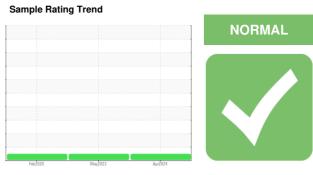


OIL ANALYSIS REPORT

PALASYN 45

PALATEK 12CV0346CDF - MAYVILLE WATER TREATMENT PLANT

Component Compressor



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

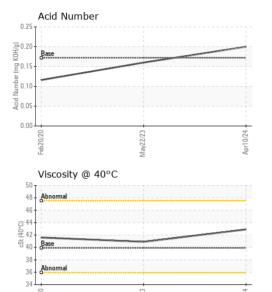
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

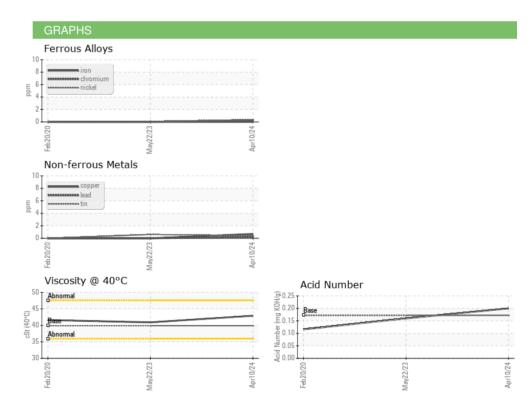
Sample Number Client Info UCS06159224 UCS05864441 UCS04923 Sample Date Client Info 10 Apr 2024 22 May 2023 20 Feb 202 20 Machine Age hrs Client Info 105736 97990 69482 6821 4000 8000 001 Changed Client Info Changed Changed Changed Changed NORMAL NORMAL							
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 105736 97990 69482 Oil Age hrs Client Info 6821 4000 8000 Oil Changed Client Info Changed Changed Changed Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 Water WC Method >0.1 NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 Othromium ppm ASTM D5185m >10 <1	Sample Number		Client Info		UCS06159224	UCS05864441	UCS04923900
Dil Age	Sample Date		Client Info		10 Apr 2024	22 May 2023	20 Feb 2020
Oil Changed Sample Status Client Info Changed NORMAL NEG	Machine Age	hrs	Client Info		105736	97990	69482
NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history	Oil Age	hrs	Client Info		6821	4000	8000
CONTAMINATION method limit/base current history1 history1 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 Chromium ppm ASTM D5185m >10 <1	Oil Changed		Client Info		Changed	Changed	Changed
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 Chromium ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m <1 0 0 0 Silver ppm ASTM D5185m <25 2 0 0 Aluminum ppm ASTM D5185m >25 <1 0 0 Aluminum ppm ASTM D5185m >25 <1 0 0 Lead ppm ASTM D5185m >50 <1 0 0 Copper ppm ASTM D5185m >50 <1 0 0 Appm ASTM D5185m >50 <1 0 0 0 Vanadium ppm ASTM D5185m <1 0 0 0 <td>Sample Status</td> <td></td> <td></td> <td></td> <th>NORMAL</th> <td>NORMAL</td> <td>NORMAL</td>	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 Chromium ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m <1 0 0 0 Silver ppm ASTM D5185m <1 0 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Aluminum ppm ASTM D5185m >25 <1 0 0 Lead ppm ASTM D5185m >50 <1 0 0 Copper ppm ASTM D5185m >50 <1 0 0 Tin ppm ASTM D5185m >15 <1 <1 0 0 Antimony ppm ASTM D5185m >15 <1 <1 0 0 Cadmium ppm ASTM D5185m <1	CONTAMINATIO	N	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.1	NEG	NEG	NEG
Chromium ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	0	0	0
Titanium	Chromium	ppm	ASTM D5185m	>10	<1	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >25 <1 0 0 Copper ppm ASTM D5185m >50 <1 0 0 Tin ppm ASTM D5185m >15 <1 <1 0 Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m <1 0 0 0 Cadmium ppm ASTM D5185m <1 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0.0 0 0 0 Barium ppm ASTM D5185m 0.0 0 0 0 Magnesium ppm ASTM D5185m 0.0 <1 0 0 <td>Nickel</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th><1</th> <td>0</td> <td>0</td>	Nickel	ppm	ASTM D5185m		<1	0	0
Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >25 <1	Titanium	ppm	ASTM D5185m		<1	0	0
Lead ppm ASTM D5185m >25 <1 0 0 Copper ppm ASTM D5185m >50 <1 0 0 Tin ppm ASTM D5185m >15 <1 <1 0 Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m <1 0 0 Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0.0 0 0 0 Mary ASTM D5185m	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >50 <1 0 0 Tin ppm ASTM D5185m >15 <1	Aluminum	ppm	ASTM D5185m	>25	2	0	0
Tin ppm ASTM D5185m >15 <1 <1 0 Antimony ppm ASTM D5185m >15 <1 0 Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m <1 0 Cadmium ppm ASTM D5185m <1 0 ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 0.0 0 0 Barium ppm ASTM D5185m 0.0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0.0 0 0 Calcium ppm ASTM D5185m 0.0 0 0 Calcium ppm ASTM D5185m 0.0 0 1 Calcium ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m >20 <1 0 0 FLUID DEGRADATION method limit/base current history1 history	Lead	ppm	ASTM D5185m	>25	<1	0	0
Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>50	<1	0	0
Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0.0 0 0 0 Barium ppm ASTM D5185m 0.0 0 0 0 Molybdenum ppm ASTM D5185m 0.0 0 0 0 Manganese ppm ASTM D5185m 0.0 <1 0 0 Magnesium ppm ASTM D5185m 0.0 <1 0 0 Calcium ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 225 21 10 2	Tin	ppm	ASTM D5185m	>15	<1	<1	0
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0.0 0 0 0 Barium ppm ASTM D5185m 0.0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1	Antimony	ppm	ASTM D5185m				0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0.0 0 0 0 Barium ppm ASTM D5185m 0.0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 0.0 0 0 0 Barium ppm ASTM D5185m 0.0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 0 0 <1 0 0 Magnesium ppm ASTM D5185m 0.0 <1 0 0 0 Calcium ppm ASTM D5185m 0.0 3 0 0 0 Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 0 <1 Potassium ppm <td>Cadmium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th><1</th> <td>0</td> <td>0</td>	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium ppm ASTM D5185m 0.0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 0 0 <1 Magnesium ppm ASTM D5185m 0.0 <1 0 0 Calcium ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 21 1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 <1 FLUID DEGRADATION method limit/base <	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 0 0 <1 Magnesium ppm ASTM D5185m 0.0 <1 0 0 Calcium ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m >20 <1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0	Boron	ppm	ASTM D5185m	0.0	0	0	0
Manganese ppm ASTM D5185m 0 0 0 <1 Magnesium ppm ASTM D5185m 0.0 <1 0 0 Calcium ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m >20 <1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0	Barium	ppm	ASTM D5185m	0.0	0	0	0
Magnesium ppm ASTM D5185m 0.0 <1 0 0 Calcium ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m >20 <1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0	Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Calcium ppm ASTM D5185m 0.0 3 0 0 Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m <1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0 FLUID DEGRADATION method limit/base current history1 history	Manganese	ppm	ASTM D5185m	0	0	0	<1
Phosphorus ppm ASTM D5185m 966 546 563 554 Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m < 1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0 FLUID DEGRADATION method limit/base current history1 history	Magnesium	ppm	ASTM D5185m	0.0	<1	0	0
Zinc ppm ASTM D5185m 0 0 0 15 Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m <1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0 FLUID DEGRADATION method limit/base current history1 history	Calcium	ppm	ASTM D5185m	0.0	3	0	0
Sulfur ppm ASTM D5185m 1309 616 312 251 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m <1	Phosphorus	ppm	ASTM D5185m	966	546	563	554
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m <1	Zinc	ppm	ASTM D5185m	0	0	0	15
Silicon ppm ASTM D5185m >25 21 10 2 Sodium ppm ASTM D5185m <1 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0 FLUID DEGRADATION method limit/base current history1 history	Sulfur	ppm	ASTM D5185m	1309	616	312	251
Sodium ppm ASTM D5185m <1 0 <1 Potassium ppm ASTM D5185m >20 <1	CONTAMINANTS	6	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 0 0 FLUID DEGRADATION method limit/base current history1 history	Silicon	ppm	ASTM D5185m	>25	21	10	2
FLUID DEGRADATION method limit/base current history1 history	Sodium	ppm	ASTM D5185m		<1	0	<1
	Potassium	ppm	ASTM D5185m	>20	<1	0	0
Acid Number (AN) mg KOH/g ASTM D8045 0.172 0.20 0.16 0.116	FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.172	0.20	0.16	0.116

Sullivan

OIL ANALYSIS REPORT



VISUAL		اه و ملاه موا	limait/lanana		la i a ta mud	la i a ta mu O
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	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	39.9	42.9	40.9	41.6
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						







Certificate 12367

Laboratory

Sample No. : UCS06159224

Lab Number : 06159224 Unique Number : 10994647 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 24 Apr 2024

Tested : 25 Apr 2024 Diagnosed

: 26 Apr 2024 - Jonathan Hester

WEST FARGO, ND US 58078

JEMCO-MAXAIR

Contact: DALE K dalek@jemco-maxair.com

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.

T: (701)281-0362 F: x:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Report Id: UCJEMWES [WUSCAR] 06159224 (Generated: 04/26/2024 09:48:51) Rev: 1

Contact/Location: DALE K - UCJEMWES