

## **OIL ANALYSIS REPORT**

Sample Rating Trend







Machine Id **252002** Component **Diesel Engine** Fluid **NOT GIVEN (--- GAL)** 

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

Metal levels are typical for a components first oil change.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

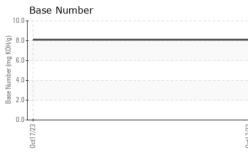
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

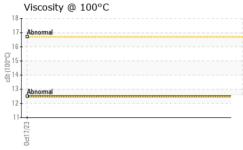
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0084489		
Sample Date		Client Info		17 Oct 2023		
Machine Age	hrs	Client Info		467		
Oil Age	hrs	Client Info		467		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	0	mathad	limit/bass	ourropt	biotony1	biotory?
	3	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	21		
Chromium	ppm	ASTM D5185m	>20	1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		3		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	5		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	1		
Tin	ppm	ASTM D5185m	>15	<1		
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 272	history1	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	272		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	272 1		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593 1518	  	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593 1518 723	   	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593 1518 723 893	    	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593 1518 723 893 2953		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593 1518 723 893 2953 current	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593 1518 723 893 2953 2953 current	    history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 1 109 0 593 1518 723 893 2953 current 5 0	    history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20	272 1 109 0 593 1518 723 893 2953 current 5 0 3	     history1  	     history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	272 1 109 0 593 1518 723 893 2953 current 5 0 3 current	    history1   history1	     history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	272 1 109 0 593 1518 723 893 2953 current 5 0 3 current 0.7	    history1   history1  history1	    history2  history2  history2
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	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	272 1 109 0 593 1518 723 893 2953 current 5 0 3 current 0.7 7.9	history1 history1	     history2  history2  history2
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	ASTM D5185m ASTM D7844 *ASTM D7624	limit/base >25 >20 limit/base >3 >20 >30 >30	272 1 109 0 593 1518 723 893 2953 current 5 0 3 current 0.7 7.9 21.7 current	     history1  history1  history1	     history2  history2  history2  history2
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	ASTM D5185m ASTM D5185m	Iimit/base >25 >20 Iimit/base >3 >20 >3 >20	272 1 109 0 593 1518 723 893 2953 <u>current</u> 5 0 3 <u>current</u> 0.7 7.9 21.7	     history1  history1  history1	      history2  history2  history2



# **OIL ANALYSIS REPORT**

VISUAL





	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
0ct17/23	Appearance	scalar	*Visual	NORML	NORML		
Oct	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	5	12.5		
	GRAPHS						
	Ferrous Alloys						
	25 iron						
	20 - nickel						
	15						
	10						
	5						
	0						
				7/23 -			
	0ct17/23			0ct17/23			
	Non-ferrous Meta	ls					
	<sup>10</sup> T						
	8 - copper						
	annan tin						
	6						
	E C C C C C C C C C C C C C C C C C C C						
	4						
	2						
	0++						
	0ct17/23			0ct17/23			
		_		0			
	Viscosity @ 100°C	<b>.</b>			Base Numbe	r	
					.0		
	16-			(B/HO) 6	.0-		
	(5-00) tig tig 14-			je s	.0 -		
	든 형 <sup>14</sup>				.0 -		
	13 - Abnormal			y Guy Guy S ase S Number S ase S as S ase S as S ase S as S as S as S as S as S as S as S as	.0		
	12-						
	11				.0		
	7/23				7/23		7/23 -
	0ct17/23			0ct17/23	0ct17/23		0et17/23
aboratory ample No. ab Number nique Number	: <mark>05984515</mark> : 10701810	501 Madia <b>Receive</b> Diagnos Diagnos	d : 20 ed : 20	cary, NC 2751 0 Oct 2023 0 Oct 2023 es Davis		ι	3947 US 131 N Kalkaska, M JS 49646-8428
st Package	: FLEET				Co	ontact: MITCH H	ERSHBERGEF

**Test Packa** 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)

Certificate L2367