

## **OIL ANALYSIS REPORT**

Sample Number

Sample Date

Machine Age

Oil Changed

Sample Status

WEAR METALS

Oil Age

Iron

Nickel

Silver

Lead

Tin

Copper

Antimony

Vanadium

Beryllium

Cadmium

Titanium

Aluminum

Chromium

### NEW OIL TEST 4059 Quinplex H1 Penetrating Oil Component

**Bulk Fluid Tank** {not provided} (--- GAL)

#### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

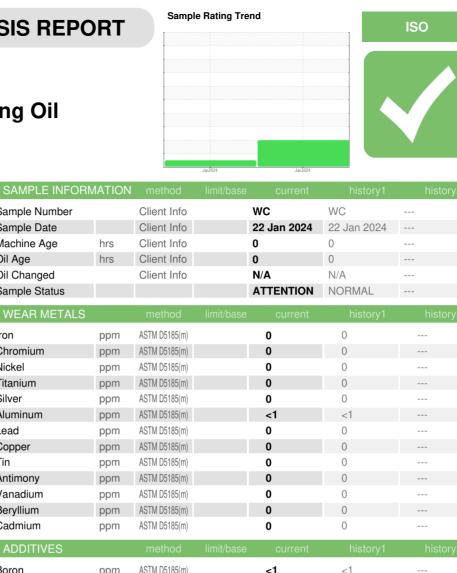
All component wear rates are normal.

#### Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

#### Fluid Condition

Viscosity of sample indicates oil is within ISO 15 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Boron	ppm	ASTM D5185(m)	<1	<1	
Barium	ppm	ASTM D5185(m)	0	0	
Molybdenum	ppm	ASTM D5185(m)	0	0	
Manganese	ppm	ASTM D5185(m)	0	0	
Magnesium	ppm	ASTM D5185(m)	<1	<1	
Calcium	ppm	ASTM D5185(m)	<1	1	
Phosphorus	ppm	ASTM D5185(m)	432	252	
Zinc	ppm	ASTM D5185(m)	2	1	
Sulfur	ppm	ASTM D5185(m)	326	1664	
Lithium	ppm	ASTM D5185(m)	<1	<1	
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CONTAMINAN	TS	method				history2
Silicon	ppm	ASTM D5185(m)		41	0	
Sodium	ppm	ASTM D5185(m)		2	2	
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	
Water	%	ASTM D6304*		0.004		
ppm Water	ppm	ASTM D6304*		41		

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>5239</b>	400	
Particles >6µm	ASTM D7647	>1300	<b>2075</b>	157	
Particles >14µm	ASTM D7647	>160	<b>296</b>	24	
Particles >21µm	ASTM D7647	>40	<b>7</b> 6	6	
Particles >38µm	ASTM D7647	>10	4	1	
Particles >71µm	ASTM D7647	>3	1	0	
Oil Cleanliness	ISO 4406 (c)	<u>\19/17/14</u>	<b>20/18/15</b>	16/14/12	



# **OIL ANALYSIS REPORT**

4//m	FLUID DEGRAD	TION	method	limit/base	current	history1	history2
<- θμη-	Acid Number (AN)	mg KOH/g	ASTM D974*		1.02	1.17	
	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	NONE	NONE	
ALA MARKATER AND A MARKATER A	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
	Precipitate	scalar	Visual*	NONE	NONE	NONE	
- - - - - - - - - - - 	Silt	scalar	Visual*	NONE	NONE	NONE	
Jan 22/24	Debris	scalar	Visual*	NONE	NONE	NONE	
Water (KF)	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
	Appearance	scalar	Visual*	NORML	NORML	NORML	
Severe	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*		.5%	NEG	
	Free Water	scalar	Visual*		NEG	NEG	
•	FLUID PROPERT	IES	method	limit/base	current	history1	history2
Abnormal	Visc @ 40°C	cSt	ASTM D7279(m)		16.6	35.2	
	SAMPLE IMAGE	3	method	limit/base	current	history1	history2
Acid Number	Color						no image
	Bottom						no image
	GRAPHS						
Jan 22/24	Ferrous Alloys			491,520	Particle Count		T <sup>26</sup>
	iron			122,880			-24
Water (KF)	E. 5 - mickel				Severe		
Severe				30,720			-22
	2/24 T			1 m 1 (jm 1	Abnormal		-20
	Jan22/24			Jan 22/24 s (per 1 ml		•	-18
	Non-ferrous Meta	s		Jan22/24 particles (per 1 ml) 086 086 090 000			-16
Abnormal	10 copper ]			d Jo ang 120			-20 -18 -16 -14
	E and an and a second s			and			-12
Jan 22/24				50			12
<u>ک</u>					İ		
Viscosity @ 40°C	Jan 22/24			Jan 22/24	•		18
VISCOSILY @ 40°C	P			۳ 4	μ 6μ	14µ 21µ	38µ 71µ
	Viccosity @ 4000				Acid Number		
	Viscosity @ 40°C				<b>T</b>		
Abnormal	150			(B/H0)			
Abnormal	150			(B/H0.X HOX Bull.0 Jag			
Abnormal	150 - Abnormal			(B)(HOX) B) Nnumber Nn			
Abnormal	150			e	Jan22/24		- 452/22

Contact/Location: Matt Morand - HIRWIN