



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 460E 40451
 Component
Diesel Engine
 Fluid
CHEVRON 15W40 (--- QTS)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0924466	WC0882759	WC0924566
Sample Date		Client Info		29 May 2024	13 May 2024	19 Apr 2024
Machine Age	hrs	Client Info		0	8680	0
Oil Age	hrs	Client Info		0	1500	0
Filter Age	hrs	Client Info		0	1500	0
Oil Changed		Client Info		N/A	Changed	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	3	6	4
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	2	3	5
Lead	ppm	ASTM D5185m	>26	1	<1	<1
Copper	ppm	ASTM D5185m	>26	1	4	3
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

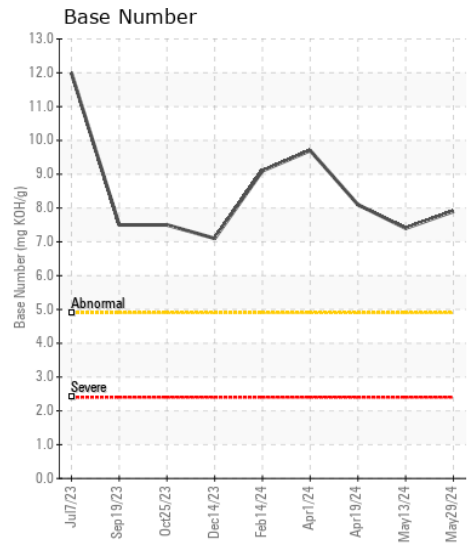
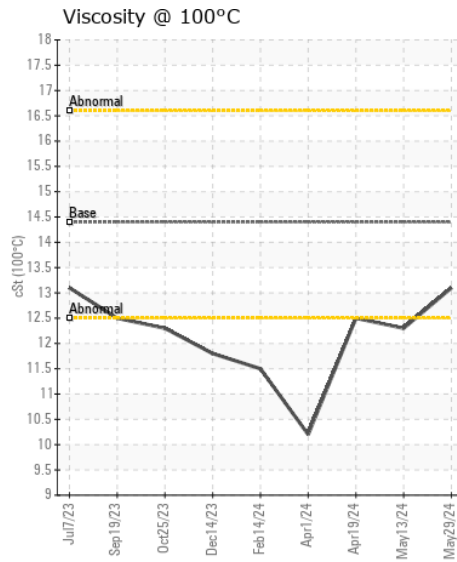
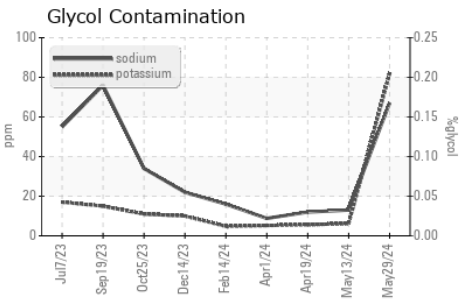
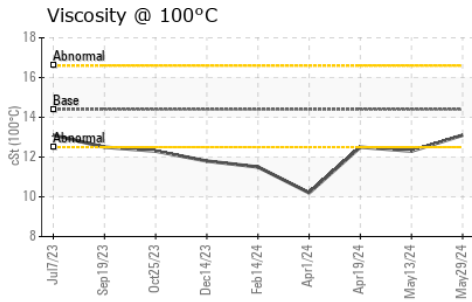
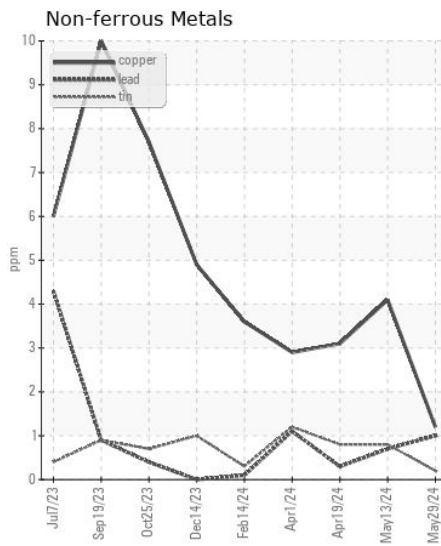
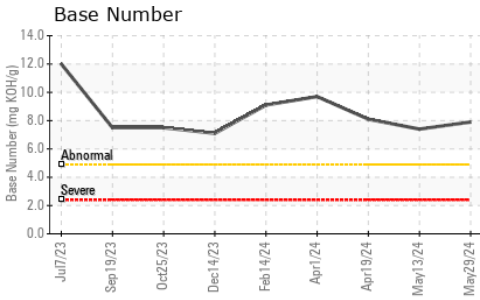
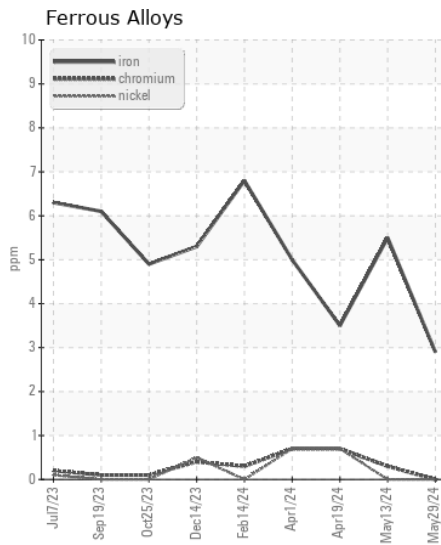
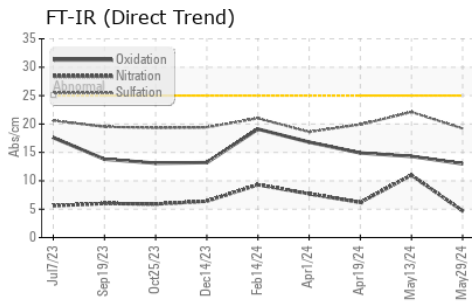
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>22	5	5	5
Potassium	ppm	ASTM D5185m	>20	▲ 82	6	6
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	1.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	4.7	11.0	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	22.1	19.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.21	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>50	▲ 67	13	12
Boron	ppm	ASTM D5185m		390	327	318
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		84	74	67
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		343	424	448
Calcium	ppm	ASTM D5185m		1348	1295	1216
Phosphorus	ppm	ASTM D5185m		970	1038	863
Zinc	ppm	ASTM D5185m		1134	1105	1085
Sulfur	ppm	ASTM D5185m		3519	3373	3159
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.0	14.3	14.9
Base Number (BN)	mg KOH/g	ASTM D2896		7.9	7.4	8.1
Visc @ 100°C	cSt	ASTM D445	14.4	13.1	12.3	12.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0924466 **Received** : 30 May 2024
Lab Number : **06196147** **Tested** : 03 Jun 2024
Unique Number : 11058270 **Diagnosed** : 03 Jun 2024 - Sean Felton
Test Package : CONST (Additional Tests: Glycol, TBN)
 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)

SULLIVAN EASTERN INC
 2860 C SLATER RD
 MORRISVILLE, NC
 US 27560
 Contact: SCOTT SULLIVAN
 ssullivan@sullivaneastern.com
 T: (919)484-8993
 F: (919)484-2136