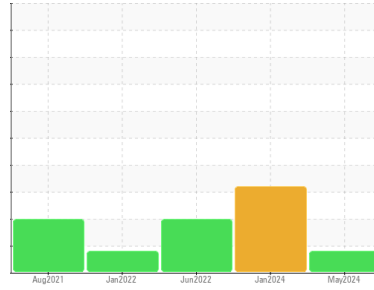


OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
JOHN DEERE 500-205
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (12 GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PCA0089604	PCA0089564	PCA0060040
Sample Date	Client Info			24 May 2024	08 Jan 2024	07 Jun 2022
Machine Age	hrs	Client Info		3320	2834	1500
Oil Age	hrs	Client Info		500	500	500
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.21		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	20	37	24
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>31	2	2	3
Lead	ppm	ASTM D5185m	>26	4	13	4
Copper	ppm	ASTM D5185m	>26	7	10	16
Tin	ppm	ASTM D5185m	>4	2	2	3
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

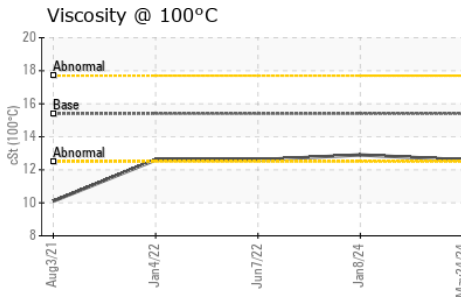
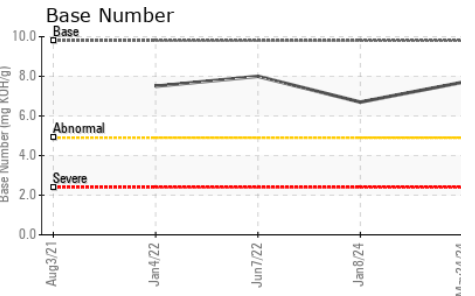
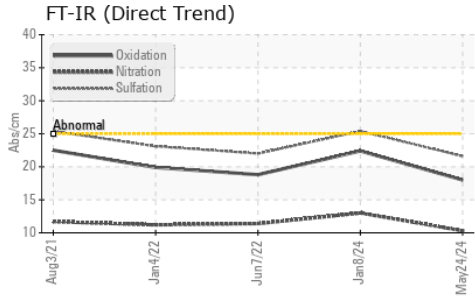
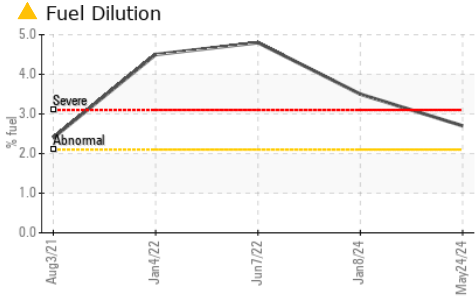
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	5	2	3
Barium	ppm	ASTM D5185m	0	<1	2	0
Molybdenum	ppm	ASTM D5185m	60	58	68	64
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	921	977	883
Calcium	ppm	ASTM D5185m	1070	1173	1050	1185
Phosphorus	ppm	ASTM D5185m	1150	1094	923	1009
Zinc	ppm	ASTM D5185m	1270	1278	1222	1227
Sulfur	ppm	ASTM D5185m	2060	3355	2649	3005

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	4	5	4
Sodium	ppm	ASTM D5185m	>31	19	▲ 152	<1
Potassium	ppm	ASTM D5185m	>20	10	▲ 65	6
Fuel	%	ASTM D3524	>2.1	▲ 2.7	▲ 3.5	▲ 4.8

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.3	13.0	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	25.4	22.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	22.4	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.7	6.7	8.0

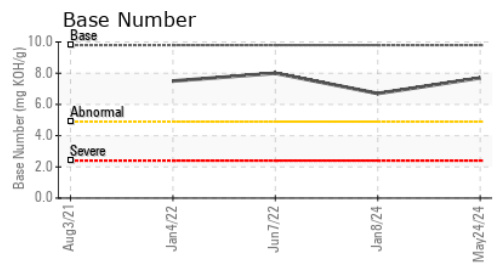
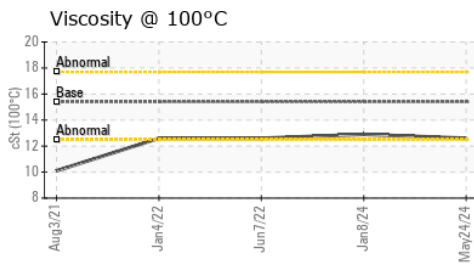
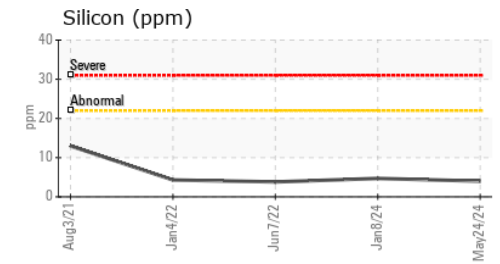
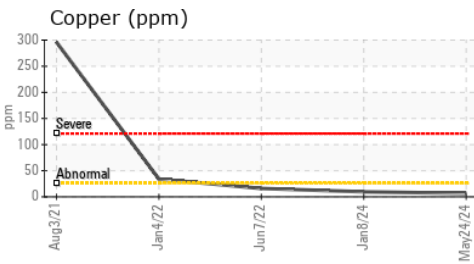
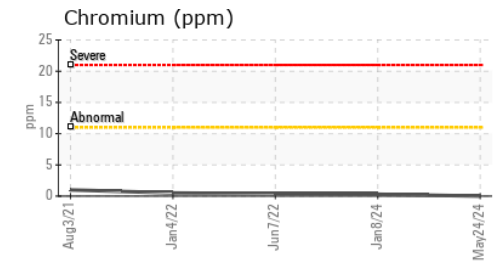
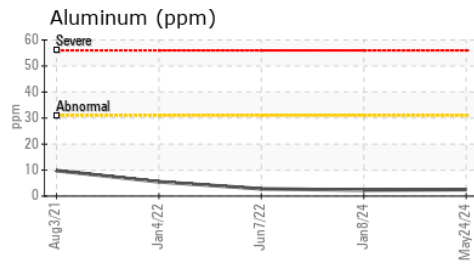
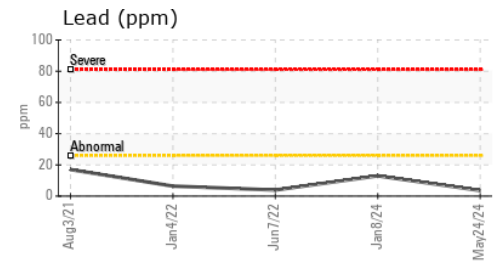
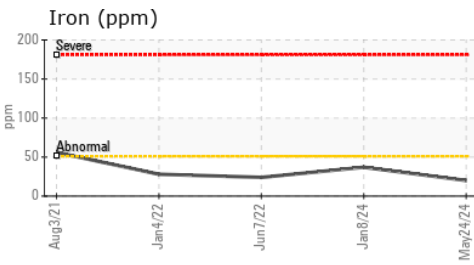
OIL ANALYSIS REPORT



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	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	12.9	12.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0089604 **Received** : 06 Jun 2024
Lab Number : 06201169 **Tested** : 10 Jun 2024
Unique Number : 11063292 **Diagnosed** : 10 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

GE MARSHALL EXCAVATION
 1351 JOLIET RD
 VALPARAISO, IN
 US 46385
 Contact: MARK STEFFEL
 mark.steffel@gemarshall.com

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)