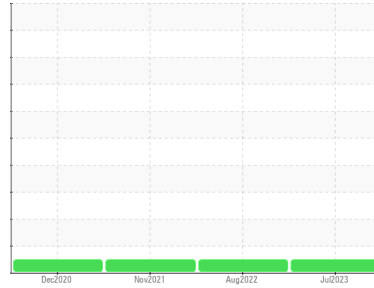




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
12860
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T4 15W40 (--- QTS)

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			WC0760388	WC0692795	WC0617685
Sample Date	Client Info			12 Jul 2023	21 Aug 2022	02 Nov 2021
Machine Age	mls	Client Info		214960	165530	119914
Oil Age	mls	Client Info		24600	24950	52173
Oil Changed	Client Info			Changed	Changed	Changed
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	20	17	16
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	5	4	5
Lead	ppm	ASTM D5185m	>40	3	3	2
Copper	ppm	ASTM D5185m	>330	3	3	4
Tin	ppm	ASTM D5185m	>15	2	1	3
Antimony	ppm	ASTM D5185m		---	---	<1
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		29	16	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		71	11	7
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		371	84	41
Calcium	ppm	ASTM D5185m		1795	2303	2388
Phosphorus	ppm	ASTM D5185m		1122	955	958
Zinc	ppm	ASTM D5185m		1405	1180	1105
Sulfur	ppm	ASTM D5185m		3999	3486	3075

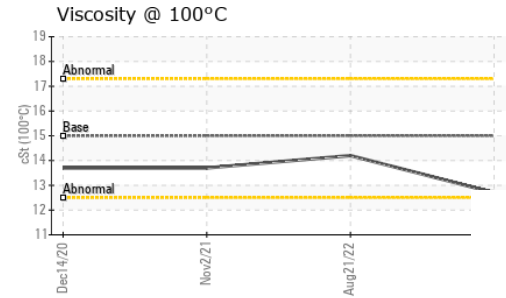
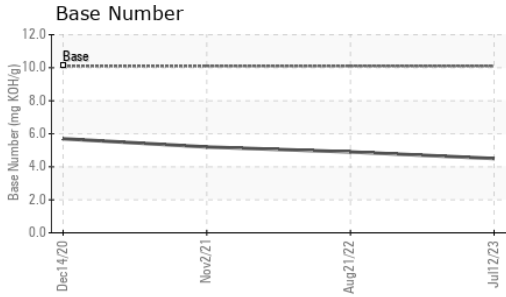
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	6	4
Sodium	ppm	ASTM D5185m		12	10	11
Potassium	ppm	ASTM D5185m	>20	7	6	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.4	10.7	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.9	28.8	25

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.0	21.1	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	4.5	4.9	5.2



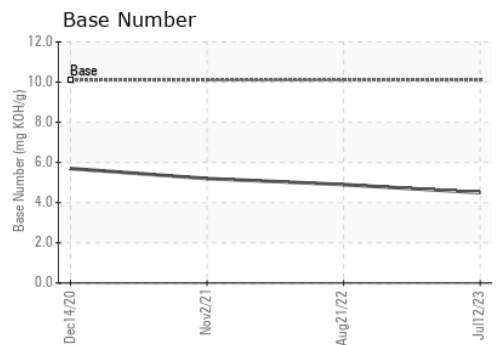
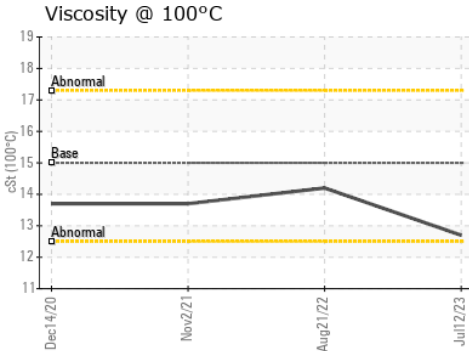
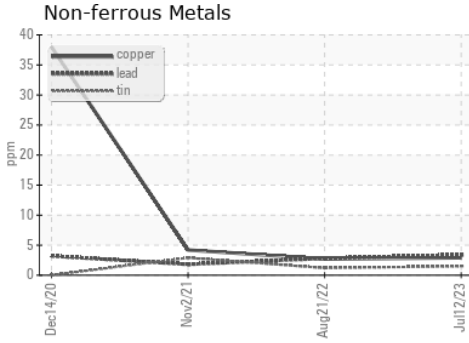
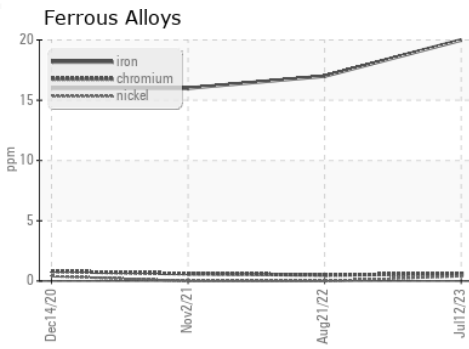
OIL ANALYSIS REPORT



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	12.7	14.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0760388 **Received** : 17 Jul 2023
Lab Number : 05899558 **Diagnosed** : 17 Jul 2023
Unique Number : 10560914 **Diagnostician** : Wes Davis
Test Package : FLEET

NOKOMIS - PGT INDUSTRIES INC
 1044 ENDEAVOR CT
 NOKOMIS, FL
 US 34275
 Contact: BILL SCHULER
 wschuler@pgtindustries.com
 T: (800)282-6019
 F: (941)484-1833

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)