Sullivan Palatek.

OIL ANALYSIS REPORT

Oil Changed Sample Status

Oil Age

Water

Iron

Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Cadmium

Area **PALEXTRA 44** PALATEK 1812040007 - TRUE NORTH S

Component Compressor

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

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NORTH ST	EEL		Fed2022	1 Maž024		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number Sample Date Machine Age	hrs hrs	Client Info Client Info Client Info Client Info		UCS06137520 25 Mar 2024 44805 0	UCS05479275 16 Feb 2022 12882 4000	
Oil Age Oil Changed	nirs	Client Info		0 Not Changd	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	2	1	
Iron Chromium	ppm ppm	ASTM D5185m ASTM D5185m		2 0	1 0	
-			>50			
Chromium	ppm	ASTM D5185m	>50	0	0	
Chromium Nickel	ppm ppm	ASTM D5185m ASTM D5185m	>50	0 0	0	
Chromium Nickel Titanium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>50	0 0 0	0 0 0 0 1	
Chromium Nickel Titanium Silver	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >10 >25 >25	0 0 0 0 0 0	0 0 0 1 0	
Chromium Nickel Titanium Silver Aluminum	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >10 >25	0 0 0 0 0 0 0 0	0 0 0 1 0 <1	
Chromium Nickel Titanium Silver Aluminum Lead	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >10 >25 >25	0 0 0 0 0 0	0 0 0 0 1 0 <1 <1	
Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >10 >25 >25 >25 >50	0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 <1 <1 <1 <1	
Chromium Nickel Titanium Silver Aluminum Lead Copper Tin	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >10 >25 >25 >25 >50	0 0 0 0 0 0 0 0 0	0 0 0 0 1 0 <1 <1	

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	
Barium	ppm	ASTM D5185m	0.3	0	0	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m	0.3	0	<1	
Magnesium	ppm	ASTM D5185m	0.4	0	0	
Calcium	ppm	ASTM D5185m	0	0	0	
Phosphorus	ppm	ASTM D5185m	689	614	594	
Zinc	ppm	ASTM D5185m	0	0	0	
Sulfur	ppm	ASTM D5185m	1237	300	218	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	1	
Sodium	ppm	ASTM D5185m		<1	0	
Potassium	ppm	ASTM D5185m	>20	0	0	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2

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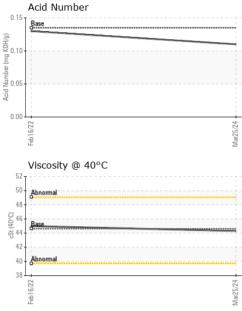


NORMA



OIL ANALYSIS REPORT

VISUAL



			method	limit/base	current	history 1	history2
	White Metal	scalar	*Visual	NONE	NONE	MODER	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	MODER	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
- 24	Appearance	scalar	*Visual	NORML	NORML	NORML	
Mar25/24							
2	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPERT	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	44.62	44.3	44.99	
	SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Mar25/24	Color				a		no image
	Bottom						no image
	GRAPHS			33			
	Ferrous Alloys						
	10 iron						
	o - chromium						
	C new nickel						
	E 6 a						
	C new nickel						
	C new nickel						
	E 6 4			5/24			
	C new nickel			Mar25/24			
	e 6	<u> </u>		Mar25/24			
	E 6 4	s		Mar25/24			
	Non-ferrous Metal	S		Mat25/24			
	Non-ferrous Metal	s		Mar25/24			
	Non-ferrous Metal	S		Mar25/24 #			
	Non-ferrous Metal	s		Mar25/24			
	Non-ferrous Metal	s					
	Non-ferrous Metal	s					
	Non-ferrous Metal	5		Mar25/24 Mar25/24			
	Non-ferrous Metal	5		Mar25/24	Acid Number		
	Non-ferrous Metal	5		Mar25/24			
	Non-ferrous Metal	S		Mar25/24			
	Non-ferrous Metal	S		Mar25/24			
	Non-ferrous Metal	S		Mar25/24			
	Non-ferrous Metal	S		Mar25/24			
	Non-ferrous Metal	S		Mar255/24 0.10 0.02 0.00 0.00	Base		
	Non-ferrous Metal	S		Mar255/24 0.10 0.02 0.00 0.00	Base		
	Non-ferrous Metal	S		ed Mumber (m 10.00 0.10 0.00 0.00 0.00 0.00 0.00 0.			
Laboratory	Non-ferrous Metal	1 Madisc		B-2/5222PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW	Base		
Sample No.	Non-ferrous Metal Non-ferrous Metal Viscosity @ 40°C Viscosity @ 40°C	1 Madisc Recei	ived : 03	(0,15 b) b) b) b) b) b) b) b) b) b) b) b) b)	Base	JE	MCO-MAXA
<u> </u>	Non-ferrous Metal	1 Madisc Recei Teste	ived : 03 ed : 04	B-2/5222PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW (0,H0) Bull and 0.05 +62/522PW	ZZ/91 rpa4	JE	MCO-MAXA ST FARGO, N
Sample No. Lab Number	Non-ferrous Metal Non-ferrous Metal Viscosity @ 40°C Viscosity @ 40°C State Abnomal State Sta	1 Madisc Rece Teste Diagr	ived : 03 ed : 04 nosed : 05	Apr 2024 - Sea	ZZ/91 rpa4	JE WES	MCO-MAXAI

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