

OIL ANALYSIS REPORT



OKLAHOMA/3/EG - LOADER 50.01L [OKLAHOMA^3^EG - LOADER]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)



Sample Rating Trend





DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels remain high. Test for glycol is negative.

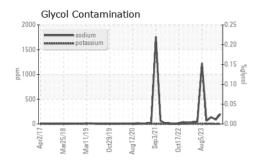
▲ Fluid Condition

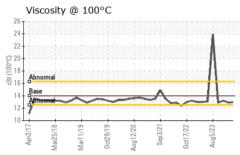
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

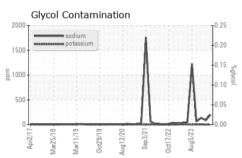
<u> </u>		r2017 Mar20	18 Mar2019 Oct2019	Aug2020 Sep2021 Oct2022	Aug2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0873972	WC0857502	WC0857227
Sample Date		Client Info		24 Jan 2024	27 Oct 2023	29 Sep 2023
Machine Age	hrs	Client Info		15649	15127	14938
Oil Age	hrs	Client Info		15127	14938	14500
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	ABNORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	15	8	9
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>54	3	1	10
Lead	ppm	ASTM D5185m	>20	1	0	1
Copper	ppm	ASTM D5185m	>240	3	2	9
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		and a the seal	1221/1		111	history2
ADDITIVES		method	limit/base	current	history1	HIStory2
Boron	ppm	ASTM D5185m		current 13	nistory1 22	16
	ppm		0			
Boron		ASTM D5185m	0	13	22	16
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	13 <1	22 0	16 2
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	13 <1 72	22 0 52	16 2 65
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	13 <1 72 <1	22 0 52 <1	16 2 65 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	13 <1 72 <1 491	22 0 52 <1 485	16 2 65 <1 482
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	13 <1 72 <1 491 1622	22 0 52 <1 485 1626	16 2 65 <1 482 1583
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	13 <1 72 <1 491 1622 722	22 0 52 <1 485 1626 687	16 2 65 <1 482 1583 730
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	0 0 0	13 <1 72 <1 491 1622 722 874	22 0 52 <1 485 1626 687 872	16 2 65 <1 482 1583 730 905
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	13 <1 72 <1 491 1622 722 874 2360	22 0 52 <1 485 1626 687 872 2420	16 2 65 <1 482 1583 730 905 2747
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	13 <1 72 <1 491 1622 722 874 2360 current	22 0 52 <1 485 1626 687 872 2420 history1	16 2 65 <1 482 1583 730 905 2747 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	13 <1 72 <1 491 1622 722 874 2360 current	22 0 52 <1 485 1626 687 872 2420 history1	16 2 65 <1 482 1583 730 905 2747 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 Iimit/base >35	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197	22 0 52 <1 485 1626 687 872 2420 history1 8	16 2 65 <1 482 1583 730 905 2747 history2 8 ▲ 135
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 Iimit/base >35	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197 <1	22 0 52 <1 485 1626 687 872 2420 history1 8 8 87 0	16 2 65 <1 482 1583 730 905 2747 history2 8 ▲ 135 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >35 >20	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197 <1 NEG	22 0 52 <1 485 1626 687 872 2420 history1 8 8 87 0 NEG	16 2 65 <1 482 1583 730 905 2747 history2 8 135 2 NEG
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D2982	0 0 0 0 limit/base >35 >20	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197 <1 NEG current	22 0 52 <1 485 1626 687 872 2420 history1 8 87 0 NEG	16 2 65 <1 482 1583 730 905 2747 history2 8 ▲ 135 2 NEG history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m	0 0 0 0 0 limit/base >35 >20 limit/base >3 >20	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197 <1 NEG current 0.5	22 0 52 <1 485 1626 687 872 2420 history1 8 87 0 NEG history1 0.3	16 2 65 <1 482 1583 730 905 2747 history2 8 ▲ 135 2 NEG history2 0.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m **ASTM D7844 **ASTM D7844	0 0 0 0 0 limit/base >35 >20 limit/base >3 >20	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197 <1 NEG current 0.5 8.4	22 0 52 <1 485 1626 687 872 2420 history1 8 8 87 0 NEG history1 0.3 6.4	16 2 65 <1 482 1583 730 905 2747 history2 8 ▲ 135 2 NEG history2 0.6 7.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	0 0 0 0 0 limit/base >35 >20 limit/base >3 >20 >30	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197 <1 NEG current 0.5 8.4 22.5	22 0 52 <1 485 1626 687 872 2420 history1 8 87 0 NEG history1 0.3 6.4 22.1	16 2 65 <1 482 1583 730 905 2747 history2 8 ▲ 135 2 NEG history2 0.6 7.5 22.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m *ASTM D2982 *ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7415 *Method	0 0 0 0 0 limit/base >35 >20 limit/base >3 >20 limit/base	13 <1 72 <1 491 1622 722 874 2360 current 11 ▲ 197 <1 NEG current 0.5 8.4 22.5 current	22 0 52 <1 485 1626 687 872 2420 history1 8 8 87 0 NEG history1 0.3 6.4 22.1 history1	16 2 65 <1 482 1583 730 905 2747 history2 8 ▲ 135 2 NEG history2 0.6 7.5 22.1



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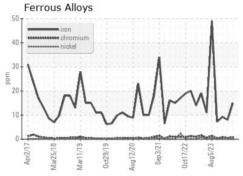


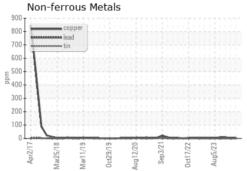


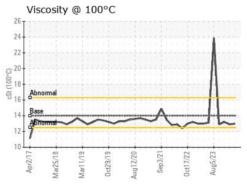
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

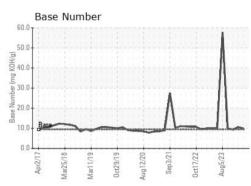
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	14	13.0	12.9	13.2

GRAPHS













Laboratory Sample No. Lab Number : 06076645 Unique Number: 10858736

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0873972

Received

:01 Feb 2024 **Tested** Diagnosed Test Package: CONST (Additional Tests: Glycol, TBN)

: 02 Feb 2024

: 02 Feb 2024 - Don Baldridge

3219 WEST MAY ST WICHITA, KS US 67213

SHERWOOD CONSTRUCTION CO INC

Contact: DOUG KING doug.king@sherwood.net T: (316)617-3161

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: SHEWIC [WUSCAR] 06076645 (Generated: 02/08/2024 11:51:40) Rev: 1

Submitted By: GARRETT ADAMS

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