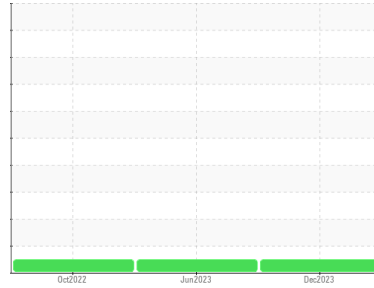




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
[870978]
 Machine Id
MTS-9 GPU
 Component
Diesel Engine
 Fluid
PHILLIPS 66 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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			WC0860955	WC0793395	WC0692499
Sample Date	Client Info			19 Dec 2023	20 Jun 2023	14 Oct 2022
Machine Age	hrs	Client Info		2303	2246	2178
Oil Age	hrs	Client Info		0	48	0
Oil Changed	Client Info			Not Chngd	Changed	Not Chngd
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		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		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	4	16	13
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	1	0
Titanium	ppm	ASTM D5185m		65	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	5	4
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	4	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		130	87	83
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	3	2
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		446	579	549
Calcium	ppm	ASTM D5185m		1767	1891	1864
Phosphorus	ppm	ASTM D5185m		1106	1135	1049
Zinc	ppm	ASTM D5185m		1282	1342	1305
Sulfur	ppm	ASTM D5185m		4021	4094	4496

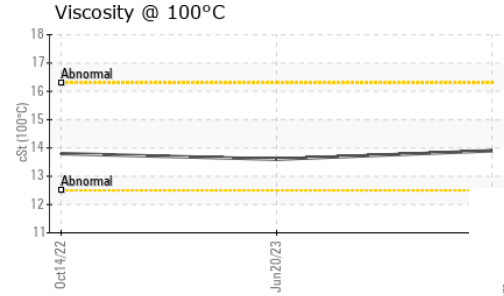
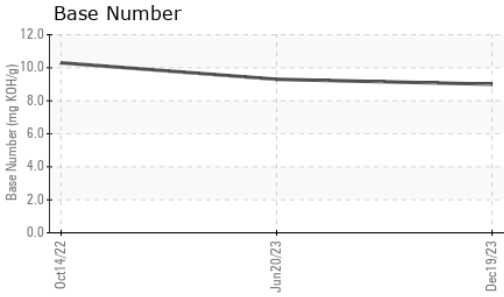
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	10	12	12
Sodium	ppm	ASTM D5185m		2	3	4
Potassium	ppm	ASTM D5185m	>20	4	3	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.9	9.4	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	21.1	22.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.2	15.1	16.3
Base Number (BN)	mg KOH/g	ASTM D2896		9.0	9.3	10.3



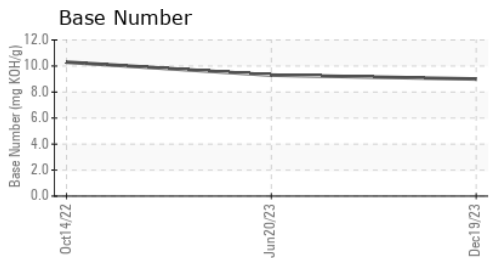
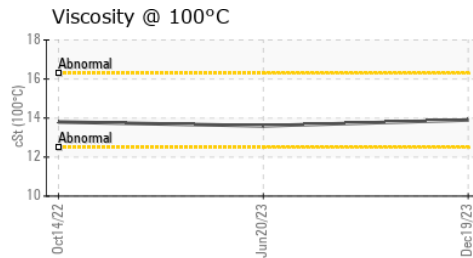
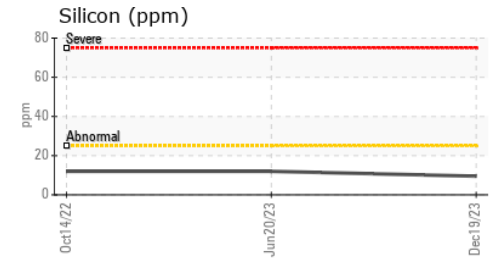
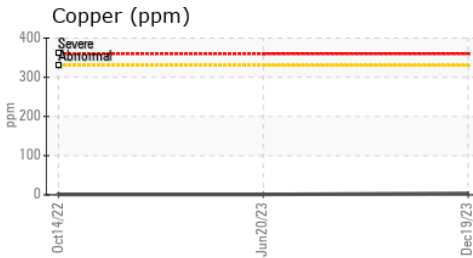
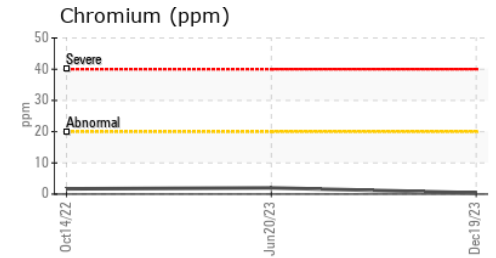
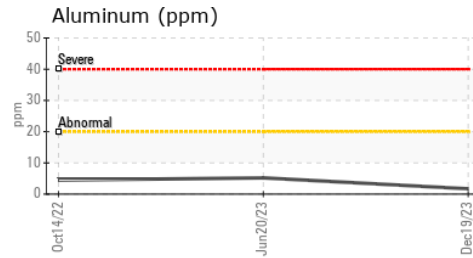
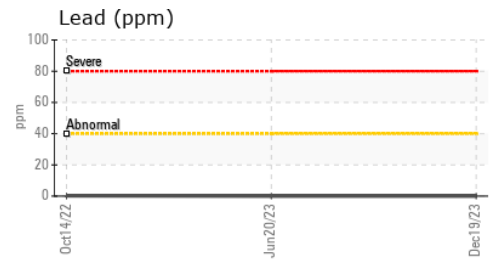
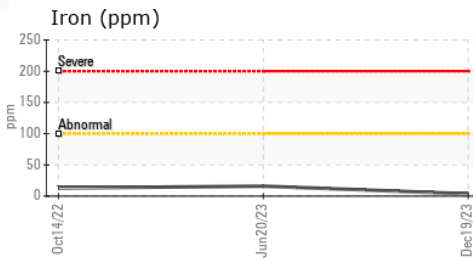
OIL ANALYSIS REPORT



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	13.9	13.6	13.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0860955 **Received** : 10 Jan 2024
Lab Number : 06056360 **Diagnosed** : 11 Jan 2024
Unique Number : 10822309 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

AES USA - EVERETT
 3003 W CASINO RD BLDG 40-26 DR S2
 EVERETT, WA
 US 98204-1910
 Contact: TIM FELLER
 tim.feller@aes-gse.com
 T: (425)266-4649
 F:

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)