



VP diagnose

Analysutbud 2021

Our vision at VPdiagnose AB is to create a world with an intelligent use of resources.

We are an independent analysis company focusing on petroleum products. We have no product suppliers who have a share in our interests. This means that all recommendations are intended to benefit you as a customer. The recommendations that are made based on the results from the diagnostic analyzes do not generate product sales for us, but rather at lower long-term costs for you as a customer through fewer breakdowns, less wear and lower insurance costs.

VPdiagnose AB offers chemical and physical analyzes, investigations and contract research on fuels, lubricants, electrical insulation systems (oil, cellulose, etc.), machine diagnostics and thermal oil systems.

We are also here for consultations and training.

The company has long experience and high competence. The laboratory has a high analysis capacity and can offer machine diagnostics for oil-filled systems adapted to the customer's needs.

We always work in close contact with customers to ensure the maximum level of service. You will receive clear instructions for sampling on site, you can follow your samples via our Internet-based database when they are analyzed and finally receive a detailed report with your analysis results and, if applicable, an action recommendation.

The sampling protocols are easily sent electronically to the laboratory via our sampling app. In the app you have access to data for all your objects.

Do you have any questions or want to order analysis services?
Welcome to contact us at VPdiagnose AB.



Packages – Insulating oils

Dissolved gas analysis (Art. nr 1002)

Analysis	Method
DGA	
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C and 100°C, Viscosity index	
C _A C _N C _P	

DGA (Dissolved Gas Analysis) provides the answer to whether faults exist, both large acute and slower-occurring faults are detected. The faults are mainly thermal faults and faults where electrical discharges are involved. The report provides information on maintenance needs for the object as well as on the occurrence of faults / fault indications. Precision gas analysis provides the opportunity to detect faults at a very early stage.

Trafodiagnosis (Art. nr 1003)

Analysis	Method
DGA	
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C och 100°C, Viscosity index	
C _A C _N C _P	
Antioxidant content	IEC 60666-79, SS-EN 60666
DBDS	IEC 62697
Electrical Breakdown Voltage	IEC 156, ASTM D877, ASTM D1816, SS-EN 60156
Interphase Tension	SS-ISO 6295, ASTM D971
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
IR-graph	
ICP (Cl, Cu, S)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19
Dissolved oxidation products	ASTM D6802 mod.
Turbidity	ASTM D6181 mod.
Olefin bonds	ASTM D1159-07, ASTM D2710-09
Peroxide number	ASTM D3703 mod.

Transformer diagnosis provides answers to both how the object and the oil are doing. This is a suitable starter kit for those transformers that have never been tested before with respect to diagnosis via insulating oil. The content of the report is based on a joint assessment of facts combined from the gas and oil analysis. This means that a more secure statement about the condition will be possible. This package has proven to be very affordable and leads to major improvements in diagnostics. New fault conditions have also been shown to be diagnosable with this technology.

Insulating oil analysis (Art. nr 1001)

Analysis	Method
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C och 100°C, Viscosity index	
C _A C _N C _P	
Antioxidant content	IEC 60666-79, SS-EN 60666
DBDS	IEC 62697
Electrical Breakdown Voltage	IEC 156, ASTM D877, ASTM D1816, SS-EN 60156
Interphase Tension	SS-ISO 6295, ASTM D971
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
IR-graph	
ICP (Cl, Cu, S)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19
Dissolved oxidation products	ASTM D6802 mod.
Turbidity	ASTM D6181 mod.
Olefin bonds	ASTM D1159-07, ASTM D2710-09
Peroxide number	ASTM D3703 mod.

Follow-up package (Art. nr 1019)

Analysis	Method
DGA	
Antioxidant content	IEC 60666-79, SS-EN 60666
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
Peroxide number	ASTM D3703 mod.

Corrosion package (Art. nr 1034)

Analysis	Method
Antioxidant content	IEC 60666-79, SS-EN 60666
DBDS	IEC 62697
ICP (Cl, Cu, S)	ASTM D7151
Olefin bonds	ASTM D1159-07, ASTM D2710-09
Corrosive sulfur på Cu	IEC 62535
Corrosive sulfur på Ag	DIN 51353
Elementary S	Internal method

Addition - Corrosion package (Art. nr 1035)

Analysis	Method
DBDS	IEC 62697
Corrosive sulfur, Cu	IEC 62535
Corrosive sulfur, Ag	DIN 51353
Elementary S	Internal method

TC-analysis (Art. nr 1014)

Analysis	Method
DGA	
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C och 100°C, Viscosity index	
C _A C _N C _P	
Antioxidant content	IEC 60666-79, SS-EN 60666
ICP (Cl, Cu, Fe, S)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
Olefin bonds	ASTM D1159-07, ASTM D2710-09

Base oil package (Art. nr 1030)

Analysis	Method
DGA	
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C och 100°C, Viscosity index	
C _A C _{NC} _P	
Antioxidant content	IEC 60666-79, SS-EN 60666
Electrical Breakdown Voltage	IEC 156, ASTM D877, ASTM D1816, SS-EN 60156
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
ICP (Cl, Cu, S)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
Olefin bonds	ASTM D1159-07, ASTM D2710-09

Insulating oil – small package (Art. nr 1018)

Analysis	Method
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C och 100°C, Viscosity index	
C _A C _{NC} _P	
Antioxidant content	IEC 60666-79, SS-EN 60666
Electrical Breakdown Voltage	IEC 156, ASTM D877, ASTM D1816, SS-EN 60156
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
ICP (Cl, Cu, S)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3



Packages – Insulating oils cont.

Condition assessment report (Art. nr 1004)

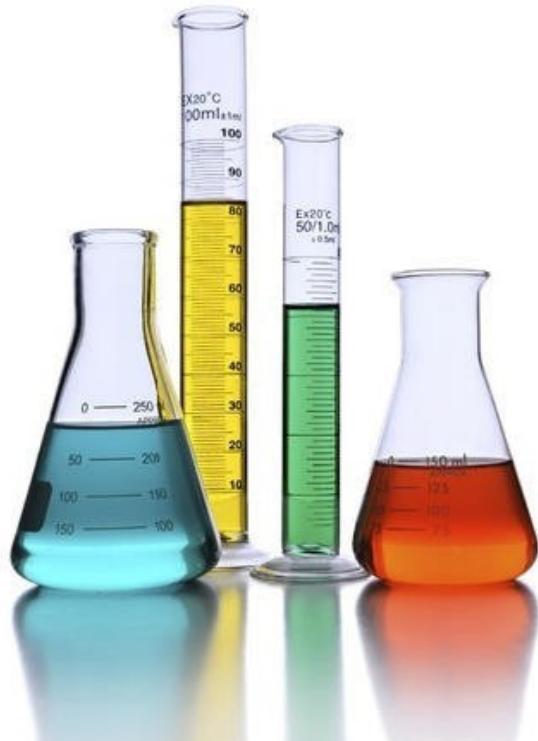
Analysis	Method
DGA	
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C och 100°C, Viscosity index	
C _A C _{NC} _P	
Antioxidant content	IEC 60666-79, SS-EN 60666
DBDS	IEC 62697
Electrical Breakdown Voltage	IEC 156, ASTM D877, ASTM D1816, SS-EN 60156
Interphase Tension	SS-ISO 6295, ASTM D971
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
IR-graph	
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19
Dissolved oxidation products	ASTM D6802 mod.
Turbidity	ASTM D6181 mod.
Olefin bonds	ASTM D1159-07, ASTM D2710-09
Peroxide number	ASTM D3703 mod.
Elementary S	Internal method
Corrosive sulfur, pot.titr.	ASTM D3227-04 mod.
2-furfural	ASTM D5837 mod.
Conductivity @ 50°C och 90°C	
Loss factor, tan δ @ 50°C och 90°C	IEC 60247 mod.
Gravimetric contamination 0,22 µm + photo	ISO 4405 mod.
ICP-filter (Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, S, Si, Sn, Zn)	Internal method

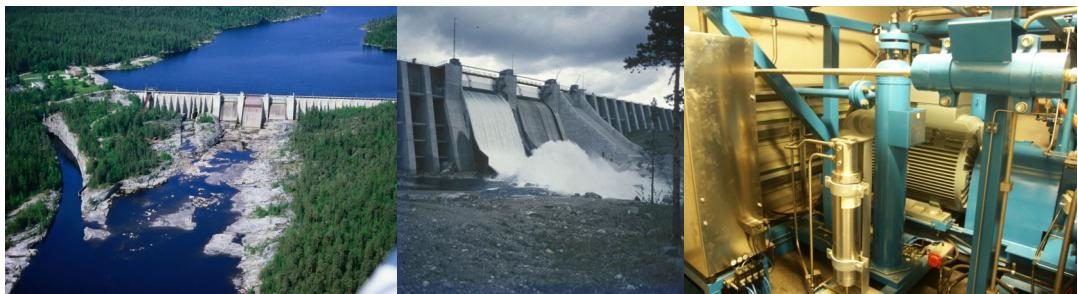
The content of the report is based on facts that are combined from the gas and oil analysis with a interpretation template that includes chromatographic data in combination with operational data. Overall, the report gives a very good picture of the transformer's current condition.

Remaining lifetime assessment (Art. nr 1005)

Analysis	Method
DGA	
Density @ 20°C	SS-EN ISO 12185
Viscosity @ 40°C och 100°C, Viscosity index	
C _A C _N C _P	
Antioxidant content	IEC 60666-79, SS-EN 60666
DBDS	IEC 62697
Electrical Breakdown Voltage	IEC 156, ASTM D877, ASTM D1816, SS-EN 60156
Interphase Tension	SS-ISO 6295, ASTM D971
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
IR-graph	
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19
Dissolved oxidation products	ASTM D6802 mod.
Turbidity	ASTM D6181 mod.
Olefin bonds	ASTM D1159-07, ASTM D2710-09
Peroxide number	ASTM D3703 mod.
Elementary S	Internal method
Corrosive sulfur, pot.titr.	ASTM D3227-04 mod.
2-furfural	ASTM D5837 mod.
Conductivity @ 50°C och 90°C	
Loss factor, tan δ @ 50°C och 90°C	IEC 60247 mod.
Gravimetric contamination 0,22 µm + photo	ISO 4405 mod.
ICP-filter (Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, S, Si, Sn, Zn)	Internal method

Same as the condition assessment report but also including calculation of the remaining life based on operational data provided by the owner of the object.





Packages – Lubricants and Hydraulic oils

Diagnose 1 (Art. nr 2001)

Analysis	Method
Gravimetric contamination + photo + RGB	ISO 4405 mod.
ICP-filter (Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, S, Si, Sn, Zn)	Internal method
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19

The composition of the lubricating oils varies greatly with respect to base oil and additive content. It is therefore not economically reasonable to carry out in-depth diagnoses unless there is a specific issue. The lubricating oil analyzes are therefore basically focused on contamination / wear.

System condition (Art. nr 2002)

Analysis	Method
Antioxidant content	IEC 60666-79, SS-EN 60666
Gravimetric contamination + photo + RGB	ISO 4405 mod.
ICP-filter (Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, S, Si, Sn, Zn)	Internal method
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
IR-graph	
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19
Olefin bonds	ASTM D1159-07, ASTM D2710-09
Peroxide number	ASTM D3703 mod.

This package also refers to bearing systems, but with the difference that they are integrated with the **control system** whose sensitivity to contamination is completely different compared to plain bearing systems. Today's trend towards higher **control system pressures** also means that the tolerance against pollution is reduced and that incorrect formulations of oils will more often be the problem for the system. The choice of analysis thus provides a deeper knowledge of how the oil is and how it changes.

Diagnose 2 (Art. nr 2003)

Analysis	Method
Gravimetric contamination + photo + RGB	SO 4405 mod.
ICP-filter (Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, S, Si, Sn, Zn)	Internal method
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19

This is a less comprehensive alternative than system condition and thus provides only basic data.

Gear box large (Art. nr 2004)

Analysis	Method
Kinematic viscosity @ 40°C och 100°C, VI	SS-ISO 3104
Dynamic viscosity @ 40°C och 100°C	
Antioxidant content	IEC 60666-79, SS-EN 60666
Density @ 15°C	SS-EN ISO 12185
Gravimetric contamination + photo + RGB	ISO 4405 mod.
ICP-filter (Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, S, Si, Sn, Zn)	Internal method
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3

Reports gear wear and provides information on the oil's content of protective additives for the machine and the oil. The viscosity is often responsible for the lubrication in gears and is therefore naturally included in the package.

Gear box small (Art. nr 2005)

Analysis	Method
Density @ 15°C	SS-EN ISO 12185
Gravimetric contamination + photo + RGB	ISO 4405 mod.
ICP-filter (Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, S, Si, Sn, Zn)	Internal method
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151

Packages – Lubricating oils cont.

Diesel engine (Art. nr 2006)

Analysis	Method
Kinematic viscosity @ 40°C och 100°C, Viscosity index	SS-ISO 3104
Density @ 15°C	SS-EN ISO 12185
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
Total Base Number (TBN)	SS 155157, ASTM D2896
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151

Thermal oil system (Art. nr 2007)

Analysis	Method
Kinematic viscosity @ 40°C och 100°C, Viscosity index	SS-ISO 3104
Density @ 15°C	SS-EN ISO 12185
Flash point PM	ASTM D93A, SS-EN ISO 2719:2016
Ash content @ 525°C	SS-EN ISO 6245, ASTM D482
Gravimetric contamination + photo + RGB	ISO 4405 mod.
Water content KF	IEC 60814, ASTM D1533, SS-EN 12937
ICP (Ag, Al, B, Ba, Ca, Cl, Cr, Cu, Fe, K, Mg, Mo, Na, Ni, P, Pb, S, Si, Sn, Ti, Zn, Sb)	ASTM D7151
Total Acid Number (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3
i-pH	ASTM D7946-19
Dissolved oxidation products	ASTM D6802 mod.
Olefin bonds	ASTM D1159-07, ASTM D2710-09





Insulating oils

Art. nr	Analysis	Method	Sample (ml)
127	Antioxidant content (BHT, DTBP)	IEC 60666-79, SS-EN 60666	20
12_1	Refractive Index @ 20°C	SS-ISO 5661, ASTM D1218	30
1276	DBDS	IEC 62697	20
2020_1	Density @ 20°C (areometer)	SIS 21411	500
111_6	Density (PAAR)	SS-EN ISO 12185	30
1171_1	Degree of Polymerisation (DP)	SCAN-C 15:62	5cm ²
1275	Elementary S	Internal method	20
501	Moisture content in cellulose		
1281	Furfurals (5 comp)	ASTM D5837	50
128	Furfural (2-fal)	ASTM D5837 mod. SS-EN 61198	50
38_30	Flash point (Pensky Marten)	SS-EN ISO 2719:2016, ASTM D93A	200
	Photo, documentation		
40_1	Colour	SS-ISO 2049, ASTM D1500	50
4125_1	Loss factor, tan δ @ 25°C	IEC 60247 mod.	100
4150_1	Loss factor, tan δ @ 50°C	IEC 60247 mod.	100
4190_1	Loss factor, tan δ @ 90°C	IEC 60247 mod.	100
118	DGA, TOGA		100
119	DGA, tedlar bag, gas formation rate		
120	Gas formation rate, calculation excl. DGA		

Insulating oils cont.

Art. nr	Analysis	Method	Sample (ml)
45	Electrical Breakdown Voltage	IEC 156, ASTM D877, ASTM D1816, SS-EN 60156	300
1273	GC-MS, unknown sample (4h)		20
44	Gravimetric contamination 0,22 µm + photo	ISO 4405 mod.	500
87	Elemental analysis, ICP (not sample preparation)	ASTM D7151 mod.	20
48_1	Interphase Tension / dest. H ₂ O	SS-ISO 6295, ASTM D971	100
415	IDAX 300, measurement excl. travel		
033	IDAX 300, rental		
51	IR-graph		20
87	Chlorine content, ICP	ASTM D7151 mod.	20
4125_2	Conductivity @ 25°C		100
4150_2	Conductivity @ 50°C		100
4190_2	Conductivity @ 90°C		100
87	Copper content, ICP	ASTM D7151 mod.	20
1251_1	Corrosive sulfur, Cu, Cigré	IEC 62535	50
1250_10	Corrosive sulfur, Cu	ASTM D1275	250
1250_15	Corrosive sulfur, Ag	ASTM D1275	250
1258_1	Corrosive sulfur, Ag	DIN 51353	100
125_1	Corrosive sulfur, Mercaptan sulfur	ASTM D3227-04 mod.	50
922_1	Dissolved oxidation products	ASTM D6802 mod.	50
129	Metal deactivator, Irgamet 39	Internal method	50
10_1	Ocular inspection		
93	Olefin bonds	ASTM D1159-07, ASTM D2710-09	50
95_1	Peroxide number	ASTM D3703 mod.	50
73	PCB	Internal method	20
730	PCB incl. engraved plate (prepaid, min. 10 pieces)	Internal method	20
735_1	PCB- content calculation	Calculation	
733_1	Engraved plate with PCB results		
030_1	Sample preparation		
9205_1	i-pH	ASTM D7946-19	50
4125_3	Resistivity @ 25°C	ASTM D1169 mod.	100
4150_3	Resistivity @ 50°C	ASTM D1169 mod.	100
4190_3	Resistivity @ 90°C	ASTM D1169 mod.	100
87	Sulfur content, ICP	ASTM D7151 mod.	20
920_1	Total Acid Number, colourimetric	SS-ISO 6618, SS-EN 62021-2	50
92	Total Acid Number, pot.titr. (TAN)	SS-ISO 6619, ASTM D664, SS-EN 62021-1, SS-EN 62021-3	50
924_1	Turbidity	ASTM D6181 mod.	50
034	Vaisala meter, rental		
5	Water content (Karl Fischer)	IEC 60814, ASTM D1533, SS-EN ISO 12937	20
50	Water content (Vaisala)		

Further analyzes and services by agreement. Contact the laboratory.
For all samples, a destruction fee of 25 SEK / sample will be added.



Lubricants and Hydraulic oils

Art. nr	Analysis	Method	Sample (ml)
401_1	Ash content @ 525°C	SS-EN ISO 6245 mod.	100
402_1	Ash content @775°C	SS-EN ISO 6245, ASTM D482	100
1272	Additive, qualitative		20
127	Antioxidant content (BHT, DTBP, L57, Additin 30)	IEC 60666-79, SS-EN 60666	20
7	Total Base Number (TBN)	SS 155157, ASTM D2896	50
12_1	Refractive Index @ 20°C	SS-ISO 5661, ASTM D1218	30
272	Diesel fuel diluent in used diesel engine oils	ASTM D3524-14 mod.	20
2020_1	Density @ 15°C (areometer)	SIS 21411	500
111_6	Density (PAAR)	SS-EN ISO 12185	30
110_1	Density (pyknometer)	SS-EN ISO 3838	100
86	Determination of water separability	SS-ISO 6614	50
37_20	Flash point (Cleveland)	SS-ISO 2592, ASTM D92	200
38_30	Flash point (Pensky Marten)	SS-EN ISO 2719, ASTM D93A	200
	Photo documentation		
490_1	Moisture content, solid samples		
40_1	Colour	ASTM D1500, SS-ISO 2049	50
994_1	Saponification number	SS-ISO 6293-1, ASTM D94	100
118	DGA, TOGA		100
1273	GC-MS, unknown sample (4h)		20

Lubricating oils cont.

Art. nr	Analysis	Method	Sample (ml)
42	Gravimetric contamination + photo*	ISO 4405 mod.	500
87	Elemental analysis, ICP (excl. sample prep.)	ASTM D4951 mod., ASTM D5185 mod.	20
89	Elemental analysis after gravimetric analysis, ICP (excl. sample prep.)	Internal method	
51	IR-graph		20
57	Air release	SS-ISO 9120	200
922_1	Dissolved oxidation products	ASTM D6802 mod.	50
1279	MPC	ASTM D7843	50
10_1	Ocular inspection		
93	Olefin bonds	ASTM D1159-07, ASTM D2710-09	50
63_1	Oil content in H ₂ O		
63_2	Oil index	SS-EN ISO 9377-2	
64_2	Insolubles in used lubricating oils (Pentane)	ASTM D893	
64_3	Pentane insolubles by membrane filtration	ASTM D4055	
64_1	Insolubles in used lubricating oils (Toluene)	ASTM D893	
66_1	Oxidation stability (turbine oil)	ASTM D943	
720	Solid particles contamination	SS-ISO 4407	
95	Peroxide number	ASTM D3703 mod.	50
030_1	Sample preparation		
9205_1	i-pH	ASTM D7946-19	100
126_1	RBOT	ASTM D2272-11	200
85	Foaming characteristics	ASTM D892	500
84	Foaming characteristics @ 50°C	ASTM D892 mod.	200
92	Total Acid Number, pot.titr. (TAN)	SS-ISO 6619, ASTM D664	50
5	Water content (Karl Fischer)	IEC 60814, ASTM D1533, SS-EN 12937	20
98_1	Water content, Xylenestillation	SS-ISO 3733	100
10440_3	Viscosity, Dynamic @ 40°C		40
10340	Viscosity @ 40°C, Kinematic	SS-ISO 3104	40
10380	Viscosity @ 80°C, Kinematic	SS-ISO 3104	40
103100_1	Viscosity @ 100°C, Kinematic	SS-ISO 3104	40
	Viscosity, other temp., Kinematic	SS-ISO 3104	40
	Viscosity, other temp., Dynamic		40
104	Viscosity index, incl. measurements	SS 155149, ASTM D2270	40

Further analyzes and services by agreement. Contact the laboratory.
For all samples, a destruction fee of 25 SEK / sample will be added.

* Gravimetric contamination can be done on filters with pore sizes 0.22 µm, 0.45 µm and 0.8 µm.



Fuel oils

Art. nr	Analysis	Method	Sample (ml)
2_1	Asfaltenhalt	IP 143, ASTM D6560	100
401_1	Ash content @ 525°C	SS-EN ISO 6245 mod.	100
402_1	Ash content @ 775°C	SS-EN ISO 6245, ASTM D482	100
4	Asksmältförlopp	Internal method	50
6	Bakterier/Mögel	Easicult	20
8_1	Bensenhalt	SS-EN 238	50
380_1	Bly i bensin		10
12_1	Refractive Index @20°C	SS-ISO 5661, ASTM D1218	30
96_1	BSW (vatten och sediment)	ASTM D1796, SS-ISO 3734	100
15_1	Cetanindex	ASTM D976, SS-EN ISO 4264:2018	
2015_1	Density @ 15°C (areometer)	SIS 21411	500
110_1	Density (pyknometer)	SS-EN ISO 3838	100
270	Destillationskurva	SS-EN ISO 3405	150
32	Elementaranalys (kol, väte, kväve)	ASTM D5291	
35_1	Filtrerbarhet	SS-EN 116	50
36_10	Flash point (Abel Pensky)	SS 155123	200
37_20	Flash point (Cleveland)	SS-ISO 2592, ASTM D92	200
38_30	Flash point (Pensky Marten)	SS-EN ISO 2719, ASTM D93A	200
	Photo, documentation		
34_1	Grumlingspunkt	SS-EN 23015	50
394_1	Harts i motorbensin efter oxidation	ASTM D873	300
392_1	Harts i motorbensin	SS-ISO 6246	300
3260_2	HFT accelerated	SM S 2696	100
3250_1	HFT existent	SM S 2696	
530_1	Kokstal (Conradson)	ASTM D189	

Art. nr	Analysis	Method	Sample (ml)
53_1	Kokstal (Ramsbottom)	SS-ISO 4262	
3210_1	Kolhalt	ASTM D5291	
54	Korrasjon på koppar	SS-ISO 2160, ASTM D130	50
1258_1	Korrasjon på silver	DIN 51353	100
3230_5	Kvävehalt	ASTM D5291	50
58_1	Lägsta flyt	SS-ISO 3016	100
10_1	Ocular inspection		
62_1	Oljehalt i motorbensin	DIN 51784	50
69_1	Oxidationsstabilitet hos motorbensin	ASTM D252	
	Oxidationsstabilitet hos dieselbrännolja	ASTM D2274	
100_7	Oljehalt, fasta pröver	Internal method	
95	Peroxide number	ASTM D3703 mod.	50
030_1	Provberedning		
78_1	Rökpunkt	SS-ISO 3014, ASTM D1322	100
79_1	Sediment i eldningsolja	SS-EN ISO 3735, ASTM D473	
91_6	Svavelhalt	ASTM D1552	
920_1	Total Acid Number, färgomslag	SS-ISO 6618	50
92	Total Acid Number, pot.titr. (TAN)	SS-ISO 6619, ASTM D664	50
3240_4	Syre*	Beräknad	
4	Turbinaskmetod	SS 155137	2000
5	Water content (Karl Fischer)	IEC 60814, ASTM D1533, SS-EN 12937	20
98_1	Water content, Xylendestillation	SS-ISO 3733	100
	Viscosity, under 20°C, Kinematic		40
10340	Viscosity @ 40°C, Kinematic	SS-ISO 3104	40
10350	Viscosity @ 50°C, Kinematic	SS-ISO 3104	40
10380	Viscosity @ 80°C, Kinematic	SS-ISO 3104	40
103100_2	Viscosity @ 100°C, Kinematic	Beräknad	40
	Viscosity, övriga temp., Kinematic	SS-ISO 3104	40
330_2	Värmevärde (effektivt)	ASTM D240	
33_1	Värmevärde (kalorimetriskt)	ASTM D240	
3220_2	Vätehalt	ASTM D5291	
39_1	Xylenekivalent	SS 155173	
390_1	Ångtryck	ASTM D323-15A, SS-EN 12	80

Further analyzes and services by agreement. Contact the laboratory.
 For all samples, a destruction fee of 25 SEK / sample will be added.

* For calculation, carbon, hydrogen, nitrogen, sulfur and ash content are required.

Other analyzes and services

We can also help you with further analyzes and services by agreement. Do you want prices for special investigations, commissioned research or consultation?

Contact the laboratory for information and prices.
Costs for consumables will be added where applicable.



Terms and Conditions

Analyzes are performed during regular working hours, within 1-2 weeks depending on the desired scope of analysis, unless otherwise agreed. The response time may be slightly longer during holidays.

If results are desired faster than within 5 working days, double the price will be charged. Gas analysis can be analyzed on the day of arrival for double the rate. In urgent cases, ie outside normal working hours, the analyzes are charged double + hourly rate (min. 2h).

It is also possible to order sampling equipment from us (included in the analysis price), the cost of shipping will be added.

All prices are exclusive of VAT. For all samples, a destruction fee of 25 / sample will be added.

Prover sparas i 3 månader efter analys, om inget annat avtalats. Resultat skickas per e-post, vid andra önskemål kontakta laboratoriet.



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