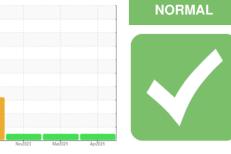


OIL ANALYSIS REPORT

Sample Rating Trend





Component Diesel Engine Fluid

PETRO CANADA DURON SHP 15W40 (5 GAL)

SAMPLE INFORMATION method

DIAGNOSIS Recommendation

Resample at the next service interval to monitor.

Machine Id

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

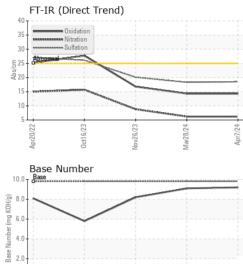
Fluid Condition

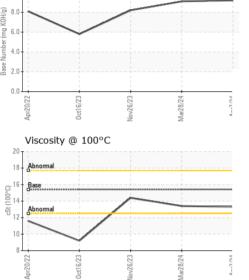
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFOR		method	limit/base	current	nistory i	nistory2
Sample Number		Client Info		GFL0115164	GFL0115172	GFL0097725
Sample Date		Client Info		07 Apr 2024	28 Mar 2024	26 Nov 2023
Machine Age	hrs	Client Info		21465	21468	21157
Oil Age	hrs	Client Info		308	25	251
Oil Changed		Client Info		Changed	Not Changd	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	>90	17	16	59
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel		ASTM D5185m	>2	0	0	0
Titanium	ppm ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum		ASTM D5185m		2	2	3
Lead	ppm		>20	0	0	0
	ppm	ASTM D5185m		-	0	
Copper Tin	ppm	ASTM D5185m		<1		<1 0
	ppm		>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		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 2	history1 2	history2 1
	ppm ppm		0			
Boron		ASTM D5185m	0	2	2	1
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	2 0	2 0	1 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	2 0 55	2 0 56	1 0 64
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	2 0 55 <1	2 0 56 <1	1 0 64 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	2 0 55 <1 948	2 0 56 <1 883	1 0 64 0 1113
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	2 0 55 <1 948 1034	2 0 56 <1 883 987	1 0 64 0 1113 1278
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	2 0 55 <1 948 1034 1084	2 0 56 <1 883 987 998	1 0 64 0 1113 1278 1247
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	0 0 60 0 1010 1070 1150 1270	2 0 55 <1 948 1034 1084 1263	2 0 56 <1 883 987 998 1164	1 0 64 0 1113 1278 1247 1608
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm 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 1010 1070 1150 1270 2060	2 0 55 <1 948 1034 1084 1263 3581	2 0 56 <1 883 987 998 1164 3345	1 0 64 0 1113 1278 1247 1608 3692
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060	2 0 55 <1 948 1034 1084 1263 3581 current	2 0 56 <1 883 987 998 1164 3345 history1	1 0 64 0 1113 1278 1247 1608 3692 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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	0 0 60 1010 1070 1150 1270 2060	2 0 55 <1 948 1034 1084 1263 3581 current 4	2 0 56 <1 883 987 998 1164 3345 history1 4	1 0 64 0 1113 1278 1247 1608 3692 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 limit/base	2 0 55 <1 948 1034 1084 1263 3581 current 4 24	2 0 56 <1 883 987 998 1164 3345 history1 4 23	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 Imit/base >25	2 0 55 <1 948 1034 1084 1263 3581 current 4 24 <1 current	2 0 56 <1 883 987 998 1164 3345 history1 4 23 <1 history1	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3 <1 ×1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	2 0 55 <1 948 1034 1084 1263 3581 current 4 24 <1 24 <1 current 0.4	2 0 56 <1 883 987 998 1164 3345 history1 4 23 <1 4 23 <1 history1 0.4	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3 <1 ,1 history2 0.6
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 TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <i>limit/base</i> >25 >20 <i>limit/base</i> >20	2 0 55 <1 948 1034 1084 1263 3581 <u>current</u> 4 24 <1 24 <1 <u>current</u> 0.4 6.2	2 0 56 <1 883 987 998 1164 3345 history1 4 23 <1 4 23 <1 history1 0.4 6.2	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3 3 <1 history2 0.6 8.8
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 t ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >25 imit/base >6 >20 >20	2 0 55 <1 948 1034 1084 1263 3581 <u>current</u> 4 24 <1 24 <1 <u>current</u> 0.4 6.2 18.5	2 0 56 <1 883 987 998 1164 3345 history1 4 23 <1 4 23 <1 0.4 6.2 18.3	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3 <1 history2 0.6 8.8 20.1
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 t ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <i>limit/base</i> >25 >20 <i>limit/base</i> >20	2 0 55 <1 948 1034 1084 1263 3581 <i>current</i> 4 24 <1 <i>current</i> 0.4 6.2	2 0 56 <1 883 987 998 1164 3345 history1 4 23 <1 4 23 <1 history1 0.4 6.2	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3 3 <1 history2 0.6 8.8
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 t ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >25 imit/base >6 >20 >20	2 0 55 <1 948 1034 1084 1263 3581 <u>current</u> 4 24 <1 24 <1 <u>current</u> 0.4 6.2 18.5	2 0 56 <1 883 987 998 1164 3345 history1 4 23 <1 4 23 <1 0.4 6.2 18.3	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3 <1 history2 0.6 8.8 20.1
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 TS ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	0 0 0 1010 1070 1150 2260 225 220 220 imit/base >6 >20 >20 >30	2 0 55 <1 948 1034 1084 1263 3581 current 4 24 <1 current 0.4 6.2 18.5 current	2 0 56 <1 883 987 998 1164 3345 history1 4 23 <1 4 23 <1 0.4 6.2 18.3 history1	1 0 64 0 1113 1278 1247 1608 3692 history2 7 3 <1 history2 0.6 8.8 20.1 history2

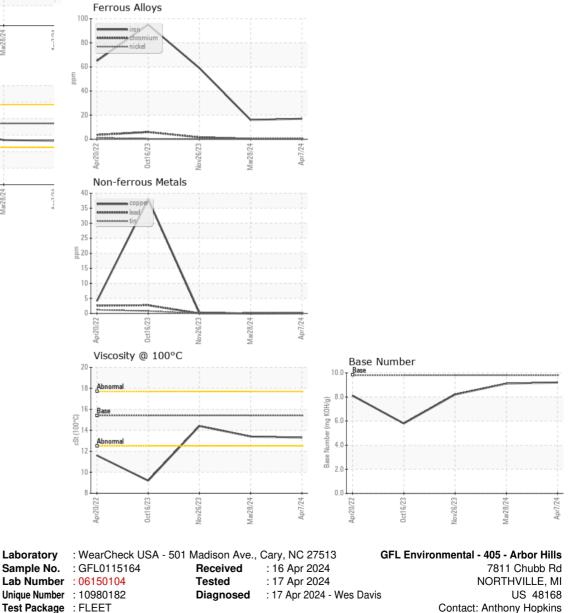


OIL ANALYSIS REPORT





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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.4	14.4
GRAPHS						



Certificate L2367 Test Package : FLEET 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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