

# WEAR NORMAL CONTAMINATION SEVERE FLUID CONDITION ABNORMAL

#### (YA163155) Machine Id

#### 10416C Component

# Natural Gas Engine

## PETRO CANADA DURON GEO LD 15W40 (30 GAL)

### RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

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#### WEAR

All component wear rates are normal.

## CONTAMINATION

Sodium and/or potassium levels are high. Test for glycol is positive.

#### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0123388	GFL0082490	GFL0050791
Sample Date		Client Info		20 Jun 2024	14 Nov 2023	09 May 2023
Machine Age	hrs	Client Info		98203	98203	0
Oil Age	hrs	Client Info		98203	98203	0
Filter Age	hrs	Client Info		98203	98203	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>50	21	A 78	37
Chromium	ppm	ASTM D5185m	>4	1	3	4
Nickel	ppm	ASTM D5185m	>2	0	1	2
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	2	<1
Lead	ppm	ASTM D5185m	>30	3	2	2
Copper	ppm	ASTM D5185m	>35	9	<mark>▲</mark> 53	<mark>▲</mark> 57
Tin	ppm	ASTM D5185m	>4	<1	0	2
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>+100	7	14	9
Potassium	ppm	ASTM D5185m	>20	, <b>A</b> 816	▲ 398	4
Water	ρριιι	WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982	20.1	▲ 0.12	▲ 0.10	
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	10.5	10.4	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	22.2	24.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		<mark>/</mark> 96	A 65	<b>1</b> 30
Boron	ppm	ASTM D5185m	50	8	15	10
Barium	ppm	ASTM D5185m	5	<1	<1	0
Molybdenum	ppm	ASTM D5185m	50	55	59	64
Manganese	ppm	ASTM D5185m	0	<1	1	1
Magnesium	ppm	ASTM D5185m	560	603	572	580
Calcium	ppm	ASTM D5185m	1510	1706	1736	1646
Phosphorus	ppm	ASTM D5185m	780	828	755	710
Zinc	ppm	ASTM D5185m	870	1087	1016	1014
Sulfur	ppm	ASTM D5185m	2040	3106	2527	2959
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	17.3	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	7.2	5.9	4.2
Visc @ 100°C	cSt	ASTM D445	15.1	14.8	14.6	14.7

