

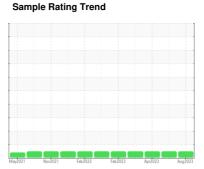
OIL ANALYSIS REPORT



KANSAS/44/HY - OTHER SERVICE Machine Id 69.103L [KANSAS^44^HY - OTHER SERVICE]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

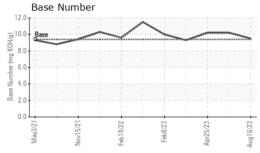
Fluid Condition

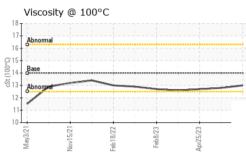
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0821640	WC0745969	WC0779893
Sample Date		Client Info		16 Aug 2023	08 Jun 2023	25 Apr 2023
Machine Age	hrs	Client Info		3561	3351	3267
Oil Age	hrs	Client Info		210	2600	2599
Oil Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	2	7	6
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	0	<1
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	<1	2	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
0	10 10 100	AOTAL DELOE		•		0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	ррпп	method	limit/base	current	0 history1	history2
	ppm		limit/base			
ADDITIVES		method ASTM D5185m		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	0	current 67	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	0	current 67 0	history1 43 0	history2 51 0
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0	current 67 0 38	history1 43 0 41	history2 51 0 42
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 67 0 38 <1	history1 43 0 41 <1	history2 51 0 42 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 67 0 38 <1 532	history1 43 0 41 <1 504	history2 51 0 42 <1 573
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 67 0 38 <1 532 1720	history1 43 0 41 <1 504 1726	history2 51 0 42 <1 573 1885
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0	current 67 0 38 <1 532 1720 782	history1 43 0 41 <1 504 1726 896	history2 51 0 42 <1 573 1885 982
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0	current 67 0 38 <1 532 1720 782 914	history1 43 0 41 <1 504 1726 896 1079	history2 51 0 42 <1 573 1885 982 1255
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0	current 67 0 38 <1 532 1720 782 914 3145	history1 43 0 41 <1 504 1726 896 1079 2942	history2 51 0 42 <1 573 1885 982 1255 3341
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0	current 67 0 38 <1 532 1720 782 914 3145 current	history1 43 0 41 <1 504 1726 896 1079 2942 history1	history2 51 0 42 <1 573 1885 982 1255 3341 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 	current 67 0 38 <1 532 1720 782 914 3145 current 4	history1 43 0 41 <1 504 1726 896 1079 2942 history1 4	history2 51 0 42 <1 573 1885 982 1255 3341 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 	current 67 0 38 <1 532 1720 782 914 3145 current 4 3	history1 43 0 41 <1 504 1726 896 1079 2942 history1 4 0	history2 51 0 42 <1 573 1885 982 1255 3341 history2 5 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 	current 67 0 38 <1 532 1720 782 914 3145 current 4 3 0	history1 43 0 41 <1 504 1726 896 1079 2942 history1 4 0 1	history2 51 0 42 <1 573 1885 982 1255 3341 history2 5 2 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 0 limit/base >25 >20 limit/base >3	current 67 0 38 <1 532 1720 782 914 3145 current 4 3 0 current	history1 43 0 41 <1 504 1726 896 1079 2942 history1 4 0 1	history2 51 0 42 <1 573 1885 982 1255 3341 history2 5 0 history2
ADDITIVES 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	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 limit/base >25 >20 limit/base >3	current 67 0 38 <1 532 1720 782 914 3145 current 4 3 0 current 0.1	history1 43 0 41 <1 504 1726 896 1079 2942 history1 4 0 1 history1 0.2	history2 51 0 42 <1 573 1885 982 1255 3341 history2 5 2 0 history2 0.2
ADDITIVES 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	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20	current 67 0 38 <1 532 1720 782 914 3145 current 4 3 0 current 0.1 5.7	history1 43 0 41 <1 504 1726 896 1079 2942 history1 4 0 1 history1 0.2 8.5	history2 51 0 42 <1 573 1885 982 1255 3341 history2 5 2 0 history2 0.2 7.6
ADDITIVES 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	method ASTM D5185m method *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76185m	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20 >30	current 67 0 38 <1 532 1720 782 914 3145 current 4 3 0 current 0.1 5.7 20.8	history1 43 0 41 <1 504 1726 896 1079 2942 history1 4 0 1 history1 0.2 8.5 23.1	history2 51 0 42 <1 573 1885 982 1255 3341 history2 5 2 0 history2 0.2 7.6 22.6



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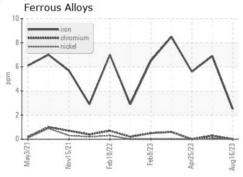


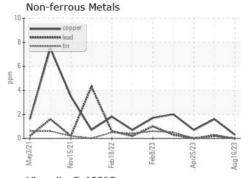


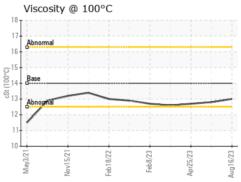
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

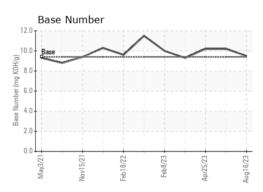
FLUID PROPER	HES	metnoa	ilmit/base	current	nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445	14	13.0	12.8	12.7

GRAPHS













Laboratory Sample No. Lab Number Unique Number : 10616723

: 05931452

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0821640

Received : 22 Aug 2023 Diagnosed

: 23 Aug 2023

Diagnostician : Wes Davis Test Package : CONST (Additional Tests: TBN)

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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