

OIL ANALYSIS REPORT



NORMAL

ADVANCE MIXER M130 (S/N KCB44227)

Component Diesel Engine Fluid

PETRO CANADA DURON HP 15W40 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

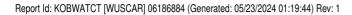
Contamination

There is no indication of any contamination in the oil.

Fluid Condition

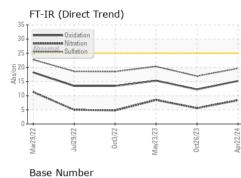
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

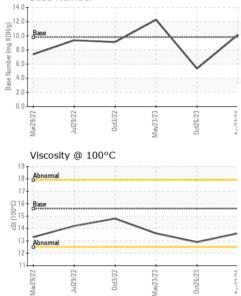
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109709	PCA0098503	PCA0098501
Sample Date		Client Info		22 Apr 2024	26 Oct 2023	23 May 2023
Machine Age	mls	Client Info		22245	21629	20824
Oil Age	mls	Client Info		22245	21629	20824
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<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	>100	44	13	38
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	1	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	1	<1
Lead	ppm	ASTM D5185m	>40	2	1	0
Copper	ppm	ASTM D5185m	>330	12	16	15
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 8	history1 28	history2 14
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	8	28	14
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	8 0	28 0	14 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 62	28 0 60	14 0 64
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 62 <1	28 0 60 <1	14 0 64 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 62 <1 925	28 0 60 <1 1002	14 0 64 <1 984
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 62 <1 925 1106	28 0 60 <1 1002 1077	14 0 64 <1 984 1098
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	limit/base	8 0 62 <1 925 1106 1035	28 0 60 <1 1002 1077 1004	14 0 64 <1 984 1098 1058
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 62 <1 925 1106 1035 1231	28 0 60 <1 1002 1077 1004 1294	14 0 64 <1 984 1098 1058 1311
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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		8 0 62 <1 925 1106 1035 1231 3421 current 6	28 0 60 <1 1002 1077 1004 1294 3361 history1 10	14 0 64 <1 984 1098 1058 1311 3656 history2 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base	8 0 62 <1 925 1106 1035 1231 3421 current 6 17	28 0 60 <1 1002 1077 1004 1294 3361 history1 10 8	14 0 64 <1 984 1098 1058 1311 3656 history2 6 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	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	limit/base	8 0 62 <1 925 1106 1035 1231 3421 current 6	28 0 60 <1 1002 1077 1004 1294 3361 history1 10	14 0 64 <1 984 1098 1058 1311 3656 history2 6
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	limit/base >25 >20 limit/base	8 0 62 <1 925 1106 1035 1231 3421 current 6 17 9 2	28 0 60 <1 1002 1077 1004 1294 3361 history1 10 8 0 0 history1	14 0 64 <1 984 1098 1058 1311 3656 history2 6 3 1 1 history2
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	limit/base >25 >20 limit/base >3	8 0 62 <1 925 1106 1035 1231 3421 current 6 17 9 current 0.5	28 0 60 <1 1002 1077 1004 1294 3361 history1 10 8 0 history1 0.2	14 0 64 <1 984 1098 1058 1311 3656 history2 6 3 1 1 history2 0.5
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	limit/base >25 >20 limit/base	8 0 62 <1 925 1106 1035 1231 3421 <i>current</i> 6 17 9 <i>current</i> 0.5 8.4	28 0 60 <1 1002 1077 1004 1294 3361 history1 10 8 0 history1 0.2 5.6	14 0 64 <1 984 1098 1058 1311 3656 history2 6 3 1 1 history2 0.5 8.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	8 0 62 <1 925 1106 1035 1231 3421 current 6 17 9 current 0.5	28 0 60 <1 1002 1077 1004 1294 3361 history1 10 8 0 history1 0.2	14 0 64 <1 984 1098 1058 1311 3656 history2 6 3 1 1 history2 0.5
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	limit/base >25 >20 limit/base >3 >20	8 0 62 <1 925 1106 1035 1231 3421 <i>current</i> 6 17 9 <i>current</i> 0.5 8.4	28 0 60 <1 1002 1077 1004 1294 3361 history1 10 8 0 history1 0.2 5.6	14 0 64 <1 984 1098 1058 1311 3656 history2 6 3 1 1 history2 0.5 8.5
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	Imit/base >25 >20 Imit/base >3 >20 >30	8 0 62 <1 925 1106 1035 1231 3421 current 6 17 9 current 0.5 8.4 19.6	28 0 60 <1 1002 1077 1004 1294 3361 history1 10 8 0 <u>history1</u> 0.2 5.6 16.9	14 0 64 <1 984 1098 1058 1311 3656 history2 6 3 1 history2 0.5 8.5 20.3





OIL ANALYSIS REPORT





VISUAL		method	limit/base	current	history	1 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	20.L	NEG	NEG	NEG
FLUID PROP		method	limit/base	current	history	1 history2
Visc @ 100°C	cSt	ASTM D445	15.6	13.6	12.9	13.6
GRAPHS						
Iron (ppm)				Lead (ppm)		
250 T			100		· · · · · · · · · · · · · · · · · · ·	
200 - Severe		1	80	Severe	1	
150 100 - Abnormal			60			
100 - Abnormal			^ස 40	Abnormal		
50			20)+		
	N m				2	m m *+
Mar29/22 Jul29/22	0ct3/22 May23/23	0ct26/23	Apr22/24	Mar29/22 Jul29/22	0ct3/22	May23/23 0ct26/23 Apr22/24
		00	Ap	2 '	:	Ap Oc Ap
Aluminum (ppm)		, - 50	Chromium (p	pm)	
40 Severe	1	1	40	Severa	1	
20			20			
20 Abnormal		1	E 20	Abnormal		
10			10	T		
0						
	0ct3/22 -	0ct26/23 -	Apr22/24 -		0ct3/22 -	Лау23/23 - 0ct26/23 - Apr22/24 -
Mar29/22 Jul29/22	0ct3/22 May23/23	0ct2	Apr2	Mar29/22 Jul29/22	00	May/23/23 0ct26/23 Apr22/24
Copper (ppm)				Silicon (ppm)		
400 Severe			80	Severe	1	1 1 1
300 -			60	•		
200-			<u></u> 40			
100			20	Abrormal		
22	722 -	/23 +	24		22	23 +
Mar29/22 Jul29/22	0ct3/22 May23/23	0ct26/23	Apr22/24	Mar29/22 Jul29/22	0ct3/22	May23/23 - 0ct26/23 - Apr22/24 -
 Viscosity @ 100°		_		Base Number		2 - 7
²⁰ T					· ,	
18 Abnormal			Base Number (mg KOH/g)	Rase		\sim
16 Base		· · · · · · · · · · · · · · · · · · ·		Base		
16 Base						
12 - Abnormal			N S.C			
10	2				5	
Mar29/22 Jul29/22	0ct3/22 May23/23	0ct26/23	Apr22/24	Mar29/22 Jul29/22	0ct3/22	May23/23 0ct26/23 Apr22/24
Jui	0 May	Oct	Ap	Ma	0	Apr Oct
WearCheck USA - 5						LUCK TRUCKING
PCA0109709	Recei		May 2024			4 INDUSTRIAL DR
: <mark>06186884</mark> : 11043636	Teste Diagr		8 May 2024 May 2024 - W	les Davis		WATERFORD, CT US 06385
MOB 2	Diagi	.20	way 2024 - W	Davis		Contact: GEORGE
	miles at 1 0	00 227 1260	,	05		

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: KOBWATCT [WUSCAR] 06186884 (Generated: 05/23/2024 01:19:44) Rev: 1

Certificate L2367

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Laboratory Sample No. Lab Number **Unique Number** Test Package

Contact/Location: GEORGE ? - KOBWATCT

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