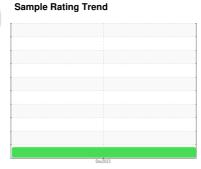


# **OIL ANALYSIS REPORT**







NO UNIT WC0889198

Component **Gasoline Engine** 

NOT GIVEN (--- GAL)

## **DIAGNOSIS**

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

## Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

### **Fluid Condition**

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

SAMPLE INFORMATION   method   limit/base   current   history2   history2					Dec2023		
Sample Number   Client Info   WC0889198	SAMDLE INFORM	ATION	mothod			historyt	history?
Sample Date   Client Info   318000		ATION		IIIIII/Dase			
Machine Age         kms         Client Info         0							
Oil Age         kms         Client Info         N/A		luna a					
Oil Changed Sample Status         Client Info         N/A             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >150         11             Chromium         ppm         ASTM D5185(m)         >20         0             Nikel         ppm         ASTM D5185(m)         >20         0             Nikel         ppm         ASTM D5185(m)         >20         0             Titanium         ppm         ASTM D5185(m)         >40         3             Silver         ppm         ASTM D5185(m)         >50         1             Copper         ppm         ASTM D5185(m)         >50         1             Antimony         ppm         ASTM D5185(m)         0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>							
Sample Status	•	KIIIS			-		
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5188(m)         >150         11             Chromium         ppm         ASTM D5188(m)         >20         0             Nickel         ppm         ASTM D5188(m)         >5         <1			Cilent inio				
Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >150         11             Chromium         ppm         ASTM D5185(m)         >20         0             Nickel         ppm         ASTM D5185(m)         >5         <1							
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >150         11             Chromium         ppm         ASTM D5185(m)         >20         0             Nickel         ppm         ASTM D5185(m)         >5         <1             Titanium         ppm         ASTM D5185(m)         >2         0             Aluminum         ppm         ASTM D5185(m)         >2         0             Aluminum         ppm         ASTM D5185(m)         >50         1             Lead         ppm         ASTM D5185(m)         >50         1             Copper         ppm         ASTM D5185(m)         >10         0             Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0						history1	history2
Iron	Water		WC Method	>0.2	NEG		
Chromium         ppm         ASTM DS18S(m)         >20         0             Nickel         ppm         ASTM DS18S(m)         >5         <1             Titanium         ppm         ASTM DS18S(m)         >2         0             Silver         ppm         ASTM DS18S(m)         >2         0             Aluminum         ppm         ASTM DS18S(m)         >50         1             Lead         ppm         ASTM DS18S(m)         >10         0             Copper         ppm         ASTM DS18S(m)         >10         0             Antimony         ppm         ASTM DS18S(m)         0              Antimony         ppm         ASTM DS18S(m)         0              Vanadium         ppm         ASTM DS18S(m)         0              Beryllium         ppm         ASTM DS18S(m)         0              Beryllium         ppm         ASTM DS18S(m) <th>WEAR METALS</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185(m)	>150	11		
Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         >2         0             Aluminum         ppm         ASTM D5185(m)         >40         3             Lead         ppm         ASTM D5185(m)         >50         1             Copper         ppm         ASTM D5185(m)         >10         0             Tin         ppm         ASTM D5185(m)         0             Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         54             Barium         ppm         <	Chromium	ppm	ASTM D5185(m)	>20	0		
Silver	Nickel	ppm	ASTM D5185(m)	>5	<1		
Aluminum         ppm         ASTM D5185(m)         >40         3             Lead         ppm         ASTM D5185(m)         >50         1             Copper         ppm         ASTM D5185(m)         >155         <1	Titanium	ppm	ASTM D5185(m)		0		
Lead         ppm         ASTM D5185(m)         >50         1             Copper         ppm         ASTM D5185(m)         >155         <1	Silver	ppm	ASTM D5185(m)	>2	0		
Copper         ppm         ASTM D5185(m)         >155         <1             Tin         ppm         ASTM D5185(m)         >10         0             Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         54             Barium         ppm         ASTM D5185(m)         54             Molybdenum         ppm         ASTM D5185(m)         103             Manganese         ppm         ASTM D5185(m)         641             Magnesium         ppm         ASTM D5185(m)         744             Phosphorus         ppm         ASTM D5185(m) <td>Aluminum</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>&gt;40</td> <td>3</td> <td></td> <td></td>	Aluminum	ppm	ASTM D5185(m)	>40	3		
Tin ppm ASTM D5185(m) >10 0	Lead	ppm	ASTM D5185(m)	>50	1		
Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         54             Barium         ppm         ASTM D5185(m)         <1             Molybdenum         ppm         ASTM D5185(m)         103              Manganese         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m)         641              Calcium         ppm         ASTM D5185(m)         766              Phosphorus         ppm         ASTM D5185(m)         1796             Sulfur	Copper	ppm	ASTM D5185(m)	>155	<1		
Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         54             Barium         ppm         ASTM D5185(m)         103             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         641             Magnesium         ppm         ASTM D5185(m)         744             Phosphorus         ppm         ASTM D5185(m)         766             Zinc         ppm         ASTM D5185(m)         1796             Lithium         ppm         ASTM D5185(m)         >30         12             CONTAMINANTS         method         limit/base         <	Tin	ppm	ASTM D5185(m)	>10	0		
Beryllium	Antimony	ppm	ASTM D5185(m)		0		
Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         54             Barium         ppm         ASTM D5185(m)         103             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         641             Magnesium         ppm         ASTM D5185(m)         744             Phosphorus         ppm         ASTM D5185(m)         766             Zinc         ppm         ASTM D5185(m)         1796             Sulfur         ppm         ASTM D5185(m)         <1	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         54             Barium         ppm         ASTM D5185(m)         103             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         641             Magnesium         ppm         ASTM D5185(m)         744             Calcium         ppm         ASTM D5185(m)         766             Phosphorus         ppm         ASTM D5185(m)         1796             Zinc         ppm         ASTM D5185(m)         1796             Sulfur         ppm         ASTM D5185(m)         <1	Beryllium	ppm	ASTM D5185(m)		0		
Boron	Cadmium	ppm	ASTM D5185(m)		0		
Barium         ppm         ASTM D5185(m)         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185(m)         103             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         641             Calcium         ppm         ASTM D5185(m)         744             Phosphorus         ppm         ASTM D5185(m)         766             Zinc         ppm         ASTM D5185(m)         1796             Sulfur         ppm         ASTM D5185(m)         <1             Lithium         ppm         ASTM D5185(m)         >30         12             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >400         2             Sodium         ppm         ASTM D5185(m)         >400         2             Potassium         ppm         ASTM D5185(m)         >20         0             Glycol	Boron	ppm	ASTM D5185(m)		54		
Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         641             Calcium         ppm         ASTM D5185(m)         744             Phosphorus         ppm         ASTM D5185(m)         666             Zinc         ppm         ASTM D5185(m)         766             Sulfur         ppm         ASTM D5185(m)         1796             Lithium         ppm         ASTM D5185(m)         <1	Barium	ppm	ASTM D5185(m)		<1		
Magnesium         ppm         ASTM D5185(m)         641             Calcium         ppm         ASTM D5185(m)         744             Phosphorus         ppm         ASTM D5185(m)         666             Zinc         ppm         ASTM D5185(m)         1796             Sulfur         ppm         ASTM D5185(m)         <1	Molybdenum	ppm	ASTM D5185(m)		103		
Calcium         ppm         ASTM D5185(m)         744             Phosphorus         ppm         ASTM D5185(m)         666             Zinc         ppm         ASTM D5185(m)         1796             Sulfur         ppm         ASTM D5185(m)         <1	Manganese	ppm	ASTM D5185(m)		0		
Phosphorus         ppm         ASTM D5185(m)         666             Zinc         ppm         ASTM D5185(m)         766             Sulfur         ppm         ASTM D5185(m)         1796             Lithium         ppm         ASTM D5185(m)         <1	Magnesium	ppm	ASTM D5185(m)		641		
Zinc         ppm         ASTM D5185(m)         766             Sulfur         ppm         ASTM D5185(m)         1796             Lithium         ppm         ASTM D5185(m)         <1	Calcium	ppm	ASTM D5185(m)		744		
Zinc         ppm         ASTM D5185(m)         766             Sulfur         ppm         ASTM D5185(m)         1796             Lithium         ppm         ASTM D5185(m)         <1	Phosphorus	ppm	ASTM D5185(m)		666		
Lithium         ppm         ASTM D5185(m)         <1             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >30         12             Sodium         ppm         ASTM D5185(m)         >400         2             Potassium         ppm         ASTM D5185(m)         >20         0             Fuel         %         ASTM D7593*         >4.0         2.3             Glycol         %         ASTM D7922*         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5		ppm	ASTM D5185(m)		766		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >30         12             Sodium         ppm         ASTM D5185(m)         >400         2             Potassium         ppm         ASTM D5185(m)         >20         0             Fuel         %         ASTM D7593*         >4.0         2.3             Glycol         %         ASTM D7922*         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5	Sulfur		ASTM D5185(m)		1796		
Silicon       ppm       ASTM D5185(m)       >30       12           Sodium       ppm       ASTM D5185(m)       >400       2           Potassium       ppm       ASTM D5185(m)       >20       0           Fuel       %       ASTM D7593*       >4.0       2.3           Glycol       %       ASTM D7922*       0.0           INFRA-RED       method       limit/base       current       history1       history2         Soot %       %       ASTM D7844*       0           Nitration       Abs/cm       ASTM D7624*       >20       10.5	Lithium	ppm	ASTM D5185(m)		<1		
Sodium         ppm         ASTM D5185(m)         >400         2             Potassium         ppm         ASTM D5185(m)         >20         0             Fuel         %         ASTM D7593*         >4.0         2.3             Glycol         %         ASTM D7922*         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium         ppm         ASTM D5185(m)         >400         2             Potassium         ppm         ASTM D5185(m)         >20         0             Fuel         %         ASTM D7593*         >4.0         2.3             Glycol         %         ASTM D7922*         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5	Silicon	ppm	ASTM D5185(m)	>30	12		
Potassium         ppm         ASTM D5185(m)         >20         0             Fuel         %         ASTM D7593*         >4.0         2.3             Glycol         %         ASTM D7922*         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5	Sodium		ASTM D5185(m)	>400	2		
Fuel         %         ASTM D7593*         >4.0         ▲ 2.3             Glycol         %         ASTM D7922*         0.0              INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5	Potassium		ASTM D5185(m)	>20	0		
Glycol         %         ASTM D7922*         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5	Fuel		ASTM D7593*	>4.0	<b>2.3</b>		
Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         >20         10.5	Glycol	%	ASTM D7922*		0.0		
Nitration         Abs/cm         ASTM D7624*         >20         10.5	INFRA-RED		method	limit/base	current	history1	history2
Nitration         Abs/cm         ASTM D7624*         >20         10.5	Soot %	%	ASTM D7844*		0		
				>20			



## **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number

: WC0889198

: 02603773

Recieved Diagnosed : 5696858

: 19 Dec 2023 Diagnostician : Kevin Marson

: 18 Dec 2023

**Test Package**: MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel)

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.

**ED TAEKEMA** 40 CHRISTMAN COURT

MARKHAM, ON CA L3P 3C8 Contact: ED TAEKEMA ed.taekema@gmail.com

Contact/Location: ED TAEKEMA - EDTMAR

T: (647)828-6141