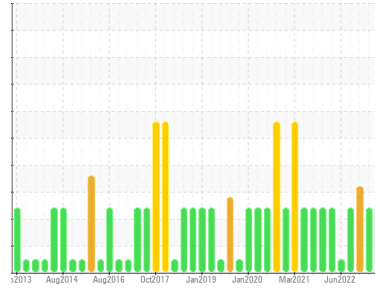




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
LIPPMAN 05062 DRIVE
 Component
Gearbox
 Fluid
ESSO SPARTAN EP 220 (40 GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0746928	WC0633901	WC0746932
Sample Date	Client Info		02 Dec 2023	23 Aug 2023	28 Dec 2022
Machine Age	hrs	Client Info	18402	18090	17264
Oil Age	hrs	Client Info	312	375	315
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	163	142	▲ 230
Chromium	ppm	ASTM D5185m >10	1	<1	1
Nickel	ppm	ASTM D5185m >10	<1	2	0
Titanium	ppm	ASTM D5185m	2	1	1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	▲ 61	▲ 45	▲ 38
Lead	ppm	ASTM D5185m >50	0	0	0
Copper	ppm	ASTM D5185m >200	<1	<1	<1
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m .5	29	28	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	<1	0
Manganese	ppm	ASTM D5185m	2	1	2
Magnesium	ppm	ASTM D5185m 0	4	4	2
Calcium	ppm	ASTM D5185m 1.7	22	13	11
Phosphorus	ppm	ASTM D5185m 250	207	209	178
Zinc	ppm	ASTM D5185m .3	4	1	9
Sulfur	ppm	ASTM D5185m	10298	11716	12642

CONTAMINANTS

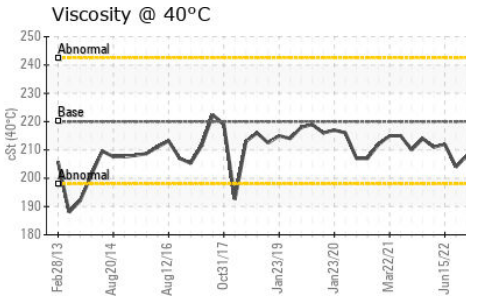
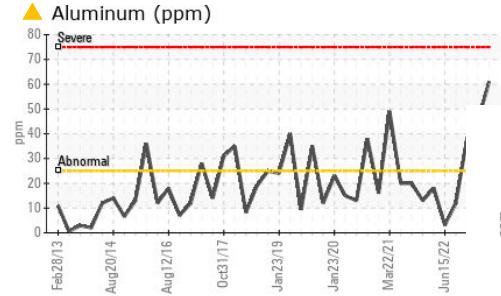
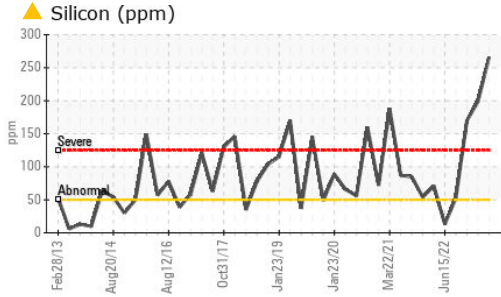
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	▲ 266	▲ 199	▲ 170
Sodium	ppm	ASTM D5185m	20	11	11
Potassium	ppm	ASTM D5185m >20	31	23	17

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	MODER	VLITE
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	MODER	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	VLITE
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



OIL ANALYSIS REPORT

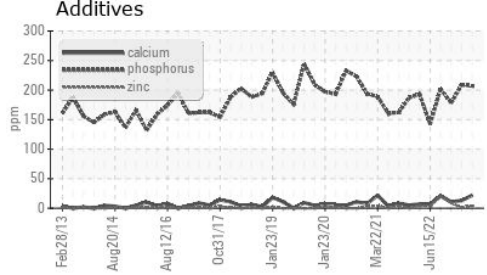
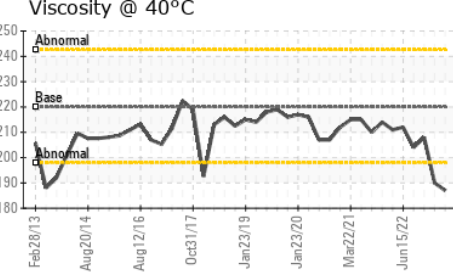
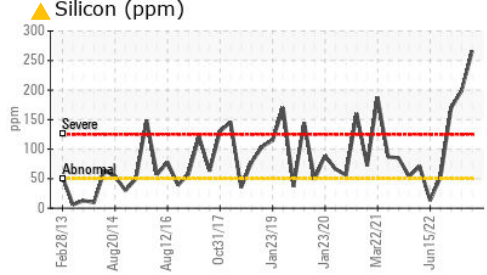
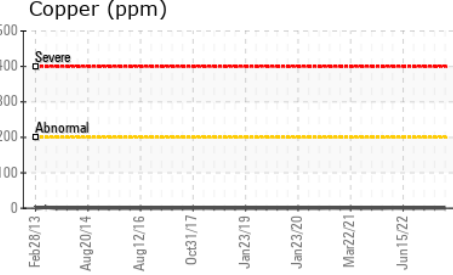
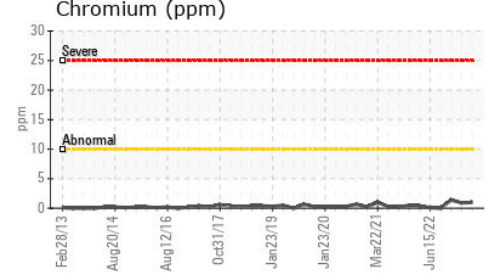
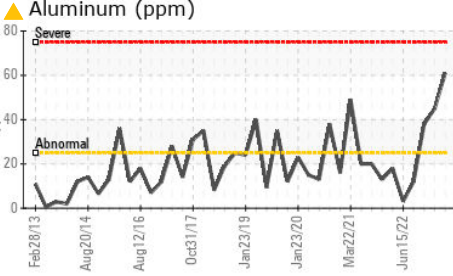
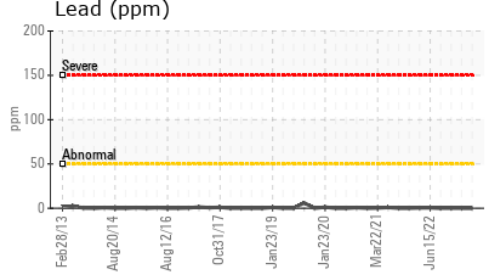
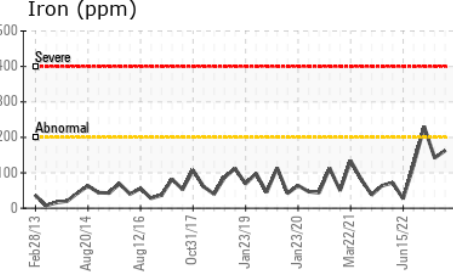


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 220	187	190	208

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0746928 **Received** : 06 Dec 2023
Lab Number : 06026811 **Diagnosed** : 08 Dec 2023
Unique Number : 10776602 **Diagnostician** : Don Baldrige
Test Package : MOB 1

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 US 27809
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 T:
 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)