

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

HINO 274331

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

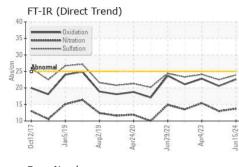
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

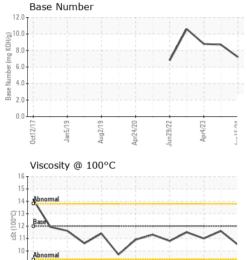
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0079235	PCA0099736	PCA0091399
Sample Date		Client Info		15 Jun 2024	30 Aug 2023	04 Apr 2023
Machine Age	mls	Client Info		245489	224595	0
Oil Age	mls	Client Info		0	15000	10000
Oil Changed		Client Info		Changed	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	33	39	50
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	8	7	9
Lead	ppm	ASTM D5185m	>40	2	1	2
Copper	ppm	ASTM D5185m	>330	2	2	2
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 5	history1 19	history2 14
	ppm ppm		2			
Boron		ASTM D5185m	2	5	19	14
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	5 0	19 0	14 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	5 0 64	19 0 57	14 0 65
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	5 0 64 1	19 0 57 1	14 0 65 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	5 0 64 1 931	19 0 57 1 803	14 0 65 <1 893
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	5 0 64 1 931 1066	19 0 57 1 803 1185	14 0 65 <1 893 1243
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	5 0 64 1 931 1066 978	19 0 57 1 803 1185 1083	14 0 65 <1 893 1243 1026
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	2 0 50 0 950 1050 995 1180	5 0 64 1 931 1066 978 1209	19 0 57 1 803 1185 1083 1266	14 0 65 <1 893 1243 1026 1256
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	2 0 50 950 1050 995 1180 2600	5 0 64 1 931 1066 978 1209 3335	19 0 57 1 803 1185 1083 1266 3064	14 0 65 <1 893 1243 1026 1256 3636
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm 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	2 0 50 950 1050 995 1180 2600	5 0 64 1 931 1066 978 1209 3335 current	19 0 57 1 803 1185 1083 1266 3064 history1	14 0 65 <1 893 1243 1026 1256 3636 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 950 1050 995 1180 2600 Limit/base >25	5 0 64 1 931 1066 978 1209 3335 current 4	19 0 57 1 803 1185 1083 1266 3064 history1 5	14 0 65 <1 893 1243 1026 1256 3636 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 950 1050 995 1180 2600 Limit/base >25	5 0 64 1 931 1066 978 1209 3335 current 4 8	19 0 57 1 803 1185 1083 1266 3064 history1 5 8	14 0 65 <1 893 1243 1026 1256 3636 history2 5 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	5 0 64 1 931 1066 978 1209 3335 current 4 8 4	19 0 57 1 803 1185 1083 1266 3064 history1 5 8 8 4	14 0 65 <1 893 1243 1026 1256 3636 history2 5 7 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >25 >20 Imit/base >3	5 0 64 1 931 1066 978 1209 3335 current 4 8 4 4 8 4	19 0 57 1 803 1185 1083 1266 3064 history1 5 8 4 4	14 0 65 <1 893 1243 1026 1256 3636 history2 5 7 4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >25 >20 Imit/base >3	5 0 64 1 931 1066 978 1209 3335 current 4 8 4 4 8 4 1.4	19 0 57 1 803 1185 1083 1266 3064 history1 5 8 4 4 history1 1.4	14 0 65 <1 893 1243 1026 1256 3636 history2 5 7 4 history2 1.8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	5 0 64 1 931 1066 978 1209 3335 current 4 8 4 4	19 0 57 1 803 1185 1083 1266 3064 history1 5 8 4 4 history1 1.4 1.4 13.0	14 0 65 <1 893 1243 1026 1256 3636 history2 5 7 4 history2 1.8 1.8 15.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20 >3 >20	5 0 64 1 931 1066 978 1209 3335 current 4 8 4 4 4 1.4 1.4 1.4 1.4 13.7 23.9	19 0 57 1 803 1185 1083 1266 3064 history1 5 8 4 4 history1 1.4 1.4 13.0 22.5	14 0 65 <1 893 1243 1026 1256 3636 history2 5 7 4 history2 1.8 15.4 24.1



8.

OIL ANALYSIS REPORT





Aug2/19 .

r74/70

n29/22

pr4/23

250

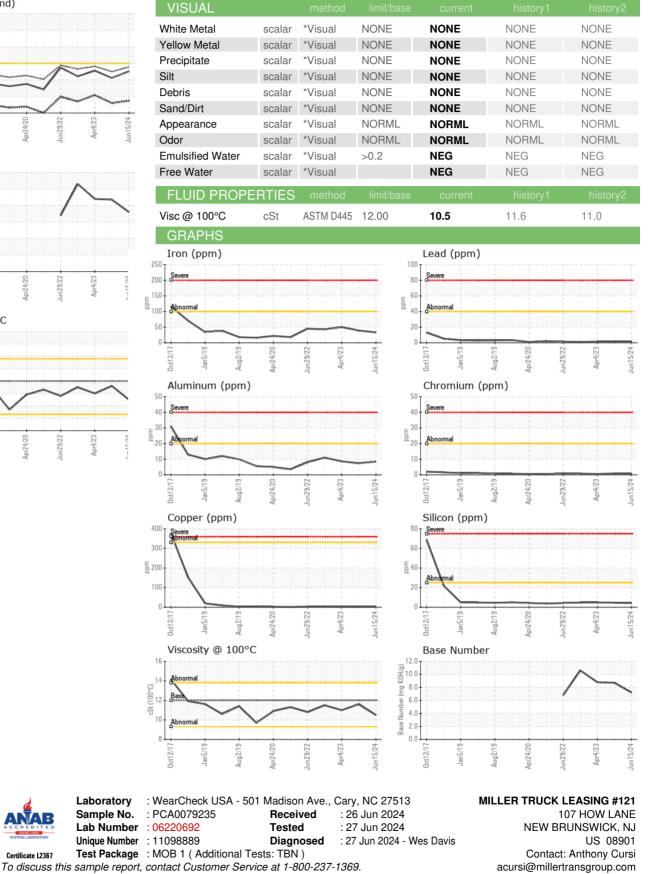
ppm

300

St (100°C)

Laboratory

Sample No.



* - 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] 06220692 (Generated: 06/30/2024 16:18:39) Rev: 1

Certificate 12367

Contact/Location: Anthony Cursi - MILNEW

T: (732)358-4027

F: (732)400-8475