

OIL ANALYSIS REPORT

Sample Rating Trend





Area OKLAHOMA/102/EG - ROLLER/COMPACTOR 63.04 [OKLAHOMA^102^EG - ROLLER/COMPACTOR] Component Diesel Engine Fluid

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.

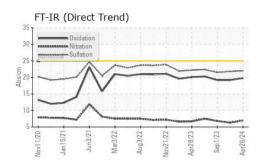
Fluid Condition

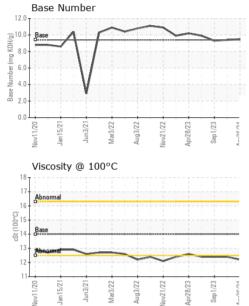
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0935206	WC0819928	WC0849015
Sample Date		Client Info		26 Apr 2024	03 Nov 2023	01 Sep 2023
Machine Age	hrs	Client Info		8400	8051	7802
Oil Age	hrs	Client Info		320	0	7503
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	J	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
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	13	10	13
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m		2	2	2
Lead	ppm	ASTM D5185m	>40	1	1	1
Copper	ppm	ASTM D5185m		3	2	2
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		<1	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 0	current 69	history1 53	history2 41
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	0	69	53	41
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	69 2	53 0	41 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	69 2 42	53 0 42	41 0 42
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	69 2 42 <1	53 0 42 <1	41 0 42 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	69 2 42 <1 478	53 0 42 <1 486	41 0 42 <1 514
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	69 2 42 <1 478 1607	53 0 42 <1 486 1650	41 0 42 <1 514 1817
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	69 2 42 <1 478 1607 785	53 0 42 <1 486 1650 729	41 0 42 <1 514 1817 744
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	0 0 0	69 2 42 <1 478 1607 785 877	53 0 42 <1 486 1650 729 879	41 0 42 <1 514 1817 744 926
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	0 0 0 0	69 2 42 <1 478 1607 785 877 2663	53 0 42 <1 486 1650 729 879 2582	41 0 42 <1 514 1817 744 926 2927
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	0 0 0 0 Imit/base	69 2 42 <1 478 1607 785 877 2663 current	53 0 42 <1 486 1650 729 879 2582 history1	41 0 42 <1 514 1817 744 926 2927 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 0 0 0 imit/base	69 2 42 <1 478 1607 785 877 2663 current 5	53 0 42 <1 486 1650 729 879 2582 history1 4	41 0 42 <1 514 1817 744 926 2927 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 0 0 0 imit/base	69 2 42 <1 478 1607 785 877 2663 <u>current</u> 5 0	53 0 42 <1 486 1650 729 879 2582 history1 4 0	41 0 42 <1 514 1817 744 926 2927 history2 3 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 <u>limit/base</u> >25 >20	69 2 42 <1 478 1607 785 877 2663 <u>current</u> 5 0 2	53 0 42 <1 486 1650 729 879 2582 history1 4 0 2	41 0 42 <1 514 1817 744 926 2927 history2 3 2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 imit/base >25 >20 imit/base >3	69 2 42 <1 478 1607 785 877 2663 <u>current</u> 5 0 2 2	53 0 42 <1 486 1650 729 879 2582 history1 4 0 2 2 kistory1	41 0 42 <1 514 1817 744 926 2927 history2 3 2 2 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	ASTM D5185m ASTM D5185m	0 0 0 0 imit/base >25 >20 imit/base >3	69 2 42 <1 478 1607 785 877 2663 <i>current</i> 5 0 2 2 <i>current</i> 0.4	53 0 42 <1 486 1650 729 879 2582 history1 4 0 2 2 <u>history1</u> 0.3	41 0 42 <1 514 1817 744 926 2927 history2 3 2 2 0 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 ASTM D5185m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	69 2 42 <1 478 1607 785 877 2663 <i>current</i> 5 0 2 2 <i>current</i> 0.4 7.0	53 0 42 <1 486 1650 729 879 2582 history1 4 0 2 2 history1 0.3 6.3	41 0 42 <1 514 1817 744 926 2927 history2 3 2 0 history2 0.4 6.8
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 ASTM D7844 *ASTM D7624 *ASTM D7415	0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	69 2 42 <1 478 1607 785 877 2663 Current 5 0 2 2 Current 0.4 7.0 22.0 Current	53 0 42 <1 486 1650 729 879 2582 history1 4 0 2 kistory1 0.3 6.3 21.8 history1	41 0 42 <1 514 1817 744 926 2927 history2 3 2 0 history2 0.4 6.8 21.5 history2
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 ASTM D5185m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	69 2 42 <1 478 1607 785 877 2663 <u>current</u> 5 0 2 2 <u>current</u> 0.4 7.0 22.0	53 0 42 <1 486 1650 729 879 2582 history1 4 0 2 2 history1 0.3 6.3 21.8	41 0 42 <1 514 1817 744 926 2927 history2 3 2 0 history2 0.4 6.8 21.5



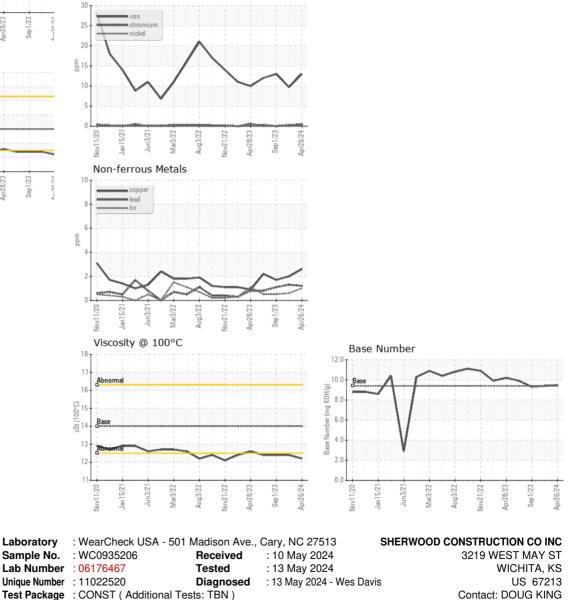
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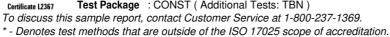




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	12.2	12.4	12.4
GRAPHS						

Ferrous Alloys





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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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