

OIL ANALYSIS REPORT

Sample Rating Trend





Component Diesel Engine

PURUS 10W30 BLEND (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

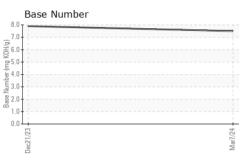
Fluid Condition

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

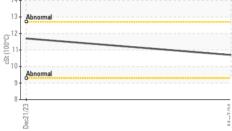
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0859061	WC0859021	
Sample Date		Client Info		07 Mar 2024	21 Dec 2023	
Machine Age	mls	Client Info		804575	785000	
Oil Age	mls	Client Info		20000	30000	
Oil Changed	11113	Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
•			11 1.0	-	-	
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	16	49	
Chromium	ppm	ASTM D5185m	>20	1	2	
Nickel	ppm	ASTM D5185m	>4	<1	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	4	11	
Lead	ppm	ASTM D5185m	>40	3	12	
Copper	ppm	ASTM D5185m	>330	1	4	
Tin	ppm	ASTM D5185m	>15	1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
	1-1-			U	0	
ADDITIVES	1- 1-	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	-	-	history2
		method	limit/base	current	history1	
Boron	ppm	method ASTM D5185m	limit/base	current 22	history1 16	
Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 22 0	history1 16 0	
Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 22 0 68	history1 16 0 83	
Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 22 0 68 <1	history1 16 0 83 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 22 0 68 <1 957	history1 16 0 83 <1 1132	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 22 0 68 <1 957 1167	history1 16 0 83 <1 1132 1289	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 22 0 68 <1 957 1167 1081	history1 16 0 83 <1 1132 1289 1244	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 22 0 68 <1 957 1167 1081 1293	history1 16 0 83 <1 1132 1289 1244 1441	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		Current 22 0 68 <1 957 1167 1081 1293 3880	history1 16 0 83 <1 1132 1289 1244 1441 3575	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 22 0 68 <1 957 1167 1081 1293 3880 current	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 22 0 68 <1 957 1167 1081 1293 3880 current 9	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 22 0 68 <1 957 1167 1081 1293 3880 current 9 3	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20	current 22 0 68 <1 957 1167 1081 1293 3880 current 9 3 1	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15 <1 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20 limit/base >3	current 22 0 68 <1 957 1167 1081 1293 3880 current 9 3 1 current	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15 <1 2 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	method ASTM D5185m	limit/base >25 >20 limit/base >3	current 22 0 68 <1 957 1167 1081 1293 3880 current 9 3 1 current 0.4	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15 <1 2 history1 0.7	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20 limit/base >3 >20	current 22 0 68 <1 957 1167 1081 1293 3880 current 9 3 1 current 0.4 10.7	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15 <1 2 history1 0.7 13.5	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 method	limit/base >25 >20 limit/base >3 >20 >30 >30 limit/base	current 22 0 68 <1 957 1167 1081 1293 3880 current 9 3 1 current 0.4 10.7 21.4	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15 <1 2 history1 0.7 13.5 25.3 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	Imit/base >25 >20 Imit/base >20 >3 >20 >30	current 22 0 68 <1 957 1167 1081 1293 3880 current 9 3 1 current 0.4 10.7 21.4	history1 16 0 83 <1 1132 1289 1244 1441 3575 history1 15 <1 2 history1 0.7 13.5 25.3	 history2 history2 history2 history2



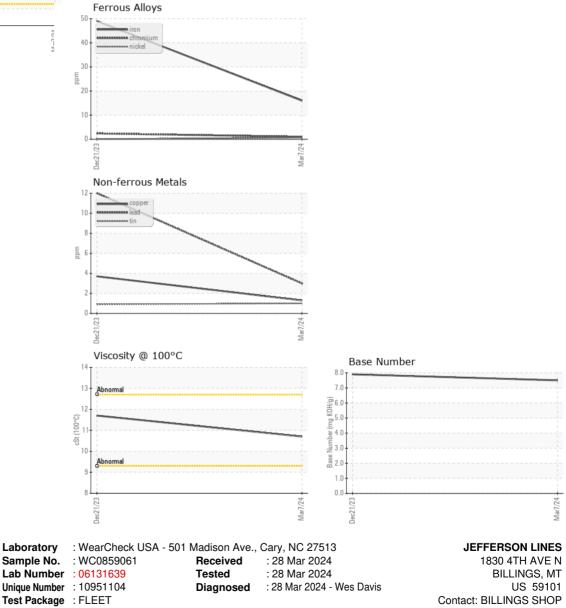
OIL ANALYSIS REPORT







VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		10.7	11.7	
GRAPHS						



Test Package : FLEET Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. billingsshop@jeffersonlines.com * - 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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