

# **OIL ANALYSIS REPORT**

SAMPLE INFORMATION

# Sample Rating Trend

## NORMAL

# OKLAHOMA/102/EG - OTHER SERVICE Machine Id 09.100 [OKLAHOMA^102^EG - OTHER SERVICE]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

Fluid

MODIL DELVAC 1300 301 E1113W40 (--- CAL

# 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**

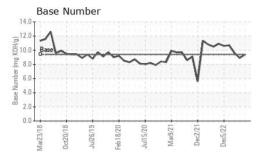
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

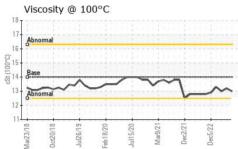
eZ018 Oct2018 Jut2019 Feb2020 Jut2020 MuZ0221 Dec2021 Dec2022	thod	limit/base	current	
	w2018 Oct2018	Jul2019 Feb2020	Jul2020 Mar2021 Dec2021	Dec2022

Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status	hrs hrs	Client Info Client Info Client Info Client Info Client Info		WC0886952 29 Jan 2024 167532 250 Changed NORMAL	WC0874063 15 Nov 2023 13570 250 Changed NORMAL	WC0792494 15 Mar 2023 167532 250 Changed NORMAL
CONTAMINATION	<b>J</b>	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method WC Method	>0.2	NEG NEG	NEG NEG	NEG NEG
Glycol				NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	4	11	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m		<1	1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 48	history1 41	history2 62
	ppm					· ·
Boron	• •	ASTM D5185m	0	48	41	62
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	48 <1	41 0	62 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	48 <1 38	41 0 43	62 0 41
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	48 <1 38 <1	41 0 43 <1	62 0 41 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	48 <1 38 <1 488	41 0 43 <1 495	62 0 41 <1 474
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	48 <1 38 <1 488 1609	41 0 43 <1 495 1718	62 0 41 <1 474 1652
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	48 <1 38 <1 488 1609 750	41 0 43 <1 495 1718 730	62 0 41 <1 474 1652 699
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 ASTM D5185m	0 0 0	48 <1 38 <1 488 1609 750 880	41 0 43 <1 495 1718 730 923	62 0 41 <1 474 1652 699 811
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 ASTM D5185m	0 0 0 0	48 <1 38 <1 488 1609 750 880 2427	41 0 43 <1 495 1718 730 923 2735	62 0 41 <1 474 1652 699 811 2909
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	48 <1 38 <1 488 1609 750 880 2427 current	41 0 43 <1 495 1718 730 923 2735 history1	62 0 41 <1 474 1652 699 811 2909 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	48 <1 38 <1 488 1609 750 880 2427 current 6	41 0 43 <1 495 1718 730 923 2735 history1	62 0 41 <1 474 1652 699 811 2909 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25	48 <1 38 <1 488 1609 750 880 2427 current 6 1	41 0 43 <1 495 1718 730 923 2735 history1 7	62 0 41 <1 474 1652 699 811 2909 history2 5 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20	48 <1 38 <1 488 1609 750 880 2427 current 6 1 <1	41 0 43 <1 495 1718 730 923 2735 history1 7 1	62 0 41 <1 474 1652 699 811 2909 history2 5 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	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base	48 <1 38 <1 488 1609 750 880 2427 current 6 1 <1 current 0.3	41 0 43 <1 495 1718 730 923 2735 history1 7 1 6	62 0 41 <1 474 1652 699 811 2909 history2 5 3 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	0 0 0 0 limit/base >25 >20 limit/base >6	48 <1 38 <1 488 1609 750 880 2427 current 6 1 <1 current	41 0 43 <1 495 1718 730 923 2735 history1 7 1 6 history1 0.5	62 0 41 <1 474 1652 699 811 2909 history2 5 3 0
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	0 0 0 0 limit/base >25 >20 limit/base >6 >20	48 <1 38 <1 488 1609 750 880 2427 current 6 1 <1 current 0.3 7.0	41 0 43 <1 495 1718 730 923 2735 history1 7 1 6 history1 0.5 8.4	62 0 41 <1 474 1652 699 811 2909 history2 5 3 0 history2 0.2 6.7
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  ASTM D5185m  method  *ASTM D7844  *ASTM D7624  *ASTM D7415  method	0 0 0 0 0 limit/base >25 >20 limit/base >6 >20 >30 limit/base	48 <1 38 <1 488 1609 750 880 2427 current 6 1 <1 current 0.3 7.0 22.4 current	41 0 43 <1 495 1718 730 923 2735 history1 7 1 6 history1 0.5 8.4 23.2 history1	62 0 41 <1 474 1652 699 811 2909 history2 5 3 0 history2 0.2 6.7 22.2 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  Method  *ASTM D5185m ASTM D7844  *ASTM D7624  *ASTM D7415	0 0 0 0 0 limit/base >25 >20 limit/base >6 >20 >30	48 <1 38 <1 488 1609 750 880 2427 current 6 1 <1 current 0.3 7.0 22.4	41 0 43 <1 495 1718 730 923 2735 history1 7 1 6 history1 0.5 8.4 23.2	62 0 41 <1 474 1652 699 811 2909 history2 5 3 0 history2 0.2 6.7 22.2



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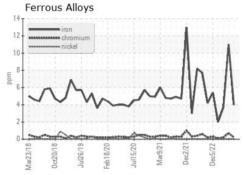


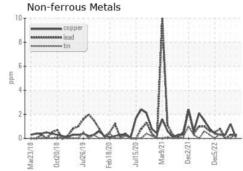


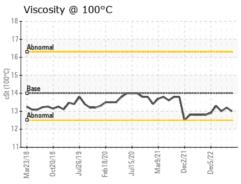
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

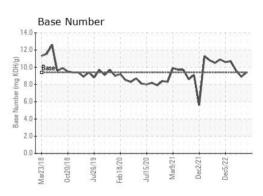
FLUID PROPER	TIES	method				history2
Visc @ 100°C	cSt	ASTM D445	14	13.0	13.2	13.0

### **GRAPHS**













Laboratory Sample No. Lab Number : 06076660 Unique Number : 10858751

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0886952

Received **Tested** 

Diagnosed

: 01 Feb 2024 : 01 Feb 2024

: 01 Feb 2024 - Wes Davis

3219 WEST MAY ST WICHITA, KS US 67213 Contact: DOUG KING

doug.king@sherwood.net

Test Package : CONST ( Additional Tests: TBN ) To discuss this sample report, contact Customer Service at 1-800-237-1369.

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

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (316)617-3161 F: x:

SHERWOOD CONSTRUCTION CO INC