

Fleet Care combines fluid analysis with JDLINK™ and machine inspection data

Fluid analysis, JDLINK data, and machine inspections by certified John Deere technicians are processed through the Condition-Based Rules Engine's exclusive logic. Fleet Care finds the problem, discerns how critical it is, and provides solutions to resolve it before it causes downtime.

The exclusive Fleet Care process:

1. Build PM for machine
2. Monitor through Fleet Care intelligence
3. Generate machine health solutions
4. Deliver solutions to customer (email or work order)

You currently collect plenty of data — now's the time to put it to work for your operation.

Recommendation from Fluid Analysis

Abnormal
Soot and viscosity are both above normal, which suggests soot may be affecting engine oil health. If oil information provided is not accurate, system is unable to determine whether viscosity is affected by soot.

Soot: 4.2; VISC@100°C: 17.5 cSt.

Suggest to change engine oil and filter and resample at next interval.

Soot may be from extended service interval, extended engine idle time, restricted engine air filter, restricted air inlet tube, or seized piston ring(s).

Recommendation from Conditional Machine Inspection

Fleet Care Observation
Machine inspection indicates engine oil level was overfilled at last inspection and has been overfilled on at least one or more occasion. Fuel check is normal, but coolant check suggests engine oil may have coolant contamination. Engine oil contaminated by coolant can dramatically reduce bearing life.

Suggest to identify root cause of coolant contamination and regularly monitor engine oil level. Change engine oil and filter and flush engine immediately.

Engine oil overfilling may be from coolant contamination.

Recommendation from JDLINK Ultimate

Abnormal
Machine idle time is greater than 33 percent, and fluid analysis suggests soot and/or viscosity are abnormal. Continued use of engine oil with high soot and/or abnormal viscosity may create abnormal carbon deposits in the engine, fouled fuel injectors, and/or reduced main bearing life.

Suggest to reduce engine idle time. If reducing engine idle time is not possible for this application, reduce engine oil-service interval. If possible, shut down machine if extended waiting periods are required.

Extended idle time may be affecting soot and/or viscosity.

Thinking through your bottom line

John Deere Fleet Care is a revolutionary new service that interprets machine data and advises — in simple terms — the best methods to proactively control machine health. Through the simple solutions prescribed by Fleet Care, you'll increase machine availability and significantly lower your operating expenses.

Preventive Maintenance Calculator: Building the perfect plan

A key component of John Deere Fleet Care is the Preventive Maintenance (PM) Calculator — a software package that's programmed to build a maintenance plan for your machine. It analyzes the scheduled maintenance activities in combination with information from the JDLINK™ Machine Monitoring System, technician inspections, and fluid analysis. Fleet Care focuses on data that's out of spec, suggests possible root causes for any irregularities, and makes recommendations to correct abnormalities before they cause downtime requiring expensive repairs.

John Deere Fleet Care:

- Collects valuable data from scheduled PM activities.
- Delivers conditional prognostics from JDLINK, fluid analysis, and machine inspections.
- Makes machine health decisions by processing data through John Deere-exclusive software.
- Delivers conditional solutions that proactively control machine health.
- Monitors a defined maintenance schedule and proactively notifies you when service is needed.

Your hydraulic system has a high level of copper. So?

Oils and fluids speak a secret language that Fleet Care software not only understands, but also translates into actionable machine health recommendations. Through a better understanding of your fleet and by staying far ahead of the maintenance curve, you'll spot problems and low-cost solutions before they can degenerate into expensive repairs. The prognostic capabilities programmed into Fleet Care analyze all the systems in your equipment in search of potential problems and low-cost solutions.



A typical lab report

Although the report is robust and the out-of-spec fluids are identified, a typical lab report is light on corrective measures:

"High level of water detected. Coolant additives present, possible elevated coolant contamination. Recommend inspect coolant system for source of coolant contamination. Elevated silicon. Wear metals indicate possible bearing and/or bushing wear. Change oil and filter."

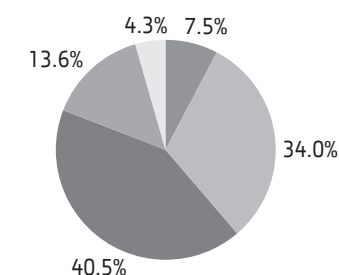
John Deere Fleet Care: Always thinking ahead

Data on fluid-analysis reports can confuse customers and dealers — particularly trying to analyze data concerning wear metals, additives, and physical properties. Fleet Care lets you get out in front of any potential downtime with a quick assessment of this data and easy-to-interpret solutions.

Linking up with JDLINK

The Fleet Care system combines data from fluid analysis and the JDLINK Machine Monitoring System to provide an in-depth look at machine components and the operating practices that affect machine health and productivity.

Machine utilization



Machine load state

7.6% Key-on (45.6 hours)
34.0% Idle (185.4 hours)
40.5% Low load (253.6 hours)
13.6% Medium load (87.1 hours)
4.3% High load (26.1 hours)
Total = 597.87 hours

Alert Summary

Type	Equipment Name	SPN	FMI	Details	Occurrences	Time On
①	DW7700X 123456	523,700	16	Transmission Clutch Protection Active Reduce Inching Pedal Use	5	00h02m 49s
①	DW7700X 123456	523,762	5	Trans Clutch 3 Open/Short to Gnd	1	00h03m 13s
①	DW7700X 123456	524,029	1	Inch Pedal Out of Range Low	2	00h51m 19s
①	DW7700X 123456	523,728	2	Shifter Handle Problem	1	00h00m 18s
①	DW7700X 123456	523,700	0	Excessive Trans Direction Clutch Slip	4	00h01m 52s
①	DW7700X 123456	1,071	3	Proportional Fan Drive Short to Power	1	00h32m 53s
①	DW7700X 123456	2,000	9	CAN Comm Lost For ECU	1	00h02m 49s

In this example, JDLINK tells us the machine is idling over 34 percent of the time. Fluid analysis on this machine also says there is high-soot content. Experience tells us that idle time is directly related to soot load in diesel engines — especially in Tier 3 and Interim Tier 4 engines. Fleet Care interprets this relationship and provides instant solutions.

Fleet Care

Proactive machine health



Fleet Care is like walking into your doctor's office and instantly receiving recommendations from a dietician, a physical therapist, and a pharmacist that vastly extend your life and its quality. Fleet Care looks at the exact causes of out-of-spec conditions with an eye toward returning them to optimal health. Because it applies the wellness health-care model to preventive machine maintenance, Fleet Care has the potential of saving your bottom line thousands.

So effective, we'll take 10 percent off our extended warranty

John Deere is so confident in Fleet Care, we're putting our money where our mouth is with a 10-percent discount on the John Deere Powertrain and Hydraulic Extended Warranty. Between the machine uptime you'll gain and this 10-percent discount, John Deere Fleet Care will pay for itself in no time. And your added peace of mind is on us.

See your dealer today and let's start thinking through your bottom line

To subscribe John Deere or other equipment brands to John Deere Fleet Care, call your local dealer or email fleetcare@johndeere.com.

