

Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 30 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

PROBLEMATIC TEST RESULTS							
Sample Status				ABNORMAL	NORMAL	NORMAL	
Fuel	%	ASTM D3524	>5	<u> </u>	<1.0	<1.0	

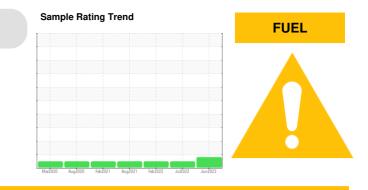
Customer Id: IDETAMFL Sample No.: IL05900949 Lab Number: 05900949 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com



RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.			
Resample			?	We recommend an early resample to monitor this condition.			
Alert			?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.			
Information Required			?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.			

HISTORICAL DIAGNOSIS



23 Jul 2022 Diag: Don Baldridge

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





01 Feb 2022 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

06 Aug 2021 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.







OIL ANALYSIS REPORT

Sample Rating Trend



Mar2020 Aur2020 Ext 021 Aur2021 Ext 022 br2022

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL05900949	IL05609992	IL05465813
Sample Date		Client Info		29 Jun 2023	23 Jul 2022	01 Feb 2022
Machine Age	mls	Client Info		307090	219530	182918
Oil Age	mls	Client Info		40000	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	23	25	33
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm		>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	6	5	5
Lead	ppm	ASTM D5185m	>40	0	13	12
Copper	ppm	ASTM D5185m	>330	2	1	2
Tin	ppm	ASTM D5185m	>15	- <1	2	1
Antimony	ppm	ASTM D5185m	210			<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
	ppin	method	limit/base			
ADDITIVES Boron			250	current	history1 18	history2
	ppm	ASTM D5185m	250	116	10	10
	0.00.000	ACTM DE10Em	10	0	0	0
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	10 100	75	65	78
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	100	75 <1	65 <1	78 <1
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	100 450	75 <1 499	65 <1 767	78 <1 827
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000	75 <1 499 1325	65 <1 767 1270	78 <1 827 1330
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150	75 <1 499 1325 866	65 <1 767 1270 688	78 <1 827 1330 764
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350	75 <1 499 1325 866 1074	65 <1 767 1270 688 895	78 <1 827 1330 764 991
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150	75 <1 499 1325 866	65 <1 767 1270 688	78 <1 827 1330 764
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350	75 <1 499 1325 866 1074	65 <1 767 1270 688 895 2423 history1	78 <1 827 1330 764 991 2262 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25	75 <1 499 1325 866 1074 3261 current 7	65 <1 767 1270 688 895 2423 history1 6	78 <1 827 1330 764 991 2262 history2 6
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25 >75	75 <1 499 1325 866 1074 3261 current	65 <1 767 1270 688 895 2423 history1 6 3	78 <1 827 1330 764 991 2262 history2 6 3
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm 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 ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25 >75 >20	75 <1 499 1325 866 1074 3261 <u>current</u> 7 3 8	65 <1 767 1270 688 895 2423 history1 6 3 0	78 <1 827 1330 764 991 2262 history2 6 3 7
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25 >75	75 <1 499 1325 866 1074 3261 current 7 3	65 <1 767 1270 688 895 2423 history1 6 3	78 <1 827 1330 764 991 2262 history2 6 3
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm 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 ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25 >75 >20	75 <1 499 1325 866 1074 3261 current 7 3 8 8 ▲ 7.6 current	65 <1 767 1270 688 895 2423 history1 6 3 0	78 <1 827 1330 764 991 2262 history2 6 3 7 <1.0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5	75 <1 499 1325 866 1074 3261 current 7 3 8 ▲ 7.6	65 <1 767 1270 688 895 2423 history1 6 3 0 <1.0	78 <1 827 1330 764 991 2262 history2 6 3 7 <1.0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D3524	100 450 3000 1150 1350 4250 limit/base >25 >20 >5 limit/base	75 <1 499 1325 866 1074 3261 current 7 3 8 8 ▲ 7.6 current	65 <1 767 1270 688 895 2423 history1 6 3 0 <1.0 history1	78 <1 827 1330 764 991 2262 history2 6 3 7 <1.0 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D3524	100 450 3000 1150 1350 4250 limit/base >25 >20 >5 limit/base >3	75 <1 499 1325 866 1074 3261 current 7 3 8 ▲ 7.6 current 0.3	65 <1 767 1270 688 895 2423 history1 6 3 0 <1.0 history1 0.6	78 <1 827 1330 764 991 2262 history2 6 3 7 <1.0 history2 0.6
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D3524 method *ASTM D7844	100 450 3000 1150 1350 4250 imit/base >25 >20 >5 imit/base >3 >20	75 <1 499 1325 866 1074 3261 current 7 3 8 ▼ 7.6 current 0.3 9.1	65 <1 767 1270 688 895 2423 history1 6 3 0 <1.0 history1 0.6 14.1	78 <1 827 1330 764 991 2262 history2 6 3 7 <1.0 history2 0.6 13.9 28.2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D584 *ASTM D7844 *ASTM D7824	100 450 3000 1150 1350 4250 imit/base >25 >20 >5 imit/base >3 >20 >3 >20	75 <1 499 1325 866 1074 3261 <u>current</u> 7 3 8 ▲ 7.6 <u>current</u> 0.3 9.1 22.2	65 <1 767 1270 688 895 2423 history1 6 3 0 <1.0 <1.0 history1 0.6 14.1 28.2	78 <1 827 1330 764 991 2262 history2 6 3 7 <1.0 history2 0.6 13.9

INTERNATIONAL 8016780

Diesel Engine Fluid DIESEL ENGINE OIL SAE 30 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

Wear

All component wear rates are normal.

Contamination

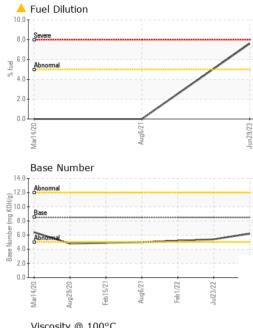
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

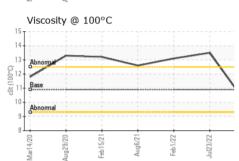
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.



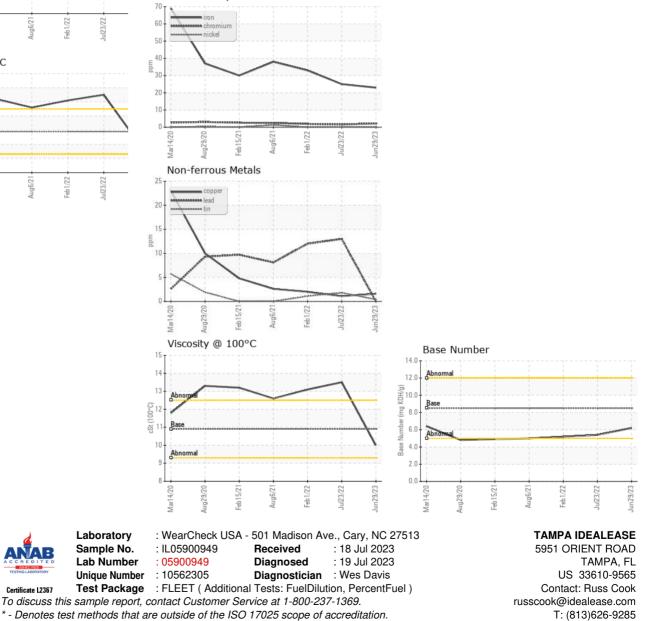
OIL ANALYSIS REPORT





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 PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	10.0	13.5	13.1
GRAPHS						

Ferrous Alloys



* - 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)

Certificate L2367

Contact/Location: Russ Cook - IDETAMFL

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