

# **PROBLEM SUMMARY**

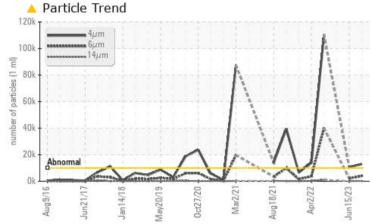
### Area MP-105

B45056 - PUMP VACUUM MAIN BUSCH RA 630 HAM LINE 2 (TOP) B45056 (S/N 200008547)

Component Top Vacuum Pump

PETRO CANADA PURITY FG SYNTHETIC 100 (15 LTR)

### COMPONENT CONDITION SUMMARY



### RECOMMENDATION

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

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PROBLEMATIC TEST RESULTS							
Sample Status			ATTENTION	ATTENTION	ABNORMAL		
Particles >4µm	ASTM D7647	>10000	<u> </u>	▲ 10794			
Particles >6µm	ASTM D7647	>2500	<b>A</b> 3975	2244			
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<u> </u>	<b>a</b> 21/18/14			

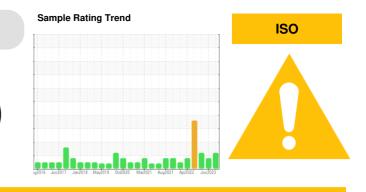
Customer Id: HORAUS Sample No.: WC0820532 Lab Number: 05902264 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com



#### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

#### HISTORICAL DIAGNOSIS

#### 15 Jun 2023 Diag: Jonathan Hester



No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



#### 25 Mar 2023 Diag: Don Baldridge



25 Mar 2023 Diag: Don Baidridge

We advise that you inspect for possible wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.Moderate concentration of visible metal present. All component wear rates are normal. No other contaminants were detected in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



#### WATER



#### 12 Feb 2023 Diag: Doug Bogart

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. Free water present. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.



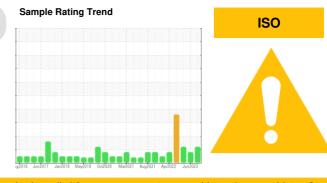


## **OIL ANALYSIS REPORT**

## Area MP-105 B45056 - PUMP VACUUM MAIN BUSCH RA 630 HAM LINE 2 (TOP) B45056 (S/N 200008547) Component

**Top Vacuum Pump** Flu

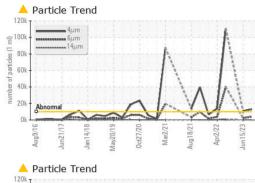
PETRO CANADA PURITY FG SYNTHETIC 100 (15 LTR)

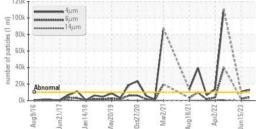


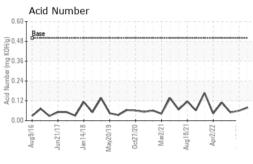
DIAGNOSIS	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		WC0820532	WC0799676	WC0781498
No corrective action is recommended at this time.	Sample Date		Client Info		12 Jul 2023	15 Jun 2023	25 Mar 2023
Resample at the next service interval to monitor.	Machine Age	wks	Client Info		0	0	0
Vear	Oil Age	wks	Client Info		0	0	0
Il component wear rates are normal.	Oil Changed		Client Info		N/A	N/A	N/A
Contamination	Sample Status				ATTENTION	ATTENTION	ABNORMAL
here is a moderate amount of silt (particulates < 4 microns in size) present in the oil.	WEAR METALS		method	limit/base	current	history1	history2
uid Condition	Iron	ppm	ASTM D5185m	>20	4	<1	6
e AN level is acceptable for this fluid. The	Chromium	ppm	ASTM D5185m	>20	0	<1	0
ndition of the oil is suitable for further service.	Nickel	ppm	ASTM D5185m	>20	0	<1	<1
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>20	8	0	1
	Lead	ppm	ASTM D5185m	>20	0	0	0
	Copper	ppm	ASTM D5185m	>20	0	0	<1
	Tin	ppm	ASTM D5185m		0	0	0
	Vanadium	ppm	ASTM D5185m		0	0	0
	Cadmium	ppm	ASTM D5185m		0	0	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m		0	0	0
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		0	0	0
	Manganese	ppm	ASTM D5185m		0	<1	0
	Magnesium	ppm	ASTM D5185m		<1	0	0
	Calcium	ppm	ASTM D5185m		<1	12	0
	Phosphorus	ppm	ASTM D5185m		510	74	369
	Zinc	ppm	ASTM D5185m		8	0	4
	Sulfur	ppm	ASTM D5185m		1421	267	1179
	CONTAMINANTS	6	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185m	>15	1	7	3
	Sodium	ppm	ASTM D5185m		<1	<1	0
	Potassium	ppm	ASTM D5185m	>20	7	3	<1
	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
	Particles >4µm		ASTM D7647	>10000	<b>12872</b>	<b>1</b> 0794	
	Particles >6µm		ASTM D7647	>2500	<b>A</b> 3975	2244	
	Particles >14µm		ASTM D7647		270	95	
	Particles >21µm		ASTM D7647	>80	69	15	
	Particles >38µm		ASTM D7647		2	0	
	Particles >71µm		ASTM D7647		0	0	
	Oil Cleanliness		ISO 4406 (c)		21/19/15	▲ 21/18/14	
	FLUID DEGRADA		method	limit/base		history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.5	0.08	0.06	0.05

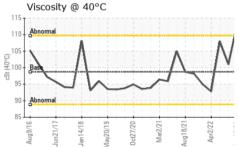


# **OIL ANALYSIS REPORT**



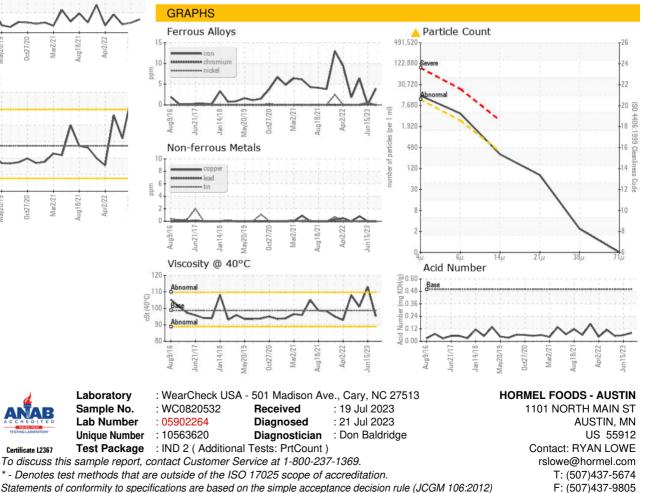






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	🔺 MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual		NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	98.7	95.2	113	101
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
				1		

Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: RYAN LOWE - HORAUS