

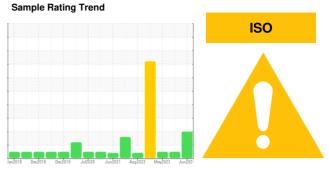
OIL ANALYSIS REPORT

MK-100

B61318 - PALLET INVERTER CHERRYS INDUSTRIAL SC-75P

Hydraulic System

PETRO CANADA ENVIRON AW 46 (--- QTS)



DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Machine Age mls Client Info 0 0 0 Oil Age mls Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 <1 <1 Chromium ppm ASTM D5185m >20 <1 0 <1 <1 Nickel ppm ASTM D5185m >20 <1 0 0 <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	,						
Sample Date Client Info 04 Jun 2024 05 Dec 2023 29 May 2023 Machine Age mls Client Info 0 0 0 0 Oil Age mls Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Client Info N/A ABNORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185m >20 •1 •1 •1 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185m >20 •1 •1 •1 WEAR METALS method limit/base •0 •0 •0	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 0 0 0 Oil Age mls Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 <1 <1 Chromium ppm ASTM D5185m >20 <1 0 <1 <1 <1 Nickel ppm ASTM D5185m >20 <1 0	Sample Number		Client Info		WC0930414	WC0866785	WC0791968
Oil Age Oil Changed Oil Changed Sample Status Client Info N/A <	Sample Date		Client Info		04 Jun 2024	05 Dec 2023	29 May 2023
Oil Changed Sample Status Client Info N/A ABNORMAL ABNORMAL NORMAL N/A NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Machine Age	mls	Client Info		0	0	0
Sample Status method limit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 <1 Chromium ppm ASTM D5185m >20 0 <1 <1 Nickel ppm ASTM D5185m >20 <1 0 0 Silver ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0 Lead ppm ASTM D5185m >20 0 0 0 Lead ppm ASTM D5185m >20 0 0 0 Vanadium ppm ASTM D5185m >20 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 <th>Oil Age</th> <th>mls</th> <th>Client Info</th> <th></th> <th>0</th> <th>0</th> <th>0</th>	Oil Age	mls	Client Info		0	0	0
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Oil Changed		Client Info		N/A	N/A	N/A
Water WC Method >0.05 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 <1 Chromium ppm ASTM D5185m >20 <1 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 0 0 0 Tin ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0	CONTAMINATION	J	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.05	NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >20 <1 0 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m 220 0 0 0 0 Lead ppm ASTM D5185m >20 0 0 0 0 Copper ppm ASTM D5185m >20 0 0 0 0 Tin ppm ASTM D5185m >20 0 0 0 0 0 Vanadium ppm ASTM D5185m >20 0 0 0 0 0 Vanadium ppm ASTM D5185m >20 0 0 0 0 0 Vanadium ppm ASTM D5185m >0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Iron	ppm	ASTM D5185m	>20	<1	0	<1
Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 0 0 0 Tin ppm ASTM D5185m >20 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Magneseum ppm ASTM D5185m 0 0 0 <1	Chromium	ppm	ASTM D5185m	>20	0	<1	<1
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Aluminum ppm ASTM D5185m >20 0 0 <1	Titanium	ppm	ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >20 0 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >20 0 0 0 Tin ppm ASTM D5185m >20 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 <1 0 Calcium ppm ASTM D5185m 0 4 1 <1 <1 Phosphorus ppm ASTM D5185m 0 10 0 4 32 Zinc ppm ASTM D5185m	Aluminum	ppm	ASTM D5185m	>20	0	0	0
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Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 <1	Copper	ppm	ASTM D5185m	>20	0	0	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 -1 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 -1 0 0 Magnesium ppm ASTM D5185m 0 4 1 <1 Calcium ppm ASTM D5185m 0 465 463 432 Zinc ppm ASTM D5185m 0 10 0 4 Sulfur ppm ASTM D5185m 1280 597 565 571 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 2 0 0	Tin	ppm	ASTM D5185m	>20	0	0	0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 <1 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 <1 Calcium ppm ASTM D5185m 0 4 1 <1 Phosphorus ppm ASTM D5185m 0 465 463 432 Zinc ppm ASTM D5185m 1280 597 565 571 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >1 2 0 0 Potassium ppm ASTM D5185m >20 2 <t< th=""><th>Vanadium</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>0</th><th>0</th><th>0</th></t<>	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	0	<1	0	0
Magnesium ppm ASTM D5185m 0 0 0 <1	Molybdenum	ppm	ASTM D5185m	0	0	0	0
Calcium ppm ASTM D5185m 0 4 1 <1	Manganese	ppm	ASTM D5185m	0	<1	0	0
Phosphorus ppm ASTM D5185m 650 465 463 432 Zinc ppm ASTM D5185m 0 10 0 4 Sulfur ppm ASTM D5185m 1280 597 565 571 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 2 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >20000 Δ 50393 4016 13364 Particles >6μm ASTM D7647 >5000 Δ 13212 1271 4766 Particles >14μm ASTM D7647 >640 Δ 1302 145 550	Magnesium	ppm	ASTM D5185m	0	0	0	<1
Zinc ppm ASTM D5185m 0 10 0 4 Sulfur ppm ASTM D5185m 1280 597 565 571 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 2 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >20000 Δ 50393 4016 13364 Particles >6μm ASTM D7647 >5000 Δ 13212 1271 4766 Particles >14μm ASTM D7647 >640 Δ 1302 145 550	Calcium	ppm	ASTM D5185m	0	4	1	<1
Sulfur ppm ASTM D5185m 1280 597 565 571 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 2 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >20000 △ 50393 4016 13364 Particles >6µm ASTM D7647 >5000 △ 13212 1271 4766 Particles >14µm ASTM D7647 >640 △ 1302 145 550	Phosphorus	ppm	ASTM D5185m	650	465	463	432
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 2 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >20000 Δ 50393 4016 13364 Particles >6μm ASTM D7647 >5000 Δ 13212 1271 4766 Particles >14μm ASTM D7647 >640 Δ 1302 145 550	Zinc	ppm	ASTM D5185m	0	10	0	4
Silicon ppm ASTM D5185m >15 4 2 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 0 <1	Sulfur	ppm	ASTM D5185m	1280	597	565	571
Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 0 <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 0 <1	Silicon	ppm	ASTM D5185m	>15	4	2	2
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >20000 Δ 50393 4016 13364 Particles >6μm ASTM D7647 >5000 Δ 13212 1271 4766 Particles >14μm ASTM D7647 >640 Δ 1302 145 550	Sodium	ppm	ASTM D5185m		2	0	0
Particles >4μm ASTM D7647 >20000 Δ 50393 4016 13364 Particles >6μm ASTM D7647 >5000 Δ 13212 1271 4766 Particles >14μm ASTM D7647 >640 Δ 1302 145 550	Potassium	ppm	ASTM D5185m	>20	2	0	<1
Particles >6μm ASTM D7647 >5000 Δ 13212 1271 4766 Particles >14μm ASTM D7647 >640 Δ 1302 145 550	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >640 ▲ 1302 145 550	Particles >4µm		ASTM D7647	>20000	▲ 50393	4016	13364
·	Particles >6µm		ASTM D7647	>5000	<u> </u>	1271	4766
Porticles : 21 um	Particles >14µm		ASTM D7647	>640	<u> </u>		
Particles >21μm A51M D7047 >100 A347 42 140	Particles >21µm		ASTM D7647	>160	<u></u> 347	42	140
Particles >38μm ASTM D7647 >40 15 2 4				>40	15	2	4
Particles >71 μ m ASTM D7647 >10 1 0	Particles >71µm		ASTM D7647	>10	1	0	0
Oil Cleanliness ISO 4406 (c) >21/19/16 🛕 23/21/18 19/17/14 21/19/16	Oil Cleanliness		ISO 4406 (c)	>21/19/16	<u>23/21/18</u>	19/17/14	21/19/16
FLUID DEGRADATION method limit/base current history1 history2	FLUID DEGRADA	TION	method	limit/base	current	history1	history2

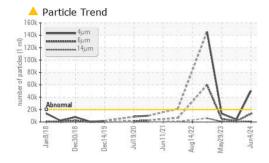
Acid Number (AN)

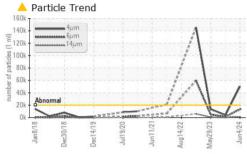
mg KOH/g ASTM D8045 0.11

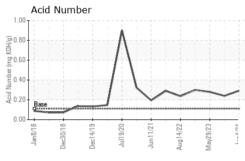
0.24

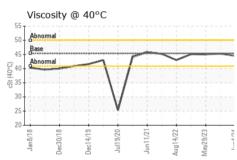


OIL ANALYSIS REPORT

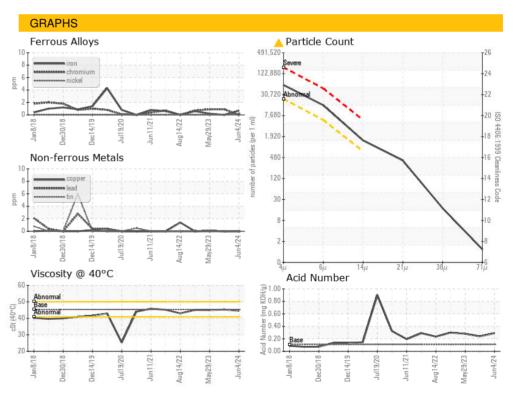








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.4	44.5	45.3	45.0
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color						







Certificate 12367

Laboratory Sample No.

: WC0930414 Lab Number : 06204547

Unique Number : 11072008

Bottom

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 10 Jun 2024 **Tested** : 11 Jun 2024

Diagnosed

: 11 Jun 2024 - Wes Davis

Test Package : IND 2 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)

HORMEL FOODS - AUSTIN

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