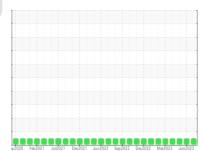


OIL ANALYSIS REPORT

Sample Rating Trend









Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 15W40 (9 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

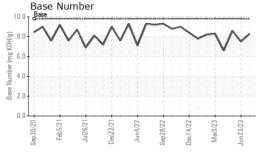
Fluid Condition

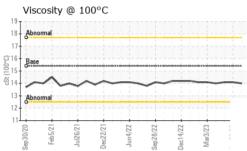
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0102959	PCA0098090	PCA0098086
Sample Date		Client Info		28 Jul 2023	23 Jun 2023	11 May 2023
Machine Age	hrs	Client Info		11129	10765	10468
Oil Age	hrs	Client Info		364	297	311
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Glycol		WC Method	7 0.0	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	6	9	8
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel		ASTM D5185m	>5	4	0	4
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	0	2
Lead	ppm	ASTM D5185m	>40	<1	0	2
Copper	ppm	ASTM D5185m	>330	3	1	5
Tin	ppm	ASTM D5185m	>15	<1	0	1
Vanadium	ppm	ASTM D5185m	>10	0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
	рр	710 THI DO TOOM			<u> </u>	~ 1
ADDITIVES		method			history1	history2
ADDITIVES	nnm	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	17
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	0 1	0	17 0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	0 1 62	0 0 56	17 0 61
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	0 1 62 <1	0 0 56	17 0 61
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	0 1 62 <1 945	0 0 56 0 883	17 0 61 1 1010
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	0 1 62 <1 945 1074	0 0 56 0 883 971	17 0 61 1 1010 1143
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	0 1 62 <1 945 1074 947	0 0 56 0 883 971 858	17 0 61 1 1010 1143 977
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	0 1 62 <1 945 1074	0 0 56 0 883 971	17 0 61 1 1010 1143
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	0 1 62 <1 945 1074 947 1214	0 0 56 0 883 971 858 1101	17 0 61 1 1010 1143 977 1304
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	0 0 60 0 1010 1070 1150 1270 2060	0 1 62 <1 945 1074 947 1214 3029	0 0 56 0 883 971 858 1101 3051	17 0 61 1 1010 1143 977 1304 3710
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	0 1 62 <1 945 1074 947 1214 3029	0 0 56 0 883 971 858 1101 3051 history1	17 0 61 1 1010 1143 977 1304 3710 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	0 1 62 <1 945 1074 947 1214 3029 current	0 0 56 0 883 971 858 1101 3051 history1	17 0 61 1 1010 1143 977 1304 3710 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	0 1 62 <1 945 1074 947 1214 3029 current 4	0 0 56 0 883 971 858 1101 3051 history1 5	17 0 61 1 1010 1143 977 1304 3710 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	0 1 62 <1 945 1074 947 1214 3029 current 4 9	0 0 56 0 883 971 858 1101 3051 history1 5 10	17 0 61 1 1010 1143 977 1304 3710 history2 7 7
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	ASTM D5185m	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	0 1 62 <1 945 1074 947 1214 3029 current 4 9 2 current	0 0 56 0 883 971 858 1101 3051 history1 5 10 1	17 0 61 1 1010 1143 977 1304 3710 history2 7 5
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	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	0 1 62 <1 945 1074 947 1214 3029 current 4 9 2 current 0.4	0 0 56 0 883 971 858 1101 3051 history1 5 10 1 history1 0.5	17 0 61 1 1010 1143 977 1304 3710 history2 7 7 5 history2 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D76185m method *ASTM D7624 *ASTM D76144	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	0 1 62 <1 945 1074 947 1214 3029 current 4 9 2 current 0.4 7.1	0 0 56 0 883 971 858 1101 3051 history1 5 10 1 history1 0.5 7.9	17 0 61 1 1010 1143 977 1304 3710 history2 7 7 5 history2 0.2 6.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D76185m method *ASTM D7624 *ASTM D76144	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20 >30	0 1 62 <1 945 1074 947 1214 3029 current 4 9 2 current 0.4 7.1 19.4	0 0 56 0 883 971 858 1101 3051 history1 5 10 1 history1 0.5 7.9 20.3	17 0 61 1 1010 1143 977 1304 3710 history2 7 5 history2 0.2 6.5 19.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D7415 Method	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20 >30 limit/base	0 1 62 <1 945 1074 947 1214 3029 current 4 9 2 current 0.4 7.1 19.4 current	0 0 56 0 883 971 858 1101 3051 history1 5 10 1 history1 0.5 7.9 20.3 history1	17 0 61 1 1010 1143 977 1304 3710 history2 7 7 5 history2 0.2 6.5 19.0 history2



OIL ANALYSIS REPORT

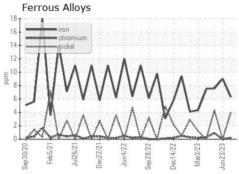


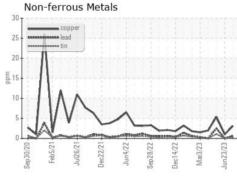


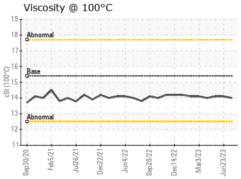
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

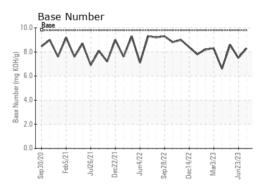
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.1	14.1

GRAPHS













Certificate L2367

Laboratory Sample No.

Lab Number **Unique Number**

: PCA0102959 : 05921288 : 10593202 Test Package : FLEET

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

: 10 Aug 2023 : 11 Aug 2023 Diagnostician : Sean Felton

LRS - BETHEL HEIGHTS (NWA AR) 848 HWY 264 E

BETHEL HEIGHTS, AR US 72764

Contact: ROBERT HEATH rheath@Irsrecycles.com T: (479)305-8958

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)

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