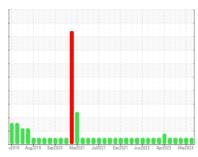


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 10875 Component Diesel Engine

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

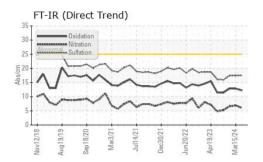
Fluid Condition

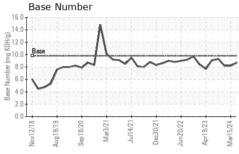
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

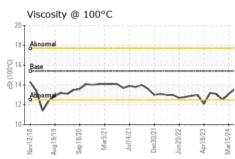
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0113439	PCA0113465	PCA0113428
Sample Date		Client Info		12 Jul 2024	15 Mar 2024	13 Feb 2024
Machine Age	hrs	Client Info		12559	12173	12063
Oil Age	hrs	Client Info		386	110	391
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	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 METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	9	10	7
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	3	3	2
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>100	1	1	1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1	history2
	ppm		0			
Boron		ASTM D5185m	0	17	19	16
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	17 <1	19 0	16 0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	17 <1 61	19 0 67	16 0 60
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	17 <1 61 0	19 0 67	16 0 60 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	17 <1 61 0 674	19 0 67 0 704	16 0 60 <1 748
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	17 <1 61 0 674 1384	19 0 67 0 704 1393	16 0 60 <1 748 1205
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	17 <1 61 0 674 1384 881	19 0 67 0 704 1393 1084	16 0 60 <1 748 1205 947
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 1270	17 <1 61 0 674 1384 881	19 0 67 0 704 1393 1084 1218	16 0 60 <1 748 1205 947 1162
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	17 <1 61 0 674 1384 881 1142 2909	19 0 67 0 704 1393 1084 1218 3509	16 0 60 <1 748 1205 947 1162 3109
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	17 <1 61 0 674 1384 881 1142 2909 current	19 0 67 0 704 1393 1084 1218 3509	16 0 60 <1 748 1205 947 1162 3109 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	17 <1 61 0 674 1384 881 1142 2909 current	19 0 67 0 704 1393 1084 1218 3509 history1	16 0 60 <1 748 1205 947 1162 3109 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 Iimit/base	17 <1 61 0 674 1384 881 1142 2909 current 7	19 0 67 0 704 1393 1084 1218 3509 history1 7	16 0 60 <1 748 1205 947 1162 3109 history2 6 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	17 <1 61 0 674 1384 881 1142 2909 current 7 1	19 0 67 0 704 1393 1084 1218 3509 history1 7 3 4	16 0 60 <1 748 1205 947 1162 3109 history2 6 6 6
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 60 0 1010 1070 1150 1270 2060 limit/base >25	17 <1 61 0 674 1384 881 1142 2909 current 7 1 3	19 0 67 0 704 1393 1084 1218 3509 history1 7 3 4	16 0 60 <1 748 1205 947 1162 3109 history2 6 6 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m Method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 limit/base	17 <1 61 0 674 1384 881 1142 2909 current 7 1 3 current 0.4	19 0 67 0 704 1393 1084 1218 3509 history1 7 3 4 history1 0.4	16 0 60 <1 748 1205 947 1162 3109 history2 6 6 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m Method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 limit/base	17 <1 61 0 674 1384 881 1142 2909 current 7 1 3 current 0.4 6.0	19 0 67 0 704 1393 1084 1218 3509 history1 7 3 4 history1 0.4 6.9	16 0 60 <1 748 1205 947 1162 3109 history2 6 6 2 history2 0.2 6.6
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 D7844 *ASTM D7624 *ASTM D76145	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >6 >20 >30	17 <1 61 0 674 1384 881 1142 2909 current 7 1 3 current 0.4 6.0 17.5	19 0 67 0 704 1393 1084 1218 3509 history1 7 3 4 history1 0.4 6.9 17.4	16 0 60 <1 748 1205 947 1162 3109 history2 6 6 2 history2 0.2 6.6 17.4
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 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >6 >20 >30 limit/base	17 <1 61 0 674 1384 881 1142 2909 current 7 1 3 current 0.4 6.0 17.5 current	19 0 67 0 704 1393 1084 1218 3509 history1 7 3 4 history1 0.4 6.9 17.4 history1	16 0 60 <1 748 1205 947 1162 3109 history2 6 6 2 history2 0.2 6.6 17.4 history2



OIL ANALYSIS REPORT



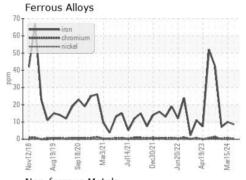


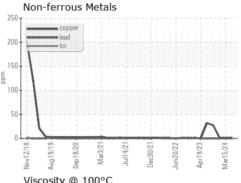


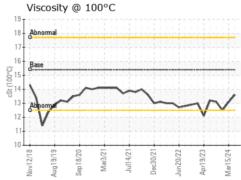
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

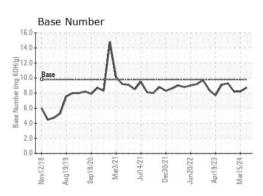
FLUID PROPI	EKIIES	method	ilmit/base		nistory i	nistoryz
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.1	12.5

GRAPHS













Certificate 12367

Laboratory Sample No.

Lab Number : 06235557 Unique Number : 11124391

: PCA0113439 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Jul 2024 **Tested**

: 15 Jul 2024 Diagnosed : 15 Jul 2024 - Wes Davis

GFL Environmental - 002 - Vance-Granville 241 Vanco Mill Rd

Henderson, NC US 27537 Contact: Cameron King

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

cameron.king@gflenv.com T: (252)438-5333

* - 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)

F: (252)431-1635 Submitted By: Cameron King