

# **OIL ANALYSIS REPORT**

Area [6309] **T29** 

Component **Diesel Engine** 

**DIESEL ENGINE OIL SAE 15W40 (--- GAL)** 

# Sample Rating Trend



# Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

All component wear rates are normal.

# Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

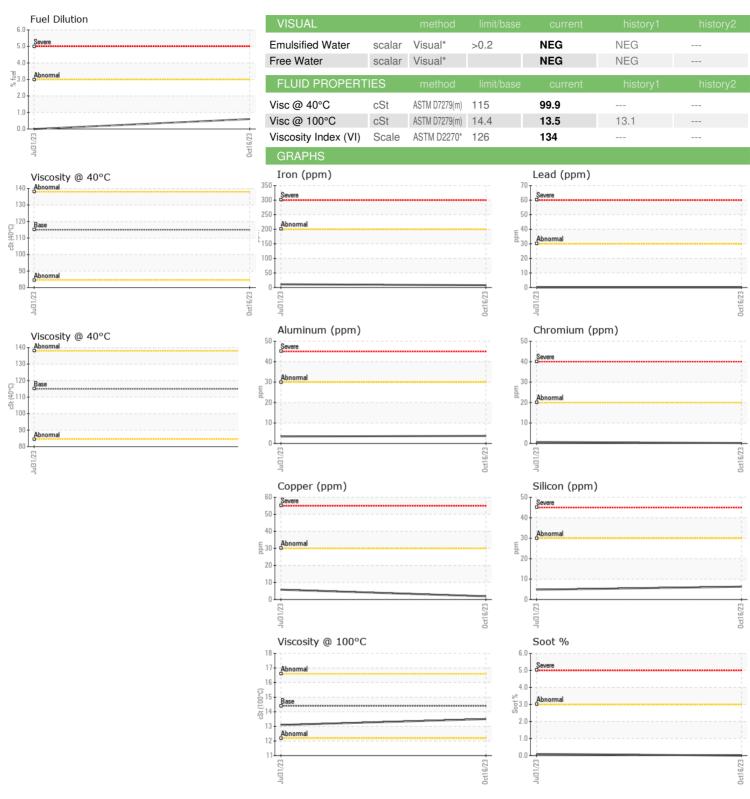
# **Fluid Condition**

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

		<u>,                                    </u>	Jul2023	0ct2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0846133	WC0790218	
Sample Date		Client Info		16 Oct 2023	31 Jul 2023	
Machine Age	kms	Client Info		517734	510087	
Oil Age	kms	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٧	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	8	11	
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	
Nickel	ppm	ASTM D5185(m)	>2	0	0	
Titanium	ppm	ASTM D5185(m)	>2	0	<1	
Silver	ppm	ASTM D5185(m)	>2	<1	0	
Aluminum	ppm	ASTM D5185(m)	>30	4	3	
Lead	ppm	ASTM D5185(m)	>30	0	0	
Copper	ppm	ASTM D5185(m)	>30	2	6	
Tin	ppm	ASTM D5185(m)	>15	0	<1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	nnm	ASTM D5185(m)		0	0	
Caumum	ppm	ASTIVI DSTOS(III)		U	U	
ADDITIVES	ррш	method	limit/base	current	history1	history2
	ppm		limit/base			
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	250	current 248	history1	history2
ADDITIVES Boron Barium	ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)	250 10	current 248 <1	history1 23 0	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	250 10	current 248 <1 115	history1 23 0 77	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese	ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	250 10 100	current 248 <1 115 0	history1 23 0 77 <1	history2  
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium	ppm ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	250 10 100 450	current 248 <1 115 0 581	history1 23 0 77 <1 153	history2   
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium	ppm ppm ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	250 10 100 450 3000	current 248 <1 115 0 581 1593	history1 23 0 77 <1 153 2070	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150	current  248  <1 115 0 581 1593 719	history1 23 0 77 <1 153 2070 1033	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350	current  248  <1 115 0 581 1593 719 832	history1  23  0  77  <1  153  2070  1033  1198	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350	current  248  <1 115 0 581 1593 719 832 2121	history1  23  0  77  <1  153  2070  1033  1198  2867	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250	current  248  <1 115 0 581 1593 719 832 2121 <1	history1  23  0  77  <1  153  2070  1033  1198  2867  <1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250	current  248 <1 115 0 581 1593 719 832 2121 <1 current	history1  23  0  77  <1  153  2070  1033  1198  2867  <1  history1	history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium  CONTAMINANTS  Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250	current  248  <1 115 0 581 1593 719 832 2121 <1 current 6	history1  23  0  77  <1  153  2070  1033  1198  2867  <1  history1  5	history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium  CONTAMINANTS  Silicon  Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250  limit/base >30 >158 >20	current  248  <1 115 0 581 1593 719 832 2121 <1 current 6 2	history1 23 0 77 <1 153 2070 1033 1198 2867 <1 history1 5 3	history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium  CONTAMINANTS  Silicon  Sodium  Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250  limit/base >30 >158 >20	current  248  <1 115 0 581 1593 719 832 2121 <1 current 6 2 <1	history1  23  0  77  <1  153  2070  1033  1198  2867  <1  history1  5  3 3	history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium  CONTAMINANTS  Silicon  Sodium  Potassium  Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250  limit/base >30 >158 >20 >3.0	current  248 <1 115 0 581 1593 719 832 2121 <1 current 6 2 <1 0.6	history1  23  0  77  <1  153  2070  1033  1198  2867  <1  history1  5  3  3  <1.0	history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium  CONTAMINANTS  Silicon  Sodium  Potassium  Fuel  INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250  limit/base >30 >158 >20 >3.0  limit/base	current  248  <1 115 0 581 1593 719 832 2121 <1 current 6 2 <1 0.6 current 0	history1  23  0  77  <1  153  2070  1033  1198  2867  <1  history1  5  3  3  <1.0  history1  0.1	history2 history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium  CONTAMINANTS  Silicon  Sodium  Potassium  Fuel  INFRA-RED  Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m) ASTM D7593*  method  ASTM D7593*	250 10 100 450 3000 1150 1350 4250  limit/base >30 >158 >20 >3.0  limit/base >3	current  248  <1 115 0 581 1593 719 832 2121 <1 current 6 2 <1 0.6 current	history1  23  0  77  <1  153  2070  1033  1198  2867  <1  history1  5  3  <1.0  history1	history2 history2 history2 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  Lithium  CONTAMINANTS  Silicon  Sodium  Potassium  Fuel  INFRA-RED  Soot %  Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m) ASTM D7844* ASTM D7624*	250 10 100 450 3000 1150 1350 4250  limit/base >30 >158 >20 >3.0  limit/base >3 >20	current  248  <1 115 0 581 1593 719 832 2121 <1 current 6 2 <1 0.6 current 0 6.6	history1  23  0  77  <1  153  2070  1033  1198  2867  <1  history1  5  3  3  <1.0  history1  0.1  9.3	history2 history2 history2 history2 history2



# **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number** 

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0846133 : 02590489

: 5659555

Received : 20 Oct 2023 Diagnosed : 23 Oct 2023

Diagnostician : Wes Davis Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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