

# **OIL ANALYSIS REPORT**

#### Sample Rating Trend

DIRT

Area FLEET 2227058 (S/N 4v4nc9eh7rn631476)

Component Diesel Engine Fluid

{not provided} (--- GAL)

# DIAGNOSIS

#### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

## 🔺 Wear

All component wear rates are normal.

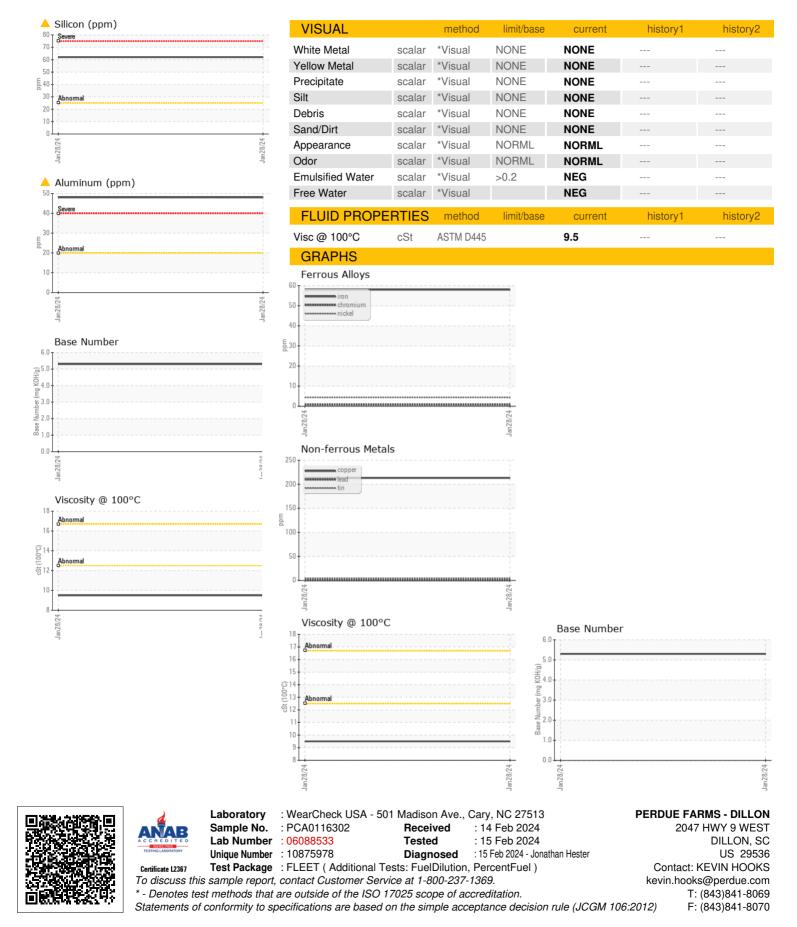
## Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

#### 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.

				Jan2024		
SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0116302		
Sample Date		Client Info		28 Jan 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	58		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	4		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	11		
Aluminum	ppm	ASTM D5185m	>20	<b>48</b>		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	213		
Tin	ppm	ASTM D5185m	>15	4		
Vanadium	ppm	ASTM D5185m	210	0		
Cadmium	ppm	ASTM D5185m		0		
	ррш			-		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		41		
Barium	ppm	ASTM D5185m		9		
Molybdenum	ppm	ASTM D5185m		112		
Manganese	ppm	ASTM D5185m		3		
Magnesium	ppm	ASTM D5185m		621		
Calcium	ppm	ASTM D5185m		1367		
Phosphorus	ppm	ASTM D5185m		614		
Zinc						
-	ppm	ASTM D5185m		782		
-	ppm ppm	ASTM D5185m ASTM D5185m		782 2082		
-	ppm		limit/base			
Sulfur CONTAMINAN	ppm	ASTM D5185m	limit/base	2082		
Sulfur CONTAMINAN Silicon	ppm TS	ASTM D5185m method		2082 current	 history1	 history2
Sulfur CONTAMINAN Silicon Sodium	ppm TS ppm	ASTM D5185m method ASTM D5185m		2082 current ▲ 62	 history1	 history2
Sulfur CONTAMINAN Silicon Sodium Potassium	ppm TS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	>25 >20	2082 current ▲ 62 1	 history1 	 history2 
Sulfur CONTAMINAN Silicon Sodium Potassium	ppm TS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>25 >20	2082 current ▲ 62 1 143	 history1  	 history2  
Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm TS ppm ppm ppm %	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method	>25 >20 >5 limit/base	2082 current ▲ 62 1 143 <1.0 current	 history1  	 history2   
Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm TS ppm ppm ppm %	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844	>25 >20 >5 limit/base >3	2082 current ▲ 62 1 143 <1.0 current 0.3	 history1    history1 	 history2    history2 
Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm TS ppm ppm ppm %	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method	>25 >20 >5 limit/base	2082 current ▲ 62 1 143 <1.0 current	history1 history1 history1	 history2    history2
Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm % % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D78244 *ASTM D7624	>25 >20 >5 limit/base >3 >20	2082 current ▲ 62 1 143 <1.0 current 0.3 12.0	 history1    history1 	 history2    history2 
Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm % % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D78244 *ASTM D7624	>25 >20 >5 limit/base >3 >20 >30	2082 current ▲ 62 1 143 <1.0 current 0.3 12.0 24.4	 history1    history1  	 history2    history2   



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OIL

DIAGNOSTICS