

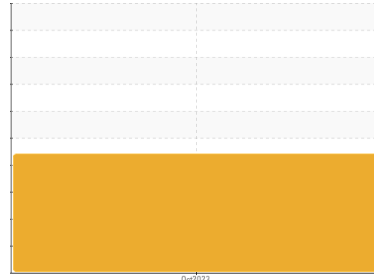
PROBLEM SUMMARY

Sample Rating Trend

ISO

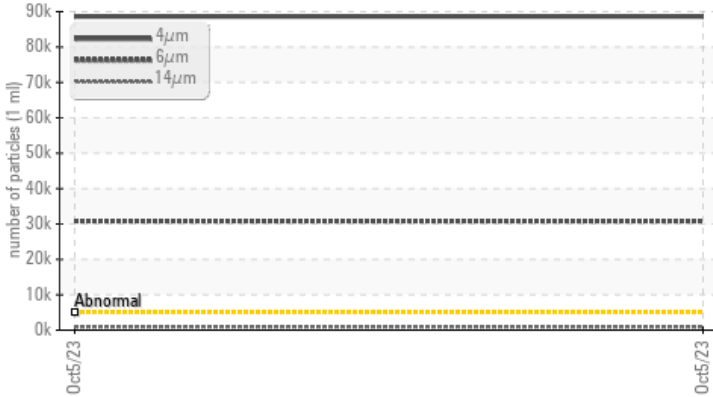


Area
Gas Compression [450210547]
Machine Id
Methanol Wellhead Injection Pump D (S/N Sample Tag PD-42010D)
Component
Unknown Component
Fluid
NOT GIVEN (120 LTR)



COMPONENT CONDITION SUMMARY

Particle Trend



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. Please provide more complete information on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	---	---
Particles >4µm	ASTM D7647	>5000	88605	---	---
Particles >6µm	ASTM D7647	>1300	30824	---	---
Particles >14µm	ASTM D7647	>160	900	---	---
Particles >21µm	ASTM D7647	>40	88	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	24/22/17	---	---

Customer Id: TERHAM
Sample No.: PC
Lab Number: 02590284
Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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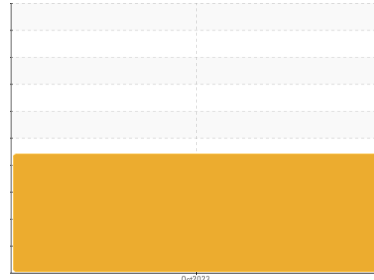
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. Please provide more complete information on your next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS



Area
Gas Compression [450210547]
Machine Id
Methanol Wellhead Injection Pump D (S/N Sample Tag PD-42010D)
Component
Unknown Component
Fluid
NOT GIVEN (120 LTR)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. Please provide more complete information on your next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the sample.

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC	---	---
Sample Date	Client Info	05 Oct 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		SEVERE	---	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	---	---
Iron	ppm ASTM D5185(m)	3	---	---
Chromium	ppm ASTM D5185(m)	0	---	---
Nickel	ppm ASTM D5185(m)	<1	---	---
Titanium	ppm ASTM D5185(m)	0	---	---
Silver	ppm ASTM D5185(m)	<1	---	---
Aluminum	ppm ASTM D5185(m)	0	---	---
Lead	ppm ASTM D5185(m)	0	---	---
Copper	ppm ASTM D5185(m)	<1	---	---
Tin	ppm ASTM D5185(m)	0	---	---
Antimony	ppm ASTM D5185(m)	0	---	---
Vanadium	ppm ASTM D5185(m)	0	---	---
Beryllium	ppm ASTM D5185(m)	0	---	---
Cadmium	ppm ASTM D5185(m)	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	2	---	---
Barium	ppm ASTM D5185(m)	<1	---	---
Molybdenum	ppm ASTM D5185(m)	0	---	---
Manganese	ppm ASTM D5185(m)	0	---	---
Magnesium	ppm ASTM D5185(m)	0	---	---
Calcium	ppm ASTM D5185(m)	<1	---	---
Phosphorus	ppm ASTM D5185(m)	83	---	---
Zinc	ppm ASTM D5185(m)	<1	---	---
Sulfur	ppm ASTM D5185(m)	1994	---	---
Lithium	ppm ASTM D5185(m)	<1	---	---

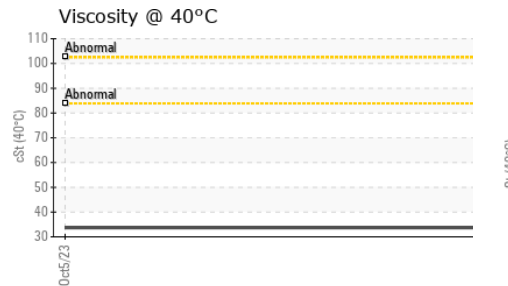
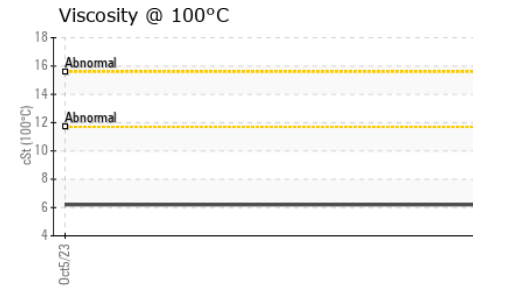
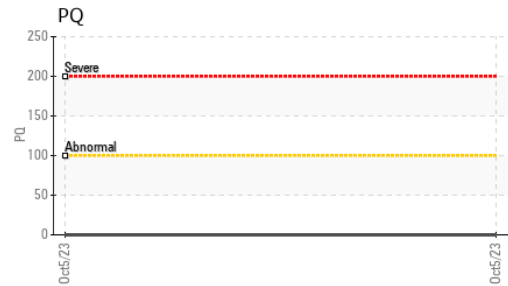
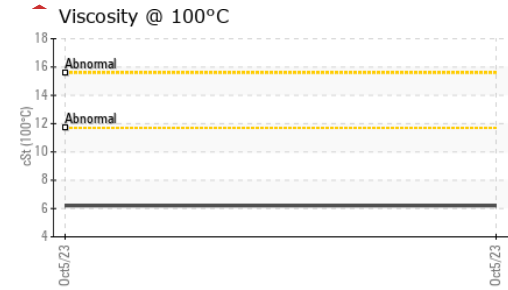
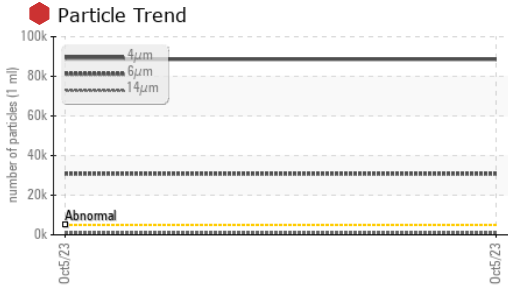
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	0	---	---
Sodium	ppm ASTM D5185(m)	<1	---	---
Potassium	ppm ASTM D5185(m) >20	0	---	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	88605	---	---
Particles >6µm	ASTM D7647 >1300	30824	---	---
Particles >14µm	ASTM D7647 >160	900	---	---
Particles >21µm	ASTM D7647 >40	88	---	---
Particles >38µm	ASTM D7647 >10	1	---	---
Particles >71µm	ASTM D7647 >3	0	---	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	24/22/17	---	---

OIL ANALYSIS REPORT



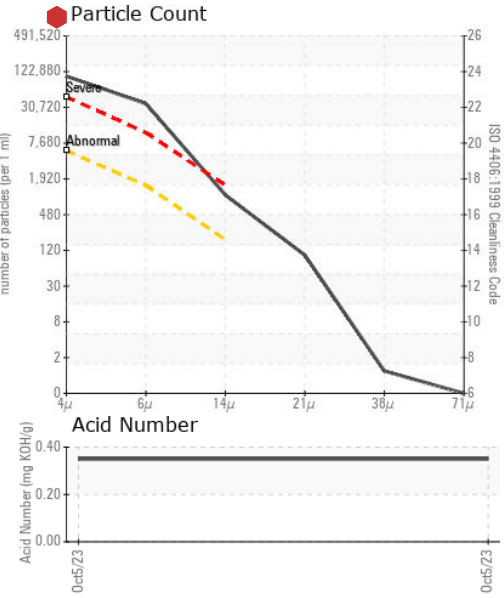
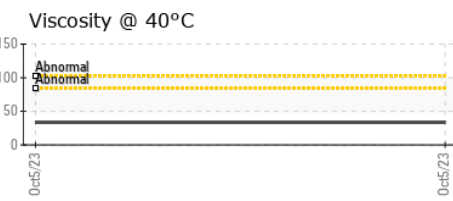
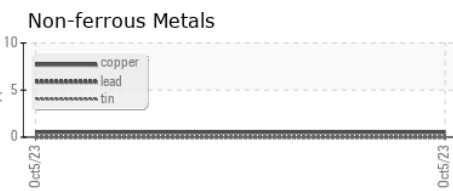
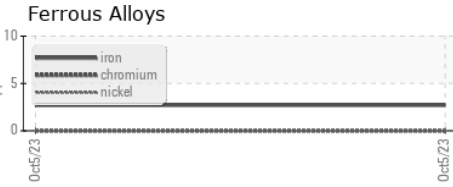
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.35	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*		NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		33.7	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		6.2	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		134	---	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02590284
Unique Number : 5659350
Test Package : MAR 2 (Additional Tests: KV100, PQ, PrtCount, TAN Man, VI)
Received : 19 Oct 2023
Diagnosed : 20 Oct 2023
Diagnostician : Kevin Marson

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.