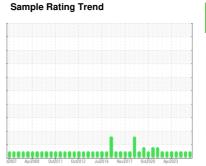


# **OIL ANALYSIS REPORT**

# OKLAHOMA/102/EG - OTHER SERVICE 05.72 [OKLAHOMA^102^EG - OTHER SERVICE]

Component Diesel Engine Fluid

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)





NORMAL

		12007 Apizo	08 Oct2011 Oct2012	Jul2016 Nov2017 Oct2020	Apr2023	
SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0819911	WC0819947	WC0819935
Sample Date		Client Info		20 Oct 2023	09 Sep 2023	29 Jul 2023
Machine Age	hrs	Client Info		30525	30157	29867
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>85	5	10	9
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	<1	1	2
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>250	0	<1	0
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	51	45	44
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	40	40	40
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	0	516	533	555
Calcium	ppm	ASTM D5185m		1579	1824	1732
Phosphorus	ppm	ASTM D5185m		644	754	776
Zinc	ppm	ASTM D5185m		880	921	959
Sulfur	ppm	ASTM D5185m		2377	3022	3027
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	4	6
Sodium	ppm	ASTM D5185m		<1	3	2
Potassium	ppm	ASTM D5185m	>20	0	<1	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.2	7.2	8.0
Sulfation	Abs/.1mm	*ASTM D7415		22.3	21.7	22.2
FLUID DEGRADA		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7	20.1	20.6
Base Number (BN)	mg KOH/g	ASTM D2896		9.3	9.1	9.1
	ing itonig	7.0 HW D2000	0.1	0.0	0.1	0.1

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: 30525 hrs 340482 miles)

### Wear

All component wear rates are normal.

#### Contamination

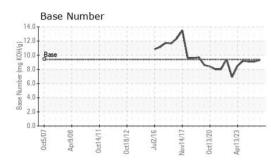
There is no indication of any contamination in the oil.

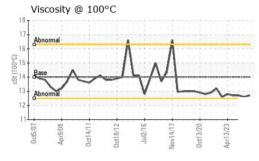
#### Fluid Condition

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



# **OIL ANALYSIS REPORT**



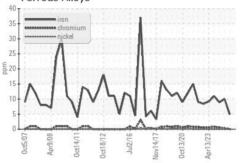


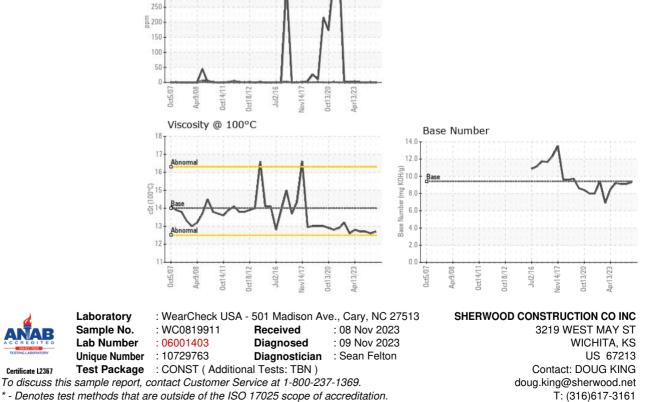
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	12.7	12.6	12.7
GRAPHS						

Ferrous Alloys

Non-ferrous Metals

400 350 300





\* - 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)

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Submitted By: LOUIS BRESHEARS

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