Client Info		112	300	177
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	9	22	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	1	2
Lead	ppm	ASTM D5185m	>40	1	3	2
Copper	ppm	ASTM D5185m	>330	2	3	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 61	history1	history2 58
	ppm					
Boron		ASTM D5185m	0	61	48	58
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	61 0	48	58 0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	61 0 39	48 0 43	58 0 38
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	61 0 39 <1	48 0 43 <1	58 0 38 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	61 0 39 <1 461 1645 730	48 0 43 <1 546	58 0 38 <1 530
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	61 0 39 <1 461 1645	48 0 43 <1 546 1949	58 0 38 <1 530 1761 735 963
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	0 0 0	61 0 39 <1 461 1645 730	48 0 43 <1 546 1949 826	58 0 38 <1 530 1761 735
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	61 0 39 <1 461 1645 730 900 2650	48 0 43 <1 546 1949 826 1044 3325 history1	58 0 38 <1 530 1761 735 963
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	0 0 0 0	61 0 39 <1 461 1645 730 900 2650	48 0 43 <1 546 1949 826 1044 3325	58 0 38 <1 530 1761 735 963 2913 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	61 0 39 <1 461 1645 730 900 2650	48 0 43 <1 546 1949 826 1044 3325 history1	58 0 38 <1 530 1761 735 963 2913 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	61 0 39 <1 461 1645 730 900 2650 current	48 0 43 <1 546 1949 826 1044 3325 history1	58 0 38 <1 530 1761 735 963 2913 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	61 0 39 <1 461 1645 730 900 2650 current 3	48 0 43 <1 546 1949 826 1044 3325 history1 3 1	58 0 38 <1 530 1761 735 963 2913 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20	61 0 39 <1 461 1645 730 900 2650 current 3 0 <1	48 0 43 <1 546 1949 826 1044 3325 history1 3 1	58 0 38 <1 530 1761 735 963 2913 history2 4 2 3
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	0 0 0 0 limit/base >25 >20 limit/base >3	61 0 39 <1 461 1645 730 900 2650 current 3 0 <1	48 0 43 <1 546 1949 826 1044 3325 history1 3 1 0	58 0 38 <1 530 1761 735 963 2913 history2 4 2 3
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3	61 0 39 <1 461 1645 730 900 2650 current 3 0 <1 current 0.4	48 0 43 <1 546 1949 826 1044 3325 history1 3 1 0 history1 0.7	58 0 38 <1 530 1761 735 963 2913 history2 4 2 3 history2 0.4
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	0 0 0 0 limit/base >25 >20 limit/base >3 >20	61 0 39 <1 461 1645 730 900 2650 current 3 0 <1 current 0.4 7.1	48 0 43 <1 546 1949 826 1044 3325 history1 3 1 0 history1 0.7 9.4	58 0 38 <1 530 1761 735 963 2913 history2 4 2 3 history2 0.4 7.2
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 Method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20 >30	61 0 39 <1 461 1645 730 900 2650 current 3 0 <1 current 0.4 7.1 22.3	48 0 43 <1 546 1949 826 1044 3325 history1 3 1 0 history1 0.7 9.4 24.6	58 0 38 <1 530 1761 735 963 2913 history2 4 2 3 history2 0.4 7.2 23.3



OIL ANALYSIS REPORT

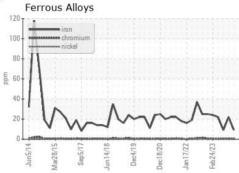


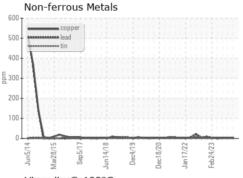


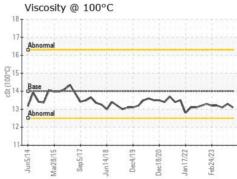
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

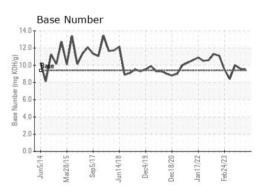
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	14	13.1	13.3	13.1

GRAPHS













Laboratory Sample No. Lab Number Unique Number : 10606482

: WC0834023 : 05926535

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 17 Aug 2023

Diagnostician : Sean Felton

: 16 Aug 2023

Test Package : CONST (Additional Tests: TBN)

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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