

# **OIL ANALYSIS REPORT**

Sample Rating Trend

GLYCOL

Machine Id

82228-2 Component Diesel Engine Fluid

{not provided} (--- GAL)

### DIAGNOSIS

#### Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

## Contamination

Sodium and/or potassium levels are high.

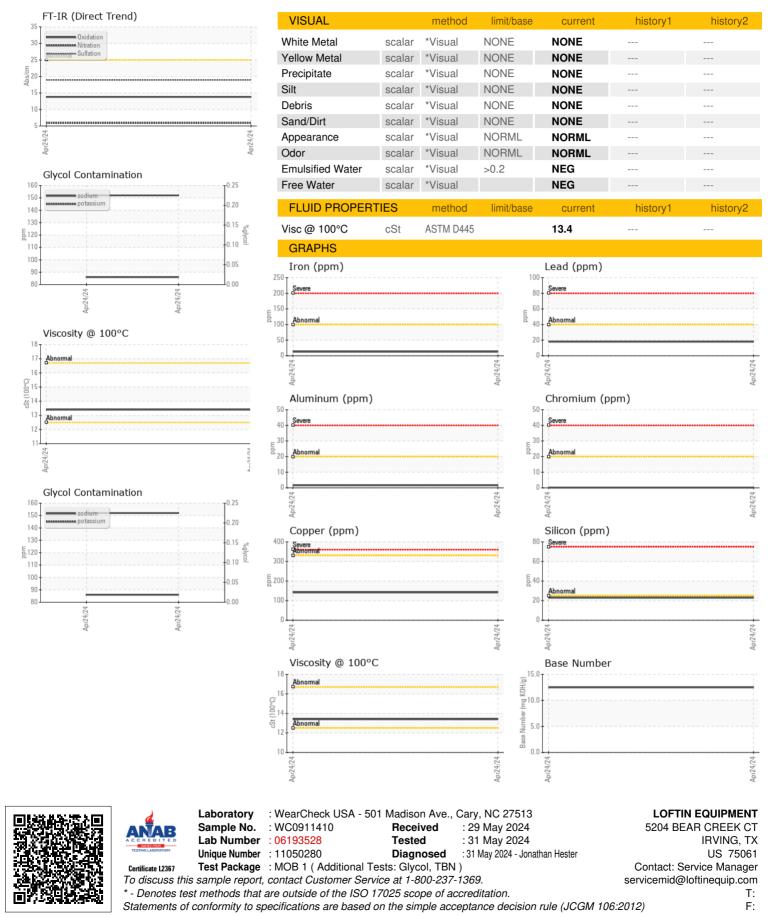
#### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0911410		
Sample Date		Client Info		24 Apr 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m	- T	0		
Silver	ppm	ASTM D5185m	>3	۰ <1		
Aluminum	ppm	ASTM D5185m	>20	2		
Lead	ppm	ASTM D5185m	>20	18		
Copper	ppm	ASTM D5185m	>330	142		
Tin		ASTM D5185m	>15	<1		
Vanadium	ppm ppm	ASTM D5185m	>15	<1		
Cadmium		ASTM D5185m		2		
	ppm					
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		119		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		56		
Manganese	nnm					
-	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		477		
Magnesium Calcium				477 2251		
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		477 2251 1042		
Magnesium Calcium Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		477 2251		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		477 2251 1042		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	477 2251 1042 1227		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		477 2251 1042 1227 4302		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		477 2251 1042 1227 4302 current		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		477 2251 1042 1227 4302 current 23	   history1	   history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>25	477 2251 1042 1227 4302 <u>current</u> 23 ▲ 86	  history1 	   history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>25	477 2251 1042 1227 4302 <u>current</u> 23 ▲ 86 ▲ 152	  history1 	   history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>25 >20	477 2251 1042 1227 4302 <u>current</u> 23 ▲ 86 ▲ 152 NEG	  history1  	   history2  
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982	>25 >20 limit/base >3	477 2251 1042 1227 4302 current 23 ▲ 86 ▲ 152 NEG current	  history1    history1	   history2    history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844	>25 >20 limit/base >3 >20	477 2251 1042 1227 4302 current 23 ▲ 86 ▲ 152 NEG current 0.1	  history1    history1 	   history2    history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm % %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 <b>method</b> *ASTM D7844 *ASTM D7624	>25 >20 limit/base >3 >20	477 2251 1042 1227 4302 current 23 ▲ 86 ▲ 152 NEG current 0.1 5.9	  history1    history1  history1	   history2    history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm % %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D2982 *ASTM D2982 *ASTM D7844 *ASTM D7844 *ASTM D7845	>25 >20 limit/base >3 >20 >30 limit/base	477 2251 1042 1227 4302 Current 23 ▲ 86 ▲ 152 NEG Current 0.1 5.9 18.9	  history1    history1  history1 	   history2    history2  



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