

OIL ANALYSIS REPORT

SAMPLE INFORMATION

Sample Rating Trend

NORMAL

OKLAHOMA/102/EG - TRUCK-ON-HWY-HEAVY DUTY 05.80 [OKLAHOMA^102^EG - TRUCK-ON-HWY-HEAVY DUTY]

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

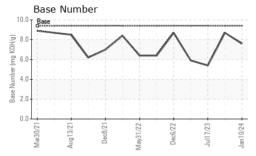
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

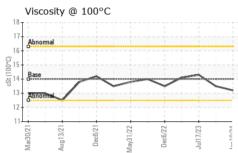
	Mar2021	Aug2021	Dec2021	May2022	Dec2022	Jul2023	Jan20
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		-					
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Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status CONTAMINATION	hrs hrs	Client Info Client Info Client Info Client Info Client Info	limit/base	WC0874022 10 Jan 2024 5710 382 Changed NORMAL	WC0848917 14 Sep 2023 5328 377 Changed NORMAL history1	WC0834035 17 Jul 2023 4951 640 Changed NORMAL history2
Fuel		WC Method	>3.0	<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	>90	9	12	24
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	4	14
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	<1	2	1
Tin Vanadium	ppm	ASTM D5185m	>15	<1 0	<1	0
Cadmium	ppm	ASTM D5185m ASTM D5185m		0	0	0
	ppm	ASTIVI DOTOSIII		U	U	U
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	ASTM D5185m	limit/base	current 53	history1 37	history2 60
	ppm ppm	ASTM D5185m		53 <1	37 0	60
Boron		ASTM D5185m ASTM D5185m ASTM D5185m	0	53 <1 65	37 0 31	60
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	53 <1 65 <1	37 0 31 <1	60 0 2 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	53 <1 65 <1 526	37 0 31 <1 432	60 0 2 <1 39
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	53 <1 65 <1 526 1467	37 0 31 <1 432 1852	60 0 2 <1 39 2335
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	53 <1 65 <1 526 1467 744	37 0 31 <1 432 1852 808	60 0 2 <1 39 2335 977
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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	53 <1 65 <1 526 1467 744 889	37 0 31 <1 432 1852 808 991	60 0 2 <1 39 2335 977 1240
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	53 <1 65 <1 526 1467 744	37 0 31 <1 432 1852 808 991 3355	60 0 2 <1 39 2335 977 1240 4356
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	53 <1 65 <1 526 1467 744 889	37 0 31 <1 432 1852 808 991	60 0 2 <1 39 2335 977 1240
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25	53 <1 65 <1 526 1467 744 889 2566	37 0 31 <1 432 1852 808 991 3355	60 0 2 <1 39 2335 977 1240 4356
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25	53 <1 65 <1 526 1467 744 889 2566 current	37 0 31 <1 432 1852 808 991 3355 history1	60 0 2 <1 39 2335 977 1240 4356
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25	53 <1 65 <1 526 1467 744 889 2566 current 4	37 0 31 <1 432 1852 808 991 3355 history1	60 0 2 <1 39 2335 977 1240 4356 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	53 <1 65 <1 526 1467 744 889 2566 current 4	37 0 31 <1 432 1852 808 991 3355 history1 4	60 0 2 <1 39 2335 977 1240 4356 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	53 <1 65 <1 526 1467 744 889 2566 current 4 4	37 0 31 <1 432 1852 808 991 3355 history1 4 5	60 0 2 <1 39 2335 977 1240 4356 history2 4 5 39
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	0 0 0 0 limit/base >25 >20 limit/base	53 <1 65 <1 526 1467 744 889 2566 current 4 11 current	37 0 31 <1 432 1852 808 991 3355 history1 4 5 16	60 0 2 <1 39 2335 977 1240 4356 history2 4 5 39 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 >6	53 <1 65 <1 526 1467 744 889 2566 current 4 11 current 0.3	37 0 31 <1 432 1852 808 991 3355 history1 4 5 16 history1 0.4	60 0 2 <1 39 2335 977 1240 4356 history2 4 5 39 history2 0.5
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 >6 >20	53 <1 65 <1 526 1467 744 889 2566 current 4 4 11 current 0.3 10.7	37 0 31 <1 432 1852 808 991 3355 history1 4 5 16 history1 0.4 9.8	60 0 2 <1 39 2335 977 1240 4356 history2 4 5 39 history2 0.5 11.6
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 >6 >20 >30	53 <1 65 <1 526 1467 744 889 2566 current 4 11 current 0.3 10.7 21.5	37 0 31 <1 432 1852 808 991 3355 history1 4 5 16 history1 0.4 9.8 23.0	60 0 2 <1 39 2335 977 1240 4356 history2 4 5 39 history2 0.5 11.6 26.1



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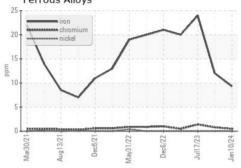


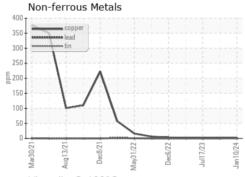
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

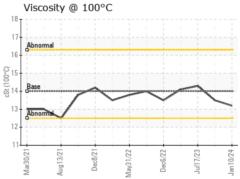
FLUID PROPERI	IES	method			history1	history2
Visc @ 100°C	cSt	ASTM D445	14	13.2	13.5	14.3

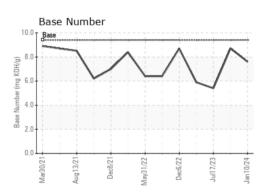
GRAPHS

Ferrous Alloys













Laboratory Sample No. Lab Number : 06076654 Unique Number : 10858745

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0874022

Received **Tested** Diagnosed Test Package : CONST (Additional Tests: TBN)

: 01 Feb 2024 : 01 Feb 2024

: 01 Feb 2024 - Wes Davis

SHERWOOD CONSTRUCTION CO INC 3219 WEST MAY ST WICHITA, KS

US 67213 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)

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