

OIL ANALYSIS REPORT

Sample Rating Trend

ind/202 And/203 Feb/001 And/202 Med/002 Nov/202 And/203 On/202

NORMAL



600HP Machine Id 217424 [600HP]

Component

Diesel Engine

DIESEL ENGINE OIL SAE 10W30 (38 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

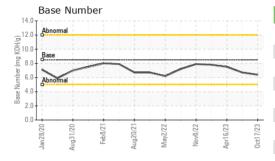
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

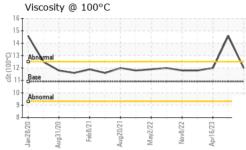
				21 May2022 Nov2022 Apr203		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101276	PCA0073119	PCA0073128
Sample Date		Client Info		17 Oct 2023	13 Jul 2023	16 Apr 2023
Machine Age	mls	Client Info		661664	625478	600210
Oil Age	mls	Client Info		30000	30000	40000
Oil Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	ATTENTION	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	14	7	18
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	2	2	8
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>30	5	2	6
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 4	history1	history2
	ppm					
Boron		ASTM D5185m	250	4	123	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	4 4	123 0	0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	4 4 57	123 0 18	0 0 62
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	4 4 57 0	123 0 18 <1	0 0 62 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	4 4 57 0 823	123 0 18 <1 201	0 0 62 <1 1037
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	4 4 57 0 823 1207	123 0 18 <1 201 2167	0 0 62 <1 1037 1226
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	250 10 100 450 3000 1150	4 4 57 0 823 1207 918	123 0 18 <1 201 2167 1014	0 0 62 <1 1037 1226 1047
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	250 10 100 450 3000 1150 1350	4 57 0 823 1207 918 1238	123 0 18 <1 201 2167 1014 1242	0 0 62 <1 1037 1226 1047 1387
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250	4 4 57 0 823 1207 918 1238 2787	123 0 18 <1 201 2167 1014 1242 3974	0 0 62 <1 1037 1226 1047 1387 3402
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	4 4 57 0 823 1207 918 1238 2787	123 0 18 <1 201 2167 1014 1242 3974 history1	0 0 62 <1 1037 1226 1047 1387 3402 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	4 4 57 0 823 1207 918 1238 2787 current	123 0 18 <1 201 2167 1014 1242 3974 history1	0 0 62 <1 1037 1226 1047 1387 3402 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >30	4 4 57 0 823 1207 918 1238 2787 current 5	123 0 18 <1 201 2167 1014 1242 3974 history1 4	0 0 62 <1 1037 1226 1047 1387 3402 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >30	4 4 57 0 823 1207 918 1238 2787 current 5 0 4	123 0 18 <1 201 2167 1014 1242 3974 history1 4 2	0 0 62 <1 1037 1226 1047 1387 3402 history2 10 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >30 >20 limit/base >3	4 4 57 0 823 1207 918 1238 2787 current 5 0 4 current	123 0 18 <1 201 2167 1014 1242 3974 history1 4 2 4	0 0 62 <1 1037 1226 1047 1387 3402 history2 10 1 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >30 >20 limit/base >3	4 4 57 0 823 1207 918 1238 2787 current 5 0 4 current	123 0 18 <1 201 2167 1014 1242 3974 history1 4 2 4 history1 0.4	0 0 62 <1 1037 1226 1047 1387 3402 history2 10 1 2 history2 0.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	250 10 100 450 3000 1150 1350 4250 limit/base >30 >20 limit/base	4 4 57 0 823 1207 918 1238 2787 current 5 0 4 current 0.7 8.8	123 0 18 <1 201 2167 1014 1242 3974 history1 4 2 4 history1 0.4 8.2	0 0 62 <1 1037 1226 1047 1387 3402 history2 10 1 2 history2 0.7 9.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	250 10 100 450 3000 1150 1350 4250 limit/base >30 >20 limit/base >3 >20 >30	4 4 57 0 823 1207 918 1238 2787 current 5 0 4 current 0.7 8.8 21.4	123 0 18 <1 201 2167 1014 1242 3974 history1 4 2 4 history1 0.4 8.2 21.2	0 0 62 <1 1037 1226 1047 1387 3402 history2 10 1 2 history2 0.7 9.1 21.5

Contact/Location: RITA GARCIA - MCLLUB



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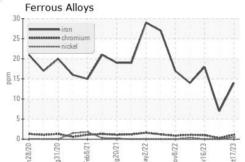


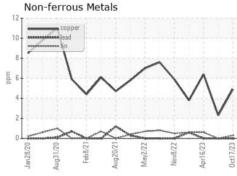


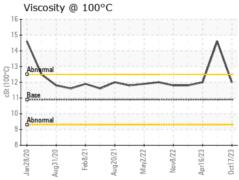
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

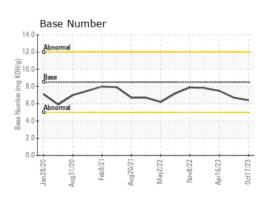
FLUID PROP	ERITES	method	iimii/base		nistory i	nistory∠
Visc @ 100°C	cSt	ASTM D445	10.9	12.0	△ 14.6	12.0

GRAPHS











Certificate L2367

Laboratory Sample No.

Lab Number Unique Number : 10726051 Test Package : FLEET

: PCA0101276 : 05997691

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 03 Nov 2023 Diagnosed : 06 Nov 2023

Diagnostician : Wes Davis

McLane Company - High Plains - 600HP

1717 East Loop 289 LUBBOCK, TX US 79403

Contact: RITA GARCIA rita.garcia@mclaneco.com T: (806)766-2902

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)