

OIL ANALYSIS REPORT

3873 AUTOCAR ACX Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (48 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluid

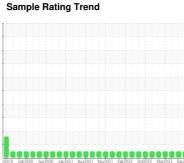
All component wear rates are normal.

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.



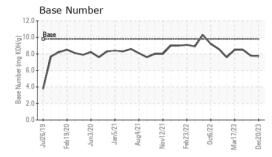


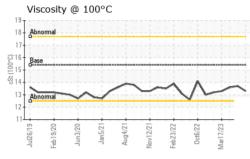
NORMAL

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0103207	GFL0089259	GFL0087104
Sample Date		Client Info		20 Dec 2023	03 Aug 2023	12 Jul 2023
Machine Age	hrs	Client Info		12949	11895	11709
Oil Age	hrs	Client Info		1054	186	937
Oil Changed		Client Info		Not Changd	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		ASTM D5185m	>165	15	19	12
-	ppm	ASTM D5185m		10	1	<1
Chromium Nickel	ppm	ASTM D5185m ASTM D5185m	>5	0	0	<1
	ppm		>4	0		< 1
Titanium Silver	ppm	ASTM D5185m	>2		<1 0	0
	ppm	ASTM D5185m	>2 >20	0	2	2
Aluminum	ppm	ASTM D5185m		_	2	_
Lead	ppm	ASTM D5185m	>150	<1		1
Copper	ppm	ASTM D5185m	>90	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1 0	0
Cadmium	ppm	ASTM D5185m			()	0
	pp	AOTIVI DOTODIII		<1	0	0
ADDITIVES	PP	method	limit/base	current	history1	history2
	ppm	method ASTM D5185m	0	current 1	history1 2	history2 1
ADDITIVES		method	0	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	current 1	history1 2	history2 1
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m	0 0 60	current 1 0	history1 2 0	history2 1 2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	current 1 0 63	history1 2 0 61	history2 1 2 63
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	current 1 0 63 <1	history1 2 0 61 <1	history2 1 2 63 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	current 1 0 63 <1 1016	history1 2 0 61 <1 975	history2 1 2 63 <1 939
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	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 1 0 63 <1 1016 1136	history1 2 0 61 <1 975 1167	history2 1 2 63 <1 939 1151
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 1 0 63 <1 1016 1136 1115	history1 2 0 61 <1 975 1167 1029	history2 1 2 63 <1 939 1151 1053
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270	current 1 0 63 <1 1016 1136 1115 1339	history1 2 0 61 <1 975 1167 1029 1314	history2 1 2 63 <1 939 1151 1053 1298
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method 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	current 1 0 63 <1 1016 1136 1115 1339 3267 current 7	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method 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	current 1 0 63 <1 1016 1136 1115 1339 3267 current	history1 2 0 61 <1 975 1167 1029 1314 3526 history1	history2 1 2 63 <1 939 1151 1053 1298 3419 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method 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 >35	current 1 0 63 <1 1016 1136 1115 1339 3267 current 7	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 limit/base >35	current 1 0 63 <1 1016 1136 1115 1339 3267 current 7 5	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8 5	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6 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 0 1010 1070 1150 1270 2060 limit/base >35	current 1 0 63 <1 1016 1136 1339 3267 current 7 5 1	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8 5 2	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6 4 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 0 1010 1070 1150 1270 2060 2060 2060 235 235 20 20 20 20 20 20 20 20 20 20 20 20 20	current 1 0 63 <1 1016 1136 1115 1339 3267 current 7 5 1 current 1 current	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8 5 2 history1	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6 4 1 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	0 0 0 1010 1070 1150 1270 2060 Imit/base >35 >20 Imit/base >7.5	current 1 0 63 <1 1016 1136 1137 3267 current 7 5 1 current 0 0.3	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8 5 2 history1 0.4	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6 4 1 history2 0.3
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 TS ppm ppm ppm	method ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >35 >20 imit/base >7.5 >20	current 1 0 63 <1 1016 1136 1115 1339 3267 current 7 5 1 current 0.3 8.9	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8 5 2 history1 0.4 8.9	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6 4 1 history2 0.3 8.3
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 TS ppm ppm ppm	method ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >35 20 imit/base >7.5 >20 >30	current 1 0 63 <1 1016 1136 1115 1339 3267 current 7 5 1 current 0.3 8.9 20.1	history1 2 0 61 <1 975 1167 1029 1314 3526 history1 8 5 2 history1 0.4 8.9 20.3	history2 1 2 63 <1 939 1151 1053 1298 3419 history2 6 4 1 history2 0.3 8.3 20.5



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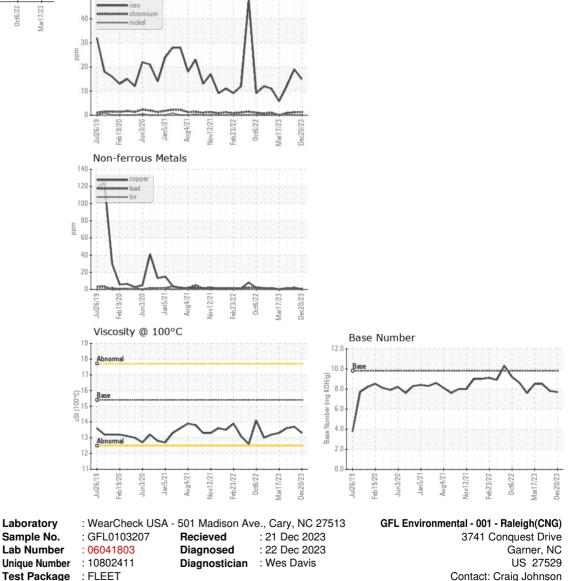




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	13.7	13.6
GRAPHS						

Ferrous Alloys

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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)

Certificate L2367

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