

# **OIL ANALYSIS REPORT**



Machine Id **776** Component **Diesel Engine** Fluid **MOBIL 1 FS 0W40 (--- GAL)** 

## DIAGNOSIS

#### A Recommendation

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

#### Wear

Metal levels are typical for a new component breaking in.

### Contamination

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

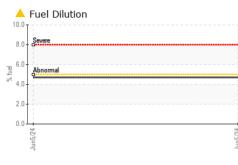
#### Fluid Condition

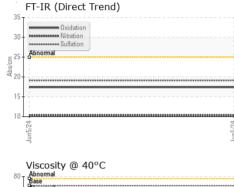
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

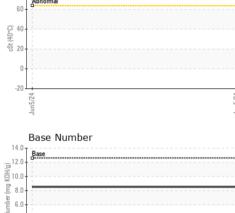
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0007476		
Sample Date		Client Info		05 Jun 2024		
Machine Age	mls	Client Info		500		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	<1		
Aluminum	ppm	ASTM D5185m	>20	14		
Lead	ppm	ASTM D5185m	>40	2		
Copper	ppm	ASTM D5185m		9		
Tin	ppm	ASTM D5185m	>15	2		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		146		
Barium	ppm	ASTM D5185m		<1		
Molybdenum	ppm	ASTM D5185m		71		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		693		
Calcium	ppm	ASTM D5185m		1495		
Phosphorus	ppm	ASTM D5185m		789		
Zinc	ppm	ASTM D5185m		900		
Sulfur	ppm	ASTM D5185m		2020		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6		
Sodium	ppm	ASTM D5185m		1		
Potassium	ppm	ASTM D5185m	>20	3		
Fuel	%	ASTM D3524	>5	<b>4</b> .7		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1		
Nitration	Abs/cm	*ASTM D7624	>20	10.3		
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1		
FLUID DEGRAD		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4		
Base Number (BN)	mg KOH/g	ASTM D2896	12.6	8.5		

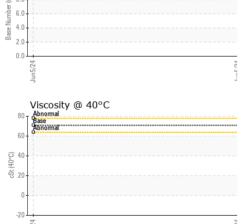


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VISUAL		method	limit/base	current	history1	histor
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
Free Water	scalar	*Visual	20.2	NEG		
FLUID PROPE		method	limit/base	current	history1	histor
Visc @ 100°C	cSt	ASTM D445	12.9	▲ 11.3		
	COL	A311VI D443	12.9	11.3		
GRAPHS				Lood (mmm)		
Iron (ppm)			1	Lead (ppm)		
200 - Severe				80 - Severe		
				60		
150 100 - Abnormal			5	40 - Abnormal		
50				20		
0				0		
			724			
Jun5,24			Jun5/24	Jun5/24		
Aluminum (ppm)				Chromium (p	nm)	
<sup>50</sup> T:				<sup>50</sup> T :		
40 - Severe				40 Severe		
_ 30				30		
a 30 20 Abnormal			E E	20 Abnormal	******	
10-				10-		
0				0		
Jun5/24			Jun5/24 .	Jun5/24		
μης			Jun	Jun		
Copper (ppm)				Silicon (ppm)		
400 Severe				80 Severe		
300				60 -		
200-			Edd	40		
				Abnormal		
100-				20		
			4	0		
Jun5/24			Jun5/24	Jun5/24		
	_		٦ ٦			
Viscosity @ 100°	-			Base Number		
Abnormal			(B/H(	Base		
2 <sup>16</sup>			Dy Bu	0.0 +		
16 - 0 (5-00) 14			Base Number (mg KOH/g)			
්රී <b>ස්විර්මාකය්</b> 12 -			Num	5.0 -		
			Base			
104			124	.0.0		
Jun5/24			Jun5/24 .	Jun5/24		
/				,		



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 A.V. INC 1750 MANHATTAN ROAD Sample No. : PCA0007476 Received : 02 Jul 2024 Lab Number : 06226056 Tested : 05 Jul 2024 JOLIET, IL Unique Number : 11109549 Diagnosed : 05 Jul 2024 - Jonathan Hester US 23873 Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN, KV40) Contact: ART STONY Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. dispatch@av-trucks.com T: (815)320-5090 \* - 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:

Contact/Location: ART STONY - AVIJOL