FLUID ANALYSIS

UIN 08AE068

Diesel Engine

Unit No. 1DW644PAAMLZ10446

Unit:

Make	John Deere
Model	644P
Serial No.	1DW644PAAMLZ10446
Site	406018

Compartment:

Name	Diesel Engine
Make	
Model	
Serial No.	
Capacity:	

Customer:

PEGASUS LINK
PO Box 223727
Dallas TX 75222
USA

DIAGNOSIS

No recommended action at this time. Resample at normal intervals.

ANALYST: Sam Smith Phoenix

Normal

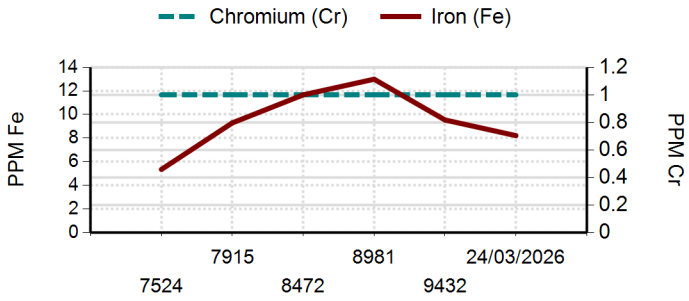
LEGEND

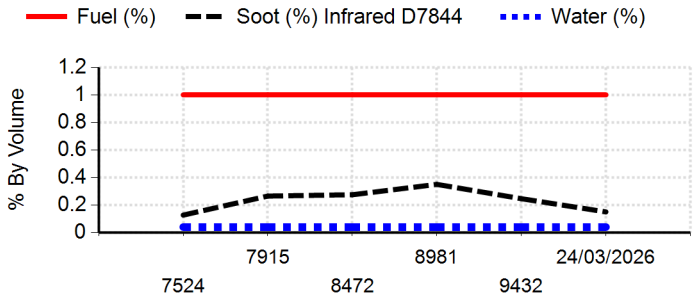
Severe | Abnormal | Caution | Normal

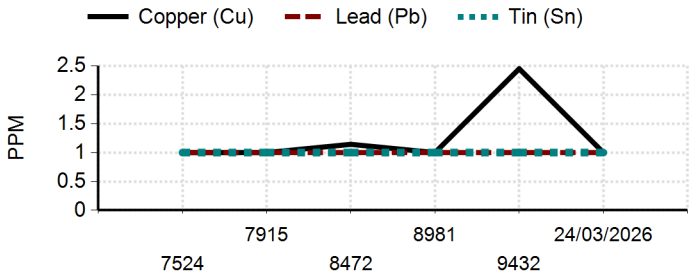
DATE SAMPLED		24-Mar-26	20-Oct-25	02-Jun-25	07-Mar-25	28-Oct-24	05-Aug-24
DATE RECEIVED		01-Apr-26	05-Nov-25	06-Jun-25	14-Mar-25	01-Nov-24	19-Aug-24
DATE REPORTED		03-Apr-26	06-Nov-25	09-Jun-25	17-Mar-25	04-Nov-24	20-Aug-24
LAB NO.		44023914441	44023795499	44023670464	44023598665	44023488713	44023421378
SIF NO.		JDP010363501	JDP010414998	JDP010089263	JDP010065388	Jdp010051517	704442645
TIME ON UNIT	Hrs		9432	8981	8472	7915	7524
TIME ON OIL	Hrs		451	509	557	391	569
OIL BRAND		John Deere	John Deere	John Deere	John Deere	John Deere	John Deere
OIL TYPE		Plus-50 II	Plus-50 II	Plus-50 II	Plus-50 II	Plus-50 II	Plus-50 II
OIL GRADE		SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
OIL ADDED					0.0	0.0	
FILTER			451	509	557	391	569
OIL CHANGED		Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER		31399	28359	24975	23194	W20804	18624
Metals (ppm)							
Iron (Fe)		8	10	13	12	9	5
Chromium (Cr)		<1	<1	<1	<1	<1	<1
Lead (Pb)		<1	<1	<1	<1	<1	<1
Copper (Cu)		<1	2	<1	1	<1	<1
Tin (Sn)		<1	<1	<1	<1	<1	<1
Aluminium (Al)		2	3	2	2	2	3
Nickel (Ni)		<1	<1	<1	1	<1	<1
Silver (Ag)		<1	<1	<1	<1	<1	<1
Titanium (Ti)		<1	<1	<1	<1	<1	<1
Vanadium (V)		<1	<1	<1	<1	<1	<1
Contaminants (ppm)							
Silicon (Si)		8	8	9	7	6	7
Sodium (Na)		2	<1	5	2	3	4
Potassium (K)		2	4	4	3	1	2
Water (%)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant		No	No	No	No	No	No
Fuel (%)		<1	<1	<1	<1	<1	<1
Soot (%) Infrared D7844		0.2	0.2	0.4	0.3	0.3	0.1
Additives (ppm)							
Magnesium (Mg)		819	776	656	829	800	913
Calcium (Ca)		1566	1484	1605	1359	1320	1394
Barium (Ba)		<1	<1	<1	<1	<1	<1
Phosphorus (P)		1010	1018	985	939	927	976
Zinc (Zn)		1131	1150	1098	1076	1089	1135
Molybdenum (Mo)		245	257	198	259	256	264
Boron (B)		246	224	151	238	249	261
Physical Tests							
Viscosity (cSt 100C)		13.7	13.2	13.5	13.6	13.8	13.1
Physical / Chemical							
Base number (mgKOH/g)		7.3	7.2	6.2	6.5	6.9	7.3
Oxidation (Abs/0.1mm) E2412/D7414		16	16	14	16	16	15
Nitration (Abs/0.1mm) E2412		8	7	8	8	8	7
Sulphation (Abs/0.1mm) E2412/D7415		22	22	21	22	22	22

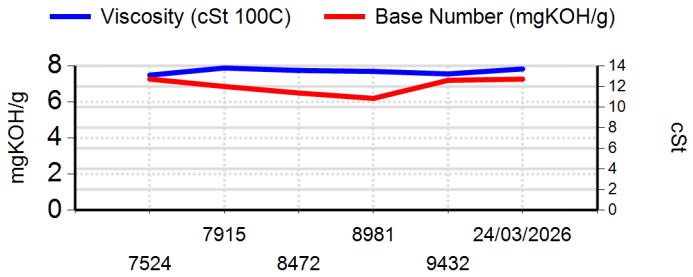
FLUID ANALYSIS

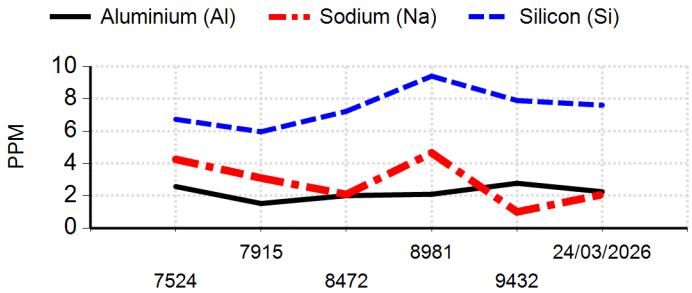
UIN 08AE068











Filter Image

Filter patch test is not performed Contact laboratory for more information

Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.

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TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method