

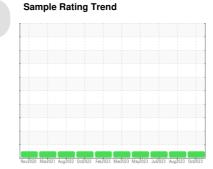
OIL ANALYSIS REPORT



OKLAHOMA/1152/EG - OTHER SERVICE 88.15L [OKLAHOMA^1152^EG - OTHER SERVICE]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)







DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

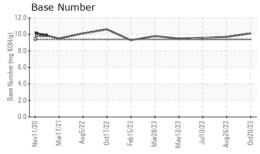
Fluid Condition

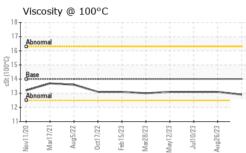
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	//ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0848836	WC0833978	WC0821836
Sample Date		Client Info		20 Oct 2023	26 Aug 2023	10 Jul 2023
Machine Age	hrs	Client Info		3521	9957	9957
Oil Age	hrs	Client Info		3521	500	250
Oil Changed		Client Info		Not Changd	Changed	Not Changd
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	3	7	6
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	<1	1
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 58	history1	history2 37
	ppm					
Boron		ASTM D5185m	0	58	38	37
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	58 0	38 2	37 0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	58 0 41	38 2 43 <1 557	37 0 43
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	58 0 41 <1 478 1590	38 2 43 <1	37 0 43 <1 531 1800
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	58 0 41 <1 478 1590 660	38 2 43 <1 557	37 0 43 <1 531 1800 756
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	58 0 41 <1 478 1590 660 857	38 2 43 <1 557 1788 777 945	37 0 43 <1 531 1800 756
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	0 0 0	58 0 41 <1 478 1590 660	38 2 43 <1 557 1788 777	37 0 43 <1 531 1800 756
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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 ASTM D5185m	0 0 0 0	58 0 41 <1 478 1590 660 857 2347 current	38 2 43 <1 557 1788 777 945 2863 history1	37 0 43 <1 531 1800 756 930 2945 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	58 0 41 <1 478 1590 660 857 2347 current	38 2 43 <1 557 1788 777 945 2863 history1 3	37 0 43 <1 531 1800 756 930 2945 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 	58 0 41 <1 478 1590 660 857 2347 current 4	38 2 43 <1 557 1788 777 945 2863 history1 3 2	37 0 43 <1 531 1800 756 930 2945 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	58 0 41 <1 478 1590 660 857 2347 current	38 2 43 <1 557 1788 777 945 2863 history1 3	37 0 43 <1 531 1800 756 930 2945 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 	58 0 41 <1 478 1590 660 857 2347 current 4	38 2 43 <1 557 1788 777 945 2863 history1 3 2	37 0 43 <1 531 1800 756 930 2945 history2 3 4 0 history2
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	58 0 41 <1 478 1590 660 857 2347 current 4 6	38 2 43 <1 557 1788 777 945 2863 history1 3 2 <1	37 0 43 <1 531 1800 756 930 2945 history2 3 4
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	58 0 41 <1 478 1590 660 857 2347 current 4 6 0	38 2 43 <1 557 1788 777 945 2863 history1 3 2 <1 history1	37 0 43 <1 531 1800 756 930 2945 history2 3 4 0 history2
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	58 0 41 <1 478 1590 660 857 2347 current 4 6 0 current 0.1	38 2 43 <1 557 1788 777 945 2863 history1 3 2 <1 history1 0.2	37 0 43 <1 531 1800 756 930 2945 history2 3 4 0 history2 0.2
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	58 0 41 <1 478 1590 660 857 2347 current 4 6 0 current 0.1 6.5	38 2 43 <1 557 1788 777 945 2863 history1 3 2 <1 history1 0.2 8.7	37 0 43 <1 531 1800 756 930 2945 history2 3 4 0 history2 0.2 8.0
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 D7844 *ASTM D7624 *ASTM D76145	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20 >30	58 0 41 <1 478 1590 660 857 2347 current 4 6 0 current 0.1 6.5 22.0	38 2 43 <1 557 1788 777 945 2863 history1 3 2 <1 history1 0.2 8.7 22.5	37 0 43 <1 531 1800 756 930 2945 history2 3 4 0 history2 0.2 8.0 22.0



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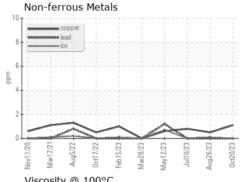


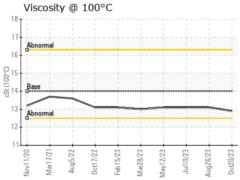


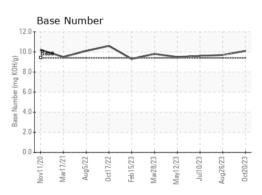
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	12.9	13.1	13.1

Ferrous Alloys











Laboratory Sample No. Lab Number Unique Number : 10726121

: WC0848836 : 05997761

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 03 Nov 2023 Diagnosed

: 06 Nov 2023 Diagnostician : Wes Davis

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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