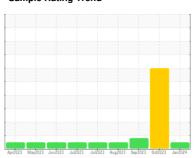


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id **K604** Component

Natural Gas Compression Engine

PETRO CANADA SEN

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

A decrease in the lead level is noted. All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Date	RON LD 3000 (-	LTR)	Apr2023 Ma	y2023 Jun2023 Jul2023	Jul2023 Aug2023 Sep2023 Oct20	23 Jan2024	
Sample Date	SAMPLE INFOF	RMATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info G606 4648 3723	Sample Number		Client Info		PC0085488	PC90000504	PC90000505
Oil Age hrs Client Info Not Changed Nort Change	Sample Date		Client Info		17 Jan 2024	25 Oct 2023	11 Sep 2023
Cilichanged Cilichanged Not Changed Not Changed NormMAL SeVERE MARGINAL	Machine Age	hrs	Client Info		6606	4648	3723
CONTAMINATION method mill/base current history1 history2	Oil Age	hrs	Client Info		0		
Fuel	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Fuel	Sample Status				NORMAL	SEVERE	MARGINAL
WEAR METALS	CONTAMINAT	ΓΙΟΝ	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* >20 0 Iron ppm ASTM D8185(m) >14 1 5 5 Chromium ppm ASTM D5185(m) >3 0 0 0 Nickel ppm ASTM D5185(m) >5 <1	Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
PQ	Glycol		WC Method		NEG	NEG	NEG
Iron	WEAR METAL	_S	method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >3 0 0 0 Nickel ppm ASTM D5185(m) >5 <1 0 0 Tittanium ppm ASTM D5185(m) >5 0 0 0 Silver ppm ASTM D5185(m) >5 0 0 0 Aluminum ppm ASTM D5185(m) >5 1 1 1 1 Lead ppm ASTM D5185(m) >5 1 1 1 1 Lead ppm ASTM D5185(m) >5 1 1 1 1 Copper ppm ASTM D5185(m) >3 0 0 0 0 Antimony ppm ASTM D5185(m) 0 0 0 0 0 Vanadium ppm ASTM D5185(m) 0 0 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 0 0 0	PQ		ASTM D8184*	>20	0		
Nickel	Iron	ppm	ASTM D5185(m)	>14	1	5	5
Titanium ppm ASTM D5185(m) 0 0 0 0 Silver ppm ASTM D5185(m) >5 0 0 0 Aluminum ppm ASTM D5185(m) >5 1 1 1 Lead ppm ASTM D5185(m) >5 1 1 1 Copper ppm ASTM D5185(m) >5 <1 2 2 Tin ppm ASTM D5185(m) >3 0 0 0 Antimony ppm ASTM D5185(m) 0 0 0 0 Vanadium ppm ASTM D5185(m) 0 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185(m) 5 1 4	Chromium	ppm	ASTM D5185(m)	>3	0	0	0
Silver	Nickel	ppm	ASTM D5185(m)	>5	<1	0	0
Aluminum ppm ASTM D5185(m) >5 1 1 1 Lead ppm ASTM D5185(m) >8 2 ■ 18 ▲ 6 Copper ppm ASTM D5185(m) >5 <1 2 2 Tin ppm ASTM D5185(m) >3 0 0 0 Antimony ppm ASTM D5185(m) 0 0 0 0 Vanadium ppm ASTM D5185(m) 0 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 0 Boron ppm ASTM D5185(m) 5 1 4 5 Barium ppm ASTM D5185(m) 2 1 1 4 5 Barium ppm ASTM D5185(m) 2 1 1 4 5 Barium ppm ASTM D5185(m) 2	Titanium	ppm	ASTM D5185(m)		0	0	0
Lead ppm ASTM D5185(m) >8 2 18 6 Copper ppm ASTM D5185(m) >5 <1	Silver	ppm	ASTM D5185(m)	>5	0	0	0
Copper ppm ASTM D5185(m) >5 <1 2 2 Tin ppm ASTM D5185(m) >3 0 0 0 Antimony ppm ASTM D5185(m) 0 0 0 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) 5 1 4 5 Barium ppm ASTM D5185(m) 1 0 0 0 Molybdenum ppm ASTM D5185(m) 2 <1	Aluminum	ppm	ASTM D5185(m)	>5	1	1	1
Tin	Lead	ppm	ASTM D5185(m)	>8	2	1 8	<u>^</u> 6
Antimony	Copper	ppm	ASTM D5185(m)	>5	<1	2	2
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) 5 1 4 5 Barium ppm ASTM D5185(m) 1 0 0 0 Molybdenum ppm ASTM D5185(m) 2 <1 1 1 Manganese ppm ASTM D5185(m) 1 0 0 0 Magnesium ppm ASTM D5185(m) 1 0 0 0 Magnesium ppm ASTM D5185(m) 1 0 0 0 Phosphorus ppm ASTM D5185(m) 1220 1272 1323 1339 Phosphorus ppm ASTM D5185(m) 298 270 292 278 <td>Tin</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>>3</td> <th>0</th> <td>0</td> <td>0</td>	Tin	ppm	ASTM D5185(m)	>3	0	0	0
Beryllium	Antimony	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) 5 1 4 5 Barium ppm ASTM D5185(m) 1 0 0 0 Molybdenum ppm ASTM D5185(m) 2 <1	Vanadium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES	Beryllium	ppm	ASTM D5185(m)		0	0	0
Boron	Cadmium	ppm	ASTM D5185(m)		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 2 <1 1 1 Manganese ppm ASTM D5185(m) 1 0 0 0 Magnesium ppm ASTM D5185(m) 5 7 8 8 Calcium ppm ASTM D5185(m) 1220 1272 1323 1339 Phosphorus ppm ASTM D5185(m) 298 270 292 278 Zinc ppm ASTM D5185(m) 350 312 345 340 Sulfur ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) >180 <1 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >20 <1 2 2 Sodium ppm ASTM D5185(m) >20 1 0 0 Water % ASTM D6304*	Boron	ppm	ASTM D5185(m)	5	1	4	5
Manganese ppm ASTM D5185(m) 1 0 0 0 Magnesium ppm ASTM D5185(m) 5 7 8 8 Calcium ppm ASTM D5185(m) 1220 1272 1323 1339 Phosphorus ppm ASTM D5185(m) 298 270 292 278 Zinc ppm ASTM D5185(m) 350 312 345 340 Sulfur ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) 180 <1 2 2 Solicon ppm ASTM D5185(m) >180 <1 2 2 Sodium ppm ASTM D5185(m) >20 <1 1 1 Potassium ppm ASTM D6304* >0.1 0.004 ppm Water % ASTM D6304* <td>Barium</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>1</td> <th>0</th> <td>0</td> <td>0</td>	Barium	ppm	ASTM D5185(m)	1	0	0	0
Magnesium ppm ASTM D5185(m) 5 7 8 8 Calcium ppm ASTM D5185(m) 1220 1272 1323 1339 Phosphorus ppm ASTM D5185(m) 298 270 292 278 Zinc ppm ASTM D5185(m) 350 312 345 340 Sulfur ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) 180 <1 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >20 <1 1 1 Potassium ppm ASTM D5185(m) >20 1 0 0 Water % ASTM D6304* >0.1 0.004 INFRA-RED method <t< td=""><td>Molybdenum</td><td>ppm</td><td>ASTM D5185(m)</td><td>2</td><th><1</th><td>1</td><td>1</td></t<>	Molybdenum	ppm	ASTM D5185(m)	2	<1	1	1
Calcium ppm ASTM D5185(m) 1220 1272 1323 1339 Phosphorus ppm ASTM D5185(m) 298 270 292 278 Zinc ppm ASTM D5185(m) 350 312 345 340 Sulfur ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) 180 <1	Manganese	ppm	ASTM D5185(m)	1	0	0	0
Phosphorus ppm ASTM D5185(m) 298 270 292 278 Zinc ppm ASTM D5185(m) 350 312 345 340 Sulfur ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) <1 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >180 <1	Magnesium	ppm	ASTM D5185(m)	5	7	8	8
Zinc ppm ASTM D5185(m) 350 312 345 340 Sulfur ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) <1	Calcium	ppm	ASTM D5185(m)	1220	1272	1323	1339
Sulfur ppm ASTM D5185(m) 1995 2186 Lithium ppm ASTM D5185(m) 1995 2186 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >180 <1 2 2 Sodium ppm ASTM D5185(m) >20 <1 1 1 Potassium ppm ASTM D5185(m) >20 1 0 0 Water % ASTM D6304* >0.1 0.004 ppm Water ppm ASTM D6304* >1000 49 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	Phosphorus	ppm	ASTM D5185(m)	298	270	292	278
Lithium ppm ASTM D5185(m) <1 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >180 <1	Zinc	ppm	ASTM D5185(m)	350	312	345	340
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >180 <1	Sulfur		ASTM D5185(m)	1995	2186		
Silicon ppm ASTM D5185(m) >180 <1 2 2 Sodium ppm ASTM D5185(m) >20 <1 1 1 Potassium ppm ASTM D5185(m) >20 1 0 0 Water % ASTM D6304* >0.1 0.004 ppm Water ppm ASTM D6304* >1000 49 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	Lithium	ppm	ASTM D5185(m)		<1	0	0
Sodium ppm ASTM D5185(m) >20 <1 1 1 Potassium ppm ASTM D5185(m) >20 1 0 0 Water % ASTM D6304* >0.1 0.004 ppm Water ppm ASTM D6304* >1000 49 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185(m) >20 1 0 0 Water % ASTM D6304* >0.1 0.004 ppm Water ppm ASTM D6304* >1000 49 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	Silicon	ppm	ASTM D5185(m)	>180	<1	2	2
Water % ASTM D6304* >0.1 0.004 ppm Water ppm ASTM D6304* >1000 49 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	Sodium	ppm	ASTM D5185(m)	>20	<1	1	1
ppm Water ppm ASTM D6304* >1000 49 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	Potassium	ppm	ASTM D5185(m)	>20	1	0	0
INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	Water	%	ASTM D6304*	>0.1	0.004		
Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	ppm Water	ppm	ASTM D6304*	>1000	49		
Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm ASTM D7624* >15 3.8 5.8 5.6	Soot %	%	ASTM D7844*		0		
				>15		5.8	5.6
					15.4		



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited

Laboratory

Sample No. Lab Number **Unique Number**

: PC0085488

: 02613137 : 5722232

Recieved Diagnosed

: 05 Feb 2024 Diagnostician : Bill Quesnel

: 02 Feb 2024

Test Package : PLANT (Additional Tests: FT-IR, FT-IR(Diff), KV100, VI) 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.

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Contact: Eldon Weaver eweaver@nvaenergy.com

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