

OIL ANALYSIS REPORT

Watkins Block Truck Shop Omaha 03 Nissan Forklift [Watkins Block Truck Shop Omaha] Component

Middle Propane Engine

PETRO CANADA SUPREME 5W30 (4 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

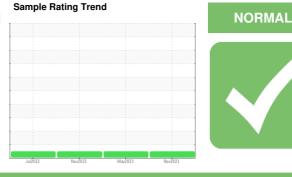
All component wear rates are normal.

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 Date Client Info 13 Nov 2023 18 May 2023 28 Nov 2022 Machine Age hrs Client Info 4821 4132 3346 Oil Age hrs Client Info 281 355 321 Oil Changed Client Info Changed Changed Changed Sample Status Imit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Water WC Method >0.1 NEG NEG NEG Chromium ppm ASTM 05/85m >100 16 8 13 Chromium ppm ASTM 05/85m >25 3 1 2 Nickel ppm ASTM 05/85m >20 <1 <1 1 Silver ppm ASTM 05/85m >20 <1 0 <1 Copper ppm ASTM 05/85m >35 <1 0 <1 Chromium ppm ASTM 05/8	Sample Number Sample Date						
Sample Date Client Info 13 Nov 2023 18 May 2023 28 Nov 2022 Machine Age hrs Client Info 4821 4132 3346 Oil Age hrs Client Info 281 355 321 Oil Changed Client Info Changed Changed Changed Changed Sample Status NORMAL NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Wear WC Method >0.1 NEG NEG NEG Vickel ppm ASTM D5185m >10 16 8 13 Chromium ppm ASTM D5185m >20 <1 <1 <1 Silver ppm ASTM D5185m >5 0 <1 <1 Capper ppm ASTM D5185m >35 <1 0 0 Capper	Sample Date				SBP0005962	SBP0002230	SBP0002219
Machine AgehrsClient Info482141323346Oil AgehrsClient Info281355321Oil ChangedClient InfoChangedChangedChangedSample Statusimit/basecurrenthistory1history2WaterWC Method>0.1NEGNEGNEGWEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5185m>10016813ChromiumppmASTM D5185m>20312NickelppmASTM D5185m>2050<1<1SilverppmASTM D5185m>20524LeadppmASTM D5185m>25<10<1<1CopperppmASTM D5185m>25<10<1<1CopperppmASTM D5185m>25<10<1<1CopperppmASTM D5185m>35<11<1<1TinppmASTM D5185m<646<2<1<1<1CopperppmASTM D5185m<6<4165<5<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<			Client Info				
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Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Wear ppm ASTM D5185m >100 16 8 13 Chromium ppm ASTM D5185m >25 3 1 2 Nickel ppm ASTM D5185m >5 0 <1 <1 Nickel ppm ASTM D5185m >5 0 <1 <1 Silver ppm ASTM D5185m >20 5 2 4 Lead ppm ASTM D5185m >20 5 2 4 Lead ppm ASTM D5185m >35 1 1 <1 Capper ppm ASTM D5185m >35 <1 1 <1 Cademium ppm ASTM D5185m >3 <1 <1 <1 <	Oil Age	hrs	Client Info		281	355	321
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 16 8 13 Chromium ppm ASTM D5185m >25 3 1 2 Nickel ppm ASTM D5185m >5 0 <1 <1 Aluminum ppm ASTM D5185m >5 0 <1 <1 Aluminum ppm ASTM D5185m >20 5 2 4 Lead ppm ASTM D5185m >25 <1 0 <1 Cadmium ppm ASTM D5185m >35 <1 1 <1 Cadmium ppm ASTM D5185m 0 <1 <1 <1 Cadmium ppm ASTM D5185m 186 142 138	Oil Changed		Client Info		Changed	Changed	Changed
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 16 8 13 Chromium ppm ASTM D5185m >25 3 1 2 Nickel ppm ASTM D5185m >5 0 <1 <1 Silver ppm ASTM D5185m >5 0 <1 <1 Aluminum ppm ASTM D5185m >5 0 <1 <1 Aluminum ppm ASTM D5185m >20 5 2 4 Lead ppm ASTM D5185m >25 <1 0 <1 Caddium ppm ASTM D5185m >8 6 4 6 Vanadium ppm ASTM D5185m <1 <1 <1 <1 Cadmium ppm ASTM D5185m 16 142 138 55	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 16 8 13 Chromium ppm ASTM D5185m >25 3 1 2 Nickel ppm ASTM D5185m >5 0 <1 <1 Titanium ppm ASTM D5185m >5 0 <1 <1 Silver ppm ASTM D5185m >5 0 <1 <1 Auminum ppm ASTM D5185m >5 0 <1 <1 Lead ppm ASTM D5185m >25 <1 0 <1 Copper ppm ASTM D5185m >8 6 4 6 Vanadium ppm ASTM D5185m 0 0 0 0 ADDITVES method limit/base current history1 history2 Boron ppm ASTM D5185m 1 0 0	CONTAMINATION		method	limit/base	current	history1	history2
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Chromium ppm ASTM D5185m >25 3 1 2 Nickel ppm ASTM D5185m >5 0 <1 <1 Titanium ppm ASTM D5185m >5 0 <1 <1 Silver ppm ASTM D5185m >5 0 <1 <1 Aluminum ppm ASTM D5185m >20 5 2 4 Lead ppm ASTM D5185m >20 5 2 4 Lead ppm ASTM D5185m >20 5 2 4 Copper ppm ASTM D5185m >25 <1 0 <1 Cadmium ppm ASTM D5185m >36 6 4 6 Vanadium ppm ASTM D5185m >8 6 4 6 Vanadium ppm ASTM D5185m 71 0 0 0 Cadmium ppm ASTM D5185m 79 68 74 <	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >5 0 <1	Iron	ppm	ASTM D5185m	>100	16	8	13
Titanium ppm ASTM D5185m <1	Chromium	ppm	ASTM D5185m	>25	3	1	2
Silver ppm ASTM D5185m >5 0 <1	Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Aluminum ppm ASTM D5185m >20 5 2 4 Lead ppm ASTM D5185m >25 <1 0 <1 Copper ppm ASTM D5185m >35 <1 1 <1 Tin ppm ASTM D5185m >8 6 4 6 Vanadium ppm ASTM D5185m >8 6 4 6 Cadmium ppm ASTM D5185m >8 6 4 6 Cadmium ppm ASTM D5185m 8 <1 <1 <1 <1 Cadmium ppm ASTM D5185m 186 142 138 55 Boron ppm ASTM D5185m 186 142 138 55 Barium ppm ASTM D5185m 79 68 74 165 Magnesium ppm ASTM D5185m 778 581 581 524 Calcium ppm ASTM D5185m 745 7	Titanium	ppm	ASTM D5185m		<1	<1	<1
Lead ppm ASTM D5185m >25 <1	Silver	ppm	ASTM D5185m	>5	0	<1	<1
Copper ppm ASTM D5185m >35 <1	Aluminum	ppm	ASTM D5185m	>20	5	2	4
Tin ppm ASTM D5185m >8 6 4 6 Vanadium ppm ASTM D5185m Image: Constraint of the story of the	Lead	ppm	ASTM D5185m	>25	<1	0	<1
Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>35	<1	1	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 186 142 138 55 Barium ppm ASTM D5185m 186 142 138 55 Barium ppm ASTM D5185m 0 0 <1	Tin			>8	6	4	6
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 186 142 138 55 Barium ppm ASTM D5185m 186 142 138 55 Barium ppm ASTM D5185m <1 0 0 <1 Molybdenum ppm ASTM D5185m 79 68 74 165 Manganese ppm ASTM D5185m 79 68 74 165 Magnesium ppm ASTM D5185m 79 68 74 165 Calcium ppm ASTM D5185m 578 581 581 524 Calcium ppm ASTM D5185m 1002 1325 1352 1411 Phosphorus ppm ASTM D5185m 745 766 735 727 Zinc ppm ASTM D5185m 2502 3216 3380 2546 CONTAMINANTS method limit/base		ppm	ASTM D5185m				
Boron ppm ASTM D5185m 186 142 138 55 Barium ppm ASTM D5185m <1 0 0 <1 Molybdenum ppm ASTM D5185m 79 68 74 165 Manganese ppm ASTM D5185m 79 68 74 165 Magnesium ppm ASTM D5185m 79 68 74 165 Calcium ppm ASTM D5185m 0 <1 <1 <1 Phosphorus ppm ASTM D5185m 578 581 581 524 Calcium ppm ASTM D5185m 1002 1325 1352 1411 Phosphorus ppm ASTM D5185m 745 766 735 727 Zinc ppm ASTM D5185m 837 936 914 889 Sulfur ppm ASTM D5185m 2502 3216 3380 2546 CONTAMINANTS method limit/base	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 79 68 74 165 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 578 581 581 524 Calcium ppm ASTM D5185m 1002 1325 1352 1411 Phosphorus ppm ASTM D5185m 745 766 735 727 Zinc ppm ASTM D5185m 837 936 914 889 Sulfur ppm ASTM D5185m 2502 3216 3380 2546 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 19 14 8 Sodium ppm ASTM D5185m >20 3 4 1 INFRA-RED method limit/base current history1 history2	Boron	ppm	ASTM D5185m	186	142	138	55
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	<1	0	0	<1
Magnesium ppm ASTM D5185m 578 581 581 524 Calcium ppm ASTM D5185m 1002 1325 1352 1411 Phosphorus ppm ASTM D5185m 745 766 735 727 Zinc ppm ASTM D5185m 837 936 914 889 Sulfur ppm ASTM D5185m 2502 3216 3380 2546 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 19 14 8 Sodium ppm ASTM D5185m >20 3 4 1 INFRA-RED method limit/base current history1 history2	Molybdenum	ppm	ASTM D5185m	79	68	74	165
Calcium ppm ASTM D5185m 1002 1325 1352 1411 Phosphorus ppm ASTM D5185m 745 766 735 727 Zinc ppm ASTM D5185m 837 936 914 889 Sulfur ppm ASTM D5185m 2502 3216 3380 2546 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 19 14 8 Sodium ppm ASTM D5185m >20 3 1 1 Potassium ppm ASTM D5185m >20 3 4 1	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus ppm ASTM D5185m 745 766 735 727 Zinc ppm ASTM D5185m 837 936 914 889 Sulfur ppm ASTM D5185m 2502 3216 3380 2546 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 19 14 8 Sodium ppm ASTM D5185m >50 19 14 8 Potassium ppm ASTM D5185m >20 3 1 1 INFRA-RED method limit/base current history1 history2	Magnesium	ppm	ASTM D5185m	578	581	581	524
Zinc ppm ASTM D5185m 837 936 914 889 Sulfur ppm ASTM D5185m 2502 3216 3380 2546 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 19 14 8 Sodium ppm ASTM D5185m >20 3 1 Potassium ppm ASTM D5185m >20 3 4 1 INFRA-RED method limit/base current history1 history2	Calcium	ppm	ASTM D5185m	1002	1325	1352	1411
SulfurppmASTM D5185m2502321633802546CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>5019148SodiumppmASTM D5185m231PotassiumppmASTM D5185m>20341INFRA-REDmethodlimit/basecurrenthistory1history2	Phosphorus	ppm	ASTM D5185m	745	766	735	727
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m<>5019148SodiumppmASTM D5185m231PotassiumppmASTM D5185m>20341INFRA-REDmethodlimit/basecurrenthistory1history2	Zinc	ppm	ASTM D5185m	837	936	914	889
Silicon ppm ASTM D5185m >50 19 14 8 Sodium ppm ASTM D5185m 2 3 1 Potassium ppm ASTM D5185m >20 3 4 1 INFRA-RED method limit/base current history1 history2	Sulfur	ppm	ASTM D5185m	2502	3216	3380	2546
SodiumppmASTM D5185m231PotassiumppmASTM D5185m>20341INFRA-REDmethodlimit/basecurrenthistory1history2	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 4 1 INFRA-RED method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>50	19	14	8
INFRA-RED method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		2	3	1
	Potassium	ppm	ASTM D5185m	>20	3	4	1
Soot % *ASTM D7844 0.1 0 0.1	INFRA-RED		method	limit/base	current	history1	history2
	Soot %	%	*ASTM D7844		0.1	0	0.1
Nitration Abs/cm *ASTM D7624 >20 7.5 7.8 7.8	Nitration	Abs/cm	*ASTM D7624	>20		7.8	7.8
FLUID DEGRADATION method limit/base current history1 history2	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	10.0	10.0	10.2
		mg KOH/g		7.0	5.4	5.6	6.0



OIL ANALYSIS REPORT

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

10.4

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

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10.4

NONE

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NONE

NONE

NONE

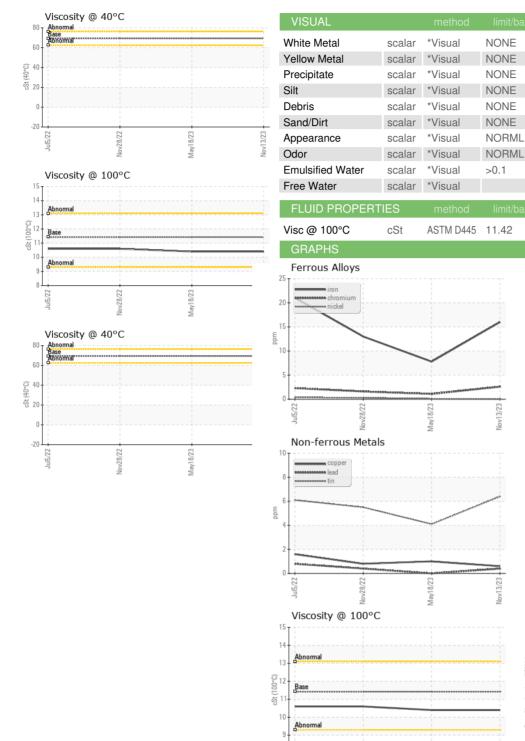
NORML

NORML

NEG

NEG

10.6

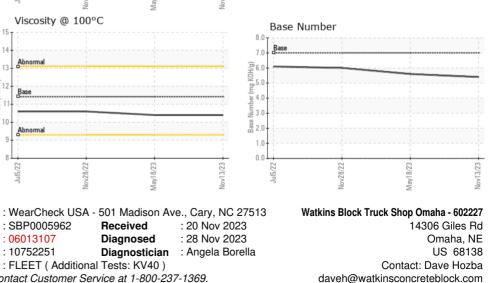


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lul5/22

: SBP0005962

:06013107



Nov13/23 -

Unique Number : 10752251 Test Package : FLEET (Additional Tests: KV40) Certificate L2367 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.

Laboratory

Sample No.

Lab Number

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Jov28/22

Vlay18/23

Received

Diagnosed

Diagnostician

T: (402)894-6518

F: