

JOHN DEERE 650J 1X2 (S/N T0650JX115101) - DIESEL ENGINE

Sample No: JR0191300

Oil Type: JOHN DEERE ENGINE OIL PLUS 50 II 15W40

SAMPLE INFORMATION

Sample Number	JR0191300	JR0157183	JR0117410	JR0071281
Sample Date	04 Jan 2024	03 Jan 2023	25 Jan 2022	07 Dec 2020
Machine Hours	0	946	872	802
Oil Hours	0	0	0	47
Oil Changed	N/A	Changed	N/A	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

NC FOREST SERVICE

220 SARDIS RD
ASHEVILLE, NC
US 28806

Contact: LLOYD JOHNSON
lloyd.johnson@ncagr.gov
T: (828)606-7236
F: (828)665-0331

OIL CONDITION

Visc @ 100°C	cSt	13.9	14.2	13.9	14.2
Base Number (BN)	mg KOH/g	8.1	9.7	9.2	8.9
Oxidation (PA)	%	54	63	66	55

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.3	0.1	0.1
Nitration (PA)	%	51	68	52	37
Sulfation (PA)	%	48	55	59	52
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	7	6	4
Sodium	ppm	6	1	<1	2
Potassium	ppm	0	1	1	0

WEAR METALS

Iron	ppm	9	16	7	4
Copper	ppm	<1	1	<1	<1
Lead	ppm	2	1	<1	1
Tin	ppm	2	<1	0	<1
Aluminum	ppm	4	3	0	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	48	238	238	23
Nickel	ppm	0	<1	0	<1
Titanium	ppm	<1	<1	0	1
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0

ADDITIVES

Calcium	ppm	2102	1533	1514	2213
Magnesium	ppm	80	800	793	106
Zinc	ppm	1179	1064	1005	1259
Phosphorus	ppm	924	857	934	1058
Barium	ppm	0	0	<1	0
Boron	ppm	43	229	256	120

Depot: NCFASHJR

Unique No: 10833258

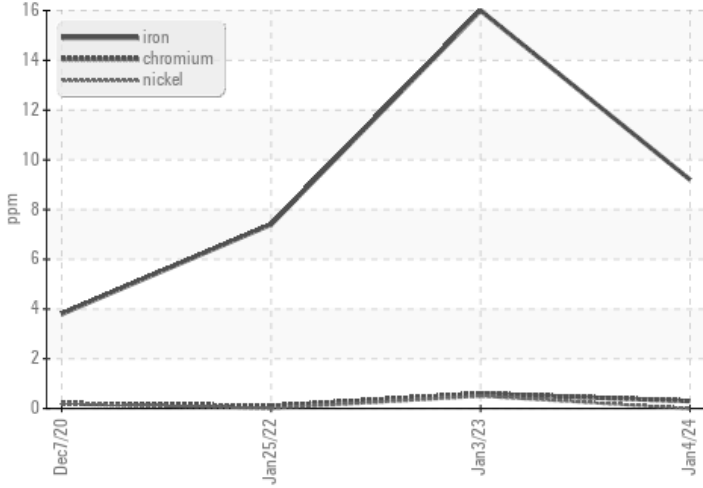
Signed: Don Baldrige

Report Date: 17 Jan 2024

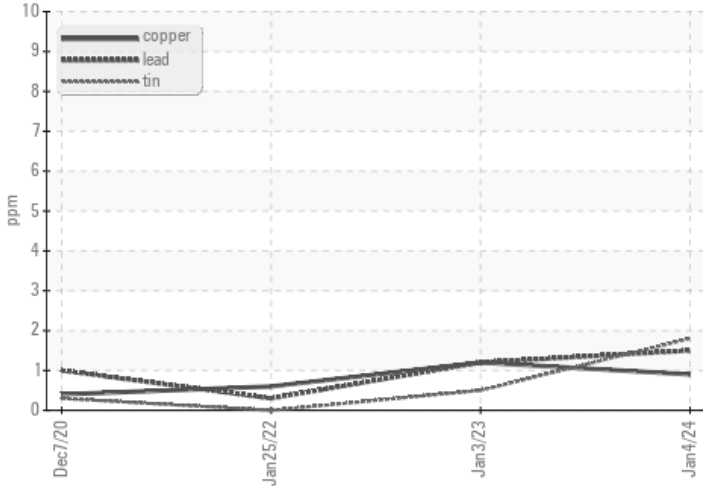
Contact/Location: LLOYD JOHNSON - NCFASHJR

GRAPHS

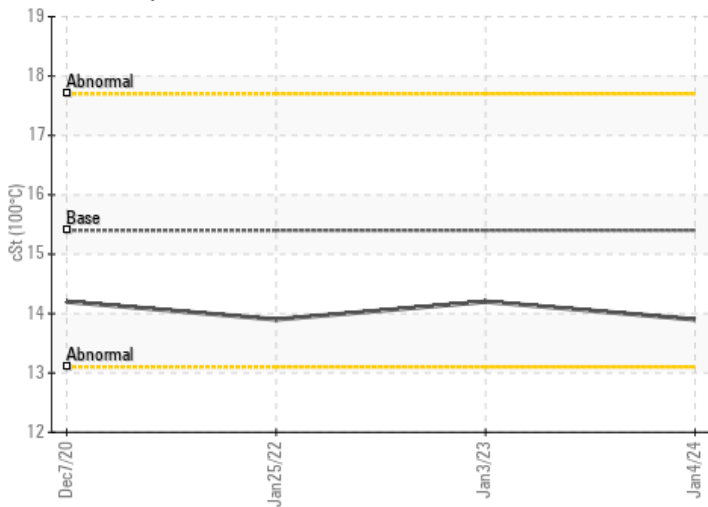
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

