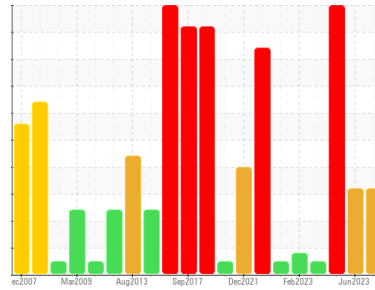




PROBLEM SUMMARY

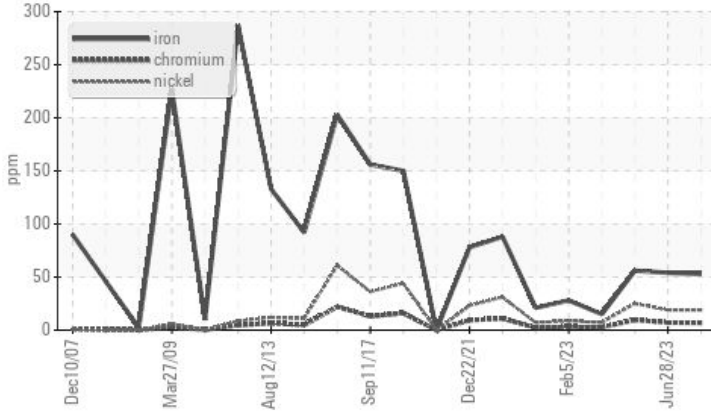
Area
TURRET
 Machine Id
91-X-9603 SWIVEL 4, 12
 Component
Sealing System
 Fluid
MOBIL MOBILGEAR 634 (--- GAL)

Sample Rating Trend

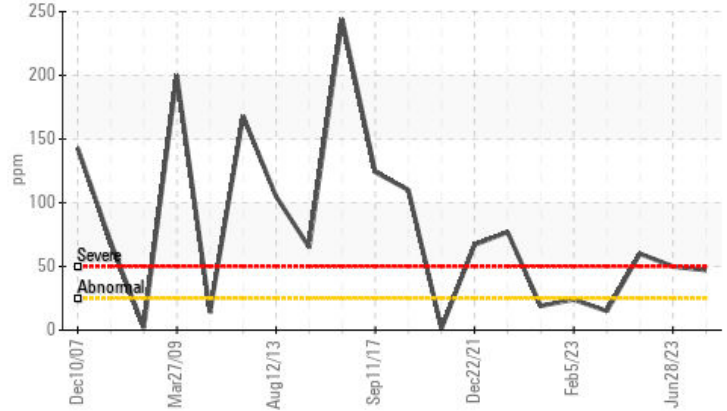


COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Silicon (ppm)



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. 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. We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	SEVERE
Chromium	ppm	ASTM D5185(m) >3	▲ 7	▲ 7	● 10
Nickel	ppm	ASTM D5185(m) >8	▲ 19	▲ 19	● 25
Silicon	ppm	ASTM D5185(m) >25	▲ 47	▲ 50	▲ 60

Customer Id: SPESTJ
 Sample No.: PP
 Lab Number: 02592274
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with 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 Seals	---	---	?	Check seals and/or filters for points of contaminant entry.
Filter Fluid	---	---	?	We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type.

HISTORICAL DIAGNOSIS

28 Jun 2023 Diag: Kevin Marson

DIRT



Check seals and/or filters for points of contaminant entry. 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. We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Chromium and nickel ppm levels are abnormal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The fluid is no longer serviceable as a result of the abnormal and/or severe wear.

view report



22 May 2023 Diag: Kevin Marson

WEAR



Check seals and/or filters for points of contaminant entry. 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. We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Chromium and nickel ppm levels are severe. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The fluid is no longer serviceable as a result of the abnormal and/or severe wear.

view report



10 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the fluid. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

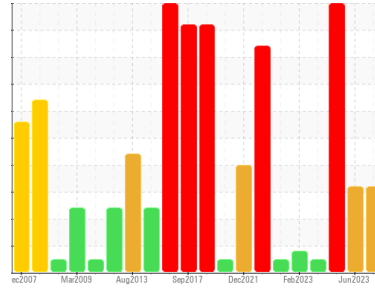
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Area
TURRET
 Machine Id
91-X-9603 SWIVEL 4, 12
 Component
Sealing System
 Fluid
MOBIL MOBILGEAR 634 (--- GAL)

DIAGNOSIS

Recommendation
 Check seals and/or filters for points of contaminant entry. 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. We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type. 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
 Chromium and nickel ppm levels are abnormal.

Contamination
 Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition
 The AN level is acceptable for this fluid. The fluid is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PP	PP	PP
Sample Date	Client Info	25 Oct 2023	28 Jun 2023	22 May 2023
Machine Age	days	0	0	0
Oil Age	days	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	SEVERE

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm ASTM D5185(m) >100	53	54	56
Chromium	ppm ASTM D5185(m) >3	7	7	10
Nickel	ppm ASTM D5185(m) >8	19	19	25
Titanium	ppm ASTM D5185(m)	0	<1	<1
Silver	ppm ASTM D5185(m)	<1	0	0
Aluminum	ppm ASTM D5185(m) >3	0	<1	<1
Lead	ppm ASTM D5185(m)	0	0	0
Copper	ppm ASTM D5185(m) >3	<1	<1	0
Tin	ppm ASTM D5185(m)	0	0	0
Antimony	ppm ASTM D5185(m)	0	0	<1
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	12	12	12
Barium	ppm ASTM D5185(m)	<1	0	0
Molybdenum	ppm ASTM D5185(m)	3	4	5
Manganese	ppm ASTM D5185(m)	0	<1	<1
Magnesium	ppm ASTM D5185(m)	<1	1	<1
Calcium	ppm ASTM D5185(m)	8	8	7
Phosphorus	ppm ASTM D5185(m)	308	337	337
Zinc	ppm ASTM D5185(m)	2	4	2
Sulfur	ppm ASTM D5185(m)	14210	14467	15176
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

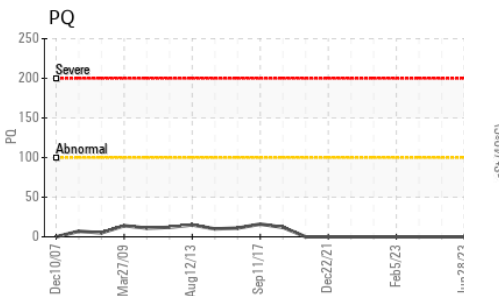
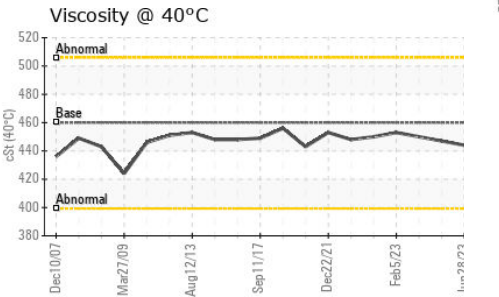
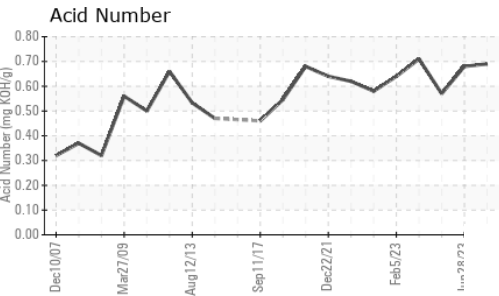
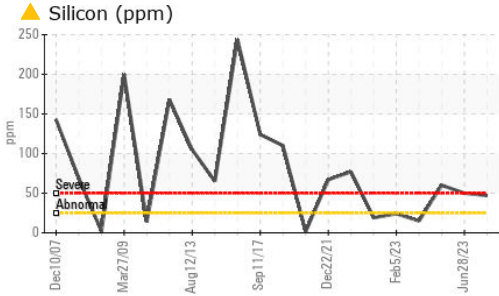
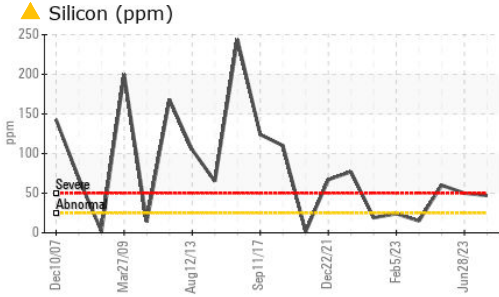
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	47	50	60
Sodium	ppm ASTM D5185(m)	1	1	1
Potassium	ppm ASTM D5185(m) >20	0	0	0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.69	0.68	0.57



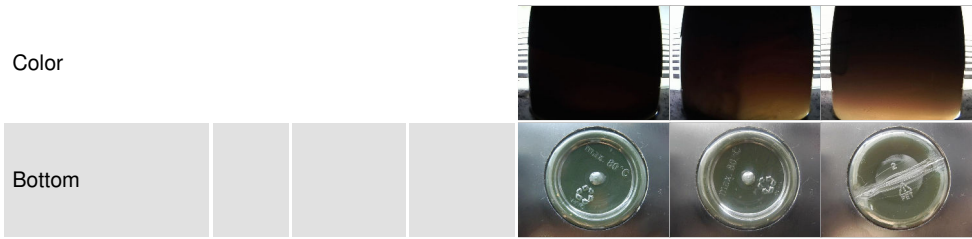
OIL ANALYSIS REPORT



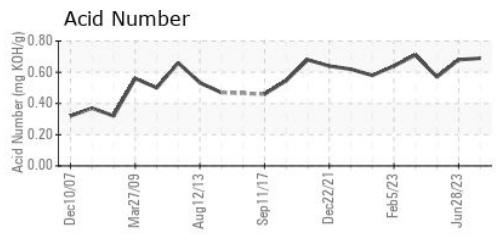
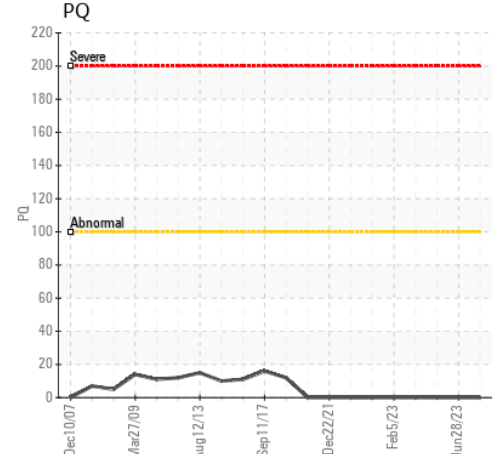
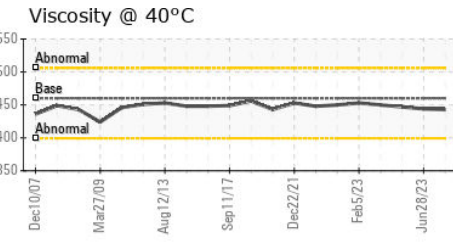
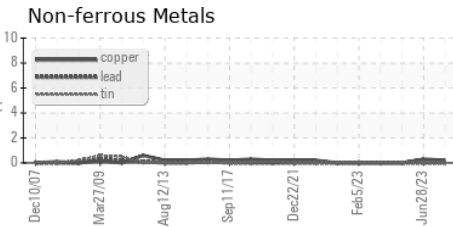
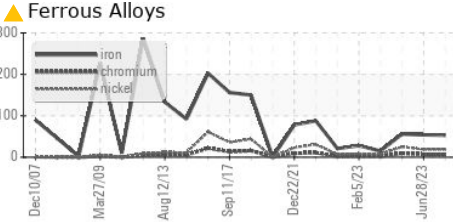
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	460	444	447

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HUSKY SEA ROSE /AKER SOLUTIONS
Sample No. : PP **Received** : 26 Oct 2023 **PO BOX 20**
Lab Number : 02592274 **Diagnosed** : 27 Oct 2023 **ST. JOHN'S, NL**
Unique Number : 5669353 **Diagnostician** : Kevin Marson **CA A1C 6C9**
Test Package : IND 2 (Additional Tests: TAN Man) **Contact: Maintenance Supervisor**
To discuss this sample report, contact Customer Service at 1-800-268-2131. **maintsuper.searose@huskyenergy.ca**
Test denoted () outside scope of accreditation, (m) method modified, (e) tested at external lab.* **T: x:**
Validity of results and interpretation are based on the sample and information as supplied. **F: x:**