

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id HINO 388517

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (16 QTS)

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.

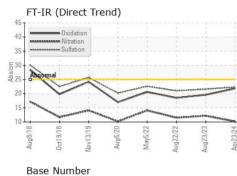
Fluid Condition

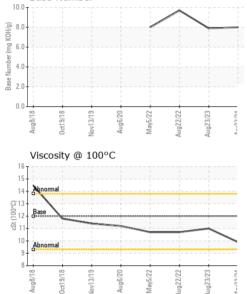
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0124007	PCA0099732	PCA0077018
Sample Date		Client Info		23 Apr 2024	23 Aug 2023	22 Aug 2022
Machine Age	mls	Client Info		0	220749	194714
Oil Age	mls	Client Info		0	0	10000
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	56	15	12
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	15	8	7
Lead	ppm	ASTM D5185m	>40	0	2	2
Copper	ppm	ASTM D5185m	>330	69	3	1
Tin	ppm	ASTM D5185m	>15	6	1	2
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	32	13	15
Barium	ppm	ASTM D5185m	0	0	0	0
	1-1-					
Molybdenum	ppm	ASTM D5185m	50	44	63	83
Molybdenum Manganese		ASTM D5185m ASTM D5185m	50 0	44 9	63 1	83 <1
	ppm					
Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	9	1	<1
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	9 595 1607 827	1 858 1169 1073	<1 870 1192 989
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	9 595 1607	1 858 1169 1073 1285	<1 870 1192 989 1218
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	9 595 1607 827	1 858 1169 1073	<1 870 1192 989
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	9 595 1607 827 1004	1 858 1169 1073 1285	<1 870 1192 989 1218
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base	9 595 1607 827 1004 2676 current 11	1 858 1169 1073 1285 3048	<1 870 1192 989 1218 3266 history2 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method	0 950 1050 995 1180 2600 limit/base	9 595 1607 827 1004 2676 current	1 858 1169 1073 1285 3048 history1	<1 870 1192 989 1218 3266 history2 2 5
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25	9 595 1607 827 1004 2676 current 11	1 858 1169 1073 1285 3048 history1 4	<1 870 1192 989 1218 3266 history2 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25	9 595 1607 827 1004 2676 current 11 7	1 858 1169 1073 1285 3048 history1 4 9	<1 870 1192 989 1218 3266 history2 2 5
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	9 595 1607 827 1004 2676 current 11 7 10	1 858 1169 1073 1285 3048 history1 4 9 8	<1 <1 870 1192 989 1218 3266 history2 2 5 9 history2 0.8
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	9 595 1607 827 1004 2676 current 11 7 10 current	1 858 1169 1073 1285 3048 history1 4 9 8 8 history1	<1 <1 870 1192 989 1218 3266 history2 2 5 9 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	9 595 1607 827 1004 2676 current 11 7 10 current 0.6	1 858 1169 1073 1285 3048 history1 4 9 8 8 history1 0.9	<1 <1 870 1192 989 1218 3266 history2 2 5 9 history2 0.8
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	9 595 1607 827 1004 2676 <u>current</u> 11 7 10 <u>current</u> 0.6 10.2	1 858 1169 1073 1285 3048 history1 4 9 8 history1 0.9 12.2	<1 870 1192 989 1218 3266 history2 2 5 9 history2 0.8 11.5
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7615	0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20 >30	9 595 1607 827 1004 2676 <u>current</u> 11 7 10 <u>current</u> 0.6 10.2 22.3	1 858 1169 1073 1285 3048 history1 4 9 8 history1 0.9 12.2 21.6	<1 870 1192 989 1218 3266 history2 2 5 9 history2 0.8 11.5 21.0



OIL ANALYSIS REPORT





250

200

150

50

80

60

۲ 40

20

0

500

400

300 Ed 200

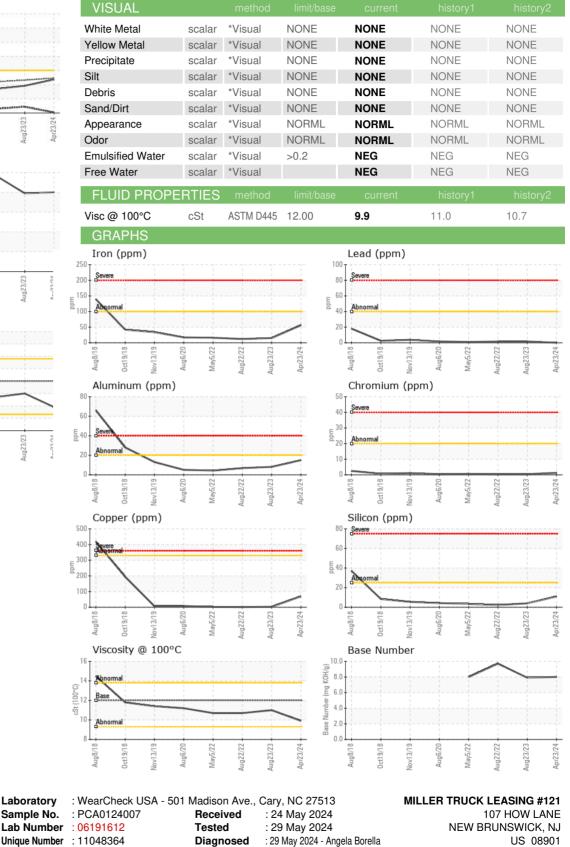
16

St (100°C)

Laboratory

Sample No.

8



Test Package : MOB 1 (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)

Report Id: MILNEW [WUSCAR] 06191612 (Generated: 05/29/2024 19:22:48) Rev: 1

Certificate 12367

Contact/Location: Anthony Cursi - MILNEW

Contact: Anthony Cursi

T: (732)358-4027

F: (732)400-8475

acursi@millertransgroup.com