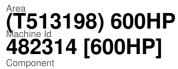


# **OIL ANALYSIS REPORT**

### Sample Rating Trend





Diesel Engine

MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

## 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.

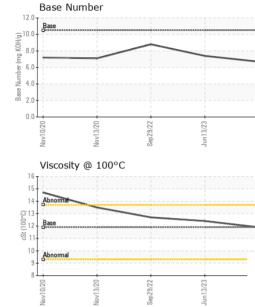
SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101209	PCA0073140	PCA0067735
Sample Date		Client Info		29 Dec 2023	13 Jun 2023	29 Sep 2022
Machine Age	hrs	Client Info		33638	30952	27843
Oil Age	hrs	Client Info		3000	3000	3100
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	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 METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	19	23	27
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	<1	3
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	0	1
Tin	ppm	ASTM D5185m	>15	0	0	<1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		11	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		59	64	69
Manganese	ppm	ASTM D5185m		0	<1	1
Magnesium	ppm	ASTM D5185m		909	1063	1041
Calcium	ppm	ASTM D5185m		998	1176	1161
Phosphorus	ppm	ASTM D5185m		956	1054	1124
Zinc	ppm	ASTM D5185m		1199	1335	1372
Sulfur	ppm	ASTM D5185m		2719	3563	3393
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	3	5
Sodium	ppm	ASTM D5185m		4	4	5
Potassium	ppm	ASTM D5185m	>20	0	0	0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	0.8	1.1
Nitration	Abs/cm	*ASTM D7624	>20	12.7	14.1	13.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	25.1	26.7
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.6	26.6	27.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	6.7	7.4	8.8
				Contact/l ac	ation: DITA GAE	

Contact/Location: RITA GARCIA - MCLLUB

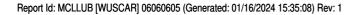


# **OIL ANALYSIS REPORT**

VISUAL



	Copper Ead Copper Ead Copper Ead Copper Ead Copper Ead Copper Copper Ead Copper	Sep28/22	Junit323	11 Base Mumber (mg KOH(g)	Base Numbe	۲ <b>۲</b>	
	Niscosity @ 100°C		Jun1323	12	Base	:r	
	8 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Juntaza	Dec29/23			
	8 lead						
	8						
			7				
	6v13/20	sep29/22	un13/23	Jec29/23			
	25 長 20 15 10			/			
Jun13/23 +	Ferrous Alloys						
	GRAPHS						
							history2 12.7
	Free Water	scalar	*Visual		NEG	NEG	NEG
	Emulsified Water	scalar	*Visual	>0.2	NORML	NEG	NORML NEG
un 13/23 ec29/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
							NONE
					-		NONE
	Precipitate Silt Debris	scalar scalar scalar	*Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE	NC NC
	Jun 13/23 + Jun 13/24 + Jun 13	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water Fluid PROPE Visc @ 100°C GRAPHS Ferrous Alloys	Yellow Metal scalar Precipitate scalar Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Emulsified Water scalar Free Water scalar Free Water scalar Silt scalar Appearance Scalar Codor Scalar Free Water Scalar Free Water Scalar Ferrous Alloys	Yellow Metal scalar *Visual Precipitate scalar *Visual Debris scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Odor scalar *Visual Odor scalar *Visual Emulsified Water scalar *Visual Free Water scalar *Visual Odor c St ASTM D445	Yellow Metal scalar *Visual NONE Precipitate scalar *Visual NONE Silt scalar *Visual NONE Debris scalar *Visual NONE Sand/Dirt scalar *Visual NONE Appearance scalar *Visual NORML Odor scalar *Visual NORML Odor scalar *Visual NORML Emulsified Water scalar *Visual >0.2 Free Water scalar *Visual >0.2 Free Water scalar *Visual *	Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Free Water scalar *Visual NORML NORML Visc @ 100°C cSt ASTM D445 11.9 11.9 GRAPHS Ferrous Alloys ferrous Alloys ferrous Metals Non-ferrous Metals	Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NEG NEG NEG Free Water scalar *Visual NEG NEG NEG Free Water scalar *Visual NEG NEG NEG Free Water scalar *Visual NEG NEG NEG Sector St ASTM D445 11.9 11.9 12.4



Contact/Location: RITA GARCIA - MCLLUB