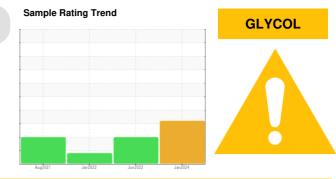


OIL ANALYSIS REPORT



JOHN DEERE 500-205

Diesel Engine

PETRO CANADA DURON SHP 15W40 (12 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter 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

Sodium and/or potassium levels are high. Light fuel dilution occurring.

Fluid Condition

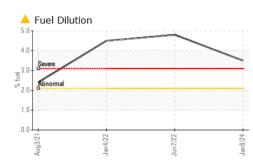
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

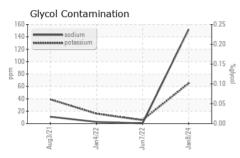
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0089564	PCA0060040	PCA0050366
Sample Date		Client Info		08 Jan 2024	07 Jun 2022	04 Jan 2022
Machine Age	hrs	Client Info		2834	1500	1000
Oil Age	hrs	Client Info		500	500	500
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	SEVERE	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.21	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	37	24	28
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	2	3	6
Lead	ppm	ASTM D5185m	>26	13	4	6
Copper	ppm	ASTM D5185m	>26	10	16	34
Tin	ppm	ASTM D5185m	>4	2	3	4
Antimony	ppm	ASTM D5185m				0
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	2	3	4
Barium	ppm	ASTM D5185m	0	2	0	0
Molybdenum	ppm	ASTM D5185m	60	68	64	66
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	977	883	912
Calcium	ppm	ASTM D5185m	1070	1050	1185	1094
Phosphorus	ppm	ASTM D5185m	1150	923	1009	922
Zinc	ppm	ASTM D5185m	1270	1222	1227	1154
Sulfur	ppm	ASTM D5185m	2060	2649	3005	2476
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	5	4	4
Sodium	ppm	ASTM D5185m	>31	<u> </u>	<1	3
Potassium	ppm	ASTM D5185m	>20	<mark>人</mark> 65	6	16
Fuel	%	ASTM D3524	>2.1	<u> </u>	4.8	4 .5
Glycol	%	*ASTM D2982		NEG	NEG	NEG
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	13.0	11.4	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.4	22.0	23.1
FLUID DEGRAD		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.4	18.8	19.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.7	8.0	7.5
0.06.01) Dov: 1	0 0					

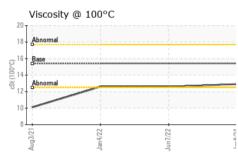
Contact/Location: MARK STEFFEL - GEMVAL

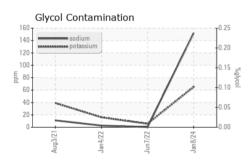


OIL ANALYSIS REPORT









VISUAL		method	limit/base	current	history1	history2		
					,			
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE		
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		
Free Water	scalar	*Visual		NEG	NEG	NEG		
FLUID PROPE	RTIES	method	limit/base	current	history1	history2		
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	12.6	12.6		
GRAPHS								
Iron (ppm)			1	Lead (ppm)				
Ocvere				Severe				
			udd	10				
50 - Abnormal				Abnormal 20				
				0				
ug3/2 an4/22		n7/22	an 8/24	ug3/2	14/22			
		7	7			-		
					ipm)			
50				Severe				
40 - Abnormal				15-				
d		****	d.	Abnormal				
1				5-				
0			_	0	-			
ug3/2 [.]		n7/22	an 8/24	.2/2.	an4/22	77//1100		
		JL L	J ₅ L			5 -		
Copper (ppm)								
250				Severe				
200				Ahnormal				
			dd	20				
				10	1			
0				0				
ug3/21 an4/22		un7/22	an 8/24	ug3/21	an 4/22	22//III00		
	2	7	7			~ ~		
20 T	T			.0 Base				
		1	g KOF		1			
			er (m	Abnormal				
3 12			und N	Severe				
10			ase g	.0				
		1/22	0		422 +	1 22/11100		
Aug3 Jan4		Jun	Jan 8	Aug3	Jan 4			
: PCA0089564	Rece	i ved : 07	7 Feb 2024	(10	351 JOLIET F		
	Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE Visc @ 100°C GRAPHS Iron (ppm) Copper (ppm) C	Precipitate scalar Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Codor scalar Emulsified Water scalar Free Water scalar FLUID PROPERTIES Visc @ 100°C cSt GRAPHS Iron (ppm) Copper (ppm) Sector Copper (ppm) Copper (ppm) Coppe	Precipitate scalar *Visual Sitt scalar *Visual Debris scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Odor scalar *Visual Emulsified Water scalar *Visual Free Water scalar *Visual FLUID PROPERTIES method Visc @ 100°C cSt ASTM D445 GRAPHS Iron (ppm) Copper (ppm) Second Content of the second of	Precipitate scalar *Visual NONE Sitt scalar *Visual NONE Sand/Dirt scalar *Visual NONE Sand/Dirt scalar *Visual NONE Appearance scalar *Visual NORML Emulsified Water scalar *Visual NORML Emulsified Water scalar *Visual >0.21 Free Water scalar *Visual >0.21 Free Water scalar *Visual State Visc @ 100°C cSt ASTM D445 15.4 GRAPHS Iron (ppm) Aluminum (ppm) Copper (ppm) Copper (ppm) Copper (ppm) Copper (ppm) State Viscosity @ 100°C Copper (ppm) State Viscosity @ 100°C State Viscosity @ 100°C State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State	Precipitate scalar Visual NONE NONE Silt scalar Visual NONE NONE Sand/Dirt scalar Visual NONE NONE Sand/Dirt scalar Visual NONE NONE Appearance scalar Visual NORML NORML NORML Odor scalar Visual NORML NORML NORML Emulsified Water scalar Visual >0.21 NEG Free Water scalar Visual >0.21 NEG FLUID PROPERTIES method limit/base current Visc @ 100°C cSt ASTM D445 15.4 12.9 GRAPHS Iron (ppm) 	Precipitate scalar 'Visual NONE NONE NONE NONE NONE ADDE Sitt scalar 'Visual NONE NONE NONE NONE ADDE Sand/Dirit scalar 'Visual NORML NO		

Unique Number Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel, TBN) Contact: MARK STEFFEL Certificate L2367 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)

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