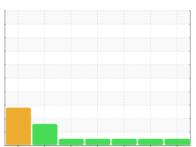


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

FORD 619 (S/N 1FAHPZMK6GG132189)

Gasoline Engine

PETRO CANADA SUPREME 5W20 MOTOR OIL (6 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

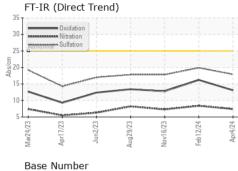
Fluid Condition

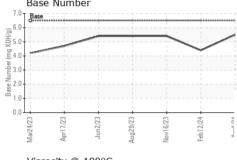
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

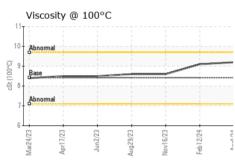
Machine Age mls Client Info 64025 65594 59926 Oil Age mis Client Info 1431 5668 1415 Oil Changed Client Info Changed Changed Changed Changed Sample Status NoRMAL NORMAL NORMAL NORMAL NORMAL CONTAMINATION method Ilmit/base current history1 history2 Fuel WC Method >4.0 <1.0 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >15.0 4 4 4 Chromium ppm ASTM D5185m >20 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	OIL (6 GAL)		Mar2023	Apr2023 Jun2023	Aug2023 Nov2023 Feb2024	Apr2024	
Client Info	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Client Info	Sample Number		Client Info		PCA0117712	PCA0117691	PCA0112893
Machine Age mls Client Info 64025 65594 59926 Oil Age mls Client Info 1431 5688 1415 Oil Changed Client Info Changed Change	Sample Date		Client Info		04 Apr 2024	12 Feb 2024	16 Nov 2023
Oil Age mls Client Info 1431 5668 1415 Oil Changed Sample Status Client Info Changed Changed Changed Changed Changed NORMAL NORMAL NORMAL NORMAL NORMAL Changed Changed Changed Changed Changed Changed Changed NORMAL NORMAL NORMAL CONTAMINATION method Imitibase current history1 history2 Fuel WC Method 8-0.2 NEG NEG Water WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >150 4 4 4 Chromium ppm ASTM D5185m >150 4 4 4 Chromium ppm ASTM D5185m >20 0 0 <1	Machine Age	mls	Client Info			65594	59926
NORMAL NORMAL NORMAL NORMAL	Oil Age	mls	Client Info		1431	5668	1415
NORMAL NORMAL NORMAL NORMAL	-		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water WC Method >0.2 NEG NEG NEG Glycol WC Method Imit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >150 4 4 4 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >5 0 0 <1 <1 Silver ppm ASTM D5185m >0 0 0 <1 <1 <2 3 Lead ppm ASTM D5185m >50 0 0 0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >150 4 4 4 Chromium ppm ASTM D5185m >20 <1	Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >5 0 0 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>150	4	4	4
Description	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Description	Nickel		ASTM D5185m	>5	0	0	<1
Silver	Titanium	ppm	ASTM D5185m		0	0	<1
Lead	Silver		ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >155 7 6 5 Tin ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>40	1	2	3
Tin	Lead	ppm	ASTM D5185m	>50	0	0	0
Trin	Copper	ppm	ASTM D5185m	>155	7	6	5
Cadmium ppm ASTM D5185m 0 0 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 183 77 38 61 Barium ppm ASTM D5185m 0 2 0 0 Molybdenum ppm ASTM D5185m 36 66 66 63 Manganese ppm ASTM D5185m 0 2 <1	• •				<1	<1	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	<1
Barium ppm ASTM D5185m 0 2 0 0 Molybdenum ppm ASTM D5185m 36 66 66 63 Manganese ppm ASTM D5185m 0 2 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 36 66 66 63 Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 417 614 607 519 Calcium ppm ASTM D5185m 1318 1237 1199 1116 Phosphorus ppm ASTM D5185m 773 748 763 716 Zinc ppm ASTM D5185m 845 863 913 824 Sulfur ppm ASTM D5185m 2690 3008 2640 2685 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >20 <1 1 2 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7624 >20 <th< td=""><td>Boron</td><td>ppm</td><td>ASTM D5185m</td><td>183</td><th>77</th><td>38</td><td>61</td></th<>	Boron	ppm	ASTM D5185m	183	77	38	61
Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 417 614 607 519 Calcium ppm ASTM D5185m 1318 1237 1199 1116 Phosphorus ppm ASTM D5185m 73 748 763 716 Zinc ppm ASTM D5185m 845 863 913 824 Sulfur ppm ASTM D5185m 2690 3008 2640 2685 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 </td <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th>2</th> <td>0</td> <td>0</td>	Barium	ppm	ASTM D5185m	0	2	0	0
Magnesium ppm ASTM D5185m 417 614 607 519 Calcium ppm ASTM D5185m 1318 1237 1199 1116 Phosphorus ppm ASTM D5185m 773 748 763 716 Zinc ppm ASTM D5185m 845 863 913 824 Sulfur ppm ASTM D5185m 2690 3008 2640 2685 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1 1 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844 0 0 0.1 Nitration Abs/cm *ASTM D7415 >30 17.9	Molybdenum	ppm	ASTM D5185m	36	66	66	63
Calcium ppm ASTM D5185m 1318 1237 1199 1116 Phosphorus ppm ASTM D5185m 773 748 763 716 Zinc ppm ASTM D5185m 845 863 913 824 Sulfur ppm ASTM D5185m 2690 3008 2640 2685 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1	Manganese	ppm	ASTM D5185m	0	2	<1	<1
Phosphorus ppm ASTM D5185m 773 748 763 716 Zinc ppm ASTM D5185m 845 863 913 824 Sulfur ppm ASTM D5185m 2690 3008 2640 2685 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1	Magnesium	ppm	ASTM D5185m	417	614	607	519
Zinc ppm ASTM D5185m 845 863 913 824 Sulfur ppm ASTM D5185m 2690 3008 2640 2685 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1	Calcium	ppm	ASTM D5185m	1318	1237	1199	1116
Sulfur ppm ASTM D5185m 2690 3008 2640 2685 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0.1 Nitration Abs/cm *ASTM D7624 >20 7.4 8.4 7.3 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 19.9 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.1 16.2 12.8	Phosphorus	ppm	ASTM D5185m	773	748	763	716
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1	Zinc	ppm	ASTM D5185m	845	863	913	824
Silicon ppm ASTM D5185m >30 20 22 17 Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0.1 Nitration Abs/cm *ASTM D7624 >20 7.4 8.4 7.3 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 19.9 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.1 16.2 12.8	Sulfur	ppm	ASTM D5185m	2690	3008	2640	2685
Sodium ppm ASTM D5185m >400 13 5 7 Potassium ppm ASTM D5185m >20 <1 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0.1 Nitration Abs/cm *ASTM D7624 >20 7.4 8.4 7.3 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 19.9 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.1 16.2 12.8	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1	Silicon	ppm	ASTM D5185m	>30	20	22	17
INFRA-RED	Sodium	ppm	ASTM D5185m	>400	13	5	7
Soot % % *ASTM D7844 0 0 0.1 Nitration Abs/cm *ASTM D7624 >20 7.4 8.4 7.3 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 19.9 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.1 16.2 12.8	Potassium	ppm	ASTM D5185m	>20	<1	1	2
Nitration Abs/cm *ASTM D7624 >20 7.4 8.4 7.3 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 19.9 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.1 16.2 12.8	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 17.9 19.9 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.1 16.2 12.8	Soot %	%	*ASTM D7844		0	0	0.1
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.1 16.2 12.8	Nitration	Abs/cm	*ASTM D7624	>20	7.4	8.4	7.3
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	19.9	17.8
	FLUID DEGRA	OATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	16.2	12.8
	Base Number (BN)	mg KOH/g	ASTM D2896	6.5	5.5	4.4	5.4



OIL ANALYSIS REPORT



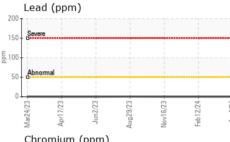


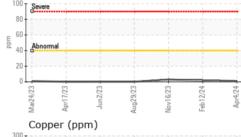


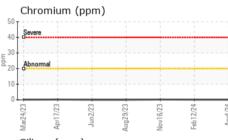
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

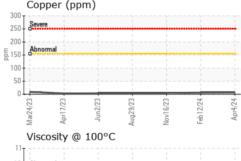
FLUID FROF	EULIES	memou			HISTORY	HISTOLYZ
Visc @ 100°C	cSt	ASTM D445	8.42	9.2	9.1	8.6

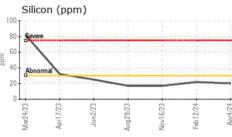
Iror 500 T	(ppm)					
Sever	e			- 1		
200 - Abno	rmal					
100						
0						_
Mar24/23	Apr17/23	Jun2/23	Aug29/23	Nov16/23	Feb12/24	Apr4/24
Δlur	minum	(ppm)				
100 T Sever	9					

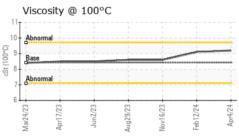


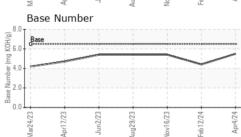
















Certificate 12367

Laboratory Sample No.

: PCA0117712 Lab Number : 06155613 Unique Number : 10991036

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

Received : 22 Apr 2024 **Tested** Diagnosed

: 23 Apr 2024 : 23 Apr 2024 - Wes Davis

VILLAGE OF NORTH RIVERSIDE 2345 S DESPLAINES NORTH RIVERSIDE, IL US 60546

Contact: Service Manager vznrdpw@gmail.com T:

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)

F: