



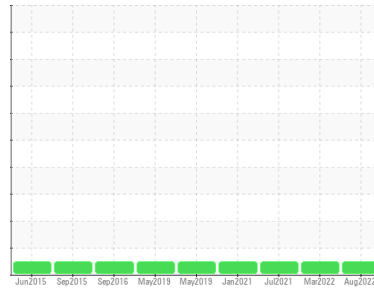
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
[WO 737586]
 Machine Id
MTS-10 (S/N 747T55-18272-10)
 Component
Diesel Engine
 Fluid
PHILLIPS 66 Fleet Supreme EC 15W40 (--- 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 INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0843463	WC0658838	WC0533764
Sample Date	Client Info			14 Aug 2022	29 Mar 2022	27 Jul 2021
Machine Age	hrs	Client Info		0	5153	4959
Oil Age	hrs	Client Info		0	0	716
Oil Changed	Client Info			N/A	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		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	>100	3	3	4
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		1	<1	5
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	<1	1	1
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	1	2	17
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		436	102	87
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		67	2	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		562	715	735
Calcium	ppm	ASTM D5185m		1600	1397	1419
Phosphorus	ppm	ASTM D5185m	1116	1041	1071	1092
Zinc	ppm	ASTM D5185m	1250	1258	1115	1212
Sulfur	ppm	ASTM D5185m		4182	3293	3666

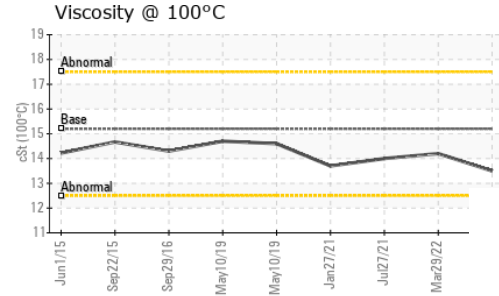
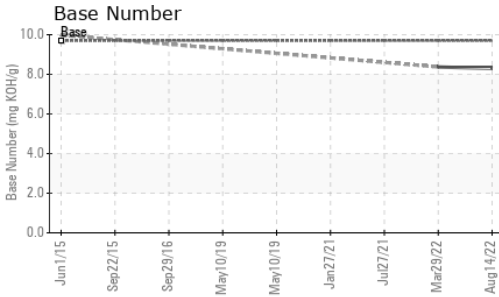
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	12	3	<1
Sodium	ppm	ASTM D5185m		3	1	2
Potassium	ppm	ASTM D5185m	>20	<1	1	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.0	6.2	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	18.5	21.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.4	11.8	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.7	8.3	8.37	---



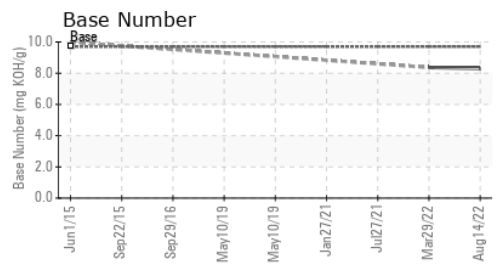
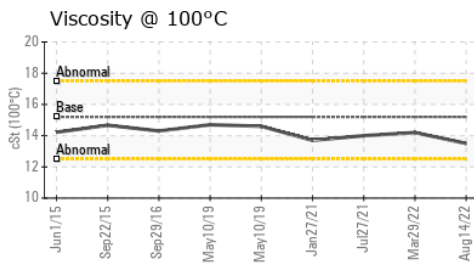
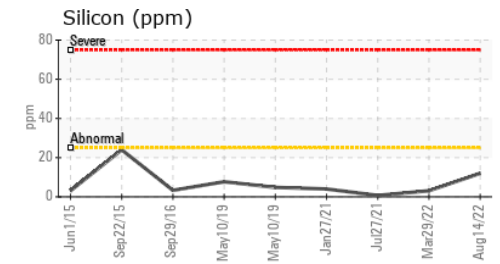
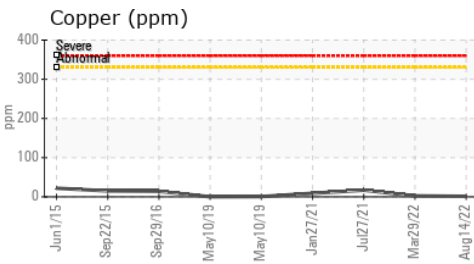
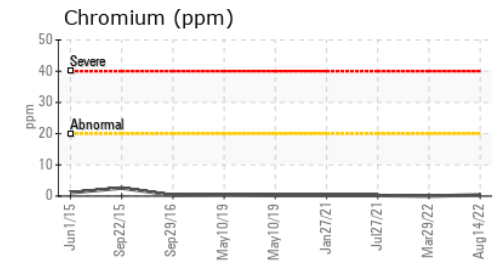
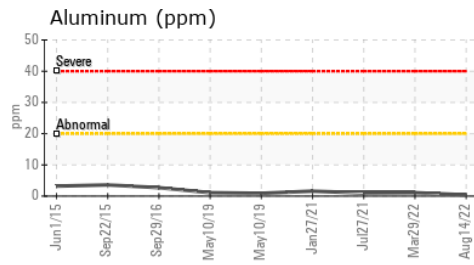
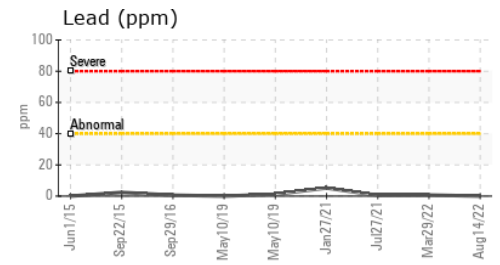
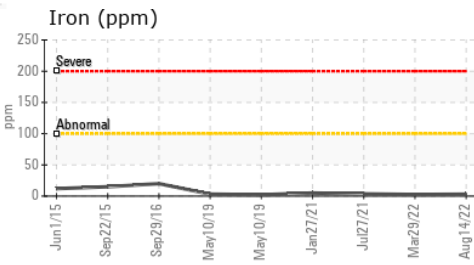
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
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
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.2	13.5	14.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0843463 **Received** : 21 Aug 2023
Lab Number : 05929205 **Diagnosed** : 21 Aug 2023
Unique Number : 10609152 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

AES USA - NORTH CHARLESTON
 5400 INTERNATIONAL BLVD, BLDG 88-20
 NORTH CHARLESTON, SC
 US 29418
 Contact: Vanessa Macias
 vanessa.macias@aes-gse.com

Certificate L2367
 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)