

# **OIL ANALYSIS REPORT**

## Area [W116489] **GENERAC RALEIGH BURWELL 600** Component

**Diesel Engine** Fluid

**DIESEL ENGINE OIL SAE 15W40 (12 GAL)** 

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

#### 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.



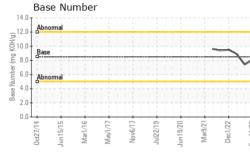
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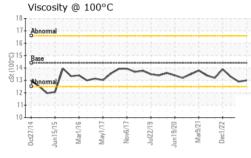
Sample Rating Trend

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0812702	WC0812708	WC0770485
Sample Date		Client Info		11 Sep 2023	09 Jun 2023	14 Mar 2023
Machine Age	hrs	Client Info		214	221	208
Oil Age	hrs	Client Info		0	221	0
Oil Changed		Client Info		N/A	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>250	1	19	2
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		5	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>35	3	<1	2
Lead	ppm	ASTM D5185m	>100	<1	<1	<1
Copper	ppm	ASTM D5185m	>60	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	109	7	88
Barium			10	0	0	
Danum	ppm	ASTM D5185m	10	U	0	0
	ppm ppm	ASTM D5185m ASTM D5185m	10 100	50	65	0 43
Molybdenum				-		
Molybdenum Manganese	ppm	ASTM D5185m		50	65	43
Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	100	50 0	65 <1	43 <1
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	100 450	50 0 353	65 <1 1022	43 <1 348
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000	50 0 353 1785	65 <1 1022 1252	43 <1 348 1877
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150	50 0 353 1785 992	65 <1 1022 1252 1116	43 <1 348 1877 1051
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350	50 0 353 1785 992 1189	65 <1 1022 1252 1116 1398	43 <1 348 1877 1051 1255
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base	50 0 353 1785 992 1189 4007	65 <1 1022 1252 1116 1398 4011	43 <1 348 1877 1051 1255 4747
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >35	50 0 353 1785 992 1189 4007 current	65 <1 1022 1252 1116 1398 4011 history1	43 <1 348 1877 1051 1255 4747 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >35 >158	50 0 353 1785 992 1189 4007 current 5	65 <1 1022 1252 1116 1398 4011 history1 4	43 <1 348 1877 1051 1255 4747 history2 5
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >35 >158	50 0 353 1785 992 1189 4007 current 5 1	65 <1 1022 1252 1116 1398 4011 history1 4 4	43 <1 348 1877 1051 1255 4747 history2 5 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >35 >158 >20	50 0 353 1785 992 1189 4007 <u>current</u> 5 1 2	65 <1 1022 1252 1116 1398 4011 history1 4 4 4 <1	43 <1 348 1877 1051 1255 4747 history2 5 2 2 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium 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 ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >35 >158 >20 <b>limit/base</b> >3	50 0 353 1785 992 1189 4007 current 5 1 2 2 current	65 <1 1022 1252 1116 1398 4011 history1 4 4 <1 ×1	43 <1 348 1877 1051 1255 4747 history2 5 2 2 2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >35 >158 >20 <b>limit/base</b> >3	50 0 353 1785 992 1189 4007 current 5 1 2 2 current 0	65 <1 1022 1252 1116 1398 4011 history1 4 4 <1 kistory1 0.1	43 <1 348 1877 1051 1255 4747 history2 5 2 2 2 history2 0.1
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	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >35 >158 >20 <b>limit/base</b> >3 >20	50 0 353 1785 992 1189 4007 <u>current</u> 5 1 2 2 <u>current</u> 0 6.9	65 <1 1022 1252 1116 1398 4011 <u>history1</u> 4 4 4 <1 <u>history1</u> 0.1 5.6	43 <1 348 1877 1051 1255 4747 history2 5 2 2 2 history2 0.1 7.1
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	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >35 >158 >20 <b>limit/base</b> >3 >20 <b>limit/base</b>	50 0 353 1785 992 1189 4007 <u>current</u> 5 1 2 2 <u>current</u> 0 6.9 17.3	65 <1 1022 1252 1116 1398 4011 history1 4 4 4 <1 history1 0.1 5.6 16.9	43 <1 348 1877 1051 1255 4747 history2 5 2 2 history2 0.1 7.1 17.8



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Contact/Location: ANDREW RANDALL - NATRAL