

OIL ANALYSIS REPORT





Machine Id **767** Component **Diesel Engine** Fluid **NOT GIVEN (--- GAL)**

DIAGNOSIS

A Recommendation

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

🔺 Wear

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN level is low. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0069446		
Sample Date		Client Info		19 Dec 2023		
Machine Age	mls	Client Info		0		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	123		
Chromium	ppm	ASTM D5185m	>20	4		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	9		
Lead	ppm	ASTM D5185m	>40	6		
Copper	ppm	ASTM D5185m	>330	3		
Tin	ppm	ASTM D5185m	>15	2		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 31	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 31 0	history1 	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 31 0 91	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 31 0 91 2	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 31 0 91 2 100	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 31 0 91 2 100 2294	history1	history2
ADDITIVES 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 31 0 91 2 100 2294 1087	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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 31 0 91 2 100 2294 1087 1319	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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 31 0 91 2 100 2294 1087 1319 3497	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	limit/base	current 31 0 91 2 100 2294 1087 1319 3497 current	history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon	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	limit/base	current 31 0 91 2 100 2294 1087 1319 3497 current 20	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	method ASTM D5185m	limit/base limit/base >25	current 31 0 91 2 100 2294 1087 1319 3497 current 20 3	history1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2	history1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	limit/base	current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2 20 3 2 current	history1 history1 history1 history1	history2 history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Silicon Sodium Potassium INFRA-RED Soot %	ppm	method ASTM D5185m	limit/base	current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2 current 0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 <t< th=""><th>history1 history1 history1 history1 history1</th><th>history2 history2 history2 history2 history2 history2</th></t<>	history1 history1 history1 history1 history1	history2 history2 history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base limit/base >25 >20 limit/base >3 >20	current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2 0.9 15.7	history1 history1 history1 history1 history1	history2 history2 history2 history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 	current 31 0 91 2 100 2294 1087 3497 current 20 3 2 current 0 3497 current 0.9 15.7 36.9	history1 history1 history1 history1	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base limit/base >25 >20 limit/base >23 >20 limit/base >3 >20 limit/base >3 >20 limit/base >3 >20 limit/base	current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2 current 0.9 15.7 36.9 current	history1 history1 history1 history1 history1	history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm Abs/cm Abs/cm Abs/.1mm	method ASTM D5185m ASTM D78441 *ASTM D78444 *ASTM D7414	limit/base limit/base >25 >20 limit/base >3 >20 limit/base >3 >20 limit/base >3 >20 limit/base >25 >20 limit/base >25 >20 20 <th>current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2 current 0.9 15.7 36.9 current 38.4</th> <th>history1 history1 history1 history1 history1 history1 history1 history1</th> <th>history2</th>	current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2 current 0.9 15.7 36.9 current 38.4	history1 history1 history1 history1 history1 history1 history1 history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD Oxidation Base Number (BN)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7185M ASTM D7844 *ASTM D7624 *ASTM D7415 Method *ASTM D7414 ASTM D2896	limit/base limit/base >25 >20 limit/base >3 >20 limit/base >3 >20 limit/base >25 limit/base >25 limit/base >25 >20 limit/base >25	Current 31 0 91 2 100 2294 1087 1319 3497 current 20 3 2 current 0.9 15.7 36.9 current 38.4 3.3	history1 history1 history1 history1 history1 history1	history2 -



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Dec19/23

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