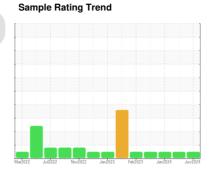


OIL ANALYSIS REPORT



PETRO CANADA DURON SHP 15W40 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

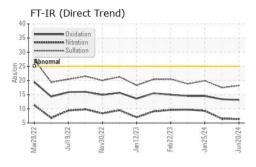
Fluid Condition

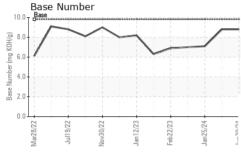
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

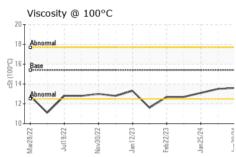
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0080691	GFL0080681	GFL0081849
Sample Date		Client Info		20 Jun 2024	20 May 2024	25 Jan 2024
Machine Age	hrs	Client Info		3997	3862	3662
Oil Age	hrs	Client Info		3997	3862	3662
Oil Changed		Client Info		N/A	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	14	10	23
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	3
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	1	0	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	0
O = -l!						
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	0 history1	0 history2
	ppm		limit/base			
ADDITIVES		method	0	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	0	current 8	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0	current 8 1	history1 11 0	history2 4 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	current 8 1 58	history1 11 0 60	history2 4 0 57
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	current 8 1 58 <1	history1 11 0 60 <1	history2 4 0 57 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	current 8 1 58 <1 872	history1 11 0 60 <1 947	history2 4 0 57 <1 926
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	current 8 1 58 <1 872 1031	history1 11 0 60 <1 947 1029	history2 4 0 57 <1 926 977
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150	current 8 1 58 <1 872 1031 992	history1 11 0 60 <1 947 1029 1041	history2 4 0 57 <1 926 977 997
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270	current 8 1 58 <1 872 1031 992 1171	history1 11 0 60 <1 947 1029 1041 1233	history2 4 0 57 <1 926 977 997 1213
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 8 1 58 <1 872 1031 992 1171 2980 current 5	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5	history2 4 0 57 <1 926 977 997 1213 2920
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	current 8 1 58 <1 872 1031 992 1171 2980 current 5 1	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5	history2 4 0 57 <1 926 977 997 1213 2920 history2 7 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 8 1 58 <1 872 1031 992 1171 2980 current 5	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5	history2 4 0 57 <1 926 977 997 1213 2920 history2 7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	current 8 1 58 <1 872 1031 992 1171 2980 current 5 1 2 current	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5 2 <1 history1	history2 4 0 57 <1 926 977 997 1213 2920 history2 7 4 2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20	current 8 1 58 <1 872 1031 992 1171 2980 current 5 1 2 current 0.5	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5 2 <1 history1 0.4	history2 4 0 57 <1 926 977 997 1213 2920 history2 7 4 2 history2 1.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	current 8 1 58 <1 872 1031 992 1171 2980 current 5 1 2 current	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5 2 <1 history1	history2 4 0 57 <1 926 977 997 1213 2920 history2 7 4 2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	current 8 1 58 <1 872 1031 992 1171 2980 current 5 1 2 current 0.5	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5 2 <1 history1 0.4	history2 4 0 57 <1 926 977 997 1213 2920 history2 7 4 2 history2 1.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D76185m ASTM D76185m ASTM D76185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	current 8 1 58 <1 872 1031 992 1171 2980 current 5 1 2 current 0.5 6.4	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5 2 <1 history1 0.4 6.5	history2 4 0 57 <1 926 977 997 1213 2920 history2 7 4 2 history2 1.1 9.3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D76185m ASTM D76185m ASTM D76185m	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20 >30	current 8 1 58 <1 872 1031 992 1171 2980 current 5 1 2 current 0.5 6.4 18.2	history1 11 0 60 <1 947 1029 1041 1233 3579 history1 5 2 <1 history1 0.4 6.5 17.5	history2 4 0 57 <1 926 977 997 1213 2920 history2 7 4 2 history2 1.1 9.3 19.9



OIL ANALYSIS REPORT



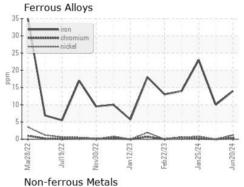


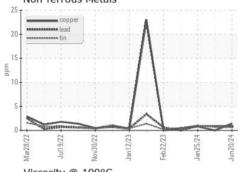


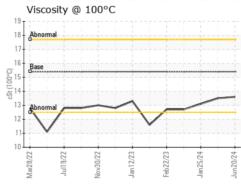
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

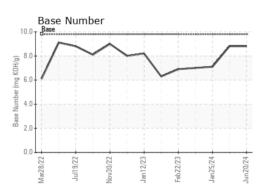
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.5	13.1

GRAPHS













Certificate 12367

Laboratory Sample No. Lab Number : 06219301

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0080691

Unique Number : 11097498 Test Package : FLEET

Received : 25 Jun 2024 **Tested** : 25 Jun 2024 Diagnosed

: 25 Jun 2024 - Wes Davis

GFL Environmental - 955 - Montgomery 1121 Wilbanks St Montgomery, AL US 36108

Contact: LISA REEVES

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: GFL955 [WUSCAR] 06219301 (Generated: 06/25/2024 16:42:31) Rev: 1

Submitted By: Lisa Goldman

T:

F: