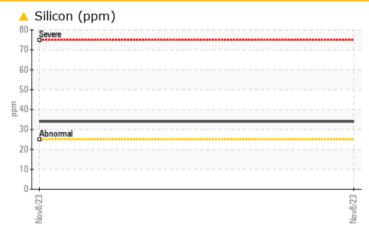


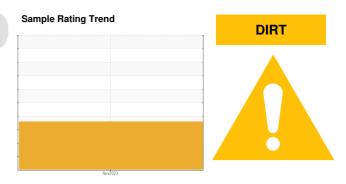
# **PROBLEM SUMMARY**

# PETERBILT 2415

Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 5W30 (44 QTS)

#### COMPONENT CONDITION SUMMARY





# Aluminum (ppm)

#### RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	 
Aluminum	ppm	ASTM D5185m	>25	🔺 12	 
Silicon	ppm	ASTM D5185m	>25	<b>4</b> 34	 
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<u> </u>	 

Customer Id: MABEDE Sample No.: WC0836305 Lab Number: 06008829 Test Package: FLEET



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Don Baldridge +1 <u>don.b505@comcast.net</u>

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

RECOMMENDED A	ACTIONS			
Action	Status	Date	Done By	Description
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.
Check Dirt Access			?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS



### **OIL ANALYSIS REPORT**



# DIRT

PETERBILT 2415

#### Component Diesel Engine

# Fluid DIESEL ENGINE OIL SAE 5W30 (44 QTS)

#### DIAGNOSIS

#### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. 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.

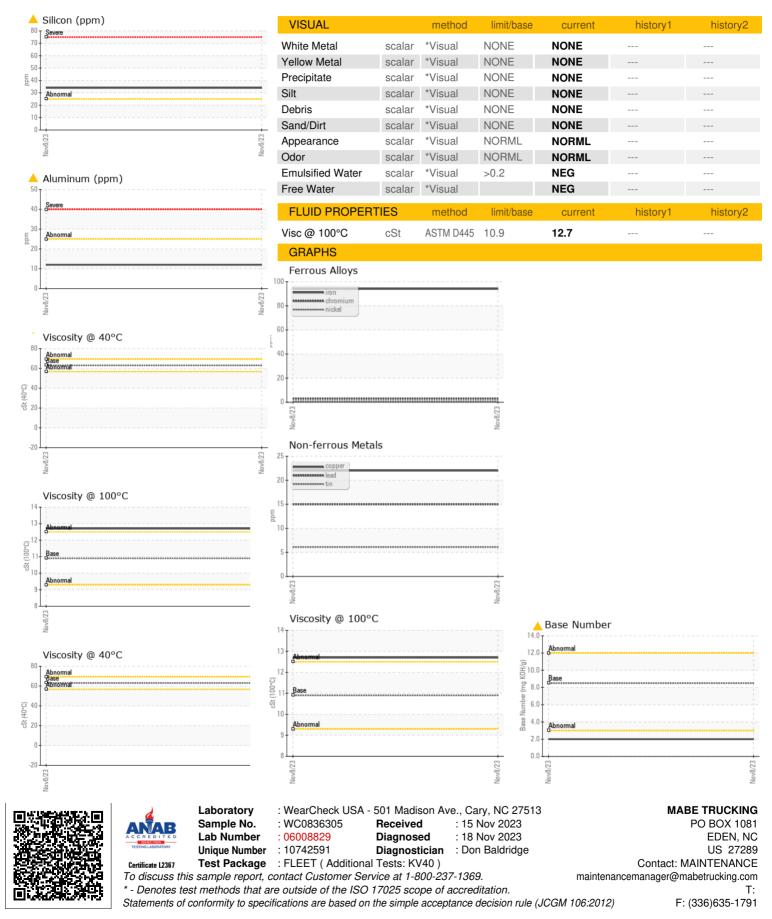
#### Fluid Condition

The BN 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		WC0836305		
Sample Date		Client Info		08 Nov 2023		
Machine Age	mls	Client Info		103770		
Oil Age	mls	Client Info		50000		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATION	l	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	94		
Chromium	ppm	ASTM D5185m	>20	3		
Nickel	ppm	ASTM D5185m	>2	<1		
Titanium	ppm		>2	0		
Silver	ppm	ASTM D5185m	>2	۰ <1		
Aluminum	ppm		>25	▲ 12		
Lead	ppm	ASTM D5185m	>40	15		
Copper	ppm	ASTM D5185m		22		
Tin		ASTM D5185m	>15	6		
Vanadium	ppm ppm	ASTM D5185m	>15	0		
Cadmium						
		ACIM D6186m		0		
	ppm	ASTM D5185m		0		
ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	history1	 history2
	ppm ppm		limit/base 250			
ADDITIVES		method		current 13 1	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	250	current 13	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	250 10	current 13 1	history1 	history2 
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	250 10	current 13 1 63	history1  	history2  
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	current 13 1 63 6	history1  	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	current 13 1 63 6 533	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	250 10 100 450 3000	current           13           1           63           6           533           1608	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	250 10 100 450 3000 1150	current           13           1           63           6           533           1608           911	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	250 10 100 450 3000 1150 1350	current           13           1           63           6           533           1608           911           1259	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 ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	current           13           1           63           6           533           1608           911           1259           2469	history1	history2
ADDITIVES 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	250 10 100 450 3000 1150 1350 4250 limit/base	current         13         1         63         6         533         1608         911         1259         2469         current	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	current         13         1         63         6         533         1608         911         1259         2469         current         ▲ 34	history1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm of pp	method           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	current         13         1         63         6         533         1608         911         1259         2469         current         34         5	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm of pp	method           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >20	current         13         1         63         6         533         1608         911         1259         2469         current         ▲ 34         5         14	history1 history1	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm 1 ppm 2 ppm 2 ppm 4 ppm 4	method           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	Current 13 1 63 6 533 1608 911 1259 2469 Current ▲ 34 5 14 Current	history1                           history1            history1               history1               history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	method           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>I</b> imit/base >25 >20 <b>I</b> imit/base >3 >20	Current         13         1         63         6         533         1608         911         1259         2469         current         34         5         14         current         0.7	history1 history1 history1 history1	history2 history2 history2 history2
ADDITIVES 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	250 10 100 450 3000 1150 1350 4250 <b>I</b> imit/base >25 >20 <b>I</b> imit/base >3 >20	current         13         1         63         6         533         1608         911         1259         2469         current         34         5         14         current         0.7         16.4	history1   history1               history1	history2 history2 history2 history2
ADDITIVES 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	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 -20 -33 >20 >30 <b>limit/base</b>	Current         13         1         63         6         533         1608         911         1259         2469         current         34         5         14         current         0.7         16.4         31.5	history1                        history1            history1            history1            history1	history2                                 history2            history2            history2            history2



# **OIL ANALYSIS REPORT**



Contact/Location: MAINTENANCE ? - MABEDE