

DDE Attard Ltd, Hal Luqa

Application for Variation of IPPC Permit

Volume 3: DDE Attard Ltd Comments to IP 0001/13/V2 –
Variation of the IPPC permit for DDE Attard Ltd –
Comments from ERA, Regulatory Consultation and Public
Consultation 1, 2 and 3



Version 4: 28th September 2022



IP 0001/13/V2 – Variation of the IPPC permit for DDE Attard Ltd – Comments from ERA, Regulatory Consultation and Public Consultation – 1

General Note

In this document, **end of life vehicles** are referred to as **EoLVs** whilst **emission limit values** are referred to as **ELVs**.

Form A

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd
A1.1	✓	Noted.	
A1.2	✓	Noted.	
A1.3	✓	Noted.	
A1.4	✓	Noted.	
A2.1	✓	Noted.	
A2.2	✓	Noted.	
A3.1	✓	Noted.	
A3.5	X	The registered address for C4938 is not the one listed in this section. Applicant shall replace the address in the section with the address of the registered office of the company.	This has been updated and can be found in Appendix A1 and within updated variation.

Form C

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd
C1.1	X	In Volume 2, Point 2.5, the application indicates that the composter shall be temporarily removed. Applicant to clarify whether this activity will be carried out on site.	Applicant can confirm activity will be carried on site.
C1.2	✓	Noted.	
C1.3	X	<p>a) With reference to Approved document 2 in IP 0001/13, applicant is to update the phasing plan with the installation of the geotextile membrane.</p> <p>b) With reference to Improvement Program Item 12 of IP 0001/13 and replies to BAT 27d applicant is to install an eddy-current separator and sorter system upstream of the main shredder.</p> <p>c) In order to meet the requirements of S.L. 549.36, Waste Management (End of Life Vehicles) Regulations with respect to re-use and recycling targets, applicant is to implement (b) above and update flow diagrams to demonstrate that upholstery shall be removed manually prior to shredding as indicated during the processing of IP 0001/13.</p>	<p>a) Document 2 has been updated as per Appendix A2 of this document.</p> <p>b) Eddy-currents separator and sorter are installed.</p> <p>c) After discussions with ERA it was determined that upholstery should not be removed, since the capability of reaching requirements set out by S.L. 549.36, (Waste Management (End of Life Vehicles) Regulations) can be reached without upholstery. Appendix A3 provides an update response to the one provided on the 3rd April 2019, within VOLUME 3: RESPONSE TO FEEDBACK ON IPPC APPLICATION.</p>
C1.4	✓	Noted.	
C2.1	X	<p>EMS at Annex 6. Incorrect reference, to be updated.</p> <p>References to MEPA to be changed to ERA.</p>	Incorrect reference updated as per Appendix A4 in this document and submitted variation document.
C2.2.1	✓	Noted.	
C2.2.2	✓	Noted.	
C2.2.3	✓	Noted.	
C2.2.4	X	Comments on BAT in separate table below. Applicant is to provide the complete BAT conclusion together with the applicant's reply as part of the revised IPPC application.	This requirement has been followed.

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		The BAT assessment is to also cover the shredding of EoLVs and metal carried out until such time that Phase 4 is complete.	The BAT assessment provided in variation document covers the shredding of EoLVs and metal carried out until such time Phase 4 is complete.
C2.2.5	✓	Noted.	
C2.3	✓	Noted.	
C2.4	✓	Noted.	
C2.5	✓	Noted.	
C2.6	✓	Noted.	
C2.7	✓	Noted.	
C2.8	X	<p>2nd row in Table 4, Volume 2 makes reference to temporary hardstanding and temporary gutters. Applicant to clarify why such infrastructure is proposed to be temporary when the row deals with a permanent source.</p> <p>Until such time that the infrastructural measures, such as the underground reservoirs, referred to in Annex 4 are implemented within the proposed timeframes for Improvement Program 9 in pages 20-21 of Volume 2, applicant is to provide temporary firefighting measures suitable for the temporary EoLVs depollution and processing being processed through this application.</p> <p>Applicant to note that should they intend to continue accepting electric/hybrid vehicles on site, a pit for temporary storage of such vehicles needs to be constructed. Minimum requirements for such pit can be noted below:</p> <ol style="list-style-type: none"> 1. Shall be a minimum of 3m away from flammable material. 2. Shall have water sprinklers on the floor and the walls which will activate if the car catches fire 3. Shall have an adequate drainage system which shall collect all water used for firefighting. The water shall not be discharged to environment or to sewer but must be collected by a waste carrier or treated on site. 	<p>This was an oversight in the original application and has been updated as per Appendix A5 of this document and revised variation submitted.</p> <p>As per discussions with ERA it was determined that a description for temporary firefighting is provided and can be found in point 66 of Annex 4, stating “as a temporary measure before firefighting reservoir is constructed, a dedicated 500L capacity water bowser, with pump dispenser will be stored on site for use in the event of a fire.”</p> <p>For this variation, DDE Attard will not be accepting electric/hybrid vehicles, until new variation is submitted.</p>

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		<p>The construction of this pit must be accompanied by an SOP for its use. The below requirements are to be noted:</p> <ol style="list-style-type: none"> 1. Any electric/hybrid vehicle accepted on site that was involved in an accident or that had previously caught on fire must be quarantined in the pit for a minimum of 48 hours 2. In the case of CPD involvement, applicant shall inform that the source is an electric/hybrid vehicle <p>Applicant to provide a detailed plan, including timeframes, as to how the above mentioned requirements will be met. Such a plan will need to be approved by ERA and other regulatory consultees, as deemed appropriate by ERA. To note that acceptance of electric/hybrid EoLVs under EWC 16 01 04* will not be allowed prior to the completion of the above mentioned requirements.</p>	
C2.9	✓	Noted.	
C2.10	X	Applicant to provide a detailed proposal as to how the composter will be temporarily decommissioned. This shall include how dismantling will be done in an environmentally safe manner and how storage will be within an adequate area. Any wastes envisaged to be generated from the temporary decommissioning shall be indicated together with the EP/IP number of the facility which will be utilised to dispose of the waste.	Decommissioning Plan has been provided in Appendix A6.
C2.11	✓	Noted.	
C3.1	X	<p>Applicant shall clarify whether EoLVs being proposed to be accepted on site (depolluted or otherwise) are solely road vehicles or whether other types of vehicles (sea, air) are being considered. Comment in C3.11 refers.</p> <p>Applicant to provide a maximum storage capacity for EWC 16 01 06.</p>	<p>As per discussions with ERA, it was concluded EWC codes shown in figure 4.1, Incoming Waste indicated will only be allowed, relative to whether this originates from road vehicles or other vehicles (sea, air).</p> <p>As indicated on pg 179 of VOLUME 2: IPPC APPLICATION, the maximum amount of EWC 16 01 04* is 4,800T/annually. Of</p>

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		<p>The variation proposal shows the utilisation of the Phase 2 area to depollute and dismantle EoLVs. Applicant shall provide plans and sections showing the location of the proposed shed for vehicles awaiting depollution and associated internal roads keeping in mind that polluted EoLVs shall be stored on a hardstanding area with adequate waste water collection and treatment. Proposal shall also indicate the maximum storage capacity of EWC 16 01 04* during the proposed temporary operations.</p> <p>Further to comment in C1.3(c), applicant is to indicate how the re-use and recycling targets in S.L. 549.36 shall be achieved prior to the acceptance and processing of polluted EoLVs.</p> <p>Applicant shall also indicate how lead acid batteries from EoLVs shall be stored within adequate containment boxes. These boxes shall be resistant to the corrosive action of battery acid and have a snug fitting lid. Further to comment in C2.8, applicant to note that high voltage batteries from electric/hybrid vehicles shall be stored separately to lead acid batteries. Applicant shall indicate the storage method for such batteries.</p>	<p>these 4,800T, it is estimated that around 1,920T will be EWC 16 01 06.</p> <p>Appendix A7 provides the plans and sections showing the location of the proposed shed for vehicles awaiting depollution. The maximum storage capacity of EWC 16 01 04* during the proposed temporary operations is of 10 vehicles.</p> <p>Please refer to comment C1.3c)</p> <p>Lead acid batteries are presently being stored in adequate containment boxes as per Appendix A7. As noted in comment C2.8, electric/hybrid vehicles will not be accepted.</p>
C3.2	✓	Noted.	
C3.3	✓	Noted.	
C3.4	X	Applicant shall indicate whether the interceptor and reservoir will be located aboveground or underground and provide its maximum storage capacity. In the case that further excavations are required than those approved by Approved Document 2 of IP 0001/13, indicate the projected volumes of such hazardous waste to be exported.	As indicated during discussions with ERA the permanent interceptor and reservoir will be located underground for which maximum storage will be the same as indicated within original application (175m ³ reservoir used for providing fire fighting water and 800m ³ reservoir for collection of water). The temporary interceptor reservoir (having a storage capacity of 460m ³ and for which specification can be found

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		<p>If available, applicant shall provide the certificate for impermeability for the plastic temporary reservoir from an independent warranted engineer or architect. If not, applicant is to provide timeframe for submission.</p> <p>Furthermore, applicant shall indicate whether the temporary reservoir shall have any overflow and if yes, whether this shall be to land. In the eventuality of a discharge to land, applicant to update C3.8.</p>	<p>in Appendix A8) will be underground. No trenching is to be carried out, but part of the site will be backfilled to be brought to grade.</p> <p>Certificate of impermeability is not currently in hand and will be provided once complete at end of Stage 2.</p> <p>Temporary reservoir will have an overflow and this overflow will be to land. Section C3.8 updated as required.</p>
C3.5	✓	Noted.	
C3.6	✓	Noted.	
C3.7	✓	Noted.	
C3.8	X	Comment in C3.4 refers.	If overflow occurs, this will be due to rainwater gathered at area. Such an overflow would still have passed through an interceptor/reservoir system meaning any overflow will be filtered. The location of such overflow has been provided in Appendix A9.
C3.9	X	Applicant is to submit a noise monitoring survey as requested by ERA through the Compliance and Enforcement Directorate on the 8 th July 2021.	DDE Attard acknowledges noise study has not been provided. Since currently works are being undertaken as per requirements of permit issued, it was determined that such a noise study (for which method statement has been provided and approved by ERA) would not be indicative of normal activity process at DDE Attard Ltd. For this reason, DDE Attard will inform ERA when such works are completed and activities as per permit commence. Once confirmed by ERA, noise monitoring will be undertaken.
C3.10	X	Monitoring proposal as per comments in BAT 6 and BAT 7 is required.	Comments to BAT 6 and BAT 7 have been provided.
C3.11	X	Applicant shall include a flow diagram for the acceptance and treatment of EWC 16 01 06.	The flow diagram for the acceptance and treatment of EWC 16 01 06 can be found attached to Appendix A10.

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		Comment in C3.1 refers. If applicant intends to accept vehicles other than road vehicles, flow diagrams for the processing of such vehicles may need to be provided.	Please refer to comment C3.1.
C4.1	✓	Noted.	
C4.2	✓	Noted.	
C5.1	✓	Noted.	
C6.1	✓	Noted.	
C6.2	X	With reference to para 5.5 of Volume 2, applicant is to identify all third party sites immediately adjacent and surrounding the site which might be affected by emissions from site.	Correction has been made and can be found within variation application submission provided and Appendix A11.
C6.3	✓	Noted.	
C7.1	X	Applicant shall provide a written confirmation from the Planning Authority indicating that the temporary works being proposed do not require development consent. Should the Planning Authority determine that a development permit is required, applicant shall submit an application and plans to the Planning Authority for its consideration.	DDE Attard Ltd has engaged the service of an architect who indicated that the temporary works being proposed do not require development consent.
C8.1	✓	Noted.	
C8.2	✓	Noted.	
C9.1	X	Annex 4 is to include a business plan indicating the feasibility of the proposal covered by this application. This shall describe how the applicant has financial capacity to comply with all obligations and liabilities that will or may arise from the proposed activities or how financial security may be offered.	Annex 4 has been updated, providing a business plan, indicating the feasibility of the proposal covered by the application, and can also be found in Appendix A12. Funding for such has been secured for first part of the project and ongoing for the second part of the project.

Comparison with BAT Conclusion

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd
1 xv	Further to the below comment in BAT 17 and C3.9 above, applicant to note that the noise study requested as an Improvement Program has not yet been addressed.	DDE Attard acknowledges noise study has not been provided. Since currently works are being undertaken as per requirements of permit issued, it was determined that such a noise study would not be indicative of normal activity process

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd
		at DDE Attard Ltd. For this reason, DDE Attard will inform ERA when such works are completed and activities as per permit commence. Once confirmed by ERA, noise monitoring will be undertaken.
3	<p>With reference to Phase 1 indicating that the composter shall be temporary removed, applicant shall indicate how its process effluent is being considered in this BAT conclusion by confirming that following the conclusion of the proposed End-of-Life shredding facility, the composter shall be relocated to its currently permitted location.</p> <p>The inventory shall also cover potentially contaminated surface runoff/waste waters may also be generated from the storage of hazardous waste (e.g. polluted EoLVs) and their processing. It shall include all pollutants which may be present in any waste water generated by all waste treatment activities which may necessitate on site capture and treatment. This shall include a list of environmentally acceptable pollution concentration levels and may be based on past monitoring records if available.</p>	<p>Process effluent was not considered for composter since no effluent is stored within. The composter will be relocated to its current permitted location.</p> <p>Contaminated surface runoff/wastewater generated from the storage of hazardous waste (e.g. polluted EoLVs) will not be generated by process but rather possibly by rainstorm. Since at the present moment EoLVs and indicated other materials are not being stored or not stored by the amounts indicated with the application, the required information is not available. For this reason, DDE Attard Ltd is ready to undertake tests of water samples, once such the waste and waste amounts permitted are stored, in order to determine the concentration levels of said wastewater from different areas (as per Figure 2.19 sampling locations in VOLUME 2: IPPC APPLICATION).</p>
4 b	Comment above in C3.1 refers regarding maximum storage capacity for EWC 16 01 04* during the temporary phase and EWC 16 01 06.	Comment has been provided in section C3.1.
6	Based on BAT 3 and Improvement Programme Item 7 of IP 0001/13/A, applicant is to provide an effluent monitoring proposal for any overflow from permanent/temporary treated water reservoirs including the sampling points and proposed parameters to be monitored.	An effluent monitoring proposal has been provided within Appendix A13 of this document. As indicated during discussions with ERA, water reservoir will overflow when a heavy rainstorm hits site. For this reason, testing will be undertaking every 2 years and sample tests provided when such rainfall hits.
7	Based on the inventory in BAT 3, applicant to consider any overflow from permanent/temporary treated water reservoirs to be a discharge to environment	Please refer to BAT 6.

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd
	and proposed parameters to be monitored. These parameters will be added to the Monitoring Plan requested in Improvement Programme (IP) Item 7 of IP 0001/13.	
8	Applicant is to provide an emissions to air monitoring proposal including the monitoring standards to be utilised covering the main shredder based on the requirements for IP 0001/13 and this BAT, BAT 14 and BAT 25.	BAT 8 is referring to monitored channelled emissions to air with at least frequency provided. As will be indicated within BAT14 and BAT 25 options for monitoring such channelled emissions are determined to be unattainable with reason. As an alternative, DDE Attard Ltd is proposing monitoring air quality within area, as per parameters and timeframes that would be established in an air quality monitoring method statement. It is important to be noted that emissions recorded will not include those generated by DDE Attard Ltd but by work undertaken in surrounding areas, such as: Metalco and Wasteserv, waste still at landfill (property of INDIS) and aircraft landings in nearby airport.
11	Applicant to explain how waste water discharged to both land and to sewer shall be measured.	BAT 11 indicates that monitoring includes direct measurements, calculations or recordings e.g. using suitable meters or invoices. Since no wastewater will be discharged to land and wastewater to sewer will be originating from lavatories, a calculation will be used as per Appendix A14.
14	Applicant is to provide a plan and section of the shredder shed indicating how such shed shall be suitably contained to reduce diffuse emissions and thereby the other requirements of BAT14d i.e. “maintaining the enclosed equipment or buildings under an adequate pressure and collecting and directing the emissions to an appropriate abatement system via an air extraction system and/or air suction systems close to the emission sources” met.	<p>During consultation with the architect it was determined it was not possible for the shredder to be under a shed.</p> <p>Reasons were due to:</p> <ol style="list-style-type: none"> 1. Height limitation of area since site is close to an airport 2. Equipment on site is moveable and having shed would result in machinery not being able to be moved for maintenance requirement. This may in turn result in potential safety hazards 3. The possibility of safety hazard as indicated in BAT25. <p>As per BAT 14, the techniques proposed are being applied as per Appendix A15.</p>

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd
17	Applicant is to provide the noise monitoring survey as requested in C3.9 above.	Kindly refer to note in C3.9
18	Comment regarding noise monitoring plan in BAT 17 refers.	Kindly refer to note in BAT17
19 d	In view that the fuel tanks are being proposed to be retained in this application, applicant shall provide appropriate bund certifications for each fuel tank on site. Furthermore, applicant shall provide a decommissioning plan with timeframes for any fuel tanks which shall not be utilised as such.	Current fuel tank on site is 10,000L tank. Bund certification is provided in Appendix A16. Other fuel tanks on site will be finalized by latest completion of Phase 4 works and bund certifications for each fuel tank will be provided. No decommissioning plans are being considered at present.
19 f	With reference to Section B3.5 of the original IPPC application IP 001/13, applicant to explain how potentially contaminated runoff from the road surfaces of the installation shall be separated from clean rainwater from the roof surfaces. Layout plans might need to be updated accordingly without prejudice to any development permit requirements or those of any other regulatory body.	Section B3.5 of the original IPPC application IP 001/13 stated “Clean rainwater from roofed areas will be received in the underground reservoir without pre-treatment”. This will not be the case. Rainwater from the roof surface will be diverted through downpipes to the surface gutters. In turn all water will be treated as per section 4.26 of Section B3.5. It is to be noted that roofed area represents only some 20% of the site area.
20	Applicant to note that any treated water reservoir overflows are to be considered for this BAT. Based on reply to BAT 3, applicant is to consider revision of reply to this BAT to cater for all the pollutants listed in BAT 3 and suggest achievable limits for metals and metalloids which are also compliant with the limits provided by WSC.	Considerations have been made for water reservoir overflow and techniques decided to be used offered within BAT 6 and BAT 7. In reference to BAT 3, if reference is being made to potentially contaminated surface runoff/wastewater from the storage of hazardous waste, such identification of pollution generation is not able to be determined unless testing is undertaken once installation is fully operational.
21	Applicant to provide a reply to this BAT for the temporary storage of EWC 16 01 04* and for EWC 16 01 06.	Replies to BATs provided for temporary storage of EWC 16 01 04* and for EWC 16 01 06 can be found Appendix A17
23	Applicant to provide timeframe by when an Energy Audit (for the current and proposed operations) can be provided.	The period between when Energy Audit will be provided is March 2022 and August 2022.
25	Further to the provided reply to BAT 14d above, BAT shows that water injection into shredder should be accompanied by cyclone or wet scrubber for waste gas. Applicant to provide timeframe for the submission of a plan for the installation of further abatement for the shredder. In view that newly published BAT Conclusions	With reference to “water injection into shredder should be accompanied by cyclone or wet scrubber for waste gas” such techniques have been found not to be viable for the following reasons:

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd
	<p>will need to be implemented within four years from adoption of a relevant decision on BAT conclusions as per S.L. 549.77, applicant shall indicate which measures (a)-(c) shall be implemented including timeframes.</p> <p>Further to the affirmative reply in BAT 14d, applicant is to provide the emission limit value that can be achieved under optimised operational conditions as described in the reply to this BAT comparison.</p>	<ul style="list-style-type: none"> • Costs are exorbitantly high, making return on investment not worthwhile • Cyclone/wet scrubber would go over height limitation allowed for the area (since this is near airport) • Impractical/possibly dangerous to implement. Normal process requires grabber to input material from top. A pressure transportation system would be required for cyclone/wet scrubber to be able to operate and in turn requiring an opening/closure system. This would not allow for grabber to push the material downward (as shown by link) and cycle time being too long (total process: open, place vehicle, close, pressurise, shred, finish) for process to be feasible. Furthermore the possibility of combustion is high due the high temperatures generated from such process. • Safety hazard – machinery is not designed to operate in a closed system. If there is a fire, this is combatted by inputting water. The opening and closing system would not provide ability for operator to identify such a resultant fire, potentially resulting in an explosion. <p>Alternative Techniques:</p> <p>The alternative being proposed is keeping water injection within shredder, monitor required channel dust emissions and readings are submitted periodically to ERA as per BAT. If readings are higher than those indicated by BAT8, then mist water injection locations will be increased.</p>
27	<p>The deflagration management plan shall include the following information:</p> <ol style="list-style-type: none"> 1. A review of historical deflagration incidents and remedies, and the dissemination of deflagration knowledge, as applicable 	<p>The section “A review of historical deflagration incidents and remedies, and the dissemination of deflagration knowledge, as applicable” has been included with the Fire Prevention and Response Plan as per Appendix A18 and provided updated variation document.</p>

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd
	<p>Further to the replies to BAT 26 (b) and (c) an indication of how containers, tanks and pipework containing potentially flammable materials shall be cleaned thoroughly (and not just emptied) prior to shredding.</p> <p>Comment in C1.3 (b) above refers.</p>	<p>Containers, tanks and pipework which are not certified by an authorized facility or industrial operator, the containers, tanks and pipeworks will pass through same process of car depollution as indicated in figure 9 of variation document with updates shown as per Appendix A19 of this document.</p>

Comments from Consultation

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd
Occupational Health and Safety Authority (OHSA)	<p>With reference to this consultation process, kindly note that the Occupational Health and Safety Authority (OHSA) finds no objection to an ERA approval, provided that the applicant abides by all relevant occupational health and safety (OHS) legislation and in particular:</p> <ol style="list-style-type: none"> 1) All OHS hazards present at this place of work are covered by a suitable, sufficient and systematic risk assessment carried out as required under S.L. 424.18 and by other relevant OHS regulations. Subsequent to this risk assessment, the employer shall take all necessary measures to prevent occupational risks to health and safety, and shall control those factors which are likely to give rise to accidents or which create a risk to OHS, 2) The employer shall designate a competent person on OHS matters to assist that employer on the measures needed to safeguard OHS, 3) All work equipment used at this site shall comply with the relevant OHS regulations particularly, but not limited to the provisions of S.L. 424.35 and 	<p>Applicant to note comments from OHSA. These will be included as permit conditions.</p>	<p>DDE Attard Ltd acknowledges this</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd
	<p>4) Any construction works shall be compliant with the relevant provisions of the Work Place (Minimum Health and Safety Requirements for Work at Construction Sites) Regulations, 2018 (S.L. 424.36).</p>		
Regulator for Energy and Water Services (REWS)	<p>The Regulator is in direct communication with DDE Attard Ltd. for this company to correctly register its fuel storages and obtain authorisation.</p> <p>REWS does not have objections to the IPPC variation application but would like to bring your attention to the part on fuels mentioned in Table 2, point number 3 on page 18 of document 6c.Original Application Volume 2. Where dispensing or refuelling is mentioned, ‘notified’ as per S. L. 545.22 is not the correct term to use. This will be considered as an authorisation to operate a PFS (Commercial Site) if the application is duly completed. For the rest of the storages (including a & b (ii)), a notification may apply depending on the use of fuel & tank capacities on site at any given time (above 3,000 it is also an authorisation). More details will be asked from the operator, to determine the correct application in this regard. (As mentioned above the REWS is in contact with DDE Attard).</p>	<p>Applicant to note that wording of IP Item no 3 shall be reworded in line with comments from REWS. The IP item will request that all fuel storages on site have been duly authorised.</p>	<p>DDE Attard Ltd acknowledges this</p>
Water Services Corporation (WSC)	<p>1) Will the temporary and subsequently the permanent oil/water separators be collecting surface runoff? Will they be discharging to road surface?</p>	<p>1) The permanent oil/water interceptor shall receive effluent from the waste storage and processing areas. The temporary oil/water interceptor shall receive water from the composting shed where EoLV depollution is being proposed to be carried out</p>	<p>1) DDE Attard Ltd acknowledges this</p>

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	<p>2) Can I have confirmation whether the composter does generate waste water? If yes, has this ever been tested and will it be discharged to sewer?</p> <p>3) Are wheelie bins containing the food waste for the composter washed on-site? If yes, where? And is the waste water discharged to sewer?</p> <p>4) Is the reservoir overflow discharging to road surface?</p>	<p>temporarily. ERA is informed that overflow from the reservoir will discharge to road surface. Comment above in Section C3.4 refers with regards to overflow from temporary reservoir.</p> <p>2) The composter does generate waste water. The current permit requires the applicant to test the waste water with parameters and ELVs provided by WSC in the consultation on the original application prior to discharge to sewer. Applicant shall clarify whether such testing has ever been done.</p> <p>3) Applicant to provide a response to this query.</p> <p>4) Comment in point 1 above refers.</p>	<p>2) Such testing has never been undertaken since construction work is still ongoing</p> <p>3) Composter is not being used and is not intended to be used on site until further notice. If composter start to operate again, wheelie bins would not be cleaned on site.</p> <p>4) DDE Attard Ltd acknowledges this</p>
Environmental Health Directorate (EHD)	<p>1) Safe and proper handling of raw materials on site should also be ensured. Adequate preventive</p>	<p>Applicant to note comments from EHD. With reference to point 6,</p>	<p>No 1) to ERA Permitting Unit Comments – October 2021</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd
	<p>measures are to be taken regarding the potential accidental spillage of hazardous fluids, fuel and lubricants which are also to be well managed and adequately stored. The Spill Prevention and Response Plan is to be adopted.</p> <p>2) Water for human consumption and personal use at said facilities is to be potable and from an approved source.</p> <p>3) The reservoir-harvested rainwater should not be used for human consumption and/or personal hygiene. Reservoir overflow should discharge directly onto the street after it has passed from the oil/ water separator. If the water from the rainwater reservoir will be used for washing of floor and/or equipment and for flushing apparatus this must be treated with a biocide prior use.</p> <p>4) If second class water, (from rainwater reservoir), is used to sprinkle dust emission this should be treated for Legionella bacteria.</p> <p>5) Mitigation measures and monitoring programmes are to be adopted to prevent noise, air, vibration, and odour pollution generated from operations.</p> <p>6) Although the certification from the independent warrant civil engineer will be granted 42 months form the date permit is granted, (see Table 2. Page 19, Vol2 of the IPPC) all the drainage system on the scheme must be leak proof and abide to Local Laws and Regulations.</p> <p>7) Pest treatment must be carried out along the entire scheme since it is prone to rodent attraction. Especially since food waste will be received on site.</p>	<p>applicant shall ensure that all existing drainage systems (domestic and otherwise) are leak proof.</p>	<p>DDE Attard Ltd acknowledges this</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd
	<p>8) Foul water, contaminated surface water and any other anthropogenic waste should not exit the scheme.</p> <p>9) Since the current surface water management is not BAT, (see p26, point 3.19 of Vol 2 of the IPPC), all the necessary preventive measures are to be adopted to reduce and where possibly eliminate the risk of contamination of surface and ground land as well as the surface and ground water.</p> <p>10) Comments provided from pervious consultation on IP0001/13 dated 28th November 2017, are to be taken into consideration with these comments.</p> <p>11) Moreover, any other unpredicted impacts and nuisances which may arise from this operation and that may have a significant adverse effect on public health are to be immediately addressed by the applicant and the necessary mitigation measures taken.</p> <p>12) Complaints lodged by the public regarding any adverse impacts/nuisances should be immediately addressed by the applicant. All complaints lodged and actions taken are to be recorded and such records are to be readily available to the Competent Authorities when requested.</p>	<p>Applicant shall indicate what measures shall be put in place as interim mitigation measures to reduce the risk of land and surface and ground water contamination.</p>	<p>No 2) to ERA Permitting Unit Comments – October 2021</p> <p>DDE Attard Ltd will not operate any part of scrapyard unless proper hardstanding is in place. Furthermore if reservoir overflow results due to large amount of rainwater, such water will tested as indicated in previous BAT conclusion comments</p>
<p>Energy and Water Agency (EWA)</p>	<p><i>Energy:</i></p> <p>No comments were provided from an energy perspective.</p> <p><i>Water:</i></p>		

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd
	<p>The results of any historical groundwater quality baseline studies should be included in the Application Document. Sampling of Groundwater monitoring should be carried out by an accredited laboratory from the private borehole onsite or access may be requested from the WSC BH in the vicinity. Further to this, it is recommended that periodic groundwater monitoring is requested from the applicant. Other than the basic physical parameters of pH, electrical conductivity, the list should include persistent, bio accumulative and toxic (PBT) substances listed in the Groundwater Directive which are relevant to the site including Cadmium, Lead, Mercury, Trichloroethylene and Tetrachloroethylene. These should be measured with a maximum limit of quantification of 0.01 µg/L.</p>	<p>ERA notes that the baseline reports have been provided as part of the original application.</p> <p>Applicant shall provide a method statement for periodic ground water monitoring as per EWA's comments.</p> <p>Parameters for monitoring are listed in Annex 1 below.</p> <p>The monitoring locations and frequency of monitoring shall be included in the method statement together with the sampling methodology as well as the method that will be used for the testing of each parameter. Applicant to note that testing shall be done in an accredited laboratory and the accreditation certificate shall be provided with the method statement. Monitoring frequency shall be not less than once a year until such time that the area is covered with an impermeable surface. Any deviation from the monitoring frequency indicated is to be substantiated with a risk assessment. If the borehole is located in areas belonging to 3rd</p>	<p>DDE Attard Ltd disagrees with the conclusions made by the ERA. ERA has indicated that periodic ground water monitoring should be undertaken "every year until such time that the area is covered with an impermeable surface." Each area will be operational once impermeable/hardstanding is in place (even in the case of temporary EoLV processing) hence one cannot understand why such monitoring is being requested.</p> <p>Furthermore it is to be noted other neighbouring operational sites maybe affecting Groundwater namely Luqa Civic Amenity site (operated by WasteServ Malta), EasyGas Malta Limited - Hal Luqa, Metalco, landfill owner by INDIS and surrounding farmland area.</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd
		<p>parties, applicant is to submit a declaration signed by 3rd parties showing that they agree to provide access to the applicant for sampling. The declaration shall indicate that the borehole, including associated equipment (e.g. pump / pipework), is in good working order.</p> <p>The method statement shall also include land (soil) monitoring. Such monitoring shall be carried out from the 5 points identified in the baseline report as well an extra point from an area immediately adjacent to the shredder. Parameters for monitoring are listed in Annex 1 below. Method statement shall include the same items as for groundwater monitoring and shall be not less than once every 2 years until such time that the area is covered with an impermeable surface.</p>	
Civil Protection Department (CPD)	CPD are currently still assessing this application. From correspondence provided CPD, direct liaison with the applicant is currently underway in relation to fire fighting measures.	No feedback required at this stage.	DDE Attard Ltd acknowledges this
Malta Resources Authority (MRA)	No feedback was provided.	--	DDE Attard Ltd acknowledges this
Planning Authority (PA)	No feedback was provided.	--	DDE Attard Ltd acknowledges this

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd
Transport Malta (TM)	No feedback was provided.	--	DDE Attard Ltd acknowledges this
ERA – Ambient Air Quality and Waste – Air Team	No comments on the application.	--	DDE Attard Ltd acknowledges this
ERA – Ambient Air Quality and Waste – Noise Team	No comments on the application	--	DDE Attard Ltd acknowledges this
ERA – Environmental Assessment Unit	No comments on the application.	--	DDE Attard Ltd acknowledges this
ERA - Biodiversity and Water Unit	No comments on the application.	--	DDE Attard Ltd acknowledges this
ERA – Compliance and Enforcement Directorate	No comments on the application.	--	DDE Attard Ltd acknowledges this
ERA – Ambient Air Quality and Waste – Waste Team	No feedback was provided.	--	DDE Attard Ltd acknowledges this

Comments from Public Consultation

No comments were received from the public.

Annex 1: Land and Groundwater Monitoring Parameters

Parameter	Land	Groundwater	Parameter	Land	Groundwater
pH		✓	Sulphate		✓
Conductivity		✓	Nitrites		✓
Arsenic	✓	✓	Phosphorus (total)/Phosphate		✓
Cadmium	✓	✓	C12-C35 hydrocarbons (total)	✓	✓
Chromium (total)	✓	✓	C5-C12 hydrocarbons (total)	✓	✓
Chromium (hexavalent)	✓	✓	BTEX (benzene, toluene, ethylbenzene, xylene)	✓	✓
Copper	✓	✓	PAHs ¹	✓	✓
Lead	✓	✓	PCBs ²	✓	✓
Mercury	✓	✓	MTBE	✓	✓
Nickel	✓	✓	Cyanide	✓	✓
Selenium	✓	✓	PCDD/PCDF ³	✓	✓
Zinc	✓	✓	Chlorinated aliphatic hydrocarbons ⁴	✓	✓
Ammonium		✓	Halogenated aliphatic hydrocarbons ⁵	✓	✓
Chloride		✓			

¹ The PAHs that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

² The PCBs that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

³ The dioxins and furans that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

⁴ The chlorinated aliphatic hydrocarbons that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13 including but not limited to Trichloroethylene and Tetrachloroethylene

⁵ The halogenated aliphatic hydrocarbons that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

Appendix A1

Contact Numbers

Phone Number

Fax Number

Email address

Person

Full Name

ID Card/Passport No.

Principal place of businessStreet
Address

Locality

Post Code

Contact Numbers

Phone Number

Fax Number

Email address

A3.4 Please give us the following details about the partnership.

Name of partnership (if there is one)

Principal place of businessStreet
Address

Locality

Post Code

Contact Numbers

Phone Number

Fax Number

Email address

Now go to question A4, What to do next.

Companies or other corporate applicants**A3.5 Please give us the following details.**

Full name of company or corporate body.

DDE Attard Ltd

Trading/business name (if different)

n/a

Registered office addressStreet
Address

Scrap Lane

Valletta Road

Locality

Hal Luqa

Post Code LQA 1764

Company registration number

C 4938

Date of formation of company

28th March 1980

- For applications from companies, please provide a copy of the certificate of incorporation or registration and any certificates of subsequent name changes.

Document reference number

Appendix 2: Company Registration Certificate

- For applications from other corporate bodies, please provide evidence of status.

Document reference number

n/a

Appendix A2

Project Time Line

The phasing of the civil works shall be subdivided as per the following time line:

135/2, Kyle Buildings,
Mediterranean Street,
St Julian's, STJ 1870,
Malta

Tel: (+356) 2137 7934
Email:
advisory@tfork.com

Week 1 – 4 - Phase 1 – Composter which is within shed shown in Figure 3 will be temporarily removed and stored.

Week 5 – Week 16 - Phase 2 – Hardstanding and shed which currently stores the composter will be increased to area indicated in Figure 4. This will be undertaken in order to be able to temporarily place E.L.V dismantling and depollution processes within this area. A temporary interceptor and reservoir servicing this shed will be installed (as per being indicated in Figure 4). Underground pipework and gutters will be installed to collect spills inside the shed and surface water from the road just in front of the shed; will be diverted to an oil-water interceptor and reservoir (comprising of a 2m³ horizontal water tank constructed of plastic).

Week 16 – Week 68 - Phase 3 – Works for the area being indicated in figure 5 will be undertaken. Once the shed for storing disassembled parts is built with hardstanding (no 4 in figure 5) this will be used as part of the ELV depollution and disassembly processes in tandem with works undertaken for Phase 2.

2 years – Week 68 – Week 172 - Phase 4 – Works for the area being indicated in figure 6 will be undertaken. During this phase, works will include the installation of the remaining hardstanding area, the construction of the main reservoir, and the installation of the oil-water interceptors servicing the main reservoir. As part of this phase, the interceptor installed in Phase 2 will be moved to its final location, and the temporary reservoir (installed in Phase 2) will be removed.

It is to be noted that within description provided for project timelines, where it is being indicated hardstanding will be complete, reference is also being made to completion of geotextile membrane.

Appendix A3

Part B: Achievement of ELV reuse and recycling targets (Option 2)

Option 2 is proposed, which include the following measures that are planned to improve reuse / recycling / recovery rates:

- Installation of a second shredder and sorter based on Eddy current technology after the first shredder, which will help recover more of the non-ferrous metal component.

These measures now do not affect Stage 4 of the ELV treatment process.

The output of Option 2 will be described in figure 1.

The recycling and reuse rates achieved based by Option 2 are shown in figure 2, and compared to the targets set by Waste Management (End of Life Vehicles) Regulations, SL 5498.36.

The total reuse and recovery (including recycling) rate achieved by Option 2 is 94.7% i.e. compliant with the 95% target. The total reuse and recycling achieved by Option 2 is 94.1% i.e. compliant with the 85% target.

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Figure 1: The Output of Option 2

Fate of Waste	Waste Type	Estimated Annual Quantity (Tonnes)
Recycling	Lead Acid Batteries	7.20
	Metal from LPG tanks	0.10
	Iron and Steel waste	3270
	Non-ferrous metal	923
	Tyres	125
	High-voltage electrical system	0.02
	High-voltage battery	0.02
	Catalyst units	4.80
	Plastic bumpers	161
	Discarded electronics	20
	Mercury Switches	0.01
	Total Recycling	4,511
Recovery (excluding recycling)	Engine Oils	19.20
	Oil Filters	2.40
	Other Hydraulic Oils	9.60
	Total Recovery	31.20
Reuse	Diesel	12.00
	Petrol	12.00
	Refrigerants	10.50
	Upholstery	
	Total Reuse	34.50
Disposal	Transmission Oils	14.40
	Antifreeze	33.60
	Brake Fluids	3.36
	Screen washing Fluids	14.40
	Refrigerants	3.50
	Brake Pads	0.80
	Airbags	9.60
	Shredder Residues	173.00
	Total Disposal	252.66
Total waste from ELV process		173.00

Figure 2: The recycling and reuse rates achieved based by Option 2

Fate	Rate achieved by Scheme	Targets set by SL 549.36	
		Reused & Recovery	Reused & Recycling
Recovery (excluding recycling)	0.65%	95%	-
Recycling	93.41%		85%
Reuse	0.71%		
Disposal	5.23%	-	-

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Appendix A4

Environmental Management System

Terms of Reference

1. The requirements for an Environmental Management System were described in ERA's application form; these are reproduced below:

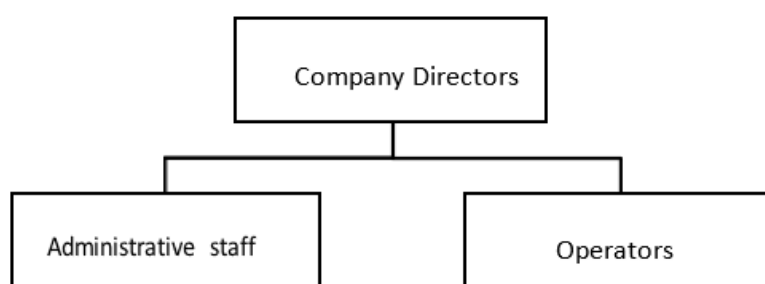
Provide details of your proposed management techniques and environmental management system (EMS). An EMS can take the form of a standardised system (e.g. EN ISO 14001:1996; EMAS) or a non-standardised ("customized") system, provided that it is properly designed and implemented.

2. Additionally, the BREF for Waste Treatments Industries includes recommendations regarding the establishment of an EMS.

Management and Reporting Structure

Figure 15 shows the organisational chart for DDE Attard Ltd. The company is owned by four Directors. Disma Attard is the Managing Director and is responsible for oversight of operation and the company's strategic direction. Daniel Attard is the Technically Competent Person (TCP) for the Scheme and is responsible for day-to-day supervision and environmental matters. Information regarding Daniel qualifications, experience and contact details is included in section B8 of this original IPPC Application.

Figure 15: DDE Attard Organisational Chart



3. Administrative staff are responsible for record-keeping and administrative aspects.
4. Operators take care of waste processing activities, including operating machinery and vehicles, maintenance, and so on.

Appendix A5

Table 4: Pollution Pathways Identification and Mitigation Measures

Update/ New	Source	Pathway	Receptor	Current Mitigation	Mitigation measures	
					Additional Proposed Mitigation	
					Structural Measures	Procedural Manners
Update	Spills of other liquid hazardous substances / waste (e.g. during storage, transfer, handling, ELV depollution (temporary), leaks from vehicles / machinery, maintenance)	Direct contamination Permeable strata above water table Rainwater runoff	Land Groundwater	Impermeable <u>hardstanding</u> (part of site).	<ul style="list-style-type: none"> Impermeable <u>hardstanding</u>; Gutters leading to silt trap and oil-water separators; ELV depollution equipment equipped with containers for hazardous materials and banded. 	<ul style="list-style-type: none"> Spill Prevention and Response Plan; Hazardous waste stored in shed under <u>cover</u>; <u>Containment</u> for liquid hazardous waste (spill trays, prefabricated bunds, and similar systems); Spill <u>kits</u>; Staff training on operational procedures and spill prevention and response.

Update/ New	Source	Pathway	Receptor	Current Mitigation	Mitigation measures	
					Additional Proposed Mitigation	
					Structural Measures	Procedural Manners
Update	Spills of other liquid hazardous substances / waste (<u>e.g.</u> during storage, transfer, handling, ELV depollution (permanent), leaks from vehicles / machinery, maintenance)	Direct contamination Permeable strata above water table Rainwater runoff	Land Groundwater	Impermeable <u>hardstanding</u> (part of site).	<ul style="list-style-type: none"> • Impermeable <u>hardstanding</u>; • Gutters leading to silt trap and oil-water separators; • ELV depollution equipment equipped with containers for hazardous materials and banded. 	<ul style="list-style-type: none"> • Spill Prevention and Response Plan; Hazardous waste stored in shed under <u>cover</u>; <u>Containment</u> for liquid hazardous waste (spill trays, prefabricated bunds, and similar systems); • Spill <u>kits</u>; • Staff training on operational procedures and spill prevention and response.

Appendix A6

Decommissioning Plan Report for Composter Kollvik Biocomp 1545

1.0 Introduction

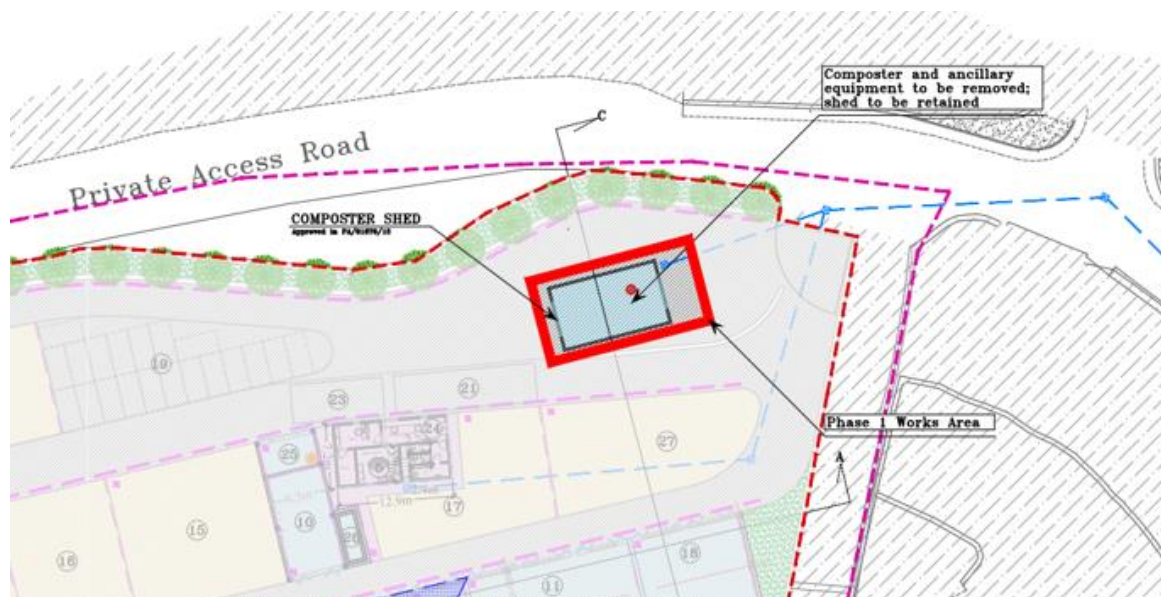
1.1. Purpose

The purpose of this report is to outline the process to decommission the composter equipment. The report fulfils the requirement as per document IP0001/13/V2 – Variation of the IPPC permit for DDE Attard Ltd – Comments from ERA, Regulatory Consultation and Public Consultation

1.2. Composter Location

The composter is located within shed as per indicated within figure 1.

Figure 3: Location of where composter is currently located



2.0 Decommissioning Procedure

Equipment will be removed by skilled technicians and contract workers (such as an Electrician) who will certify:

- That the Composter is safe to move and the possibility of electrocution and fire is non-existent
- Ensure machinery is clean and free of liquids and hazardous material; it is to be noted that machinery was only used once during start up and the possibility of liquid spillage are minimal. If such liquids are found these will be disposed off by placing in suitable containers and forwarded to a facility which is able to dispose off them.

Transportation will be undertaken in the following manner:

- Composter will be placed on specialised equipment (such as forklifters, etc)
- In turn machinery will be moved to a hardstanding until and all phases are completed

3.0 Restoration of Land and Water Negatively impacted

The area where the composter is currently located is paved with hardstanding. The composter will be moved to a hardstanding area using specialised equipment. Any potential of spillage will be onto a hardstanding. No land or water areas will be negatively impacted.

4.0 Management of Excess Materials and Waste

No excess material and waste will be generated through decommissioning of the composter, since the machine is not deemed as waste (salvaged/disposal) and the area will be kept as is in order to accommodate new activities.

5.0 Environmental Emergency and Response

In the event of an emergency during the decommissioning the emergency procedure provided in variation will kick in.

Appendix A7



SOFT LANDSCAPING - SOIL & OLIVE/CYPRESS/PINE TREES AS APPROVED IN PA 1876/15

AREA OF CONTAINMENT BOUNDARY

PROPOSED NEW ACCESS

Private Access Road

Proposed Shed to be used for vehicle storage

Oil Interceptor De-pollution equipment (size indicative)

Existing Shed to be used for de-pollution process

Reservoir Below

Farmhouse (approx. 1950 to 1960)

TRIQ IL-BELT VALLETTA

Assumed Public Road Sewer

SQAQ IL-FDAL IL-HADID

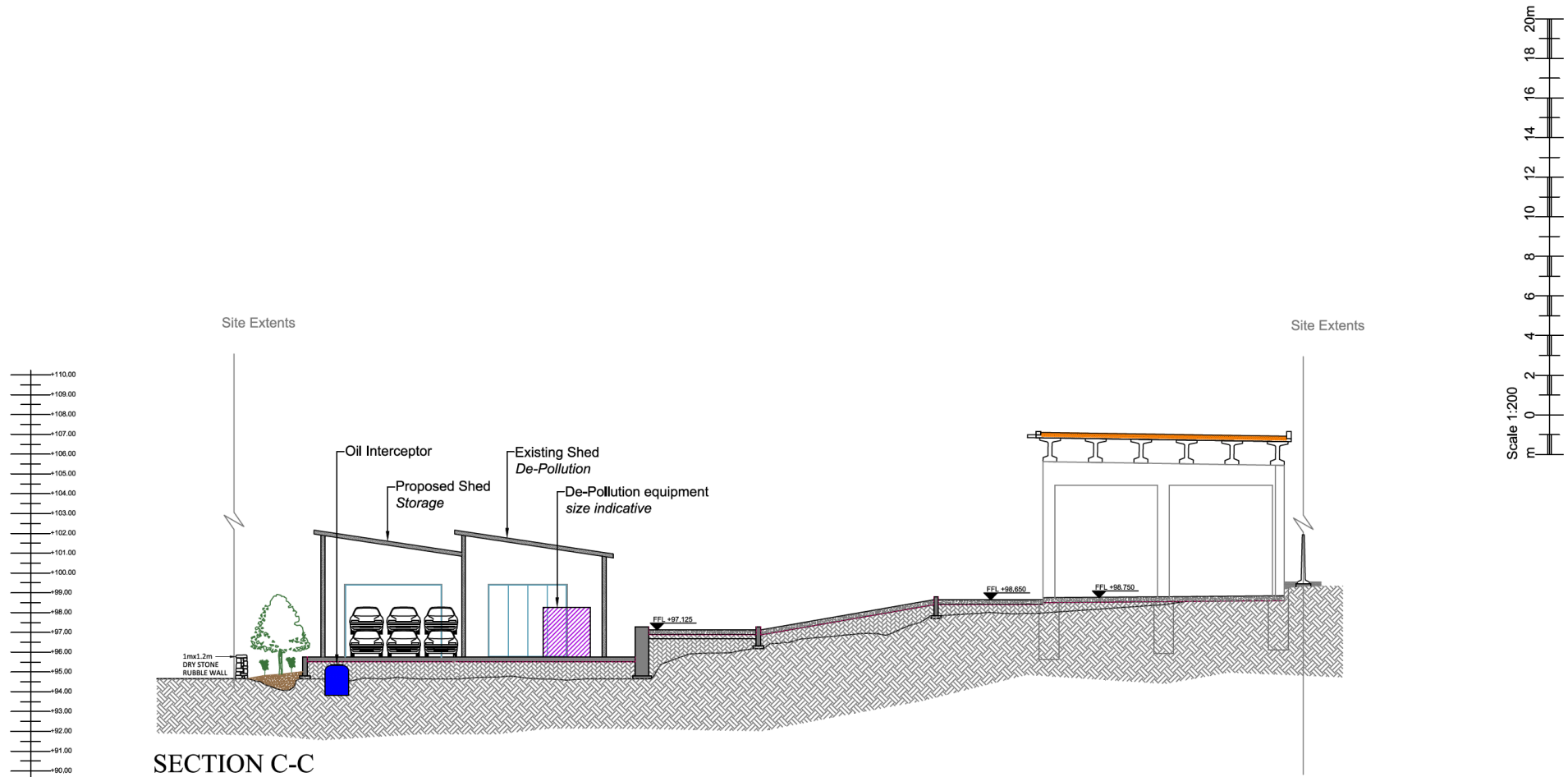
LEGEND

1. BAILING OF TYRES
2. E.L.V. (VEHICLES AWAITING DISMANTLING)
3. E.L.V. (EQUIPMENT FOR DEPOLUTION OF VEHICLES AND DISMANTLING)
4. E.L.V. (STORAGE OF DISASSEMBLED PARTS)
5. STAFF FACILITIES - OFFICE, TOILETS & CANTEN
6. DISMANTLING OF WHITE GOODS (COOKERS AND WASHING MACHINES)
7. WIRE STRIPPING
8. STORAGE OF SPARE PARTS (GENERAL)
9. STORAGE OF PROCESSED WOOD
10. SHREDDING/CRUSHING
11. GARAGE FOR PARKING & MAINTENANCE OF YARD EQUIPMENT
12. STORAGE OF TYRES
13. STORAGE OF SCRAP METAL
14. STORAGE OF WOOD
15. STORAGE OF ALUMINIUM
16. STORAGE OF PLASTIC
17. STORAGE (TEMPORARY) OF SEALED CONTAINERS FOR ONWARD SHIPPING
18. QUARANTINE
19. PARKING AREA
20. TEMPORARY STORAGE
21. WEIGH BRIDGE
22. COMPOSTER SHED
23. TYRE WASH FACILITY
24. WEIGHBRIDGE OFFICE
25. GENERATOR
26. 9m³ FUEL STORAGE CONTAINER WITHIN 14m³ BUND
27. STORAGE OF COPPER

	OPEN YARD
	SHEDS
	STAFF FACILITIES
	ROAD
	LANDSCAPED AREA

- Ground storm-water runoff
- Ground storm-water catch-pit

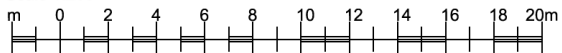
<p>Project: SITE AT SQAQ, FDAL IL-HADID, LUQA</p> <p>PA/04172/16</p> <p>Large Scrapyard Upgrade</p>	<p>Proposed: PROPOSED BLOCK PLAN</p>	<p>Drawn: 17</p> <p>Date: 14-04-2022</p> <p>Approved: 28</p> <p>Scale: 1:500 (A3)</p> <p>File No: 0112</p>	<p></p> <p>Joe Hughes Associates</p> <p>100, GLEBE ROAD, GLEBE, SYDNEY NSW 1530</p> <p>Phone: +61 (0)2 9550 1234</p> <p>Email: info@johughes.com.au</p>
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SECTION C-C

Scale 1:200 (A1)

Scale 1:200



Project SITE AT SQAQ FDAL IL-HADID, LUQA AMENDMENT TO APPROVED PA/05538/07 AND PA/01876/15	Drawing Name SECTION C-C Across De-Pollution Shed	Drawn: LF Date: 07/01/2021 Approved: JB Scale: 1:200 (A1) File No: J012	 Joe Bugaja ASSOCIATES 70/101, 70/102 Hadda Street, Hadda, Doha Qatar
---	---	---	--

Adequate containment boxes for storage of lead acid boxes



The Innovation in car depollution

STH ANLAGENBAU

Mobile/stationary car depollution system

Car Depollution System
Mobile, STH – 003/E/12/B14
with integrated dump tanks



support frame for motor vehicles, load 3 t

STH-Huber Anlagenbau GmbH

Gerstenweg 13
D 93092 Barbing
Deutschland

Tel.: 0049-(0) 9401- 605662
Fax.: 0049-(0) 9401- 605663
Service-Tel.: 0049-(0) 171- 6736991

www.sth-anlagenbau.de
www.cardepollution.com
kontakt@sth-anlagenbau.de

The Innovation in car depollution



mobile/stationary car depollution system

Technical data STH 003 E/12/B14 :

Basic Features

The car depollution system STH-003/E/12/B is designed for vehicles with a size of 5000 x 1900 x 1900 mm (L x W x H) and a maximum permissible load of 3 tons.

According to a study conducted by Germany, the amounts of media used in a single car are as follows:

Medium 1: gasoline 20.0 l	Medium 6: coolant 7.0 l
Medium 2: diesel fuel 20.0 l	Medium 7: shock absorber oil 1.0 l
Medium 3: brake fluid 0.7 l	Medium 8: screen wash 3.0 l
Medium 4: motor oil 4.0 l	Medium 9: power steering fluid 1.0 l
Medium 5: gear box oil 3.0 l	Medium 10: refrigerant 3.0 l

The depollution time of a car was established on the basis of the offered compressed air procedure with a setup time of approximately 15 min. On the basis of 8 hours running time daily, the system is capable of depolluting about 32 cars per day. The depollution technology has been developed by STH-Huber Anlagenbau GmbH, Germany. All types use the same depollution technology.

The size of the carrier structure is 6300 x 2430 x 2400 mm (L x W x H). The depollution technology is integrated in the carrier and ready for use. Each type comes with the required tools. All depollution loops are fully connected and the depollution system is supplied ready for use.

The tanks meet the statutory regulations relating to the storage of water polluting liquids in the respective ratings and come fitted with venting and overfill fuses. The compressed air is supplied by a compressor (minimum capacity of 350 l/min.) The build-up of pressure is controlled by a compressed air chamber. There are free capacities for additional compressed air tools. The power supply is 220-230V and complies with the guidelines of the Association of German Electrical Engineers and is used to operate the various overfill systems.

The carrier consists of a customer-earthed tubular frame structure with an integrated grate-covered receiver pan in the floor that is sized to section of the German Law on Water Resources Management (Wasserhaushaltsgesetz). The receiver pan has a capacity of 995 litres. For better protection and ease of maintenance, the double diaphragm pumps are installed in the tank area. The tank area is fitted completely with metal panels.

The operator side is open and has an aluminium roll-up gate which can be closed for weather protection (solar radiation) and protection against unauthorized use. The support frame is made out of 120 mm-HEB broad flanged beams (designed to DIN 1025).

Advantages of a Mobile Motor Vehicle Draining Facility STH – 003/E/12/B14

1. mobility, road permit, overall size of 6300 x 2430 x 2400 mm
2. integrated tanks on the tool carrier for all media: petrol, diesel, used oil, coolant, screen wash, brakefluid
3. The dump tanks come fitted with venting, limiting value transmitters and overfill fuses
4. filtering and re-use of media petrol and diesel by means of processing for refilling in-house vehicles (by means of fuel pistols)
5. receiver pan with a capacity of 995 l (in accordance with section of the German Law on Water Resources Management)
6. support frame for motor vehicles, load 3 tons
7. flow rate – 8 hours approx. 32 vehicles
8. building licenses
9. pneumatic diaphragm pumping technology (high performance, low wear)
10. All technical devices, drilling und suction units as well as tools are included in the purchase price.



Conditions for the Installation of the Facility:

- a) building license
- b) safety distances to other constructions
- c) electric power supply by builder by means of a EURO plug 230 V
- d) earthing of the facility by builder
- e) surrounding field navigable by fork lift truck
- f) compressor, carrying capacity of minimum 350 l/min.



STH-Huber Anlagenbau GmbH

Gerstenweg 13
D 93092 Barbing
Deutschland

Tel.: 0049-(0) 9401 - 605662
Fax.: 0049-(0) 9401 - 605663
Service-Tel.: 0049-(0) 171 - 6736991

www.sth-anlagenbau.de
www.cardepollution.com
kontakt@sth-anlagenbau.de

Appendix A8

Figure 1: AquaPoly10 Oil-Water Interceptor Specifications

Oil Interceptor





AQUAPOLY OIL INTERCEPTOR

Patented and Registered Model

- CLASS I POLYETHYLENE HYDROCARBON DECANter-SEPARATOR
- COMPLIES WITH EN 858-1 AND EN 858-2 STANDARDS
- CE CERTIFIED
- GUARANTEED ± 5 MG/L OUTPUT

USES

- SERVICE STATIONS
- CAR WASHES
- REPAIR SHOPS ETC

TECHNICAL FEATURES

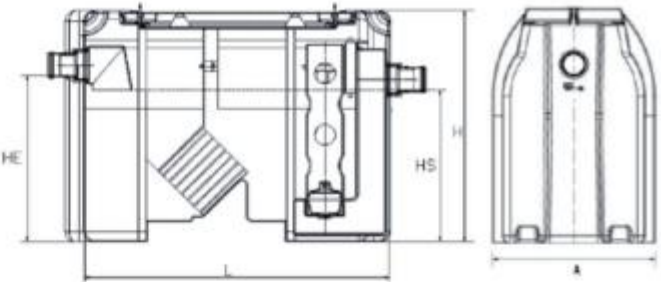
The Aquapoly Hydrocarbon Decanter-Separator is specifically designed with a lamellar coalescing effect and for a large retention capacity. All compartments are easily accessed for inspections and maintenance. Treatment takes place in two phases:

- Settling of sludge and sand in the decanter-sand trap compartment
- Separation of oil and hydrocarbons through the coalescing effect

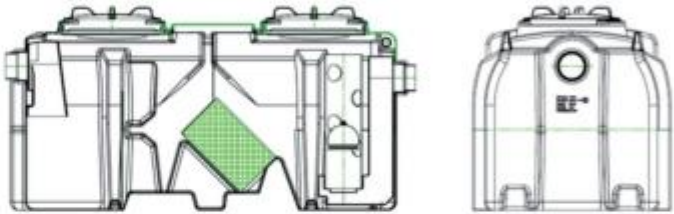
TECHNICAL FEATURES

Treatable wastewater is retained in the settling compartment located at the head of the hydrocarbon separator, where sludge and sand are retained. The stream of water - now free of sludge and sand - flows to a separation compartment, equipped with a block of polypropylene lamellar cells that provide a coalescing effect which separates the hydrocarbons. An automatic shutter system prevents accidental hydrocarbon spillage if the hydrocarbon level overflows, thus preventing hydrocarbons from entering the water system.

The system can also be equipped with an oil / sludge level sensor to give an alarm when system needs desludging.



AquaPOLY01 and AquaPOLY03



AquaPOLY06 and AquaPOLY10

Model	Flow lt/s	Volume of oil/ hydrocarbon Retention lt.	Volume Treated lt.	L mm	A mm	H mm	He mm	HS mm	Inlet/ outlet mm
AquaPOLY01	1.50	150	620	1570	1180	1058	823	753	110
AquaPOLY03	3	210	1200	1570	1180	1200	965	895	110
AquaPOLY06	6	350	1800	2300	1180	1212	785	715	160
AquaPOLY10	10	460	2850	2300	1180	1662	1235	1165	160

**FM Environmental reserves the right to change the measurements

Contractual document.
The data and values are given as an indication and are subject to change



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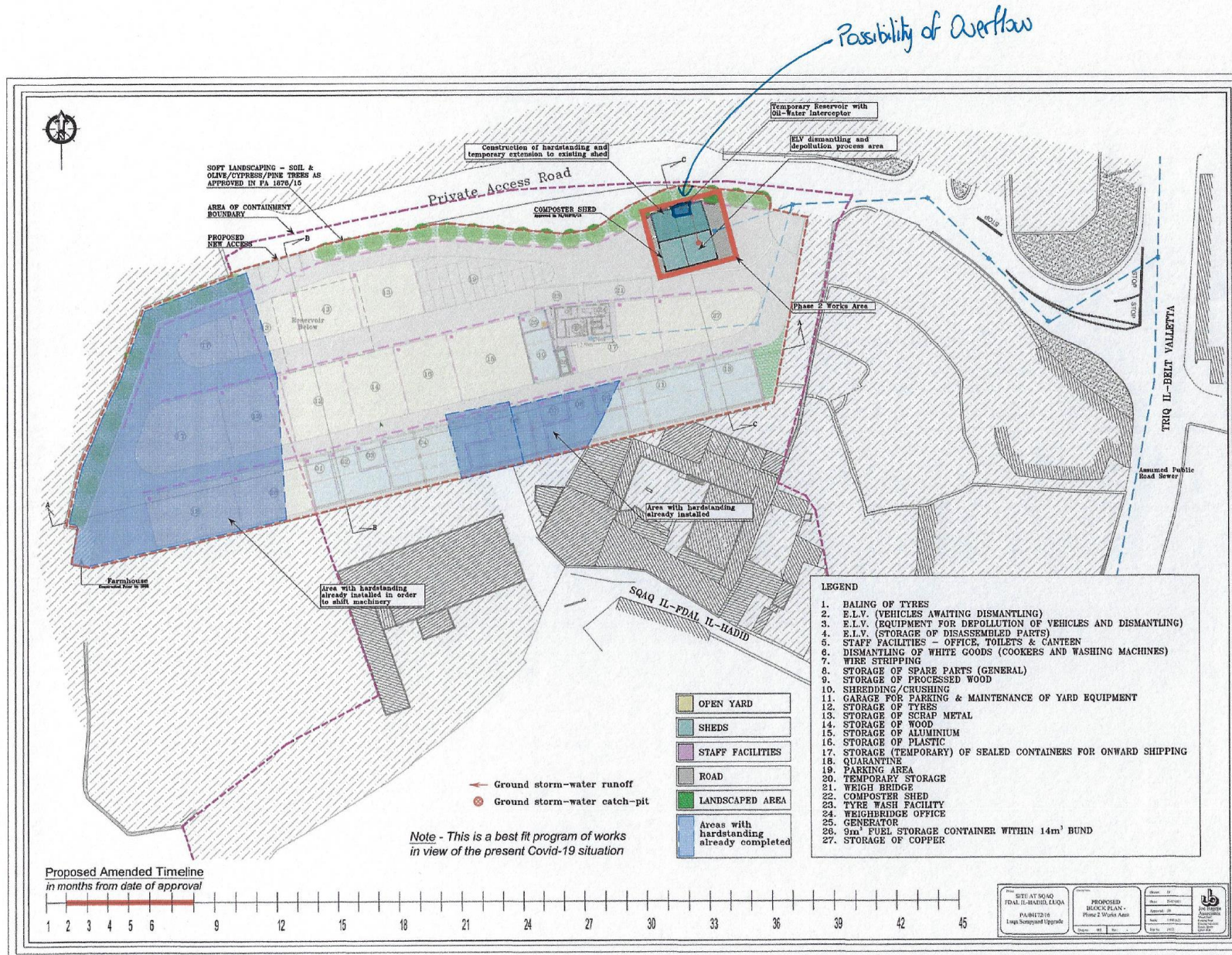
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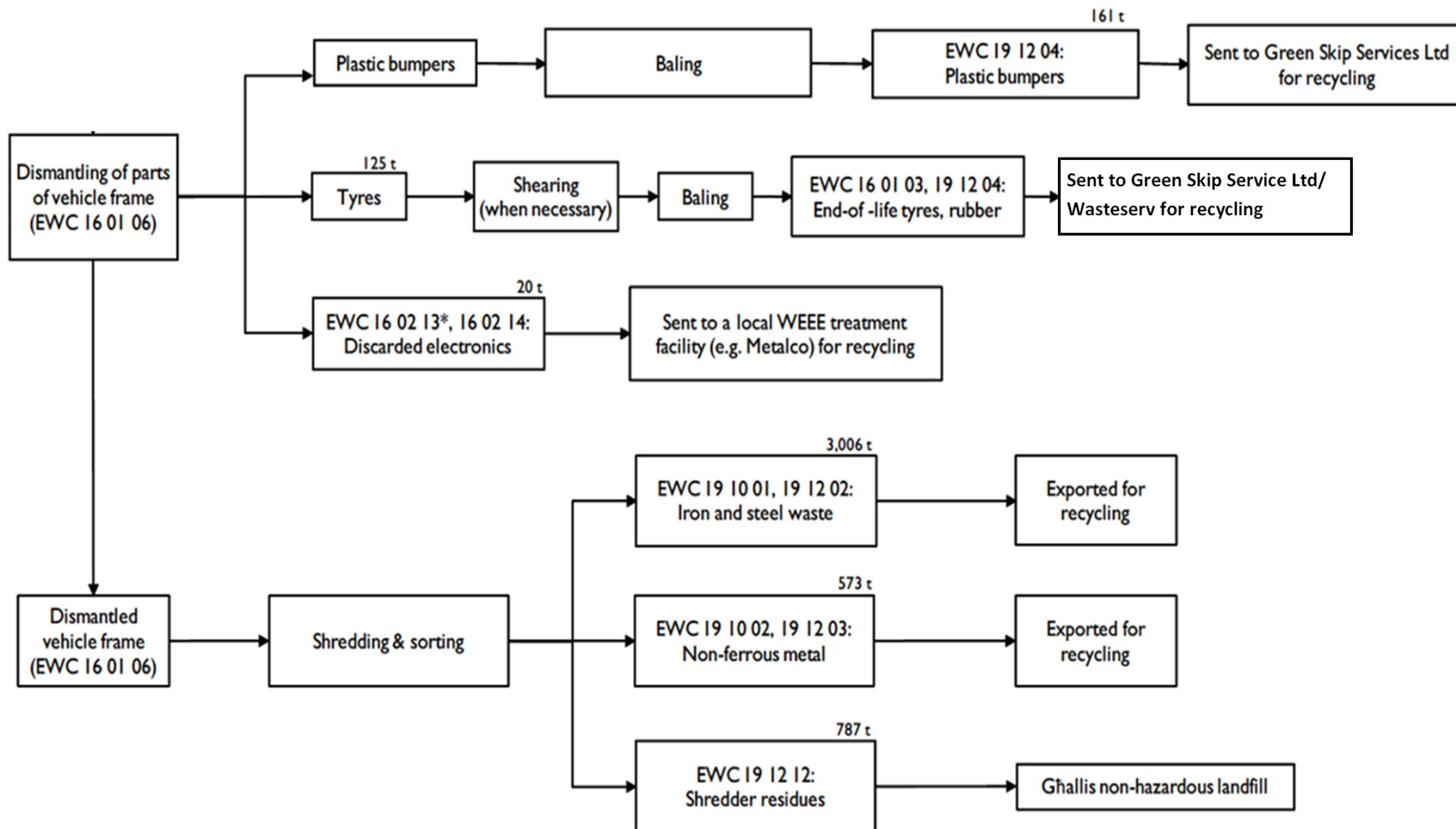
Appendix A9

Figure 1: Location of such overflow



Appendix A10

Figure 1: flow diagram for the acceptance and treatment of EWC 16 01 06



Appendix A11

C6 Statutory consultees

We will use the information in this section to identify who we must consult about your proposals.

C6.1 Local council

In which area is the installation located? If premises are on a boundary please give the names of all the relevant authorities.

Hal Luqa

C6.2 Other sites

Are there any other sites which may be affected by emissions from the proposal? (Refer also to your answer to C4.2).

Yes ☒ No ☐

If yes, please give the names of the sites:

The following sites were identified following a review of the fire risk of the Scheme:

- Luqa Civic Amenity site (operated by WasteServ Malta)
- EasyGas Malta Limited, Hal Luqa

• Metalco . Landfill; Indis

C6.3 Port Authority

Could the installation involve the release of any substance into a harbour managed by a port authority?

Yes ☐ No ☒

If yes, please name the port authority:

C7 Planning status

C7.1 Planning status

Which of the following applies to the proposed installation activities?

We cannot issue a permit unless one of the following applies. Please tick the applicable answer and submit a copy of the relevant documents.

☒ You have planning permission.

Document reference number:

Appendix 1: Existing Permits

☐ You have a certificate of lawful existing use or development.

Document reference number:

☐ Planning permission is not required - please say why and enclose written confirmation from the Planning Authority.

Document reference number:

☐ If you have submitted an application for planning permission which has not yet been determined, please provide a copy of the application.

Document reference number:

Appendix A12

DDE Attard Ltd

Waste Management Facility

Motor Vehicles End of Life Projections

For the Years 2022 - 2031



DDE Attard Ltd
Waste Management Facility
Motor Vehicles End of Life Projections
For the Years 2022 - 2031

CONTENTS	Page
Introduction Report	3 - 4
Cost of Sales Analysis	5
Projected Overheads and Net Profit analysis	6

Contact Us

Ryan Montebello

ACCA MIA CPA

Certified Public Accountant

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B'Kara

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Email: montebello@finance24bpm.eu



Date: 14 January 2021

The Directors

DDE Attard Limited

Censina House

Triq Id-Dejma

Fgura

Dear Sir/Madam,

**DDE Attard Ltd Projections for the Years 2022 – 2031 as part of the Waste Management
infrastructure investment(in line with the EU Company Regularization)**

Financial Study

The attached report is an illustration of the projected work force that the waste facility will generate upon being granted the motor vehicle End of life vehicle permit. This, following the company massive investment into its waste facility to be in line with the EU and local regulation.

Objectives and Scope of Work.

The purpose of this report is to summarize the results and outline the information and assumptions by which we have based our feasibility study, approaches and conclusive opinion.



Limitation of Liability

This engagement did not constitute an audit and therefore, for the purposes of this engagement, we did not verify the data provided during the course of this work, unless as otherwise necessary for the purpose of meeting our obligations in relation to the provision of services. The Client will release and indemnify Finance 24 management Consultancy Limited and their personnel from any claims, liabilities, costs and expenses resulting from or in connection with this engagement, except to the extent determined to have resulted from the deliberate misconduct of this firm. No liability will be accepted towards any other party to whom our reports may be divulged, with or without our concept.

Confidentiality and reliance

Our duties in relation to this engagement are owned solely to DDE Attard Limited and accordingly we do not accept any responsibility for loss occasioned to any third party or refraining from action as a result of our report.

Since others may seek to use this report for different purposes other than as set in our letter of engagement, this report or parts thereof should not be quoted, referred to or shown to any other parties unless so required by a regulatory body, without our prior consent in writing.

Yours Sincerely,



Ryan Montebello

a.b.o Finance 24 Management Consultancy Limited

Years	Projected Qty - MV	<u>2022</u> <u>Euro</u>	<u>2023</u> <u>Euro</u>	<u>2024</u> <u>Euro</u>	<u>2025</u> <u>Euro</u>	<u>2026</u> <u>Euro</u>	<u>2027</u> <u>Euro</u>	<u>2028</u> <u>Euro</u>	<u>2029</u> <u>Euro</u>	<u>2030</u> <u>Euro</u>	<u>2031</u> <u>Euro</u>
Revenue											
Scrap Iron	2,000	810,811	803,571	803,571	805,310	791,304	784,483	786,325	779,661	766,667	766,667
Other Materials		668,700	668,700	668,700	674,175	674,175	674,175	671,876	671,876	671,876	662,861
Batteries		27,430	17,120	17,120	17,976	17,976	17,976	17,078	17,078	17,078	15,711
Catalyst		52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000
Total		1,558,941	1,541,392	1,541,392	1,549,461	1,535,456	1,528,634	1,527,278	1,520,614	1,507,620	1,497,239
Cost of Sale											
Cost of Material		935,364	924,835	924,835	929,677	921,273	917,180	916,367	912,368	904,572	898,344
Processing Fee		311,788	308,278	308,278	309,892	307,091	305,727	305,456	304,123	301,524	299,448
Total Cost of Sale		1,247,153	1,233,113	1,233,113	1,239,569	1,228,365	1,222,907	1,221,822	1,216,491	1,206,096	1,197,792
Gross Profit		311,788	308,278	308,278	309,892	307,091	305,727	305,456	304,123	301,524	299,448

Years	<u>2022</u> Euro	<u>2023</u> Euro	<u>2024</u> Euro	<u>2025</u> Euro	<u>2026</u> Euro	<u>2027</u> Euro	<u>2028</u> Euro	<u>2029</u> Euro	<u>2030</u> Euro	<u>2031</u> Euro
Overheads										
Directors Remuneration	24,000	24,240	24,482	24,727	24,974	25,224	25,476	25,731	25,989	26,248
Administrative Wages	7,500	7,575	7,651	7,727	7,805	7,883	7,961	8,041	8,121	8,203
Advertising	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195
Travelling and Entertainment	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195
Insurance and Licencing	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975
Stationery and Printing	250	263	276	289	304	319	335	352	369	388
Professional Fees	6,000	6,300	6,615	6,946	7,293	7,658	8,041	8,443	8,865	9,308
IT Costs	1,800	1,890	1,985	2,084	2,188	2,297	2,412	2,533	2,659	2,792
Licence and Permits	500	525	551	579	608	638	670	704	739	776
Cleaning Expenses	1,500	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216	2,327
Telecommunications	320	336	353	370	389	408	429	450	473	496
Audit Fees	250	263	276	289	304	319	335	352	369	388
Utility Fees	1,500	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216	2,327
Total Overheads	50,620	51,681	52,778	53,913	55,088	56,304	57,563	58,867	60,218	61,619
Financial Expenses										
Interest - Loans	21,336	29,796	27,652	26,258	20,548	17,443	14,234	10,843	7,261	3,477
Interest - GBF	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600
Bank Charges	1,200	1,260	1,323	1,389	1,459	1,532	1,608	1,689	1,773	1,862
Total Financial Expenses	29,136	37,656	35,575	34,247	28,607	25,575	22,442	19,131	15,634	11,938
Net Profit	232,032	218,941	219,925	221,732	223,396	223,848	225,451	226,124	225,672	225,891

Appendix A13

Effluent Monitoring Programme

As indicated in the phasing scheduling provided in section 2.5 (pg 8 of the variation submission), the Luqa facility will first install a temporary reservoir (as per phase 2) and then a permanent reservoir (as per phase 3).

Once the temporary reservoir is completed and EoLV processing is operational, the effluent monitoring programme will start. Once the permanent reservoir is completed and the activities which it services are fully operational, the effluent monitoring programme will stop having samples from the temporary reservoir and samples will start being taken from the permanent reservoir.

Since overflow is anticipated to take place when heavy rainstorm hits site, it is being proposed that a sample is taken from 2 different areas (location as specified in Appendix 8) every two years between the months of October – February. The report would be as per sample below:

Date of when effluent samples from overflow where collected: _____

Samples collected by: _____

Area from where samples were collected:

Provide pictures from where samples were collected, provide geolocation and provide indication on site layout plan

Samples tested by: _____

Results:

Parameter	Results
Arsenic	
Cadmium	
Chromium (total)	
Chromium (hexavalent)	
Copper	
Lead	
Mercury	
Nickel	
Selenium	
Zinc	
C12-C35 hydrocarbons (total)	
C5-C12 hydrocarbons (total)	
BTEX (benzene, toluene, ethylbenzene, xylene)	
PAHs ⁶	
PCBs ⁷	

⁶ The PAHs considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

⁷ The PCBs considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

Parameter	Results
MTBE	
Cyanide	
PCDD/PCDF ⁸	
Chlorinated aliphatic hydrocarbons ⁹	
Halogenated aliphatic hydrocarbons ¹⁰	

The PAHs, PCBs, PCDD/PCDF, Chlorinated aliphatic hydrocarbons and Halogenated aliphatic hydrocarbons, considered to be tested will be provided once such effluent monitoring programme is confirmed.

⁸ The dioxins and furans considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

⁹ The chlorinated aliphatic hydrocarbons considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13 including but not limited to Trichloroethylene and Tetrachloroethylene

¹⁰ The halogenated aliphatic hydrocarbons considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

Appendix A14

Since wastewater to sewer will be originating from lavatories, the following calculation will be used to measure amount of wastewater discharged.

As per (Sapiano, 2019), a typical Maltese consumer consumes 110Litres a day of which as per (WTE, 2021), toilet flushing consumer 30% of said wastewater consumption.

$$110\text{Litres} \times 0.30 = 33\text{Litres/person}$$

A worker will be on site 0.5 of his awake time (i.e. 8hrs). Hence:

$$33\text{Litres/person} \times 0.5 = 16.5\text{Litres/person}$$

Daily calculation is as per below:

$$wts = ((aos)(16.5\text{Litres/person}))(nodw)$$

where:

wts = waste water to sewer

aos = average amount of personnel on site

nodw = no of days worked

References

Sapiano, M. (2019, September 3). Be aware of your water use - Manuel Sapiano. Retrieved from Times of Malta : <https://timesofmalta.com/articles/view/be-aware-of-your-water-use-manuel-sapiano.732676>

WTE. (2021, January 15). Wastewater Produced In The Home. Retrieved from WTE : <https://www.wte-ltd.co.uk/wastewater-amounts-in-the-home.html>

Appendix A15

	Technique	Description/Applicability	Application
a.	Minimising the number of potential diffuse emission sources	This includes techniques such as: a) appropriate design of piping layout (e.g. minimising pipe run length, reducing the number of flanges and valves, using welded fittings and pipes); b) favouring the use of gravity transfer rather than using pumps; c) limiting the drop height of material; d) limiting traffic speed; e) using wind barriers.	a) Shredder system is specifically designed to be used for such, hence appropriate design is in-built b) This is the manner DDE Attard's shredder works c) Maximum attention is given in order to limit drop height of material d) shredder can only process certain amount of material at one time, and operator abides by this requirement e) shredder is encompassed by trees and buildings forming a natural wind barrier
b.	Selection and use of high-integrity equipment	Applicability may be restricted in the case of existing plants due to operability requirements.	Applicability of this technique is restricted due to operability requirements and also since it is machinery built by manufacturer Hemmel, hence techniques mentioned are only applicable if manufacturer includes these.
c.	Corrosion prevention	This includes techniques such as: a) appropriate selection of construction materials; b) lining or coating of equipment and painting of pipes with corrosion inhibitors.	Machinery is already on site and construction materials are those selected by Hemmel (the manufacturer of the shredder). The maintenance requirements suggested will be applied, since these may jeopardise system.
d.	Containment, collection and treatment of diffuse emissions	The use of enclosed equipment or buildings may be restricted by safety considerations such as the risk of explosion or oxygen depletion. The use of enclosed equipment or buildings may also be constrained by the volume of waste.	The enclosure of equipment is constrained by the volume of waste and furthermore restricted by safety considerations such as risk of explosion and oxygen depletion
e.	Dampening	Dampening potential sources of diffuse dust emissions (e.g. waste storage, traffic areas, and open handling processes) with water or fog.	As indicated within variation during shredding metals are wetted.
f.	Maintenance	This includes techniques such as: — ensuring access to potentially leaky equipment; — regularly controlling protective equipment such as lamellar curtains, fast-action doors.	As indicated within variation this will be undertaken as per section B2.5 of original IPPC application and section C2.5 of the variation submitted.

	Technique	Description/Applicability	Application
g.	Cleaning of waste treatment and storage areas	This includes techniques such as regularly cleaning the whole waste treatment area (halls, traffic areas, storage areas, etc.), conveyor belts, equipment and containers.	As indicated within variation this will be undertaken as per section B2.5 of original IPPC application and section C2.5 of the variation submitted.
h.	Leak detection and repair (LDAR) programme	See Section 6.2. When emissions of organic compounds are expected, a LDAR programme is set up and implemented using a risk-based approach, considering in particular the design of the plant and the amount and nature of the organic compounds concerned.	As indicated within variation this will be undertaken as per section B2.5 of original IPPC application and section C2.5 of the variation submitted.

Appendix A16

Mario Magri B.Eng. (Hons.)
"Qawsalla"
Pawlu Inguanez street,
Rabat, Malta.
Tel: 21 451228 - 9949 0618

Date: 25th May 2021

Ref: DDE 05-0521

Location: DDE ATTARD - SCRAP LANE LUQA

Scope

The scope of this report is to assess the capacity and leak proof of the bund present around a diesel storage tank located at the above presence and placed inside a mobile container. This report will outline any safety issues with the tank as indicated below

In general, the required bund capacity is the greater of

- 110% of the largest tank and
- 25% of the total tank capacity

** All outlet valves to be located within the bund wall.*

SITE DESCRIPTION

The location of the tank is within a scrap yard in Luqa. The tank is located inside a container.

The tank is a circular 10000 litter tank located within a steel bund and placed inside the container.

The Tank includes a dispensing pump and ancillary valves located within the bund. Tank complete with bund have been factory manufactured and designed in accordance with **EN 14015-Specification for the design and manufacture of site built, vertical, cylindrical, flat-bottomed, above ground, welded, steel tanks for the storage of liquids at ambient temperature and above**

BUND CAPACITY - 11 cubic meters

COATING

The bund wall has been internally lined with oil tolerant coating to make the bunds leak proof. A visual inspection of the coating was satisfactory.

TANK VALVES

All tank valves and outlets are located within the respective bunds.

TANK LOCATION

As previously indicated the tank is located within a 40 foot tank container. Light fittings have been removed.

TANK VENTILATION

The tank ventilation needs to be extended and be directed to the outside to remove any necessary hazardous vapours in the container.

Mario Magri B.Eng. (Hons.)
"Qawsalla"
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Rabat, Malta.
Tel: 21 451228 - 9949 0618

FIRE EXTINGUISHER

One in number automatic powder fire extinguisher has been fixed inside the container and one portable 9kg powder placed near the dispensing pump.

FINAL CONCLUSIONS

As can be seen from above the bund wall exceeds the 110% capacity of the largest tank required and have been internally lined with oil resistant coating as per regulations.

MARIO MAGRI B.Eng. Hons.
Tel: 21 451 228 Mob: 9949 0618
Warrant No.: 550

Appendix A17

	Technique	Description	Application
a)	Protection measures	These include measures such as: — protection of the plant against malevolent acts — fire and explosion protection system, containing equipment for prevention, detection, and extinction — accessibility and operability of relevant control equipment in emergency situations.	During operation cameras which have been installed protect plant as quickly as possible against malevolent acts. During non-operation; scrapyard is closed and guard is on duty
b)	Management of incidental/accidental emissions	Procedures are established and technical provisions are in place to manage (in terms of possible containment) emissions from accidents and incidents such as emissions from spillages, firefighting water, or safety valves.	The Spill Prevention and Response Plan is seen as adequate to be able to respond to the requirements of EWC 16 01 04* and EWC 16 01 06
c)	Incident/accident registration and assessment system	This includes techniques such as: — a log/diary to record all accidents, incidents, changes to procedures and the findings of inspections; — procedures to identify, respond to and learn from such incidents and accidents.	All incidents will be recorded and procedures will be in place to identify, respond and learn from such accidents.

Appendix A18

Fire Prevention and Response Plan

Historical Accidents

1. A log of historical deflagration accidents that have taken place at DDE Attard is kept in the manner shown below, for which authorities can request through email communication at any time.

Date of Accident	Description of Deflagration Accident	Cause of Deflagration Accident	Remedies

Fire Risks

2. The Scheme includes storage of various flammable materials, such as fuel, tyres and wood, and sources of sparks (such as during hot working of metal) that could start a fire or cause an explosion.
3. In this situation, the presence of a large quantity of flammable material would also facilitate the spread of a fire.
4. It is noted that tyres do not ignite easily, however, once they catch fire the development of the fire is rapid, reaches high temperatures, and is difficult to control. Therefore the best means of reducing the risks of tyre fires is to reduce the possibility of a fire starting, and to limit the spread of a fire if it occurs.

Fire Precautions

Maintenance

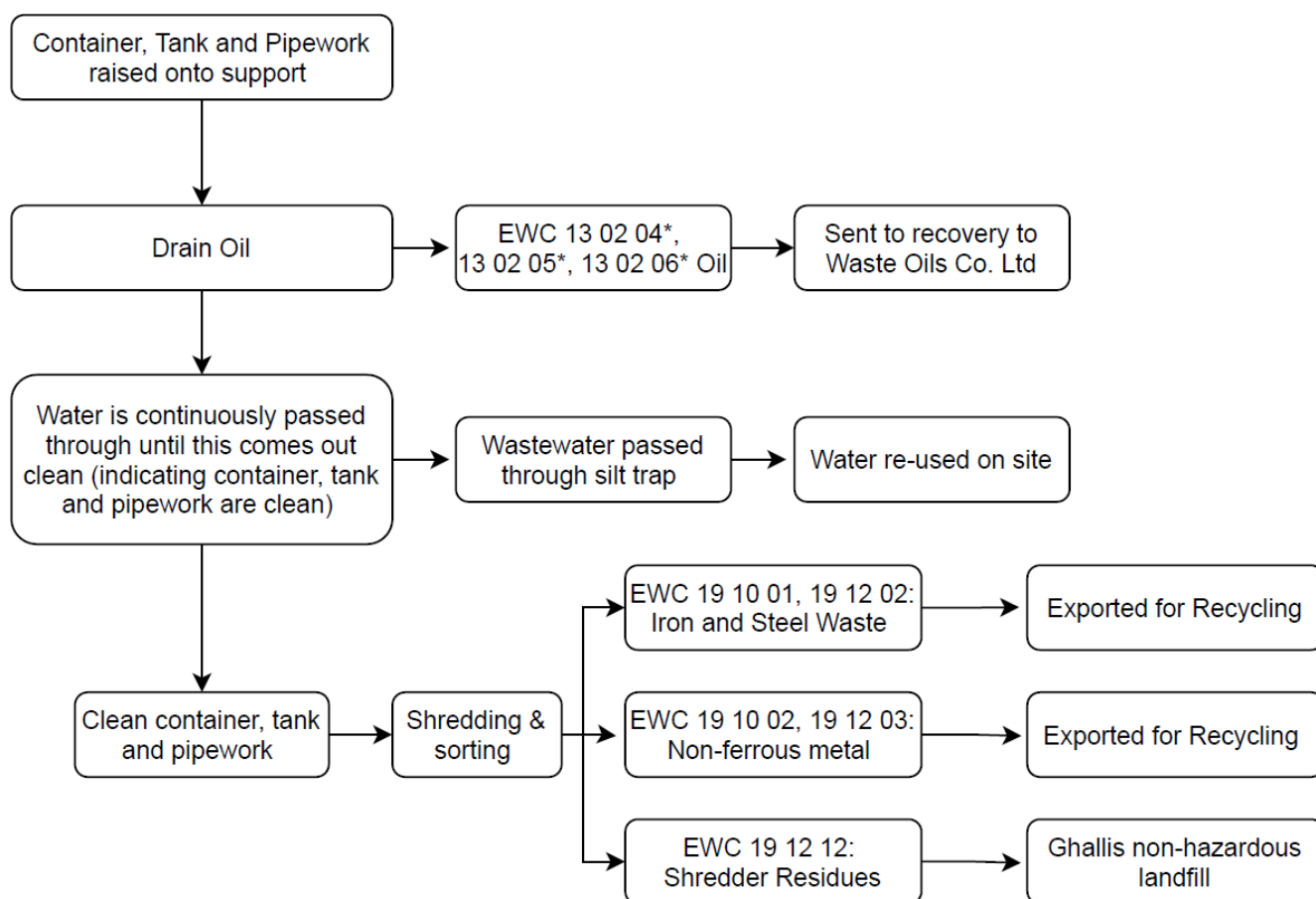
5. Regular checks will be carried out on the following, in accordance with the maintenance programme of the facility; repairs will be carried out when necessary:
 - Equipment (whether electric or running on fuel), including shredders;
 - Vehicles;
 - Surface water / wastewater management system;
 - Storage containers;
 - Smoke / fire detection units and firefighting equipment; and
 - Security fences.



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Appendix A19



IP 0001/13/V2 – Variation of the IPPC permit for DDE Attard Ltd – Comments from ERA, Regulatory Consultation and Public Consultation – 2

General Note

In this document, **end of life vehicles** are referred to as **EoLVs** whilst **emission limit values** are referred to as **ELVs**.

Form A

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
A1.1	✓	Noted.			
A1.2	✓	Noted.			
A1.3	✓	Noted			
A1.4	✓	Noted.			
A2.1	✓	Noted.			
A2.2	✓	Noted.			
A3.1	✓	Noted.			
A3.5	✓	The registered address for C4938 is not the one listed in this section. Applicant shall replace the address in the section with the address of the registered office of the company.	This has been updated and can be found in Appendix A1 and within updated variation.	Noted.	

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
C1.1	X	In Volume 2, Point 2.5, the application indicates that the composter shall be temporarily removed. Applicant to clarify whether this activity will be carried out on site.	Applicant can confirm activity will be carried on site.	Noted. It is being understood that the composter will not be utilised during the period covered by this proposal but will be reinstated soon thereafter.	
C1.2	✓	Noted.			
C1.3	X	<p>d) With reference to Approved document 2 in IP 0001/13, applicant is to update the phasing plan with the installation of the geotextile membrane.</p> <p>e) With reference to Improvement Program Item 12 of IP 0001/13 and replies to BAT 27d applicant is to install an eddy-current separator and sorter system upstream of the main shredder.</p> <p>f) In order to meet the requirements of S.L. 549.36, Waste Management (End of Life Vehicles) Regulations with respect to re-use and recycling targets, applicant is to implement (b) above and update flow diagrams to demonstrate that upholstery shall be removed manually prior to shredding as indicated during the processing of IP 0001/13.</p>	<p>a) Document 2 has been updated as per Appendix A2 of this document.</p> <p>b) Eddy-currents separator and sorter are installed.</p> <p>c) After discussions with ERA it was determined that upholstery should not be removed, since the capability of reaching requirements set out by S.L. 549.36, (Waste Management (End of Life Vehicles) Regulations) can be reached without upholstery. Appendix A3 provides an update response to the one provided on the 3rd April 2019, within VOLUME 3: RESPONSE TO FEEDBACK ON IPPC APPLICATION.</p>	<p>Noted.</p> <p>Applicant to provide good quality coloured photographs of the installed equipment including the model number.</p> <p>Comment below in regulatory consultation comment regarding waste streams refers.</p>	<p>Noted.</p> <p>Please find this attached within Appendix B1. Model number for this is SGM Magnetics S.p.A. EIS100/150.</p> <p>Noted.</p>
C1.4	✓	Noted.			
C2.1	✓	EMS at Annex 6. Incorrect reference, to be updated. References to MEPA to be changed to ERA.	Incorrect reference updated as per Appendix A4 in this document and submitted variation document.	Noted.	
C2.2.1	✓	Noted.			
C2.2.2	✓	Noted.			
C2.2.3	✓	Noted.			
C2.2.4	X	<p>Comments on BAT in separate table below. Applicant is to provide the complete BAT conclusion together with the applicant's reply as part of the revised IPPC application.</p> <p>The BAT assessment is to also cover the shredding of EoLVs and metal carried out until such time that Phase 4 is complete.</p>	<p>This requirement has been followed.</p> <p>The BAT assessment provided in variation document covers the shredding of EoLVs and metal carried out until such time Phase 4 is complete.</p>	Comments on BAT in separate table below.	Noted.
C2.2.5	✓	Noted.			
C2.3	✓	Noted.			
C2.4	✓	Noted.			
C2.5	✓	Noted.			
C2.6	✓	Noted.			
C2.7	✓	Noted.			

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
C2.8	✓	<p>2nd row in Table 4, Volume 2 makes reference to temporary hardstanding and temporary gutters. Applicant to clarify why such infrastructure is proposed to be temporary when the row deals with a permanent source.</p> <p>Until such time that the infrastructural measures, such as the underground reservoirs, referred to in Annex 4 are implemented within the proposed timeframes for Improvement Program 9 in pages 20-21 of Volume 2, applicant is to provide temporary firefighting measures suitable for the temporary EoLVs depollution and processing being processed through this application.</p> <p>Applicant to note that should they intend to continue accepting electric/hybrid vehicles on site, a pit for temporary storage of such vehicles needs to be constructed. Minimum requirements for such pit can be noted below:</p> <ol style="list-style-type: none"> 4. Shall be a minimum of 3m away from flammable material. 5. Shall have water sprinklers on the floor and the walls which will activate if the car catches fire 6. Shall have an adequate drainage system which shall collect all water used for firefighting. The water shall not be discharged to environment or to sewer but must be collected by a waste carrier or treated on site. <p>The construction of this pit must be accompanied by an SOP for its use. The below requirements are to be noted:</p> <ol style="list-style-type: none"> 3. Any electric/hybrid vehicle accepted on site that was involved in an accident or that had previously caught on fire must be quarantined in the pit for a minimum of 48 hours 4. In the case of CPD involvement, applicant shall inform that the source is an electric/hybrid vehicle <p>Applicant to provide a detailed plan, including timeframes, as to how the above mentioned requirements will be met. Such a plan will need to be approved by ERA and other regulatory consultees, as deemed appropriate by ERA. To note that acceptance of electric/hybrid EoLVs under EWC 16 01 04* will not be allowed prior to the completion of the above mentioned requirements.</p>	<p>This was an oversight in the original application and has been updated as per Appendix A5 of this document and revised variation submitted.</p> <p>As per discussions with ERA it was determined that a description for temporary firefighting is provided and can be found in point 66 of Annex 4, stating “as a temporary measure before firefighting reservoir is constructed, a dedicated 500L capacity water bowser, with pump dispenser will be stored on site for use in the event of a fire.”</p> <p>For this variation, DDE Attard will not be accepting electric/hybrid vehicles, until new variation is submitted.</p>	<p>Noted.</p> <p>Noted.</p> <p>Noted.</p>	
C2.9	✓	Noted.			

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
C2.10	X	Applicant to provide a detailed proposal as to how the composter will be temporarily decommissioned. This shall include how dismantling will be done in an environmentally safe manner and how storage will be within an adequate area. Any wastes envisaged to be generated from the temporary decommissioning shall be indicated together with the EP/IP number of the facility which will be utilised to dispose of the waste.	Decommissioning Plan has been provided in Appendix A6.	The plan does not detail where the composter is planned to be stored following decommissioning. Applicant to provide an updated plan with the above-mentioned information.	Please find attached Appendix B2 detailing this.
C2.11	✓	Noted.			
C3.1	X	<p>Applicant shall clarify whether EoLVs being proposed to be accepted on site (depolluted or otherwise) are solely road vehicles or whether other types of vehicles (sea, air) are being considered. Comment in C3.11 refers.</p> <p>Applicant to provide a maximum storage capacity for EWC 16 01 06.</p> <p>The variation proposal shows the utilisation of the Phase 2 area to depollute and dismantle EoLVs. Applicant shall provide plans and sections showing the location of the proposed shed for vehicles awaiting depollution and associated internal roads keeping in mind that polluted EoLVs shall be stored on a hardstanding area with adequate waste water collection and treatment. Proposal shall also indicate the maximum storage capacity of EWC 16 01 04* during the proposed temporary operations.</p> <p>Further to comment in C1.3(c), applicant is to indicate how the re-use and recycling targets in S.L. 549.36 shall be achieved prior to the acceptance and processing of polluted EoLVs.</p> <p>Applicant shall also indicate how lead acid batteries from EoLVs shall be stored within adequate containment boxes. These boxes shall be resistant to the corrosive action of battery acid and have a snug fitting lid. Further to comment in C2.8, applicant to note that high voltage batteries from</p>	<p>As per discussions with ERA, it was concluded EWC codes shown in figure 4.1, Incoming Waste indicated will only be allowed, relative to whether this originates from road vehicles or other vehicles (sea, air).</p> <p>As indicated on pg 179 of VOLUME 2: IPPC APPLICATION, the maximum amount of EWC 16 01 04* is 4,800T/annually. Of these 4,800T, it is estimated that around 1,920T will be EWC 16 01 06.</p> <p>Appendix A7 provides the plans and sections showing the location of the proposed shed for vehicles awaiting depollution. The maximum storage capacity of EWC 16 01 04* during the proposed temporary operations is of 10 vehicles.</p> <p>Please refer to comment C1.3c)</p> <p>Lead acid batteries are presently being stored in adequate containment boxes as per Appendix A7. As noted in comment C2.8, electric/hybrid vehicles will not be accepted.</p>	<p>With regards to the possibility of treating wastes other than road vehicles classified under 16 01 04* and 16 01 06, kindly describe any additional measures and precautions that shall be taken to handle waste generated by these streams including additional fuel types, insulation etc. This shall also include a detailed description of how the proposed depollution rig or alternative equipment could be utilised for such waste streams.</p> <p>Incorrect reference in reply to 1st review since page 179 does not exist. This is to be corrected. Since the 4,800 tonnes include both 16 01 014* and 16 01 06, applicant shall include a clarification regarding this in the application document.</p> <p>Noted.</p> <p>Noted.</p> <p>The makeshift containers indicated in Appendix 7 are not considered adequate. Kindly propose apposite containers for the storage of waste batteries originating from WEEE and ELVs dismantled on site in a manner which protects the</p>	<p>Depollution of vehicles other than road (sea, air) are undertaken at a third party licensed permitted facilities, to which ERA always requested a separate method statement (DDE Attard Ltd duly obliged and provided). Waste derived from such depolluted vehicles will arrive treated (as per method statement).</p> <p>Please find this attached in Appendix B3. For EWC 16 01 06 estimated amount is of 1,920T. For EWC code 16 01 04* estimated amount is of 2,880T.</p> <p>Noted.</p> <p>Noted.</p> <p>The containers being considered are those shown in Appendix B4. These containers will be located on impermeable ground.</p>

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
		electric/hybrid vehicles shall be stored separately to lead acid batteries. Applicant shall indicate the storage method for such batteries.		batteries from the weather elements and is located on impermeable ground in order to facilitate the clean-up of potential spills.	
C3.2	✓	Noted.			
C3.3	✓	Noted.			
C3.4	X	<p>Applicant shall indicate whether the interceptor and reservoir will be located aboveground or underground and provide its maximum storage capacity. In the case that further excavations are required than those approved by Approved Document 2 of IP 0001/13, indicate the projected volumes of such hazardous waste to be exported.</p> <p>If available, applicant shall provide the certificate for impermeability for the plastic temporary reservoir from an independent warranted engineer or architect. If not, applicant is to provide timeframe for submission.</p> <p>Furthermore, applicant shall indicate whether the temporary reservoir shall have any overflow and if yes, whether this shall be to land. In the eventuality of a discharge to land, applicant to update C3.8.</p>	<p>As indicated during discussions with ERA the permanent interceptor and reservoir will be located underground for which maximum storage will be the same as indicated within original application (175m³ reservoir used for providing fire fighting water and 800m³ reservoir for collection of water). The temporary interceptor reservoir (having a storage capacity of 460m³ and for which specification can be found in Appendix A8) will be underground. No trenching is to be carried out, but part of the site will be backfilled to be brought to grade.</p> <p>Certificate of impermeability is not currently in hand and will be provided once complete at end of Stage 2.</p> <p>Temporary reservoir will have an overflow and this overflow will be to land. Section C3.8 updated as required.</p>	<p>Noted.</p> <p>Noted.</p> <p>Section C3.8 has not be updated. Applicant to provide an updated application form.</p>	<p>Noted.</p> <p>Noted.</p> <p>Please refer to Appendix B5.</p>
C3.5	✓	Noted.			
C3.6	✓	Noted.			
C3.7	✓	Noted.			
C3.8	✓	Comment in C3.4 refers.	If overflow occurs, this will be due to rainwater gathered at area. Such an overflow would still have passed through an interceptor/reservoir system meaning any overflow will be filtered. The location of such overflow has been provided in Appendix A9.	Noted. Comment in C3.4 refers.	Noted.
C3.9	✓	Applicant is to submit a noise monitoring survey as requested by ERA through the Compliance and Enforcement Directorate on the 8 th July 2021.	DDE Attard acknowledges noise study has not been provided. Since currently works are being undertaken as per requirements of permit issued, it was determined that such a noise study (for which method statement has been provided and approved by ERA) would not be indicative of normal activity process at DDE Attard Ltd. For this reason, DDE Attard will inform ERA when such works are completed and activities as per permit commence. Once confirmed by ERA, noise monitoring will be undertaken.	Noted. It will be proposed that noise monitoring takes place following the completion of the hardstanding installation.	

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
C3.10	X	Monitoring proposal as per comments in BAT 6 and BAT 7 is required.	Comments to BAT 6 and BAT 7 have been provided.	<p>The effluent monitoring proposal for the reservoir overflow shall be updated to include:</p> <ol style="list-style-type: none"> 1. The analytical standard methodology to be used to test each parameter 2. The lab which will be used to test the samples for the parameters. The lab will need to have accreditation to perform the tests using the methods specified in 1. 3. The lab's accreditation certificate 4. Sampling methodology (including but not limited to number of samples taken each time). This shall include a clarification on where the sample will be taken from since Appendix 8 refers to the technical specifications of the oil-water interceptor. 5. The rationale behind the chosen 2-year frequency is to be backed up by calculations showing when and how frequent the overflow discharge is expected to occur. This shall consider the average rainfall and maximum capacity of the reservoir. 6. A full list of the PAHs, PCBs, PCDD/PCDF, Chlorinated aliphatic hydrocarbons and Halogenated aliphatic hydrocarbons being considered for monitoring. 7. With reference to the baseline study, applicant shall either include ammonium and chloride as parameters to be monitored or shall provide a reason for their omission. 	<p>The updates requested in 1., 2., 3., 4., 6. and 7. have been provided in Appendix B6.</p> <p>With regards to point 5, after discussions with ERA, it was determined sampling will be undertaken each and every year for the first two years, subject to revision after this.</p>
C3.11	X	<p>Applicant shall include a flow diagram for the acceptance and treatment of EWC 16 01 06.</p> <p>Comment in C3.1 refers. If applicant intends to accept vehicles other than road vehicles, flow diagrams for the processing of such vehicles may need to be provided.</p>	<p>The flow diagram for the acceptance and treatment of EWC 16 01 06 can be found attached to Appendix A10.</p> <p>Please refer to comment C3.1.</p>	<p>Noted.</p> <p>Comment in C3.1 above refers.</p>	<p>Noted.</p> <p>Noted.</p>
C4.1	✓	Noted.			
C4.2	✓	Noted.			
C5.1	✓	Noted.			
C6.1	✓	Noted.			
C6.2	✓	With reference to para 5.5 of Volume 2, applicant is to identify all third party sites immediately adjacent and surrounding the site which might be affected by emissions from site.	Correction has been made and can be found within variation application submission provided and Appendix A11.	Noted.	
C6.3	✓	Noted.			
C7.1	X	Applicant shall provide a written confirmation from the Planning Authority indicating that the temporary works being	DDE Attard Ltd has engaged the service of an architect who indicated that the temporary works	Comment in regulatory consultation below refers.	Noted.

Section	Duly made?	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
		proposed do not require development consent. Should the Planning Authority determine that a development permit is required, applicant shall submit an application and plans to the Planning Authority for its consideration.	being proposed do not require development consent.		
C8.1	✓	Noted.			
C8.2	✓	Noted.			
C9.1	X	Annex 4 is to include a business plan indicating the feasibility of the proposal covered by this application. This shall describe how the applicant has financial capacity to comply with all obligations and liabilities that will or may arise from the proposed activities or how financial security may be offered.	Annex 4 has been updated, providing a business plan, indicating the feasibility of the proposal covered by the application, and can also be found in Appendix A12. Funding for such has been secured for first part of the project and ongoing for the second part of the project.	Whilst noting the envisaged profit margins, applicant to note that expenditure plan needs to show the costing of the proposal covered by this application including associated construction works, environmental obligations being covered by current permit requirements and feasibility study updated accordingly.	Kindly refer to Appendix B7. Please note this information is highly confidential and cannot be shared without prior consent of DDE Attard Ltd.

Comparison with BAT Conclusion

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd		
1 xv	Further to the below comment in BAT 17 and C3.9 above, applicant to note that the noise study requested as an Improvement Program has not yet been addressed.	DDE Attard acknowledges noise study has not been provided. Since currently works are being undertaken as per requirements of permit issued, it was determined that such a noise study would not be indicative of normal activity process at DDE Attard Ltd. For this reason, DDE Attard will inform ERA when such works are completed and activities as per permit commence. Once confirmed by ERA, noise monitoring will be undertaken.	Noted. It will be proposed that noise monitoring takes place following the completion of the hardstanding installation.	Noted.
3	<p>With reference to Phase 1 indicating that the composter shall be temporary removed, applicant shall indicate how its process effluent is being considered in this BAT conclusion by confirming that following the conclusion of the proposed End-of-Life shredding facility, the composter shall be relocated to its currently permitted location.</p> <p>The inventory shall also cover potentially contaminated surface runoff/waste waters may also be generated from the storage of hazardous waste (e.g. polluted EoLVs) and their processing. It shall include all pollutants which may be present in any waste water generated by all waste treatment activities which may necessitate on site capture and treatment. This shall include a list of environmentally acceptable pollution concentration levels and may be based on past monitoring records if available.</p>	<p>Process effluent was not considered for composter since no effluent is stored within. The composter will be relocated to its current permitted location.</p> <p>Contaminated surface runoff/wastewater generated from the storage of hazardous waste (e.g. polluted EoLVs) will not be generated by process but rather possibly by rainstorm. Since at the present moment EoLVs and indicated other materials are not being stored or not stored by the amounts indicated with the application, the required information is not available. For this reason, DDE Attard Ltd is ready to undertake tests of water samples in order to determine the concentration levels of said wastewater from different areas (as per Figure 2.19 sampling locations in VOLUME 2: IPPC APPLICATION).</p>	<p>Kindly provide requested information for the composter effluent being discharge to the sewer.</p> <p>Incorrect reference in reply to 1st review since figure 2.19 does not exist. This is to be corrected. Applicant to note that any waste water which has been in contact with waste storage and treatment activity including those used in the shredding activity and other surface runoff is to be considered. Applicant is to provide timeframes by when such testing shall take place.</p>	<p>Effluent is not stored within Composter and since this will not be used no effluent will be discharged.</p> <p>Please kindly do not refer to figure 2.19.</p> <p>Surface runoff water will be resultant within reservoir. Such testing will be undertaken as per information provided in response C3.10.</p>
4 b	Comment above in C3.1 refers regarding maximum storage capacity for EWC 16 01 04* during the temporary phase and EWC 16 01 06.	Comment has been provided in section C3.1.	Comment above in C3.1 refers.	Noted.
6	Based on BAT 3 and Improvement Programme Item 7 of IP 0001/13/A, applicant is to provide an effluent monitoring proposal for any overflow from permanent/temporary treated water reservoirs including the sampling points and proposed parameters to be monitored.	An effluent monitoring proposal has been provided within Appendix A13 of this document. As indicated during discussions with ERA, water reservoir will overflow when a heavy rainstorm hits site. For this reason, testing will be undertaking every 2 years and sample tests provided when such rainfall hits.	Comments above in C3.10 on monitoring proposal refer.	Noted.
7	Based on the inventory in BAT 3, applicant to consider any overflow from permanent/temporary treated water reservoirs to be a discharge to environment and proposed parameters to be monitored. These parameters will be added to the Monitoring Plan requested in Improvement Programme (IP) Item 7 of IP 0001/13.	Please refer to BAT 6.	Comments above in C3.10 on monitoring proposal refer.	Noted.

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd		
8	Applicant is to provide an emissions to air monitoring proposal including the monitoring standards to be utilised covering the main shredder based on the requirements for IP 0001/13 and this BAT, BAT 14 and BAT 25.	BAT 8 is referring to monitored channelled emissions to air with at least frequency provided. As will be indicated within BAT14 and BAT 25 options for monitoring such channelled emissions are determined to be unattainable with reason. As an alternative, DDE Attard Ltd is proposing monitoring air quality within area, as per parameters and timeframes that would be established in an air quality monitoring method statement.	Comment below in the regulatory consultation review concerning air quality refers.	Noted.
11	Applicant to explain how waste water discharged to both land and to sewer shall be measured.	BAT 11 indicates that monitoring includes direct measurements, calculations or recordings e.g. using suitable meters or invoices. Since no wastewater will be discharged to land and wastewater to sewer will be originating from lavatories, a calculation will be used as per Appendix A14.	Applicant to note that overflow to land will require to be considered as a discharge to land whilst process effluent from composter is to be considered as a discharge to sewer. Appendix 14 is to be updated accordingly.	DDE Attard Ltd has identified that overflow to land will be considered to be discharge to land, and if such occurs this will be measured. Appendix A14 is referring to discharge to sewer, and since Composter is not going to be used such process effluent is not to be considered.
14	Applicant is to provide a plan and section of the shredder shed indicating how such shed shall be suitably contained to reduce diffuse emissions and thereby the other requirements of BAT14d i.e. “maintaining the enclosed equipment or buildings under an adequate pressure and collecting and directing the emissions to an appropriate abatement system via an air extraction system and/or air suction systems close to the emission sources” met.	During consultation with the architect it was determined it was not possible for the shredder to be under a shed. Reasons were due to: <ol style="list-style-type: none"> 1. Height limitation of area since site is close to an airport 2. Equipment on site is moveable and having shed would result in machinery not being able to be moved for maintenance requirement. This may in turn result in potential safety hazards 3. The possibility of safety hazard as indicated in BAT25. As per BAT 14, the techniques proposed are being applied as per Appendix A15.	Noted.	Noted.
17	Applicant is to provide the noise monitoring survey as requested in C3.9 above.	Kindly refer to note in C3.9	Comment in Section C3.9 refers.	
18	Comment regarding noise monitoring plan in BAT 17 refers.	Kindly refer to note in BAT17	Comment in Section C3.9 refers.	
19 d	In view that the fuel tanks are being proposed to be retained in this application, applicant shall provide appropriate bund certifications for each fuel tank on site. Furthermore, applicant shall provide a decommissioning plan with timeframes for any fuel tanks which shall not be utilised as such.	Current fuel tank on site is 800L tank. Bund certification is provided in Appendix A16. Other fuel tanks on site will be finalized by latest completion of Phase 4 works and bund certifications for each fuel tank will be provided. No decommissioning plans are being considered at present.	Appendix A16 refers to a 10,000 litre tank. Applicant to indicate the use of this tank on a layout plan. Bund certification for the 800L tank mentioned in applicant’s reply has not been provided.	Reference was meant to be made for 10,000L tank and not 800L tank. Please refer to Appendix B8 for the placement of such tank within layout plan (ref 26: 9m ³ fuel storage tank).
19 f	With reference to Section B3.5 of the original IPPC application IP 001/13, applicant to explain how potentially contaminated runoff from the road surfaces of the installation shall be separated from	Section B3.5 of the original IPPC application IP 001/13 stated “Clean rainwater from roofed areas will be received in the underground	Applicant to provide a drainage plan showing how all effluent (both clean rainwater and	Please refer to Appendix B9.

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd		
	clean rainwater from the roof surfaces. Layout plans might need to be updated accordingly without prejudice to any development permit requirements or those of any other regulatory body.	reservoir without pre-treatment”. This will not be the case. Rainwater from the roof surface will be diverted through downpipes to the surface gutters. In turn all water will be treated as per section 4.26 of Section B3.5. It is to be noted that roofed area represents only some 20% of the site area.	contaminated effluent) will be handled in line with reply to 1 st review at all times.	
20	Applicant to note that any treated water reservoir overflows are to be considered for this BAT. Based on reply to BAT 3, applicant is to consider revision of reply to this BAT to cater for all the pollutants listed in BAT 3 and suggest achievable limits for metals and metalloids which are also compliant with the limits provided by WSC.	Considerations have been made for water reservoir overflow and techniques decided to be used offered within BAT 6 and BAT 7. In reference to BAT 3, if reference is being made to potentially contaminated surface runoff/wastewater from the storage of hazardous waste, such identification of pollution generation is not able to be determined unless testing is undertaken once installation is fully operational.	Noted.	Noted.
21	Applicant to provide a reply to this BAT for the temporary storage of EWC 16 01 04* and for EWC 16 01 06.	Replies to BATs provided for temporary storage of EWC 16 01 04* and for EWC 16 01 06 can be found Appendix A17	Noted.	
23	Applicant to provide timeframe by when an Energy Audit (for the current and proposed operations) can be provided.	The period between when Energy Audit will be provided is March 2022 and August 2022.	Noted.	
25	Further to the provided reply to BAT 14d above, BAT shows that water injection into shredder should be accompanied by cyclone or wet scrubber for waste gas. Applicant to provide timeframe for the submission of a plan for the installation of further abatement for the shredder. In view that newly published BAT Conclusions will need to be implemented within four years from adoption of a relevant decision on BAT conclusions as per S.L. 549.77, applicant shall indicate which measures (a)-(c) shall be implemented including timeframes. Further to the affirmative reply in BAT 14d, applicant is to provide the emission limit value that can be achieved under optimised operational conditions as described in the reply to this BAT comparison.	With reference to “water injection into shredder should be accompanied by cyclone or wet scrubber for waste gas” such techniques have been found not to be viable for the following reasons: <ul style="list-style-type: none"> Costs are exorbitantly high, making return on investment not worthwhile Cyclone/wet scrubber would go over height limitation allowed for the area (since this is near airport) Impractical/possibly dangerous to implement. Normal process requires grabber to input material from top. A pressure transportation system would be required for cyclone/wet scrubber to be able to operate and in turn requiring an opening/closure system. This would not allow for grabber to push the material downward (as shown by link) and cycle time being too long (total process: open, place vehicle, close, pressurise, shred, finish) for process to be feasible Safety hazard – machinery is not designed to operate in a closed system. If there is a fire, this is combatted by inputting water. The opening and closing 	With reference to ERA comment in 2 nd review to BAT 14, since BAT 14 is being considered addressed without the requirement of BAT14d, requirements set out in 1 st review do not subsist.	

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd		
		<p>system would not provide ability for operator to identify such a resultant fire, potentially resulting in an explosion.</p> <p>Alternative Techniques: The alternative being proposed is keeping water injection within shredder, monitor required channel dust emissions and readings are submitted periodically to ERA as per BAT. If readings are higher than those indicated by BAT8, then mist water injection locations will be increased.</p>		
27	<p>The deflagration management plan shall include the following information:</p> <p>2. A review of historical deflagration incidents and remedies, and the dissemination of deflagration knowledge, as applicable</p> <p>Further to the replies to BAT 26 (b) and (c) an indication of how containers, tanks and pipework containing potentially flammable materials shall be cleaned thoroughly (and not just emptied) prior to shredding.</p> <p>Comment in C1.3 (b) above refers.</p>	<p>The section “A review of historical deflagration incidents and remedies, and the dissemination of deflagration knowledge, as applicable” has been included with the Fire Prevention and Response Plan as per Appendix A18 and provided updated variation document.</p> <p>Containers, tanks and pipework which are not certified by an authorized facility or industrial operator, the containers, tanks and pipeworks will pass through same process of car depollution as indicated in figure 9 of variation document with updates shown as per Appendix A19 of this document.</p>	<p>Applicant to provide a copy of the historical deflagration logs so as to demonstrate the lessons learnt from such past incidents.</p> <p>Figure 9 is particularly focused on depollution of EoLVs and does not describe how such non EoLV waste shall be cleaned in a manner to prevent deflagration accidents. Applicant to provide a separate flow diagram to clearly show the cleaning process for such waste.</p> <p>With reference to the replies to the BAT Comparison provided in Volume 2, the reference to the eddy-current separator is to be updated in line with section C1.3.</p>	<p>No mayor accidents have been experienced by DDE Attard Ltd in recent years. Going forward a log where such information lessons learnt from past accidents will recorded and kept.</p> <p>The process is the following: Waste is being visually inspected upon entry and determined whether these are hazardous or not. If these are not within the acceptance waste criteria these are stopped from being deposited within the facility. Metal items that derive from hazardous storage, such as gas cylinders, fuel tanks etc, are depolluted prior to entering the facility and with all the valves removed. One must keep in mind that such precaution is observed to safeguard the shredder and sorting machinery and above all the operators’ safety.</p> <p>Noted.</p>

Comments from Consultation

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
Occupational Health and Safety Authority (OHSA)	<p>With reference to this consultation process, kindly note that the Occupational Health and Safety Authority (OHSA) finds no objection to an ERA approval, provided that the applicant abides by all relevant occupational health and safety (OHS) legislation and in particular:</p> <ol style="list-style-type: none"> 5) All OHS hazards present at this place of work are covered by a suitable, sufficient and systematic risk assessment carried out as required under S.L. 424.18 and by other relevant OHS regulations. Subsequent to this risk assessment, the employer shall take all necessary measures to prevent occupational risks to health and safety, and shall control those factors which are likely to give rise to accidents or which create a risk to OHS, 6) The employer shall designate a competent person on OHS matters to assist that employer on the measures needed to safeguard OHS, 7) All work equipment used at this site shall comply with the relevant OHS regulations particularly, but not limited to the provisions of S.L. 424.35 and 8) Any construction works shall be compliant with the relevant provisions of the Work Place (Minimum Health and Safety Requirements for Work at Construction Sites) Regulations, 2018 (S.L. 424.36). 	Applicant to note comments from OHSA. These will be included as permit conditions.	DDE Attard Ltd acknowledges this	No feedback was provided.		

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
Regulator for Energy and Water Services (REWS)	The Regulator is in direct communication with DDE Attard Ltd. for this company to correctly register its fuel storages and obtain authorisation. REWS does not have objections to the IPPC variation application but would like to bring your attention to the part on fuels mentioned in Table 2, point number 3 on page 18 of document 6c.Original Application Volume 2. Where dispensing or refuelling is mentioned, ‘notified’ as per S. L. 545.22 is not the correct term to use. This will be considered as an authorisation to operate a PFS (Commercial Site) if the application is duly completed. For the rest of the storages (including a & b (ii)), a notification may apply depending on the use of fuel & tank capacities on site at any given time (above 3,000 it is also an authorisation). More details will be asked from the operator, to determine the correct application in this regard. (As mentioned above the REWS is in contact with DDE Attard).	Applicant to note that wording of IP Item no 3 shall be reworded in line with comments from REWS. The IP item will request that all fuel storages on site have been duly authorised.	DDE Attard Ltd acknowledges this	No feedback was provided.		
Water Services Corporation (WSC)	<p>5) Will the temporary and subsequently the permanent oil/water separators be collecting surface runoff? Will they be discharging to road surface?</p> <p>6) Can I have confirmation whether the composter does generate waste water? If yes,</p>	<p>5) The permanent oil/water interceptor shall receive effluent from the waste storage and processing areas. The temporary oil/water interceptor shall receive water from the composting shed where EoLV depollution is being proposed to be carried out temporarily. ERA is informed that overflow from the reservoir will discharge to road surface. Comment above in Section C3.4 refers with regards to overflow from temporary reservoir.</p> <p>6) The composter does generate waste water. The current permit requires the</p>	<p>1) DDE Attard Ltd acknowledges this</p> <p>2) Such testing has never been undertaken since construction work is still ongoing</p>	<p>No further comments from WSC on the variation of the IPPC permit by DDE Attard Ltd.</p> <p>The only issue to be tackled (once all alterations are completed) is the operations of the composter and any effluents generated from this process (if any). At that stage WSC would need to assess whether a change in the Discharge Permit would be necessary and act accordingly.</p>	Applicant to note WSC comment.	Kindly note composter will not be used hence such change in Discharge Permit is not required.

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
	<p>has this ever been tested and will it be discharged to sewer?</p> <p>7) Are wheelie bins containing the food waste for the composter washed on-site? If yes, where? And is the waste water discharged to sewer?</p> <p>8) Is the reservoir overflow discharging to road surface?</p>	<p>applicant to test the waste water with parameters and ELVs provided by WSC in the consultation on the original application prior to discharge to sewer. Applicant shall clarify whether such testing has ever been done.</p> <p>7) Applicant to provide a response to this query.</p> <p>8) Comment in point 1 above refers.</p>	<p>3) Composter is not being used and is not intended to be used on site until further notice. If composter start to operate again, wheelie bins would not be cleaned on site.</p> <p>4) DDE Attard Ltd acknowledges this</p>			
Environmental Health Directorate (EHD)	<p>13) Safe and proper handling of raw materials on site should also be ensured. Adequate preventive measures are to be taken regarding the potential accidental spillage of hazardous fluids, fuel and lubricants which are also to be well managed and adequately stored. The Spill Prevention and Response Plan is to be adopted.</p> <p>14) Water for human consumption and personal use at said facilities is to be potable and from an approved source.</p> <p>15) The reservoir-harvested rainwater should not be used for human consumption and/or personal hygiene. Reservoir overflow should discharge directly onto the street after it has passed from the oil/ water separator. If the water from the rainwater reservoir will be used for washing of floor and/or equipment and for</p>	<p>Applicant to note comments from EHD. With reference to point 6, applicant shall ensure that all existing drainage systems (domestic and otherwise) are leak proof.</p>	<p>No 1) to ERA Permitting Unit Comments – October 2021 DDE Attard Ltd acknowledges this</p>	<p>No further comments.</p>	<p>Noted.</p>	<p>Noted.</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
	<p>flushing apparatus this must be treated with a biocide prior use.</p> <p>16) If second class water, (from rainwater reservoir), is used to sprinkle dust emission this should be treated for Legionella bacteria.</p> <p>17) Mitigation measures and monitoring programmes are to be adopted to prevent noise, air, vibration, and odour pollution generated from operations.</p> <p>18) Although the certification from the independent warrant civil engineer will be granted 42 months form the date permit is granted, (see Table 2. Page 19, Vol2 of the IPPC) all the drainage system on the scheme must be leak proof and abide to Local Laws and Regulations.</p> <p>19) Pest treatment must be carried out along the entire scheme since it is prone to rodent attraction. Especially since food waste will be received on site.</p> <p>20) Foul water, contaminated surface water and any other anthropogenic waste should not exit the scheme.</p> <p>21) Since the current surface water management is not BAT, (see p26, point 3.19 of Vol 2 of the IPPC), all the necessary preventive measures are to be adopted to reduce and where possibly eliminate the risk of contamination of surface and ground land as well as the surface and ground water.</p> <p>22) Comments provided from pervious consultation on IP0001/13 dated 28th November 2017, are to be</p>	<p>Applicant shall indicate what measures shall be put in place as interim mitigation measures to reduce the risk of land and surface and ground water contamination.</p>	<p>No 2) to ERA Permitting Unit Comments – October 2021 DDE Attard Ltd will not operate any part of scrapyard unless proper hardstanding is in place. Furthermore if reservoir overflow results due to large amount of rainwater, such water will tested as indicated in previous BAT conclusion comments</p>		<p>Until such time that hardstanding is in place, applicant is to indicate which waste treatment or storage activities are being proposed to take place on such impermeable grounds.</p>	<p>Currently operation is taken place on hardstanding and only storage of material is taking place on permeable areas.</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
	<p>taken into consideration with these comments.</p> <p>23) Moreover, any other unpredicted impacts and nuisances which may arise from this operation and that may have a significant adverse effect on public health are to be immediately addressed by the applicant and the necessary mitigation measures taken.</p> <p>24) Complaints lodged by the public regarding any adverse impacts/nuisances should be immediately addressed by the applicant. All complaints lodged and actions taken are to be recorded and such records are to be readily available to the Competent Authorities when requested.</p>					
Energy and Water Agency (EWA)	<p><i>Energy:</i></p> <p>No comments were provided from an energy perspective.</p> <p><i>Water:</i></p> <p>The results of any historical groundwater quality baseline studies should be included in the Application Document. Sampling of Groundwater monitoring should be carried out by an accredited laboratory from the private borehole onsite or access may be requested from the WSC BH in the vicinity. Further to this, it is recommended that periodic groundwater monitoring is requested from the applicant. Other than the basic physical parameters of pH, electrical conductivity, the list should include persistent, bio accumulative and toxic (PBT) substances listed in the Groundwater Directive which are relevant to the site including Cadmium, Lead,</p>	<p>ERA notes that the baseline reports have been provided as part of the original application.</p> <p>Applicant shall provide a method statement for periodic ground water monitoring as per ove’s comments.</p> <p>Parameters for monitoring are listed in Annex 1 below.</p> <p>The monitoring locations and frequency of monitoring shall be included in the method statement together with the sampling methodology as well</p>	<p>DDE Attard Ltd disagrees with the conclusions made by the ERA. ERA has indicated that periodic ground water monitoring should be undertaken “every year until such time that the area is covered with an impermeable surface.” Each area will be operational once impermeable/hardstanding is in place (even in the case of temporary EoLV processing) hence one cannot understand why such monitoring is being requested.</p> <p>Furthermore it is to be noted other neighbouring operational sites maybe affecting Groundwater</p>	<p>EWA is in agreement with the comments provided by the ERA Permitting Unit in October 2021. Given that the operational area of the facility has been permeable for a number of years, it would make sense that another groundwater monitoring campaign is undertaken in line with the comments by ERA and EWA and this is repeated in the renewal IPPC permit applications to understand how the addition of the hard standing areas are impacting groundwater quality.</p>	<p>Applicant to provide a method statement for the monitoring requested in the 1st review which shall include the sampling frequency before and after completion of the hardstanding. Such frequency may consider a lower risk to land and groundwater contamination associated with the applicant’s proposal to not store, treat and handle waste in areas without hardstanding.</p>	<p>Initial submitted report indicated the following: <i>reference: 3.322</i> - The baseline report also concludes that the risk to groundwater from historical and current activities is significantly reduced, considering that substantial attenuation in contaminant concentrations is observed from 0 to 2 m and that the groundwater at the Scheme site is found at a depth of around 56 to 60 m below the land surface.</p> <p>Due to this and due to the fact that no boreholes is present within DDE Attard premises, such testing cannot be undertaken.</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
	Mercury, Trichloroethylene and Tetrachloroethylene. These should be measured with a maximum limit of quantification of 0.01 µg/L.	<p>as the method that will be used for the testing of each parameter. Applicant to note that testing shall be done in an accredited laboratory and the accreditation certificate shall be provided with the method statement. Monitoring frequency shall be not less than once a year until such time that the area is covered with an impermeable surface. Any deviation from the monitoring frequency indicated is to be substantiated with a risk assessment. If the borehole is located in areas belonging to 3rd parties, applicant is to submit a declaration signed by 3rd parties showing that they agree to provide access to the applicant for sampling. The declaration shall indicate that the borehole, including associated equipment (e.g. pump / pipework), is in good working order.</p> <p>The method statement shall also include land (soil) monitoring. Such monitoring shall be carried out from the 5 points identified in the baseline report as well an extra point from an area immediately adjacent to the shredder. Parameters for monitoring are listed in Annex 1 below. Method statement shall include the same items as for groundwater monitoring and shall be not less than once every 2 years until such time that the area is covered with an impermeable surface.</p>	namely Luqa Civic Amenity site (operated by WasteServ Malta), EasyGas Malta Limited, Hal Luqa and Metalco.			

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
Civil Protection Department (CPD)	CPD are currently still assessing this application. From correspondence provided CPD, direct liaison with the applicant is currently underway in relation to fire fighting measures.	No feedback required at this stage.	DDE Attard Ltd acknowledges this	The proposal is not consistent when it comes to the size of the water reservoir. In certain cases, the size is written as ‘ <i>not less than</i> ’ whilst in other paragraphs in the report it is written as the exact amount. In the case of the latter, it is stated that the emergency firefighting water reservoir is 175m ³ that is 175,000 litres of water. The applicant is also stating that there is going to be a fire pump that feeds into the firefighting ring main at 3000 l/min capacity. This means that water for firefighting is going to last for less than or approximately one hour which is not sufficient when tackling a fire in a scrap yard. Whilst it is good to indicate that precautions will be taken, such precautions need to be adhered to and do not replace the requirement for an adequate amount of firefighting water.	Applicant to address CPD’s concerns accordingly.	All requirement have been discussed directly with CPD, were it was concluded that the size will be not less then 175m ³ and in turn would be able to satisfy at least 2hrs of firefighting water running the suppression system. Please find correspondence with CPD in Appendix B10.
Planning Authority (PA)	No feedback was provided.	--	DDE Attard Ltd acknowledges this	From the documentation and drawings provided particularly to Figure 4: Proposed Phase 2 Scheme Layout, such phase includes the extension of the hardstanding and shed which currently stores the composter. Such extension is not covered by approved permits PA 5538/07, PA 1876/15 and PA 4172/16 and hence would require a planning permit.	Applicant to obtain the relevant development permits.	A minor amendment has been submitted, for which reference within Appendix B11 have been provided.
Transport Malta (TM)	No feedback was provided.	--	DDE Attard Ltd acknowledges this	No comments on the application.		
Malta Resources Authority (MRA)	No feedback was provided.	--	DDE Attard Ltd acknowledges this	No feedback was provided.		
ERA – Ambient Air Quality and Waste – Air Team	No comments on the application.	--	DDE Attard Ltd acknowledges this	Since the shed structure cannot be constructed due to height limitations within the area, the option of channelled emission monitoring is not feasible. The air team does not agree with the applicant’s proposal for ambient air	Ambient air quality monitoring is not required.	Noted.

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
				quality monitoring, since this is not a direct replacement of channelled emission monitoring. Ambient air quality monitoring does not monitor the emissions emerging solely from the shredder within the facility.		
ERA – Ambient Air Quality and Waste – Waste Team	No feedback was provided.	--	DDE Attard Ltd acknowledges this	<p>1. Figure 1 of doc. 10f (page 49): It is indicated that plastic bumpers (19 12 04), end-of-life tyres (16 01 03) and plastic and rubber (19 12 04) will be sent to Green Skip Services Ltd or to WasteServ for recycling. Green Skips and WasteServ are not permitted to 'recycle' but rather to carry out interim recovery operations prior to export (i.e. R12 and/or R13, Schedule 2 of S.L. 549.63). Similarly, there are no local facilities which carry out the final recycling of discarded electronic (16 02 13*/14); instead facilities export these for recycling.</p> <p>2. Figure 1 of doc. 10f (page 49): Clarifications are needed on why 'Plastic Bumpers' are not being classified under the subchapter for waste from dismantling of ELVs (i.e. subchapter 16 01), also noting that no treatment is being specified for the plastic bumpers (only baling is indicated);</p> <p>3. Furthermore, kindly note that in the Flow diagram (Figure 9, page 29, doc.: 10e) for the acceptance and treatment of EWC 16 01 04* (End-of-life vehicles) indicates that transmission oils (EWC 13 03 07*, 13 03 08*, 13 03 09*) and other hydraulic oils (13 01 10*, 13 01 11*) will be sent to</p>	<p>1. Applicant to amend flowchart as follows: to indicate that waste shall be sent to a local facility for storage prior to export for recycling and to clarify which Wasteserv facility is being utilised to recycle EWC 19 12 04.</p> <p>2. Applicant to provide an updated application which shall classify plastic waste arising from ELV dismantling as 16 01 19.</p> <p>3. Applicant to provide an updated proposal in line with consultee's comments.</p>	<p>1. This has been updated and provided within Appendix B12.</p> <p>2. This has been updated and provided within Appendix B12.</p> <p>3. This has been updated as per Appendix B13.</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd
				Malta Thermal Treatment facility (MTTF). However, as per their updated permit for the MTTF, this facility is no longer permitted to accept such EWC codes. Also, kindly note that waste oils should be treated according to the waste hierarchy. Notably, as per regulation 18 (1)(b) S.L. 549.63 waste oils shall be treated, giving priority to regeneration or alternatively to other recycling operations delivering an equivalent or a better overall environmental outcome than regeneration according to the said waste hierarchy.		
ERA – Ambient Air Quality and Waste – Noise Team	No comments on the application	--	DDE Attard Ltd acknowledges this	No comments on the updated application.		
ERA – Environmental Assessment Unit	No comments on the application.	--	DDE Attard Ltd acknowledges this	No comments on the updated application.		
ERA - Biodiversity and Water Unit	No comments on the application.	--	DDE Attard Ltd acknowledges this	No comments on the updated application.		
ERA – Compliance and Enforcement Directorate	No comments on the application.	--	DDE Attard Ltd acknowledges this	No comments on the updated application.		

Comments from Public Consultation

No comments were received from the public.

Annex 1: Land and Groundwater Monitoring Parameters

Parameter	Land	Groundwater	Parameter	Land	Groundwater
pH		✓	Sulphate		✓
Conductivity		✓	Nitrites		✓
Arsenic	✓	✓	Phosphorus (total)/Phosphate		✓
Cadmium	✓	✓	C12-C35 hydrocarbons (total)	✓	✓
Chromium (total)	✓	✓	C5-C12 hydrocarbons (total)	✓	✓
Chromium (hexavalent)	✓	✓	BTEX (benzene, toluene, ethylbenzene, xylene)	✓	✓
Copper	✓	✓	PAHs ¹¹	✓	✓
Lead	✓	✓	PCBs ¹²	✓	✓
Mercury	✓	✓	MTBE	✓	✓
Nickel	✓	✓	Cyanide	✓	✓
Selenium	✓	✓	PCDD/PCDF ¹³	✓	✓
Zinc	✓	✓	Chlorinated aliphatic hydrocarbons ¹⁴	✓	✓
Ammonium		✓	Halogenated aliphatic hydrocarbons ¹⁵	✓	✓
Chloride		✓			

=

¹¹ The PAHs that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

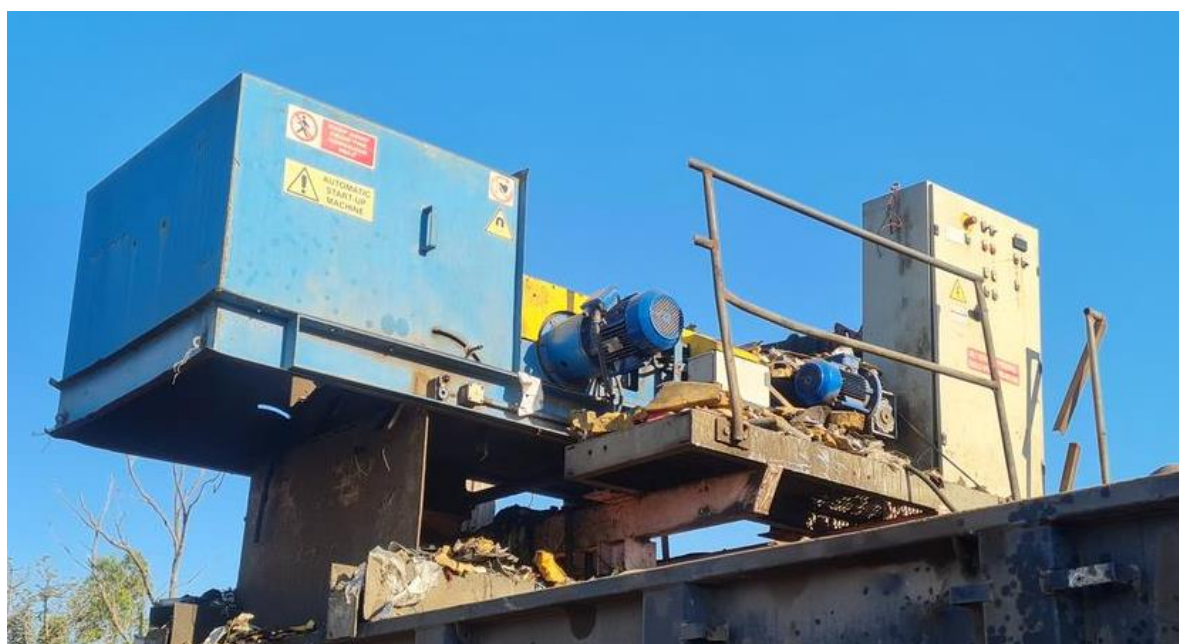
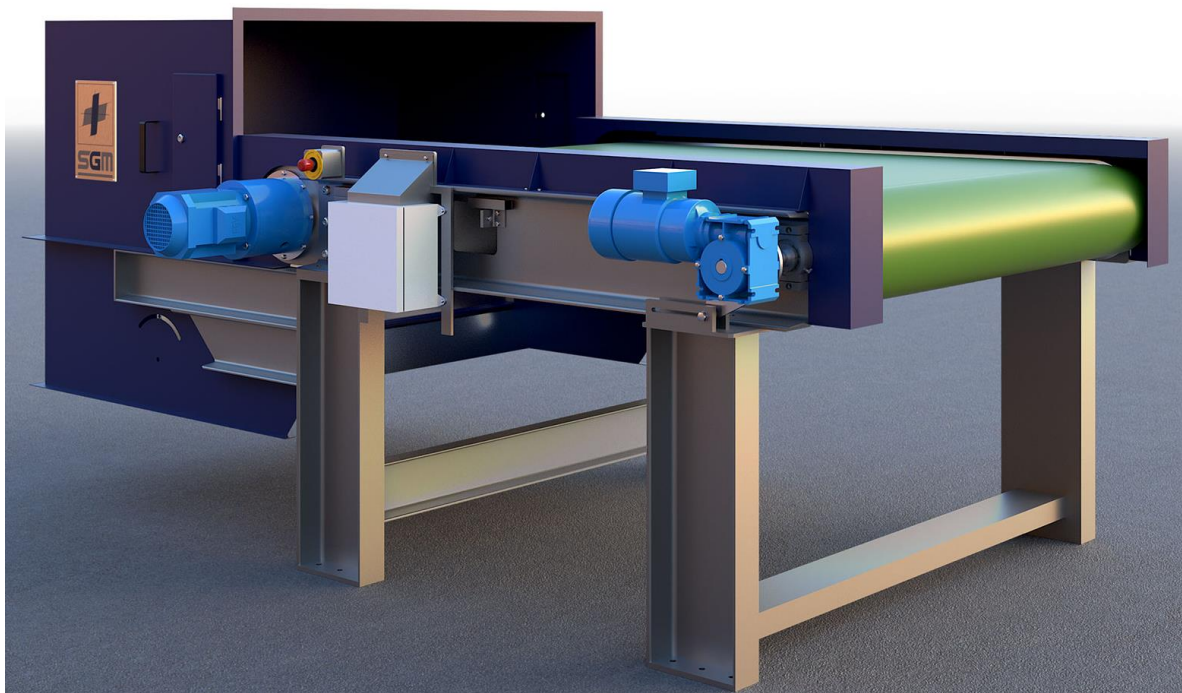
¹² The PCBs that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

¹³ The dioxins and furans that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

¹⁴ The chlorinated aliphatic hydrocarbons that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13 including but not limited to Trichloroethylene and Tetrachloroethylene

¹⁵ The halogenated aliphatic hydrocarbons that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

Appendix B1



Appendix B2

Decommissioning Plan Report for Composter Kollvik Biocomp 1545

1.0 Introduction

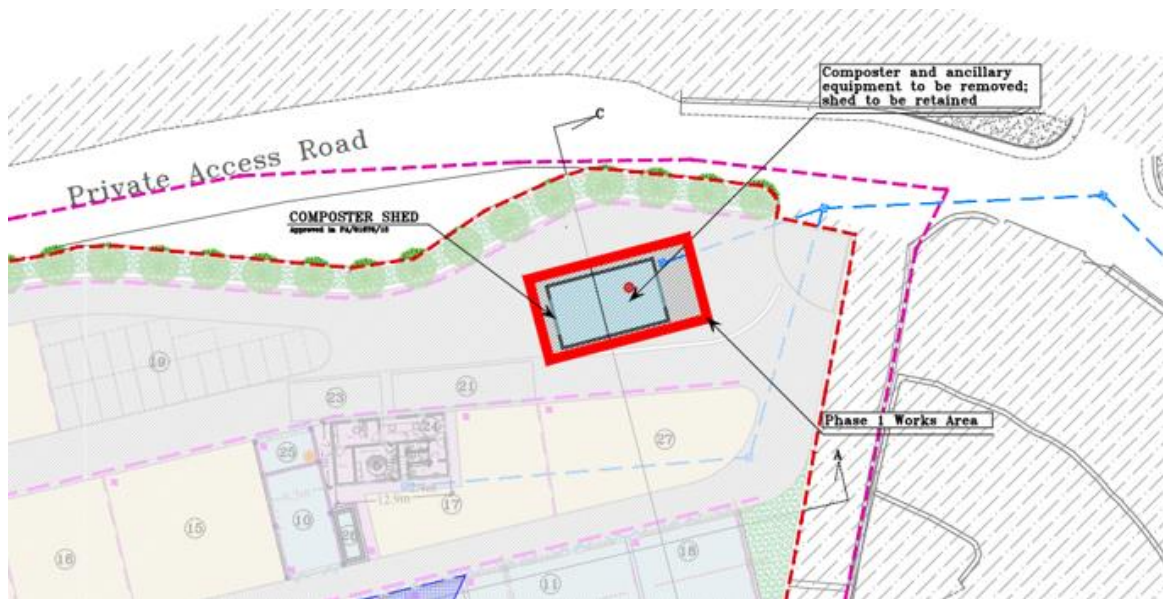
1.1. Purpose

The purpose of this report is to outline the process to decommission the composter equipment. The report fulfils the requirement as per document IP0001/13/V2 – Variation of the IPPC permit for DDE Attard Ltd – Comments from ERA, Regulatory Consultation and Public Consultation

1.2. Composter Location

The composter is located within shed as per indicated within figure 1.

Figure 4: Location of where composter is currently located



2.0 Decommissioning Procedure

Equipment will be removed by skilled technicians and contract workers (such as an Electrician) who will certify:

- That the Composter is safe to move and the possibility of electrocution and fire is non-existent
- Ensure machinery is clean and free of liquids and hazardous material; it is to be noted that machinery was only used once during start up and the possibility of liquid spillage are minimal. If such liquids are found these will be disposed off by placing in suitable containers and forwarded to a facility which is able to dispose off them.

Transportation will be undertaken in the following manner:

- Composter will be placed on specialised equipment (such as forklifters, etc)
- In turn machinery will be moved to a hardstanding until and all phases are completed. The composter will be stored within a container and within area shown in figure 2 – reference temporary storage of composter within shipping container.

3.0 Restoration of Land and Water Negatively impacted

The area where the composter is currently located is paved with hardstanding. The composter will be moved to a hardstanding area using specialised equipment. Any potential of spillage will be onto a hardstanding. No land or water areas will be negatively impacted.

4.0 Management of Excess Materials and Waste

No excess material and waste will be generated through decommissioning of the composter, since the machine is not deemed as waste (salvaged/disposal) and the area will be kept as is in order to accommodate new activities.

5.0 Environmental Emergency and Response

In the event of an emergency during the decommissioning the emergency procedure provided in variation will kick in.

SOFT LANDSCAPING - SOIL & OLIVE/CYPRESS/PINE TREES AS APPROVED IN PA 1876/15

Access to pump-room

AREA OF CONTAINMENT BOUNDARY

Temporary storage of compost within shipping container

PROPOSED NEW ACCESS

Underground Reception Oil-Interceptor and Pump Room

Proposed Shed to be used for vehicle storage

Existing Shed to be used for de-pollution process

Oil Interceptor

De-pollution equipment (see indicative)

TRIQU IL-BELT VALLETTA

Assumed Public Road Sewer

Farmhouse

SQAQ IL-FDAL IL-HADID

LEGEND

1. BAILING OF TYRES
2. E.L.V. (VEHICLES AWAITING DISMANTLING)
3. E.L.V. (EQUIPMENT FOR DEPOLLUTION OF VEHICLES AND DISMANTLING)
4. E.L.V. (STORAGE OF DISASSEMBLED PARTS)
5. STAFF FACILITIES - OFFICE, TOILETS & CANTEN
6. DISMANTLING OF WHITE GOODS (COOKERS AND WASHING MACHINES)
7. WIRE STRIPPING
8. STORAGE OF SPARE PARTS (GENERAL)
9. STORAGE OF PROCESSED WOOD
10. SHREDDING/CRUSHING
11. GARAGE FOR PARKING & MAINTENANCE OF YARD EQUIPMENT
12. STORAGE OF TYRES
13. STORAGE OF SCRAP METAL
14. STORAGE OF WOOD
15. STORAGE OF ALUMINIUM
16. STORAGE OF PLASTIC
17. STORAGE (TEMPORARY) OF SEALED CONTAINERS FOR ONWARD SHIPPING
18. QUARANTINE
19. PARKING AREA
20. TEMPORARY STORAGE
21. WEIGH BRIDGE
22. COMPOSTER SHED
23. TYRE WASH FACILITY
24. WEIGHBRIDGE OFFICE
25. GENERATOR
26. 9m³ FUEL STORAGE CONTAINER WITHIN 14m³ BUND
27. STORAGE OF COPPER

FIRE SAFETY:

- 9L FOAM PORTABLE FIRE EXTINGUISHER & 9L WATER PORTABLE FIRE EXTINGUISHER
- WALL HAVING 60 MINUTES FIRE RATING
- RING MAIN WITH FIRE HYDRANTS

Site to be equipped with fire hydrants, positioned in line with the requirements of BS:9990

Scale 1:500

Storm water flow

Storm water catchpit

Sewage system manhole

Foul water sewer

Generator exhaust flue - 11.5M HIGH

Scale 1:500

Site: SQAQ IL-HADID, LUQA

AMENDMENT TO APPROVED PAR518/07 AND PAR519/15

PROPOSED BLOCK PLAN

Drawn: 17

Check: 18/08/2011

Approved: 24

Scale: 1:500 (1:500)

Date: 18/08/2011

Drawn: 17

Check: 18/08/2011

Approved: 24

Scale: 1:500 (1:500)

Date: 18/08/2011

Drawn: 17

Check: 18/08/2011

Approved: 24

Scale: 1:500 (1:500)

Date: 18/08/2011

Appendix B3

Description	EWC Code	H-code	Estimated Annual Quantity	Treatment on Site
ELVs and their components:				
End-of-life vehicles	16 01 04*	H5	2,880t	Depolluted and dismantled; vehicle frame is <u>shredded</u> , tyres and bumpers are baled.
End-of-life vehicles, containing neither liquids nor other hazardous components	16 01 06	H5	1,920t	Dismantled; vehicle frame is shredded; tyres and bumpers are baled.
Tyres	16 01 03	-	1,000t	Dismantled, shredded, baled; wheel rim shredded/pressed
WEEE:				
Washing machines	16 02 13* 20 01 35*	H5	300t	Electronics and concrete block removed; remaining carcass shredded
Cookers	16 02 13* 16 02 14 20 01 35* 20 01 36	H5	7,500t	Electronics removed; remaining carcass shredded
Water meters	16 02 14 20 01 36	-	<10t	Shredding/pressing
Metals:				
Scrap Metal	02 01 10 15 01 04 16 01 17 16 01 18 17 04 01 17 04 02 17 04 03 17 04 04 17 04 05 17 04 06 17 04 07 19 12 02 19 12 03 20 01 40	-	750 t	Shearing, shredding/pressing

Appendix B4



Appendix B5

C3 Your proposed emissions *continued*

Please submit a copy of the permit, or of the submitted application if the permit has not yet been issued.

Document reference number:

C3.3.3: Could the proposal involve the release of any Schedule A or Schedule B substance into the sewers, or changes to releases?

Yes ☐ No ☒

If yes, explain how the requirements of Sewage Discharge Control Regulations (S.L.545.08) have been addressed.

Document reference number:

C3.3.4: Are new or changes to cesspit/s being proposed?

Yes ☐ No ☒

If yes, please provide certification by an independent, warranted engineer showing that each cesspit is in line with the requirements of Schedule 1 Activity 43 of S.L. 549.45 Waste Management Activity (Registration) Regulations

Document reference number:

C3.4 Emissions to the Sea

Identify if the proposal may result in changes to direct discharges to coastal (up to 1 nautical mile from the coast line) or territorial waters.

Yes ☐ No ☒

If any changes are identified, explain how the requirements of the Pollution caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations (S.L.549.10) and the Water Policy Framework Regulations (S.L.549.100) have been addressed.

Include details of the source, any treatment proposed prior to discharge, composition and maximum volumes (in m³/day) discharged.

Document reference number:

In addition, please submit a block plan of the site, showing the proposed discharge point to

the sea. Indicate the geo-referenced coordinates for discharge to sea.

Document reference number:

C3.5 Rainwater

Describe any changes to how rainwater is handled on site. If any changes are proposed, attach a site drainage map indicating rainwater capture and harvesting/discharge.

Document reference number:

No changes are proposed

C3.6 Emissions to Air

Identify if there may be any changes in emissions of substances to air.

Yes ☐ No ☒

If any are identified, submit details of each emission point, the nature and the proposed quantities of substances emitted from each point and treatment/abatement measures. A block plan of the site showing each emission point should be submitted.

For each new boiler/generator, submit the following details: rated thermal input, energy output, date of manufacture, stack height, fuel type and annual fuel consumption.

Document reference number:

C3.7 Odour emissions

Identify if there may be changes in emissions of odour.

Yes ☐ No ☒

If any are identified, submit details of the main sources of odour, and the proposed techniques and measures for control of odour.

Document reference number:

C3.8 Emissions to Land

Identify if there may be any changes in emissions of substances to land.

Yes ☒ No ☒

* Response to 12a. 2nd Review + Regulatory Consultation Comments
Reference: C3.4 & Appendix 5

C3 Your proposed emissions *continued*

If any are identified, submit details of the nature and the proposed quantities of substances emitted to land, as well as a map showing the proposed location of such emissions.

Document reference number:

*

C3.9 Noise

Describe:

C3.9.1: The main sources of noise and vibration (including infrequent sources) of the new proposal;

C3.9.2: The proposed techniques and measures for control of noise;

C3.9.3: The nearest noise sensitive locations and distance away from the site (a site map may be submitted for this purpose); and

C3.9.4: Relevant environmental noise measurement surveys which have been undertaken (monitoring shall be according to the latest revisions of ISO1996 and the rating of industrial noise affecting residential areas shall be according to BS 4142; monitoring shall be carried out exclusively using type 1 sound level meter).

Document reference number:

Volume 2, Chapter 4

C3.10 Monitoring

Describe the proposed measures for monitoring emissions arising from the proposal, including any environmental monitoring. The following must be specified:

C3.10.1: The location of each proposed monitoring point (plotted on a suitably-labelled block plan of the site);

C3.10.2: The substances (in each environmental medium) which are proposed to be monitored;

C3.10.3: The frequency with which monitoring is proposed to take place;

C3.10.4: The proposed measurement methodology, which should be a standard methodology, such as EN or ISO standard, or equivalent;

C3.10.5: The proposed procedure for evaluation of the results.

Document reference number:

Volume 2, Chapter 4

C3.11 Emissions & waste summary

By means of a mass flow diagram, summarise the emissions and waste described in sections C3.1, C3.2, C3.3, C3.4, C3.6, and C3.8 of this application.

Document reference number:

Volume 2, Chapter 3

C4 Impact on the environment

C4.1 Environmental effects

Provide an assessment of the potential significant environmental effects (including transboundary effects) of the foreseeable emissions from the proposal.

Document reference number:

Volume 2, Chapter 5

C4.2 Effects on other sites

Provide an assessment of whether the proposal is likely to have a significant effect on another site in Malta and, if it is, provide an assessment of the implications of the installation for that site.

Document reference number:

Volume 2, Chapter 5

C5 Environmental statements

C5.1 Environmental statement

Has this proposal required an EIA Report under the Environmental Impact Assessment Regulations (S.L. 549.46)?

Yes ☐ No ☒

If yes, please supply a copy of the EIA Report submitted and details of any decision made.

Document reference number:

The nature of the proposed substances: Overflow can only occur in recurring extreme weather conditions, due to reservoir being designed with a large capacity for daily use and fire requirements. Such an overflow would still have passed through an interceptor/reservoir system meaning any overflow will be filtered.

The quantities of the proposed substances: It is estimated that the yard would generate a stormwater runoff volume of circa 147 m³/hr for a storm event having a rainfall intensity of 25mm/hour. The proposed reservoir has a capacity well over this volume and will be continuously in use, hence it is unlikely that such a storm will result in overflow from the site to the surrounding road network. In such an unlikely event the outflow of (cleaned) runoff from the site would be circa 147 m³/hr.

With regards to the temporary oil-water interceptor in the temporary depollution and vehicles storage area this would lead to an outflow of circa 4 m cub/hour for a similar storm event.

The proposed location of emission: Please refer to figure 2.

- Possibility of Overflow



Appendix B6

Dr. George Peplow B.Sc.(Hons.)(Lond.), M.Sc.(Salford), Ph.D.(Salford), EurChem, C.Chem., F.R.S.C.

Crystal Blue
Block B No 5
Mac Iver Street
Sliema SLM 3130
Malta.

Tel/Fax: +356 21 311665,

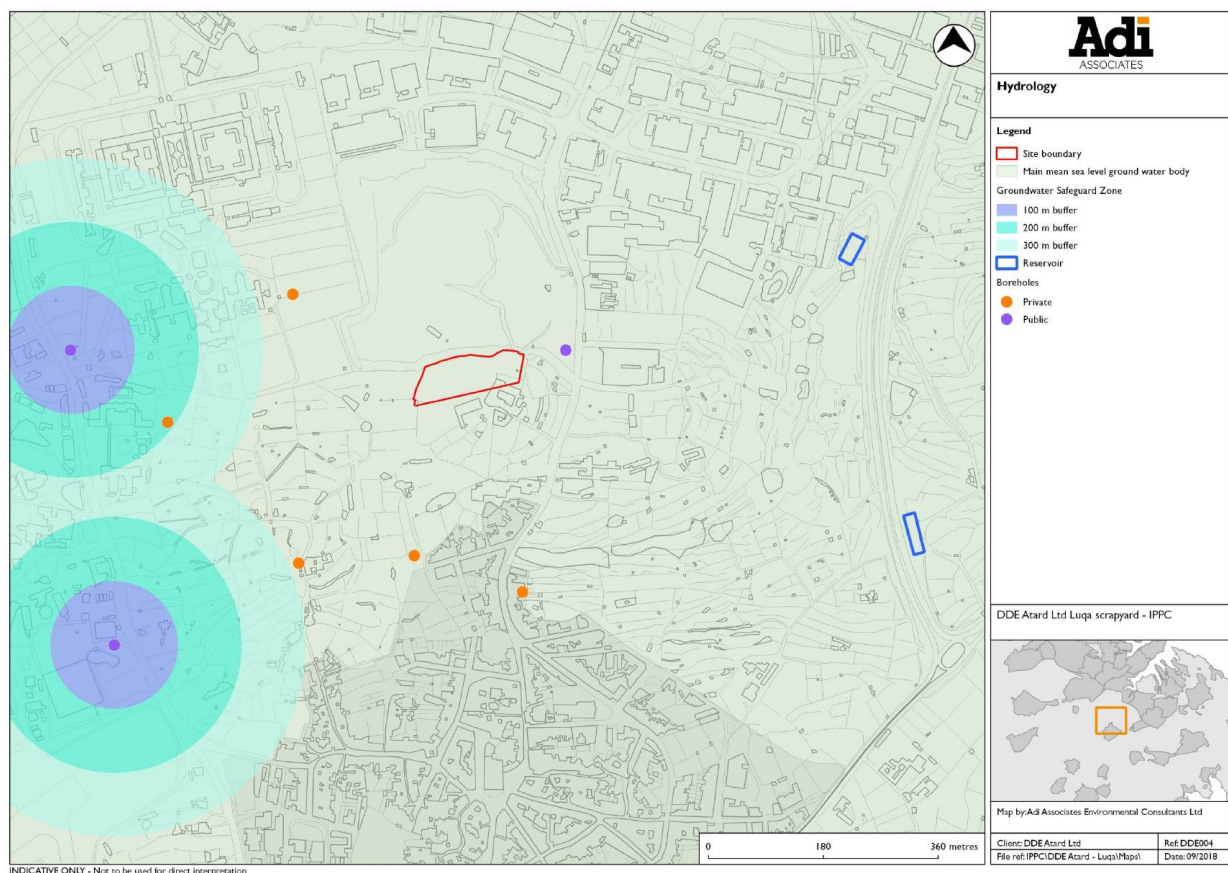
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REPORT REFERENCE: Version 1.0

REPORT DATE 18 October 2022

TO
DDE Attard Ltd
Scrap Lane
Luqa



METHOD STATEMENT: IPPC Permit IP 0001/13 requires the sampling and analyses of water reservoir overflow, collected within the DDE Attard Ltd facilities.

EMS Ltd is submitting this MS for the investigations which includes the following details for the eventual sampling and analysis of the water overflow:

- 1.0 List of parameters.
- 2.0 Standard method of the analysis.
- 3.0 Which tests are accredited.
- 4.0 The lab accreditation certificate.
- 5.0 Sampling method and storage.

At this stage, the following details could not be fulfilled but will be submitted at a later stage:

1. Location of sampling: once the reservoir is complete, sampling points will be indicated and confirmed with ERA, since at present it is not known from where the overflow might occur. The exact location is currently being studied.
2. Sampling frequencies: the rationale being studied is that within the last 5 years, the DDE Attard site was overflowed twice during high rainy days in Malta. With the new design in place, this is considered to possibly not occurring at all unless the storm bursts would be greater than the highest experienced in Malta of >15mm in a brief period of time. Using a risk based approach, because effluent is clean water, risk is low and for these two reasons a 2 year monitoring frequency between October to February is being suggested.

The method of sampling shall be grab sampling following an overflow of the reservoir water. The samples shall be refrigerated immediately upon collection and submitted to the accredited lab within 24 hours.

Code	Parameter	Analyte	LOR	Unit	ACC
W-METMSFL6	Metals – dissolved – by ICP-MS – filtration – group 6	Arsenic	0.005	mg/L	Y
		Cadmium	0.0004	mg/L	Y
		Chromium	0.001	mg/L	Y
		Copper	0.001	mg/L	Y
		Lead	0.005	mg/L	Y
		Nickel	0.002	mg/L	Y
		Selenium	0.01	mg/L	Y
		Tin	0.01	mg/L	Y
		Zinc	0.002	mg/L	Y
W-HG-AFSFL	Mercury (Hg) (Dissolved) by AFS	Mercury	0.01	µg/L	Y
W-CR6-IC	Chromium (VI) by IC	Hexavalent Chromium – Soluble	0.4	µg/L	Y
W-PAHGMS04	PAH by GCMS – group 4 – low limit	Naphthalene	0.007	µg/L	Y
		Acenaphthylene	0.001	µg/L	Y
		Acenaphthene	0.001	µg/L	Y
		Fluorene	0.001	µg/L	Y
		Phenanthrene	0.001	µg/L	Y
		Anthracene	0.001	µg/L	Y
		Fluoranthene	0.001	µg/L	Y

		Pyrene	0.001	µg/L	Y
		Benz(a)anthracene	0.001	µg/L	Y
		Chrysene	0.001	µg/L	Y
		Benzo(b)fluoranthene	0.001	µg/L	Y
		Benzo(k)fluoranthene	0.001	µg/L	Y
		Benzo(a)pyrene	0.001	µg/L	Y
		Indeno(1.2.3.cd)pyrene	0.0003	µg/L	Y
		Benzo(g,h,i)perylene	0.0003	µg/L	Y
		Dibenz(a,h)anthracene	0.0006	µg/L	Y
		Sum of 16 PAH	0.0202	µg/L	Y
		Sum of Benzo(b)fluoranthene@Benzo(k)fluoranthene	0.002	µg/L	Y
		Sum of Indeno(1.2.3.cd)pyrene@Benzo(g,h,i)perylene	0.0006	µg/L	Y
		Sum of 8 PAH (WFD)	0.0126	µg/L	Y
W-TPH6-35/PL	Total hydrocarbons >C12 and <C12.	C12 – C35 Fraction (sum)	35	µg/L	Y
		C6 – C12 Fraction (sum)	15	µg/L	Y
		C10 – C40 Fraction (sum)	50	µg/L	Y
W-DFPCBHMS	PCDD/F+PCB(Dioxin-like+Indicator)	PCB 77		ng/L	Y
		PCB 81		ng/L	Y
		PCB 105		ng/L	Y
		PCB 114		ng/L	Y
		PCB 118		ng/L	Y
		PCB 123		ng/L	Y
		PCB 126		ng/L	Y
		PCB 156		ng/L	Y
		PCB 157		ng/L	Y
		PCB 167		ng/L	Y
		PCB 169		ng/L	Y
		PCB 170		ng/L	Y
		PCB 180		ng/L	Y
		PCB 189		ng/L	Y
		TEQ (dl-PCB) – lower	0.6	ng/L	Y
		TEQ (dl-PCB) – upper	0.6	ng/L	Y
		PCB 28		ng/L	Y
		PCB 52		ng/L	Y
		PCB 101		ng/L	Y
		PCB 118			
		PCB 138			
		PCB 153		ng/L	Y
		PCB 180		ng/L	Y
		Total Polychlorinated biphenyls – 7 congeners – lower	0.6	ng/L	Y
		Total Polychlorinated biphenyls – 7 congeners – upper	0.6	ng/L	Y
		2378-TCDD		pg/L	Y
		12378-PeCDD		pg/L	Y
		123478-HxCDD		pg/L	Y
		123678-HxCDD		pg/L	Y
		123789-HxCDD		pg/L	Y

		1234678–HpCDD		pg/L	Y
		OCDD		pg/L	Y
		2378–TCDF		pg/L	Y
		12378–PeCDF		pg/L	Y
		23478–PeCDF		pg/L	Y
		123478–HxCDF		pg/L	Y
		123678–HxCDF		pg/L	Y
		123789–HxCDF		pg/L	Y
		234678–HxCDF		pg/L	Y
		1234678–HpCDF		pg/L	Y
		1234789–HpCDF		pg/L	Y
		OCDF		pg/L	Y
		TEQ–Lowerbound	5	pg/L	Y
		TEQ–Upperbound	5	pg/L	Y
W–CNT–PHO	Cyanides (CN) –Total by photometry	Total Cyanide	0.005	mg/L	Y
W–VOCGMS01+05	BTEX (VOC) by GCMS – group 1 a 5	Benzene	0.2	µg/L	Y
		Toluene	0.5	µg/L	Y
		Ethylbenzene	0.1	µg/L	Y
		meta- & para-Xylene	0.2	µg/L	Y
		ortho-Xylene	0.1	µg/L	Y
		Sum of BTEX	1.1	µg/L	Y
W–VOCGMS01+05	Volatile organic compounds (VOC) by GCMS – group 1 a 5	Chlorobenzene	0.1	µg/L	Y
		1.1.2.2–Tetrachloroethane	0.2	µg/L	Y
		cis–1.3–Dichloropropene	1	µg/L	Y
		Tetrachloromethane	0.1	µg/L	Y
		1.2–Dichloropropane	1	µg/L	Y
		1.2.4–Trichlorobenzene	0.1	µg/L	Y
		1.2–Dichlorobenzene	0.1	µg/L	Y
		Bromomethane	1	µg/L	Y
		1.2.3–Trichlorobenzene	0.1	µg/L	Y
		Trichlorofluoromethane	1	µg/L	Y
		2–Chlorotoluene	1	µg/L	Y
		1.1.1.2–Tetrachloroethane	0.1	µg/L	Y
		1.3–Dichloropropane	1	µg/L	Y
		1.2–Dibromo–3–chloropropane	1	µg/L	Y
		1.2.3–Trichloropropane	1	µg/L	Y
		1.1–Dichloropropene	1	µg/L	Y
		1.1.2–Trichloroethane	0.2	µg/L	Y
		1.3.5–Trichlorobenzene	0.2	µg/L	Y
		Bromochloromethane	2	µg/L	Y
		Chloroethane	1	µg/L	Y
		Chloromethane	1	µg/L	Y
		1.1–Dichloroethene	0.1	µg/L	Y
		1.4–Dichlorobenzene	0.1	µg/L	Y
		1.1–Dichloroethane	0.1	µg/L	Y
		Dichlorodifluoromethane	1	µg/L	Y
		1.3–Dichlorobenzene	0.1	µg/L	Y
		1.2–Dibromoethane (EDB)	0.5	µg/L	Y
		1.2–Dichloroethane	0.5	µg/L	Y

		1.1.1-Trichloroethane	0.1	µg/L	Y
		Hexachlorobutadiene	1	µg/L	Y
		4-Chlorotoluene	1	µg/L	Y
		Bromobenzene	1	µg/L	Y
		trans-1.3-Dichloropropene	1	µg/L	Y
		Dibromomethane	1	µg/L	Y
		2.2-Dichloropropane	1	µg/L	Y
		Dichloromethane	6	µg/L	Y
		trans-1.2-Dichloroethene	0.1	µg/L	Y
		Trichloroethene	0.1	µg/L	Y
		cis-1.2-Dichloroethene	0.1	µg/L	Y
		Tetrachloroethene	0.2	µg/L	Y
		Vinyl chloride	0.1	µg/L	Y
		Chloroform	0.1	µg/L	Y
		Bromodichloromethane	0.1	µg/L	Y
		Dibromochloromethane	0.1	µg/L	Y
		Bromoform	0.2	µg/L	Y
		Sum of 1.2-Dichloroethenes	0.2	µg/L	Y
		Sum of 3 Dichlorobenzenes	0.3	µg/L	Y
		Sum of 3 Trichlorobenzenes	0.4	µg/L	Y
		Sum of 4 Trihalomethanes	0.5	µg/L	Y
		Sum of 5 Chlorinated Ethenes	0.6	µg/L	Y
		Sum of Trichloroethene and Tetrachloroethene	0.3	µg/L	Y
		sec-Butylbenzene	1	µg/L	Y
		tert-Butylbenzene	1	µg/L	Y
		1.3.5-Trimethylbenzene	1	µg/L	Y
		1.2.4-Trimethylbenzene	1	µg/L	Y
		Isopropylbenzene	1	µg/L	Y
		p-Isopropyltoluene	1	µg/L	Y
		n-Propylbenzene	1	µg/L	Y
		Sum of BTEXS	1.3	µg/L	Y
		n-Butylbenzene	1	µg/L	Y
		Styrene	0.2	µg/L	Y
		Indane	0.2	µg/L	Y
		1.4-Dioxane	50	µg/L	Y
		tert-Butyl alcohol	5	µg/L	Y
		Methyl tert-Butyl Ether (MTBE)	0.2	µg/L	Y
		Ethyl tert-Butyl Ether (ETBE)	0.2	µg/L	Y
		Diisopropyl ether (DIPE)	0.6	µg/L	Y
		tert-Amyl Ethyl Ether (TAEE)	0.2	µg/L	Y
		tert-Amyl Methyl Ether (TAME)	0.2	µg/L	Y
W-VOCFID02	VOC by GC-FID – group 2	Methyl isobutyl ketone	100	µg/L	Y
W-MEK-GMS	2-Butanone (MEK) by HS-GC-MSD –S	2-Butanone (MEK)	500	µg/L	Y
W-PH-PCT	pH at 25 °C by Electrode	pH Value	1	–	Y
W-CL-IC	Chlorides (Cl) (Dissolved) by IC	Chloride	1	mg/L	Y

EQUIVALENT STANDARD METHODS AND METHOD OF STORAGE.

Code	Parameter	Method	Minimal amount/ Container
W-METMSFL6	Metals – dissolved – by ICP-MS – filtration – group 6	US EPA 200.8, CSN EN ISO 17294-2, US EPA 6020A, CSN EN 16192, CSN 75 7358	10 ml, Acid washed glass with HNO3 1x 60 ml
W-HG-AFSFL	Mercury (Hg) (Dissolved) by PSA	US EPA 245.7, CSN EN ISO 178 52, CSN EN 16192	10 ml, Acid washed glass with HCl 1x 60 ml
W-CR6-IC	Chromium (VI) by IC	CSN EN 16192, EPA 7199, SM 3500-Cr	60 ml, Acid washed glass with (NH4)2SO4, NH4OH 1x 60 ml
W-PMETFL	Filtered 0.45 µm and acidification – Dis. metals	ALS internal methodology	
W-PAHGMS04	PAH by GCMS – group 4 – low limit	US EPA 8270D, US EPA 8082A, CSN EN ISO 6468, US EPA 8000D	500 ml, Amber acid washed glass 1x 500 ml
W-TPH6-35/PL	TPH fractions C6-C35/PL	CSN EN ISO 9377-2, US EPA 601, US EPA 8260, US EPA 8015, RBCA Petroleum Hydrocarbon Methods	200 ml, Amber acid washed glass 1x 250 ml, 80 ml, Acid washed glass vial (fill in without bubble) with NaHSO4 2x 40 ml
W-DFPCBHMS	PCDD/F+PCB(Dioxin-like+Indicator)	US EPA 1613, US EPA 1668, US EPA 1668, modified	1000 ml, Amber acid washed glass 1x 1000 ml
W-F-IC	Fluorides (F) by IC	CSN ISO 10304-1, CSN EN 16192	12 ml, Acid washed glass 1x 60 ml
W-F-ISE	Fluoride (F) – total inorganic by ISE	ALS internal methodology	50 ml, Acid washed glass 1x 60 ml
W-CNT-PHO	Cyanides (CN) –Total by photometry	CSN 75 7415, CSN EN ISO 14403-2	60 ml, Acid washed glass with NaOH 1x 60 ml
W-VOCGMS01+05	Volatile organic compounds (VOC) by GCMS – group 1 a 5	US EPA 624, US EPA 8260, US EPA 8015, CSN EN ISO 10301, MADEP 2004, rev. 1.1, CSN ISO 11423, CSN EN ISO 15680	80 ml, Acid washed glass vial (full, no bubble) with NaHSO4 2x 40 ml
W-VOCFID02	VOC by GC-FID – group 2	US EPA 624, US EPA 8260, US EPA 8015, CSN EN ISO 10301, MADEP 2004, rev. 1.1, CSN ISO 11423, CSN EN ISO 15680	80 ml, Acid washed glass vial (fill in without bubble) with NaHSO4 2x 40 ml

W-MEK-GMS	2-Butanone (MEK) by HS-GC-MSD -S	Internal methodology (GC/MS)	250 ml, Amber acid washed glass 1x 250 ml
W-PH-PCT	pH at 25 °C by Electrode	CSN ISO 10523, US EPA 150.1, CSN EN 16192, SM 4500-H(+)	50 ml, Acid washed glass 1x 60 ml
W-TSD-GR	Total solids (105 °C) by gravimetry	CSN 75 7350, SM 2540 B, D, E	100 ml, Acid washed glass 1x 125 ml
W-TDS-GR	Total dissolved solids (105°C)	CSN 75 7346, CSN 757347, CSN EN 16192, CSN EN 15216, SM 2540 C	200 ml, Acid washed glass 1x 250 ml
W-TOC-IR	Total organic carbon (TOC)	CSN EN 1484, CSN EN 16192, SM 5310	25 ml, Acid washed glass with HCl 1x 60 ml
W-SO4-ICL	Sulphate (SO ₄) dissolved by IC – low limit	CSN ISO 10304-1, CSN EN 16192	12 ml, Acid washed glass 1x 60 ml
W-CL-IC	Chlorides (Cl) (Dissolved) by IC	CSN ISO 10304-1, CSN EN 16192	12 ml, Acid washed glass 1x 60 ml
W-PHI-CFA	Phenol index by CFA	CSN EN ISO 14402, CSN EN 16192, SKALAR company methodology	100 ml, Amber acid washed glass with H ₃ PO ₄ , CuSO ₄ 1x 100 ml
W-DOC-IR	Dissolved organic carbon (DOC)	CSN EN 1484, CSN EN 16192, SM 5310	25 ml, Acid washed glass 1x 60 ml
W-ASB-TEM	Asbestos – drinking water – quantitative determination by TEM – S	EPA 100.1, EPA 1993 [ALS Cincinnati]	500 ml, Amber acid washed glass 1x 500 ml



DR GEORGE PEPLow



EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. 73/2022

ALS Czech Republic, s.r.o.
with registered office Na Harfě 336/9, 190 00 Praha 9 - Vysočany, Company Registration
No. 27407551

to the Testing Laboratory No. 1163
ALS Czech Republic, s.r.o.

Scope of accreditation:

Chemical, radiochemical and microbiological analyses of water, extracts, liquids, soils, waste, sludge, oils, sediments, rocks, solid samples, building materials, materials for building, emissions, immissions, working environment, gases from biogas stations and landfill gases, biological materials, food, feed, cosmetics, pharmaceutical raw materials and products, lubricants, fuels, ecotoxicological testing of waste and water, sensory analyses of food; sampling of water, sediments, soils, outdoor and indoor air and working environment to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 519/2021 of 5. 10. 2021, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: 14. 2. 2027

Prague: 14. 2. 2022



Lukáš Burda
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute
Public Service Company

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Testing laboratory Workplaces:

1	Prague	Na Harfě 336/9, 190 00 Praha 9
2	Česká Lípa	Bendlova 1687/7, 470 01 Česká Lípa
3	Pardubice	V Ráji 906, 530 02 Pardubice
4	Brno	Videňská 134/102, 619 00 Brno
5	Ostrava	Vratimovská 11, 718 00 Ostrava
6	Plzeň	Lobezská 15, 30146 Plzeň
7	Lovosice	U Zdymadel 827, 410 02 Lovosice
8	Rožnov pod Radhoštěm	1. Máje 823, budova C6, 756 61 Rožnov pod Radhoštěm
9	Kroměříž	Kotojedská 2588/91, 767 01 Kroměříž
10	Prague	Na Harfě 916/9a, 190 00 Praha 9
11	Prague	Kolbenova 942/38a, 190 00 Praha 9
12	Liberec	Jugoslávská 11, 460 07 Liberec

The Laboratory has a flexible scope of accreditation permitted as detailed in the Annex.

Updated list of activities provided within the required flexible scope of accreditation is available on the laboratory website www.alsglobal.cz or at the Quality Manager.

The Laboratory provides expert opinions and interprets test results.

The Laboratory is qualified to carry out independent sampling.

Tests:

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1	General Chemistry		
1.1 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵¹) including the calculation of total mineralization and calculating the sum of Ca+Mg	CZ_SOP_D06_02_001 (US EPA 200.7, ČSN EN ISO 11885, US EPA 6010, SM 3120, ČSN 75 7358)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.2 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵²)	CZ_SOP_D06_02_001 (US EPA 200.7, ČSN EN ISO 11885, US EPA 6010, SM 3120)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.3 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵³)	CZ_SOP_D06_04_001 (US EPA 200.7, ČSN EN ISO 11885)	Food, feed ⁸³
1.4 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵³)	CZ_SOP_D06_04_001 (US EPA 200.7, ČSN EN ISO 11885)	Biological materials ⁷⁷

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Entity accredited according to ČSN EN ISO/IEC 17025:2018:

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Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.5 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and calculation of Cr ³⁺ from measured values	CZ_SOP_D06_02_001 (US EPA 200.7, ČSN EN ISO 11885, ČSN EN 13211, ČSN EN 14385, ČSN EN 14902, IO 3.4, US EPA 29)	Emission ⁷⁸ , imission ⁷⁹
1.6 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma	CZ_SOP_D06_04_001 (US EPA 200.7, ČSN EN ISO 11885, ČL/PhEur/USP)	Pharmaceutical material
1.7 ¹	Determination of elements ⁴¹ by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵¹ including the calculation of total mineralization and calculating the sum of Ca+Mg	CZ_SOP_D06_02_002 (US EPA 200.8, ČSN EN ISO 17294-2, US EPA 6020A, ČSN 75 7358)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.8 ¹	Determination of elements ⁴² by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_02_002 (US EPA 200.8, ČSN EN ISO 17294-2, US EPA 6020A)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.9 ¹	Determination of elements ⁴³ by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_04_002 (US EPA 200.8, ČSN EN ISO 17294-2, ČSN EN 15111)	Food, feed ⁸³
1.10 ¹	Determination of elements ⁴⁴ by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_04_002 (US EPA 200.8, ČSN EN ISO 17294-2)	Biological materials ⁷⁷
1.11 ¹	Determination of elements ⁴⁵ by mass spectrometry with inductively coupled plasma and calculation of Cr ³⁺ from measured values	CZ_SOP_D06_02_002 (US EPA 200.8, ČSN EN ISO 17294-2, ČSN EN 13211, ČSN EN 14385, ČSN EN 14902, US EPA 29)	Emission ⁷⁸ , imission ⁷⁹
1.12 ¹	Determination of elements ⁶⁰ by mass spectrometry with inductively coupled plasma	CZ_SOP_D06_04_002 (US EPA 200.8, ČSN EN ISO 17294-2, ČSN EN 15111, ČL/PhEur/USP)	Pharmaceutical material
1.13 ¹	Determination of Hg by atomic absorption spectrometry	CZ_SOP_D06_02_003 (ČSN 46 5735, ČSN 75 7440)	Emission ⁷⁸ , imission ⁷⁹
1.14 ²	Determination of Hg by single-purpose atomic absorption spectrometer	CZ_SOP_D06_07_004 (ČSN 75 7440, ČSN 46 5735)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹ , solid samples ⁸⁵
1.15 ²	Determination of elements ⁴⁹ by flame AAS method and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_005 (ČSN ISO 8288, ČSN 75 7400, ČSN EN 1233,	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
		ČSN ISO 7980, ČSN ISO 9964, Perkin-Elmer specifications)	
1.16 ²	Determination of elements ⁴⁹ by flame AAS method and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_005 (ČSN ISO 8288, ČSN 75 7400, ČSN EN 1233, ČSN ISO 7980, ČSN ISO 9964, Perkin-Elmer specifications)	Solid samples ⁸⁵
1.17 ²	Determination of elements ⁵⁰ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_006 (ČSN EN ISO 11885, AITM3-0032)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.18 ²	Determination of elements ⁵⁰ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_006 (ČSN EN ISO 11885, ČSN EN 15410, ČSN EN 15411)	Solid samples ⁸⁵ , solid recovered fuels
1.19 ²	Determination of Kjeldahl nitrogen by spectrophotometry	CZ_SOP_D06_07_007.A (ČSN EN 25663, ČSN ISO 7150-1)	Water ⁹¹ , extracts ⁹²
1.20 ²	Determination of Kjeldahl nitrogen by spectrophotometry	CZ_SOP_D06_07_007.B (ČSN EN 25663, ČSN EN 13342, ČSN ISO 7150-1)	Solid samples ⁸⁵
1.21 ²	Determination of Cr ^{VI} by spectrophotometry with diphenylcarbazide	CZ_SOP_D06_07_008 (ČSN ISO 11083)	Water ⁹¹ , extracts ⁹² , absorption solutions from emission samples
1.22 ²	Determination of total phosphorus and orthophosphate by spectrophotometry and calculation of P ₂ O ₅ from measured values	CZ_SOP_D06_07_009.A (ČSN EN ISO 6878)	Water ⁹¹ , extracts ⁹²
1.23 ²	Determination of total phosphorus by spectrophotometry and calculation of P ₂ O ₅ from measured values	CZ_SOP_D06_07_009.B (ČSN EN 14672, ČSN EN ISO 6878)	Sludge, technological sludge products
1.24 – 1.28	Reserved		
1.29 ²	Determination of nonionic surfactants (BiAS) by spectrophotometry using the HACH cuvette test	CZ_SOP_D06_07_014 (Hach Instruction)	Water ⁹¹ , extracts ⁹²
1.30 ²	Determination of sum of sulfane and sulfide by spectrophotometry and calculation of free sulfane from measured values	CZ_SOP_D06_07_015.A (ČSN 83 0520-16:1978, ČSN 83 0530-31:1980 SM 4500-S ²⁻ -D)	Water ⁹¹ , extracts ⁹²
1.31 ²	Determination of sum of sulfane and sulfide by spectrophotometry	CZ_SOP_D06_07_015.B (ČSN 83 0520-16:1978, ČSN 83 0530-31:1980)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.32 ²	Determination of sum of sulfane and sulfide by spectrophotometry	CZ_SOP_D06_07_015.C (ČSN 83 0520-16:1978, ČSN 83 0530-31:1980, ČSN 83 4712 No. 3)	Absorption solutions from emission samples

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.33 ¹	Determination of sulfate by turbidimetry using discrete spectrophotometry and calculation of sulfate sulfur from measured values	CZ_SOP_D06_02_016 (US EPA 375.4, SM 4500-SO ₄ ²⁻)	Water ⁹¹ , extracts ⁹²
1.34 ²	Determination of nitrite sum and sum of nitrite and nitrate nitrogen by discrete spectrophotometry and calculation of nitrites and nitrates from measured values	CZ_SOP_D06_02_019 (ČSN EN ISO 11732, ČSN EN ISO 13395, SM 4500-NO ₂ ⁻ , SM 4500-NO ₃)	Liquid samples
1.35 ¹	Determination of the number of asbestos and mineral fibers by SEM / EDS	CZ_SOP_D06_02_018 (ISO 14966, except chap. 5, 6.1 and 6.2, VDI 3492, except chap. 5 and 6, Decree No. 6/2003 Coll., Government Decree No. 361/2007 Coll., Annex No. 3)	Outdoor and indoor air, working environment - exposed filters
1.36 ¹	Determination of sum of ammonium and ammonium ions, nitrite and the sum of nitrite and nitrate ions by discrete spectrophotometry and calculation of nitrite, nitrate, ammonia, inorganic, organic, total nitrogen, free ammonia, and dissociated ammonium ions from measured values including the calculation of total mineralization	CZ_SOP_D06_02_019 (ČSN EN ISO 11732, ČSN EN ISO 13395, SM 4500-NO ₂ ⁻ , SM 4500-NO ₃)	Water ⁹¹ , extracts ⁹²
1.37 ²	Determination of sum of ammonia and ammonium ions by spectrophotometry and calculation of ammonia nitrogen, free ammonia, and dissociated ammonium ions from measured values	CZ_SOP_D06_07_020 (ČSN ISO 7150-1, ČSN EN ISO 21877)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹ , absorption solutions from emission samples
1.38 ²	Determination of nitrite nitrogen by spectrophotometry and calculation of nitrite from measured values	CZ_SOP_D06_07_021 (ČSN EN 26777)	Water ⁹¹ , extracts ⁹²
1.39 ¹	Determination of orthophosphate by discrete spectrophotometry and calculation of orthophosphate phosphorus from measured values including the calculation of total mineralization	CZ_SOP_D06_02_022 (ČSN EN ISO 6878, SM 4500-P)	Water ⁹¹ , extracts ⁹²
1.40 ²	Determination of chloride by potentiometric titration	CZ_SOP_D06_07_023.A (ČSN 03 8526:1989, ČSN 83 0530-20:1980, SM 4500-Cl ⁻ D)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.41 ²	Determination of chloride by potentiometric titration and calculation of NaCl from measured values	CZ_SOP_D06_07_023.B (ČSN EN 480-10)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.42 ¹	Determination of Hg by atomic absorption spectrometry	CZ_SOP_D06_04_024 (ČSN 46 5735, ČSN 75 7440, ČL/PhEur/USP)	Food, feed ⁸³ , biological materials ⁷⁷ , Pharmaceutical materials
1.43 ²	Determination of extractable organically bound halogens (EOX) by coulometry	CZ_SOP_D06_07_025.A (DIN 38409-H8, DIN 38414-S17)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.44 ²	Determination of extractable organically bound halogens (EOX) by coulometry	CZ_SOP_D06_07_025.B (DIN 38409-H8, DIN 38414-S17)	Solid samples ⁸⁵
1.45 ²	Determination of adsorbable organically bound halogens (AOX by coulometry)	CZ_SOP_D06_07_026 (ČSN EN 16166, DIN 38414-S18)	Solid samples ⁸⁵
1.46 ²	Determination of total halogens (TX) by coulometry	CZ_SOP_D06_07_027 (US EPA 9076)	Solid samples ⁸⁵ , oils, organic solvents
1.47 ²	Determination of adsorbable organically bound halogens (AOX by coulometry)	CZ_SOP_D06_07_028 (ČSN EN ISO 9562, TNI 757531)	Water ⁹¹ , extracts ⁹²
1.48 ²	Determination of phenol index by spectrophotometric method after distillation	CZ_SOP_D06_07_029 (ČSN ISO 6439)	Solid samples ⁸⁵
1.49	Reserved		
1.50 ²	Determination of anionic surfactants by measurement of the methylene blue index (MBAS) by spectrophotometry	CZ_SOP_D06_07_031 (ČSN EN 903, SM 5540 C)	Water ⁹¹ , extracts ⁹²
1.51 ²	Determination of absorbance and transmittance by spectrophotometry	CZ_SOP_D06_07_032 (ČSN 75 7360)	Water ⁹¹ , extracts ⁹²
1.52* 1,2,3,4,5,6,7, 8,9	Field measurement of turbidity ZFn by turbidimeter	CZ_SOP_D06_01_033 (ČSN EN ISO 7027-1)	Water ⁹¹
1.53 ²	Determination of humic substances by spectrophotometry	CZ_SOP_D06_07_034 (ČSN 75 7536)	Drinking, raw, surface, ground water
1.54 ²	Determination of water colour by spectrophotometric method	CZ_SOP_D06_07_035 (ČSN EN ISO 7887)	Water ⁹¹ , extracts ⁹²
1.55 ²	Determination of electrical conductivity	CZ_SOP_D06_07_036 (ČSN EN 27888)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.56 ²	Determination of pH electrochemically	CZ_SOP_D06_07_037 (ČSN ISO 10523)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.57 ²	Biodegradation of organic compounds in aqueous medium – Static test (Zahn-Wellens method) calculated from the measured values of COD _{Cr}	CZ_SOP_D06_07_038 (ČSN EN ISO 9888, OECD 302B, with COD _{Cr} determination according to CZ_SOP_D06_07_040)	Chemicals and chemical products, water ⁹¹ and waste leachate ⁹²
1.58	Reserved		
1.59 ²	Determination of chemical oxygen demand using dichromate (COD _{Cr}) by titration	CZ_SOP_D06_07_040 (ČSN ISO 6060)	Water ⁹¹ , extracts ⁹²
1.60	Reserved		
1.61 ²	Determination of analytical water and gross water by gravimetry and calculation of total water from measured values	CZ_SOP_D06_07_041 (ČSN 44 1377, ČSN EN ISO 18134-1, ČSN EN ISO 18134-2, ČSN EN ISO 18134-3, ČSN P CEN/TS 15414-1, ČSN P CEN/TS 15414-2, ČSN EN ISO 21660-3, ČSN EN 12880, ČSN EN 14346, ČSN EN 15002)	Solid fossil fuels, solid biofuels, solid recovered fuels, sludge, waste
1.62 – 1.63	Reserved		

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.64 ¹	Determination of dissolved oxygen (in the laboratory) by electrochemical method with optical sensor	CZ_SOP_D06_02_043 (ČSN ISO 17289)	Water ⁹¹
1.65* 1,2,3,4,5,6,7, 8,9	Determination of dissolved oxygen by electrochemical method with membrane probe	CZ_SOP_D06_01_044 (ČSN EN ISO 5814)	Water ⁹¹
1.66 ^{1,3}	Determination of dry matter by gravimetry and calculation of moisture from measured values	CZ_SOP_D06_01_045 (ČSN ISO 11465, ČSN EN 12880, ČSN EN 14346:2007)	Solid samples ⁸⁵
1.67 ²	Determination of dry matter by gravimetry and calculation of moisture from measured values	CZ_SOP_D06_07_046 (ČSN ISO 11465, ČSN EN 12880, ČSN EN 14346:2007, ČSN 46 5735)	Solid samples ⁸⁵
1.68 ²	Determination of ash by gravimetry and calculation of loss on ignition from measured values	CZ_SOP_D06_07_047.A (ČSN EN 15169, ČSN EN 15935, ČSN EN 13039, ČSN 72 0103, ČSN 46 5735)	Solid samples ⁸⁵ , silicate materials
1.69	Reserved		
1.70 ²	Determination of ash by gravimetry and calculation of loss on ignition from measured values	CZ_SOP_D06_07_047.C (ČSN ISO 1171, ČSN EN ISO 18122, ČSN EN ISO 21656, ČSN EN ISO 6245)	Solid and liquid fuels
1.71 ¹	Qualitative determination of asbestos by SEM/EDS	CZ_SOP_D06_02_048 (ISO 22262-1, VDI 3866, Part 5, DM06/09/94 GU n° 288 10/12/1994 All. 1 Met. B – quantitative determination)	Solid samples ⁸⁵ (except liquid waste, biowaste) building materials ⁸⁹ , materials for building ⁸²
1.72 ¹	Qualitative determination of asbestos by SEM/EDS	CZ_SOP_D06_02_049 (VDI 3866, Part 5, DM 06/09/94 GU n° 288 10/12/1994 All. 1 Met. B.)	Solid samples ⁸⁵ (except liquid waste, biowaste) building materials ⁸⁹ , materials for building ⁸²
1.73 ²	Determination of water content by Karl Fischer method	CZ_SOP_D06_07_050 (ČSN ISO 760)	Liquid samples ⁸¹ , solid samples ⁸⁵
1.74	Reserved		
1.75 ²	Determination of suspended solids, fixed suspended solids, total solids and fixed total solids by gravimetry and calculation of volatile suspended solids and volatile total solids from measured values	CZ_SOP_D06_07_052 (ČSN 75 7350, SM 2540 B, SM 2540 D, SM 2540 E)	Water ⁹¹ , extracts ⁹²
1.76 ²	Determination of suspended solids using glass fibre filters by gravimetry	CZ_SOP_D06_07_053 (ČSN EN 872)	Water ⁹¹ , extracts ⁹²
1.77 ²	Determination of dissolved solids (RL105) and fixed dissolved solids (RAS) using glass fibre filters by gravimetry and calculation of volatile dissolved solids from measured values	CZ_SOP_D06_07_054 (ČSN 75 7346, ČSN 75 7347)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.78 ²	Determination of total carbon (TC) and inorganic carbon (TIC) by IR detection and calculation of total organic carbon (TOC), carbonates and organic matter from measured values	CZ_SOP_D06_07_055 (ČSN EN 13137:2002, ČSN EN 15936, ČSN ISO 10694)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.79 ¹	Determination of total organic carbon (TOC), dissolved organic carbon (DOC), total inorganic carbon (TIC) and total carbon (TC) by IR detection	CZ_SOP_D06_02_056 (ČSN EN 1484, SM 5310)	Water ⁹¹ , extracts ⁹²
1.80 ¹	Determination of nonpolar extractive substances by infrared spectrometry and calculation of polar extractive substances from measured values	CZ_SOP_D06_02_057 (ČSN 75 7505:2006, SS 028145, STN 83 0520-27:2015, STN 83 0530-36, STN 830540-4, US EPA 418.1, SM 5520 F, DS/R 209, SFS 3010)	Water ⁹¹ , extracts ⁹²
1.81 ¹	Determination of extractive and non-polar extractive compounds by infrared spectrometry and calculation of polar extractive substances from measured values	CZ_SOP_D06_02_058 (SS 028145, TNV 75 8052, ISO/TR 11046, US EPA 418.1, SM 5520 F, DS/R 209, SFS 3010)	Solid samples ⁸⁵
1.82 ¹	Determination of extractive substances by infrared spectrometry and calculation of polar extractive substances from measured values	CZ_SOP_D06_02_059 (ČSN 75 7506, SS 028145, STN 83 0520-27:2015, STN 83 0540-4, DS/R 209, SFS 3010)	Water ⁹¹ , extracts ⁹²
1.83 ¹	Determination of alpha modification of silicon dioxide in respirable dust by infrared spectrometry	CZ_SOP_D06_02_060 (NIOSH 7602)	Dust
1.84* 1,2,3,4,5,6,7, 8,9,12	Field determination of free and total chlorine and chlorine dioxide by DPD method using HACH sets and bound chlorine by calculation from measured values	CZ_SOP_D06_01_061 (HACH COMPANY methods, ČSN EN ISO 7393-2)	Drinking water, warm water, raw water
1.85* 1,2,3,4,5,6,7, 8,9,12	Field measurement of temperature	ČSN 75 7342	Water ⁹¹
1.86* 1,2,3,4,5,6,7,8, 9	Field measurement of electrical conductivity	CZ_SOP_D06_01_063 (ČSN EN 27888)	Water ⁹¹
1.87* 1,2,3,4,5,6,7, 8,9,12	Field measurement of pH electrochemically	CZ_SOP_D06_01_064 (ČSN ISO 10523)	Water ⁹¹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.88 ¹	Sensory analysis of water – determination of odour and taste	CZ_SOP_D06_04_065 (TNV 75 7340:2005, ČSN EN 1622, STN EN 1622)	Drinking water
1.89 ²	Determination of phenols by continuous flow analysis (CFA) method spectrophotometrically	CZ_SOP_D06_07_066 (ČSN EN ISO 14402, SKALAR Company methodology)	Water ⁹¹ , extracts ⁹² , absorption solution from emission sampling
1.90 ²	Determination of anionic surfactants by methylene blue (MBAS) by continuous flow analysis (CFA) method spectrophotometrically	CZ_SOP_D06_07_067 (ČSN ISO 16265, SKALAR Company methodology, ČSN EN 903)	Water ⁹¹ , extracts ⁹²
1.91 ¹	Determination of dissolved fluoride, chloride, nitrite, bromide, nitrate and sulphate by ion liquid chromatography and calculation of nitrite nitrogen and nitrate nitrogen and sulphate sulphur from measured values including the calculation of total mineralization	CZ_SOP_D06_02_068 (ČSN EN ISO 10304-1)	Water ⁹¹ , extracts ⁹²
1.92	Reserved		
1.93 ¹	Determination of dry suspended solids and annealed suspend solids by gravimetry and calculation of loss of ignition of suspend solids and total solids from measured values	CZ_SOP_D06_02_070 (ČSN EN 872, ČSN 757350, SM 2540 D, SM 2540 E)	Water ⁹¹ , extracts ⁹²
1.94 ¹	Determination of dissolved solids (RL) and dissolved solid annealed (RAS) using glass fibre filters by gravimetry and calculation of loss on ignition of dissolved solids (RL550) from measured values	CZ_SOP_D06_02_071 (ČSN 75 7346, ČSN 757347, ČSN EN 15216, SM 2540 C, SM 2540 E)	Water ⁹¹ , extracts ⁹²
1.95 ¹	Determination of acid neutralizing capacity (alkalinity) by potentiometric titration and calculation of the carbonate hardness and CO ₂ forms from measured values including the calculation of total mineralization	CZ_SOP_D06_02_072 (ČSN EN ISO 9963-1, ČSN EN ISO 9963-2, ČSN 75 7373, SM 2320)	Water ⁹¹ , extracts ⁹²
1.96 ¹	Determination of base neutralizing capacity (acidity) by potentiometric titration	CZ_SOP_D06_02_073 (ČSN 75 7372)	Water ⁹¹ , extracts ⁹²
1.97 ¹	Determination of turbidity by optical turbidimeter	CZ_SOP_D06_02_074 (ČSN EN ISO 7027-1)	Water ⁹¹ , extracts ⁹²
1.98 ¹	Determination of electrical conductivity by conductometer and calculation of salinity	CZ_SOP_D06_02_075 (ČSN EN 27888, SM 2520 B)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.99 ¹	Determination of chemical oxygen demand using dichromate (COD _{Cr}) by photometry	CZ_SOP_D06_02_076 (ČSN ISO 15705)	Water ⁹¹ , extracts ⁹²
1.100	Reserved		
1.101 ¹	Determination of biochemical oxygen demand electrochemically after n days (BOD _n) by dilution method with allylthiourea addition	CZ_SOP_D06_02_077 (ČSN EN ISO 5815-1)	Water ⁹¹ , extracts ⁹²
1.102 ¹	Determination of biochemical oxygen demand electrochemically after n days (BOD _n) by method for undiluted samples	CZ_SOP_D06_02_078 (ČSN EN 1899-2, ISO 5815-2)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

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1.103 ¹	Determination of colour by spectrophotometry	CZ_SOP_D06_02_079 (ČSN EN ISO 7887)	Water ⁹¹ , extracts ⁹²
1.104 ¹	Determination of total phosphorus by discrete spectrophotometry and calculation of phosphorus as P ₂ O ₅ and PO ₄ ³⁻ from measured values	CZ_SOP_D06_02_080 (ČSN EN ISO 6878, ČSN EN ISO 15681-1)	Water ⁹¹ , extracts ⁹²
1.105 ¹	Determination of total nitrogen by discrete spectrophotometry after mineralization with peroxisulphate	CZ_SOP_D06_02_081 (ČSN EN ISO 11905-1)	Water ⁹¹ , extracts ⁹²
1.106 ²	Determination of chloride in absorption solution from emission sample of inorganic compounds of chlorine by potentiometric titration and calculation of hydrogen chloride from measured values	CZ_SOP_D06_07_082 (ČSN EN 1911)	Absorption solutions from emission sampling
1.107 ²	Determination of fluoride in absorption solution from emission sample of inorganic compounds of fluorine after separation by distillation by direct potentiometry and calculation of hydrogen fluoride from measured values	CZ_SOP_D06_07_083 (ČSN 83 4752-3:1989)	Absorption solutions from emission sampling
1.108	Reserved		
1.109 ²	Determination of ammonia in absorption solution from emission sample by photometry after distillation	CZ_SOP_D06_07_085 (ČSN 83 4728-4)	Absorption solutions from emission sampling
1.110 ¹	Determination of total solids by gravimetry	CZ_SOP_D06_02_086 (ČSN 75 7346, ČSN 757347, ČSN EN 872, SM 2540 B, C, D)	Water ⁹¹
1.111 ²	Determination of pH, temperature and electrical conductivity in extracts prepared by a bottom-up percolation test (under specific conditions)	CZ_SOP_D06_07_087 (ČSN EN 14405, ČSN ISO 10523, ČSN 75 7342, ČSN EN 27888)	Solid samples ⁸⁵
1.112 ^{1,2}	Determination of pH, temperature and electrical conductivity in extracts prepared by a two-stage batch test (under specific conditions)	CZ_SOP_D06_07_088 (ČSN EN 12457-3, ČSN ISO 10523, ČSN 75 7342, ČSN EN 27888)	Solid samples ⁸⁵
1.113 ¹	Determination of total cyanide by spectrophotometry and calculation of complex-forming cyanides from measured values	CZ_SOP_D06_02_089.A (ČSN 75 7415, ČSN EN ISO 14403-2)	Water ⁹¹ , extracts ⁹² , absorption solutions from emission sampling
1.114 ¹	Determination of total cyanide by spectrophotometry and calculation of complex-forming cyanides from measured values	CZ_SOP_D06_02_089.B (ČSN 75 7415, ČSN EN ISO 17380, ČSN EN ISO 14403-2, SM 4500 CN)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.115 ¹	Determination of easily releasable cyanide (free cyanide) and cyanide dissociated by weak acid by spectrophotometry	CZ_SOP_D06_02_090.A (ČSN ISO 6703-2, ČSN EN ISO 14403-2, SM 4500 CN)	Water ⁹¹ , extracts ⁹²

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.116 ¹	Determination of easily releasable cyanide (free cyanide) and cyanide dissociated by weak acid by spectrophotometry	CZ_SOP_D06_02_090.B (ČSN 75 7415, ČSN EN ISO 17380, ČSN EN ISO 14403-2, SM 4500 CN)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.117 ¹	Determination of fluorides by electrochemical method (ISE)	CZ_SOP_D06_02_091 (ČSN ISO 10359-1)	Water ⁹¹ , extracts ⁹²
1.118 ¹	Determination of chemical oxygen demand using permanganate (COD _{Mn}) by titration	CZ_SOP_D06_02_092 (ČSN EN ISO 8467)	Water ⁹¹ , extracts ⁹²
1.119 ¹	Determination of bound nitrogen (TNb), following oxidation to nitrogen oxides by chemiluminescent detection	CZ_SOP_D06_02_094.A (ČSN EN 12260)	Water ⁹¹ , extracts ⁹²
1.120 ¹	Determination of bound nitrogen (TNb) following oxidation to nitrogen oxides by IR detection	CZ_SOP_D06_02_094.B (ČSN EN 12260)	Water ⁹¹ , extracts ⁹²
1.121 ¹	Qualitative determination of asbestos fibre by polarization microscope	CZ_SOP_D06_02_095 (NIOSH 9002)	Solid samples ⁸⁵ , (except liquid waste, biowaste), building materials ⁸⁹ , materials for building ⁸²
1.122 ¹	Determination of mercury by fluorescence spectrometry	CZ_SOP_D06_02_096 (US EPA 245.7, ČSN EN ISO 17852)	Water ⁹¹ , extracts ⁹²
1.123 ¹	Determination of mercury by fluorescence spectrometry	CZ_SOP_D06_02_096 (ČSN EN ISO 17852, PSA Application Note 025, ISO 16772:2004)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.124	Reserved		
1.125 ¹	Determination of mercury by fluorescence spectrometry	CZ_SOP_D06_02_096 (ČSN EN ISO 17852, ČSN EN 13211, ČSN EN ISO 12846)	Emission ⁷⁸ , imission ⁷⁹
1.126 – 1.127	Reserved		
1.128 ¹	Determination of dissolved bromate, chlorate and chlorite by ion liquid chromatography method and calculation of the sum of chlorate and chlorite from measured values	CZ_SOP_D06_02_098 (ČSN EN ISO 15061, ČSN EN ISO 10304-4)	Water ⁹¹ , extracts ⁹²
1.129 ¹	Determination of chloride by discrete spectrophotometry	CZ_SOP_D06_02_099 (US EPA 325.1, SM 4500-Cl ⁻)	Water ⁹¹ , extracts ⁹²
1.130 ¹	Determination of extractive substances by gravimetry	CZ_SOP_D06_02_100 (ČSN 75 7508, SM 5520B)	Water ⁹¹
1.131 ²	Determination of reactive and non-labile aluminium by continuous flow analysis (CFA) spectrophotometrically and calculation of labile aluminium from measured values	CZ_SOP_D06_07_101 (SKALAR Company method)	Drinking, surface water
1.132 ²	Determination of total nitrogen by modified Kjeldahl method by spectrophotometry	CZ_SOP_D06_07_102 (ČSN ISO 11261)	Solid samples ⁸⁵

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.133* 1,2,3,4,5,6,7, 8,9	Field measurement of oxidation-reduction potential (ORP) by potentiometry	CZ_SOP_D06_01_103 (ČSN 75 7367)	Water ⁹¹
1.134 ¹	Determination of grease and oils by gravimetry (extraction after evaporation)	CZ_SOP_D06_02_104 (ČSN 75 7509)	Water ⁹¹
1.135 ¹	Determination of pH by potentiometry	CZ_SOP_D06_02_105 (ČSN ISO 10523, US EPA 150.1, SM 4500-H ⁺ B)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.136	Reserved		
1.137 ²	Determination of total nitrogen by modified Kjeldahl method by spectrophotometry	CZ_SOP_D06_07_107 (ČSN EN 25663, ČSN ISO 7150-1, SFS 5505)	Water ⁹¹ , extracts ⁹²
1.138 ¹	Determination of settleable solids by volumetry	CZ_SOP_D06_02_108 (SM 2540 F)	Water ⁹¹ , extracts ⁹²
1.139 ¹	Determination of dissolved silicates by discrete photometry and calculation of H ₂ SiO ₃ and total mineralization from measured values	CZ_SOP_D06_02_109 (ČSN EN ISO 16264, US EPA 370.1)	Water ⁹¹ , extracts ⁹²
1.140 ¹	Determination of chlorophyll by spectrophotometry	CZ_SOP_D06_02_110 (SM 10200 H)	Surface waters ⁶⁷
1.141	Reserved		
1.142 ²	Determination of phosphorus soluble in sodium hydrogen carbonate solution spectrophotometrically	CZ_SOP_D06_07_112 (ČSN ISO 11263)	Solid samples ⁸⁵
1.143 ²	Determination of pH electrochemically in a suspension in water, KCl, CaCl ₂ , BaCl ₂	CZ_SOP_D06_07_113 (ČSN ISO 10390, ČSN EN 12176:1999, ČSN EN 13037, ČSN EN 15933, ČSN 46 5735, ÖNORM L 1086-1, US EPA 9045D; US EPA 9040C)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.144 ²	Determination of formaldehyde by spectrophotometry	CZ_SOP_D06_07_114 (Chemical and physical methods of water analysis, SNTL Prague 1989)	Water ⁹¹ , extracts ⁹²
1.145	Reserved		
1.146 ²	Determination of iron(II) by spectrophotometry	CZ_SOP_D06_07_116 (ČSN ISO 6332)	Water ⁹¹ , extracts ⁹²
1.147 ²	Determination of total carbon (TC), total organic carbon (TOC) by the combustion method with IR detection and calculation of total inorganic carbon (TIC), carbonates and organic matter from measured values	CZ_SOP_D06_07_117 (Elementar Company methodology, ČSN ISO 10694, ČSN EN 13137:2002, ČSN EN 15936)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.148 ²	Determination of permeability by falling head	CZ_SOP_D06_07_118 (ČSN EN ISO 17892-11, chap. 5.2.2.3)	Soil
1.149 ¹	Determination of aggressive carbon dioxide by the Heyer's method using calculation from alkalinity	CZ_SOP_D06_02_119 (ČSN 83 0530-14:2000)	Water ⁹¹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.150 ²	Determination of graininess of solid samples by the combined method of suspension density, sieve analyses and laser diffraction and calculation of permeability from measured values according to USBSC	CZ_SOP_D06_07_120 (ČSN EN ISO 17892-4, ČSN EN 933-1, ČSN EN 933-2, BS ISO 11277, Instructions TOM 23/1, ISO 13320)	Solid samples ⁸⁵ (grain size lower than 63 mm)
1.151 ²	Determination of total carbon, total sulfur, and hydrogen by combustion method with IR detection, determination of total nitrogen by combustion method with TCD detection and calculation of oxygen from measured values	CZ_SOP_D06_07_121.A (LECO Company methodology, ČSN ISO 29541, ČSN EN ISO 16994, ČSN EN ISO 16948, ČSN ISO 19579, ČSN EN 15408, ČSN ISO 10694, ČSN EN ISO 21663)	Solid samples ⁸⁵ , waste, sludge, lubricants, feed ⁸³ , plants, digestates, solid fossil fuels, solid biofuels, solid recovered fuels, building materials ⁸² , materials for building ⁸⁹
1.152 ²	Determination of carbon, sulfur and hydrogen by combustion method with IR detection and determination of nitrogen by combustion method with TCD detection and calculation of oxygen from measured values	CZ_SOP_D06_07_121.B (LECO Company methodology)	Oil, liquid fuels, combustible liquid and solid wastes
1.153 ¹	Determination of hexavalent chromium by ion chromatography with spectrophotometric detection and calculation of trivalent chromium from measured values	CZ_SOP_D06_02_122, except chap. 10.2; 11.3.2; 11.5; 12.2.2; 15.5 (US EPA 7199, SM 3500-Cr)	Water ⁹¹ , extracts ⁹²
1.154 ¹	Determination of hexavalent chromium by ion chromatography with spectrophotometric detection and calculation of trivalent chromium from measured values	CZ_SOP_D06_02_122, except chap. 10.1; 11.3.1; 12.2.1; 15.4 (ČSN EN ISO 15192, EPA 3060A)	Solid samples ⁸⁵
1.155 – 1.156	Reserved		
1.157 ²	Determination of gross calorific value by calorimetric method and calculation of net calorific value and emission factor from measured values	CZ_SOP_D06_07_124.A (ČSN ISO 1928, ČSN EN ISO 18125, ČSN EN ISO 21654, ČSN EN 15170, ČSN DIN 51900-1, ČSN DIN 51900-2, ČSN DIN 51900-3, ČSN P CEN/TS 16023)	Solid fossil fuels, solid biofuels, solid recovered fuels, waste, sludge, combustible building materials ⁸⁹
1.158 ²	Determination of gross calorific value by calorimetric method and calculation of net calorific value and emission factor from measured values	CZ_SOP_D06_07_124.B (ČSN DIN 51900-1, ČSN DIN 51900-2, ČSN DIN 51900-3)	Oils, liquid fuels, combustible liquid, and solid wastes
1.159 ^{2,1}	Determination of total bromine, chlorine, fluorine, and sulphur by calculation from the measured values of bromide, chloride, fluoride and sulphate by IC method after burning the sample	CZ_SOP_D06_07_124.C (ČSN EN ISO 16994, ČSN EN 15408, ČSN EN 14582)	Solid fossil fuels, solid biofuels, solid recovered fuels, waste, sludge, combustible building materials ⁸⁹

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.160 ^{2,1}	Determination of total bromine, chlorine, fluorine and sulphur by calculation from the measured values of bromide, chloride, fluoride and sulphate by IC method after burning the sample	CZ_SOP_D06_07_124.D (ČSN DIN 51900-1, ČSN DIN 51900-2, ČSN DIN 51900-3)	Oils, liquid fuels, combustible liquid and solid wastes
1.161 ²	Determination of laboratory compacted bulk density (LCBD)	CZ_SOP_D06_07_125 (ČSN EN 13040)	Sludge, composts, soils meliorants and growth stimulants
1.162 ²	Determination of electrical conductivity	CZ_SOP_D06_07_126 (ČSN EN 13038, ČSN ISO 11265, ČSN P CEN/TS 15937)	Sludge, composts, soils, soils meliorants and growth stimulants, modified bio waste
1.163 ¹	Determination of hexavalent chromium by ion chromatography with spectrophotometric detection and calculation of trivalent chromium from measured values	CZ_SOP_D06_02_127 (ISO 16740, EPA 425)	Emission ⁷⁸ , imission ⁷⁹
1.164 ¹	Determination of nitrogen dioxide and sulphur dioxide in passive samplers by ion chromatography method and results recalculation to the volume of air	CZ_SOP_D06_02_128 (Materials of Institute Fondazione Salvatore Maugeri, ČSN EN ISO 10304-1, ČSN EN ISO 10304-3)	Emission ⁷⁸ , imission ⁷⁹
1.165 ¹	Determination of sulphite by ion chromatography method	CZ_SOP_D06_02_129 (ČSN EN ISO 10304-3)	Water ⁹¹ , extracts ⁹²
1.166 ²	Determination of volatile matter by gravimetry and calculation of fixed carbon from the measured values	CZ_SOP_D06_07_130 (ČSN ISO 562, ČSN ISO 5071-1, ČSN EN ISO 18123, ČSN EN ISO 22167)	Solid fossil fuels, solid biofuels, solid recovered fuels
1.167 ²	Determination of sulphite after distillation by titration	CZ_SOP_D06_07_131 (M. Horáková et al.: Chemical and physical methods of water analyses)	Water ⁹¹ , extracts ⁹²
1.168 ²	Determination of respiratory activity (AT ₄) using respirometer	CZ_SOP_D06_07_132 (ÖNORM S 2027-4)	Wastes, sludge, composts, soils
1.169* 1,2,4,6,7,8,9	Field determination of ozone using HACH sets	CZ_SOP_D06_01_133 (Method 8311 HACH Company, USA)	Drinking water, pool water
1.170 ¹	Determination of fluoride, chloride, and sulphate in absorption solution from emission sampling by ion chromatographic method and calculation of hydrogen fluoride, hydrogen chloride and sulphur dioxide from measured values	CZ_SOP_D06_02_134 (ČSN EN 1911, STN ISO 15713, ČSN EN 14791, ČSN EN ISO 10304-1)	Emission ⁷⁸
1.171 ¹	Determination of non-polar extractable compounds by UV spectrometry	CZ_SOP_D06_02_135, except chap. 10.2 (ČSN 83 0540-4:1998, STN 83 0540-4)	Water ⁹¹ , extracts ⁹²
1.172 ¹	Determination of non-polar extractable compounds by UV spectrometry	CZ_SOP_D06_02_135, except chap. 10.1 (ČSN 83 0540-4:1998, STN 83 0540-4)	Solid samples ⁸⁵

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.173 ¹	Determination of total dust concentration and respirable dust fraction by gravimetry and results recalculation to the volume of air	CZ_SOP_D06_02_136 (ČSN EN 481, ČSN EN 482, ČSN EN 689+AC, NIOSH 0500, NIOSH 0600, GR No. 361/2007 Coll.)	Working environment ⁸⁷
1.174 ²	Determination of SiO ₂ in silicate materials after decomposition by gravimetry	CZ_SOP_D06_07_137 (ČSN 72 0105-1)	Solid samples ⁸⁵
1.175 ²	Determination of P ₂ O ₅ in silicate materials after decomposition by spectrophotometry	CZ_SOP_D06_07_138 (ČSN 72 0116-1)	Solid samples ⁸⁵
1.176 ²	Determination of total sulfur in silicate materials after decomposition by gravimetry	CZ_SOP_D06_07_139 (ČSN 72 0118)	Solid samples ⁸⁵
1.177	Reserved		
1.178* 1,2,5	Analysis of CH ₄ , CO ₂ , O ₂ , H ₂ S gases by Geotech gas analyzer and calculation of N ₂ from measured values	CZ_SOP_D06_01_141 (BIOGAS 5000 Analyzer Manual)	Gases ⁸⁶
1.179	Reserved		
1.180 ²	Determination of total inorganic fluorine after separation by distillation by direct potentiometry	CZ_SOP_D06_07_143, except chap. 10 and 13.1 (ČSN ISO 10359-2, ČSN 83 4752-3:1989)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.181 ²	Determination of total inorganic fluorine after separation by distillation by direct potentiometry	CZ_SOP_D06_07_143 (ČSN ISO 10359-2, ČSN 83 4752-3:1989)	Solid samples ⁸⁵
1.182 ²	Determination of biomass content by selective dissolution	CZ_SOP_D06_07_144 (ČSN EN 15440, Annex A)	Solid alternative fuels, solid combustible wastes
2	Organic Chemistry		
2.1 ¹	Determination of extractable compounds in the range of hydrocarbons C10 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_150 (ČSN EN 14039, ČSN EN ISO 16703, ČSN P CEN ISO/TS 16558-2, US EPA 8015, US EPA 3550, TNRCC Method 1006)	Solid samples ⁸⁵
2.2 ¹	Determination of extractable compounds in the range of hydrocarbons C10 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_151 (ČSN EN ISO 9377-2, US EPA 8015, US EPA 3510, TNRCC Method 1006)	Water ⁹¹ , extracts ⁹²
2.3 ¹	Determination of extractable compounds in the range of hydrocarbons C5 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_152, except chap. 9.1 (TNRCC Method 1006, TNRCC Method 1005)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
2.4 ¹	Determination of extractable compounds in the range of hydrocarbons C5 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_152, except chap. 9.2 (TNRCC Method 1006, TNRCC Method 1005)	Solid samples ⁸⁵

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.5 ¹	Determination of volatile organic compounds ¹⁹ by gas chromatography method with FID and MS detection and calculation of volatile organic compounds sums from measured values and results recalculation to the volume of air	CZ_SOP_D06_03_153 (CEN/TS 13649, NIOSH ¹⁾)	Solid sorbents
2.6	Reserved		
2.7 ¹	Determination of volatile organic compounds ³ by gas chromatography method with FID and MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_155 except chap. 10.5 and 10.6 (US EPA 624, US EPA 5021A, US EPA 8260, US EPA 8015, ČSN EN ISO 10301, MADEP 2004, rev. 1.1, ČSN ISO 11423, ČSN EN ISO 15680)	Water ⁹¹ , extracts ⁹²
2.8 ¹	Determination of volatile organic compounds ³ by gas chromatography method with FID and MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_155, except chap. 10.4 (US EPA 8260, US EPA 5021A, US EPA 5021, US EPA 8015, ČSN EN ISO 22155, ČSN EN ISO 15009, ČSN EN ISO 16558-1, MADEP 2004, rev. 1.1,)	Solid samples ⁸⁵
2.9 ¹	Determination of volatile organic compounds ⁴ by gas chromatography method with FID and ECD detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_156, except chap. 11.3 - 11.5 (US EPA 601, US EPA 8260, US EPA 8015, RBCA Petroleum Hydrocarbon Methods, ČSN EN ISO 11423, ČSN EN ISO 15680)	Water ⁹¹ , extracts ⁹²
2.10 ¹	Determination of volatile organic compounds ⁴ by gas chromatography method with FID and ECD detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_156, except chap. 11.1 and 11.2 (US EPA 8260, US EPA 8015, ČSN EN ISO 22155, ČSN EN ISO 15009, ČSN EN ISO 16558-1, RBCA Petroleum Hydrocarbon Methods)	Solid samples ⁸⁵
2.11 ¹	Determination of organic contaminants ⁵ by gas chromatography method with MS detection (SPIMFAB) and calculation of organic contaminants sums from measured values	CZ_SOP_D06_03_157, except chap. 9.2 (SPIMFAB)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.12 ¹	Determination of organic contaminants ⁵ by gas chromatography method with MS detection (SPIMFAB) and calculation of organic contaminants sums from measured values	CZ_SOP_D06_03_157, except chap. 9.1 (SPIMFAB)	Waste (solid waste, biowaste), sediments, soil, rocks
2.13 ¹	Determination of phenols, chlorinated phenols and cresols ⁶ by gas chromatography method with MS and ECD detection and calculation of phenols, chlorinated phenols and cresols sums from measured values	CZ_SOP_D06_03_158, except chap. 9.3 and 9.4 (US EPA 8041, US EPA 3500, ČSN EN 12673)	Water ⁹¹
2.14 ¹	Determination of phenols, chlorinated phenols and cresols ⁶ by gas chromatography method with MS and ECD detection and calculation of phenols, chlorinated phenols and cresols sums from measured values	CZ_SOP_D06_03_158, except chap. 9.1, 9.2 and 9.4 (US EPA 8041, US EPA 3500, DIN ISO 14154)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks
2.15	Reserved		
2.16 ¹	Determination of phthalates ⁷ by gas chromatography method with MS detection and calculation of phthalates sums from measured values	CZ_SOP_D06_03_159, except chap. 9.2 and 9.3 (US EPA 8061A)	Water ⁹¹ , extracts ⁹²
2.17 ¹	Determination of phthalates ⁷ by gas chromatography method with MS detection and calculation of phthalates sums from measured values	CZ_SOP_D06_03_159, except chap. 9.1 (US EPA 8061A, CPSC-CH-C1001-09.3)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks
2.18 ¹	Determination of phenols and cresols ⁴⁰ by gas chromatography method with MS detection and calculation of phenols and cresols sums from measured values	CZ_SOP_D06_03_160, except chap. 9.2 (US EPA 8041A, US EPA 3500)	Water ⁹¹ , extracts ⁹²
2.19 ¹	Determination of phenols and cresols ⁴⁰ by gas chromatography method with MS detection and calculation of phenols and cresols sums from measured values	CZ_SOP_D06_03_160, except chap. 9.1 (US EPA 8041A, US EPA 3500)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks
2.20 ¹	Determination of semi volatile organic compounds ⁹ by gas chromatography method with MS or MS/MS detection and calculation of semi volatile organic compounds sums from measured values	CZ_SOP_D06_03_161 except chap. 10.1.3 – 10.1.5 (US EPA 8270D, US EPA 8082A, ČSN EN ISO 6468, US EPA 8000D)	Water ⁹¹ , extracts ⁹²
2.21 ¹	Determination of semi volatile organic compounds ⁹ by gas chromatography method with MS or MS/MS detection and calculation of semi volatile organic compounds sums from measured values	CZ_SOP_D06_03_161 except chap. 10.1.1, 10.1.2, 10.2.1, 10.2.2 (US EPA 8270D, US EPA 8082A, ČSN EN 15527, ISO 18287, ISO 10382, ČSN EN 17322)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.22 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with FLD and PDA detection and calculation of polycyclic aromatic hydrocarbons sums from measured values	CZ_SOP_D06_03_162 (US EPA 550)	Drinking, table and infant water
2.23 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with detection FLD and PDA and calculation of polycyclic aromatic hydrocarbons sums from measured values	CZ_SOP_D06_03_163, except chap. 9.1.2, 9.4.2 (US EPA 610, ČSN EN ISO 17993)	Water ⁹¹ , extracts ⁹²
2.24 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with FLD and PDA detection and calculation of polycyclic aromatic hydrocarbons sums from measured values	CZ_SOP_D06_03_163, except chap. 9.1.1, 9.4.1 (US EPA 610, US EPA 3550, ČSN EN 16181)	Solid samples ⁸⁵
2.25 ¹	Determination of glycols ²⁶ by gas chromatography method with MS detection	CZ_SOP_D06_03_164	Water ⁹¹ , cooling liquids, anti-freeze fluid
2.26 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with FLD and PDA detection and calculation of polycyclic aromatic hydrocarbons sums from measured values and results recalculation to the volume of air	CZ_SOP_D06_03_165 (ISO 11338-2)	Emission ⁷⁸ , imission ⁷⁹
2.27 ¹	Determination of polychlorinated biphenyls ³⁹ by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values	CZ_SOP_D06_03_166 except chap. 10.1 – 10.3 (DIN 38407-3, US EPA 8082)	Water ⁹¹ , extracts ⁹²
2.28 ¹	Determination of polychlorinated biphenyls ¹¹ by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values	CZ_SOP_D06_03_166 except chap. 10.4 (US EPA 8082, ISO 10382, ČSN EN 17322)	Solid samples ⁸⁵ , sealing materials
2.29 ¹	Determination of alkylphenols and alkylphenol ethoxylates ²⁸ by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values	CZ_SOP_D06_03_167 (European Standard BT WI CSS99040)	Sediments, soils, rocks
2.30 ¹	Determination of polychlorinated biphenyls ¹¹ - congener analyses by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values	CZ_SOP_D06_03_168 (ČSN EN 12766-1, ČSN EN 61619)	Oil hydrocarbons, used oils, insulating liquids
2.31 ¹	Determination of organochlorine pesticides and other halogen compounds ¹² by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values	CZ_SOP_D06_03_169 except chap. 10.1 (ČSN EN ISO 6468, US EPA 8081, DIN 38407-3)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.32 ¹	Determination of organochlorine pesticides and other halogen compounds ¹² by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values	CZ_SOP_D06_03_169 except chap. 10.2 (US EPA 8081, ISO 10382)	Solid samples ⁸⁵
2.33 ¹	Determination of perchlorates by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_170.A (US EPA 6850)	Drinking water
2.34 ¹	Determination of perchlorates by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_170.B (US EPA 6850)	Sediments, sludges, soils, rocks
2.35 ³	Determination of polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofuranes ¹³ in emissions by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_170 (US EPA 23, US EPA 23A)	Emission ⁷⁸
2.36 ³	Determination of polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofuranes ¹³ in immission by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_171 (US EPA TO-9A)	Immission ⁷⁹
2.37 ³	Determination of coplanar polychlorinated biphenyls ¹⁴ in stationary emission sources by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_172 (JIS K 0311)	Emission ⁷⁸ , immission ⁷⁹
2.38 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.2-10.2.3.8, 10.2.4, 10.2.5 (US EPA 1668A, ČSN EN 16190)	Water ⁹¹
2.39 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.1, 10.2.3.7, 10.2.3.8, 10.2.5 (US EPA 1668A, ČSN EN 16190)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
2.40 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.1-10.2.3.7, 10.2.4 (US EPA 1668A, ČSN EN 16190)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.41 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.1-10.2.3.6 (US EPA 1668A, ČSN EN 16190)	SPMD, food, feed ⁸³ , biotic materials
2.42 ³	Determination of polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofuranes ¹³ in emission samples by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_174 (ČSN EN 1948-2, ČSN EN 1948-3)	Emission ⁷⁸

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

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2.43 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175, except chap. 10.2.3.2 - 10.2.3.8, 10.2.4, 10.2.5 (US EPA 1613B, ČSN EN 16190)	Water ⁹¹
2.44 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175, except chap. 10.2.3.1, 10.2.3.7, 10.2.3.8, 10.2.5 (US EPA 1613 B, ČSN EN 16190)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
2.45 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175, except chap. 10.2.3.1 - 10.2.3.7, 10.2.4 (US EPA 1613B, ČSN EN 16190)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.46 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175 except chap. 10.2.3.1 - 10.2.3.6 (US EPA 1613B, ČSN EN 16190)	SPMD, food, feed ⁸³ , biotic materials
2.47 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.2 - 10.2.3.7, 10.2.4, 10.2.5 (US EPA 8290A)	Water ⁹¹
2.48 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.1, 10.2.3.6, 10.2.5 (US EPA 8290A)	Solid samples ⁸⁵
2.49 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.1 - 10.2.3.6, 10.2.4 (US EPA 8290A)	Biological materials ⁷⁷
2.50 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.1 - 10.2.3.6 (US EPA 8290A)	Food, feed ⁸³ , biotic materials
2.51 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.2 - 10.2.3.8, 10.2.4, 10.2.5 (US EPA 1614)	Water ⁹¹
2.52 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.1, 10.2.3.7, 10.2.3.8, 10.2.5 (US EPA 1614, ČSN EN 16377, ČSN EN ISO 22032)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.53 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.1 - 10.2.3.7, 10.2.4 (US EPA 1614)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.54 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.1 - 10.2.3.6, (US EPA 1614)	SPMD, food, feed ⁸³ , biotic materials
2.55 ¹	Determination of alkylphenols and alkylphenol ethoxylates ¹⁶ by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values	CZ_SOP_D06_03_178 (ČSN EN ISO 18857-2)	Water ⁹¹ , extracts ⁹²
2.56 ³⁾	Determination of PCB ¹⁴ in emission samples by isotope dilution method using HRGC-HRMS and calculation of PCB sums from measured values	CZ_SOP_D06_06_179 (ČSN EN 1948-4, US EPA TO-4-A)	Emission ⁷⁸ , imission ⁷⁹ , working environment ⁸⁷
2.57 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of the sums of polycyclic aromatic hydrocarbons from the measured values	CZ_SOP_D06_06_180 except chap. 10.3.3.1 - 10.3.3.6, 10.3.3.8 - 10.3.3.10, 10.3.5 (US EPA 429, ISO 11338, US EPA 3540)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
2.58 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of the sums of polycyclic aromatic hydrocarbons from the measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.6 - 10.3.3.10, 10.3.4, 10.3.5 (US EPA 429, ISO 11338, US EPA TO-13A, ČSN EN 15549)	Emission ⁷⁸ , imission ⁷⁹ , working environment ⁸⁷
2.59 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of polyaromatic hydrocarbons sums from measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.1 - 10.3.3.9, 10.3.4 (US EPA 429, STN EN 16619)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.60 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of polyaromatic hydrocarbons sums from measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.1 - 10.3.3.8 (US EPA 429, STN EN 16619)	SPMD, food, feed ⁸³ , biotic materials
2.61 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of polyaromatic hydrocarbons sums from measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.1 - 10.3.3.7, 10.3.3.9, 10.3.3.10, 10.3.4, 10.3.5 (US EPA 429, ISO 11338, IP 346)	Oils

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

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2.62 ¹	Determination of semi-volatile organic compounds ²⁷ by gas chromatography method with MS detection and calculation of semi-volatile organic compounds sums from measured values	CZ_SOP_D06_03_181 (US EPA 429, US EPA 1668, US EPA 3550)	Sediments, soils, rocks
2.63 ¹	Determination of acidic herbicides, drug residues and other pollutants ²⁹ by liquid chromatography method with MS/MS detection and calculation of acidic herbicides, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_182.A (DIN 38407-35)	Water ⁹¹
2.64 ¹	Determination of acidic herbicides and drug residues ¹⁷ by liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_182.B (ČSN EN 15637, US EPA 1694)	Sediments, sludges, soils, rocks
2.65 ¹	Determination of pesticides, pesticide metabolites, drug residues and other pollutants ³⁰ by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticide metabolites, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_183.A (US EPA 535, US EPA 1694)	Water ⁹¹
2.66 ¹	Determination of pesticides, pesticide metabolites, drug residues and other pollutants ^{70 and 71} by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticides metabolites, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_183.B (ČSN EN 15637, US EPA 1694)	Sediments, sludges, soils, rocks, building materials ⁸² , materials for building ⁸⁹
2.67 ¹	Determination of pesticides, pesticide metabolites, drug residues and other pollutants ⁷² by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticides metabolites, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_183.C (ČSN EN 15662)	Vegetable materials ⁸⁸ , animal materials ⁹³
2.68 ¹	Determination of pesticides ³¹ by gas chromatography method with MS or MS/MS detection and calculation of pesticides sums from measured values	CZ_SOP_D06_03_184 (US EPA 8141B, US EPA 3535A, ČSN EN 12918)	Water ⁹¹
2.69 ¹	Determination of pesticides and pesticide metabolites ³² by derivatization and liquid chromatography method with MS/MS detection and calculation of pesticides and pesticide metabolites sums from measured values	CZ_SOP_D06_03_185.A (ČSN ISO 21458)	Water ⁹¹
2.70 ¹	Determination of pesticides and pesticide metabolites ⁴⁶ by derivatization and liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_185.B (Journal of Chromatography A, 1292 (2013) 132-141, EC Decision No. 2002/657/EC)	Sediments, sludges, soils, rocks
2.71 ¹	Determination of complexing substances ³³ by gas chromatography method with MS detection	CZ_SOP_D06_03_186 (ČSN EN ISO 16588)	Water ⁹¹
2.72 ¹	Determination of polycyclic aromatic hydrocarbons derivatives ³⁶ by liquid chromatography method with MS detection	CZ_SOP_D06_03_187 (Journal of Chromatography A, 1133 (2006) 241–247)	Emission ⁷⁸ , imission ⁷⁹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.73 ¹	Determination of organic acids ³⁷ by capillary electrophoresis method with UV detection	CZ_SOP_D06_03_188.A (Lumex Company manual, Kudrjashova, M.: Capillary electrophoretic monitoring of microbial growth: determination of organic acids, COPYRIGHT 2004 Estonian Academy Publishers, June 2004 Source Volume: 53 Source Issue: 2, ISSN: 1406-0124)	Water ⁹¹
2.74 ¹	Determination of organic acids ³⁷ by capillary electrophoresis method with UV detection	CZ_SOP_D06_03_188.B (Lumex Company manual, Kudrjashova, M.: Capillary electrophoretic monitoring of microbial growth: determination of organic acids, COPYRIGHT 2004 Estonian Academy Publishers, June 2004 Source Volume: 53 Source Issue: 2, ISSN: 1406-0124)	Feed ⁸³ , composts, digestate
2.75 ¹	Determination of gases ³⁸ by gas chromatography method with detection FID and TCD	CZ_SOP_D06_03_189 (EPA Method RSK-175)	Water ⁹¹ , liquid samples ⁸¹
2.76 ¹	Low limit determination of volatile organic compounds ³ by gas chromatography method with MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_190, except chap. 12.1, 13.1.1, 13.1.2, 14.1, 16.1 (US EPA 5021, US EPA 8260)	Water ⁹¹
2.77 ¹	Low limit determination of volatile organic compounds ³ by gas chromatography method with MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_190, except chap. 12.2, 13.2.1, 13.2.2, 14.2, 16.2 (US EPA 5021, US EPA 8260)	Solid samples ⁸⁵
2.78 ¹	Determination of chlorinated alkanes ³⁴ by gas chromatography method with MS/MS detection	CZ_SOP_D06_03_192.A (ČSN EN ISO 12010)	Water ⁹¹
2.79 ¹	Determination of chlorinated alkanes ³⁴ by gas chromatography method with MS/MS detection	CZ_SOP_D06_03_192.B (ČSN EN ISO 12010, ČSN EN ISO 18635)	Building materials ⁸² , materials for building ⁸⁹ , sediments, soils
2.80 ¹	Determination of aniline and aniline derivatives ²¹ by gas chromatography method with MS detection	CZ_SOP_D06_03_193 (US EPA 8270)	Sediments, sludges, soils, rocks
2.81 ¹	Determination of chlorinated phenols ⁵⁵ by liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_194 (2002/657/ES, 96/23/ES)	Water ⁹¹
2.82 ¹	Determination of drug residues ⁵⁶ by liquid chromatography with MS/MS detection and results recalculation to the volume of air	CZ_SOP_D06_03_195 (Jia Yu et al.: Biomed. Chromatogr. 2011; 25: 511–516)	Working environment ⁸⁷
2.83 ¹	Determination of epichlorohydrin by gas chromatography method with MS/MS detection	CZ_SOP_D06_03_196 (Agilent Technologies Application list 5990-6433EN)	Water ⁹¹
2.84 ¹	Determination of perfluorinated and brominated compounds ⁵⁸ by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_197.A (US EPA 537, ČSN P CEN/TS 15968)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.85 ¹	Determination of per fluorinated and brominated compounds ⁷³ by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_197.B (DIN 38414-14)	Sediments, sludges, soils, rocks
2.86 ¹	Determination of volatile organic compounds ⁵⁹ by gas chromatography method with TCD and FID detection and calculation of volatile organic compounds percentage from measured values	CZ_SOP_D06_03_198 (ČSN EN ISO 11890-2)	Organic solvents
2.87 ³	Determination of fat by gravimetry	CZ_SOP_D06_06_199 (US EPA 1613)	Food, feed ⁸³ , biological materials ⁷⁷
2.88 ¹	Determination of 3-chloro-1,2-propanediol by gas chromatography method with MS detection	CZ_SOP_D06_03_200 (LMBG 52.02(1))	Spices
2.89 ¹	Determination of drug residues and narcotic and psychotropic substances ⁶¹ by liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_201.A (US EPA 1694)	Water ⁹¹
2.90 ¹	Determination of organic acids ⁶² by gas chromatography method with FID detection	CZ_SOP_D06_03_202 (Determination of Volatile Fatty Acids in sewage sludge 1979 HMSO.ISBN 0-11-75462-4)	Digestates
2.91 ¹	Determination of polycyclic aromatic hydrocarbons ⁷⁴ by gas chromatography with MS/MS detection, calculation of sums of polycyclic aromatic hydrocarbons from measured values and conversion of results to air volume	CZ_SOP_D06_03_203 (ISO 11338-2, ČSN EN 15549)	Emission ⁷⁸ , imission ⁷⁹
3	Food Organic Chemistry		
3.1 ¹	Determination of fatty acids ¹⁸ by gas chromatography method with FID detection and calculation sum of SAFA, MUFA, PUFA, TFA, Omega 3, Omega 6 ³⁵)	CZ_SOP_D06_04_202 (ČSN EN ISO 12966-1, ČSN EN ISO 12966-2)	Food, feed ⁸³ , dietary supplements
3.2 ¹	Determination of cholesterol by gas chromatography method with FID detection	CZ_SOP_D06_04_205 (Prof. ing. Jiří Davidek, MD. et al, Laboratory Manual of Food Analysis, Journal of Chromatography A.; 24 (1994); 672 (1-2): 267-272)	Fatty food, non-fatty food, dietary supplements
3.3 ¹	Determination of retinol and alpha tocopherol by liquid chromatography method with FLD detection	CZ_SOP_D06_04_206 (ČSN EN 12823-1, ČSN EN 12822)	Fats, fatty food, non-fatty food, dietary supplements, feed ⁸³ and premixes
3.4 ¹	Determination of vitamin C (ascorbic acid) by liquid chromatography method with PDA detection	CZ_SOP_D06_04_207 (ČSN EN 14130:2004)	Beverages, candy, non-fatty food, dietary supplements, fruit, vegetables
3.5 ¹	Determination of Soya protein by ELISA by commercial set	CZ_SOP_D06_04_208 (R-Biopharm Manual – Ridascreen FAST Soya)	Food, swap
3.6 ¹	Determination of substitute sweeteners ²³ by liquid chromatography method with PDA detection	CZ_SOP_D06_04_209 (ČSN EN 12856)	Beverages, milk products, jams, dietary supplements, fishes
3.7 ¹	Determination of caffeine, theobromine, and theophylline by liquid chromatography method with PDA detection	CZ_SOP_D06_04_210 (ČSN EN 12856)	Beverages, tea, coffee, cocoa, chocolate

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
3.8 ¹	Determination of preserving agents ²⁴ in food by liquid chromatography method with PDA detection	CZ_SOP_D06_04_211 (ČSN EN 12856)	Beverages, jams, vegetable and fruit sauces and pastes, mustard, fatty and milk products, dietary supplements
3.9 ¹	Determination of aflatoxin B ₁ , B ₂ , G ₁ and G ₂ by liquid chromatography method with FLD detection	CZ_SOP_D06_04_212 (ČSN EN 14123)	Food with low water content, beverages, feed ⁸³
3.10 ¹	Determination of the content of ochratoxin A by liquid chromatography method with FLD detection	CZ_SOP_D06_04_213 (ČSN EN 15829, ČSN EN 14133, ČSN EN 14132)	Food with low water content, beverages, dietary supplements, feed ⁸³
3.11 ¹	Determination of zearalenone by liquid chromatography method with FLD detection	CZ_SOP_D06_04_214 (ČSN EN 15850)	Cereals, feed ⁸³
3.12 ¹	Determination of aflatoxin M ₁ by liquid chromatography method with FLD detection	CZ_SOP_D06_04_215 (ČSN EN ISO 14501)	Milk, dried milk, and products from them
3.13 ¹	Determination of patulin by liquid chromatography method with PDA detection	CZ_SOP_D06_04_216 (ČSN EN 14177)	Food with high water content, dietary supplements, beverages
3.14 ¹	Determination of deoxynivalenol by liquid chromatography method with PDA detection	CZ_SOP_D06_04_217 (ČSN EN 15791, ČSN EN 15891)	Food with low water content, beverages, dietary supplements, feed ⁸³
3.15 ¹	Determination of vitamins B ₁ , B ₂ and B ₆ by liquid chromatography method with FLD detection	CZ_SOP_D06_04_218 (ČSN EN 14122, ČSN EN 14152, ČSN EN 14663)	Fats, fatty food, non-fatty food, feed ⁸³ , dietary supplements
3.16 ¹	Determination of folic acid by ELISA method by commercial set	CZ_SOP_D06_04_219 (R-Biopharm– Ridascreen Folic Acid Manual)	Food, feed ⁸³ , dietary supplements
3.17 ¹	Determination of biotin by ELISA method by commercial set	CZ_SOP_D06_04_220 (Demeditec Manual)	Milk, milk products, cereals and cereal products, non-alcoholic beverages, baby food, feed ⁸³ , dietary supplements
3.18 ¹	Determination of gliadin (gluten) by sandwich enzyme immunoassay ELISA Method by commercial set	CZ_SOP_D06_04_221.A (R-Biopharm– Ridascreen Gliadin Manual)	Fatty food, non-fatty food, dietary supplements, swabs
3.19 ¹	Determination of gliadin (gluten) by competitive immunoassay ELISA Method by commercial set	CZ_SOP_D06_04_221.B (R-Biopharm– Ridascreen Gliadin Manual)	Fermented and hydrolyzed foods and beverages ⁸⁰
3.20 ¹	Determination of casein allergen by ELISA method by commercial set	CZ_SOP_D06_04_222 (Bio-Check - Casein Check Manual)	Food, dietary supplements, swabs
3.21 ¹	Determination of β-lactoglobulin allergen by ELISA method with a commercial kit	CZ_SOP_D06_04_223 (Bio-Check– β-lactoglobulin Check Manual)	Food, dietary supplements, swabs
3.22 ¹	Determination of mustard allergen by ELISA method by commercial set	CZ_SOP_D06_04_224 (Bio-Check– Mustard Check Manual)	Food, dietary supplements, swabs

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

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3.23 ¹	Determination of niacin by liquid chromatography method with PDA detection	CZ_SOP_D06_04_225 (ČSN EN 15652)	Fatty food, non-fatty food, feed ⁸³ , dietary supplements
3.24 ¹	Determination of soya protein by ELISA method by commercial set	CZ_SOP_D06_04_226 (Biokits Neogen– Soya assay Biokits Manual)	Meat products
3.25 ¹	Determination of parabens contain by liquid chromatography method with PDA detection	CZ_SOP_D06_04_227 (HPLC for Food Analysis, Agilent Technologies 1996-2001)	Cosmetics
3.26 ¹	Determination of peanut protein allergen by ELISA method by commercial set	CZ_SOP_D06_04_228 (Bio-Check– Peanut Check Manual)	Fatty food, non-fatty food, feed ⁸³ , dietary supplements
3.27 ¹	Determination of fat-soluble vitamins (D2 and D3) by two-dimensional liquid chromatography method with PDA detection	CZ_SOP_D06_04_229 (AN-1069 Thermo – Application list)	Fats, fatty food, non-fatty food, dietary supplements, feed ⁸³ , premixes
3.28 ¹	Determination of Vitamin B12 by ELISA method by commercial set	CZ_SOP_D06_04_230 (R-Biopharm– Ridascreen Fast Vitamin B12 Manual)	Food, feed ⁸³ , dietary supplements
3.29 ¹	Determination of fat-soluble vitamins (vitamins A, E) by liquid chromatography method with FLD detection	CZ_SOP_D06_04_231 (ČSN EN 128 23-1, ČSN EN 128 22)	Cosmetic masks
3.30 ¹	Determination of water-soluble vitamins (vitamin C) by liquid chromatography method with PDA detection	CZ_SOP_D06_04_232 (ČSN EN 14130:2004)	Cosmetic masks
3.31 ¹	Determination of almond allergen by ELISA method by commercial set	CZ_SOP_D06_04_233 (Bio-Check– Almonde Check Manual)	Food, dietary supplements, swabs
3.32 ¹	Determination of hazelnut allergen by ELISA method by commercial set	CZ_SOP_D06_04_234 (Bio-Check– Hazelnut Check Manual)	Food, dietary supplements, swabs
3.33 ¹	Determination of egg allergen (egg white proteins) by ELISA method by commercial set	CZ_SOP_D06_04_235 (Bio-Check– Egg Check Manual)	Food, dietary supplements, swabs
3.34 ¹	Determination of milk allergen (casein and β -lactoglobulin proteins) by ELISA method by commercial set	CZ_SOP_D06_04_236 (Bio-Check– Milk Check Manual)	Food, dietary supplements, swabs
3.35 ¹	Determination of sesame allergen by ELISA method by commercial set	CZ_SOP_D06_04_237 (Bio-Check– Sesame Check Manual)	Food, dietary supplements, swabs
3.36 ¹	Determination of pantothenic acid by liquid chromatography with PDA detection	CZ_SOP_D06_04_238	Dietary supplements
4	Water Microbiology		
4.1 ¹	Enumeration of mesophilic bacteria by cultivation	ČSN 75 7841	Surface, ground, waste, pool water
4.2 ¹	Enumeration of psychrophilic bacteria by cultivation	ČSN 75 7842	Surface, ground, waste, pool water
4.3 ¹	Enumeration of intestinal enterococci by membrane filtration	ČSN EN ISO 7899-2 STN EN ISO 7899-2	Drinking, bottled, pool, raw, treated ⁹⁰ , ground, surface, waste water
4.4 ¹	Enumeration of culturable microorganisms a) at 22 °C b) at 36 °C by cultivation	ČSN EN ISO 6222 STN EN ISO 6222	Drinking, bottled, natural, mineral, pool, raw, treated ⁹⁰ , ground water

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
4.5 ¹	Enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by membrane filtration	ČSN 75 7835	Drinking, surface, ground, pool, waste water
4.6 ¹	Enumeration of <i>Escherichia coli</i> and coliform bacteria by membrane filtration	ČSN EN ISO 9308-1 STN EN ISO 9308-1	Drinking, pool, bottled, raw, treated ⁹⁰ , ground water
4.7 ¹	Enumeration of <i>Pseudomonas aeruginosa</i> by membrane filtration	ČSN EN ISO 16266 STN EN ISO 16266	Drinking, bottled, natural mineral, pool, surface, waste water
4.8 ¹	Enumeration of coagulase-positive staphylococci (<i>Staphylococcus Aureus</i> and other species) by membrane filtration	ČSN EN ISO 6888-1 ČSN EN ISO 8199	Pool, surface, waste, drinking, ground water
4.9 ¹	Enumeration of <i>Candida</i> yeasts by membrane filtration	CZ_SOP_D06_04_258 (Hausler, J.: Microbiological Culture Methods of Quality Inspection, Volume III, 1995)	Pool, surface, waste water
4.10 ¹	Enumeration of <i>Clostridium perfringens</i> by membrane filtration	CZ_SOP_D06_04_259 (GR 252/2004 Coll., Annex 6, GR No. 354/2006 Coll., Annex.3)	Drinking, bottled, pool, natural mineral, raw, treated ⁹⁰ , ground water
4.11 ¹	Detection of <i>Salmonella</i> by membrane filtration	ČSN ISO 19250	Drinking, surface, ground, pool, waste water
4.12 ¹	Determination of bioseston by microscopy	ČSN 75 7712 STN 757711	Drinking, bottled, raw, treated ⁹⁰ , ground water
4.13 ¹	Determination of abioseston by microscopy	ČSN 75 7713 STN 757712	Drinking, bottled, raw, treated ⁹⁰ , ground water
4.14 ¹	Detection and enumeration of <i>Legionella</i> by cultivation and membrane filtration	ČSN EN ISO 11731	Water ⁹¹ , treated water ⁹⁰
4.15 ¹	Detection and enumeration of <i>Legionella</i> by cultivation	ČSN EN ISO 11731	Sediments, alluvium, growths
4.16 ¹	Detection and enumeration of <i>Legionella</i> by cultivation	ČSN EN ISO 11731	Swabs
4.17 ¹	Enumeration of Coliform bacteria by membrane filtration	ČSN 75 7837	Non-disinfected water
4.18 ¹	Enumeration of sulphite the spores of sulfite-reducing anaerobes (<i>Clostridium</i>) by membrane filtration	ČSN EN 26461-2	Water ⁹¹
4.19 ¹	Microbiological testing of water for haemodialysis. Enumeration of viable microorganisms	CZ_SOP_D06_04_266 (ČSN EN ISO 23500-3)	Dialysis water
4.20 ¹	Microbiological testing of dialysis fluid for haemodialysis. Enumeration of viable microorganisms	CZ_SOP_D06_04_267 (ČSN EN ISO 23500-5)	Dialysis fluid
4.21 ¹	Determination of the concentration of bacterial endotoxins by the LAL test: turbidimetric kinetic method	CZ_SOP_D06_04_268 (Ph. Eur. chapter 2.6.14)	Dialysis water, dialysis fluid, water purified, water highly purified, water for injection
4.22 ¹	Determination of the total number of micro-organisms	CZ_SOP_D06_04_269 (Ph. Eur chapter 6.3:0008, 6.3:1927, 6.3:0169)	Water purified, water highly purified, water for injection

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
4.23 ¹	Test for specific micro-organisms – Detection of <i>Pseudomonas Aeruginosa</i> bacteria	CZ_SOP_D06_04_270 (Ph. Eur chapter 6.3:0008, 6.3:1927, 6.3:0169)	Water purified, water highly purified, water for injection
5	Microbiology		
5.1 ¹	Enumeration of microorganisms by cultivation	ČSN EN ISO 4833-1	Food, feed ⁸³ , dietary supplements
5.2 ¹	Enumeration of coliform bacteria by cultivation	ČSN ISO 4832	Food, feed ⁸³ , dietary supplements
5.3 ¹	Enumeration of enterococci by cultivation	CZ_SOP_D06_04_302 (ČSN 56 0100:1994)	Food, feed ⁸³ , dietary supplements
5.4 ¹	Enumeration of <i>Bacillus cereus</i> by cultivation	ČSN EN ISO 7932	Food, feed ⁸³ , dietary supplements
5.5 ¹	Enumeration of coagulase-positive staphylococci (<i>Staphylococcus aureus</i> and other species) by cultivation	ČSN EN ISO 6888-1	Food, feed ⁸³ , dietary supplements
5.6 ¹	Enumeration of <i>Clostridium perfringens</i> by cultivation	ČSN EN ISO 7937	Food, feed ⁸³ , dietary supplements
5.7 ¹	Detection of <i>Salmonella</i> by cultivation	ČSN EN ISO 6579-1	Food, feed ⁸³ , dietary supplements
5.8 ¹	Detection of <i>Salmonella</i> by cultivation	CZ_SOP_D06_04_307, except chap. 9.1.2 (ČSN EN ISO 6579, AHM No. 1/2008)	Sludge, bio waste, compost, substrates, soils
5.9 ¹	Detection of <i>Salmonella</i> by cultivation	CZ_SOP_D06_04_307, except chap. 9.1.1 (ČSN EN ISO 6579, AHM No. 1/2008)	Biological materials ⁷⁷
5.10 ¹	Determination of inhibiting substances by Delvotest method	CZ_SOP_D06_04_308 (O.K. Servis BioPro Manual)	Milk
5.11 ¹	Detection of <i>Salmonella</i> by ELISA method - commercial set Solus Salmonella	CZ-SOP-D06_04_309 (Solus Manual)	Food, feed ⁸³ , dietary supplements
5.12 ¹	Enumeration of yeasts and moulds by cultivation	ČSN ISO 21527-1,2	Food, feed ⁸³ , dietary supplements
5.13 ¹	Detection of <i>Enterobacteriaceae</i> by cultivation	ČSN ISO 21528-1	Food, feed ⁸³ , dietary supplements
5.14 ¹	Enumeration of spore-forming microorganisms by cultivation	CZ_SOP_D06_04_312 (ČSN 56 0100:1994, Article 87)	Food, feed ⁸³
5.15 ¹	Detection of <i>Vibrio parahaemolyticus</i> and <i>Vibrio species</i> by cultivation	ČSN EN ISO 21872-1,2	Food, feed ⁸³
5.16 ¹	Enumeration of mesophilic lactic acid bacteria by cultivation	ČSN ISO 15214	Food, feed ⁸³ , dietary supplements
5.17 ¹	Detection of <i>Shigella spp.</i> by cultivation	ČSN EN ISO 21567	Food, feed ⁸³
5.18 ¹	Detection of <i>Campylobacter spp.</i> by cultivation	ČSN EN ISO 10272-1	Food, feed ⁸³
5.19 ¹	Detection of presumptive pathogenic <i>Yersinia enterocolitica</i> by cultivation	ČSN EN ISO 10273	Food, feed ⁸³
5.20 ¹	Enumeration of Enterobacteriaceae by cultivation	ČSN ISO 21528-2	Food, feed ⁸³ , dietary supplements
5.21 ¹	Enumeration of beta-glucuronidase-positive <i>Escherichia coli</i> by cultivation	ČSN ISO 16649-2	Food, feed ⁸³ , dietary supplements

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
5.22 ¹	Detection and enumeration of <i>Listeria monocytogenes</i> by cultivation	ČSN EN ISO 11290-1 ČSN EN ISO 11290-2	Food, feed ⁸³ , dietary supplements
5.23 ¹	Enumeration of potentially toxigenic moulds on special media by cultivation	CZ_SOP_D06_04_321 (AHEM No. 1/2003)	Food, feed ⁸³
5.24 ¹	Enumeration of microorganisms in air by aeroscopy and sedimentation method	CZ_SOP_D06_04_322 (ČSN 56 0100:1994, Article 149, 150 AHEM No. 1/2002)	Internal air environment
5.25 ¹	Determination of microbial contamination of areas, surface of equipment and packages using swab method	CZ_SOP_D06_04_323 (ČSN 56 0100:1994, Article 145)	Areas, surface, packaging materials, surface of food
5.26 ¹	Enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by cultivation	CZ_SOP_D06_04_324 (AHEM No. 1/2008, ČSN ISO 16649-2)	Sludge, bio waste, compost, substrates, soils, sand
5.27 ¹	Enumeration of enterococci by cultivation	CZ_SOP_D06_04_325 (AHEM No. 1/2008, ČSN EN ISO 7899-2)	Sludge, bio waste, compost, substrates, soils, sand
5.28 ¹	Detection of <i>Listeria</i> by ELISA method - commercial set Solus Listeria	CZ_SOP_D06_04_326 (Solus Manual)	Food, feed ⁸³ , dietary supplements
5.29 ¹	Determination of the number of coagulase-positive staphylococci (<i>Staphylococcus aureus</i> and other species) - method of detection	ČSN EN ISO 6888-3	Food, feed ⁸³ , dietary supplements
5.30 ¹	Determination of low numbers of <i>Bacillus cereus</i> - method of detection	ČSN EN ISO 21871	Food, feed ⁸³ , dietary supplements
5.31 ¹	Detection of <i>Cronobacter (Enterobacter) sakazakii</i> by cultivation	ČSN EN ISO 22964	Milk and milk products
5.32 ¹	Detection and enumeration of aerobic mesophilic bacteria by cultivation	ČSN EN ISO 21149	Cosmetics
5.33 ¹	Detection of <i>Pseudomonas aeruginosa</i> by cultivation	ČSN EN ISO 22717 ČSN EN ISO 18415	Cosmetics
5.34 ¹	Detection of <i>Staphylococcus aureus</i> by cultivation	ČSN EN ISO 22718 ČSN EN ISO 18415	Cosmetics
5.35 ¹	Detection of <i>Candida albicans</i> by cultivation	ČSN EN ISO 18416 ČSN EN ISO 18415	Cosmetics
5.36 ¹	Detection of <i>Escherichia coli</i> by cultivation	ČSN EN ISO 21150 ČSN EN ISO 18415	Cosmetics
5.37 ¹	Enumeration of yeast and mould by cultivation	ČSN EN ISO 16212	Cosmetics
5.38 ¹	Evaluation of antimicrobial protection of cosmetic product, test of conservation effectiveness	CZ_SOP_D06_04_336 (ČSN EN ISO 11930, Ph. Eur., chapter 5.1.3)	Cosmetics
5.39 ¹	Horizontal method for the detection and enumeration of presumptive <i>Escherichia coli</i> - Technique of most probable number	ČSN ISO 7251 expect article 9.2	Food, feed ⁸³
5.40 ¹	Microbiological testing of non-sterile products – Determination of the number of microorganisms	CZ_SOP_D06_04_338 (Ph. Eur., chapter 2.6.12)	Pharmaceutical products, intermediates, raw materials. veterinary medicines, biopreparations, dietary supplements
5.41 ¹	Microbiological testing of non-sterile products – Tests for specific micro-organisms	CZ_SOP_D06_04_339 (Ph. Eur., chapter 2.6.13)	Pharmaceutical products, intermediates, raw materials.

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
			veterinary medicines, biopreparations, dietary supplements
6	Ecotoxicology		
6.1 ²	Determination of the acute lethal toxicity of substance to a freshwater fish	CZ_SOP_D06_07_350 (ČSN EN ISO 7346-1, ČSN EN ISO 7346-2, STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.2 ²	Determination of the inhibition of the mobility of <i>Daphnia magna</i> Straus - Acute toxicity test	CZ_SOP_D06_07_351 (ČSN EN ISO 6341, STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.3 ²	Freshwater algal growth inhibition test	CZ_SOP_D06_07_352 (ČSN EN ISO 8692, STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.4 ²	Toxicity test on seeds of white mustard (<i>Sinapis alba</i>)	CZ_SOP_D06_07_353 (Ministry of Environment Bulletin, Volume XVII, Part 4/2007, p. 13-14; Waste Department Guidance for the determination of waste ecotoxicity, Annex 1 "Test on the seeds of white mustard (<i>Sinapis alba</i>)", STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.5 ²	Determination of the inhibitory effect of water samples on the light emission of <i>Vibrio fischeri</i>	CZ_SOP_D06_07_354 (ČSN EN ISO 11348-2)	Surface, ground and waste water ⁸⁴ , extracts ⁹² , percolation water, saline, and brackish water
6.6 ²	<i>Folsomia candida</i> reproduction test – determination of the inhibition.	CZ_SOP_D06_07_355 (ČSN EN ISO 11267)	Waste, soils, sediments
6.7 ²	<i>Enchytraeus crypticus</i> reproduction test – determination of inhibition	CZ_SOP_D06_07_356 (ČSN EN ISO 16387)	Waste, soils, sediments
6.8 ²	<i>Lactuca sativa</i> – determination of inhibition of root growth	CZ_SOP_D06_07_357 (ČSN EN ISO 11269-1)	Waste, soils, sediments
6.9 ²	Determination of nitrification activity and its inhibition	CZ_SOP_D06_07_358 (ČSN ISO 15685)	Waste, soils, sediments
6.10 ²	Determination of the inhibition of the growth, germination, and germination index (phytotoxicity) of Garden Cress (<i>Lepidium sativum</i>) - Acute toxicity test	CZ_SOP_D06_07_359 (F. Zucconi et al.: Biological evaluation of compost maturity. BioCycle, 22(2), 1981, pages 27–29.)	Surface, ground and waste water ⁸⁴ , extracts of waste and composts, solutions and extracts of chemical substances and agents
6.11 ²	Determination of the inhibition of the growth of Lesser Duckweed (<i>Lemna minor</i>) - Acute toxicity test	CZ_SOP_D06_07_1350 (ČSN EN ISO 20079)	Surface, ground and waste water ⁸⁴ , extracts of waste and composts, solutions and extracts of chemical substances and agents

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
7	Radiology		
7.1 ²	Determination of gross alpha activity by measuring evaporated residue in a mixture with ZnS(Ag) scintillator	ČSN 75 7611, chap. 4	Water ⁹¹ , extracts ⁹²
7.2 ²	Determination of gross alpha activity by measuring incinerated evaporated residue by means of proportional detector	ČSN 75 7611, chap. 5	Water ⁹¹ , extracts ⁹²
7.3 ²	Determination of gross beta activity by measuring evaporated residue by means of proportional detector and calculation of gross beta activity corrected for potassium 40 from measured values	CZ_SOP_D06_07_361 (ČSN 75 7612, ČSN EN ISO 9697, SÚJB Recommendation „Measurement and assessment of the content of natural radionuclides in drinking water from public sources and bottled water”, DR-RO-5.1 (Rev. 0.0), Prague 2017)	Water ⁹¹ , extracts ⁹²
7.4 ²	Determination of radium 226 after concentration by scintillation emanometry	ČSN 75 7622	Water ⁹¹ , extracts ⁹²
7.5 ²	Determination of radon 222 by scintillation emanometry after its transportation into scintillation chamber using vacuum	CZ_SOP_D06_07_363.A (ČSN 75 7624, chap. 5)	Water ⁹¹ , extracts ⁹²
7.6 ²	Determination of radon 222 by scintillation gamma-spectrometry with a well type NaI(Tl) crystal	CZ_SOP_D06_07_363.B (ČSN 75 7624, chap. 6)	Water ⁹¹ , extracts ⁹²
7.7 ²	Determination of radon 222 by liquid scintillation counting method (LSC)	CZ_SOP_D06_7_363.C (ČSN 75 7625)	Water ⁹¹
7.8 ²	Determination of uranium by spectrophotometry after separation on silica gel and calculation of ²³⁸ U from measured values	CZ_SOP_D06_07_364 (ČSN 75 7614)	Water ⁹¹ , extracts ⁹²
7.9 ²	Determination of tritium volume activity by liquid scintillation counting method (LSC)	CZ_SOP_D06_07_365 (ČSN EN ISO 9698)	Water ⁹¹ , extracts ⁹²
7.10 ²	Determination of polonium 210 after its concentration by sorption on ZnS(Ag) by the measurement of emitted scintillations	ČSN 75 7626	Water ⁹¹ , extracts ⁹²
7.11 ²	Determination of polonium 210 after total decomposition and after its concentration by sorption on ZnS(Ag) by the measurement of emitted scintillations	CZ_SOP_D06_07_366 (ČSN 75 7626)	Soils, sludge, sediments, filters
7.12 ²	Non-destructive determination of radionuclides ²⁵⁾ by high resolution gamma-spectrometry and calculation of the mass activity index I (ACI) from the measured volumetric activities of individual radionuclides	CZ_SOP_D06_07_367 (ČSN EN ISO 10703, SÚJB Recommendation “Measurement and evaluation of natural radionuclides in building materials”, DR-RO-5.2 (Rev. 0.0), Prague 2017	Solid samples with granularity up to 4 mm, food, water ⁹¹ , liquid samples ⁸¹
7.13 ²	Determination of gross alpha mass activity by direct measurement of the sample by means of alpha radiation analyser	CZ_SOP_D06_07_368 (ČSN 75 7611, ISO 9696)	Solid samples ⁸⁵ pulverized for grain size below 100 µm, liquid samples ⁸¹ with boiling point above 100 °C

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
7.14 ²	Determination of gross beta mass activity by direct measurement of the sample by means of beta radiation analyser	CZ_SOP_D06_07_369 (ČSN 75 7612, ČSN EN ISO 9697)	Solid samples ⁸⁵ pulverized for grain size below 100 µm, liquid samples ⁸¹ with boiling point above 100 °C
7.15 ²	Determination of lead 210 after its sorption on ZnS-colloid by beta radiation analyzer	CZ_SOP_D06_07_370 (ČSN 75 7627)	Water ⁹¹ , extracts ⁹² (with low content of suspended solids or filtrated through 0.45 µm filter)
7.16 ²	Determination of gross alpha activity by co-precipitation method by measurement of filtrated precipitate by means of proportional detector	CZ_SOP_D06_07_371 (ČSN 75 7610)	Water ⁹¹ , extracts ⁹²
7.17 ²	Calculation of Indicative Dose (ID) ⁶⁶ from the measured values of volume activities of individual radionuclides	CZ_SOP_D06_07_372 (SÚJB Recommendation „Measurement and assessment of the content of natural radionuclides in drinking water from public sources and bottled water”, DR-RO-5.1 (Rev. 0.0), Prague 2017, Council Directive 2013/51 / EURATOM of 22. 10. 2013)	Water ⁹¹
7.18 ²	Determination of strontium 90 by proportional detector after separation	CZ_SOP_D06_07_373 (ASTM D5811-00)	Water ⁹¹
7.19 ²	Determination of strontium 90 by proportional detector after separation	CZ_SOP_D06_07_373 (ASTM D5811-00, ASTM C1507-20)	Soils, sludge, sediments
7.20 ²	Determination of strontium 90 by proportional detector after separation	CZ_SOP_D06_07_373 (ASTM D5811-00, ASTM C1507-20)	Biological materials ⁷⁷ , food, feed ⁸³
7.21 ²	Determination of carbon 14 by liquid scintillation method after separation	CZ_SOP_D06_07_374 (ČSN EN ISO 13162, ČSN EN 16640 US EPA 520/5-84-006)	Water ⁹¹ , soils, sludge, sediments, bioindicators ⁷⁶ , food
7.22 ²	Determination of total volume alpha and beta activities by liquid scintillation counting method (LSC)	CZ_SOP_D06_07_375 (ČSN EN ISO 11704, ASTM D7283-17)	Non salted water
7.23 ²	Determination of radium 226 and 228 by liquid scintillation measurement method (LSC)	CZ_SOP_D06_07_376 (ČSN EN ISO 22908)	Water ⁹¹
8	Tribology		
8.1 ¹¹	Determination of kinematic viscosity by viscometer and viscosity index by calculation	CZ_SOP_D06_05_400 (ČSN EN ISO 3104, ČSN ISO 2909, ASTM D7279, ASTM D7042)	Liquid fuels, lubricating oils
8.2 ¹¹	Determination of flash point - Pensky-Martens closed cup method by flash point analyser	CZ_SOP_D06_05_401 (ČSN EN ISO 2719, ASTM D93)	Diesel, light fuel oils

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
8.3 ¹¹	Determination of liquid cleanliness code by particle counter	CZ_SOP_D06_05_402 (User Manual for Lase Net Fines-C use and maintenance, ČSN ISO 4406)	Liquid fuels, lubricating oils
8.4 ¹¹	Determination of base number by potentiometric titration	CZ_SOP_D06_05_403 (ČSN ISO 3771)	Lubricating oils, additives to lubricants
8.5 ¹¹	Determination of neutralization number by potentiometric titration	CZ_SOP_D06_05_404 (ČSN ISO 6619)	Lubricating oils, additives to lubricants
8.6 ¹¹	Determination of water content by coulometric method	CZ_SOP_D06_05_405 (ASTM D6304)	Liquid fuels, lubricating oils
8.7 ¹¹	Determination of flash point and burning point in open cup according to Cleveland by flash point analyser	CZ_SOP_D06_05_406 (ASTM D92)	Liquid fuels, lubricating oils
8.8 ¹¹	Determination of Cold Filter Plugging Point (CFPP) by the method of gradual cooling	CZ_SOP_D06_05_407 (ČSN EN 116, ASTM D6371)	Diesel, light fuel oils
9	General Food Chemistry		
9.1 ¹	Determination of organic acids ⁶⁸ content by capillary isotachopheresis method	CZ_SOP_D06_04_450 (Recman - Laboratory technique – Application sheets No. 35, 39, 70)	Food, feed ⁸³
9.2 ¹	Gravimetric determination of fat	CZ_SOP_D06_04_451 (ČSN ISO 1443, ČSN ISO 1444, ČSN 46 7092-7)	Food, feed ⁸³
9.3 ¹	Gravimetric determination of dry matter and calculation of moisture from measured value	CZ_SOP_D06_04_452 (Journal of AOAC International vol 88, No1,2005; Journal of AOAC International vol 86, No6, 2003)	Food, feed ⁸³ , dietary supplements
9.4 ¹	Determination of nitrate and nitrite by capillary isotachopheresis	CZ_SOP_D06_04_453 (ITP: Application sheet No. 33 VILLA LABECO s.r.o.)	Food, feed ⁸³
9.5 ¹	Determination of phosphates by capillary isotachopheresis	CZ_SOP_D06_04_454 (ITP: Application sheet No. 35 VILLA LABECO s.r.o.)	Food, feed ⁸³
9.6 ¹	Gravimetric determination of water extract content	ČSN 58 0113, Article 38	Coffee
9.7 ¹	Determination of acid value and acidity by titration	CZ_SOP_D06_04_456 (ČSN EN ISO 660)	Animal and vegetable fats and oils
9.8 ¹	Determination of polyols ⁷⁵ by ion chromatographic method with EC detection	CZ_SOP_D06_04_457 (ČSN EN 15086, DIONEX Technical Note 20)	Food, feed ⁸³ , dietary supplements
9.9 ¹	Gravimetric determination of ash	CZ_SOP_D06_04_458 (ČSN 56 0116-4)	Food, feed ⁸³
9.10 ¹	Determination of crude fibre by oxidation hydrolysis method	CZ_SOP_D06_04_459 (ČSN ISO 5498, ČSN EN ISO 6865)	Feed ⁸³
9.11 ¹	Determination of pH by potentiometry	CZ_SOP_D06_04_460 (ČSN ISO 2917, ČSN ISO 1842)	Food, feed ⁸³
9.12 ¹	Determination of sand by gravimetry	CZ_SOP_D06_04_461 (ČSN 56 0246-12)	Food, feed ⁸³

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
9.13 ¹	Determination of relative density of liquids by pycnometer	CZ_SOP_D06_04_462 (ČSN EN 1131)	Low viscosity liquids
9.14 ¹	Titrimetric determination of acidity	CZ_SOP_D06_04_463 (ČSN ISO 750, ČSN 56 0116, ČSN 57 0530, ČSN EN 12147, ČSN 56 0246-13)	Fruit juices, fruit and vegetable products, mayonnaise, water-soluble food, dairy products, bakery products
9.15 ¹	Determination of moisture content – distillation method	CZ_SOP_D06_04_464 (ČSN ISO 939)	Spices, mixed condiments
9.16 ¹	Determination of dietary fibre enzymatically by commercial set Megazyme	CZ_SOP_D06_04_465 (AOAC Method 985.29)	Food, dietary supplements
9.17 ¹	Determination of starch content by polarimetry	CZ_SOP_D06_04_466 (ČSN 46 7092-21)	Cereals, baking products, cereal feeds ⁸³
9.18 ¹	Determination of chloride by coulometric titration	CZ_SOP_D06_04_467 (O.K. SERVIS company Chloride Analyser manual)	Food, feed ⁸³ , dietary supplements
9.19 ¹	Determination of reducing sugars and total sugars after iodometric inversion and calculation of non-reducing sugars from measured values	CZ_SOP_D06_04_468 (ČSN 56 0146)	Food, feed ⁸³ , dietary supplements
9.20 ¹	Determination of alkalinity of water-soluble ash by titration	ČSN ISO 1578	Tea
9.21 ¹	Gravimetric determination of total ash	ČSN ISO 1575	Tea
9.22 ¹	Gravimetric determination of water-soluble and water-insoluble ash	ČSN ISO 1576	Tea
9.23 ¹	Gravimetric determination of acid-insoluble ash	ČSN ISO 1577	Tea
9.24 ¹	Gravimetric determination of water extract	ČSN ISO 9768	Tea
9.25 ¹	Gravimetric determination of looses in mass at 103°C	ČSN ISO 1573	Tea
9.26 ¹	Determination of total nitrogen by Dumas method by analyser and protein calculation from measured values	CZ_SOP_D06_04_475 (ČSN EN ISO 14891, ČSN EN ISO 16634-1, ČSN EN ISO 16634-2)	Food, feed ⁸³ , dietary supplements
9.27 ¹	Volumetric determination of volatile oils (essential oils) by distillation with steam	ČSN EN ISO 6571	Spices, spicing agents, herbs
9.28 ¹	Determination of the weight of consumer packaging of food and animal feeding stuff products by gravimetry	CZ_SOP_D06_04_477 (ČSN 560305, ČSN 570146-3, ČSN 580170-3)	Food, feed ⁸³ , dietary supplements
9.29 ¹	Determination of the meat content in meat products and products containing meat by calculation from measured values ⁶³	CZ_SOP_D06_04_478 (Commission Directive No. 2001/101/EC, Commission Regulation No. 2004/2002/EC, Commission Regulation No. 2429/86/EEC, Decree 330/2009 Coll.)	Meat products
9.30 ¹	Determination of carbohydrates and energy values by calculation from measured values ⁶⁴	CZ_SOP_D06_04_479 (Regulation (EU) 1169/2011, Decree 330/2009 Coll.)	Food, raw materials for production of food, dietary supplements

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
9.31 ¹	Determination of non-protein content substances by calculation ⁶⁵	ČSN 46 7092-24	Feed ⁸³
9.32 ¹	Determination of 4-hydroxyproline by spectrophotometry and calculation of collagen from measured values	CZ_SOP_D06_04_481 (ISO 3496)	Meat products
9.33 ¹	Determination of fat content by NMR method	CZ_SOP_D06_04_482 (Journal of AOAC International vol 88, No. 1, 2005, Journal of AOAC International vol 86, No. 6, 2003)	Selected food ⁹⁵ and raw materials for production of food, feed ⁸³ , dietary supplements
9.34 ¹	Volumetric determination of peroxide value	CZ_SOP_D06_04_483 (ČSN EN ISO 3960)	Fats and vegetable oils
9.35 ¹	Determination of water activity by capacitive sensor method	ČSN ISO 21807	Food, raw materials for production of food, dietary supplements
9.36 ¹	Determination of net muscle protein by calculation from the content of collagen and protein	CZ_SOP_D06_04_485 (Decree No. 69/2016 Coll.)	Meat, meat products
9.37 ¹	Identification of synthetic dyes ⁵⁷ by thin-layer chromatography method	CZ_SOP_D06_04_486 (Davišek J., Laboratory Manual of Food Analysis, 1981)	Food
9.38 ¹	Determination of piperine content by spectrophotometry	ČSN ISO 5564	Black pepper and white pepper, whole or ground
9.39 ¹	Determination of starch in meat products by titration	CZ_SOP_D06_04_488 (BS 4401 Part 12:1979 Determination of Starch Content of Meat Products)	Meat products
9.40 ¹	Determination of total sulphur dioxide after distillation by titration	CZ_SOP_D06_04_489 (Prof. Ing. J. Davídek, DrSc. et al.: Laboratory Manual of Food Analysis, SNTL 1981)	Food and raw materials for food production, dietary supplements
9.41 ¹	Determination of total sulphur dioxide after distillation by ITP	CZ_SOP_D06_04_489 (Prof. Ing. J. Davídek, DrSc. et al.: Laboratory Manual of Food Analysis, SNTL 1981, Application sheet No. 33 Villa Labeco)	Food and raw materials for food production, dietary supplements
9.42 ¹⁰	Sensory testing – description test	CZ_SOP_D06_04_490 (ČSN ISO 6658, ČSN EN ISO 8589, ČSN EN ISO 13299, ČSN ISO 13300-1,2)	Food, cosmetics, packaging materials for food, consumer goods
9.43 ¹⁰	Sensory testing – comparison to standard	CZ_SOP_D06_04_491 (ČSN ISO 6658, ČSN ISO EN 8589, ČSN EN ISO 13299, ČSN ISO 13300-1,2)	Food, cosmetics, packaging materials for food, consumer goods
9.44 ¹⁰	Assessment of characteristics of food	CZ_SOP_D06_04_492 (ČSN EN ISO 8589, ČSN EN ISO 13299, ČSN ISO 13300-1,2)	Food
9.45 ¹	Determination of density by density meter	CZ_SOP_D06_04_493 (ČSN 57 0530)	Milk and milk products

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
9.46 ¹	Determination of sugars ⁶⁹ by ion chromatography method with EC detection	CZ_SOP_D06_04_494 (ČSN EN 12630)	Food, feed ⁸³ , dietary supplements
9.47 ¹	Determination of ethanol after distillation by gravimetry	CZ_SOP_D06_04_495 (ČSN 56 0186-5, ČSN 56 0210, ČSN 56 0216)	Alcoholic beverages

Annex:

Flexible scope of accreditation

Ordinal numbers of tests
1.1 - 1.12; 1.15 - 1.18; 1.41; 1.44; 1.48; 1.51; 1.67 - 1.68, 1.70; 1.84; 1.91; 1.113 - 1.116; 1.128; 1.131 - 1.132; 1.138; 1.140; 1.146; 1.151 - 1.152; 1.157; 1.159; 1.163 - 1.165; 1.178; 1.181
2.1 - 2.14; 2.16 - 2.34; 2.38 - 2.41; 2.43 - 2.46; 2.51 - 2.55; 2.57 - 2.86; 2.88 - 2.91
3.1-3.22; 3.24 - 3.36
6.1-6.11
7.3; 7.12; 7.17
9.1; 9.8, 9.37; 9.46

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed. The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.

Sampling:

Ordinal number ¹	Sampling procedure name	Sampling procedure identification ²	Subject of sampling
1 ^{1,2,4,5,6,7,8,9}	Sampling of grab sample of surface water manually	CZ_SOP_D06_01_V01 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-4, ČSN EN ISO 5667-6, ČSN EN ISO 5667-14)	Surface water
2 ^{1,2,3,4,5,6,7,8,9}	Sampling of grab sample of waste water manually	CZ_SOP_D06_01_V02 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-10, ČSN EN ISO 5667-14,)	Waste water ⁸⁴
3 ^{1,2,3,4,5,6,7,8,9,12}	Sampling of drinking water and hot drinking water manually	CZ_SOP_D06_01_V03 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-5, ČSN EN ISO 5667-14, ČSN EN ISO 5667-21, ČSN EN ISO 19458, Decree 252/2004 Coll., Decree of SÚJB No. 307/2002 Coll.)	Drinking water, hot water

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Sampling procedure name	Sampling procedure identification ²	Subject of sampling
4 ^{1,2,3,4,5,6,7,8,9}	Sampling of mixed sample of waste water manually and using an automatic sampler	CZ_SOP_D06_01_V04 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-10, ČSN EN ISO 5667-14)	Waste water ⁸⁴
5 ^{1,2,3,4,5,7,8,9}	Sampling of treated water manually	CZ_SOP_D06_01_V05 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-5, ČSN ISO 5667-7, ČSN EN ISO 5667-14)	Treated water ⁹⁰
6 ^{1,2,3,4,5,6,7,8,9}	Sampling of water from artificial bathing site manually	CZ_SOP_D06_01_V06 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-4, ČSN ISO 5667-5, ČSN EN ISO 5667-6, ČSN EN ISO 5667-14, ČSN EN ISO 19458, ČSN EN 15288-2, Decree No. 238/2011 Coll.)	Pool water and filling water of artificial bathing sites
7 ^{1,2,3,4,5,6,7,8,9}	Sampling of grab sample of ground water manually and using pumps	CZ_SOP_D06_01_V07 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-11, ČSN EN ISO 5667-14)	Ground water from boreholes and wells
8 ^{1,2,4,5,6,7,8,9}	Sampling of surface swab manually	CZ_SOP_D06_01_V08 (ČSN 56 0100:1994, ČSN EN ISO 18593, Decree No. 289/2007 Coll., ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-14)	Contaminated surfaces
9 ^{1,2,4,5,6,7,8,9}	Sampling of sludge from sewage and treatment plants manually	CZ_SOP_D06_01_V09 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-13, ČSN EN ISO 5667-14, ČSN EN ISO 5667-15, ČSN EN ISO 19458)	Sludge from water treatment plants, sludge dumps
10 ^{1,2,3,4,5,6,7,8,9}	Sampling of bottom sediments manually	CZ_SOP_D06_01_V10 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-12, ČSN EN ISO 5667-14, ČSN EN ISO 5667-15, ČSN ISO 5667-17)	Bottom sediments from streams and reservoirs
11 ^{1,2,3,4,5,6,7,8,9}	Sampling of soils manually	CZ_SOP_D06_01_V11 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-13, ČSN EN ISO 5667-14,	Soils

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Sampling procedure name	Sampling procedure identification ²	Subject of sampling
		ČSN EN ISO 5667-15, TNI CEN/TR 15310-1, TNI CEN/TR 15310-2, TNI CEN/TR 15310-3, TNI CEN/TR 15310-4, TNI CEN/TR 15310-5, ČSN 015110, ČSN 015111, ČSN EN 14899, ČSN EN ISO 19458)	
12 ^{1,2,3,4,5,6,7,8,9}	Sampling of waste manually	CZ_SOP_D06_01_V12 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-13, ČSN EN ISO 5667-14, ČSN EN ISO 5667-15, TNI CEN/TR 15310-1, TNI CEN/TR 15310-2, TNI CEN/TR 15310-3, TNI CEN/TR 15310-4, TNI CEN/TR 15310-5, ČSN 015110, ČSN 015111, ČSN 015112, ČSN EN 14899, ČSN EN ISO 19458, ČSN EN ISO 3170, Methodological Guide of ME for Waste Sampling 2008, 101s)	Waste
13 ^{1,2,4,5,6,7}	Air sampling by personal pump	CZ_SOP_D06_01_V13 (ČSN EN 481, ČSN EN 482, ČSN EN 689+AC, GR No. 361/2007 Coll.)	Working environment ⁸⁷
14	Reserved		
15 ^{1,2,7}	Gas sampling for the determination of ammonia	CZ_SOP_D06_01_V15 (ČSN 834728)	Gases ⁸⁶
16 ¹	Stationary air sampling for the determination of the number of asbestos and mineral fibers	CZ_SOP_D06_01_V16 (ISO 14966, chap. 5; VDI 3492, chap. 5 and 6, ČSN EN ISO 16000-7; ČSN EN 482, GR No. 361/2007, Coll. Annex No. 3)	Outdoor and indoor air, working environment ⁸⁷
17 ¹	Sampling for the asbestos determination	CZ_SOP_D06_01_V17 (VDI 3866, part 1)	Building materials ⁸² , materials for building ⁸⁹ ,

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Used abbreviations

AHEM	Acta hygienica, epidemiologica et microbiologica
AITM	Airbus methods
BDE	Brominated diethylethers
BFR	Brominated flame retardants
ACI	Activity Concentration Index
CFA	Continuous Flow Analyser
CFPP	Cold Filter Plugging Point
ČL	Czech Pharmacopoeia
DIN	Deutscher Institut fuer Normung
DM 06/09/94 GU n° 288 10/12/1994 All. 1 Met. B.	Decree of 06/09/1994 (Decreto Ministeriale 6 settembre 1994), published in Bulletin No. 288 10/12/1994
EC	Electrochemical detection
ECD	Electron Capture Detector
FID	Flame Ionization Detector
FLD	Fluorescence Detector
GR	Government Regulation
HRGC/HRMS	High Resolution Gas Chromatography/High Resolution Mass Spectrometry
I	Mass activity index
ID	Indicative dose
IP	International Petroleum test method
IR	Infrared Region Detector
ISE	Ion Selective Electrode
ISO	International Organization for Standardisation
ITP	Isotachopheresis
LDN	Labor Diagnostika Nord GmbH & Co.KG
LSC	Liquid Scintillation Counting method for the determination of alpha- or beta- radiation emittingradionuclides
MS	Mass Detector
MUFA	Monounsaturated Fatty Acids
NEN	Nederlands Normalisatie-Institut
NIOSH	National Institute for Occupation Safety and Health
NIOSH ¹⁾	Methods used for CZ_SOP_D06_03_153 - NIOSH 1400, NIOSH 1450, NIOSH 1457, NIOSH 1500, NIOSH 1501, NIOSH 1003, NIOSH 1005, NIOSH 1007, NIOSH 1022, NIOSH 1602, NIOSH 1609
PBB	Polybrominated biphenyls
PhEur	European Pharmacopoeia
PDA	Photo-Diode-Array detector
PUFA	Polyunsaturated Fatty Acids
RI	Refractometric Detector
SAFA	Saturated Fatty Acids
SEM/EDS	Scanning Electron Microscope / Energy Dispersive Spectrometer
SFS	The Finish Standard Association

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

SM	Standard Methods – Standard US methods for the analysis of drinking and waste water prepared and issued by American Public Health Association, American Water Works Association and Water Environmental Federation, 21 st edition
SOP	Standard operating procedure
SPIMFAB	SPI MILJOSANERINGSFOND AB – method of Swedish Petroleum Institute
SPMD	Semi-Permeable Membrane Device
SS	Svensk Standard – Swedish standard
STN	Slovak Technical Standard
SÚJB	State Office for Nuclear Safety
Suma Ca+Mg	Water hardness
TCD	Thermal Conductivity Detector
TEQ	Toxic Equivalent
TFA	Trans Fatty Acids
TNV	Branch Technical Standard of Water Management
USBSC	Empirical formula for permeability of mixed materials, coefficient of permeability was extracted from gmbh analysis
US EPA	U.S. Environmental Protection Agency
USP	US Pharmacopoeia
UV	Ultraviolet Detector

Explanatory notes:

- ¹ Asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises. Superscript at the test ordinal number identifies the workplace carrying out the test.
- ² If the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes).
- ³ **Volatile organic compounds** – 1.1.1.2-Tetrachloroethane, 1.1.1-Trichloroethane, 1.1.2.2-Tetrachloroethane, 1.1.2-Trichloroethane, 1.1-Dichloroethane, 1.1-Dichloroethene, 1.1-Dichloropropene, 1.2.3.5-Tetramethylbenzene, 1.2.3-Trichlorobenzene, 1.2.3-Trichloropropane, 1.2.3-Trimethylbenzene, 1.2.4.5-Tetramethylbenzene, 1.2.4-Trichlorobenzene, 1.2.4-Trimethylbenzene, 1.2.5-Trimethylbenzene, 1.2-Dibromo-3-chloropropane, 1.2-Dibromoethane, 1.2-Diethylbenzene, 1.2-Dichlorobenzene, 1.2-Dichloroethane, 1.2-Dichloropropane, 1.3.5-Trichlorobenzene, 1.3.5-Trimethylbenzene, 1.3-Diethylbenzene, 1.3-Dichlorobenzene, 1.3-Dichloropropane, 1.4-Diethylbenzene, 1.4-Dichlorobenzene, 1.4-Dioxane, 1-Ethyl-2-Methylbenzene, 1-Ethyl-2-Methylbenzene, 1-Ethyl-3-Methylbenzene, 1-Ethyl-4-Methylbenzene, 2-butanone (methyl isobutyl ketone-MEK), 2.2-Dichloropropane, 2-Chlorotoluene, 4-Chlorotoluene, Acetone, Aliphates >C5-C8, Aliphates >C8-C10, Benzene, Bromobenzene, Bromodichloromethane, Bromochloromethane, Bromomethane, Bromoform, cis-1.2-Dichloroethene, cis-1.3-Dichloropropene, Cyclohexane, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Dichloromethane, Diisopropyl ether, Ethanol, Ethylbenzene, Ethyl tert-Butyl Ether (ETBE), Hexachlorobutadiene, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, Indane, Isobutanol, Isobutyl Acetate, Isopropylbenzene, Methyl ethyl ketone, Methyl isobutyl ketone, Methyl tert-Butyl Ether (MTBE), m-Xylene, Naphthalene, n-Butanol, n-Butyl Acetate, n-Butylbenzene, n-Hexane, n-Propylbenzene, o-Xylene, p-Isopropyltoluene, p-Xylene, sec-Butanol, sec-Butyl Acetate, sec-Butylbenzene, Styrene, TAEE, TBA, tert-Amyl Methyl Ether, tert-Butanol, tert-Butyl Acetate, tert-Butylbenzene, Tetraethyl lead, Tetrahydrofuran, Tetrahydrothiophene, Tetrachloroethene, Tetrachloromethane, Toluene, total VOC, trans-1.2-Dichloroethene, trans-1.3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride, Aliphates >C5-C6, Aliphates >C6-C8, Aromatics C6-C7, Aromatics >C7-C8, Aromatics >C8-C10, Aromatics >C5-C9, Aromatics >C9-C10, Fraction >C5-C10, Sums calculation according to CZ_SOP_D06_03_J02
- ⁴ **Volatile organic compounds** – 1.1-Dichloroethene, 1.2-Dichloroethane, 1.4-Dioxane, Benzene, Dichloromethane, Ethylbenzene, fraction of hydrocarbons C5(C6)-C12, Chloroform, cis-1.2-Dichloroethene, m-Xylene, Naphthalene, o-Xylene, p-Xylene, Styrene, Tetrachloroethene, Tetrachloromethane, Toluene, trans-1.2-Dichloroethene, Trichloroethene, Vinyl chloride, Aliphates >C5-C6, Aliphates >C6-C8, Aromatics C6-C7, Aromatics >C7-C8, Aromatics >C8-C10, Aromatics >C5-C9, Aromatics >C9-C10, Fraction >C5-C10, Sums calculation according to CZ_SOP_D06_03_J0
- ⁵ **Organic contaminants** – aliphates >C5-C8, aliphates >C8-C10, benzene, toluene, ethylbenzene, o-xylene, m-xylene, p-xylene, MTBE (methyl-terc-buthylether), 1,2-dichloroethane, 1,2-dibromomethane, aliphates >C10-C12, aliphates >C12-C16, aliphates >C16-C35, 1-ethyl-3-methylbenzene, 1-ethyl-4-methylbenzene, 1-ethyl-2-methylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, 1,3-diethylbenzene, 1,4-diethylbenzene, 1,2-diethylbenzene, 1,2,4,5-tetramethylbenzene, naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, biphenyl, 2+1-ethylnaphthalene, 1,7-dimethylnaphthalene, 2,6-dimethylnaphthalene, 1,4+2,3-dimethylnaphthalene, acenaphthylene, 1,8-dimethylnaphthalene, acenaphthene, 2,3,5-trimethylnaphthalene, fluorine, phenanthrene, anthracene, 2-methylanthracene, 1-methylanthracene, 2-methylphenanthrene, 1-methylphenanthrene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene, benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(a)-pyrene, indeno-(1,2,3,c,d)-pyrene, dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, methylpyrenes/ methylfluoranthenes, methylchrysenes/ methylbenzo-[a]-anthracenes, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,2,4-trichlorobenzene, 1,3,5-trichlorobenzene, 1,2,3,4-tetrachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,2,3,5-tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, PCB 28, PCB 52, PCB 101, PCB 118, PCB 153, PCB 138, PCB 180, sums calculation according to CZ_SOP_D06_03_J02
- ⁶ **Phenols, chlorinated phenols and cresols** – 2-chlorophenol, 3-chlorophenol, 4-chlorophenol, 2,6-dichlorophenol, 2,4+2,5-dichlorophenol, 3,5-dichlorophenol, 2,3-dichlorophenol, 3,4-dichlorophenol, 2,4,6-trichlorophenol, 2,3,6-trichlorophenol, 2,3,5-trichlorophenol, 2,4,5-trichlorophenol, 2,3,4-

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- trichlorophenol, 3,4,5- trichlorophenol, 2,3,5,6-tetrachlorophenol, 2,3,4,6- tetrachlorophenol, 2,3,4,5- tetrachlorophenol, pentachlorophenol, 4-chloro-2-methylphenol, 2-chloro-6-methylphenol, phenol, o-cresol, m-cresol, p-cresol, 2,3-dimethylphenol, 2,4-dimethylphenol, 2,5-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 3,4-dimethylphenol, 1- naphthol, 2- naphthol, sums calculation according to CZ_SOP_D06_03_J02
- Phthalates** – dimethylphthalate, diethylphthalate, di-n-propylphthalate, di-n-buthylphthalate, diisobuthylphthalate, dipentylphthalate, di-n-octylphthalate, bis-(2-ethylhexyl)-phthalate (DEHP), buthylbenzylphthalate, dicyclohexyl phthalate, di-iso-nonylphthalate, di-iso-decylphthalate, sums calculation according to CZ_SOP_D06_03_J02
- Sugars** – glucose, fructose, lactose, maltose, sucrose
- Semi-volatile organic compounds** – acenaphthene, acenaphthylene, anthracene, benzo-(a)-anthracene, benzo-(a)-pyrene, benzo-(a)-fluoranthene, benzo-(b)- fluoranthene, benzo(e)pyrene, benzo-(g,h,i)-perylene, benzo-(k)-fluoranthene, biphenyl, dibenzo-(a,h)-anthracene, diphenyl ether, phenanthrene, fluoranthene, fluorene, chrysene, indenopyrene, naphthalene, pyrene, perylene, hexachlorobutadiene, hexachloroethane, aldrin, o,p'-DDD, o,p'-DDE, o,p'-DDT, p,p'-DDD, p,p'-DDE, p,p'-DDT, dieldrin, α -endosulphane, β -endosulphane, endrin, telodrin, isodrin, heptachlor, cis-heptachloroepoxide, trans-heptachloroepoxide, α - HCH, β -HCH, γ -HCH, δ -HCH, alachlor, methoxychlor, pentachlorobenzene, hexachlorobenzene, 1,2,3,4-tetrachlorobenzene, 1,2,3,5-tetrachlorobenzene, 1,2,4,5-tetrachlorobenzene, trifluralin, PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, PCB 194, dichlobenil, ϵ -HCH, octachlorostyrene, di- n-buthylphthalate, bis(2-ethylhexyl) phthalate (DEHP), endosulfan-sulphate, mirex, cis-chlordane, trans-chlordane, oxychlordane, cis-nonachlor, trans- nonachlor, PBB 153, pentachlorotoluene, benzylalcohol, acetophenone, 6-caprolactam, izoforon, aniline, diphenylamine, 4-chloroaniline, benzdine, 4-bromophenylphenyl ether, carbazol, biphenyl, 2-chloronaphthalene, 1-chloronaphthalene, 2-methylnaphthalene, 4-chlorophenylphenyl ether, dibenzofuran, bis(2-chlorethyl)ether, bis(2- chlorethoxy)methan, bis(2-chlorisopropyl)ether (all isomers), phenol, 2-methylphenol, 3-methylphenol, 3- & 4-methylphenol, 4-methylphenol, 2,4- dimethylphenol, 4-chlor-3-methylphenol, hexachlorocyclopentadiene, nitrobenzene, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, 2-nitroaniline, 3-nitroaniline, 4,2-nitroaniline, N-nitrosodimethylamine, N-nitrosodi-n-propylamine, dinoseb, dimethylphthalate, diethylphthalate, butylbenzylphthalate, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, sums calculation according to CZ_SOP_D06_03_J02
- Polycyclic aromatic hydrocarbons** – naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(a)-pyrene, dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, indeno-(1,2,3,c,d)- pyrene, coronene, sums calculation according to CZ_SOP_D06_03_J02
- Polychlorinated biphenyls** - PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, sums calculation according to CZ_SOP_D06_03_J02
- Organochlorine pesticides and other halogenated substances** – 1,2,3,4-tetrachlorobenzene, 1,2,3,5-tetrachlorobenzene, 1,2,4,5-tetrachlorobenzene, 2,4'-DDD (TDE), 2,4'-DDE, 2,4'-DDT, 4,4'- DDD (TDE), 4,4'-DDE, 4,4'-DDT, alachlor, aldrin, bis(2-ethylhexyl)phthalate (DEHP), cis-heptachloroepoxide, cis-chlordan, cis-nonachlor, dieldrin, dichlobenil, dicofol, endosulfan-sulfate, endrin, endrin aldehyde, endrin ketone, heptachlor, hexabromobiphenyl (PBB 153), hexachlorobenzene, hexachlorobutadiene, hexachloroethane, isodrin, methoxychlor, mirex, octachlorostyrene, oxychlordane, pentachloroaniline, pentachlorobenzene, quintozone, telodrin (isobenzan), tetradiphone toxafen, trans-heptachloroepoxide, trans-chlordan, trans-nonachlor, trifluralin, α -endosulphan, α -HCH, β -endosulphan, β -HCH, γ -HCH (Lindan), δ -HCH, ϵ -HCH, sums calculation according to CZ_SOP_D06_03_J02
- PCDD/PCDF** - 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8-HpCDF, OCDF, TEQ parameters calculation according to CZ_SOP_D06_06_J03
- PCB** - PCB101, PCB105, PCB114, PCB118, PCB123, PCB126, PCB138, PCB153, PCB156, PCB157, PCB167, PCB169, PCB170, PCB180, PCB189, PCB209, PCB28, PCB52, PCB77, PCB81, PCB37, sums and TEQ parameters calculation according to CZ_SOP_D06_06_J03
- BFR** - tri-BDE28, tetra-BDE-47, tetra-BDE-66, tetra-BDE-77, penta-BDE-85, penta-BDE-99, penta-BDE-100, hexa-BDE-138, hexa-BDE-153, hexa-BDE-154, hepta-BDE-183, octa-BDE-203, deca-BDE-209, PBB3, PBB15, PBB18, PBB52, PBB101, PBB153, PBB180, PBB194, PBB206, PBB209 and sums calculation according to CZ_SOP_D06_06_J03
- Alkylphenols, alkylphenoethoxylates** - 4-nonylphenol (mixture of isomers), 4-n-nonylphenol, 4-nonylphenol monoethoxylate (mixture of isomers), 4-nonylphenol diethoxylate (mixture of isomers), 4-nonylphenol triethoxylate (mixture of isomers), 4-n-octylphenol, 4-tert-octylphenol, 4-tert-octylphenol monoethoxylate, 4-tert-octylphenol diethoxylate, 4-tert-octylphenol triethoxylate, bisphenol A, sums calculation according to CZ_SOP_D06_03_J02
- Acid herbicides and drug residues** – 2,4,5-T, 2,4,5-TP, 2,4-D, 2,4-DB, 2,4-DP (isomers), 4-CPP, acifluorfen, bentazone, bromoxynil, dicamba, diclofop, dinoseb, DNOC, fluroxypyr, ioxynil, MCPA, MCPB, MCPP (isomers), propoxycarbazone-sodium, triclopyr, triclosan, sums calculation according to CZ_SOP_D06_03_J02
- Fatty acids** – butyric, caproic, caprylic, caprinic, undecanoic, lauric, tridecanoic, myristic, pentadecanoic, palmitic, heptadecanoic, stearic, arachidic, heneicosanoic, behenic, tricosanoic, lignoceric, myristoleic, cis-10-pentadecenoic, palmitoleic, cis-10-heptadecenoic, elaidic, oleic, cis-11-eicosenoic, erucic, nervonic, linolelaidic, linoleic, γ -linolenic, linolenic, cis-11,14-eicosadienoic, cis-8,11,14-eicosatrienoic, cis-11,14,17-eicosatrienoic, arachidonic, cis-13,16- docosadienoic, cis-5,8,11,14,17-eicosapentaenoic, cis-4,7,10,13,16,19-docosahexaenoic, elaidic
- Volatile organic compounds** – 1.1.1.2-Tetrachloroethane, 1.1.1-Trichloroethane, 1.1.2.2-Tetrachloroethane, 1.1.2-Trichloroethane, 1.1-Dichloroethane, 1.1-Dichloropropylene, 1.2.3-Trichlorobenzene, 1.2.3-Trichloropropane, 1.2.3-Trimethylbenzene, 1.2.4.5-Tetramethylbenzene, 1.2.4-Trichlorobenzene, 1.2.4-Trimethylbenzene, 1.2-Dibromo-3-chloropropane, 1.2-Dibromoethane, 1.2-Dichlorobenzene, 1.2-Dichloroethane, 1.2-Dichloropropane, 1.3.5-Trichlorobenzene, 1.3.5-Trimethylbenzene, 1.3- Dichlorobenzene, 1.3-Dichloropropane, 1.4- Dichlorobenzene, 1.4-Dioxane, 1-Chloronaphthalene, 2.2-Dichloropropane, 2-Butanol, 2-Butanone, 2-Butoxyethyl Acetate, 2-Ethylhexanol, 2-Ethyltoluene, 2-Chlorotoluene, 2-Methylhexane, 2-Methyl-1-Butanol, 2-Propanol, 3-Ethyltoluene, 3-Carene, 4-Ethyltoluene, 4-Phenylcyclohexene, 4-Chlorotoluene, 4-Isopropyltoluene, Acetone, alpha- Pinene, alpha-Terpinene, Benzene, beta-Pinene, Bromobenzene, Bromodichloromethane, Bromochloromethane, Bromomethane, Bromoform, cis-1.2- Dichlorethene, cis-1.3-Dichloropropene, Cyclohexane, Cyclohexanone, Diacetone Alcohol, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Dichloromethane, Ethanol, Ethyl Acetate, Ethyl tert-Butyl Ether (ETBE), Ethylbenzene, Hexachlorobutadiene, Hexanal, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, Isobutyl Acetate, Isobutanol, Isooctane, Isopropylbenzene, Limonene, Methanol, Methyl tert-Butyl Ether, Methylcyclohexane, Methylcyclopentane, Methyl iso-butyl Ketone, Methylmercaptan, Dimethylmercaptan, m-Xylene, Naphthalene, n-Butanol, n-Butyl Acetate, n-Butylbenzene, n-Decane, n-Dodecane, n-Heptane, n-Hexadecane, n-Hexane, n-Nonane, n-Octane, n-Pentane, n-Propanol, n-Propylbenzene, n-Tetradecane, n-Tridecane, n-Undecane, o-Xylene, p-Xylene, Petroleum Hydrocarbons, sec-Butylbenzene, Styrene, tert-Butyl Acetate, tert-Butylbenzene, Tetrahydrofuran, Tetrachloroethene, Tetrachloromethane, Toluene, trans-1.2- Dichloroethene, trans-1.3-Dichloropropylene, Trichloroethene, Trichlorofluoromethane, Vinyl Acetate, Vinyl Chloride, Sums calculation according to CZ_SOP_D06_03_J02

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- ²⁰ **Volatile organic compounds** – 1.1.1-Trichloroethane, 1.1.2.2-Tetrachloroethane, 1.1.2-Trichloro-1.2.2-Trifluoroethane, 1.1.2-Trichloroethane, 1.1-Dichloroethane, 1.1-Dichloroethene, 1.2.3-Trichlorobenzene, 1.2.4-Trichlorobenzene, 1.2.4-Trimethylbenzene, 1.2-Dichloro-1.1.2.2-Tetrafluoroethane, 1.2-Dichlorobenzene, 1.2-Dichloroethane, 1.2-Dichloropropane, 1.3.5-Trichlorobenzene, 1.3.5-Trimethylbenzene, 1.3-Butadiene, 1.3-Dichlorobenzene, 1.4-Dichlorobenzene, 1.4-Dioxane, 2-Butanone, 2-Hexanone, 2-Propanol, 4-Ethyltoluene, Acetone, Acrylonitrile, Benzene, Bromomethane, cis-1.2-Dichloroethene, Cyclohexane, Dichloromethane, Ethanol, Ethylbenzene, Hexachlorobutadiene, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, Isooctane, Isopropylbenzene, Methylcyclohexane, Methyl Isobutyl Ketone, m-Xylene, naphthalene, n-Heptane, n-Hexane, n-Propylbenzene, o-Xylene, p-Xylene, Carbon disulfide, Styrene, Tetrahydrofuran, Tetrachloroethene, Tetrachloromethane, Toluene, trans-1.2-Dichloroethene, trans-1,3-dichloropropene, Trichloroethene, Trichlorofluoromethane, vinyl acetate, vinyl chloride, Sums calculation according to CZ_SOP_D06_03_J02
- ²¹ **Aniline and aniline derivatives** – p-chloroaniline
- ²² **Vitamin D** – vitamin D2 and vitamin D3
- ²³ **Substitute sweeteners** – aspartame, acesulfame-K, saccharine, neohesperidine DC
- ²⁴ **Preservatives** – sorbic acid, benzoic acid
- ²⁵ **Radionuclides** – Radionuclides emitting gamma rays in the energy interval 46.5 – 1.836 keV – Natural Radionuclides ⁴⁰K, ²¹⁰Pb, ²²²Rn(²²⁶Ra), ²²⁶Ra(²²⁷Ac), ²²⁴Ra, ²²⁶Ra, ²²⁸Ra(²³²Th), ²²⁷Th(²²⁷Ac), ²²⁸Th, ²³⁰Th, ²³⁴Th(²³⁸U), ²³⁵Pa, ²³⁵U; Artificial Radionuclides ⁷Be, ⁵⁴Mn, ⁵⁷Co, ⁶⁰Co, ⁶⁵Zn, ⁸⁸Y, ^{99m}Tc, ¹⁰⁹Cd, ¹³¹I, ¹³³Ba, ¹³⁴Cs, ¹³⁷Cs, ¹⁵²Eu, ¹⁹²Ir, ²⁴¹Am
- ²⁶ **Glycols** – 1,2-propanediol, monopropylenglycol (as C), ethylenglycol, ethylenglycol (as C), 1,3-butanediol, diethylenglycol, diethylenglycol (as C), triethylenglycol, triethylenglycol (as C)
- ²⁷ **Semi volatile organic compounds** – naphthalene, acenaphthylene, acenaphthene, fluorine, phenanthrene, anthracene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene, benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(a)-pyrene, dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, indeno-(1,2,3,c,d)-pyrene, PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, 2,4-DDD, 2,4-DDE, 2,4-DDT, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, aldrin, alpha-endosulfan, beta-endosulfan, dieldrin, heptachlor, heptachlor epoxide-cis, heptachlor epoxide-trans, hexachlorobenzene, (HCB), hexachlorobutadiene, HCH alpha, HCH beta, HCH gamma, hexachloroethane, isodrine, pentachlorobenzene, telodrin sums calculation according to CZ_SOP_D06_03_J02
- ²⁸ **Alkylphenols, alkylphenoethoxylates** – 4-nonylphenol (mixture of isomers), 4-nonylphenol monoethoxylate (mixture of isomers), 4-nonylphenol diethoxylate (mixture of isomers), 4-nonylphenol triethoxylate (mixture of isomers), 4-tert-octylphenol, 4-tert-octylphenol monoethoxylate, 4-tert-octylphenol diethoxylate, 4-tert-octylphenol triethoxylate, sums calculation according to CZ_SOP_D06_03_J02
- ²⁹ **Acid herbicides, drug residues and other pollutants** – 2,3,6-trichlorobenzoic acid, 2,4,5-T, 2,4,5-TP, 2,4-D, 2,4-DB, 2,4-DP, 2,4-DP (isomers), 3,5,6-trichloro-2-pyridinol, 4-CPP, acifluorfen, aminopyralid, benazolin, bentazone, Bromo dichloroacetic acid, Bromo chloroacetic acid, bromoxynil, caffeine, clopyralid, dibromo acetic acid, dibromo chloroacetic acid, dichloroacetic acid, dicamba, dichloroprop-P, diclofenac, diclofop, dinoseb, dinoterb, DNOC, fluroxypyr, ibuprofen, ioxynil, MCPA, MCPB, MCPP, MCPP (isomers), mecoprop-P, metribuzin-desamino, metribuzin-desamino diketo, monobromoacetic acid, monochloroacetic acid, paraxanthine, picloram, propoxycarbazone-sodium, salicylic acid, tribromo acetic acid, trichloroacetic acid, triclopyr, triclosan, sums calculation according to CZ_SOP_D06_03_J02
- ³⁰ **Pesticides, pesticide metabolites, drug residues and other pollutants** – 1,2,4-triazol, 1-(3,4-dichlorophenyl) urea (DCPU), 17-alpha-ethinylestradiol, 17-beta-estradiol, 1H-benzotriazol, 1-methyl-1H-benzotriazol, 2-aminobenzothiazol, 2-amino-4-methoxy-6-methyl-1,3,5-triazine, 2-amino-N-(isopropyl)benzamide, 2-chloro-2,6-diethylacetanilide, 2-hydroxybenzothiazol, 2-hydroxycarbamazepine, 2-isopropyl-6-methyl-4-pyrimidinol, 2-methylbenzothiazol, 2-methylmercaptobenzothiazol, 2-methylsulfonfyl-4-trifluoromethyl benzoic acid, 3,4-dichloroaniline (DCA), 3,5,6-trichloro-2-pyridinol, 3-chloro-4-methylaniline, 3-hydroxycarbamazepine, 5-methyl-1H-benzotriazol, 6-chloronicotinic acid, 6-chloroquinoxalin-2,3-diol, acesulfam K, acetamidrid, acetochlor, acetochlor ESA, acetochlor OA, acibenzolar-S-methyl, acionifen, acrinathrin, acrylamid, alachlor, alachlor ESA, alachlor OA, aldicarb, aldicarb sulfone, aldicarb sulfoxide, aldoxycarb, allethrin, anastrozole ametrine, amidithion, amidosulfuron, amitraz, anilazin, asulam, atraton, atrazine, atrazin-2-hydroxy, atrazin-desethyl, atrazin-desethyl-desisopropyl, atrazin-desisopropyl, atenolol, azaconazole, azathioprin, azinfos-ethyl, azinfos-methyl, azoxystrobin, azoxystrobin isoprazam, azoxystrobin o-demethyl, BAM (2,6-dichlorobenzamide), BDMC, benalaxyl, bendiocarb, benfuracarb, bentazone, bentazone methyl, beta-cyfluthrin, bezafibrat, bifenox, bifenthrin, bitertanol, boscalid, brodifacoum, bromacil, bromadiolol, bromofos-ethyl, bromoxynil, buprofezin, buprenorfin, butorfanol, cadusafos, ciprofloxacin, citalopram, clofentezin, coumafos, cyanazine, cyfenothrin, cyflufenamid, cyclamate, cyclobenzaprin, cyclofosamid, cymoxanil, cypermethrin, cyprazin, cyprodinil, cyproconazole, cyromazin, DEET, deltamethrin, demedifam, desmetyrn, diazepam, diazinon, diethofencarb, difenacoum, difenoconazole, difenoxuron, diflufenazuron, diflufenican, dichlofenthiol, dichloromid, dichlorvos, diclofenac, dicrotophos, diquat, dimefuron, dimethachlor, dimethachlor CGA 369873, dimethachlor CGA 373464, dimethachlor ESA, dimethachlor OA, dimethenamid, dimethenamid ESA, dimethenamid OA, dimethenamid-P, dimethylaminosulfanilid, dimethoate, dimetomorph, dioxystrobin, diuron, diuron desmethyl (DCPMU), enalapril, epoxiconazole, EPTC, estriol, estron, ethiofencarb, ethion, ethofumesate, ethoprophos, ethoxazol, famoxadon, famphur, fenamiphos, fenamiphos sulfon, fenamiphos sulfoxide, fenarimol, fenhexamide, fenmedifam, fenothiocarb, fenothrin, fenoxaprop, fenoxycarb, fenprothrin, fenpropidin, fenpropimorf, fensulfothion, fenuron, fipronil, fipronil sulfon, florasulam, floxetin, fluazifop, fluazifop-butyl, fluazifop-butyl (isomers), fluazifop-P, fluazifop-p-butyl, fluzazinam, fludioxonil, flufenacet, flufenacet ESA, flufenacet OA, fluometuron, fluopicolid, fluopyram, fluquinconazole, flusilazol, flutamid, flutolanil, fonofos, foramsulfuron, phorate, phosalone, phosphamidon, phosmet, phosmet-oxon, phosthiolate, furalaxyl, furathiocarb, furosemid, gabapentin, gemfibrozil, guanylurea, haloxyfop, haloxyfop-2-ethoxyethyl, haloxyfop-p-methyl, hexaconazole, hexazinon, hexythiazox, hydrochlorothiazid, chlormephenicol, chlorafranaliprol, chlorbromuron, chlorfenvinphos, chlordinazon, chlordinazon-desphenyl, chlordinazon-methyl desphenyl, chlormequate, chlorotoluron, chloroxuron, chlorpropham, chlorpyrifos, chlorpyrifos-methyl, chlorosulfuron, chlorotoluron-desmethyl, ifosfamide, imazalil, imazamethabenz-methyl, imazamox, imazapyr, imazethapyr, imidacloprid, imidacloprid olefin, imidacloprid urea, indomethacin, indoxacarb, iodosulfuron methyl, iohexol, iomeprol, iopamidol, iopromid, iprodion, iprovalicarb, irgarol, isofetamid, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, isoprazam, isoxaflutol, isoxaflutol diketonitril, capecitabin, carbamazepin, carbamazepin 10,11-epoxide, carbamazepin 10,11-dihydro-10-hydroxy, carbamazepin 10,11-dihydroxy, carbaryl, carbendazim, carbetamid, carbofuran, carbofuran (sum), carbofuran-3-hydroxy, carboxin, carfentrazone-ethyl, ketoprofen, clodinafop, clodinafop propargil, clomazon, clomeprop, clothianidin, caffeine, cresoxim-methyl, crimidin, amidotrizoic acid, clofibrac acid, lambda-cyhalothrin, lenacil, lincomycine, linuron, loperamid, malafoxon, malathion, mandipropamid, MCPA, MCPP, mefenpyr-diethyl, mepentrifluconazole, mevarbam, mepiquate metsulfuron-methyl, mesosulfuron-methyl, mesotrion, metantril, metaflumizone metalaxyl, metalaxyl (isomery), metamitron, metazachlor, metazachlor ESA, metazachlor metabolite 479M09, metazachlor metabolite 479M11, metazachlor OA, metformin, methabenzthiazuron, methaldehyde, methamidophos, methidathion, methiocarb, methiocarb sulfon, methiocarb sulfoxide, methomyl, methomyl oxim, methoprolol, methoprotrothin methoxyfenozid, metconazole, metobromuron, metolachlor, metolachlor (isomers), metolachlor (S), metolachlor CGA 368208, metolachlor ESA, metolachlor NOA 413173, metolachlor OA, metoxuron, metrafenone, metribuzin, metribuzin-desamino, metribuzin-desamino diketo, metribuzin-diketo, metrodinazol, molinate, monocrotophos, monolinuron, monuron, myclobutanil, mycophenolate

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.

Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- Drug residues** – anastrozole, atenolol, azathioprine, beclomethasone dipropionate, capecitabine, cyclosporin, cyproteron acetate, diazepam, fluticasone propionate, loperamide hydrochloride, medroxyprogesterone acetate, megestrol acetate, methotrexate, methylprednisolone acetate, metronidazole, mometasone furoate, mycophenolate mofetil, paclitaxel, sotalol hydrochloride, tacrolimus, thebain, tramadol hydrochloride, triamcinolone acetonide, valsartan, zolpidem tartrate
- Synthetic dyes** – **E102** (Tartrazine), **E104** (Quinoline yellow), **E110** (Yellow SY), **E122** (Azorubin), **E123** (Amaranth), **E124** (Ponceau 4R), **E127** (Erythrosin), **E128** (Red 2G), **E129** (Allura Red AC), **E131** (Patent Blue V), **E132** (Indigotine), **E133** (Brilliant Blue), **E142** (Green S), **E151** (Black BN)
- Perfluorinated compounds** – Perfluorobutanoic acid (PFBA), Perfluoropentanoic acid (PFPeA), Perfluorohexanoic acid (PFHxA), Perfluoroheptanoic acid (PFHpA), Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA), Perfluorodecanoic acid (PFDA), Perfluoroundecanoic acid (PFUnDA), Perfluorododecanoic acid (PFDoDA), Perfluorotridecanoic acid (PFTrDA), Perfluorotetradecanoic acid (PFTeDA), Perfluorohexadecanoic acid (PFHxDA), Perfluorooctadecanoic acid (PFOcDA), Perfluorobutane sulfonic acid (PFBS), Perfluoropentane sulfonic acid (PFPeS), Perfluorohexane sulfonic acid (PFHxS), Perfluoroheptane sulfonic acid (PFHpS), Perfluorooctane sulfonic acid (PFOS), Perfluorononane sulfonic acid (PFNS), Perfluorodecane sulfonic acid (PFDS), Perfluorododecane sulfonic acid (PFDoDS), 4:2 Fluorotelomer sulfonate (4:2 FTS), 6:2 Fluorotelomer sulfonic acid (6:2 FTS), 8: Fluorotelomer sulfonic acid (8:2 FTS), 10:2 Fluorotelomer sulfonate (10:2 FTS), Perfluorooctane sulfonamide (FOSA), N-Methyl perfluorooctane sulfonamide (MeFOSA), N-Ethyl perfluorooctane sulfonamide (EtFOSA), Perfluorooctane sulfonamidoacetic acid (FOSAA), N-methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA), N-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA), 7H-perfluoroheptanoic acid (HPFHxA), Perfluoro-3,7-dimethyloctanoic acid (P37DMOA), N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE), N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE), PFCS Total Oxidizable Precursors (TOP) (M4), Hexabromocyclododecane (HBCD), Tertabromobisphenol-A (TBBPA), perfluoro-4-methoxybutanoic acid (PFMBA), perfluoro-3-methoxypropanoic acid (PFMPA), 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS), 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS), 4,8-dioxa-3H-perfluorononanoic acid (DONA), 4,8-dioxa-3H-perfluorononanoic acid (ADONA), sodium 4,8-dioxa-3H-perfluorononanoate (NaDONA), perfluorotridecanic acid sulfonic acid (PFTTrDS), perfluoroundecane sulfonic acid (PFUnDS)
- Volatile organic compounds** – Benzene, Toluene, Ethylbenzene, m-Xylene, p-Xylene, Styrene, o-Xylene, Methanol, Ethanol, Acetone, Benzene, Ethyl Acetate, Isobutanol, n-Butanol, 2-Butanol, Isobutyl Acetate, Butyl Acetate, tert-Butyl Acetate
- Elements** – Ag, Al, As, Au, B, Ba, Be, Bi, Br (water extractable) Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hg, Ho, I (water extractable) In, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, Os, P, Pb, Pd, Pr, Pt, Rb, Rh, Ru, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr
- Drug residues** – 17-alpha-ethinylestradiol, 17-beta-estradiol, 2-hydroxycarbamazepine, 3-hydroxycarbamazepine, 4-hydroxydiclofenac, 6-monooetylmorphine (6-MAM), alprazolam, amphetamine, amoxicillin, anastrozole, atenolol, atorvastatin, azathioprin, azithromycin, benzoyllecgonin, benzylpenicillin, bezafibrat, bromazepam, buprenorphine, buprenorphine glucuronid, butorphanol, ciprofloxacin, clindamycin, cyclobenzaprin, cyclophosphamide, cyclosporin, cyproteron acetate, citalopram, diazepam, diclofenac, doxycycline, EDDP (methadone metabolite), ephedrine, enalapril, erythromycine, estriol, estron, fenofenadine, fentanyl, floxetin, flumequine, flutamide, fluticasone propionate, furosemid, galantamin, gemfibrozil, glimepirid, heroin, hydrochlorothiazid, hydromorfon, chloramphenicol, chlorthalidose, chlorthalidose, ibuprofen, ifosfamid, indometacin, iohexol, iomeprol, iopamidol, iopromid, capecitabine, carbamazepine, carbamazepine 10,11-dihydro-10-hydroxy, carbamazepine 10,11-dihydroxy, carbamazepine-10,11- epoxide, carprofen, ketamine, ketoprofen, clarithromycin, clonazepam, cloxacillin, codeine, caffeine, cocaethylene, cocaine, colchicin, clofibrac acid, nalidixic acid, oxolinic acid, pipemidic acid, lincomycin, lomefloxacin, loperamid, LSD, LSD hydroxy, MBDB (N-metyl-1-(1,3-benzodioxol-5-yl)-2-butamin), MDA (3,4-methylenedioxyamphetamine), MDEA (3,4-methylenedioxy-N-ethylamphetamine), MDMA (3,4-metylenedioxy-methylamphetamine), medroxyprogesteron acetate, megestrol acetate, meloxicam, metadon, metacycline metamphetamine, metformin, methotrexat, metoprolol, metronidazol, midazolam, morphine, mycophenolate mofetil, naproxen, nimesulid, nor buprenorphin, nor buprenorphin glucuronid, norfloxacin, ofloxacin, omeprazol, ormetoprim, ornidazol, oxazepam, oxcarbazepine, oxytetracycline, paclitaxel, paracetamol (acetaminofen), piroxicam, procaine peniciline G, propranolol, roxitromycin salbutamol, sarafloxacin, sertraline, sotalol, sulfadiazin, sulfachlorpyridazine, sulfamerazine, sulfamethazine, sulfamethizol, sulfametoxazol, sulfamethoxypyridazine, sulfamonomethoxin, sulfathiazol, terbutalin, tetracyclin, tetrazepam, THC (delta-9-tetrahydrocannabinol), THC glucuronide, THC hydroxy, THCA-A (delta9-tetrahydrocannabinol-2-carboxyl), THC-COOH (11-nor-9-carboxy-THC), thebain, tramadol, triamcionolon acetoniid, trimethoprim, valsartan, vancomycin, venlafaxine, warfarin, zolpidem
- Organic Acids** – acetic acid, propionic acid, isobutyric acid, butyric acid, isovaleric acid, valeric acid, isocaproic acid, caproic acid, heptanoic acid
- Meat content calculation** – calculated from the results of the determination of ash according to CZ_SOP_D06_04_458, protein according to CZ_SOP_D06_04_475, moisture according to CZ_SOP_D06_04_452, fat according to CZ_SOP_D06_04_482, hydroxyproline according to CZ_SOP_D06_04_481
- Determination of carbohydrates and energy value** – calculated from the results of the determination of ash according to CZ_SOP_D06_04_458, protein according to CZ_SOP_D06_04_475, moisture according to CZ_SOP_D06_04_452, fat according to CZ_SOP_D06_04_482, dietary fibre according to CZ_SOP_D06_04_465
- Determination of non-protein content substances** – calculated from the results of the determination of moisture according to CZ_SOP_D06_04_452, total nitrogen according to CZ_SOP_D06_04_475, fat according to CZ_SOP_D06_04_482, ash according to CZ_SOP_D06_04_458, crude fibre according to CZ_SOP_D06_04_465
- Calculation of indicative dose (ID)** – calculated from the results of determination of Radium 226 (CSN 75 7626), Uranium (CSN 75 7614), Tritium (ISO 9698), Polonium 210 (CSN 75 7626), radionuclides determined using high resolution gamma ray spectrometry (CZ_SOP_D06_07_367), Lead 210 (CZ_SOP_D06_07_370), Strontium 90 (CZ_SOP_D06_07_373) and Carbon 14 (CZ_SOP_D06_07_374)
- Surface waters** – flowing watercourses, stagnant water – lakes, reservoirs, ponds, and seawater
- Organic acids** – propionic acid, citric acid, lactic acid, acetic acid, tartaric acid, malic acid
- Sugars** – glucose, fructose, lactose, maltose, sucrose, galactose and the sum of sugars by calculation
- Pesticides, their metabolites and drug residues – matrices: sediments, sludges, soil, rocks** – 1-(3,4-Dichlorophenyl) urea (DCPU), 2-Chloro-2,6-diethylacetanilide, 2-amino-N-(isopropyl)benzamide, 6-chloronicotinic acid, acetamidiprid, acetochlor, acetochlor ESA, acetochlor OA, aclonifen, alachlor, alachlor ESA, alachlor OA, aldacar, aldacar sulfone, aldacar sulfoxide, ametryn, amidosulfuron, asulam, atraton, atrazine, atrazine-2-hydroxy, atrazine-desethyl, atrazine-desisopropyl, azacanazole, azinphos-methyl, azoxystrobin, azoxystrobin-o-demethyl, BAM, BDMC, benalaxyl, bentazon methyl, bifenoxy, bitertanol, boscalid, bromacil, bromophos-ethyl, buprofezin, carbaryl, cadusafos, carbendazim, carbofuran, carbofuran-3-hydroxy, carboxin, clodinafop, clodinafop propargyl, clofentezine, clomazone, clomeprop, clocypirid, clothianidin, coumaphos, crimidine, cyanazine, cybutryne (irgarol), cyflufenamid, cymoxanil, cyproconazole, cyprodinil, desmetryn, diazinon, diclotophos, difenacoum, difenoconazole, difenoxuron, diflubenzuron, diflufenican, dichlofenthion, dichlorimid, dichlorvos, dimefuron, dimethachlor, dimethachlor ESA, dimethachlor OA, dimethenamid, dimethoate, dimethomorph, dimethylaminosulfanilide, dimoxystrobin, diuron, diuron desmethyl (DCPMU), epoxiconazole, EPTC, ethion, ethofumesate, ethoprophos,

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- etoxazole, famoxadone, famphur, fenamiphos, fenarimol, fenhexamid, fenothiocarb, fenoxaprop, fenoxycarb, fenpropidin, fenpropimorph, fensulfotion, fenuron, fipronil, fipronil sulfone, florasulam, fluazifop, fluazifop-p-butyl, fludioxonil, flufenacet, fluometuron, fluopicolide, fluopyram, fluquinconazole, flusilazole, flutolanil, fonofos, foramsulfuron, fosthiatate, furalaxyl, haloxyfop, haloxyfop-2-ethoxyethyl, haloxyfop-p-methyl, hexaconazole, hexazinone, hexythiazox, chlorbromuron, chlorfenviphos, chloridazon, chloridazon-desphenyl, chloridazon-methyl desphenyl, chlorotoluron, chlorotoluron-desmethyl, chloroxuron, chlorpropham, chlorpyrifos, chlorpyrifos-methyl, chloresulfuron, imazalil, imazamethabenz-methyl, imazamox, imazapyr, imazethapyr, imidacloprid, imidacloprid olefin, imidacloprid urea, indoxacarb, iprodione, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, kresoxim-methyl, lenacil, linuron, malaoxon, malathion, mandipropamid, mecarbam, mephenpyr-diethyl, mesosulfuron-methyl, metalaxyl, metamitron, metazachlor, metazachlor ESA, metazachlor OA, metconazole, methabenzthiazuron, methamidophos, methidathion, methiocarb, methiocarb-sulfone, methiocarb-sulfoxide, methomyl, methomyl-oxime, methoxyfenozide, metobromuron, metolachlor (isomers), metolachlor ESA, metolachlor OA, metoxuron, metrafenone, metribuzin, metribuzin-desamino, metsulfuron-methyl, molinate, monocrotophos, monolinuron, monuron, myclobutanil, napropamide, naptalam, neburon, nicosulfuron, norflurazon, nuarimol, omethoate, oxadiazon, oxadixyl, oxamyl, oxyfluorfen, paclobutrazol, paraoxon-ethyl, paraoxon-methyl, parathion-ethyl, penconazole, pencycuron, pendimethalin, pethoxamid, phorate, phosalone, phosmet, phosmet-oxon, phosphamidon, picoxystrobin, pirimicarb, pirimiphos-ethyl, pirimiphos-methyl, primisulfuron-methyl, proflumuron, proflumuron, profenofos, prochloraz, prometon, prometryn, propachlor, propachlor ESA, propachlor OA, propamocarb, propanil, propaquizafop, propazine, propham, propiconazole, propoxur, propyzamide, prosulfocarb, pyraclostrobin, pyribenzoxim, pyridaben, pyrimethanil, pyriproxifen, quinalphos, quinclorac, quinmerac, quinoxifen, quizalofop, quizalofop-p-ethyl, rimsulfuron, sebuthylazine, sedaxane, sethoxydim, siduron, simazine, simazine-2-hydroxy, simetryn, spiroxamine, tebuconazole, tebufenpyrad, tebuthiuron, teflubenzuron, terbuthylazine, terbuthylazine-desethyl, terbuthylazine-desethyl-2-hydroxy, terbuthylazine-hydroxy, terbutryn, thiacloprid, thiamethoxam, thiazafururon, thidiazuron, thiobencarb, tolclofos-methyl, triadimefon, triadimenol, tri-allate, triasulfuron, triazophos, tribenuron-methyl, trietazine, trifloxystrobin, trifloxysulfuron-sodium, triflumizole, triflumuron, triflusaluron-methyl, triticonazole, tritosulfuron, zoxamide, sums calculation according to CZ_SOP_D06_03_J02
- ⁷¹ **Pesticides, their metabolites and drug residues – matrices: building materials, materials for building - 1-(3,4-Dichlorophenyl) urea (DCPU), 2-Chloro-2,6-diethylacetanilide, 6-chloronicotinic acid, acetamiprid, acetochlor, acetonifen, alachlor, aldicarb, ametryn, amidosulfuron, asulam, atraton, atrazine, atrazine- 2-hydroxy, atrazine-desethyl, atrazine-desisopropyl, azaconazole, azinphos-methyl, azoxystrobin, azoxystrobin-o-demethyl, BAM, benalaxyl, bentazone methyl, bifenox, biteranol, boscalid, bromacil, bromophos-ethyl, buprofezin, cadusafos, carbendazim, carbofuran, carboxin, clofentezine, clomazone, clomeprop, clothianidin, coumaphos, crimidine, cyanazine, cybutryne (irgarol), cyflufenamid, cyproconazole, cyprodinil, desmetryn, diazinon, dicrotophos, difenacoum, difenconazole, difenoxuron, diflubenzuron, diflufenican, dichlofenthiol, dichlorimid, dimethion, dimethion, dimethion, dimethoate, dimethomorph, dimethylaminosulfanilide, dimoxystrobin, diuron, diuron desmethyl (DCPMU), epoxiconazole, EPTC, ethion, ethofumesate, ethoprophos, etoxazole, famphur, fenamiphos, fenarimol, fenhexamid, fenothiocarb, fenoxycarb, fenpropidin, fenpropimorph, fensulfotion, fenuron, fipronil, fipronil sulfone, florasulam, fluazifop, fluazifop-p-butyl, fludioxonil, flufenacet, fluometuron, fluopicolide, fluopyram, fluquinconazole, flusilazole, flutolanil, fonofos, foramsulfuron, furalaxyl, haloxyfop, haloxyfop-2-ethoxyethyl, haloxyfop-p-methyl, hexaconazole, hexazinone, hexythiazox, chlorbromuron, chlorfenviphos, chloridazon, chloridazon-desphenyl, chloridazon-methyl desphenyl, chlorotoluron, chlorotoluron-desmethyl, chloroxuron, chlorpropham, chlorpyrifos, chlorpyrifos-methyl, chloresulfuron, imazalil, imazamethabenz-methyl, imazamox, imazapyr, imazethapyr, imidacloprid, imidacloprid olefin, imidacloprid urea, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, lenacil, linuron, malathion, mandipropamid, mecarbam, mesosulfuron-methyl, metalaxyl, metamitron, metazachlor, metconazole, methabenzthiazuron, methidathion, methomyl, methomyl-oxime, methoxyfenozide, metobromuron, metolachlor (isomers), metoxuron, metrafenone, metribuzin, metribuzin-desamino, molinate, monolinuron, monuron, myclobutanil, napropamide, naptalam, neburon, nicosulfuron, norflurazon, nuarimol, oxadiazon, oxadixyl, oxyfluorfen, paclobutrazol, paraoxon-ethyl, parathion-ethyl, penconazole, pencycuron, pendimethalin, pethoxamid, phorate, phosalone, phosphamidon, picoxystrobin, pirimicarb, pirimiphos-ethyl, pirimiphos-methyl, proflumuron, proflumuron, profenofos, prochloraz, prometon, prometryn, propachlor, propamocarb, propanil, propaquizafop, propazine, propham, propiconazole, propyzamide, prosulfocarb, pyraclostrobin, pyrimethanil, pyriproxifen, quinalphos, quinclorac, quinmerac, quinoxifen, quizalofop-p-ethyl, sebuthylazine, sedaxane, sethoxydim, siduron, simazine, simazine-2-hydroxy, simetryn, spiroxamine, tebuconazole, tebufenpyrad, tebuthiuron, teflubenzuron, terbuthylazine, terbuthylazine-desethyl, terbuthylazine-desethyl-2-hydroxy, terbuthylazine-hydroxy, terbutryn, thiacloprid, thiamethoxam, thiazafururon, thidiazuron, thiobencarb, tolclofos-methyl, triadimefon, triadimenol, tri-allate, triasulfuron, triazophos, tribenuron-methyl, trietazine, trifloxystrobin, trifloxysulfuron-sodium, triflumizole, triflumuron, triflusaluron-methyl, triticonazole, tritosulfuron, zoxamide, sums calculation according to CZ_SOP_D06_03_J02**
- ⁷² **Pesticides, their metabolites and drug residues – 6-chloronicotinic acid, acetamiprid, acetochlor, aldicarb, aldicarb sulfone, aldicarb sulfoxide, amitraz, azoxystrobin, bifenthrin, boscalid, cadusafos, carbaryl, carbofuran, carbofuran-3-hydroxy, chlormequat, chlorpyrifos, clomazone, clothianidin, cyhalothrin (isomers), cypermethrin (isomers), cyproconazole, deltamethrin (isomers), diazinon, dichlorvos, dicrotophos, dimethoate, dimoxystrobin, diquat, epoxiconazole, fenoxycarb, fipronil, fipronil sulfone, imidacloprid, imidacloprid olefin, imidacloprid urea, indoxacarb, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, kresoxim-methyl, malaoxon, malathion, mepiquat, metazachlor, metconazole, methidathion, methiocarb, methiocarb sulfone, methiocarb sulfoxide, methomyl, methomyl-oxime, paraquat, permethrin (isomers), pethoxamid, phosalone, phosmet, phosmet-oxon, phosphamidon, pirimicarb, prochloraz, propoxur, pyrimethanil, tau-fluvalinate, tebuconazole, thiacloprid, thiamethoxam, sums calculation according to CZ_SOP_D06_03_J02**
- ⁷³ **Perfluorinated compounds – Perfluorobutanoic acid (PFBA), Perfluoropentanoic acid (PFPeA), Perfluorohexanoic acid (PFHxA), Perfluoroheptanoic acid (PFHpA), Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA), Perfluorodecanoic acid (PFDA), Perfluoroundecanoic acid (PFUnDA), Perfluorododecanoic acid (PFDoDA), Perfluorotridecanoic acid (PFTTrDA), Perfluorotetradecanoic acid (PFTTeDA), Perfluorohexadecanoic acid (PFHxDA), Perfluorooctadecanoic acid (PFODaDA), Perfluorobutane sulfonic acid (PFBS), Perfluoropentane sulfonic acid (PFPeS), Perfluorohexane sulfonic acid (PFHxS), Perfluoroheptane sulfonic acid (PFHpS), Perfluorooctane sulfonic acid (PFOS), Perfluorononane sulfonic acid (PFNS), Perfluorodecane sulfonic acid (PFDS), Perfluorododecane sulfonic acid (PFDoDS), 4:2 Fluorotelomer sulfonate (4:2 FTS), 6:2 Fluorotelomer sulfonate (6:2 FTS), 8:2 Fluorotelomer sulfonate (8:2 FTS), 10:2 Fluorotelomer sulfonate (10:2 FTS), Perfluorooctane sulfonamide (FOSA), N-Methyl perfluorooctane sulfonamide (MeFOSA), N-Ethyl perfluorooctane sulfonamide (EtFOSA), Perfluorooctane sulfonamidoacetic acid (FOSAA), N-methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA), N-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA), 7H-perfluoroheptanoic acid (HPFHxA), Perfluoro-3,7-dimethyloctanoic acid (P37DMOA), N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE), N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE), Hexabromocyclododecane (HBCD), Tertabromobisphenol-A (TBBP-A)**
- ⁷⁴ **Polycyclic aromatic hydrocarbons – naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene, benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(j)-fluoranthene, benzo-(a)-pyrene, dibenzo-(a,c)-anthracene@dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, indeno-(1,2,3,c,d)-pyrene, coronene, trifenylene@chrysene, calculation of sums according to CZ_SOP_D06_03_J02**
- ⁷⁵ **Polyols - Xylitol, Sorbitol, Mannitol, Isomalt, Lactitol, Maltitol**

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

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- ⁷⁶ Bioindicators - freshwater and sea water plankton
- ⁷⁷ Biological materials - blood, tissues, mother's milk, urine, sweat
- ⁷⁸ Emissions - filters, liquid and solid sorbents, condensates, fly ash
- ⁷⁹ Immissions - filters, solid sorbents
- ⁸⁰ Fermented and hydrolysed food and beverages - e.g., beer, starch and starch products, soy sauces, malt extracts, yeast doughs
- ⁸¹ Liquid samples - industrial liquids, technical liquids, technological baths
- ⁸² Building materials - building materials (demolished material, recycled, disposed building materials)
- ⁸³ Feed - products for animal nutrition, PET Food
- ⁸⁴ Waste water - water from waste water treatment plants, grease or oil separators, sewage, cooling, technological, rinsing, industrial
- ⁸⁵ Solid samples - waste (solid, liquid, biowaste), sediments, sludge, technological sludge products, soils, rocks, coal
- ⁸⁶ Gases - gases from biogas plants, landfill gases
- ⁸⁷ Working environment - filters, solid sorbents, tubes
- ⁸⁸ Plant materials - green plants (root, flower, green parts), pollen
- ⁸⁹ Material for building - new or unused building materials and raw materials for their production
- ⁹⁰ Treated waters - dialysis water, aqua purificata, process, industrial, boiler and cooling water, irrigation water, water supplied by pipeline or taken from various reservoirs
- ⁹¹ Water - drinking, bottled, natural, mineral, pool, hot, bathing, raw, underground, surface, waste, sea water
- ⁹² Extracts - Aqueous extracts of soils, sediments, and waste according to valid legislation. Extracts are usually prepared according to standards ČSN EN 12457-2, ČSN EN 12457-3, ČSN EN 12457-4, ČSN EN 14405, US EPA 1311, US EPA 1312, DIN 38414 S4, ÖNORM S2072. The extract preparation method is always indicated in the test report.
- ⁹³ Animal materials - insects
- ⁹⁴ Contaminated surfaces – food industry premises, walls after fires, walls of technological operations
- ⁹⁵ Selected foods - food, raw materials for food production, dietary supplements, and feed except for samples of listed matrices with a moisture content higher than 95%, unprocessed cereals and condensed milk
- ⁹⁶ SPMD extracts - SPMD from surface water, ground water and immission

Appendix B7

DDE Attard Ltd

Waste Management Facility

Financial Projections

For the Years 2022 - 2031



DDE Attard Ltd
Waste Management Facility
Financial Projections
For the Years 2022 - 2031

CONTENTS	Page
Introduction Report	3 - 4
Cost of Sales Analysis	5
Projected Overheads and Net Profit analysis	6
Projected Balance Sheet	7
Notes to the Operational Projections	8

Contact us



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Date: 28 June 2022

The Directors
DDE Attard Limited
Censina House
Triq Id-Dejma
Fgura

Dear Sir/Madam,

DDE Attard Ltd Projections for the Years 2022 – 2031 as part of the Waste Management infrastructure investment(in line with the EU Company Regularization)

Financial Study

The attached report is an illustration of the projected work force that the waste facility will generate upon being granted the motor vehicle End of life vehicle permit. This, following the company massive investment into its waste facility to be in line with the EU and local regulation.

Objectives and Scope of Work.

The purpose of this report is to summarize the results and outline the information and assumptions by which we have based our feasibility study, approaches and conclusive opinion.

Limitation of Liability

This engagement did not constitute an audit and therefore, for the purposes of this engagement, we did not verify the data provided during the course of this work, unless as otherwise necessary for the purpose of meeting our obligations in relation to the provision of services. The Client will release and indemnify Finance 24 management Consultancy Limited and their personnel from any claims, liabilities, costs and expenses resulting from or in connection with this engagement, except to the extent determined to have resulted from the deliberate misconduct of this firm. No liability will be accepted towards any other party to whom our reports may be divulged, with or without our concept.



FINANCE 24
CORPORATE MANAGEMENT LTD.

Advisory, Management,
Accountancy, Audit & Tax

Confidentiality and reliance

Our duties in relation to this engagement are owned solely to DDE Attard Limited and accordingly we do not accept any responsibility for loss occasioned to any third party or refraining from action as a result of our report.

Since others may seek to use this report for different purposes other than as set in our letter of engagement, this report or parts thereof should not be quoted, referred to or shown to any other parties unless so required by a regulatory body, without our prior consent in writing.

Yours Sincerely,

Ryan Montebello

a.b.o Finance 24 Management Consultancy Limited

Ryan Montebello
A.C.C.A M.I.A C.P.A
Warrant Number: 11766

Years	2022 Euro	2023 Euro	2024 Euro	2025 Euro	2026 Euro	2027 Euro	2028 Euro	2029 Euro	2030 Euro	2031 Euro
<u>International Export Market Revenue</u>										
Steel Scrap	7,279,459	7,575,268	7,954,152	8,369,987	8,388,617	8,483,004	8,672,769	8,771,186	8,797,500	9,237,375
Stainless Steel	14,453	15,565	15,565	15,842	15,842	16,899	19,567	19,567	20,790	19,127
Steel Armatures	60,811	63,080	66,295	70,062	70,030	70,996	72,342	73,288	73,600	71,098
Aluminum Mix	206,408	216,810	227,213	250,646	255,819	260,993	260,844	265,914	271,548	262,315
Aluminum Profiles	76,233	89,997	94,232	104,503	108,950	111,173	107,727	109,839	111,951	108,145
Aluminum Cables	13,254	14,359	14,359	16,236	16,236	16,236	16,526	16,526	16,526	15,964
Aluminum Cans	8,164	8,747	9,330	10,409	10,409	10,409	10,470	10,470	10,470	10,114
Aluminum Bailed	18,660	18,660	19,826	21,430	22,042	22,654	21,522	22,103	22,685	21,914
Brazz Bronze	90,712	97,191	100,431	112,256	112,256	115,658	113,106	113,106	116,338	112,382
Cooper Wire	29,105	30,817	32,529	35,054	35,953	36,852	35,863	36,717	37,571	36,293
Heavy Copper	72,403	72,403	77,575	86,884	86,884	86,884	87,699	87,699	87,699	84,717
Copper Cable	16,025	17,806	17,806	20,566	20,566	20,566	21,314	21,314	21,314	20,589
Motor Copper Cable	9,411	9,881	10,352	11,364	11,858	11,858	11,734	11,734	12,203	11,789
Copper Pipes	29,105	30,817	32,529	35,054	35,953	36,852	35,863	36,717	37,571	36,293
ELV Steel Metals	810,811	803,571	803,571	805,310	791,304	784,483	786,325	779,661	766,667	766,667
ELV Aluminium Metals	109,500	109,500	109,500	114,975	114,975	114,975	112,676	112,676	112,676	103,661
ELV Wire and Motors	559,200	559,200	559,200	559,200	559,200	559,200	559,200	559,200	559,200	559,200
ELV Lead Acid Batteries	27,430	17,120	17,120	17,976	17,976	17,976	17,078	17,078	17,078	15,711
Catalyst Unit	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000
Large Households - Metals	44,189	44,189	44,189	44,189	44,189	44,189	44,189	44,189	44,189	44,189
Large Households - Aluminium	14,823	14,823	14,823	14,823	14,823	14,823	14,823	14,823	14,823	14,823
Large Households -Other Metals	80,629	83,943	88,361	92,779	94,988	96,092	98,301	100,510	102,719	102,719
<u>Local Market Revenue</u>										
Tyres	229,920	229,920	229,920	241,416	241,416	241,416	229,345	229,345	229,345	210,998
Local Market	10,000	10,100	10,201	10,303	10,406	10,510	10,615	10,721	10,829	10,937
Total Revenue	9,862,704	10,185,767	10,601,077	11,113,262	11,132,693	11,236,697	11,411,896	11,516,383	11,547,290	11,929,020
<u>Cost of Sales</u>										
Purchase of Material	3,630,920	3,809,110	3,992,160	4,186,510	4,265,600	4,347,720	4,439,980	4,522,570	4,610,240	4,834,613
Freight inc. Port Fees	1,077,360	1,131,240	1,187,820	1,247,220	1,272,120	1,297,620	1,323,540	1,350,000	1,377,000	1,445,850
Processing Costs : Fuel, Waste, Equipment fees	1,513,976	1,563,568	1,627,320	1,705,943	1,708,926	1,724,891	1,751,785	1,767,824	1,772,569	1,831,166
Depreciation	950,818	916,643	879,521	879,521	852,781	52,781	52,781	52,781	35,493	951
Rent	196,000	196,000	196,000	196,000	196,000	196,000	196,000	196,000	196,000	196,000
Wages and Salaries	448,000	470,400	493,920	518,616	544,547	571,774	600,363	630,381	661,900	694,995
Total Cost of Sales	7,817,074	8,086,961	8,376,741	8,733,810	8,839,974	8,190,786	8,364,449	8,519,556	8,653,202	9,003,575
Gross Profit	2,045,630	2,098,806	2,224,336	2,379,452	2,292,719	3,045,911	3,047,447	2,996,827	2,894,088	2,925,445
Mark - Up Margin	26% 21%	26% 21%	27% 21%	27% 21%	26% 21%	37% 27%	36% 27%	35% 26%	33% 25%	32% 25%

Years	2022 Euro	2023 Euro	2024 Euro	2025 Euro	2026 Euro	2027 Euro	2028 Euro	2029 Euro	2030 Euro	2031 Euro	Note
<u>Less Overheads</u>											
Directors Remuneration	240,000	242,400	244,824	247,272	249,745	252,242	254,765	257,312	259,886	262,484	6
Administrative Wages	75,000	75,750	76,508	77,273	78,045	78,826	79,614	80,410	81,214	82,026	
Advertising	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	7
Travelling and Entertainment	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	
Insurance and Licencing	50,000	51,000	52,020	53,060	54,122	55,204	56,308	57,434	58,583	59,755	7
Stationery and Printing	2,500	2,625	2,756	2,894	3,039	3,191	3,350	3,518	3,694	3,878	
Professional Fees	37,800	38,580	39,288	39,909	40,427	40,824	41,077	41,165	41,060	40,733	7
Operational Annual fees	500	550	605	666	732	805	886	974	1,072	1,179	
Annual Operational Audits	1,700	1,870	2,057	2,263	2,489	2,738	3,012	3,313	3,644	4,009	7
Annual Monitoring	5,000	5,500	6,050	6,655	7,321	8,053	8,858	9,744	10,718	11,790	
Permit Consultancy	15,000	16,500	18,150	19,965	21,962	24,158	26,573	29,231	32,154	35,369	7
IT Costs	18,000	18,900	19,845	20,837	21,879	22,973	24,122	25,328	26,594	27,924	
Licence and Permits	5,000	5,250	5,513	5,788	6,078	6,381	6,700	7,036	7,387	7,757	7
Cleaning Expenses	15,000	15,750	16,538	17,364	18,233	19,144	20,101	21,107	22,162	23,270	
Telecommunications	3,200	3,360	3,528	3,704	3,890	4,084	4,288	4,503	4,728	4,964	7
Audit Fees	2,500	2,625	2,756	2,894	3,039	3,191	3,350	3,518	3,694	3,878	
Utilitiy Fees	15,000	15,750	16,538	17,364	18,233	19,144	20,101	21,107	22,162	23,270	
<u>Total Administration Expenses</u>	506,200	516,810	527,783	539,134	550,880	563,039	575,630	588,671	602,184	616,188	
<u>Financial Expenses</u>											
Interest - Loans	213,362	297,964	276,524	262,581	205,482	174,435	142,337	108,429	72,608	34,766	8
Interest - GBF	66,000	66,000	66,000	66,000	66,000	66,000	66,000	66,000	66,000	66,000	9
Bank Charges	12,000	12,600	13,230	13,892	14,586	15,315	16,081	16,885	17,729	18,616	
<u>Total Financial Expenses</u>	291,362	376,564	355,754	342,472	286,068	255,750	224,418	191,314	156,337	119,382	
Net Profit	1,248,068	1,205,432	1,340,800	1,497,846	1,455,771	2,227,121	2,247,399	2,216,842	2,135,567	2,189,874	
<u>Unforseen Contingency</u>	<u>124,807</u>	<u>120,543</u>	<u>134,080</u>	<u>149,785</u>	<u>145,577</u>	<u>222,712</u>	<u>224,740</u>	<u>221,684</u>	<u>213,557</u>	<u>218,987</u>	10
Projected Net Profit	1,123,261	1,084,889	1,206,720	1,348,062	1,310,194	2,004,409	2,022,659	1,995,158	1,922,011	1,970,887	
Net Profit Margin	11%	11%	11%	12%	12%	18%	18%	17%	17%	17%	
Ebita	2,353,441	2,365,496	2,428,765	2,556,163	2,434,457	2,297,625	2,283,777	2,222,367	2,096,111	2,072,604	

	Projected 31-Dec-22 Euro	Actual as at 31-Dec-21 Euro	Note
Fixed Assets			
Freehold Land and Buildings	1,275,994	275,994	
Office and Computer Equipment	4,282	5,709	
Plant and Machinery and Equipment	3,813,430	613,430	
Motor Vehicles	49,190	65,587	
Furniture and Fittings	1,100	1,222	
Net Book Value	5,143,996	961,943	
Current Assets			
Debtors	946,995	830,697	
Stock	554,926	159,778	
VAT	193,132	257,509	
Shareholders Loan	1,643,690	1,643,690	
Related Party	1,978,352	1,978,352	
Cash and Bank Guarantees	185,000		1:
Prepayments	33,227	36,919	
Total Current Assets	5,535,322	4,906,946	
Total Assets	10,679,319	5,868,888	
Current Liabilities			
Creditors	683,498	804,983	
Accruals	392,137	1,399,452	
Banking Aid	5,893,661	1,193,661	14
Paye - (CIR)	-	8,837	
Deffered Tax	165,927	165,927	
Total Current Liabilities	7,135,223	3572860.6	
Net Asset Value	3,544,096	2,296,028	
Working Capital			
Share Capital	100,000	100,000	
Revaluation Reserve	-	-	
Retained earnings	2,196,028	1,560,903	
Profit (Loss) for the period	1,248,068	635,125	
Total Equity	3,544,096	2,296,028	
Working Capital	3,544,096	2,296,028	

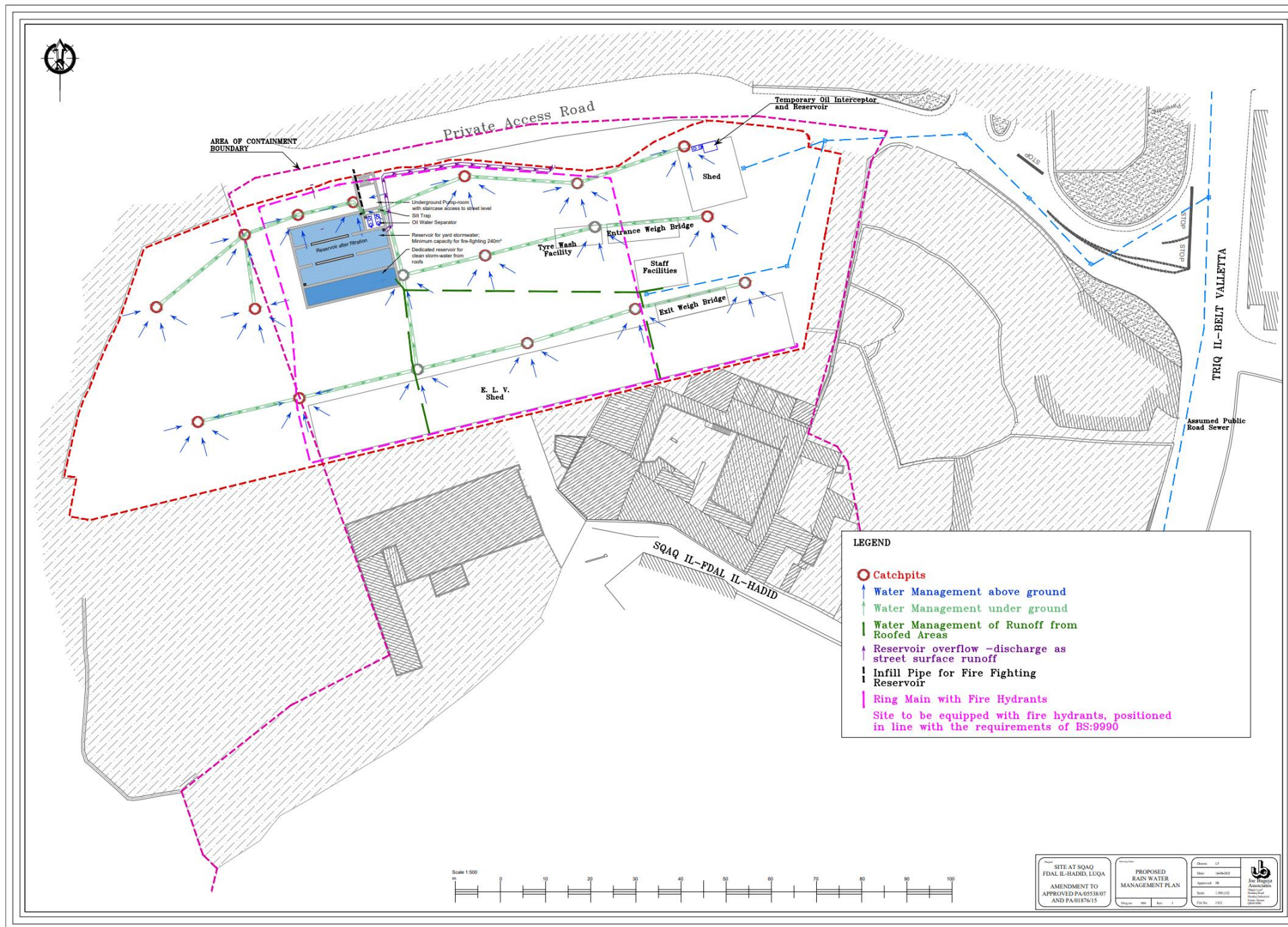
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Note

- 1 The finished product is put into the international market via the international stock exchange prices and traded in both USD and EURO.
- 2 The established local purchase price of all material is established internally and reviewed on a regular basis. This, in order to work hand in hand with actual market prices. Thus, the international price changes both positive and negative are reflected immediately on the local acquisition price. This, will safeguard the company interest and ascertain the required gap in price from purchase to selling price to reflect the processing and profit process.
- 3 The accounted price of freight has been inflated in order to account for any future price increases. However, we usually enhance the shipment export on the loaded tonnage in order to benefit from economies of scale. Since the price is fixed by destination and maximum capacity only. Also, the company has trading agreements both on CIF and FOB terms. This, makes it easier to mitigate company freight exposure.
- 4 The Rent is an internal expense in order to cross refer the sister company scrap yard loan from Aldazona limited. This is the remaining part of the loan when the land was acquired.
- 5 This projected investment in infrastructure, building and machinery will yield a higher output capacity. This, with the same level of employees, a lesser degree of machinery upkeep and utility consumption. Presently part of the machinery has had its useful economic life utilised. Thus, machinery upkeep is a material expense for the company. This will be completely reduced with the latest technological machinery.
- 6 Administrative wages, has been accounted for on basis of the latest market changes.
- 7 Insurance and Licensing is based on an estimated quote in order to have the new waste management facility appropriate with the adequate insurance policies in place.
- 8 An estimated interest cost has been established on the required financial aid in order to sustain this investment with a moratorium till end of Dec 2023.
- 9 The company will still need to operate an overdraft. This in order to mitigate the regular flow of shipments, stocks and debtors.
- 10 A Net Profit contingency of 10% has been taken in order to account for any unrealised cost Absorption. This, which may refer to difference of exchange, unexpected inflation etc.
- 11 The company has an MDP loan of Euro 1,450,000. This is projected to be paid in full by the year 2026.
- 12 A financial loan is required to finance the full project of Euro 5 million, however the This investment will also yield substantial economies of scale due to lesser cost absorption in labour, machinery upkeep and Utility consumption, which will yield a higher net profit margin.
- 13 The Cash and Bank Guarantees are physical guarantees towards Gov'n entities to operate inc. ERA, Mepa and Waste Serv
- 14 The financial Loan is Earmarked to cater for Phase one Euro 4,000, Phase two Euro 85,000, Phase three Euro 1,345,000, Phase Four Euro 2,600,000 with its equivalent of capitalisation of Architectural Fees Euro 30,000 and New Equipment of Euro 2,300,000

Appendix B8

Appendix B9



Appendix B10

RE: Fire hydrant system design at Luqa Scrapyard, PA/04172/16

andre.camilleri@ddeattard.com | FRI JUN 10 11:03 AM | 15 min read

Dear Mr Bezzina,

Further to the communications below and ERA's request for us to close off the documents, we require a confirmation from your end that the requirements have satisfied your requests. We kindly appreciate your reply since we are submitting all the documents by Monday 13th June.

Thank you

Regards,

Andre' Camilleri



T: +35621667857 I M: +35679667857

From: Andre Camilleri

Sent: 08 June 2022 15:02

To: Pisani Anthony at CPD <anthony.pisani@gov.mt>; Liana Zerafa <liana@ipsum-engineering.com>; Bezzina Natalino at CPD <natalino.bezzina@gov.mt>

Cc: Luigi Fenech <l.fenech@jbamalta.com>; Mark Cilia <mcilia@tfork.com>

Subject: RE: Fire hydrant system design at Luqa Scrapyard, PA/04172/16

Dear Mr Pisani,

Thank you for your reply.

With reference to your communication below and ERA's request for us to close off the documents, we require a confirmation from your end that the requirements have satisfied your requests.

Thank you

Regards,

Andre' Camilleri



T: +35621667857 I M: +35679667857

From: Pisani Anthony at CPD <anthony.pisani@gov.mt>

Sent: 07 June 2022 09:28

To: Liana Zerafa <liana@ipsum-engineering.com>; Bezzina Natalino at CPD <natalino.bezzina@gov.mt>

Cc: Luigi Fenech <l.fenech@jbamalta.com>; Andre Camilleri <andre.camilleri@ddeattard.com>; Mark Cilia <mcilia@tfork.com>

Subject: RE: Fire hydrant system design at Luqa Scrapyard, PA/04172/16

Dear All,

I have no further comments to add from this end.

Thanks

Anthony Pisani
Chief Assistance Rescue Officer
Civil Protection Department

t +356 23931132 e anthony.pisani@gov.mt
www.homeaffairs.gov.mt | www.publicservice.gov.mt |
fb.com/servizzpubbliku

MINISTRY FOR HOME A
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CIVIL PROTECTION, TA' KANDJA, LIM
SIGGIEWI

From: Liana Zerafa <liana@ipsum-engineering.com>

Sent: Tuesday, 07 June 2022 06:12

To: Bezzina Natalino at CPD <natalino.bezzina@gov.mt>

Cc: Pisani Anthony at CPD <anthony.pisani@gov.mt>; Luigi Fenech <l.fenech@jbamalta.com>; Andre

Camilleri <andre.camilleri@ddeattard.com>; Mark Cilia <mcilia@tfork.com>

Subject: Re: Fire hydrant system design at Luqa Scrapyard, PA/04172/16

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Dear Mr. Bezzina,

Further to my email below, I have discussed the matter with the architect, and we confirm that a reservoir of 240m3 will be provided. Please confirm the other items so that the IPCC process can be finalised accordingly.

Regards

Liana

ING. LIANA ZERAFA B.ENG.(HONS), M.SC.
BUILDING SERVICES ENGINEER

27, Triq Antonio Bosio, Balzan BZN 1143, Malta

M: +356 9946 7273

E: liana@ipsum-engineering.com



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On Sat, 4 Jun 2022 at 07:37, Liana Zerafa <liana@ipsum-engineering.com> wrote:

Dear Mr. Bezzina,

Thanks a lot for your feedback. Please find our replies below in red.

Regards

Liana

ING. LIANA ZERAFA B.ENG.(HONS), M.SC.
BUILDING SERVICES ENGINEER

27, Triq Antonio Bosio, Balzan BZN 1143, Malta

M: +356 9946 7273

E: liana@ipsum-engineering.com



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On Fri, 3 Jun 2022 at 12:59, Bezzina Natalino at CPD <natalino.bezzina@gov.mt> wrote:

Dear Ing Zerafa,

Reference is made to the report received. Kindly find hereunder the recommendations pls.

1. the reservoir capacity should be enlarged to provide at least 2hrs of firefighting water running the suppression system; based on a flow of 2000l/min pump duty, the capacity would equate to 240m3. I will check with the architect if it is possible to increase since construction is already underway and I believe that they have based construction based on the PA permit approval and CPD endorsement of Fire report which stipulated 175m3. If not possible at this stage, can you please confirm the 175m3?
2. a hydrant connected to the pump and the fire service inlet breeching should be installed at the entrance gate; there is a hydrant installed as soon as you go in from the gate (the second one not the first one). Moreover, we the inlet breeches have been proposed to be installed with the fire pump room facade since the pump room is accessed from the street, which is also in close proximity to the gate where the hydrant is installed. please confirm if they are acceptable.
3. A. the inlet breeching should be able to supply the system, however excluding the pump. This will be used should the pump fails. this is possible through the inlet breech named "Fire Brigade Inlet for Fire Pump Bypass" - please confirm if this is what you are referring to
B. Thus, you will have the third connection to fill the reservoir next to connections addressed in A. Are you referring to the connection noted as "reservoir fill up"?
4. the suction pipe work may be removed as it will never be used by the CPD; noted

Hope this helps.

Regards

Natalino Bezzina
Chief Assistance and Rescue Officer
Civil Protection Department

t +356 23931133 e natalino.bezzina@gov.mt
www.homeaffairs.gov.mt | www.publicservice.gov.mt |
fb.com/servizzpubbliku

MINISTRY FOR HO
SECURITY, REFORMS AN

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e-mail*

CIVIL PROTECTION, TA' KANDJA,
SIGC

From: Liana Zerafa <liana@ipsum-engineering.com>
Sent: Sunday, 29 May 2022 10:42
To: Bezzina Natalino at CPD <natalino.bezzina@gov.mt>
Cc: Luigi Fenech <l.fenech@jbamalta.com>; Pisani Anthony at CPD <anthony.pisani@gov.mt>; Andre Camilleri <andre.camilleri@ddeattard.com>; Mark Cilia <mcilia@tfork.com>
Subject: Re: Fire hydrant system design at Luqa Scrapyard, PA/04172/16

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Dear Mr. Bezzina,

Reference is made to the correspondence below that dates back to October of last year. We have completed the design, based on the below as per attached. It appears that the IPCC have not received your clearance on the matter. Could you kindly review and let us have your feedback? it might be easier to hold a meeting between all the parties copied in this email so that we may be able to finalise accordingly.

Appreciate your earliest response.

Regards

Liana

ING. LIANA ZERAFA B.ENG.(HONS), M.SC.
BUILDING SERVICES ENGINEER

27, Triq Antonio Bosio, Balzan BZN 1143, Malta

M: +356 9946 7273

E: liana@ipsum-engineering.com

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On Wed, 20 Oct 2021 at 14:42, Bezzina Natalino at CPD <natalino.bezzina@gov.mt> wrote:

Dear Ing Zerafa,

With reference to the scrap yard in caption, the CPD recommend that hydraulic oscillating monitors are installed on poles at strategic locations and water throw overlapping each other. System will be manual, however flame detectors and beams will be installed with the control panel that immediately alarm the occupants and the fire service for immediate actions. Otherwise the system will operate automatically however this will decrease the pressure on the flow rendering inefficient firefighting unless the fire pump is upgraded.

Private fire hydrants shall be installed in strategic locations however within the proposed buffers.

Dedicated firefighting reservoir capacity may need to be increased to sustain the demand.

Inlet breechings are required in a way to over ride the pump in case a failure is experience.

You may wish to draw up the plan and discuss further with my office pls.

Hope this helps.

Regards

Natalino Bezzina
Chief Assistance and Rescue Officer.
Civil Protection Department

t +356 23930000 m 7942 3133 e natalino.bezzina@gov.mt

www.homeaffairs.gov.mt | www.publicservice.gov.mt

MINISTRY FOR

NATIONAL SECURITY AND LAW

CIVIL PROTECTION - TA' KAND.

From: Liana Zerafa <liana@ipsum-engineering.com>
Sent: Monday, 27 September 2021 15:00
To: Bezzina Natalino at CPD <natalino.bezzina@gov.mt>
Cc: Luigi Fenech <l.fenech@jbamalta.com>
Subject: Fwd: Fire hydrant system design at Luqa Scrapyard, PA/04172/16

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Dear Mr. Bezzina,

Kind reminder for the below email please.

Regards

Liana

ING. LIANA ZERAFA B.ENG.(HONS), M.SC.
BUILDING SERVICES ENGINEER

2, Triq Tommaso Dingli, B'Kara, BKR 1692, Malta

M: +356 9946 7273

E: liana@ipsum-engineering.com

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----- Forwarded message -----

From: **Liana Zerafa** <liana@ipsum-engineering.com>

Date: Sun, 19 Sept 2021 at 17:13

Subject: Fire hydrant system design at Luqa Scrapyard, PA/04172/16

To: Bezzina Natalino at CPD <natalino.bezzina@gov.mt>

Cc: Luigi Fenech <l.fenech@jbamalta.com>

Dear Mr. Bezzina,

Reference is made to the Fire Safety Report in relation to the scrapyard located at Site at Don Kotra, Sqaq Vjal il-Hadid, Luqa and bearing PA reference PA/04172/16 which required a pumped fire hydrant system to be installed within the premises.

We are currently in the design process of this system and since this design is subject to final approval of the CPD, could you kindly confirm that the following design parameters are in line with CPD requirements:

1. Reservoir volume 175m³
2. Fire pump duty at 1,500l/min at 6 bar
3. Hydrant pillars positioned at a max of 90m apart

Moreover, could you kindly indicate if you require any specific connections in the pump room, such as inlet breeches, etc?

Your co-operation is appreciated and should you require any further information, do not hesitate to contact me.

Regards

Liana

ING. LIANA ZERAFA B.ENG.(HONS), M.SC.
BUILDING SERVICES ENGINEER

2, Triq Tommaso Dingli, B'Kara, BKR 1692, Malta

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E: liana@ipsum-engineering.com

Appendix B11



PLANNING AUTHORITY

Minor Amendments

Case Details

Case Number	PA/04172/16
Location	Site at Don Kotra, Sqaq Fdal Il- Hadid, Luqa, Malta
Description	Proposed amendments from approved permits PA 5538/07 & PA 1876/15; to amend site boundary, site area to remain as approved; proposed erection of e.l.v. shed, additional access from private road, demolition of part of existing building and reconfiguration of site internal layout as indicated on drawings.

Details of approved development

Permission Expiry Date	2023-11-28
------------------------	------------

Details of proposed changes

List of approved documents (Format: PA/00000/1a/1b):	PA 4172/16/87B/41H/41J/41K/41N/87C/87G/87H/92B/92C/92D/93A
Description of minor amendments(Describe in detail the differences between the approved and the proposed drawings/documents)	Proposed extension to approved composter shed roof.

Perit's declaration

I, the undersigned perit, declare that I shall be responsible for assisting the applicant in the course of this application, and I also declare that all information or specifications contained in this application and on the submitted drawings/documents bearing my signature and, or letterhead is correct. I also declare that I have a warrant to exercise the role of a perit in Malta. I also hereby declare that the applicant signed the uploaded physical copy of this application form in my presence and recognise that I am legally obliged to retain the original signed form.



Details of applicant submitting request

This Minor Amendment request is being submitted by a different applicant from the Applicant for the entire file.

☐

Name:

Surname

Address

Address Line 2

Address Line 3

Locality or Country

Postcode:

I.D. No.:

Tel. No.:

Mobile No.:

E-mail:

I am an owner of the entire site;

☐

I am not an owner of the entire site, but I have notified the owner/s of my intention to apply by registered letter of which a copy is being herewith attached/uploaded and the owner/s has/have granted consent to such proposal;

☐

I am not an owner of the entire site, but I am authorised to carry out such proposed development under any other law;

☐

I am not an owner of the entire site, but I am authorised to carry out such proposed development through an agreement with the owner.

☐

As the Government of Malta or department, agency, authority or other body corporate wholly owned by the Government, we have notified the owner/s of the intention to apply by registered letter of which a copy is herewith attached/uploaded;

☐

I am not an owner of the entire site, but I hold the site under title of agricultural lease and I have notified the owner/s of my intention to apply by registered letter of which a copy is herewith attached/uploaded;

☐

I am not an owner of the entire site, but I hold the premises under a title of lease and am carrying out the relative works under a scheme of a Government entity and I have notified the owner/s of my intention to apply by registered letter of which a copy is herewith attached/uploaded.

☐

This site is partly or wholly owned by Government.

☐

Checklist of submissions

All amendments shown in conventional colours

☒

Restoration Method Statement (where applicable)

☐

Accessibility Audit Report (where applicable)

☐

Fire Safety and Ventilation Report (where applicable)

☐

GSPO

I hereby declare that the applicant is a Government entity, a GSPO has been issued in relation to this application, and I have uploaded a copy of the GSPO with this submission

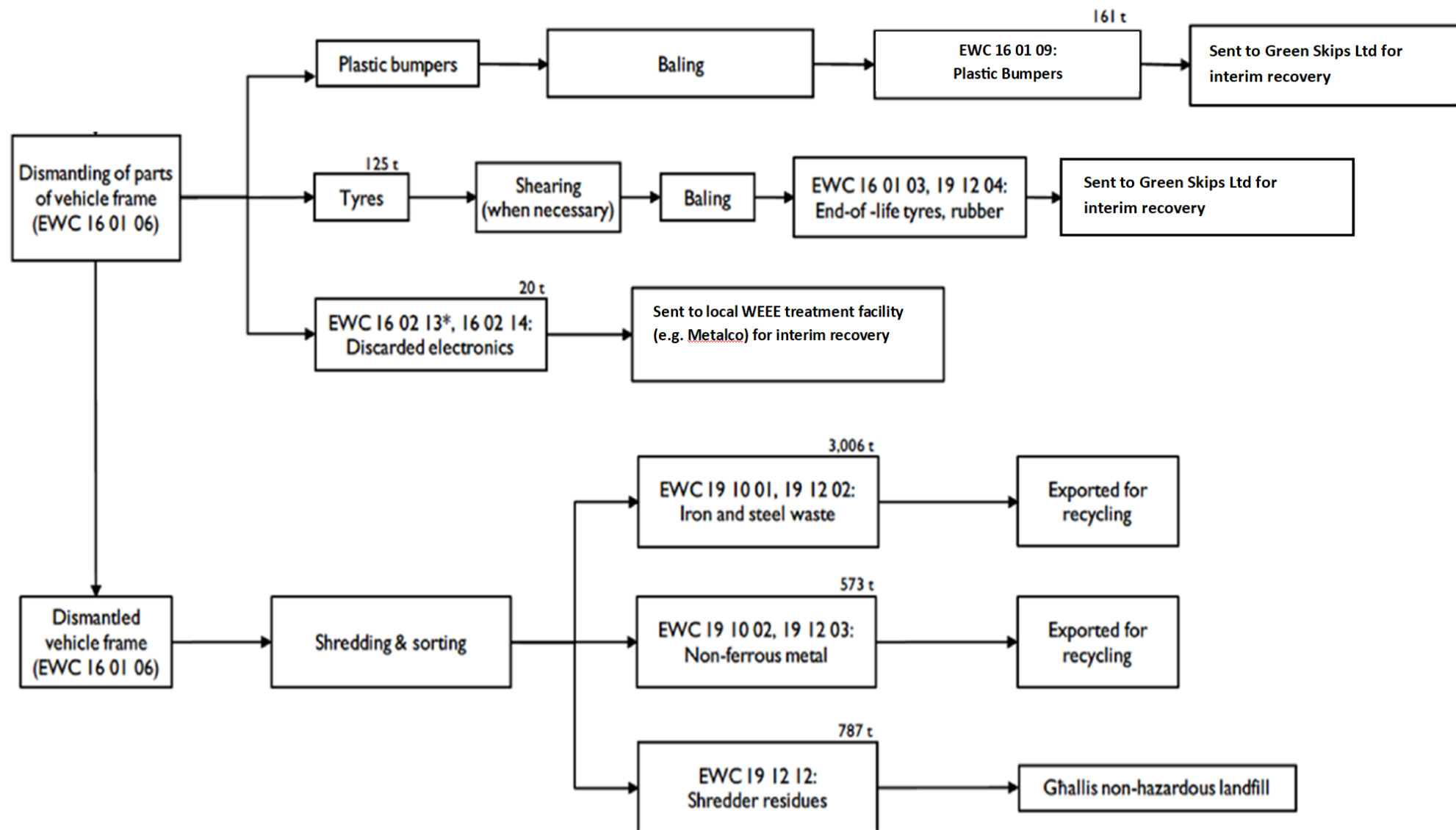
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Order No

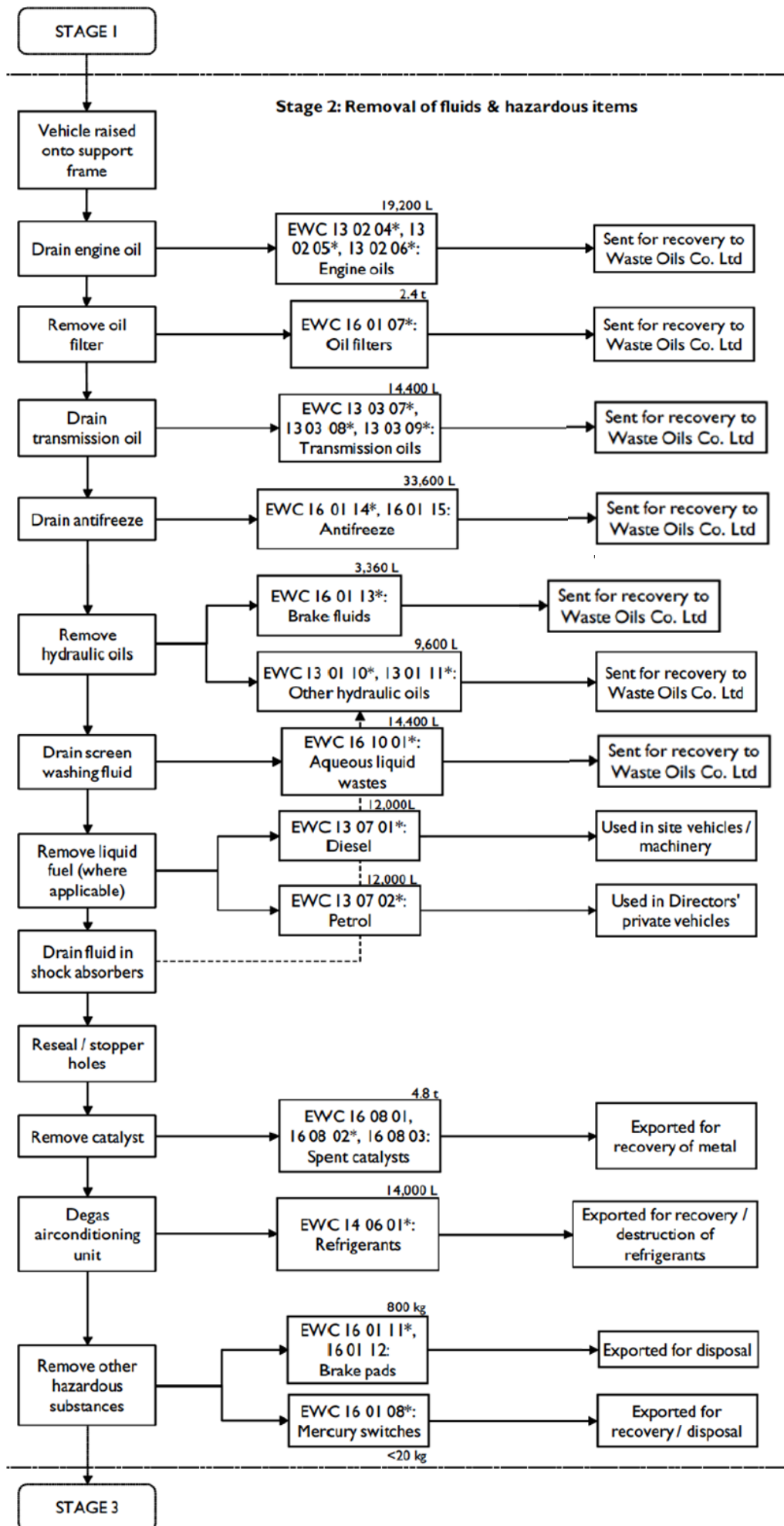
Commitment No

184649

Appendix B12



Appendix B13



IP 0001/13/V2 – Variation of the IPPC permit for DDE Attard Ltd – Comments from ERA, Regulatory Consultation and Public Consultation- 3

General Note

In this document, **end of life vehicles** are referred to as **EoLVs** whilst **emission limit values** are referred to as **ELVs**.

Form A

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd
A1.1	Noted.			
A1.2	Noted.			
A1.3	Noted			
A1.4	Noted.			
A2.1	Noted.			
A2.2	Noted.			
A3.1	Noted.			
A3.5	The registered address for C4938 is not the one listed in this section. Applicant shall replace the address in the section with the address of the registered office of the company.	This has been updated and can be found in Appendix A1 and within updated variation.	Noted.	

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
C1.1	In Volume 2, Point 2.5, the application indicates that the composter shall be temporarily removed. Applicant to clarify whether this activity will be carried out on site.	Applicant can confirm activity will be carried on site.	Noted. It is being understood that the composter will not be utilised during the period covered by this proposal but will be reinstated soon thereafter.			
C1.2	Noted.					
C1.3	<p>g) With reference to Approved document 2 in IP 0001/13, applicant is to update the phasing plan with the installation of the geotextile membrane.</p> <p>h) With reference to Improvement Program Item 12 of IP 0001/13 and replies to BAT 27d applicant is to install an eddy-current separator and sorter system upstream of the main shredder.</p> <p>i) In order to meet the requirements of S.L. 549.36, Waste Management (End of Life Vehicles) Regulations with respect to re-use and recycling targets, applicant is to implement (b) above and update flow diagrams to demonstrate that upholstery shall be removed manually prior to shredding as indicated during the processing of IP 0001/13.</p>	<p>a) Document 2 has been updated as per Appendix A2 of this document.</p> <p>b) Eddy-currents separator and sorter are installed.</p> <p>c) After discussions with ERA it was determined that upholstery should not be removed, since the capability of reaching requirements set out by S.L. 549.36, (Waste Management (End of Life Vehicles) Regulations) can be reached without upholstery. Appendix A3 provides an update response to the one provided on the 3rd April 2019, within VOLUME 3: RESPONSE TO FEEDBACK ON IPPC APPLICATION.</p>	<p>Noted.</p> <p>Applicant to provide good quality coloured photographs of the installed equipment including the model number.</p> <p>Comment below in regulatory consultation comment regarding waste streams refers.</p>	<p>Noted.</p> <p>Please find this attached within Appendix B1. Model number for this is SGM Magnetics S.p.A. EIS100/150.</p> <p>Noted.</p>		
C1.4	Noted.					
C2.1	<p>EMS at Annex 6. Incorrect reference, to be updated.</p> <p>References to MEPA to be changed to ERA.</p>	Incorrect reference updated as per Appendix A4 in this document and submitted variation document.	Noted.			
C2.2.1	Noted.					
C2.2.2	Noted.					
C2.2.3	Noted.					
C2.2.4	Comments on BAT in separate table below. Applicant is to provide the complete BAT conclusion together with the applicant's reply as part of the revised IPPC application.	This requirement has been followed.	Comments on BAT in separate table below.	Noted.	Comments on BAT in separate table below.	Noted.

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
	The BAT assessment is to also cover the shredding of EoLVs and metal carried out until such time that Phase 4 is complete.	The BAT assessment provided in variation document covers the shredding of EoLVs and metal carried out until such time Phase 4 is complete.				
C2.2.5	Noted.					
C2.3	Noted.					
C2.4	Noted.					
C2.5	Noted.					
C2.6	Noted.					
C2.7	Noted.					
C2.8	2 nd row in Table 4, Volume 2 makes reference to temporary hardstanding and temporary gutters. Applicant to clarify why such infrastructure is proposed to be temporary when the row deals with a permanent source.	This was an oversight in the original application and has been updated as per Appendix A5 of this document and revised variation submitted.	Noted.			
	Until such time that the infrastructural measures, such as the underground reservoirs, referred to in Annex 4 are implemented within the proposed timeframes for Improvement Program 9 in pages 20-21 of Volume 2, applicant is to provide temporary firefighting measures suitable for the temporary EoLVs depollution and processing being processed through this application.	As per discussions with ERA it was determined that a description for temporary firefighting is provided and can be found in point 66 of Annex 4, stating “as a temporary measure before firefighting reservoir is constructed, a dedicated 500L capacity water bowser, with pump dispenser will be stored on site for use in the event of a fire.”	Noted.			
	Applicant to note that should they intend to continue accepting electric/hybrid vehicles on site, a pit for temporary storage of such vehicles needs to be constructed. Minimum requirements for such pit can be noted below:	For this variation, DDE Attard will not be accepting electric/hybrid vehicles, until new variation is submitted.	Noted.			
	<div><div>7. Shall be a minimum of 3m away from flammable material.</div><div>8. Shall have water sprinklers on the floor and the walls which will activate if the car catches fire</div><div>9. Shall have an adequate drainage system which shall collect all water used for firefighting. The water shall not be discharged to environment or to sewer but must</div></div>					

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
	<p>be collected by a waste carrier or treated on site.</p> <p>The construction of this pit must be accompanied by an SOP for its use. The below requirements are to be noted:</p> <ol style="list-style-type: none"> Any electric/hybrid vehicle accepted on site that was involved in an accident or that had previously caught on fire must be quarantined in the pit for a minimum of 48 hours In the case of CPD involvement, applicant shall inform that the source is an electric/hybrid vehicle <p>Applicant to provide a detailed plan, including timeframes, as to how the above mentioned requirements will be met. Such a plan will need to be approved by ERA and other regulatory consultees, as deemed appropriate by ERA. To note that acceptance of electric/hybrid EoLVs under EWC 16 01 04* will not be allowed prior to the completion of the above mentioned requirements.</p>					
C2.9	Noted.					
C2.10	Applicant to provide a detailed proposal as to how the composter will be temporarily decommissioned. This shall include how dismantling will be done in an environmentally safe manner and how storage will be within an adequate area. Any wastes envisaged to be generated from the temporary decommissioning shall be indicated together with the EP/IP number of the facility which will be utilised to dispose of the waste.	Decommissioning Plan has been provided in Appendix A6.	The plan does not detail where the composter is planned to be stored following decommissioning. Applicant to provide an updated plan with the above-mentioned information.	Please find attached Appendix B2 detailing this.	Noted.	
C2.11	Noted.					
C3.1	Applicant shall clarify whether EoLVs being proposed to be accepted on site (depolluted or otherwise) are solely road vehicles or whether other types of vehicles (sea, air) are being considered. Comment in C3.11 refers.	As per discussions with ERA, it was concluded EWC codes shown in figure 4.1, Incoming Waste indicated will only be allowed, relative to whether this originates from road vehicles or other vehicles (sea, air).	With regards to the possibility of treating wastes other than road vehicles classified under 16 01 04* and 16 01 06, kindly describe any additional measures and precautions that shall be taken to handle waste generated by these streams including additional fuel	Depollution of vehicles other than road (sea, air) are undertaken at a third party licensed permitted facilities, to which ERA always requested a separate method statement (DDE Attard Ltd duly obliged and provided). Waste derived from such depolluted	Applicant to clarify the extent of the depollution that will be carried out on such sea and air vehicles for such waste to be acceptable on site. This shall include a list of components and waste streams that could be accepted on site in relation to the	As per meeting undertaken between ERA personnel (Stefan Montebello and Anthony Aquilina) and DDE Attard Ltd (Disma Attard, Andre Camilleri and Mark Cilia), it was clarified that all waste codes that will be entering facilities will be covered by a Method Statement.

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
	<p>Applicant to provide a maximum storage capacity for EWC 16 01 06.</p> <p>The variation proposal shows the utilisation of the Phase 2 area to depollute and dismantle EoLVs. Applicant shall provide plans and sections showing the location of the proposed shed for vehicles awaiting depollution and associated internal roads keeping in mind that polluted EoLVs shall be stored on a hardstanding area with adequate waste water collection and treatment. Proposal shall also indicate the maximum storage capacity of EWC 16 01 04* during the proposed temporary operations.</p> <p>Further to comment in C1.3(c), applicant is to indicate how the re-use and recycling targets in S.L. 549.36 shall be achieved prior to the acceptance and processing of polluted EoLVs.</p> <p>Applicant shall also indicate how lead acid batteries from EoLVs shall be stored within adequate containment boxes. These boxes shall be resistant to the corrosive action of battery acid and have a snug fitting lid. Further to comment in C2.8, applicant to note that high voltage batteries from</p>	<p>As indicated on pg 179 of VOLUME 2: IPPC APPLICATION, the maximum amount of EWC 16 01 04* is 4,800T/annually. Of these 4,800T, it is estimated that around 1,920T will be EWC 16 01 06.</p> <p>Appendix A7 provides the plans and sections showing the location of the proposed shed for vehicles awaiting depollution. The maximum storage capacity of EWC 16 01 04* during the proposed temporary operations is of 10 vehicles.</p> <p>Please refer to comment C1.3c)</p> <p>Lead acid batteries are presently being stored in adequate containment boxes as per Appendix A7. As noted in comment C2.8, electric/hybrid vehicles will not be accepted.</p>	<p>types, insulation etc. This shall also include a detailed description of how the proposed depollution rig or alternative equipment could be utilised for such waste streams.</p> <p>Incorrect reference in reply to 1st review since page 179 does not exist. This is to be corrected. Since the 4,800 tonnes include both 16 01 014* and 16 01 06, applicant shall include a clarification regarding this in the application document.</p> <p>Noted.</p> <p>Noted.</p> <p>The makeshift containers indicated in Appendix A7 are not considered adequate. Kindly propose apposite containers for the storage of waste batteries originating from WEEE and ELVs dismantled on site in a manner which protects the batteries from</p>	<p>vehicles will arrive treated (as per method statement).</p> <p>Please find this attached in Appendix B3. For EWC 16 01 06 estimated amount is of 1,920T. For EWC code 16 01 04* estimated amount is of 2,880T.</p> <p>Noted.</p> <p>Noted.</p> <p>The containers being considered are those shown in Appendix B4. These containers will be located on impermeable ground.</p>	<p>already permitted waste streams (or proposed in this variation).</p> <p>Furthermore, applicant to note that as discussed during the meeting, it will be proposed that prior to the acceptance on site of any waste under 16 01 04* or 16 01 06 which did not originate from a road vehicle, a method statement showing how the waste will be processed.</p> <p>Appendix B3 provide annual throughput for the waste streams whilst query was related to maximum storage capacity of the site. Applicant to indicate the maximum storage capacity for the area being proposed to store 16 01 06.</p> <p>The provided image seems to depict a bin which protects its contents from the elements. Applicant to provide timeframe for procurement and deployment of these bins on site.</p>	<p>This has been noted by DDE Attard.</p> <p>The maximum storage capacity for the area being proposed to store 16 01 06 is of 64Tonnes (of which these will be continuously processed).</p> <p>A supplier for these has been found in Italy and currently communication is being undertaken to determine when these can be supplied. It is not anticipated it will take more then 6 months to supply.</p>

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
	electric/hybrid vehicles shall be stored separately to lead acid batteries. Applicant shall indicate the storage method for such batteries.		the weather elements and is located on impermeable ground in order to facilitate the clean-up of potential spills.			
C3.2	Noted.					
C3.3	Noted.					
C3.4	Applicant shall indicate whether the interceptor and reservoir will be located aboveground or underground and provide its maximum storage capacity. In the case that further excavations are required than those approved by Approved Document 2 of IP 0001/13, indicate the projected volumes of such hazardous waste to be exported.	As indicated during discussions with ERA the permanent interceptor and reservoir will be located underground for which maximum storage will be the same as indicated within original application (175m ³ reservoir used for providing fire fighting water and 800m ³ reservoir for collection of water). The temporary interceptor reservoir (having a storage capacity of 460m ³ and for which specification can be found in Appendix A8) will be underground. No trenching is to be carried out, but part of the site will be backfilled to be brought to grade.	Noted.	Noted.		
	If available, applicant shall provide the certificate for impermeability for the plastic temporary reservoir from an independent warranted engineer or architect. If not, applicant is to provide timeframe for submission.	Certificate of impermeability is not currently in hand and will be provided once complete at end of Stage 2.	Noted.	Noted.		
	Furthermore, applicant shall indicate whether the temporary reservoir shall have any overflow and if yes, whether this shall be to land. In the eventuality of a discharge to land, applicant to update C3.8.	Temporary reservoir will have an overflow and this overflow will be to land. Section C3.8 updated as required.	Section C3.8 has not be updated. Applicant to provide an updated application form.	Please refer to Appendix B5.	Noted.	
C3.5	Noted.					
C3.6	Noted.					
C3.7	Noted.					
C3.8	Comment in C3.4 refers.	If overflow occurs, this will be due to rainwater gathered at area. Such an overflow would still have passed through an interceptor/reservoir system meaning any overflow will be filtered. The location of such overflow has been provided in Appendix A9.	Noted. Comment in C3.4 refers.	Noted.		

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
C3.9	Applicant is to submit a noise monitoring survey as requested by ERA through the Compliance and Enforcement Directorate on the 8 th July 2021.	DDE Attard acknowledges noise study has not been provided. Since currently works are being undertaken as per requirements of permit issued, it was determined that such a noise study (for which method statement has been provided and approved by ERA) would not be indicative of normal activity process at DDE Attard Ltd. For this reason, DDE Attard will inform ERA when such works are completed and activities as per permit commence. Once confirmed by ERA, noise monitoring will be undertaken.	Noted. It will be proposed that noise monitoring takes place following the completion of the hardstanding installation.			
C3.10	Monitoring proposal as per comments in BAT 6 and BAT 7 is required.	Comments to BAT 6 and BAT 7 have been provided.	<p>The effluent monitoring proposal for the reservoir overflow shall be updated to include:</p> <ol style="list-style-type: none"> 1. The analytical standard methodology to be used to test each parameter 2. The lab which will be used to test the samples for the parameters. The lab will need to have accreditation to perform the tests using the methods specified in 1. 3. The lab's accreditation certificate 4. Sampling methodology (including but not limited to number of samples taken each time). This shall include a clarification on where the sample will be taken from since Appendix A8 refers to the technical specifications of the oil-water interceptor. 5. The rationale behind the chosen 2-year frequency is to be backed up by calculations showing when and how frequent the overflow discharge is expected to occur. This shall consider the average 	<p>The updates requested in 1., 2., 3., 4., 6. and 7. have been provided in Appendix B6.</p> <p>With regards to point 5, after discussions with ERA, it was determined sampling will be undertaken each and every year for the first two years, subject to revision after this.</p>	The provided method statement includes some parameters which have been given an LOD of 0. Applicant to note that 0 is not an acceptable LOD and an updated method statement is required.	Please find Appendix C1 with update requested.

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
			<p>rainfall and maximum capacity of the reservoir.</p> <p>6. A full list of the PAHs, PCBs, PCDD/PCDF, Chlorinated aliphatic hydrocarbons and Halogenated aliphatic hydrocarbons being considered for monitoring.</p> <p>7. With reference to the baseline study, applicant shall either include ammonium and chloride as parameters to be monitored or shall provide a reason for their omission.</p>			
C3.11	<p>Applicant shall include a flow diagram for the acceptance and treatment of EWC 16 01 06.</p> <p>Comment in C3.1 refers. If applicant intends to accept vehicles other than road vehicles, flow diagrams for the processing of such vehicles may need to be provided.</p>	<p>The flow diagram for the acceptance and treatment of EWC 16 01 06 can be found attached to Appendix A10.</p> <p>Please refer to comment C3.1.</p>	<p>Noted.</p> <p>Comment in C3.1 above refers.</p>	<p>Noted.</p> <p>Noted.</p>		
C4.1	Noted.					
C4.2	Noted.					
C5.1	Noted.					
C6.1	Noted.					
C6.2	With reference to para 5.5 of Volume 2, applicant is to identify all third party sites immediately adjacent and surrounding the site which might be affected by emissions from site.	Correction has been made and can be found within variation application submission provided and Appendix A11.	Noted.			
C6.3	Noted.					
C7.1	Applicant shall provide a written confirmation from the Planning Authority indicating that the temporary works being proposed do not require development consent. Should the Planning Authority determine that a development permit is required, applicant shall submit an application and plans to the Planning Authority for its consideration.	DDE Attard Ltd has engaged the service of an architect who indicated that the temporary works being proposed do not require development consent.	Comment in regulatory consultation below refers.	Noted.	ERA acknowledges receipt of the decision notice of the minor amendment which was submitted to the Planning Authority following their comment in the consultation process. No further comments.	
C8.1	Noted.					
C8.2	Noted.					
C9.1	Annex 4 is to include a business plan indicating the feasibility of the proposal covered by this application. This shall describe how the applicant has financial	Annex 4 has been updated, providing a business plan, indicating the feasibility of the proposal covered by the application, and can	Whilst noting the envisaged profit margins, applicant to note that expenditure plan needs to show the costing of the proposal covered by	Kindly refer to Appendix B7. Please note this information is highly confidential and cannot be shared	Comment re confidentiality noted. No further comments.	

Section	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
	capacity to comply with all obligations and liabilities that will or may arise from the proposed activities or how financial security may be offered.	also be found in Appendix A12. Funding for such has been secured for first part of the project and ongoing for the second part of the project.	this application including associated construction works, environmental obligations being covered by current permit requirements and feasibility study updated accordingly.	without prior consent of DDE Attard Ltd.		

Comparison with BAT Conclusion

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
1 xv	Further to the below comment in BAT 17 and C3.9 above, applicant to note that the noise study requested as an Improvement Program has not yet been addressed.	DDE Attard acknowledges noise study has not been provided. Since currently works are being undertaken as per requirements of permit issued, it was determined that such a noise study would not be indicative of normal activity process at DDE Attard Ltd. For this reason, DDE Attard will inform ERA when such works are completed and activities as per permit commence. Once confirmed by ERA, noise monitoring will be undertaken.	Noted. It will be proposed that noise monitoring takes place following the completion of the hardstanding installation.	Noted.		
3	<p>With reference to Phase 1 indicating that the composter shall be temporary removed, applicant shall indicate how its process effluent is being considered in this BAT conclusion by confirming that following the conclusion of the proposed End-of-Life shredding facility, the composter shall be relocated to its currently permitted location.</p> <p>The inventory shall also cover potentially contaminated surface runoff/waste waters may also be generated from the storage of hazardous waste (e.g. polluted EoLVs) and their processing. It shall include all pollutants which may be present in any waste water generated by all waste treatment activities which may necessitate on site capture and treatment. This shall include a list of environmentally acceptable pollution concentration levels and may be based on past monitoring records if available.</p>	<p>Process effluent was not considered for composter since no effluent is stored within. The composter will be relocated to its current permitted location.</p> <p>Contaminated surface runoff/wastewater generated from the storage of hazardous waste (e.g. polluted EoLVs) will not be generated by process but rather possibly by rainstorm. Since at the present moment EoLVs and indicated other materials are not being stored or not stored by the amounts indicated with the application, the required information is not available. For this reason, DDE Attard Ltd is ready to undertake tests of water samples in order to determine the concentration levels of said wastewater from different areas (as per Figure 2.19 sampling locations in VOLUME 2: IPPC APPLICATION).</p>	<p>Kindly provide requested information for the composter effluent being discharge to the sewer.</p> <p>Incorrect reference in reply to 1st review since figure 2.19 does not exist. This is to be corrected. Applicant to note that any waste water which has been in contact with waste storage and treatment activity including those used in the shredding activity and other surface runoff is to be considered. Applicant is to provide timeframes by when such testing shall take place.</p>	<p>Effluent is not stored within Composter and since this will not be used no effluent will be discharged.</p> <p>Please kindly do not refer to figure 2.19.</p> <p>Surface runoff water will be resultant within reservoir. Such testing will be undertaken as per information provided in response C3.10.</p>	<p>Noted.</p> <p>Noted.</p>	

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
4 b	Comment above in C3.1 refers regarding maximum storage capacity for EWC 16 01 04* during the temporary phase and EWC 16 01 06.	Comment has been provided in section C3.1.	Comment above in C3.1 refers.	Noted.		
6	Based on BAT 3 and Improvement Programme Item 7 of IP 0001/13/A, applicant is to provide an effluent monitoring proposal for any overflow from permanent/temporary treated water reservoirs including the sampling points and proposed parameters to be monitored.	An effluent monitoring proposal has been provided within Appendix A13 of this document. As indicated during discussions with ERA, water reservoir will overflow when a heavy rainstorm hits site. For this reason, testing will be undertaken every 2 years and sample tests provided when such rainfall hits.	Comments above in C3.10 on monitoring proposal refer.	Noted.		
7	Based on the inventory in BAT 3, applicant to consider any overflow from permanent/temporary treated water reservoirs to be a discharge to environment and proposed parameters to be monitored. These parameters will be added to the Monitoring Plan requested in Improvement Programme (IP) Item 7 of IP 0001/13.	Please refer to BAT 6.	Comments above in C3.10 on monitoring proposal refer.	Noted.		
8	Applicant is to provide an emissions to air monitoring proposal including the monitoring standards to be utilised covering the main shredder based on the requirements for IP 0001/13 and this BAT, BAT 14 and BAT 25.	BAT 8 is referring to monitored channelled emissions to air with at least frequency provided. As will be indicated within BAT14 and BAT 25 options for monitoring such channelled emissions are determined to be unattainable with reason. As an alternative, DDE Attard Ltd is proposing monitoring air quality within area, as per parameters and timeframes that would be established in an air quality monitoring method statement.	Comment below in the regulatory consultation review concerning air quality refers.	Noted.		
11	Applicant to explain how waste water discharged to both land and to sewer shall be measured.	BAT 11 indicates that monitoring includes direct measurements, calculations or recordings e.g. using suitable meters or invoices. Since no wastewater will be discharged to land and wastewater to sewer will be originating from lavatories, a calculation will be used as per Appendix A14.	Applicant to note that overflow to land will require to be considered as a discharge to land whilst process effluent from composter is to be considered as a discharge to sewer. Appendix A14 is to be updated accordingly.	DDE Attard Ltd has identified that overflow to land will be considered to be discharge to land, and if such occurs this will be measured. Appendix A14 is referring to discharge to sewer, and since Composter is not going to be used such process effluent is not to be considered.	Applicant to indicate how such discharge will be measured.	Please find response within Appendix C2
14	Applicant is to provide a plan and section of the shredder shed indicating how such shed shall	During consultation with the architect it was determined it was	Noted.	Noted.		

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
	be suitably contained to reduce diffuse emissions and thereby the other requirements of BAT14d i.e. “maintaining the enclosed equipment or buildings under an adequate pressure and collecting and directing the emissions to an appropriate abatement system via an air extraction system and/or air suction systems close to the emission sources” met.	<p>not possible for the shredder to be under a shed. Reasons were due to:</p> <ol style="list-style-type: none"> 1. Height limitation of area since site is close to an airport 2. Equipment on site is moveable and having shed would result in machinery not being able to be moved for maintenance requirement. This may in turn result in potential safety hazards 3. The possibility of safety hazard as indicated in BAT25. <p>As per BAT 14, the techniques proposed are being applied as per Appendix A15.</p>				
17	Applicant is to provide the noise monitoring survey as requested in C3.9 above.	Kindly refer to note in C3.9	Comment in Section C3.9 refers.			
18	Comment regarding noise monitoring plan in BAT 17 refers.	Kindly refer to note in BAT17	Comment in Section C3.9 refers.			
19 d	In view that the fuel tanks are being proposed to be retained in this application, applicant shall provide appropriate bund certifications for each fuel tank on site. Furthermore, applicant shall provide a decommissioning plan with timeframes for any fuel tanks which shall not be utilised as such.	<p>Current fuel tank on site is 800L tank. Bund certification is provided in Appendix A16.</p> <p>Other fuel tanks on site will be finalized by latest completion of Phase 4 works and bund certifications for each fuel tank will be provided.</p> <p>No decommissioning plans are being considered at present.</p>	<p>Appendix A16 refers to a 10,000 litre tank. Applicant to indicate the use of this tank on a layout plan.</p> <p>Bund certification for the 800L tank mentioned in applicant’s reply has not been provided.</p>	Reference was meant to be made for 10,000L tank and not 800L tank. Please refer to Appendix B8 for the placement of such tank within layout plan (ref 26: 9m ³ fuel storage tank).	Noted.	
19 f	With reference to Section B3.5 of the original IPPC application IP 001/13, applicant to explain how potentially contaminated runoff from the road surfaces of the installation shall be separated from clean rainwater from the roof surfaces. Layout plans might need to be updated accordingly without prejudice to any development permit requirements or those of any other regulatory body.	Section B3.5 of the original IPPC application IP 001/13 stated “Clean rainwater from roofed areas will be received in the underground reservoir without pre-treatment”. This will not be the case. Rainwater from the roof surface will be diverted through downpipes to the surface	Applicant to provide a drainage plan showing how all effluent (both clean rainwater and contaminated effluent) will be handled in line with reply to 1 st review at all times.	Please refer to Appendix B9.	Applicant to indicate whether the pumps within the pump room are electric or fuel operated. Should these be operated by fuel, applicant to provide the Rated Thermal Input (MW _{th}) of the pumps together with the fuel type. Applicant to also indicate how any fuel storage used for the	<p>The pumps are fuel operated and have a Rated Thermal Input (MW_{th}) of 53kW_{Th}.</p> <p>The pump set, including its fuel storage tank, will be installed in a bunded area. A reinforced concrete containment structure will be constructed to serve as a</p>

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
		gutters. In turn all water will be treated as per section 4.26 of Section B3.5. It is to be noted that roofed area represents only some 20% of the site area.			pumps shall be equipped with adequate secondary containment.	<p>bund prior to the installation of the pump set. The bund will be sized according to the particular pump set design and shall be capable of holding a volume of fuel of at least 110% of the pump fuel tank capacity. This shall ensure that no spill of fuel from the pump can lead to leaks to the pump room.</p> <p>Furthermore, it is to be noted that the pump room itself shall is being designed as a liquid-tight containment structure and in the unlikely event of any leak inside the pump room this will be contained such that no leaks to the surrounding environment are possible.</p>
20	Applicant to note that any treated water reservoir overflows are to be considered for this BAT. Based on reply to BAT 3, applicant is to consider revision of reply to this BAT to cater for all the pollutants listed in BAT 3 and suggest achievable limits for metals and metalloids which are also compliant with the limits provided by WSC.	Considerations have been made for water reservoir overflow and techniques decided to be used offered within BAT 6 and BAT 7. In reference to BAT 3, if reference is being made to potentially contaminated surface runoff/wastewater from the storage of hazardous waste, such identification of pollution generation is not able to be determined unless testing is undertaken once installation is fully operational.	Noted.	Noted.		
21	Applicant to provide a reply to this BAT for the temporary storage of EWC 16 01 04* and for EWC 16 01 06.	Replies to BATs provided for temporary storage of EWC 16 01 04* and for EWC 16 01 06 can be found Appendix A17	Noted.			
23	Applicant to provide timeframe by when an Energy Audit (for the current and proposed operations) can be provided.	The period between when Energy Audit will be provided is March 2022 and August 2022.	Noted.			
25	Further to the provided reply to BAT 14d above, BAT shows that water injection into shredder should be accompanied by cyclone or wet scrubber for waste gas. Applicant to provide timeframe for the submission of a plan for the installation of further abatement for the	With reference to “water injection into shredder should be accompanied by cyclone or wet scrubber for waste gas” such techniques have been found not	With reference to ERA comment in 2 nd review to BAT 14, since BAT 14 is being considered addressed without the requirement of BAT14d, requirements set out in 1 st review do not subsist.			

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
	<p>shredder. In view that newly published BAT Conclusions will need to be implemented within four years from adoption of a relevant decision on BAT conclusions as per S.L. 549.77, applicant shall indicate which measures (a)-(c) shall be implemented including timeframes.</p> <p>Further to the affirmative reply in BAT 14d, applicant is to provide the emission limit value that can be achieved under optimised operational conditions as described in the reply to this BAT comparison.</p>	<p>to be viable for the following reasons:</p> <ul style="list-style-type: none"> • Costs are exorbitantly high, making return on investment not worthwhile • Cyclone/wet scrubber would go over height limitation allowed for the area (since this is near airport) • Impractical/possibly dangerous to implement. Normal process requires grabber to input material from top. A pressure transportation system would be required for cyclone/wet scrubber to be able to operate and in turn requiring an opening/closure system. This would not allow for grabber to push the material downward (as shown by link) and cycle time being too long (total process: open, place vehicle, close, pressurise, shred, finish) for process to be feasible • Safety hazard – machinery is not designed to operate in a closed system. If there is a fire, this is combatted by inputting water. The opening and closing system would not provide ability for operator to identify such a resultant fire, potentially resulting in an explosion. <p>Alternative Techniques: The alternative being proposed is keeping water injection within shredder, monitor required</p>				

Conclusion	ERA Comments – October 2021	Comments by DDE Attard Ltd	ERA Comments – April 2022	Comments by DDE Attard Ltd	ERA Comments – August 2022	Comments by DDE Attard Ltd
		channel dust emissions and readings are submitted periodically to ERA as per BAT. If readings are higher than those indicated by BAT8, then mist water injection locations will be increased.				
27	<p>The deflagration management plan shall include the following information:</p> <p>3. A review of historical deflagration incidents and remedies, and the dissemination of deflagration knowledge, as applicable</p> <p>Further to the replies to BAT 26 (b) and (c) an indication of how containers, tanks and pipework containing potentially flammable materials shall be cleaned thoroughly (and not just emptied) prior to shredding.</p> <p>Comment in C1.3 (b) above refers.</p>	<p>The section “A review of historical deflagration incidents and remedies, and the dissemination of deflagration knowledge, as applicable” has been included with the Fire Prevention and Response Plan as per Appendix A18 and provided updated variation document. Containers, tanks and pipework which are not certified by an authorized facility or industrial operator, the containers, tanks and pipeworks will pass through same process of car depollution as indicated in figure 9 of variation document with updates shown as per Appendix A19 of this document.</p>	<p>Applicant to provide a copy of the historical deflagration logs so as to demonstrate the lessons learnt from such past incidents.</p> <p>Figure 9 is particularly focused on depollution of EoLVs and does not describe how such non EoLV waste shall be cleaned in a manner to prevent deflagration accidents. Applicant to provide a separate flow diagram to clearly show the cleaning process for such waste.</p> <p>With reference to the replies to the BAT Comparison provided in Volume 2, the reference to the eddy-current separator is to be updated in line with section C1.3.</p>	<p>No major accidents have been experienced by DDE Attard Ltd in recent years. Going forward a log where such information lessons learnt from past accidents will recorded and kept.</p> <p>The process is the following: Waste is being visually inspected upon entry and determined whether these are hazardous or not. If these are not within the acceptance waste criteria these are stopped from being deposited within the facility. Metal items that derive from hazardous storage, such as gas cylinders, fuel tanks etc, are depolluted prior to entering the facility and with all the valves removed. One must keep in mind that such precaution is observed to safeguard the shredder and sorting machinery and above all the operators’ safety.</p> <p>Noted.</p>	<p>Noted. Applicant to ensure that logs are available for inspection at the Authority’s request.</p> <p>Noted.</p>	

Comments from Consultation

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd	Consultee Comment – July 2022	ERA Permitting Unit Comments – August 2022	Comments by DDE Attard Ltd
Occupational Health and Safety Authority (OHSA)	<p>With reference to this consultation process, kindly note that the Occupational Health and Safety Authority (OHSA) finds no objection to an ERA approval, provided that the applicant abides by all relevant occupational health and safety (OHS) legislation and in particular:</p> <p>9) All OHS hazards present at this place of work are covered by a suitable, sufficient and systematic risk assessment carried out as required under S.L. 424.18 and by other relevant OHS regulations. Subsequent to this risk assessment, the employer shall take all necessary measures to prevent occupational risks to health and safety, and shall control those factors which are likely to give rise to accidents or which create a risk to OHS,</p> <p>10) The employer shall designate a competent person on OHS matters to assist that</p>	Applicant to note comments from OHSA. These will be included as permit conditions.	DDE Attard Ltd acknowledges this	No feedback was provided.					

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	<p>employer on the measures needed to safeguard OHS,</p> <p>11) All work equipment used at this site shall comply with the relevant OHS regulations particularly, but not limited to the provisions of S.L. 424.35 and</p> <p>12) Any construction works shall be compliant with the relevant provisions of the Work Place (Minimum Health and Safety Requirements for Work at Construction Sites) Regulations, 2018 (S.L. 424.36).</p>								
Regulator for Energy and Water Services (REWS)	<p>The Regulator is in direct communication with DDE Attard Ltd. for this company to correctly register its fuel storages and obtain authorisation. REWS does not have objections to the IPPC variation application but would like to bring your attention to the part on fuels mentioned in Table 2, point number 3 on page 18 of document 6c.Original Application Volume 2. Where dispensing or refuelling is mentioned, ‘notified’ as per S. L. 545.22 is not the correct term to</p>	<p>Applicant to note that wording of IP Item no 3 shall be reworded in line with comments from REWS. The IP item will request that all fuel storages on site have been duly authorised.</p>	<p>DDE Attard Ltd acknowledges this</p>	<p>No feedback was provided.</p>					

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	use. This will be considered as an authorisation to operate a PFS (Commercial Site) if the application is duly completed. For the rest of the storages (including a & b (ii)), a notification may apply depending on the use of fuel & tank capacities on site at any given time (above 3,000 it is also an authorisation). More details will be asked from the operator, to determine the correct application in this regard. (As mentioned above the REWS is in contact with DDE Attard).								
Water Services Corporation (WSC)	9) Will the temporary and subsequently the permanent oil/water separators be collecting surface runoff? Will they be discharging to road surface?	9) The permanent oil/water interceptor shall receive effluent from the waste storage and processing areas. The temporary oil/water interceptor shall receive water from the composting shed where EoLV depollution is being proposed to be carried out temporarily. ERA is informed that overflow from the reservoir will discharge to road surface. Comment above in Section C3.4 refers with	1) DDE Attard Ltd acknowledges this	<p>No further comments from WSC on the variation of the IPPC permit by DDE Attard Ltd.</p> <p>The only issue to be tackled (once all alterations are completed) is the operations of the composter and any effluents generated from this process (if any). At that stage WSC would need to assess whether a change in the Discharge Permit would be necessary and act accordingly.</p>	Applicant to note WSC comment.	Kindly note composter will not be used hence such change in Discharge Permit is not required.			

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	<p>10) Can I have confirmation whether the composter does generate waste water? If yes, has this ever been tested and will it be discharged to sewer?</p> <p>11) Are wheelie bins containing the food waste for the composter washed on-site? If yes, where? And is the waste water discharged to sewer?</p> <p>12) Is the reservoir overflow discharging to road surface?</p>	<p>regards to overflow from temporary reservoir.</p> <p>10) The composter does generate waste water. The current permit requires the applicant to test the waste water with parameters and ELVs provided by WSC in the consultation on the original application prior to discharge to sewer. Applicant shall clarify whether such testing has ever been done.</p> <p>11) Applicant to provide a response to this query.</p> <p>12) Comment in point 1 above refers.</p>	<p>2) Such testing has never been undertaken since construction work is still ongoing</p> <p>3) Composter is not being used and is not intended to be used on site until further notice. If composter start to operate again, wheelie bins would not be cleaned on site.</p> <p>4) DDE Attard Ltd acknowledges this</p>						
Environmental Health Directorate (EHD)	25) Safe and proper handling of raw materials on site should also be ensured.	Applicant to note comments from EHD. With reference to point 6, applicant shall ensure that all	No 1) to ERA Permitting Unit Comments – October 2021 DDE Attard Ltd acknowledges this	No further comments.	Noted.	Noted.			

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	<p>Adequate preventive measures are to be taken regarding the potential accidental spillage of hazardous fluids, fuel and lubricants which are also to be well managed and adequately stored. The Spill Prevention and Response Plan is to be adopted.</p> <p>26) Water for human consumption and personal use at said facilities is to be potable and from an approved source.</p> <p>27) The reservoir-harvested rainwater should not be used for human consumption and/or personal hygiene. Reservoir overflow should discharge directly onto the street after it has passed from the oil/ water separator. If the water from the rainwater reservoir will be used for washing of floor and/or equipment and for flushing apparatus this</p>	<p>existing drainage systems (domestic and otherwise) are leak proof.</p> <p>Applicant shall indicate what measures shall be put in place as interim mitigation measures to reduce the risk of land and</p>	<p>No 2) to ERA Permitting Unit Comments – October 2021</p> <p>DDE Attard Ltd will not operate any part of scrapyard unless proper hardstanding is in place. Furthermore if reservoir</p>		<p>Until such time that hardstanding is in place, applicant is to indicate which waste treatment or storage activities are being proposed to take place on such impermeable grounds.</p>	<p>Currently operation is taken place on hardstanding and only storage of material is taking place on permeable areas.</p>			

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	<p>must be treated with a biocide prior use.</p> <p>28) If second class water, (from rainwater reservoir), is used to sprinkle dust emission this should be treated for Legionella bacteria.</p> <p>29) Mitigation measures and monitoring programmes are to be adopted to prevent noise, air, vibration, and odour pollution generated from operations.</p> <p>30) Although the certification from the independent warrant civil engineer will be granted 42 months form the date permit is granted, (see Table 2. Page 19, Vol2 of the IPPC) all the drainage system on the scheme must be leak proof and abide to Local Laws and Regulations.</p> <p>31) Pest treatment must be carried out along the entire scheme since it is prone to rodent attraction.</p>	surface and ground water contamination.	overflow results due to large amount of rainwater, such water will tested as indicated in previous BAT conclusion comments						

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	<p>Especially since food waste will be received on site.</p> <p>32) Foul water, contaminated surface water and any other anthropogenic waste should not exit the scheme.</p> <p>33) Since the current surface water management is not BAT, (see p26, point 3.19 of Vol 2 of the IPPC), all the necessary preventive measures are to be adopted to reduce and where possibly eliminate the risk of contamination of surface and ground land as well as the surface and ground water.</p> <p>34) Comments provided from pervious consultation on IP0001/13 dated 28th November 2017, are to be taken into consideration with these comments.</p> <p>35) Moreover, any other unpredicted impacts and nuisances which may arise from this operation and that may have a</p>								

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	<p>significant adverse effect on public health are to be immediately addressed by the applicant and the necessary mitigation measures taken.</p> <p>36) Complaints lodged by the public regarding any adverse impacts/nuisances should be immediately addressed by the applicant. All complaints lodged and actions taken are to be recorded and such records are to be readily available to the Competent Authorities when requested.</p>								
Energy and Water Agency (EWA)	<p><i>Energy:</i></p> <p>No comments were provided from an energy perspective.</p> <p><i>Water:</i></p> <p>The results of any historical groundwater quality baseline studies should be included in the Application Document. Sampling of Groundwater monitoring should be carried out by an accredited laboratory from the private borehole onsite or access may be requested from the WSC BH in the vicinity.</p>	<p>ERA notes that the baseline reports have been provided as part of the original application.</p> <p>Applicant shall provide a method statement for periodic ground</p>	<p>DDE Attard Ltd disagrees with the conclusions made by the ERA. ERA has indicated that periodic ground water monitoring should be undertaken “every year until such time that the area is covered with an impermeable surface.” Each area will be operational once</p>	<p>EWA is in agreement with the comments provided by the ERA Permitting Unit in October 2021. Given that the operational area of the facility has been permeable for a number of years, it would make sense that</p>	<p>Applicant to provide a method statement for the monitoring requested in the 1st review which shall include the sampling frequency before and after completion of the hardstanding. Such frequency may consider a lower risk</p>	<p>Initial submitted report indicated the following: <i>reference:</i> 3.322 - The baseline report also concludes that the risk to groundwater from historical and current activities is significantly reduced, considering that substantial attenuation in</p>	<p>No feedback received from EWA.</p>	<p>Applicant to note that in view of the applicant’s comments re groundwater depth, groundwater monitoring will not be required. However, the land testing will still need to be carried out and a method statement</p>	<p>Please find method statement within Appendix C3</p>

Consultee	Consultee Comment – October 2021	ERA Permitting Unit Comments – October 2021	Comments by DDE Attard Ltd	Consultee Comment – April 2022	ERA Permitting Unit Comments – April 2022	Comments by DDE Attard Ltd	Consultee Comment – July 2022	ERA Permitting Unit Comments – August 2022	Comments by DDE Attard Ltd
	Further to this, it is recommended that periodic groundwater monitoring is requested from the applicant. Other than the basic physical parameters of pH, electrical conductivity, the list should include persistent, bio accumulative and toxic (PBT) substances listed in the Groundwater Directive which are relevant to the site including Cadmium, Lead, Mercury, Trichloroethylene and Tetrachloroethylene. These should be measured with a maximum limit of quantification of 0.01 µg/L.	<p>water monitoring as per ove's comments.</p> <p>Parameters for monitoring are listed in Annex 1 below.</p> <p>The monitoring locations and frequency of monitoring shall be included in the method statement together with the sampling methodology as well as the method that will be used for the testing of each parameter.</p> <p>Applicant to note that testing shall be done in an accredited laboratory and the accreditation certificate shall be provided with the method statement.</p> <p>Monitoring frequency shall be not less than once a year until such time that the area is covered with an impermeable surface. Any deviation from the monitoring frequency indicated is to be substantiated with a risk assessment. If the borehole is located in areas belonging to 3rd</p>	<p>impermeable/hardstanding is in place (even in the case of temporary EoLV processing) hence one cannot understand why such monitoring is being requested.</p> <p>Furthermore it is to be noted other neighbouring operational sites maybe affecting Groundwater namely Luqa Civic Amenity site (operated by WasteServ Malta), EasyGas Malta Limited, Hal Luqa and Metalco.</p>	another groundwater monitoring campaign is undertaken in line with the comments by ERA and EWA and this is repeated in the renewal IPPC permit applications to understand how the addition of the hard standing areas are impacting groundwater quality.	to land and groundwater contamination associated with the applicant's proposal to not store, treat and handle waste in areas without hardstanding.	<p>contaminant concentrations is observed from 0 to 2 m and that the groundwater at the Scheme site is found at a depth of around 56 to 60 m below the land surface.</p> <p>Due to this and due to the fact that no boreholes is present within DDE Attard premises, such testing cannot be undertaken.</p>		as detailed in ERA's previous comments is still required.	

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		<p>parties, applicant is to submit a declaration signed by 3rd parties showing that they agree to provide access to the applicant for sampling. The declaration shall indicate that the borehole, including associated equipment (e.g. pump / pipework), is in good working order.</p> <p>The method statement shall also include land (soil) monitoring. Such monitoring shall be carried out from the 5 points identified in the baseline report as well an extra point from an area immediately adjacent to the shredder.</p> <p>Parameters for monitoring are listed in Annex 1 below. Method statement shall include the same items as for groundwater monitoring and shall be not less than once every 2 years until such time that the area is covered with an impermeable surface.</p>							

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Civil Protection Department (CPD)	CPD are currently still assessing this application. From correspondence provided CPD, direct liaison with the applicant is currently underway in relation to firefighting measures.	No feedback required at this stage.	DDE Attard Ltd acknowledges this	The proposal is not consistent when it comes to the size of the water reservoir. In certain cases, the size is written as ' <i>not less than</i> ' whilst in other paragraphs in the report it is written as the exact amount. In the case of the latter, it is stated that the emergency firefighting water reservoir is 175m ³ that is 175,000 litres of water. The applicant is also stating that there is going to be a fire pump that feeds into the firefighting ring main at 3000 l/min capacity. This means that water for firefighting is going to last for less than or approximately one hour which is not sufficient when tackling a fire in a scrap yard. Whilst it is good to indicate that precautions will be taken, such precautions need to be adhered to and do not replace the requirement for an adequate amount of firefighting water.	Applicant to address CPD's concerns accordingly.	All requirements have been discussed directly with CPD, were it was concluded that the size will be not less than 175m ³ and in turn would be able to satisfy at least 2hrs of firefighting water running the suppression system. Please find correspondence with CPD in Appendix B10.	CPD notes applicant's comment in first round of comments in C2.8. The applicant there states that the temporary water reservoir will be of 500l. When noting the smallest fire engine pumps 1,800 litres per minute, CPD wishes to clarify whether this value should be 5000l instead of 500l.	ERA notes that this has issue has been followed up with the applicant who confirmed that a 5000l bowser tank will be present on site for as part of the firefighting equipment until the main reservoir is complete. This clarification has been re-submitted to CPD who have no further comments, subject to the water bowser always being kept filled.	Bowser will always be kept filled.
Planning Authority (PA)	No feedback was provided.	--	DDE Attard Ltd acknowledges this	From the documentation and drawings provided particularly to Figure 4: Proposed Phase 2	Applicant to obtain the relevant development permits.	A minor amendment has been submitted, for which reference within Appendix B11 have been provided.	No further feedback was provided.	No further comments.	

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				Scheme Layout, such phase includes the extension of the hardstanding and shed which currently stores the composter. Such extension is not covered by approved permits PA 5538/07, PA 1876/15 and PA 4172/16 and hence would require a planning permit.					
Transport Malta (TM)	No feedback was provided.	--	DDE Attard Ltd acknowledges this	No comments on the application.					
Malta Resources Authority (MRA)	No feedback was provided.	--	DDE Attard Ltd acknowledges this	No feedback was provided.					
ERA – Ambient Air Quality and Waste – Air Team	No comments on the application.	--	DDE Attard Ltd acknowledges this	Since the shed structure cannot be constructed due to height limitations within the area, the option of channelled emission monitoring is not feasible. The air team does not agree with the applicant's proposal for ambient air quality monitoring, since this is not a direct replacement of channelled emission monitoring. Ambient air quality monitoring does not monitor the emissions emerging solely from the shredder within the facility.	Ambient air quality monitoring is not required.	Noted.			
ERA – Ambient Air Quality and Waste – Waste Team	No feedback was provided.	--	DDE Attard Ltd acknowledges this	4. Figure 1 of doc. 10f (page 49): It is indicated that plastic bumpers (19 12 04), end-	4. Applicant to amend flowchart as follows: to indicate that waste shall be	1. This has been updated and provided within Appendix B12.	1. No further comments.	1. Change noted.	

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				<p>of-life tyres (16 01 03) and plastic and rubber (19 12 04) will be sent to Green Skip Services Ltd or to WasteServ for recycling. Green Skips and WasteServ are not permitted to 'recycle' but rather to carry out interim recovery operations prior to export (i.e. R12 and/or R13, Schedule 2 of S.L. 549.63). Similarly, there are no local facilities which carry out the final recycling of discarded electronic (16 02 13*/14); instead facilities export these for recycling.</p> <p>5. Figure 1 of doc. 10f (page 49): Clarifications are needed on why 'Plastic Bumpers' are not being classified under the subchapter for waste from dismantling of ELVs (i.e. subchapter 16 01), also noting that no treatment is being specified</p>	<p>sent to a local facility for storage prior to export for recycling and to clarify which Wasteserv facility is being utilised to recycle EWC 19 12 04.</p> <p>5. Applicant to provide an updated application which shall classify plastic waste arising from ELV dismantling as 16 01 19.</p>	<p>2. This has been updated and provided within Appendix B12.</p>	<p>2. This was probably a spelling error. It was updated as follows '16 01 09' but it should read as '16 01 19'.</p>	<p>2. Applicant to provide an updated proposal in line with consultee's comment.</p>	<p>Kindly please find this update in Appendix C4</p>

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				<p>for the plastic bumpers (only baling is indicated);</p> <p>6. Furthermore, kindly note that in the Flow diagram (Figure 9, page 29, doc.: 10e) for the acceptance and treatment of EWC 16 01 04* (End-of-life vehicles) indicates that transmission oils (EWC 13 03 07*, 13 03 08*, 13 03 09*) and other hydraulic oils (13 01 10*, 13 01 11*) will be sent to Malta Thermal Treatment facility (MTTF). However, as per their updated permit for the MTTF, this facility is no longer permitted to accept such EWC codes. Also, kindly note that waste oils should be treated according to the waste hierarchy. Notably, as per regulation 18 (1)(b) S.L. 549.63 waste oils shall be treated, giving priority to regeneration or alternatively to other recycling operations</p>	6. Applicant to provide an updated proposal in line with consultee's comments.	3. This has been updated as per Appendix B13.	3. Reference is now being made It to Waste Oils Co. Ltd. However, this facility is not permitted to receive waste classified under the code EWC 13 03 09* (readily biodegradable insulating and heat transmission oils).	3. Applicant to provide an updated proposal in line with consultee's comments.	The only Transmission Oils that will be drained from vehicles are EWC 13 03 07* and EWC 13 03 08*.

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				delivering an equivalent or a better overall environmental outcome than regeneration according to the said waste hierarchy.					
ERA – Ambient Air Quality and Waste – Noise Team	No comments on the application	--	DDE Attard Ltd acknowledges this	No comments on the updated application.					
ERA – Environmental Assessment Unit	No comments on the application.	--	DDE Attard Ltd acknowledges this	No comments on the updated application.					
ERA - Biodiversity and Water Unit	No comments on the application.	--	DDE Attard Ltd acknowledges this	No comments on the updated application.					
ERA – Compliance and Enforcement Directorate	No comments on the application.	--	DDE Attard Ltd acknowledges this	No comments on the updated application.					

Comments from Public Consultation

No comments were received from the public.

Annex 1: Land and Groundwater Monitoring Parameters

Parameter	Land	Groundwater	Parameter	Land	Groundwater
pH		✓	Sulphate		✓
Conductivity		✓	Nitrites		✓
Arsenic	✓	✓	Phosphorus (total)/Phosphate		✓
Cadmium	✓	✓	C12-C35 hydrocarbons (total)	✓	✓
Chromium (total)	✓	✓	C5-C12 hydrocarbons (total)	✓	✓
Chromium (hexavalent)	✓	✓	BTEX (benzene, toluene, ethylbenzene, xylene)	✓	✓
Copper	✓	✓	PAHs ¹⁶	✓	✓
Lead	✓	✓	PCBs ¹⁷	✓	✓
Mercury	✓	✓	MTBE	✓	✓
Nickel	✓	✓	Cyanide	✓	✓
Selenium	✓	✓	PCDD/PCDF ¹⁸	✓	✓
Zinc	✓	✓	Chlorinated aliphatic hydrocarbons ¹⁹	✓	✓
Ammonium		✓	Halogenated aliphatic hydrocarbons ²⁰	✓	✓
Chloride		✓			

=

¹⁶ The PAHs that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

¹⁷ The PCBs that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

¹⁸ The dioxins and furans that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

¹⁹ The chlorinated aliphatic hydrocarbons that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13 including but not limited to Trichloroethylene and Tetrachloroethylene

²⁰ The halogenated aliphatic hydrocarbons that should be considered for monitoring are those which were detected during the baseline study conducted as part of IP 0001/13

Appendix C1

Dr. George Peplow B.Sc.(Hons.)(Lond.), M.Sc.(Salford), Ph.D.(Salford), EurChem, C.Chem., F.R.S.C.

Crystal Blue
Block B No 5
Mac Iver Street
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Tel/Fax: +356 21 311665,

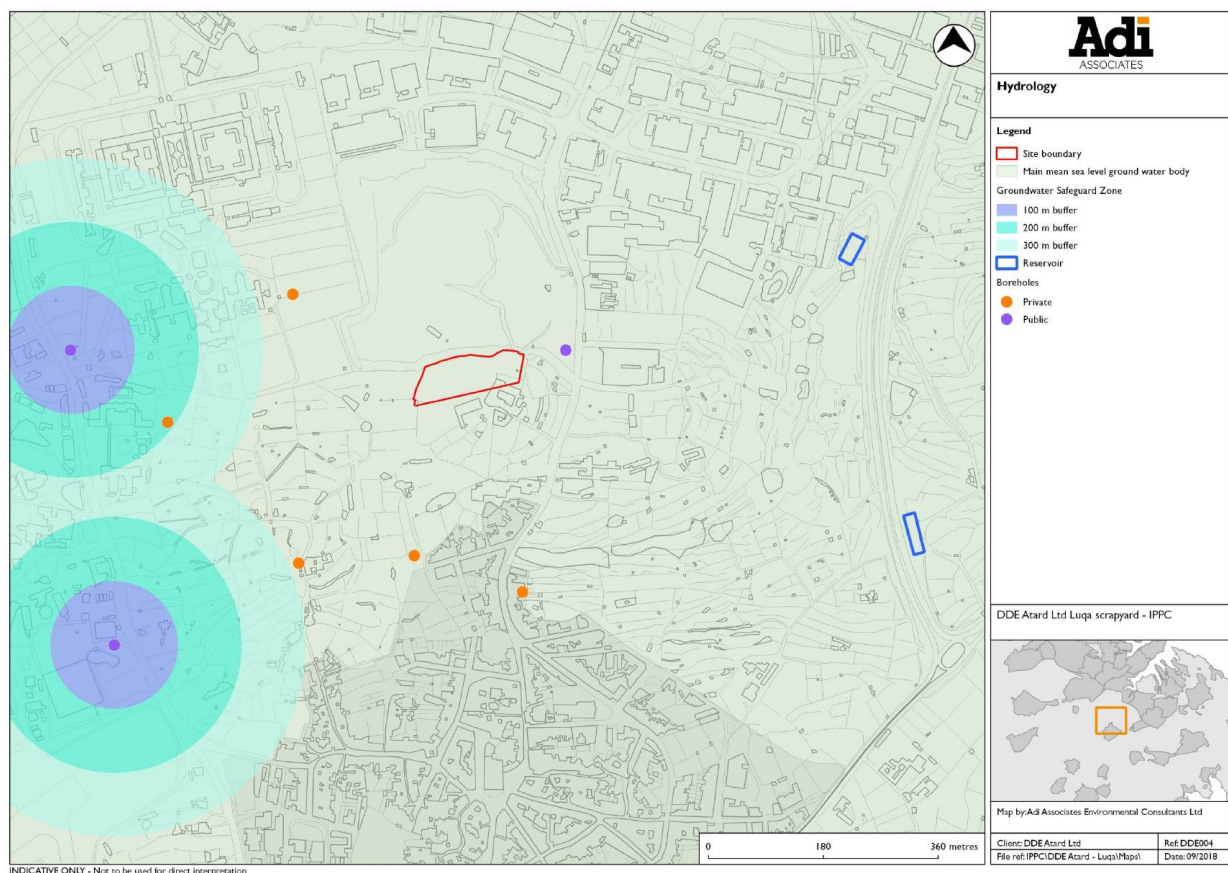
Mobile: +356 9947 0204,

E-mail: peplowg@gmail.com

REPORT REFERENCE: Version 1.0

REPORT DATE 18 October 2022

TO
DDE Attard Ltd
Scrap Lane
Luqa



METHOD STATEMENT: IPPC Permit IP 0001/13 requires the sampling and analyses of water reservoir overflow, collected within the DDE Attard Ltd facilities.

EMS Ltd is submitting this MS for the investigations which includes the following details for the eventual sampling and analysis of the water overflow:

- 1.0 List of parameters.
- 2.0 Standard method of the analysis.
- 3.0 Which tests are accredited.
- 4.0 The lab accreditation certificate.
- 5.0 Sampling method and storage.

At this stage, the following details could not be fulfilled but will be submitted at a later stage:

1. Location of sampling: once the reservoir is complete, sampling points will be indicated and confirmed with ERA, since at present it is not known from where the overflow might occur. The exact location is currently being studied.
2. Sampling frequencies: the rationale being studied is that within the last 5 years, the DDE Attard site was overflowed twice during high rainy days in Malta. With the new design in place, this is considered to possibly not occurring at all unless the storm bursts would be greater than the highest experienced in Malta of >15mm in a brief period of time. Using a risk based approach, because effluent is clean water, risk is low and for these two reasons a 2 year monitoring frequency between October to February is being suggested.

The method of sampling shall be grab sampling following an overflow of the reservoir water. The samples shall be refrigerated immediately upon collection and submitted to the accredited lab within 24 hours.

Code	Parameter	Analyte	LOR	Unit	ACC
W-METMSFL6	Metals – dissolved – by ICP-MS – filtration – group 6	Arsenic	0.005	mg/L	Y
		Cadmium	0.0004	mg/L	Y
		Chromium	0.001	mg/L	Y
		Copper	0.001	mg/L	Y
		Lead	0.005	mg/L	Y
		Nickel	0.002	mg/L	Y
		Selenium	0.01	mg/L	Y
		Tin	0.01	mg/L	Y
		Zinc	0.002	mg/L	Y
W-HG-AFSFL	Mercury (Hg) (Dissolved) by AFS	Mercury	0.01	µg/L	Y
W-CR6-IC	Chromium (VI) by IC	Hexavalent Chromium – Soluble	0.4	µg/L	Y
W-PAHGMS04	PAH by GCMS – group 4 – low limit	Naphthalene	0.007	µg/L	Y
		Acenaphthylene	0.001	µg/L	Y
		Acenaphthene	0.001	µg/L	Y
		Fluorene	0.001	µg/L	Y
		Phenanthrene	0.001	µg/L	Y
		Anthracene	0.001	µg/L	Y
		Fluoranthene	0.001	µg/L	Y

		Pyrene	0.001	µg/L	Y
		Benz(a)anthracene	0.001	µg/L	Y
		Chrysene	0.001	µg/L	Y
		Benzo(b)fluoranthene	0.001	µg/L	Y
		Benzo(k)fluoranthene	0.001	µg/L	Y
		Benzo(a)pyrene	0.001	µg/L	Y
		Indeno(1.2.3.cd)pyrene	0.0003	µg/L	Y
		Benzo(g,h,i)perylene	0.0003	µg/L	Y
		Dibenz(a,h)anthracene	0.0006	µg/L	Y
		Sum of 16 PAH	0.0202	µg/L	Y
		Sum of Benzo(b)fluoranthene@Benzo(k)fluoranthene	0.002	µg/L	Y
		Sum of Indeno(1.2.3.cd)pyrene@Benzo(g,h,i)perylene	0.0006	µg/L	Y
		Sum of 8 PAH (WFD)	0.0126	µg/L	Y
W-TPH6-35/PL	Total hydrocarbons >C12 and <C12.	C12 – C35 Fraction (sum)	35	µg/L	Y
		C6 – C12 Fraction (sum)	15	µg/L	Y
		C10 – C40 Fraction (sum)	50	µg/L	Y
W-DFPCBHMS	PCDD/F+PCB(Dioxin-like+Indicator)	PCB 77		ng/L	Y
		PCB 81		ng/L	Y
		PCB 105		ng/L	Y
		PCB 114		ng/L	Y
		PCB 118		ng/L	Y
		PCB 123		ng/L	Y
		PCB 126		ng/L	Y
		PCB 156		ng/L	Y
		PCB 157		ng/L	Y
		PCB 167		ng/L	Y
		PCB 169		ng/L	Y
		PCB 170		ng/L	Y
		PCB 180		ng/L	Y
		PCB 189		ng/L	Y
		TEQ (dl-PCB) – lower	0.6	ng/L	Y
		TEQ (dl-PCB) – upper	0.6	ng/L	Y
		PCB 28		ng/L	Y
		PCB 52		ng/L	Y
		PCB 101		ng/L	Y
		PCB 118			
		PCB 138			
		PCB 153		ng/L	Y
		PCB 180		ng/L	Y
		Total Polychlorinated biphenyls – 7 congeners – lower	0.6	ng/L	Y
		Total Polychlorinated biphenyls – 7 congeners – upper	0.6	ng/L	Y
		2378-TCDD		pg/L	Y
		12378-PeCDD		pg/L	Y
		123478-HxCDD		pg/L	Y
		123678-HxCDD		pg/L	Y
		123789-HxCDD		pg/L	Y

		1234678–HpCDD		pg/L	Y
		OCDD		pg/L	Y
		2378–TCDF		pg/L	Y
		12378–PeCDF		pg/L	Y
		23478–PeCDF		pg/L	Y
		123478–HxCDF		pg/L	Y
		123678–HxCDF		pg/L	Y
		123789–HxCDF		pg/L	Y
		234678–HxCDF		pg/L	Y
		1234678–HpCDF		pg/L	Y
		1234789–HpCDF		pg/L	Y
		OCDF		pg/L	Y
		TEQ–Lowerbound	5	pg/L	Y
		TEQ–Upperbound	5	pg/L	Y
W–CNT–PHO	Cyanides (CN) –Total by photometry	Total Cyanide	0.005	mg/L	Y
W–VOCGMS01+05	BTEX (VOC) by GCMS – group 1 a 5	Benzene	0.2	µg/L	Y
		Toluene	0.5	µg/L	Y
		Ethylbenzene	0.1	µg/L	Y
		meta- & para-Xylene	0.2	µg/L	Y
		ortho-Xylene	0.1	µg/L	Y
		Sum of BTEX	1.1	µg/L	Y
W–VOCGMS01+05	Volatile organic compounds (VOC) by GCMS – group 1 a 5	Chlorobenzene	0.1	µg/L	Y
		1.1.2.2–Tetrachloroethane	0.2	µg/L	Y
		cis–1.3–Dichloropropene	1	µg/L	Y
		Tetrachloromethane	0.1	µg/L	Y
		1.2–Dichloropropane	1	µg/L	Y
		1.2.4–Trichlorobenzene	0.1	µg/L	Y
		1.2–Dichlorobenzene	0.1	µg/L	Y
		Bromomethane	1	µg/L	Y
		1.2.3–Trichlorobenzene	0.1	µg/L	Y
		Trichlorofluoromethane	1	µg/L	Y
		2–Chlorotoluene	1	µg/L	Y
		1.1.1.2–Tetrachloroethane	0.1	µg/L	Y
		1.3–Dichloropropane	1	µg/L	Y
		1.2–Dibromo–3–chloropropane	1	µg/L	Y
		1.2.3–Trichloropropane	1	µg/L	Y
		1.1–Dichloropropene	1	µg/L	Y
		1.1.2–Trichloroethane	0.2	µg/L	Y
		1.3.5–Trichlorobenzene	0.2	µg/L	Y
		Bromochloromethane	2	µg/L	Y
		Chloroethane	1	µg/L	Y
		Chloromethane	1	µg/L	Y
		1.1–Dichloroethene	0.1	µg/L	Y
		1.4–Dichlorobenzene	0.1	µg/L	Y
		1.1–Dichloroethane	0.1	µg/L	Y
		Dichlorodifluoromethane	1	µg/L	Y
		1.3–Dichlorobenzene	0.1	µg/L	Y
		1.2–Dibromoethane (EDB)	0.5	µg/L	Y
		1.2–Dichloroethane	0.5	µg/L	Y

		1.1.1-Trichloroethane	0.1	µg/L	Y
		Hexachlorobutadiene	1	µg/L	Y
		4-Chlorotoluene	1	µg/L	Y
		Bromobenzene	1	µg/L	Y
		trans-1.3-Dichloropropene	1	µg/L	Y
		Dibromomethane	1	µg/L	Y
		2.2-Dichloropropane	1	µg/L	Y
		Dichloromethane	6	µg/L	Y
		trans-1.2-Dichloroethene	0.1	µg/L	Y
		Trichloroethene	0.1	µg/L	Y
		cis-1.2-Dichloroethene	0.1	µg/L	Y
		Tetrachloroethene	0.2	µg/L	Y
		Vinyl chloride	0.1	µg/L	Y
		Chloroform	0.1	µg/L	Y
		Bromodichloromethane	0.1	µg/L	Y
		Dibromochloromethane	0.1	µg/L	Y
		Bromoform	0.2	µg/L	Y
		Sum of 1.2-Dichloroethenes	0.2	µg/L	Y
		Sum of 3 Dichlorobenzenes	0.3	µg/L	Y
		Sum of 3 Trichlorobenzenes	0.4	µg/L	Y
		Sum of 4 Trihalomethanes	0.5	µg/L	Y
		Sum of 5 Chlorinated Ethenes	0.6	µg/L	Y
		Sum of Trichloroethene and Tetrachloroethene	0.3	µg/L	Y
		sec-Butylbenzene	1	µg/L	Y
		tert-Butylbenzene	1	µg/L	Y
		1.3.5-Trimethylbenzene	1	µg/L	Y
		1.2.4-Trimethylbenzene	1	µg/L	Y
		Isopropylbenzene	1	µg/L	Y
		p-Isopropyltoluene	1	µg/L	Y
		n-Propylbenzene	1	µg/L	Y
		Sum of BTEXS	1.3	µg/L	Y
		n-Butylbenzene	1	µg/L	Y
		Styrene	0.2	µg/L	Y
		Indane	0.2	µg/L	Y
		1.4-Dioxane	50	µg/L	Y
		tert-Butyl alcohol	5	µg/L	Y
		Methyl tert-Butyl Ether (MTBE)	0.2	µg/L	Y
		Ethyl tert-Butyl Ether (ETBE)	0.2	µg/L	Y
		Diisopropyl ether (DIPE)	0.6	µg/L	Y
		tert-Amyl Ethyl Ether (TAEE)	0.2	µg/L	Y
		tert-Amyl Methyl Ether (TAME)	0.2	µg/L	Y
W-VOCFID02	VOC by GC-FID – group 2	Methyl isobutyl ketone	100	µg/L	Y
W-MEK-GMS	2-Butanone (MEK) by HS-GC-MSD –S	2-Butanone (MEK)	500	µg/L	Y
W-PH-PCT	pH at 25 °C by Electrode	pH Value	1	–	Y
W-CL-IC	Chlorides (Cl) (Dissolved) by IC	Chloride	1	mg/L	Y

EQUIVALENT STANDARD METHODS AND METHOD OF STORAGE.

Code	Parameter	Method	Minimal amount/ Container
W-METMSFL6	Metals – dissolved – by ICP-MS – filtration – group 6	US EPA 200.8, CSN EN ISO 17294-2, US EPA 6020A, CSN EN 16192, CSN 75 7358	10 ml, Acid washed glass with HNO3 1x 60 ml
W-HG-AFSFL	Mercury (Hg) (Dissolved) by PSA	US EPA 245.7, CSN EN ISO 178 52, CSN EN 16192	10 ml, Acid washed glass with HCl 1x 60 ml
W-CR6-IC	Chromium (VI) by IC	CSN EN 16192, EPA 7199, SM 3500-Cr	60 ml, Acid washed glass with (NH4)2SO4, NH4OH 1x 60 ml
W-PMETFL	Filtered 0.45 µm and acidification – Dis. metals	ALS internal methodology	
W-PAHGMS04	PAH by GCMS – group 4 – low limit	US EPA 8270D, US EPA 8082A, CSN EN ISO 6468, US EPA 8000D	500 ml, Amber acid washed glass 1x 500 ml
W-TPH6-35/PL	TPH fractions C6-C35/PL	CSN EN ISO 9377-2, US EPA 601, US EPA 8260, US EPA 8015, RBCA Petroleum Hydrocarbon Methods	200 ml, Amber acid washed glass 1x 250 ml, 80 ml, Acid washed glass vial (fill in without bubble) with NaHSO4 2x 40 ml
W-DFPCBHMS	PCDD/F+PCB(Dioxin-like+Indicator)	US EPA 1613, US EPA 1668, US EPA 1668, modified	1000 ml, Amber acid washed glass 1x 1000 ml
W-F-IC	Fluorides (F) by IC	CSN ISO 10304-1, CSN EN 16192	12 ml, Acid washed glass 1x 60 ml
W-F-ISE	Fluoride (F) – total inorganic by ISE	ALS internal methodology	50 ml, Acid washed glass 1x 60 ml
W-CNT-PHO	Cyanides (CN) –Total by photometry	CSN 75 7415, CSN EN ISO 14403-2	60 ml, Acid washed glass with NaOH 1x 60 ml
W-VOCGMS01+05	Volatile organic compounds (VOC) by GCMS – group 1 a 5	US EPA 624, US EPA 8260, US EPA 8015, CSN EN ISO 10301, MADEP 2004, rev. 1.1, CSN ISO 11423, CSN EN ISO 15680	80 ml, Acid washed glass vial (full, no bubble) with NaHSO4 2x 40 ml
W-VOCFID02	VOC by GC-FID – group 2	US EPA 624, US EPA 8260, US EPA 8015, CSN EN ISO 10301, MADEP 2004, rev. 1.1, CSN ISO 11423, CSN EN ISO 15680	80 ml, Acid washed glass vial (fill in without bubble) with NaHSO4 2x 40 ml

W-MEK-GMS	2-Butanone (MEK) by HS-GC-MSD -S	Internal methodology (GC/MS)	250 ml, Amber acid washed glass 1x 250 ml
W-PH-PCT	pH at 25 °C by Electrode	CSN ISO 10523, US EPA 150.1, CSN EN 16192, SM 4500-H(+)	50 ml, Acid washed glass 1x 60 ml
W-TSD-GR	Total solids (105 °C) by gravimetry	CSN 75 7350, SM 2540 B, D, E	100 ml, Acid washed glass 1x 125 ml
W-TDS-GR	Total dissolved solids (105°C)	CSN 75 7346, CSN 757347, CSN EN 16192, CSN EN 15216, SM 2540 C	200 ml, Acid washed glass 1x 250 ml
W-TOC-IR	Total organic carbon (TOC)	CSN EN 1484, CSN EN 16192, SM 5310	25 ml, Acid washed glass with HCl 1x 60 ml
W-SO4-ICL	Sulphate (SO4) dissolved by IC – low limit	CSN ISO 10304-1, CSN EN 16192	12 ml, Acid washed glass 1x 60 ml
W-CL-IC	Chlorides (Cl) (Dissolved) by IC	CSN ISO 10304-1, CSN EN 16192	12 ml, Acid washed glass 1x 60 ml
W-PHI-CFA	Phenol index by CFA	CSN EN ISO 14402, CSN EN 16192, SKALAR company methodology	100 ml, Amber acid washed glass with H3PO4, CuSO4 1x 100 ml
W-DOC-IR	Dissolved organic carbon (DOC)	CSN EN 1484, CSN EN 16192, SM 5310	25 ml, Acid washed glass 1x 60 ml
W-ASB-TEM	Asbestos – drinking water – quantitative determination by TEM – S	EPA 100.1, EPA 1993 [ALS Cincinnati]	500 ml, Amber acid washed glass 1x 500 ml



DR GEORGE PEPLow

Appendix C2

Manner discharge will be measured –

Clarification Note: Due to the size of the reservoir and the high-water consumption on site it is highly unlikely there will ever be an overflow from the reservoirs during a storm event

The proposed location of emission:

Over-flow discharge volume is the product of:

- overflowing time (O_T) (hrs/day),
- rainfall intensity (R_I) during that time (in mm/hour) – will be determined by metrological data
- site catchment (C_S) m^2/mm
- volume of overflow (V_O) on the day (m^3/day)

Calculation:

$$V_O = O_T \times R_I \times \frac{C_S}{1000}$$

Appendix C3

Method Statement

Sampling Points

The five sampling points used within baseline report have been selected to ensure adequate site representation and capture potential current and future contamination, as described in Figure 1.

Figure 1: Sampling points

Point No.	Coordinates (WGS84)	Rationale
1	35°51'56.53"N, 14°29'19.49"E	Area just outside the fuel tank container. This location also corresponds to the proposed garage for parking and maintenance of yard equipment.
2	35°51'56.25"N, 14°29'17.87"E	Currently used for storage of scrap.
3	35°51'57.82"N, 14°29'17.87"E	Currently used for storage of scrap.
4	35°51'58.21"N, 14°29'20.09"E	Currently used for storage of scrap.
5	35°51'57.32"N, 14°29'20.93"E	Currently used for storage of scrap. This location also corresponds to the proposed location for the quarantine area.

Figure 2: Sampling Points indicated on Site Area



Samples will be taken at three depths to determine whether there has been any vertical distribution of pollutants. The first sample will be taken from the surface, the second at 1 m depth, and the third at 2 metres depth. Each core will be around 15 cm in length.

Sampling Methods

Land investigations will be conducted in accordance with BS 4019: 1993: Rotary core drilling equipment, and BS 5930: 1999: Code of practice for geological site investigations. Sampling will be supervised by a chemist.

The sampling point will be cleared and the core sample drilled using a Beretta T44 drill rig. A rotary solid stem auger will be used for drilling through soil and rock. This technique removes the material from the base of the borehole towards the top, and does not require the use of circulation fluids.

After each sample, the drill rig will be moved to a wash-down area and steam cleaned. Voids will be either backfilled using the remaining part of the core not sent for analysis and inert screed or left and closed in a manner that can be reused for sampling later. The latter option will allow for further testing to be undertaken in future.

Surface soil samples will be stored in glass jars whereas rock core samples will be placed in specially manufactured wooden trays. A small portion of each sample will also be placed in a 40 mL septum-capped vial filled to the top immediately upon sampling. The vial will be used by the lab for testing of volatile substances.

All samples will be photographed, labelled, and logged before being sent to the laboratory. Additionally, a record will be kept of any visual or olfactory evidence of contamination (e.g. stains, hydrocarbon odours).

Analysis

Samples will be delivered for analysis at a laboratory accredited to ISO 17025 as well as for certain specific tests as indicated in Table 4. A copy of the laboratory's certification is attached to this method statement.

Delivery will take place by courier within a maximum of 24 hours of sampling. The vials will be kept chilled during transport.

Figure 3, presents the proposed methodology for analysis and associated limits of detection. The laboratory uses in-house methods for analysis based on international reference standards.

Figure 3: Methods for analysis of land samples

Analyte	Analytical methodology	Reference standard ¹⁹	Limit of detection	Test-specific accreditation
C12-C35 hydrocarbons (total)	GC-FID	EPA Method 8015B, Revision 2; TNRCC Method 1006	1 mg/kg	No
C5-C12 hydrocarbons (total)	GC-MS	EPA Method 8260, Revision B	10 µg/kg	No
BTEX (benzene, toluene, ethylbenzene, xylene)	GC-MS	EPA Method 8260, Revision B	1 µg/kg	Yes (soil)

Analyte	Analytical methodology	Reference standard ¹⁹	Limit of detection	Test-specific accreditation
Metals (As, Cd, Cr VI, Cr (total), Cu, Hg, Ni, Pb, Se, Zn)	ICP-MS	EPA Method 6020	0.1 mg / kg	Yes
PAHs	GC-MS	EPA Method 8270, Revision C	0.01 mg/kg	Yes (soil)
PCBs	GC-MS	EPA Method 8082; EPA Method 1668	0.05 µg/kg	Yes (soil)
MTBE	GC-MS	EPA Method 8260, Revision B	1 µg/kg	Yes (soil)
Asbestos	Polarised light microscopy	HSG248	Presence / absence; if asbestos is detected the quantification test has a LoD of 0.001%	Yes (soil)
Cyanide (total)	Colorimetry	DOE Methods for the Examination of Waters and Associated Materials, published by HMSO (1988) (equivalent to EPA 9014)	0.5 mg/kg	Yes (soil, down to 1 mg/kg)
PCDD/PCDF	GC-MS	EPA Method 1613	0.5 ng/kg TEQ	Yes (soil)
Chlorinated aliphatic hydrocarbons	GC-MS	EPA Method 8260	5 µg/kg, except vinyl chloride and dichloromethane (10 µg/kg)	Yes (soil), except dichloromethane
Halogenated aliphatic hydrocarbons	GC-MS	EPA Method 8260	5 µg/kg	Yes (soil), except dibromo-chloromethane

Each core sample will be analysed for all the analytes in Figure 3, with the exception of dioxins and furans, which will be analysed in the surface and 2 m samples.

Following analysis, the samples will be appropriately disposed of by the laboratory in accordance with regulations.

Laboratory Quality Assurance and Quality Control (QA / QC)

The laboratory maintains several QA/QC procedures, including:

- Multi-point calibration with authentic standards (with defined minimum performance characteristics);
- Analysis of control samples within each analytical batch, such as independent standards, matrix spikes or reference materials;
- Analysis of reagent / method blanks within each analytical batch;
- Ongoing quality assurance through the use of control charts in conjunction with warning and action limits for the QC sample data; and
- Participation in external proficiency testing and inter-laboratory schemes.

ASSESSMENT OF RESULTS

The data will be reviewed to establish the concentration gradient of each pollutant in different areas and at different depths.



EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. 73/2022

ALS Czech Republic, s.r.o.
with registered office Na Harfě 336/9, 190 00 Praha 9 - Vysočany, Company Registration
No. 27407551

to the Testing Laboratory No. **1163**
ALS Czech Republic, s.r.o.

Scope of accreditation:

Chemical, radiochemical and microbiological analyses of water, extracts, liquids, soils, waste, sludge, oils, sediments, rocks, solid samples, building materials, materials for building, emissions, immissions, working environment, gases from biogas stations and landfill gases, biological materials, food, feed, cosmetics, pharmaceutical raw materials and products, lubricants, fuels, ecotoxicological testing of waste and water, sensory analyses of food; sampling of water, sediments, soils, outdoor and indoor air and working environment to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 519/2021 of 5. 10. 2021, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **14. 2. 2027**

Prague: 14. 2. 2022



Lukáš Burda
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute
Public Service Company

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Testing laboratory Workplaces:

1	Prague	Na Harfě 336/9, 190 00 Praha 9
2	Česká Lípa	Bendlova 1687/7, 470 01 Česká Lípa
3	Pardubice	V Ráji 906, 530 02 Pardubice
4	Brno	Videňská 134/102, 619 00 Brno
5	Ostrava	Vratimovská 11, 718 00 Ostrava
6	Plzeň	Lobezská 15, 30146 Plzeň
7	Lovosice	U Zdymadel 827, 410 02 Lovosice
8	Rožnov pod Radhoštěm	1. Máje 823, budova C6, 756 61 Rožnov pod Radhoštěm
9	Kroměříž	Kotojedská 2588/91, 767 01 Kroměříž
10	Prague	Na Harfě 916/9a, 190 00 Praha 9
11	Prague	Kolbenova 942/38a, 190 00 Praha 9
12	Liberec	Jugoslávská 11, 460 07 Liberec

The Laboratory has a flexible scope of accreditation permitted as detailed in the Annex.

Updated list of activities provided within the required flexible scope of accreditation is available on the laboratory website www.alsglobal.cz or at the Quality Manager.

The Laboratory provides expert opinions and interprets test results.

The Laboratory is qualified to carry out independent sampling.

Tests:

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1	General Chemistry		
1.1 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵¹) including the calculation of total mineralization and calculating the sum of Ca+Mg	CZ_SOP_D06_02_001 (US EPA 200.7, ČSN EN ISO 11885, US EPA 6010, SM 3120, ČSN 75 7358)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.2 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵²)	CZ_SOP_D06_02_001 (US EPA 200.7, ČSN EN ISO 11885, US EPA 6010, SM 3120)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.3 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵³)	CZ_SOP_D06_04_001 (US EPA 200.7, ČSN EN ISO 11885)	Food, feed ⁸³
1.4 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵³)	CZ_SOP_D06_04_001 (US EPA 200.7, ČSN EN ISO 11885)	Biological materials ⁷⁷

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.5 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma and calculation of Cr ³⁺ from measured values	CZ_SOP_D06_02_001 (US EPA 200.7, ČSN EN ISO 11885, ČSN EN 13211, ČSN EN 14385, ČSN EN 14902, IO 3.4, US EPA 29)	Emission ⁷⁸ , imission ⁷⁹
1.6 ¹	Determination of elements ⁴⁷ by atomic emission spectrometry with inductively coupled plasma	CZ_SOP_D06_04_001 (US EPA 200.7, ČSN EN ISO 11885, ČL/PhEur/USP)	Pharmaceutical material
1.7 ¹	Determination of elements ⁴¹ by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values ⁵¹ including the calculation of total mineralization and calculating the sum of Ca+Mg	CZ_SOP_D06_02_002 (US EPA 200.8, ČSN EN ISO 17294-2, US EPA 6020A, ČSN 75 7358)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.8 ¹	Determination of elements ⁴² by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_02_002 (US EPA 200.8, ČSN EN ISO 17294-2, US EPA 6020A)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.9 ¹	Determination of elements ⁴³ by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_04_002 (US EPA 200.8, ČSN EN ISO 17294-2, ČSN EN 15111)	Food, feed ⁸³
1.10 ¹	Determination of elements ⁴⁴ by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_04_002 (US EPA 200.8, ČSN EN ISO 17294-2)	Biological materials ⁷⁷
1.11 ¹	Determination of elements ⁴⁵ by mass spectrometry with inductively coupled plasma and calculation of Cr ³⁺ from measured values	CZ_SOP_D06_02_002 (US EPA 200.8, ČSN EN ISO 17294-2, ČSN EN 13211, ČSN EN 14385, ČSN EN 14902, US EPA 29)	Emission ⁷⁸ , imission ⁷⁹
1.12 ¹	Determination of elements ⁶⁰ by mass spectrometry with inductively coupled plasma	CZ_SOP_D06_04_002 (US EPA 200.8, ČSN EN ISO 17294-2, ČSN EN 15111, ČL/PhEur/USP)	Pharmaceutical material
1.13 ¹	Determination of Hg by atomic absorption spectrometry	CZ_SOP_D06_02_003 (ČSN 46 5735, ČSN 75 7440)	Emission ⁷⁸ , imission ⁷⁹
1.14 ²	Determination of Hg by single-purpose atomic absorption spectrometer	CZ_SOP_D06_07_004 (ČSN 75 7440, ČSN 46 5735)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹ , solid samples ⁸⁵
1.15 ²	Determination of elements ⁴⁹ by flame AAS method and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_005 (ČSN ISO 8288, ČSN 75 7400, ČSN EN 1233,	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
		ČSN ISO 7980, ČSN ISO 9964, Perkin-Elmer specifications)	
1.16 ²	Determination of elements ⁴⁹ by flame AAS method and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_005 (ČSN ISO 8288, ČSN 75 7400, ČSN EN 1233, ČSN ISO 7980, ČSN ISO 9964, Perkin-Elmer specifications)	Solid samples ⁸⁵
1.17 ²	Determination of elements ⁵⁰ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_006 (ČSN EN ISO 11885, AITM3-0032)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.18 ²	Determination of elements ⁵⁰ by atomic emission spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values	CZ_SOP_D06_07_006 (ČSN EN ISO 11885, ČSN EN 15410, ČSN EN 15411)	Solid samples ⁸⁵ , solid recovered fuels
1.19 ²	Determination of Kjeldahl nitrogen by spectrophotometry	CZ_SOP_D06_07_007.A (ČSN EN 25663, ČSN ISO 7150-1)	Water ⁹¹ , extracts ⁹²
1.20 ²	Determination of Kjeldahl nitrogen by spectrophotometry	CZ_SOP_D06_07_007.B (ČSN EN 25663, ČSN EN 13342, ČSN ISO 7150-1)	Solid samples ⁸⁵
1.21 ²	Determination of Cr ^{VI} by spectrophotometry with diphenylcarbazide	CZ_SOP_D06_07_008 (ČSN ISO 11083)	Water ⁹¹ , extracts ⁹² , absorption solutions from emission samples
1.22 ²	Determination of total phosphorus and orthophosphate by spectrophotometry and calculation of P ₂ O ₅ from measured values	CZ_SOP_D06_07_009.A (ČSN EN ISO 6878)	Water ⁹¹ , extracts ⁹²
1.23 ²	Determination of total phosphorus by spectrophotometry and calculation of P ₂ O ₅ from measured values	CZ_SOP_D06_07_009.B (ČSN EN 14672, ČSN EN ISO 6878)	Sludge, technological sludge products
1.24 – 1.28	Reserved		
1.29 ²	Determination of nonionic surfactants (BiAS) by spectrophotometry using the HACH cuvette test	CZ_SOP_D06_07_014 (Hach Instruction)	Water ⁹¹ , extracts ⁹²
1.30 ²	Determination of sum of sulfane and sulfide by spectrophotometry and calculation of free sulfane from measured values	CZ_SOP_D06_07_015.A (ČSN 83 0520-16:1978, ČSN 83 0530-31:1980 SM 4500-S ²⁻ -D)	Water ⁹¹ , extracts ⁹²
1.31 ²	Determination of sum of sulfane and sulfide by spectrophotometry	CZ_SOP_D06_07_015.B (ČSN 83 0520-16:1978, ČSN 83 0530-31:1980)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.32 ²	Determination of sum of sulfane and sulfide by spectrophotometry	CZ_SOP_D06_07_015.C (ČSN 83 0520-16:1978, ČSN 83 0530-31:1980, ČSN 83 4712 No. 3)	Absorption solutions from emission samples

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.33 ¹	Determination of sulfate by turbidimetry using discrete spectrophotometry and calculation of sulfate sulfur from measured values	CZ_SOP_D06_02_016 (US EPA 375.4, SM 4500-SO ₄ ²⁻)	Water ⁹¹ , extracts ⁹²
1.34 ²	Determination of nitrite sum and sum of nitrite and nitrate nitrogen by discrete spectrophotometry and calculation of nitrites and nitrates from measured values	CZ_SOP_D06_02_019 (ČSN EN ISO 11732, ČSN EN ISO 13395, SM 4500-NO ₂ ⁻ , SM 4500-NO ₃)	Liquid samples
1.35 ¹	Determination of the number of asbestos and mineral fibers by SEM / EDS	CZ_SOP_D06_02_018 (ISO 14966, except chap. 5, 6.1 and 6.2, VDI 3492, except chap. 5 and 6, Decree No. 6/2003 Coll., Government Decree No. 361/2007 Coll., Annex No. 3)	Outdoor and indoor air, working environment - exposed filters
1.36 ¹	Determination of sum of ammonium and ammonium ions, nitrite and the sum of nitrite and nitrate ions by discrete spectrophotometry and calculation of nitrite, nitrate, ammonia, inorganic, organic, total nitrogen, free ammonia, and dissociated ammonium ions from measured values including the calculation of total mineralization	CZ_SOP_D06_02_019 (ČSN EN ISO 11732, ČSN EN ISO 13395, SM 4500-NO ₂ ⁻ , SM 4500-NO ₃)	Water ⁹¹ , extracts ⁹²
1.37 ²	Determination of sum of ammonia and ammonium ions by spectrophotometry and calculation of ammonia nitrogen, free ammonia, and dissociated ammonium ions from measured values	CZ_SOP_D06_07_020 (ČSN ISO 7150-1, ČSN EN ISO 21877)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹ , absorption solutions from emission samples
1.38 ²	Determination of nitrite nitrogen by spectrophotometry and calculation of nitrite from measured values	CZ_SOP_D06_07_021 (ČSN EN 26777)	Water ⁹¹ , extracts ⁹²
1.39 ¹	Determination of orthophosphate by discrete spectrophotometry and calculation of orthophosphate phosphorus from measured values including the calculation of total mineralization	CZ_SOP_D06_02_022 (ČSN EN ISO 6878, SM 4500-P)	Water ⁹¹ , extracts ⁹²
1.40 ²	Determination of chloride by potentiometric titration	CZ_SOP_D06_07_023.A (ČSN 03 8526:1989, ČSN 83 0530-20:1980, SM 4500-Cl ⁻ D)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.41 ²	Determination of chloride by potentiometric titration and calculation of NaCl from measured values	CZ_SOP_D06_07_023.B (ČSN EN 480-10)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.42 ¹	Determination of Hg by atomic absorption spectrometry	CZ_SOP_D06_04_024 (ČSN 46 5735, ČSN 75 7440, ČL/PhEur/USP)	Food, feed ⁸³ , biological materials ⁷⁷ , Pharmaceutical materials
1.43 ²	Determination of extractable organically bound halogens (EOX) by coulometry	CZ_SOP_D06_07_025.A (DIN 38409-H8, DIN 38414-S17)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.44 ²	Determination of extractable organically bound halogens (EOX) by coulometry	CZ_SOP_D06_07_025.B (DIN 38409-H8, DIN 38414-S17)	Solid samples ⁸⁵
1.45 ²	Determination of adsorbable organically bound halogens (AOX by coulometry)	CZ_SOP_D06_07_026 (ČSN EN 16166, DIN 38414-S18)	Solid samples ⁸⁵
1.46 ²	Determination of total halogens (TX) by coulometry	CZ_SOP_D06_07_027 (US EPA 9076)	Solid samples ⁸⁵ , oils, organic solvents
1.47 ²	Determination of adsorbable organically bound halogens (AOX by coulometry)	CZ_SOP_D06_07_028 (ČSN EN ISO 9562, TNI 757531)	Water ⁹¹ , extracts ⁹²
1.48 ²	Determination of phenol index by spectrophotometric method after distillation	CZ_SOP_D06_07_029 (ČSN ISO 6439)	Solid samples ⁸⁵
1.49	Reserved		
1.50 ²	Determination of anionic surfactants by measurement of the methylene blue index (MBAS) by spectrophotometry	CZ_SOP_D06_07_031 (ČSN EN 903, SM 5540 C)	Water ⁹¹ , extracts ⁹²
1.51 ²	Determination of absorbance and transmittance by spectrophotometry	CZ_SOP_D06_07_032 (ČSN 75 7360)	Water ⁹¹ , extracts ⁹²
1.52* 1,2,3,4,5,6,7, 8,9	Field measurement of turbidity ZFn by turbidimeter	CZ_SOP_D06_01_033 (ČSN EN ISO 7027-1)	Water ⁹¹
1.53 ²	Determination of humic substances by spectrophotometry	CZ_SOP_D06_07_034 (ČSN 75 7536)	Drinking, raw, surface, ground water
1.54 ²	Determination of water colour by spectrophotometric method	CZ_SOP_D06_07_035 (ČSN EN ISO 7887)	Water ⁹¹ , extracts ⁹²
1.55 ²	Determination of electrical conductivity	CZ_SOP_D06_07_036 (ČSN EN 27888)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.56 ²	Determination of pH electrochemically	CZ_SOP_D06_07_037 (ČSN ISO 10523)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.57 ²	Biodegradation of organic compounds in aqueous medium – Static test (Zahn-Wellens method) calculated from the measured values of COD _{Cr}	CZ_SOP_D06_07_038 (ČSN EN ISO 9888, OECD 302B, with COD _{Cr} determination according to CZ_SOP_D06_07_040)	Chemicals and chemical products, water ⁹¹ and waste leachate ⁹²
1.58	Reserved		
1.59 ²	Determination of chemical oxygen demand using dichromate (COD _{Cr}) by titration	CZ_SOP_D06_07_040 (ČSN ISO 6060)	Water ⁹¹ , extracts ⁹²
1.60	Reserved		
1.61 ²	Determination of analytical water and gross water by gravimetry and calculation of total water from measured values	CZ_SOP_D06_07_041 (ČSN 44 1377, ČSN EN ISO 18134-1, ČSN EN ISO 18134-2, ČSN EN ISO 18134-3, ČSN P CEN/TS 15414-1, ČSN P CEN/TS 15414-2, ČSN EN ISO 21660-3, ČSN EN 12880, ČSN EN 14346, ČSN EN 15002)	Solid fossil fuels, solid biofuels, solid recovered fuels, sludge, waste
1.62 – 1.63	Reserved		

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.64 ¹	Determination of dissolved oxygen (in the laboratory) by electrochemical method with optical sensor	CZ_SOP_D06_02_043 (ČSN ISO 17289)	Water ⁹¹
1.65* 1,2,3,4,5,6,7, 8,9	Determination of dissolved oxygen by electrochemical method with membrane probe	CZ_SOP_D06_01_044 (ČSN EN ISO 5814)	Water ⁹¹
1.66 ^{1,3}	Determination of dry matter by gravimetry and calculation of moisture from measured values	CZ_SOP_D06_01_045 (ČSN ISO 11465, ČSN EN 12880, ČSN EN 14346:2007)	Solid samples ⁸⁵
1.67 ²	Determination of dry matter by gravimetry and calculation of moisture from measured values	CZ_SOP_D06_07_046 (ČSN ISO 11465, ČSN EN 12880, ČSN EN 14346:2007, ČSN 46 5735)	Solid samples ⁸⁵
1.68 ²	Determination of ash by gravimetry and calculation of loss on ignition from measured values	CZ_SOP_D06_07_047.A (ČSN EN 15169, ČSN EN 15935, ČSN EN 13039, ČSN 72 0103, ČSN 46 5735)	Solid samples ⁸⁵ , silicate materials
1.69	Reserved		
1.70 ²	Determination of ash by gravimetry and calculation of loss on ignition from measured values	CZ_SOP_D06_07_047.C (ČSN ISO 1171, ČSN EN ISO 18122, ČSN EN ISO 21656, ČSN EN ISO 6245)	Solid and liquid fuels
1.71 ¹	Qualitative determination of asbestos by SEM/EDS	CZ_SOP_D06_02_048 (ISO 22262-1, VDI 3866, Part 5, DM06/09/94 GU n° 288 10/12/1994 All. 1 Met. B – quantitative determination)	Solid samples ⁸⁵ (except liquid waste, biowaste) building materials ⁸⁹ , materials for building ⁸²
1.72 ¹	Qualitative determination of asbestos by SEM/EDS	CZ_SOP_D06_02_049 (VDI 3866, Part 5, DM 06/09/94 GU n° 288 10/12/1994 All. 1 Met. B.)	Solid samples ⁸⁵ (except liquid waste, biowaste) building materials ⁸⁹ , materials for building ⁸²
1.73 ²	Determination of water content by Karl Fischer method	CZ_SOP_D06_07_050 (ČSN ISO 760)	Liquid samples ⁸¹ , solid samples ⁸⁵
1.74	Reserved		
1.75 ²	Determination of suspended solids, fixed suspended solids, total solids and fixed total solids by gravimetry and calculation of volatile suspended solids and volatile total solids from measured values	CZ_SOP_D06_07_052 (ČSN 75 7350, SM 2540 B, SM 2540 D, SM 2540 E)	Water ⁹¹ , extracts ⁹²
1.76 ²	Determination of suspended solids using glass fibre filters by gravimetry	CZ_SOP_D06_07_053 (ČSN EN 872)	Water ⁹¹ , extracts ⁹²
1.77 ²	Determination of dissolved solids (RL105) and fixed dissolved solids (RAS) using glass fibre filters by gravimetry and calculation of volatile dissolved solids from measured values	CZ_SOP_D06_07_054 (ČSN 75 7346, ČSN 75 7347)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.78 ²	Determination of total carbon (TC) and inorganic carbon (TIC) by IR detection and calculation of total organic carbon (TOC), carbonates and organic matter from measured values	CZ_SOP_D06_07_055 (ČSN EN 13137:2002, ČSN EN 15936, ČSN ISO 10694)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.79 ¹	Determination of total organic carbon (TOC), dissolved organic carbon (DOC), total inorganic carbon (TIC) and total carbon (TC) by IR detection	CZ_SOP_D06_02_056 (ČSN EN 1484, SM 5310)	Water ⁹¹ , extracts ⁹²
1.80 ¹	Determination of nonpolar extractive substances by infrared spectrometry and calculation of polar extractive substances from measured values	CZ_SOP_D06_02_057 (ČSN 75 7505:2006, SS 028145, STN 83 0520-27:2015, STN 83 0530-36, STN 830540-4, US EPA 418.1, SM 5520 F, DS/R 209, SFS 3010)	Water ⁹¹ , extracts ⁹²
1.81 ¹	Determination of extractive and non-polar extractive compounds by infrared spectrometry and calculation of polar extractive substances from measured values	CZ_SOP_D06_02_058 (SS 028145, TNV 75 8052, ISO/TR 11046, US EPA 418.1, SM 5520 F, DS/R 209, SFS 3010)	Solid samples ⁸⁵
1.82 ¹	Determination of extractive substances by infrared spectrometry and calculation of polar extractive substances from measured values	CZ_SOP_D06_02_059 (ČSN 75 7506, SS 028145, STN 83 0520-27:2015, STN 83 0540-4, DS/R 209, SFS 3010)	Water ⁹¹ , extracts ⁹²
1.83 ¹	Determination of alpha modification of silicon dioxide in respirable dust by infrared spectrometry	CZ_SOP_D06_02_060 (NIOSH 7602)	Dust
1.84* 1,2,3,4,5,6,7, 8,9,12	Field determination of free and total chlorine and chlorine dioxide by DPD method using HACH sets and bound chlorine by calculation from measured values	CZ_SOP_D06_01_061 (HACH COMPANY methods, ČSN EN ISO 7393-2)	Drinking water, warm water, raw water
1.85* 1,2,3,4,5,6,7, 8,9,12,	Field measurement of temperature	ČSN 75 7342	Water ⁹¹
1.86* 1,2,3,4,5,6,7,8, 9	Field measurement of electrical conductivity	CZ_SOP_D06_01_063 (ČSN EN 27888)	Water ⁹¹
1.87* 1,2,3,4,5,6,7, 8,9,12,	Field measurement of pH electrochemically	CZ_SOP_D06_01_064 (ČSN ISO 10523)	Water ⁹¹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.88 ¹	Sensory analysis of water – determination of odour and taste	CZ_SOP_D06_04_065 (TNV 75 7340:2005, ČSN EN 1622, STN EN 1622)	Drinking water
1.89 ²	Determination of phenols by continuous flow analysis (CFA) method spectrophotometrically	CZ_SOP_D06_07_066 (ČSN EN ISO 14402, SKALAR Company methodology)	Water ⁹¹ , extracts ⁹² , absorption solution from emission sampling
1.90 ²	Determination of anionic surfactants by methylene blue (MBAS) by continuous flow analysis (CFA) method spectrophotometrically	CZ_SOP_D06_07_067 (ČSN ISO 16265, SKALAR Company methodology, ČSN EN 903)	Water ⁹¹ , extracts ⁹²
1.91 ¹	Determination of dissolved fluoride, chloride, nitrite, bromide, nitrate and sulphate by ion liquid chromatography and calculation of nitrite nitrogen and nitrate nitrogen and sulphate sulphur from measured values including the calculation of total mineralization	CZ_SOP_D06_02_068 (ČSN EN ISO 10304-1)	Water ⁹¹ , extracts ⁹²
1.92	Reserved		
1.93 ¹	Determination of dry suspended solids and annealed suspend solids by gravimetry and calculation of loss of ignition of suspend solids and total solids from measured values	CZ_SOP_D06_02_070 (ČSN EN 872, ČSN 757350, SM 2540 D, SM 2540 E)	Water ⁹¹ , extracts ⁹²
1.94 ¹	Determination of dissolved solids (RL) and dissolved solid annealed (RAS) using glass fibre filters by gravimetry and calculation of loss on ignition of dissolved solids (RL550) from measured values	CZ_SOP_D06_02_071 (ČSN 75 7346, ČSN 757347, ČSN EN 15216, SM 2540 C, SM 2540 E)	Water ⁹¹ , extracts ⁹²
1.95 ¹	Determination of acid neutralizing capacity (alkalinity) by potentiometric titration and calculation of the carbonate hardness and CO ₂ forms from measured values including the calculation of total mineralization	CZ_SOP_D06_02_072 (ČSN EN ISO 9963-1, ČSN EN ISO 9963-2, ČSN 75 7373, SM 2320)	Water ⁹¹ , extracts ⁹²
1.96 ¹	Determination of base neutralizing capacity (acidity) by potentiometric titration	CZ_SOP_D06_02_073 (ČSN 75 7372)	Water ⁹¹ , extracts ⁹²
1.97 ¹	Determination of turbidity by optical turbidimeter	CZ_SOP_D06_02_074 (ČSN EN ISO 7027-1)	Water ⁹¹ , extracts ⁹²
1.98 ¹	Determination of electrical conductivity by conductometer and calculation of salinity	CZ_SOP_D06_02_075 (ČSN EN 27888, SM 2520 B)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.99 ¹	Determination of chemical oxygen demand using dichromate (COD _{Cr}) by photometry	CZ_SOP_D06_02_076 (ČSN ISO 15705)	Water ⁹¹ , extracts ⁹²
1.100	Reserved		
1.101 ¹	Determination of biochemical oxygen demand electrochemically after n days (BOD _n) by dilution method with allylthiourea addition	CZ_SOP_D06_02_077 (ČSN EN ISO 5815-1)	Water ⁹¹ , extracts ⁹²
1.102 ¹	Determination of biochemical oxygen demand electrochemically after n days (BOD _n) by method for undiluted samples	CZ_SOP_D06_02_078 (ČSN EN 1899-2, ISO 5815-2)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.103 ¹	Determination of colour by spectrophotometry	CZ_SOP_D06_02_079 (ČSN EN ISO 7887)	Water ⁹¹ , extracts ⁹²
1.104 ¹	Determination of total phosphorus by discrete spectrophotometry and calculation of phosphorus as P ₂ O ₅ and PO ₄ ³⁻ from measured values	CZ_SOP_D06_02_080 (ČSN EN ISO 6878, ČSN EN ISO 15681-1)	Water ⁹¹ , extracts ⁹²
1.105 ¹	Determination of total nitrogen by discrete spectrophotometry after mineralization with peroxisulphate	CZ_SOP_D06_02_081 (ČSN EN ISO 11905-1)	Water ⁹¹ , extracts ⁹²
1.106 ²	Determination of chloride in absorption solution from emission sample of inorganic compounds of chlorine by potentiometric titration and calculation of hydrogen chloride from measured values	CZ_SOP_D06_07_082 (ČSN EN 1911)	Absorption solutions from emission sampling
1.107 ²	Determination of fluoride in absorption solution from emission sample of inorganic compounds of fluorine after separation by distillation by direct potentiometry and calculation of hydrogen fluoride from measured values	CZ_SOP_D06_07_083 (ČSN 83 4752-3:1989)	Absorption solutions from emission sampling
1.108	Reserved		
1.109 ²	Determination of ammonia in absorption solution from emission sample by photometry after distillation	CZ_SOP_D06_07_085 (ČSN 83 4728-4)	Absorption solutions from emission sampling
1.110 ¹	Determination of total solids by gravimetry	CZ_SOP_D06_02_086 (ČSN 75 7346, ČSN 757347, ČSN EN 872, SM 2540 B, C, D)	Water ⁹¹
1.111 ²	Determination of pH, temperature and electrical conductivity in extracts prepared by a bottom-up percolation test (under specific conditions)	CZ_SOP_D06_07_087 (ČSN EN 14405, ČSN ISO 10523, ČSN 75 7342, ČSN EN 27888)	Solid samples ⁸⁵
1.112 ^{1,2}	Determination of pH, temperature and electrical conductivity in extracts prepared by a two-stage batch test (under specific conditions)	CZ_SOP_D06_07_088 (ČSN EN 12457-3, ČSN ISO 10523, ČSN 75 7342, ČSN EN 27888)	Solid samples ⁸⁵
1.113 ¹	Determination of total cyanide by spectrophotometry and calculation of complex-forming cyanides from measured values	CZ_SOP_D06_02_089.A (ČSN 75 7415, ČSN EN ISO 14403-2)	Water ⁹¹ , extracts ⁹² , absorption solutions from emission sampling
1.114 ¹	Determination of total cyanide by spectrophotometry and calculation of complex-forming cyanides from measured values	CZ_SOP_D06_02_089.B (ČSN 75 7415, ČSN EN ISO 17380, ČSN EN ISO 14403-2, SM 4500 CN)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.115 ¹	Determination of easily releasable cyanide (free cyanide) and cyanide dissociated by weak acid by spectrophotometry	CZ_SOP_D06_02_090.A (ČSN ISO 6703-2, ČSN EN ISO 14403-2, SM 4500 CN)	Water ⁹¹ , extracts ⁹²

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.116 ¹	Determination of easily releasable cyanide (free cyanide) and cyanide dissociated by weak acid by spectrophotometry	CZ_SOP_D06_02_090.B (ČSN 75 7415, ČSN EN ISO 17380, ČSN EN ISO 14403-2, SM 4500 CN)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.117 ¹	Determination of fluorides by electrochemical method (ISE)	CZ_SOP_D06_02_091 (ČSN ISO 10359-1)	Water ⁹¹ , extracts ⁹²
1.118 ¹	Determination of chemical oxygen demand using permanganate (COD _{Mn}) by titration	CZ_SOP_D06_02_092 (ČSN EN ISO 8467)	Water ⁹¹ , extracts ⁹²
1.119 ¹	Determination of bound nitrogen (TNb), following oxidation to nitrogen oxides by chemiluminescent detection	CZ_SOP_D06_02_094.A (ČSN EN 12260)	Water ⁹¹ , extracts ⁹²
1.120 ¹	Determination of bound nitrogen (TNb) following oxidation to nitrogen oxides by IR detection	CZ_SOP_D06_02_094.B (ČSN EN 12260)	Water ⁹¹ , extracts ⁹²
1.121 ¹	Qualitative determination of asbestos fibre by polarization microscope	CZ_SOP_D06_02_095 (NIOSH 9002)	Solid samples ⁸⁵ , (except liquid waste, biowaste), building materials ⁸⁹ , materials for building ⁸²
1.122 ¹	Determination of mercury by fluorescence spectrometry	CZ_SOP_D06_02_096 (US EPA 245.7, ČSN EN ISO 17852)	Water ⁹¹ , extracts ⁹²
1.123 ¹	Determination of mercury by fluorescence spectrometry	CZ_SOP_D06_02_096 (ČSN EN ISO 17852, PSA Application Note 025, ISO 16772:2004)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.124	Reserved		
1.125 ¹	Determination of mercury by fluorescence spectrometry	CZ_SOP_D06_02_096 (ČSN EN ISO 17852, ČSN EN 13211, ČSN EN ISO 12846)	Emission ⁷⁸ , imission ⁷⁹
1.126 – 1.127	Reserved		
1.128 ¹	Determination of dissolved bromate, chlorate and chlorite by ion liquid chromatography method and calculation of the sum of chlorate and chlorite from measured values	CZ_SOP_D06_02_098 (ČSN EN ISO 15061, ČSN EN ISO 10304-4)	Water ⁹¹ , extracts ⁹²
1.129 ¹	Determination of chloride by discrete spectrophotometry	CZ_SOP_D06_02_099 (US EPA 325.1, SM 4500-Cl ⁻)	Water ⁹¹ , extracts ⁹²
1.130 ¹	Determination of extractive substances by gravimetry	CZ_SOP_D06_02_100 (ČSN 75 7508, SM 5520B)	Water ⁹¹
1.131 ²	Determination of reactive and non-labile aluminium by continuous flow analysis (CFA) spectrophotometrically and calculation of labile aluminium from measured values	CZ_SOP_D06_07_101 (SKALAR Company method)	Drinking, surface water
1.132 ²	Determination of total nitrogen by modified Kjeldahl method by spectrophotometry	CZ_SOP_D06_07_102 (ČSN ISO 11261)	Solid samples ⁸⁵

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.133* 1,2,3,4,5,6,7, 8,9	Field measurement of oxidation-reduction potential (ORP) by potentiometry	CZ_SOP_D06_01_103 (ČSN 75 7367)	Water ⁹¹
1.134 ¹	Determination of grease and oils by gravimetry (extraction after evaporation)	CZ_SOP_D06_02_104 (ČSN 75 7509)	Water ⁹¹
1.135 ¹	Determination of pH by potentiometry	CZ_SOP_D06_02_105 (ČSN ISO 10523, US EPA 150.1, SM 4500-H ⁺ B)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.136	Reserved		
1.137 ²	Determination of total nitrogen by modified Kjeldahl method by spectrophotometry	CZ_SOP_D06_07_107 (ČSN EN 25663, ČSN ISO 7150-1, SFS 5505)	Water ⁹¹ , extracts ⁹²
1.138 ¹	Determination of settleable solids by volumetry	CZ_SOP_D06_02_108 (SM 2540 F)	Water ⁹¹ , extracts ⁹²
1.139 ¹	Determination of dissolved silicates by discrete photometry and calculation of H ₂ SiO ₃ and total mineralization from measured values	CZ_SOP_D06_02_109 (ČSN EN ISO 16264, US EPA 370.1)	Water ⁹¹ , extracts ⁹²
1.140 ¹	Determination of chlorophyll by spectrophotometry	CZ_SOP_D06_02_110 (SM 10200 H)	Surface waters ⁶⁷
1.141	Reserved		
1.142 ²	Determination of phosphorus soluble in sodium hydrogen carbonate solution spectrophotometrically	CZ_SOP_D06_07_112 (ČSN ISO 11263)	Solid samples ⁸⁵
1.143 ²	Determination of pH electrochemically in a suspension in water, KCl, CaCl ₂ , BaCl ₂	CZ_SOP_D06_07_113 (ČSN ISO 10390, ČSN EN 12176:1999, ČSN EN 13037, ČSN EN 15933, ČSN 46 5735, ÖNORM L 1086-1, US EPA 9045D; US EPA 9040C)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.144 ²	Determination of formaldehyde by spectrophotometry	CZ_SOP_D06_07_114 (Chemical and physical methods of water analysis, SNTL Prague 1989)	Water ⁹¹ , extracts ⁹²
1.145	Reserved		
1.146 ²	Determination of iron(II) by spectrophotometry	CZ_SOP_D06_07_116 (ČSN ISO 6332)	Water ⁹¹ , extracts ⁹²
1.147 ²	Determination of total carbon (TC), total organic carbon (TOC) by the combustion method with IR detection and calculation of total inorganic carbon (TIC), carbonates and organic matter from measured values	CZ_SOP_D06_07_117 (Elementar Company methodology, ČSN ISO 10694, ČSN EN 13137:2002, ČSN EN 15936)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
1.148 ²	Determination of permeability by falling head	CZ_SOP_D06_07_118 (ČSN EN ISO 17892-11, chap. 5.2.2.3)	Soil
1.149 ¹	Determination of aggressive carbon dioxide by the Heyer's method using calculation from alkalinity	CZ_SOP_D06_02_119 (ČSN 83 0530-14:2000)	Water ⁹¹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.150 ²	Determination of graininess of solid samples by the combined method of suspension density, sieve analyses and laser diffraction and calculation of permeability from measured values according to USBSC	CZ_SOP_D06_07_120 (ČSN EN ISO 17892-4, ČSN EN 933-1, ČSN EN 933-2, BS ISO 11277, Instructions TOM 23/1, ISO 13320)	Solid samples ⁸⁵ (grain size lower than 63 mm)
1.151 ²	Determination of total carbon, total sulfur, and hydrogen by combustion method with IR detection, determination of total nitrogen by combustion method with TCD detection and calculation of oxygen from measured values	CZ_SOP_D06_07_121.A (LECO Company methodology, ČSN ISO 29541, ČSN EN ISO 16994, ČSN EN ISO 16948, ČSN ISO 19579, ČSN EN 15408, ČSN ISO 10694, ČSN EN ISO 21663)	Solid samples ⁸⁵ , waste, sludge, lubricants, feed ⁸³ , plants, digestates, solid fossil fuels, solid biofuels, solid recovered fuels, building materials ⁸² , materials for building ⁸⁹
1.152 ²	Determination of carbon, sulfur and hydrogen by combustion method with IR detection and determination of nitrogen by combustion method with TCD detection and calculation of oxygen from measured values	CZ_SOP_D06_07_121.B (LECO Company methodology)	Oil, liquid fuels, combustible liquid and solid wastes
1.153 ¹	Determination of hexavalent chromium by ion chromatography with spectrophotometric detection and calculation of trivalent chromium from measured values	CZ_SOP_D06_02_122, except chap. 10.2; 11.3.2; 11.5; 12.2.2; 15.5 (US EPA 7199, SM 3500-Cr)	Water ⁹¹ , extracts ⁹²
1.154 ¹	Determination of hexavalent chromium by ion chromatography with spectrophotometric detection and calculation of trivalent chromium from measured values	CZ_SOP_D06_02_122, except chap. 10.1; 11.3.1; 12.2.1; 15.4 (ČSN EN ISO 15192, EPA 3060A)	Solid samples ⁸⁵
1.155 – 1.156	Reserved		
1.157 ²	Determination of gross calorific value by calorimetric method and calculation of net calorific value and emission factor from measured values	CZ_SOP_D06_07_124.A (ČSN ISO 1928, ČSN EN ISO 18125, ČSN EN ISO 21654, ČSN EN 15170, ČSN DIN 51900-1, ČSN DIN 51900-2, ČSN DIN 51900-3, ČSN P CEN/TS 16023)	Solid fossil fuels, solid biofuels, solid recovered fuels, waste, sludge, combustible building materials ⁸⁹
1.158 ²	Determination of gross calorific value by calorimetric method and calculation of net calorific value and emission factor from measured values	CZ_SOP_D06_07_124.B (ČSN DIN 51900-1, ČSN DIN 51900-2, ČSN DIN 51900-3)	Oils, liquid fuels, combustible liquid, and solid wastes
1.159 ^{2,1}	Determination of total bromine, chlorine, fluorine, and sulphur by calculation from the measured values of bromide, chloride, fluoride and sulphate by IC method after burning the sample	CZ_SOP_D06_07_124.C (ČSN EN ISO 16994, ČSN EN 15408, ČSN EN 14582)	Solid fossil fuels, solid biofuels, solid recovered fuels, waste, sludge, combustible building materials ⁸⁹

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.160 ^{2,1}	Determination of total bromine, chlorine, fluorine and sulphur by calculation from the measured values of bromide, chloride, fluoride and sulphate by IC method after burning the sample	CZ_SOP_D06_07_124.D (ČSN DIN 51900-1, ČSN DIN 51900-2, ČSN DIN 51900-3)	Oils, liquid fuels, combustible liquid and solid wastes
1.161 ²	Determination of laboratory compacted bulk density (LCBD)	CZ_SOP_D06_07_125 (ČSN EN 13040)	Sludge, composts, soils meliorants and growth stimulants
1.162 ²	Determination of electrical conductivity	CZ_SOP_D06_07_126 (ČSN EN 13038, ČSN ISO 11265, ČSN P CEN/TS 15937)	Sludge, composts, soils, soils meliorants and growth stimulants, modified bio waste
1.163 ¹	Determination of hexavalent chromium by ion chromatography with spectrophotometric detection and calculation of trivalent chromium from measured values	CZ_SOP_D06_02_127 (ISO 16740, EPA 425)	Emission ⁷⁸ , imission ⁷⁹
1.164 ¹	Determination of nitrogen dioxide and sulphur dioxide in passive samplers by ion chromatography method and results recalculation to the volume of air	CZ_SOP_D06_02_128 (Materials of Institute Fondazione Salvatore Maugeri, ČSN EN ISO 10304-1, ČSN EN ISO 10304-3)	Emission ⁷⁸ , imission ⁷⁹
1.165 ¹	Determination of sulphite by ion chromatography method	CZ_SOP_D06_02_129 (ČSN EN ISO 10304-3)	Water ⁹¹ , extracts ⁹²
1.166 ²	Determination of volatile matter by gravimetry and calculation of fixed carbon from the measured values	CZ_SOP_D06_07_130 (ČSN ISO 562, ČSN ISO 5071-1, ČSN EN ISO 18123, ČSN EN ISO 22167)	Solid fossil fuels, solid biofuels, solid recovered fuels
1.167 ²	Determination of sulphite after distillation by titration	CZ_SOP_D06_07_131 (M. Horáková et al.: Chemical and physical methods of water analyses)	Water ⁹¹ , extracts ⁹²
1.168 ²	Determination of respiratory activity (AT ₄) using respirometer	CZ_SOP_D06_07_132 (ÖNORM S 2027-4)	Wastes, sludge, composts, soils
1.169* 1,2,4,6,7,8,9	Field determination of ozone using HACH sets	CZ_SOP_D06_01_133 (Method 8311 HACH Company, USA)	Drinking water, pool water
1.170 ¹	Determination of fluoride, chloride, and sulphate in absorption solution from emission sampling by ion chromatographic method and calculation of hydrogen fluoride, hydrogen chloride and sulphur dioxide from measured values	CZ_SOP_D06_02_134 (ČSN EN 1911, STN ISO 15713, ČSN EN 14791, ČSN EN ISO 10304-1)	Emission ⁷⁸
1.171 ¹	Determination of non-polar extractable compounds by UV spectrometry	CZ_SOP_D06_02_135, except chap. 10.2 (ČSN 83 0540-4:1998, STN 83 0540-4)	Water ⁹¹ , extracts ⁹²
1.172 ¹	Determination of non-polar extractable compounds by UV spectrometry	CZ_SOP_D06_02_135, except chap. 10.1 (ČSN 83 0540-4:1998, STN 83 0540-4)	Solid samples ⁸⁵

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
1.173 ¹	Determination of total dust concentration and respirable dust fraction by gravimetry and results recalculation to the volume of air	CZ_SOP_D06_02_136 (ČSN EN 481, ČSN EN 482, ČSN EN 689+AC, NIOSH 0500, NIOSH 0600, GR No. 361/2007 Coll.)	Working environment ⁸⁷
1.174 ²	Determination of SiO ₂ in silicate materials after decomposition by gravimetry	CZ_SOP_D06_07_137 (ČSN 72 0105-1)	Solid samples ⁸⁵
1.175 ²	Determination of P ₂ O ₅ in silicate materials after decomposition by spectrophotometry	CZ_SOP_D06_07_138 (ČSN 72 0116-1)	Solid samples ⁸⁵
1.176 ²	Determination of total sulfur in silicate materials after decomposition by gravimetry	CZ_SOP_D06_07_139 (ČSN 72 0118)	Solid samples ⁸⁵
1.177	Reserved		
1.178* 1,2,5	Analysis of CH ₄ , CO ₂ , O ₂ , H ₂ S gases by Geotech gas analyzer and calculation of N ₂ from measured values	CZ_SOP_D06_01_141 (BIOGAS 5000 Analyzer Manual)	Gases ⁸⁶
1.179	Reserved		
1.180 ²	Determination of total inorganic fluorine after separation by distillation by direct potentiometry	CZ_SOP_D06_07_143, except chap. 10 and 13.1 (ČSN ISO 10359-2, ČSN 83 4752-3:1989)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
1.181 ²	Determination of total inorganic fluorine after separation by distillation by direct potentiometry	CZ_SOP_D06_07_143 (ČSN ISO 10359-2, ČSN 83 4752-3:1989)	Solid samples ⁸⁵
1.182 ²	Determination of biomass content by selective dissolution	CZ_SOP_D06_07_144 (ČSN EN 15440, Annex A)	Solid alternative fuels, solid combustible wastes
2	Organic Chemistry		
2.1 ¹	Determination of extractable compounds in the range of hydrocarbons C10 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_150 (ČSN EN 14039, ČSN EN ISO 16703, ČSN P CEN ISO/TS 16558-2, US EPA 8015, US EPA 3550, TNRCC Method 1006)	Solid samples ⁸⁵
2.2 ¹	Determination of extractable compounds in the range of hydrocarbons C10 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_151 (ČSN EN ISO 9377-2, US EPA 8015, US EPA 3510, TNRCC Method 1006)	Water ⁹¹ , extracts ⁹²
2.3 ¹	Determination of extractable compounds in the range of hydrocarbons C5 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_152, except chap. 9.1 (TNRCC Method 1006, TNRCC Method 1005)	Water ⁹¹ , extracts ⁹² , liquid samples ⁸¹
2.4 ¹	Determination of extractable compounds in the range of hydrocarbons C5 – C40, their fractions calculated from the measured values by gas chromatography method with FID detection	CZ_SOP_D06_03_152, except chap. 9.2 (TNRCC Method 1006, TNRCC Method 1005)	Solid samples ⁸⁵

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

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2.5 ¹	Determination of volatile organic compounds ¹⁹ by gas chromatography method with FID and MS detection and calculation of volatile organic compounds sums from measured values and results recalculation to the volume of air	CZ_SOP_D06_03_153 (CEN/TS 13649, NIOSH ¹⁾)	Solid sorbents
2.6	Reserved		
2.7 ¹	Determination of volatile organic compounds ³ by gas chromatography method with FID and MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_155 except chap. 10.5 and 10.6 (US EPA 624, US EPA 5021A, US EPA 8260, US EPA 8015, ČSN EN ISO 10301, MADEP 2004, rev. 1.1, ČSN ISO 11423, ČSN EN ISO 15680)	Water ⁹¹ , extracts ⁹²
2.8 ¹	Determination of volatile organic compounds ³ by gas chromatography method with FID and MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_155, except chap. 10.4 (US EPA 8260, US EPA 5021A, US EPA 5021, US EPA 8015, ČSN EN ISO 22155, ČSN EN ISO 15009, ČSN EN ISO 16558-1, MADEP 2004, rev. 1.1,)	Solid samples ⁸⁵
2.9 ¹	Determination of volatile organic compounds ⁴ by gas chromatography method with FID and ECD detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_156, except chap. 11.3 - 11.5 (US EPA 601, US EPA 8260, US EPA 8015, RBCA Petroleum Hydrocarbon Methods, ČSN EN ISO 11423, ČSN EN ISO 15680)	Water ⁹¹ , extracts ⁹²
2.10 ¹	Determination of volatile organic compounds ⁴ by gas chromatography method with FID and ECD detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_156, except chap. 11.1 and 11.2 (US EPA 8260, US EPA 8015, ČSN EN ISO 22155, ČSN EN ISO 15009, ČSN EN ISO 16558-1, RBCA Petroleum Hydrocarbon Methods)	Solid samples ⁸⁵
2.11 ¹	Determination of organic contaminants ⁵ by gas chromatography method with MS detection (SPIMFAB) and calculation of organic contaminants sums from measured values	CZ_SOP_D06_03_157, except chap. 9.2 (SPIMFAB)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.12 ¹	Determination of organic contaminants ⁵ by gas chromatography method with MS detection (SPIMFAB) and calculation of organic contaminants sums from measured values	CZ_SOP_D06_03_157, except chap. 9.1 (SPIMFAB)	Waste (solid waste, biowaste), sediments, soil, rocks
2.13 ¹	Determination of phenols, chlorinated phenols and cresols ⁶ by gas chromatography method with MS and ECD detection and calculation of phenols, chlorinated phenols and cresols sums from measured values	CZ_SOP_D06_03_158, except chap. 9.3 and 9.4 (US EPA 8041, US EPA 3500, ČSN EN 12673)	Water ⁹¹
2.14 ¹	Determination of phenols, chlorinated phenols and cresols ⁶ by gas chromatography method with MS and ECD detection and calculation of phenols, chlorinated phenols and cresols sums from measured values	CZ_SOP_D06_03_158, except chap. 9.1, 9.2 and 9.4 (US EPA 8041, US EPA 3500, DIN ISO 14154)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks
2.15	Reserved		
2.16 ¹	Determination of phthalates ⁷ by gas chromatography method with MS detection and calculation of phthalates sums from measured values	CZ_SOP_D06_03_159, except chap. 9.2 and 9.3 (US EPA 8061A)	Water ⁹¹ , extracts ⁹²
2.17 ¹	Determination of phthalates ⁷ by gas chromatography method with MS detection and calculation of phthalates sums from measured values	CZ_SOP_D06_03_159, except chap. 9.1 (US EPA 8061A, CPSC-CH-C1001-09.3)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks
2.18 ¹	Determination of phenols and cresols ⁴⁰ by gas chromatography method with MS detection and calculation of phenols and cresols sums from measured values	CZ_SOP_D06_03_160, except chap. 9.2 (US EPA 8041A, US EPA 3500)	Water ⁹¹ , extracts ⁹²
2.19 ¹	Determination of phenols and cresols ⁴⁰ by gas chromatography method with MS detection and calculation of phenols and cresols sums from measured values	CZ_SOP_D06_03_160, except chap. 9.1 (US EPA 8041A, US EPA 3500)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks
2.20 ¹	Determination of semi volatile organic compounds ⁹ by gas chromatography method with MS or MS/MS detection and calculation of semi volatile organic compounds sums from measured values	CZ_SOP_D06_03_161 except chap. 10.1.3 – 10.1.5 (US EPA 8270D, US EPA 8082A, ČSN EN ISO 6468, US EPA 8000D)	Water ⁹¹ , extracts ⁹²
2.21 ¹	Determination of semi volatile organic compounds ⁹ by gas chromatography method with MS or MS/MS detection and calculation of semi volatile organic compounds sums from measured values	CZ_SOP_D06_03_161 except chap. 10.1.1, 10.1.2, 10.2.1, 10.2.2 (US EPA 8270D, US EPA 8082A, ČSN EN 15527, ISO 18287, ISO 10382, ČSN EN 17322)	Building materials ⁸² , materials for building ⁸⁹ , waste (solid waste, biowaste), sediments, soil, rocks

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.22 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with FLD and PDA detection and calculation of polycyclic aromatic hydrocarbons sums from measured values	CZ_SOP_D06_03_162 (US EPA 550)	Drinking, table and infant water
2.23 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with detection FLD and PDA and calculation of polycyclic aromatic hydrocarbons sums from measured values	CZ_SOP_D06_03_163, except chap. 9.1.2, 9.4.2 (US EPA 610, ČSN EN ISO 17993)	Water ⁹¹ , extracts ⁹²
2.24 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with FLD and PDA detection and calculation of polycyclic aromatic hydrocarbons sums from measured values	CZ_SOP_D06_03_163, except chap. 9.1.1, 9.4.1 (US EPA 610, US EPA 3550, ČSN EN 16181)	Solid samples ⁸⁵
2.25 ¹	Determination of glycols ²⁶ by gas chromatography method with MS detection	CZ_SOP_D06_03_164	Water ⁹¹ , cooling liquids, anti-freeze fluid
2.26 ¹	Determination of polycyclic aromatic hydrocarbons ¹⁰ by liquid chromatography method with FLD and PDA detection and calculation of polycyclic aromatic hydrocarbons sums from measured values and results recalculation to the volume of air	CZ_SOP_D06_03_165 (ISO 11338-2)	Emission ⁷⁸ , imission ⁷⁹
2.27 ¹	Determination of polychlorinated biphenyls ³⁹ by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values	CZ_SOP_D06_03_166 except chap. 10.1 – 10.3 (DIN 38407-3, US EPA 8082)	Water ⁹¹ , extracts ⁹²
2.28 ¹	Determination of polychlorinated biphenyls ¹¹ by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values	CZ_SOP_D06_03_166 except chap. 10.4 (US EPA 8082, ISO 10382, ČSN EN 17322)	Solid samples ⁸⁵ , sealing materials
2.29 ¹	Determination of alkylphenols and alkylphenol ethoxylates ²⁸ by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values	CZ_SOP_D06_03_167 (European Standard BT WI CSS99040)	Sediments, soils, rocks
2.30 ¹	Determination of polychlorinated biphenyls ¹¹ - congener analyses by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values	CZ_SOP_D06_03_168 (ČSN EN 12766-1, ČSN EN 61619)	Oil hydrocarbons, used oils, insulating liquids
2.31 ¹	Determination of organochlorine pesticides and other halogen compounds ¹² by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values	CZ_SOP_D06_03_169 except chap. 10.1 (ČSN EN ISO 6468, US EPA 8081, DIN 38407-3)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.32 ¹	Determination of organochlorine pesticides and other halogen compounds ¹² by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values	CZ_SOP_D06_03_169 except chap. 10.2 (US EPA 8081, ISO 10382)	Solid samples ⁸⁵
2.33 ¹	Determination of perchlorates by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_170.A (US EPA 6850)	Drinking water
2.34 ¹	Determination of perchlorates by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_170.B (US EPA 6850)	Sediments, sludges, soils, rocks
2.35 ³	Determination of polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofuranes ¹³ in emissions by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_170 (US EPA 23, US EPA 23A)	Emission ⁷⁸
2.36 ³	Determination of polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofuranes ¹³ in immission by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_171 (US EPA TO-9A)	Immission ⁷⁹
2.37 ³	Determination of coplanar polychlorinated biphenyls ¹⁴ in stationary emission sources by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_172 (JIS K 0311)	Emission ⁷⁸ , immission ⁷⁹
2.38 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.2-10.2.3.8, 10.2.4, 10.2.5 (US EPA 1668A, ČSN EN 16190)	Water ⁹¹
2.39 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.1, 10.2.3.7, 10.2.3.8, 10.2.5 (US EPA 1668A, ČSN EN 16190)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
2.40 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.1-10.2.3.7, 10.2.4 (US EPA 1668A, ČSN EN 16190)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.41 ³	Determination of polychlorinated biphenyls ¹⁴ by isotope dilution method using HRGC-HRMS and calculation of PCB sums and TEQ parameter from measured values	CZ_SOP_D06_06_173, except chap. 10.2.3.1-10.2.3.6 (US EPA 1668A, ČSN EN 16190)	SPMD, food, feed ⁸³ , biotic materials
2.42 ³	Determination of polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofuranes ¹³ in emission samples by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_174 (ČSN EN 1948-2, ČSN EN 1948-3)	Emission ⁷⁸

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.43 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175, except chap. 10.2.3.2 - 10.2.3.8, 10.2.4, 10.2.5 (US EPA 1613B, ČSN EN 16190)	Water ⁹¹
2.44 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175, except chap. 10.2.3.1, 10.2.3.7, 10.2.3.8, 10.2.5 (US EPA 1613 B, ČSN EN 16190)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
2.45 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175, except chap. 10.2.3.1 - 10.2.3.7, 10.2.4 (US EPA 1613B, ČSN EN 16190)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.46 ³	Determination of tetra- to octa-chlorinated dioxins and furanes ¹³ by isotope dilution method using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_175 except chap. 10.2.3.1 - 10.2.3.6 (US EPA 1613B, ČSN EN 16190)	SPMD, food, feed ⁸³ , biotic materials
2.47 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.2 - 10.2.3.7, 10.2.4, 10.2.5 (US EPA 8290A)	Water ⁹¹
2.48 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.1, 10.2.3.6, 10.2.5 (US EPA 8290A)	Solid samples ⁸⁵
2.49 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.1 - 10.2.3.6, 10.2.4 (US EPA 8290A)	Biological materials ⁷⁷
2.50 ³	Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) ¹³ using HRGC-HRMS and calculation of TEQ parameters from measured values	CZ_SOP_D06_06_176, except chap. 10.2.3.1 - 10.2.3.6 (US EPA 8290A)	Food, feed ⁸³ , biotic materials
2.51 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.2 - 10.2.3.8, 10.2.4, 10.2.5 (US EPA 1614)	Water ⁹¹
2.52 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.1, 10.2.3.7, 10.2.3.8, 10.2.5 (US EPA 1614, ČSN EN 16377, ČSN EN ISO 22032)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.53 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.1 - 10.2.3.7, 10.2.4 (US EPA 1614)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.54 ³	Determination of selected brominated flame retardants (BFR) ¹⁵ by isotope dilution method using HRGC-HRMS and calculation of brominated flame retardants sums from measured values	CZ_SOP_D06_06_177, except chap. 10.2.3.1 - 10.2.3.6, (US EPA 1614)	SPMD, food, feed ⁸³ , biotic materials
2.55 ¹	Determination of alkylphenols and alkylphenol ethoxylates ¹⁶ by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values	CZ_SOP_D06_03_178 (ČSN EN ISO 18857-2)	Water ⁹¹ , extracts ⁹²
2.56 ³⁾	Determination of PCB ¹⁴ in emission samples by isotope dilution method using HRGC-HRMS and calculation of PCB sums from measured values	CZ_SOP_D06_06_179 (ČSN EN 1948-4, US EPA TO-4-A)	Emission ⁷⁸ , imission ⁷⁹ , working environment ⁸⁷
2.57 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of the sums of polycyclic aromatic hydrocarbons from the measured values	CZ_SOP_D06_06_180 except chap. 10.3.3.1 - 10.3.3.6, 10.3.3.8 - 10.3.3.10, 10.3.5 (US EPA 429, ISO 11338, US EPA 3540)	Solid samples ⁸⁵ , building materials ⁸² , materials for building ⁸⁹
2.58 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of the sums of polycyclic aromatic hydrocarbons from the measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.6 - 10.3.3.10, 10.3.4, 10.3.5 (US EPA 429, ISO 11338, US EPA TO-13A, ČSN EN 15549)	Emission ⁷⁸ , imission ⁷⁹ , working environment ⁸⁷
2.59 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of polyaromatic hydrocarbons sums from measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.1 - 10.3.3.9, 10.3.4 (US EPA 429, STN EN 16619)	Biological materials ⁷⁷ , vegetable materials ⁸⁸ , animal materials ⁹³
2.60 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of polyaromatic hydrocarbons sums from measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.1 - 10.3.3.8 (US EPA 429, STN EN 16619)	SPMD, food, feed ⁸³ , biotic materials
2.61 ³	Determination of polycyclic aromatic hydrocarbons ⁵⁴ by isotope dilution method using HRGC-HRMS and calculation of polyaromatic hydrocarbons sums from measured values	CZ_SOP_D06_06_180, except chap. 10.3.3.1 - 10.3.3.7, 10.3.3.9, 10.3.3.10, 10.3.4, 10.3.5 (US EPA 429, ISO 11338, IP 346)	Oils

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.62 ¹	Determination of semi-volatile organic compounds ²⁷ by gas chromatography method with MS detection and calculation of semi-volatile organic compounds sums from measured values	CZ_SOP_D06_03_181 (US EPA 429, US EPA 1668, US EPA 3550)	Sediments, soils, rocks
2.63 ¹	Determination of acidic herbicides, drug residues and other pollutants ²⁹ by liquid chromatography method with MS/MS detection and calculation of acidic herbicides, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_182.A (DIN 38407-35)	Water ⁹¹
2.64 ¹	Determination of acidic herbicides and drug residues ¹⁷ by liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_182.B (ČSN EN 15637, US EPA 1694)	Sediments, sludges, soils, rocks
2.65 ¹	Determination of pesticides, pesticide metabolites, drug residues and other pollutants ³⁰ by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticide metabolites, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_183.A (US EPA 535, US EPA 1694)	Water ⁹¹
2.66 ¹	Determination of pesticides, pesticide metabolites, drug residues and other pollutants ^{70 and 71} by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticides metabolites, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_183.B (ČSN EN 15637, US EPA 1694)	Sediments, sludges, soils, rocks, building materials ⁸² , materials for building ⁸⁹
2.67 ¹	Determination of pesticides, pesticide metabolites, drug residues and other pollutants ⁷² by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticides metabolites, drug residues and other pollutants sums from measured values	CZ_SOP_D06_03_183.C (ČSN EN 15662)	Vegetable materials ⁸⁸ , animal materials ⁹³
2.68 ¹	Determination of pesticides ³¹ by gas chromatography method with MS or MS/MS detection and calculation of pesticides sums from measured values	CZ_SOP_D06_03_184 (US EPA 8141B, US EPA 3535A, ČSN EN 12918)	Water ⁹¹
2.69 ¹	Determination of pesticides and pesticide metabolites ³² by derivatization and liquid chromatography method with MS/MS detection and calculation of pesticides and pesticide metabolites sums from measured values	CZ_SOP_D06_03_185.A (ČSN ISO 21458)	Water ⁹¹
2.70 ¹	Determination of pesticides and pesticide metabolites ⁴⁶ by derivatization and liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_185.B (Journal of Chromatography A, 1292 (2013) 132-141, EC Decision No. 2002/657/EC)	Sediments, sludges, soils, rocks
2.71 ¹	Determination of complexing substances ³³ by gas chromatography method with MS detection	CZ_SOP_D06_03_186 (ČSN EN ISO 16588)	Water ⁹¹
2.72 ¹	Determination of polycyclic aromatic hydrocarbons derivatives ³⁶ by liquid chromatography method with MS detection	CZ_SOP_D06_03_187 (Journal of Chromatography A, 1133 (2006) 241–247)	Emission ⁷⁸ , imission ⁷⁹

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.73 ¹	Determination of organic acids ³⁷ by capillary electrophoresis method with UV detection	CZ_SOP_D06_03_188.A (Lumex Company manual, Kudrjashova, M.: Capillary electrophoretic monitoring of microbial growth: determination of organic acids, COPYRIGHT 2004 Estonian Academy Publishers, June 2004 Source Volume: 53 Source Issue: 2, ISSN: 1406-0124)	Water ⁹¹
2.74 ¹	Determination of organic acids ³⁷ by capillary electrophoresis method with UV detection	CZ_SOP_D06_03_188.B (Lumex Company manual, Kudrjashova, M.: Capillary electrophoretic monitoring of microbial growth: determination of organic acids, COPYRIGHT 2004 Estonian Academy Publishers, June 2004 Source Volume: 53 Source Issue: 2, ISSN: 1406-0124)	Feed ⁸³ , composts, digestate
2.75 ¹	Determination of gases ³⁸ by gas chromatography method with detection FID and TCD	CZ_SOP_D06_03_189 (EPA Method RSK-175)	Water ⁹¹ , liquid samples ⁸¹
2.76 ¹	Low limit determination of volatile organic compounds ³ by gas chromatography method with MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_190, except chap. 12.1, 13.1.1, 13.1.2, 14.1, 16.1 (US EPA 5021, US EPA 8260)	Water ⁹¹
2.77 ¹	Low limit determination of volatile organic compounds ³ by gas chromatography method with MS detection and calculation of volatile organic compounds sums from measured values	CZ_SOP_D06_03_190, except chap. 12.2, 13.2.1, 13.2.2, 14.2, 16.2 (US EPA 5021, US EPA 8260)	Solid samples ⁸⁵
2.78 ¹	Determination of chlorinated alkanes ³⁴ by gas chromatography method with MS/MS detection	CZ_SOP_D06_03_192.A (ČSN EN ISO 12010)	Water ⁹¹
2.79 ¹	Determination of chlorinated alkanes ³⁴ by gas chromatography method with MS/MS detection	CZ_SOP_D06_03_192.B (ČSN EN ISO 12010, ČSN EN ISO 18635)	Building materials ⁸² , materials for building ⁸⁹ , sediments, soils
2.80 ¹	Determination of aniline and aniline derivatives ²¹ by gas chromatography method with MS detection	CZ_SOP_D06_03_193 (US EPA 8270)	Sediments, sludges, soils, rocks
2.81 ¹	Determination of chlorinated phenols ⁵⁵ by liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_194 (2002/657/ES, 96/23/ES)	Water ⁹¹
2.82 ¹	Determination of drug residues ⁵⁶ by liquid chromatography with MS/MS detection and results recalculation to the volume of air	CZ_SOP_D06_03_195 (Jia Yu et al.: Biomed. Chromatogr. 2011; 25: 511–516)	Working environment ⁸⁷
2.83 ¹	Determination of epichlorohydrin by gas chromatography method with MS/MS detection	CZ_SOP_D06_03_196 (Agilent Technologies Application list 5990-6433EN)	Water ⁹¹
2.84 ¹	Determination of perfluorinated and brominated compounds ⁵⁸ by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_197.A (US EPA 537, ČSN P CEN/TS 15968)	Water ⁹¹ , extracts ⁹²

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
2.85 ¹	Determination of per fluorinated and brominated compounds ⁷³ by liquid chromatography with MS/MS detection	CZ_SOP_D06_03_197.B (DIN 38414-14)	Sediments, sludges, soils, rocks
2.86 ¹	Determination of volatile organic compounds ⁵⁹ by gas chromatography method with TCD and FID detection and calculation of volatile organic compounds percentage from measured values	CZ_SOP_D06_03_198 (ČSN EN ISO 11890-2)	Organic solvents
2.87 ³	Determination of fat by gravimetry	CZ_SOP_D06_06_199 (US EPA 1613)	Food, feed ⁸³ , biological materials ⁷⁷
2.88 ¹	Determination of 3-chloro-1,2-propanediol by gas chromatography method with MS detection	CZ_SOP_D06_03_200 (LMBG 52.02(1))	Spices
2.89 ¹	Determination of drug residues and narcotic and psychotropic substances ⁶¹ by liquid chromatography method with MS/MS detection	CZ_SOP_D06_03_201.A (US EPA 1694)	Water ⁹¹
2.90 ¹	Determination of organic acids ⁶² by gas chromatography method with FID detection	CZ_SOP_D06_03_202 (Determination of Volatile Fatty Acids in sewage sludge 1979 HMSO.ISBN 0-11-75462-4)	Digestates
2.91 ¹	Determination of polycyclic aromatic hydrocarbons ⁷⁴ by gas chromatography with MS/MS detection, calculation of sums of polycyclic aromatic hydrocarbons from measured values and conversion of results to air volume	CZ_SOP_D06_03_203 (ISO 11338-2, ČSN EN 15549)	Emission ⁷⁸ , imission ⁷⁹
3	Food Organic Chemistry		
3.1 ¹	Determination of fatty acids ¹⁸ by gas chromatography method with FID detection and calculation sum of SAFA, MUFA, PUFA, TFA, Omega 3, Omega 6 ³⁵)	CZ_SOP_D06_04_202 (ČSN EN ISO 12966-1, ČSN EN ISO 12966-2)	Food, feed ⁸³ , dietary supplements
3.2 ¹	Determination of cholesterol by gas chromatography method with FID detection	CZ_SOP_D06_04_205 (Prof. ing. Jiří Davidek, MD. et al, Laboratory Manual of Food Analysis, Journal of Chromatography A.; 24 (1994); 672 (1-2): 267-272)	Fatty food, non-fatty food, dietary supplements
3.3 ¹	Determination of retinol and alpha tocopherol by liquid chromatography method with FLD detection	CZ_SOP_D06_04_206 (ČSN EN 12823-1, ČSN EN 12822)	Fats, fatty food, non-fatty food, dietary supplements, feed ⁸³ and premixes
3.4 ¹	Determination of vitamin C (ascorbic acid) by liquid chromatography method with PDA detection	CZ_SOP_D06_04_207 (ČSN EN 14130:2004)	Beverages, candy, non-fatty food, dietary supplements, fruit, vegetables
3.5 ¹	Determination of Soya protein by ELISA by commercial set	CZ_SOP_D06_04_208 (R-Biopharm Manual – Ridascreen FAST Soya)	Food, swap
3.6 ¹	Determination of substitute sweeteners ²³ by liquid chromatography method with PDA detection	CZ_SOP_D06_04_209 (ČSN EN 12856)	Beverages, milk products, jams, dietary supplements, fishes
3.7 ¹	Determination of caffeine, theobromine, and theophylline by liquid chromatography method with PDA detection	CZ_SOP_D06_04_210 (ČSN EN 12856)	Beverages, tea, coffee, cocoa, chocolate

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
3.8 ¹	Determination of preserving agents ²⁴ in food by liquid chromatography method with PDA detection	CZ_SOP_D06_04_211 (ČSN EN 12856)	Beverages, jams, vegetable and fruit sauces and pastes, mustard, fatty and milk products, dietary supplements
3.9 ¹	Determination of aflatoxin B ₁ , B ₂ , G ₁ and G ₂ by liquid chromatography method with FLD detection	CZ_SOP_D06_04_212 (ČSN EN 14123)	Food with low water content, beverages, feed ⁸³
3.10 ¹	Determination of the content of ochratoxin A by liquid chromatography method with FLD detection	CZ_SOP_D06_04_213 (ČSN EN 15829, ČSN EN 14133, ČSN EN 14132)	Food with low water content, beverages, dietary supplements, feed ⁸³
3.11 ¹	Determination of zearalenone by liquid chromatography method with FLD detection	CZ_SOP_D06_04_214 (ČSN EN 15850)	Cereals, feed ⁸³
3.12 ¹	Determination of aflatoxin M ₁ by liquid chromatography method with FLD detection	CZ_SOP_D06_04_215 (ČSN EN ISO 14501)	Milk, dried milk, and products from them
3.13 ¹	Determination of patulin by liquid chromatography method with PDA detection	CZ_SOP_D06_04_216 (ČSN EN 14177)	Food with high water content, dietary supplements, beverages
3.14 ¹	Determination of deoxynivalenol by liquid chromatography method with PDA detection	CZ_SOP_D06_04_217 (ČSN EN 15791, ČSN EN 15891)	Food with low water content, beverages, dietary supplements, feed ⁸³
3.15 ¹	Determination of vitamins B ₁ , B ₂ and B ₆ by liquid chromatography method with FLD detection	CZ_SOP_D06_04_218 (ČSN EN 14122, ČSN EN 14152, ČSN EN 14663)	Fats, fatty food, non-fatty food, feed ⁸³ , dietary supplements
3.16 ¹	Determination of folic acid by ELISA method by commercial set	CZ_SOP_D06_04_219 (R-Biopharm– Ridascreen Folic Acid Manual)	Food, feed ⁸³ , dietary supplements
3.17 ¹	Determination of biotin by ELISA method by commercial set	CZ_SOP_D06_04_220 (Demeditec Manual)	Milk, milk products, cereals and cereal products, non-alcoholic beverages, baby food, feed ⁸³ , dietary supplements
3.18 ¹	Determination of gliadin (gluten) by sandwich enzyme immunoassay ELISA Method by commercial set	CZ_SOP_D06_04_221.A (R-Biopharm– Ridascreen Gliadin Manual)	Fatty food, non-fatty food, dietary supplements, swabs
3.19 ¹	Determination of gliadin (gluten) by competitive immunoassay ELISA Method by commercial set	CZ_SOP_D06_04_221.B (R-Biopharm– Ridascreen Gliadin Manual)	Fermented and hydrolyzed foods and beverages ⁸⁰
3.20 ¹	Determination of casein allergen by ELISA method by commercial set	CZ_SOP_D06_04_222 (Bio-Check - Casein Check Manual)	Food, dietary supplements, swabs
3.21 ¹	Determination of β-lactoglobulin allergen by ELISA method with a commercial kit	CZ_SOP_D06_04_223 (Bio-Check– β-lactoglobulin Check Manual)	Food, dietary supplements, swabs
3.22 ¹	Determination of mustard allergen by ELISA method by commercial set	CZ_SOP_D06_04_224 (Bio-Check– Mustard Check Manual)	Food, dietary supplements, swabs

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
3.23 ¹	Determination of niacin by liquid chromatography method with PDA detection	CZ_SOP_D06_04_225 (ČSN EN 15652)	Fatty food, non-fatty food, feed ⁸³ , dietary supplements
3.24 ¹	Determination of soya protein by ELISA method by commercial set	CZ_SOP_D06_04_226 (Biokits Neogen– Soya assay Biokits Manual)	Meat products
3.25 ¹	Determination of parabens contain by liquid chromatography method with PDA detection	CZ_SOP_D06_04_227 (HPLC for Food Analysis, Agilent Technologies 1996-2001)	Cosmetics
3.26 ¹	Determination of peanut protein allergen by ELISA method by commercial set	CZ_SOP_D06_04_228 (Bio-Check– Peanut Check Manual)	Fatty food, non-fatty food, feed ⁸³ , dietary supplements
3.27 ¹	Determination of fat-soluble vitamins (D2 and D3) by two-dimensional liquid chromatography method with PDA detection	CZ_SOP_D06_04_229 (AN-1069 Thermo – Application list)	Fats, fatty food, non-fatty food, dietary supplements, feed ⁸³ , premixes
3.28 ¹	Determination of Vitamin B12 by ELISA method by commercial set	CZ_SOP_D06_04_230 (R-Biopharm– Ridascreen Fast Vitamin B12 Manual)	Food, feed ⁸³ , dietary supplements
3.29 ¹	Determination of fat-soluble vitamins (vitamins A, E) by liquid chromatography method with FLD detection	CZ_SOP_D06_04_231 (ČSN EN 128 23-1, ČSN EN 128 22)	Cosmetic masks
3.30 ¹	Determination of water-soluble vitamins (vitamin C) by liquid chromatography method with PDA detection	CZ_SOP_D06_04_232 (ČSN EN 14130:2004)	Cosmetic masks
3.31 ¹	Determination of almond allergen by ELISA method by commercial set	CZ_SOP_D06_04_233 (Bio-Check– Almonde Check Manual)	Food, dietary supplements, swabs
3.32 ¹	Determination of hazelnut allergen by ELISA method by commercial set	CZ_SOP_D06_04_234 (Bio-Check– Hazelnut Check Manual)	Food, dietary supplements, swabs
3.33 ¹	Determination of egg allergen (egg white proteins) by ELISA method by commercial set	CZ_SOP_D06_04_235 (Bio-Check– Egg Check Manual)	Food, dietary supplements, swabs
3.34 ¹	Determination of milk allergen (casein and β -lactoglobulin proteins) by ELISA method by commercial set	CZ_SOP_D06_04_236 (Bio-Check– Milk Check Manual)	Food, dietary supplements, swabs
3.35 ¹	Determination of sesame allergen by ELISA method by commercial set	CZ_SOP_D06_04_237 (Bio-Check– Sesame Check Manual)	Food, dietary supplements, swabs
3.36 ¹	Determination of pantothenic acid by liquid chromatography with PDA detection	CZ_SOP_D06_04_238	Dietary supplements
4	Water Microbiology		
4.1 ¹	Enumeration of mesophilic bacteria by cultivation	ČSN 75 7841	Surface, ground, waste, pool water
4.2 ¹	Enumeration of psychrophilic bacteria by cultivation	ČSN 75 7842	Surface, ground, waste, pool water
4.3 ¹	Enumeration of intestinal enterococci by membrane filtration	ČSN EN ISO 7899-2 STN EN ISO 7899-2	Drinking, bottled, pool, raw, treated ⁹⁰ , ground, surface, waste water
4.4 ¹	Enumeration of culturable microorganisms a) at 22 °C b) at 36 °C by cultivation	ČSN EN ISO 6222 STN EN ISO 6222	Drinking, bottled, natural, mineral, pool, raw, treated ⁹⁰ , ground water

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
4.5 ¹	Enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by membrane filtration	ČSN 75 7835	Drinking, surface, ground, pool, waste water
4.6 ¹	Enumeration of <i>Escherichia coli</i> and coliform bacteria by membrane filtration	ČSN EN ISO 9308-1 STN EN ISO 9308-1	Drinking, pool, bottled, raw, treated ⁹⁰ , ground water
4.7 ¹	Enumeration of <i>Pseudomonas aeruginosa</i> by membrane filtration	ČSN EN ISO 16266 STN EN ISO 16266	Drinking, bottled, natural mineral, pool, surface, waste water
4.8 ¹	Enumeration of coagulase-positive staphylococci (<i>Staphylococcus Aureus</i> and other species) by membrane filtration	ČSN EN ISO 6888-1 ČSN EN ISO 8199	Pool, surface, waste, drinking, ground water
4.9 ¹	Enumeration of <i>Candida</i> yeasts by membrane filtration	CZ_SOP_D06_04_258 (Hausler, J.: Microbiological Culture Methods of Quality Inspection, Volume III, 1995)	Pool, surface, waste water
4.10 ¹	Enumeration of <i>Clostridium perfringens</i> by membrane filtration	CZ_SOP_D06_04_259 (GR 252/2004 Coll., Annex 6, GR No. 354/2006 Coll., Annex.3)	Drinking, bottled, pool, natural mineral, raw, treated ⁹⁰ , ground water
4.11 ¹	Detection of <i>Salmonella</i> by membrane filtration	ČSN ISO 19250	Drinking, surface, ground, pool, waste water
4.12 ¹	Determination of bioseston by microscopy	ČSN 75 7712 STN 757711	Drinking, bottled, raw, treated ⁹⁰ , ground water
4.13 ¹	Determination of abioseston by microscopy	ČSN 75 7713 STN 757712	Drinking, bottled, raw, treated ⁹⁰ , ground water
4.14 ¹	Detection and enumeration of <i>Legionella</i> by cultivation and membrane filtration	ČSN EN ISO 11731	Water ⁹¹ , treated water ⁹⁰
4.15 ¹	Detection and enumeration of <i>Legionella</i> by cultivation	ČSN EN ISO 11731	Sediments, alluvium, growths
4.16 ¹	Detection and enumeration of <i>Legionella</i> by cultivation	ČSN EN ISO 11731	Swabs
4.17 ¹	Enumeration of Coliform bacteria by membrane filtration	ČSN 75 7837	Non-disinfected water
4.18 ¹	Enumeration of sulphite the spores of sulfite-reducing anaerobes (<i>Clostridium</i>) by membrane filtration	ČSN EN 26461-2	Water ⁹¹
4.19 ¹	Microbiological testing of water for haemodialysis. Enumeration of viable microorganisms	CZ_SOP_D06_04_266 (ČSN EN ISO 23500-3)	Dialysis water
4.20 ¹	Microbiological testing of dialysis fluid for haemodialysis. Enumeration of viable microorganisms	CZ_SOP_D06_04_267 (ČSN EN ISO 23500-5)	Dialysis fluid
4.21 ¹	Determination of the concentration of bacterial endotoxins by the LAL test: turbidimetric kinetic method	CZ_SOP_D06_04_268 (Ph. Eur. chapter 2.6.14)	Dialysis water, dialysis fluid, water purified, water highly purified, water for injection
4.22 ¹	Determination of the total number of micro-organisms	CZ_SOP_D06_04_269 (Ph. Eur chapter 6.3:0008, 6.3:1927, 6.3:0169)	Water purified, water highly purified, water for injection

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
4.23 ¹	Test for specific micro-organisms – Detection of <i>Pseudomonas Aeruginosa</i> bacteria	CZ_SOP_D06_04_270 (Ph. Eur chapter 6.3:0008, 6.3:1927, 6.3:0169)	Water purified, water highly purified, water for injection
5	Microbiology		
5.1 ¹	Enumeration of microorganisms by cultivation	ČSN EN ISO 4833-1	Food, feed ⁸³ , dietary supplements
5.2 ¹	Enumeration of coliform bacteria by cultivation	ČSN ISO 4832	Food, feed ⁸³ , dietary supplements
5.3 ¹	Enumeration of enterococci by cultivation	CZ_SOP_D06_04_302 (ČSN 56 0100:1994)	Food, feed ⁸³ , dietary supplements
5.4 ¹	Enumeration of <i>Bacillus cereus</i> by cultivation	ČSN EN ISO 7932	Food, feed ⁸³ , dietary supplements
5.5 ¹	Enumeration of coagulase-positive staphylococci (<i>Staphylococcus aureus</i> and other species) by cultivation	ČSN EN ISO 6888-1	Food, feed ⁸³ , dietary supplements
5.6 ¹	Enumeration of <i>Clostridium perfringens</i> by cultivation	ČSN EN ISO 7937	Food, feed ⁸³ , dietary supplements
5.7 ¹	Detection of <i>Salmonella</i> by cultivation	ČSN EN ISO 6579-1	Food, feed ⁸³ , dietary supplements
5.8 ¹	Detection of <i>Salmonella</i> by cultivation	CZ_SOP_D06_04_307, except chap. 9.1.2 (ČSN EN ISO 6579, AHM No. 1/2008)	Sludge, bio waste, compost, substrates, soils
5.9 ¹	Detection of <i>Salmonella</i> by cultivation	CZ_SOP_D06_04_307, except chap. 9.1.1 (ČSN EN ISO 6579, AHM No. 1/2008)	Biological materials ⁷⁷
5.10 ¹	Determination of inhibiting substances by Delvotest method	CZ_SOP_D06_04_308 (O.K. Servis BioPro Manual)	Milk
5.11 ¹	Detection of <i>Salmonella</i> by ELISA method - commercial set Solus Salmonella	CZ-SOP-D06_04_309 (Solus Manual)	Food, feed ⁸³ , dietary supplements
5.12 ¹	Enumeration of yeasts and moulds by cultivation	ČSN ISO 21527-1,2	Food, feed ⁸³ , dietary supplements
5.13 ¹	Detection of <i>Enterobacteriaceae</i> by cultivation	ČSN ISO 21528-1	Food, feed ⁸³ , dietary supplements
5.14 ¹	Enumeration of spore-forming microorganisms by cultivation	CZ_SOP_D06_04_312 (ČSN 56 0100:1994, Article 87)	Food, feed ⁸³
5.15 ¹	Detection of <i>Vibrio parahaemolyticus</i> and <i>Vibrio species</i> by cultivation	ČSN EN ISO 21872-1,2	Food, feed ⁸³
5.16 ¹	Enumeration of mesophilic lactic acid bacteria by cultivation	ČSN ISO 15214	Food, feed ⁸³ , dietary supplements
5.17 ¹	Detection of <i>Shigella spp.</i> by cultivation	ČSN EN ISO 21567	Food, feed ⁸³
5.18 ¹	Detection of <i>Campylobacter spp.</i> by cultivation	ČSN EN ISO 10272-1	Food, feed ⁸³
5.19 ¹	Detection of presumptive pathogenic <i>Yersinia enterocolitica</i> by cultivation	ČSN EN ISO 10273	Food, feed ⁸³
5.20 ¹	Enumeration of Enterobacteriaceae by cultivation	ČSN ISO 21528-2	Food, feed ⁸³ , dietary supplements
5.21 ¹	Enumeration of beta-glucuronidase-positive <i>Escherichia coli</i> by cultivation	ČSN ISO 16649-2	Food, feed ⁸³ , dietary supplements

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
5.22 ¹	Detection and enumeration of <i>Listeria monocytogenes</i> by cultivation	ČSN EN ISO 11290-1 ČSN EN ISO 11290-2	Food, feed ⁸³ , dietary supplements
5.23 ¹	Enumeration of potentially toxigenic moulds on special media by cultivation	CZ_SOP_D06_04_321 (AHEM No. 1/2003)	Food, feed ⁸³
5.24 ¹	Enumeration of microorganisms in air by aeroscopy and sedimentation method	CZ_SOP_D06_04_322 (ČSN 56 0100:1994, Article 149, 150 AHEM No. 1/2002)	Internal air environment
5.25 ¹	Determination of microbial contamination of areas, surface of equipment and packages using swab method	CZ_SOP_D06_04_323 (ČSN 56 0100:1994, Article 145)	Areas, surface, packaging materials, surface of food
5.26 ¹	Enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by cultivation	CZ_SOP_D06_04_324 (AHEM No. 1/2008, ČSN ISO 16649-2)	Sludge, bio waste, compost, substrates, soils, sand
5.27 ¹	Enumeration of enterococci by cultivation	CZ_SOP_D06_04_325 (AHEM No. 1/2008, ČSN EN ISO 7899-2)	Sludge, bio waste, compost, substrates, soils, sand
5.28 ¹	Detection of <i>Listeria</i> by ELISA method - commercial set Solus Listeria	CZ_SOP_D06_04_326 (Solus Manual)	Food, feed ⁸³ , dietary supplements
5.29 ¹	Determination of the number of coagulase-positive staphylococci (<i>Staphylococcus aureus</i> and other species) - method of detection	ČSN EN ISO 6888-3	Food, feed ⁸³ , dietary supplements
5.30 ¹	Determination of low numbers of <i>Bacillus cereus</i> - method of detection	ČSN EN ISO 21871	Food, feed ⁸³ , dietary supplements
5.31 ¹	Detection of <i>Cronobacter (Enterobacter) sakazakii</i> by cultivation	ČSN EN ISO 22964	Milk and milk products
5.32 ¹	Detection and enumeration of aerobic mesophilic bacteria by cultivation	ČSN EN ISO 21149	Cosmetics
5.33 ¹	Detection of <i>Pseudomonas aeruginosa</i> by cultivation	ČSN EN ISO 22717 ČSN EN ISO 18415	Cosmetics
5.34 ¹	Detection of <i>Staphylococcus aureus</i> by cultivation	ČSN EN ISO 22718 ČSN EN ISO 18415	Cosmetics
5.35 ¹	Detection of <i>Candida albicans</i> by cultivation	ČSN EN ISO 18416 ČSN EN ISO 18415	Cosmetics
5.36 ¹	Detection of <i>Escherichia coli</i> by cultivation	ČSN EN ISO 21150 ČSN EN ISO 18415	Cosmetics
5.37 ¹	Enumeration of yeast and mould by cultivation	ČSN EN ISO 16212	Cosmetics
5.38 ¹	Evaluation of antimicrobial protection of cosmetic product, test of conservation effectiveness	CZ_SOP_D06_04_336 (ČSN EN ISO 11930, Ph. Eur., chapter 5.1.3)	Cosmetics
5.39 ¹	Horizontal method for the detection and enumeration of presumptive <i>Escherichia coli</i> - Technique of most probable number	ČSN ISO 7251 expect article 9.2	Food, feed ⁸³
5.40 ¹	Microbiological testing of non-sterile products – Determination of the number of microorganisms	CZ_SOP_D06_04_338 (Ph. Eur., chapter 2.6.12)	Pharmaceutical products, intermediates, raw materials. veterinary medicines, biopreparations, dietary supplements
5.41 ¹	Microbiological testing of non-sterile products – Tests for specific micro-organisms	CZ_SOP_D06_04_339 (Ph. Eur., chapter 2.6.13)	Pharmaceutical products, intermediates, raw materials.

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
			veterinary medicines, biopreparations, dietary supplements
6	Ecotoxicology		
6.1 ²	Determination of the acute lethal toxicity of substance to a freshwater fish	CZ_SOP_D06_07_350 (ČSN EN ISO 7346-1, ČSN EN ISO 7346-2, STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.2 ²	Determination of the inhibition of the mobility of <i>Daphnia magna</i> Straus - Acute toxicity test	CZ_SOP_D06_07_351 (ČSN EN ISO 6341, STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.3 ²	Freshwater algal growth inhibition test	CZ_SOP_D06_07_352 (ČSN EN ISO 8692, STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.4 ²	Toxicity test on seeds of white mustard (<i>Sinapis alba</i>)	CZ_SOP_D06_07_353 (Ministry of Environment Bulletin, Volume XVII, Part 4/2007, p. 13-14; Waste Department Guidance for the determination of waste ecotoxicity, Annex 1 "Test on the seeds of white mustard (<i>Sinapis alba</i>)", STN 83 8303)	Surface, ground and waste water ⁸⁴ , extracts of waste, solutions and extracts of chemical substances and agents
6.5 ²	Determination of the inhibitory effect of water samples on the light emission of <i>Vibrio fischeri</i>	CZ_SOP_D06_07_354 (ČSN EN ISO 11348-2)	Surface, ground and waste water ⁸⁴ , extracts ⁹² , percolation water, saline, and brackish water
6.6 ²	<i>Folsomia candida</i> reproduction test – determination of the inhibition.	CZ_SOP_D06_07_355 (ČSN EN ISO 11267)	Waste, soils, sediments
6.7 ²	<i>Enchytraeus crypticus</i> reproduction test – determination of inhibition	CZ_SOP_D06_07_356 (ČSN EN ISO 16387)	Waste, soils, sediments
6.8 ²	<i>Lactuca sativa</i> – determination of inhibition of root growth	CZ_SOP_D06_07_357 (ČSN EN ISO 11269-1)	Waste, soils, sediments
6.9 ²	Determination of nitrification activity and its inhibition	CZ_SOP_D06_07_358 (ČSN ISO 15685)	Waste, soils, sediments
6.10 ²	Determination of the inhibition of the growth, germination, and germination index (phytotoxicity) of Garden Cress (<i>Lepidium sativum</i>) - Acute toxicity test	CZ_SOP_D06_07_359 (F. Zucconi et al.: Biological evaluation of compost maturity. BioCycle, 22(2), 1981, pages 27–29.)	Surface, ground and waste water ⁸⁴ , extracts of waste and composts, solutions and extracts of chemical substances and agents
6.11 ²	Determination of the inhibition of the growth of Lesser Duckweed (<i>Lemna minor</i>) - Acute toxicity test	CZ_SOP_D06_07_1350 (ČSN EN ISO 20079)	Surface, ground and waste water ⁸⁴ , extracts of waste and composts, solutions and extracts of chemical substances and agents

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
7	Radiology		
7.1 ²	Determination of gross alpha activity by measuring evaporated residue in a mixture with ZnS(Ag) scintillator	ČSN 75 7611, chap. 4	Water ⁹¹ , extracts ⁹²
7.2 ²	Determination of gross alpha activity by measuring incinerated evaporated residue by means of proportional detector	ČSN 75 7611, chap. 5	Water ⁹¹ , extracts ⁹²
7.3 ²	Determination of gross beta activity by measuring evaporated residue by means of proportional detector and calculation of gross beta activity corrected for potassium 40 from measured values	CZ_SOP_D06_07_361 (ČSN 75 7612, ČSN EN ISO 9697, SÚJB Recommendation „Measurement and assessment of the content of natural radionuclides in drinking water from public sources and bottled water”, DR-RO-5.1 (Rev. 0.0), Prague 2017)	Water ⁹¹ , extracts ⁹²
7.4 ²	Determination of radium 226 after concentration by scintillation emanometry	ČSN 75 7622	Water ⁹¹ , extracts ⁹²
7.5 ²	Determination of radon 222 by scintillation emanometry after its transportation into scintillation chamber using vacuum	CZ_SOP_D06_07_363.A (ČSN 75 7624, chap. 5)	Water ⁹¹ , extracts ⁹²
7.6 ²	Determination of radon 222 by scintillation gamma-spectrometry with a well type NaI(Tl) crystal	CZ_SOP_D06_07_363.B (ČSN 75 7624, chap. 6)	Water ⁹¹ , extracts ⁹²
7.7 ²	Determination of radon 222 by liquid scintillation counting method (LSC)	CZ_SOP_D06_7_363.C (ČSN 75 7625)	Water ⁹¹
7.8 ²	Determination of uranium by spectrophotometry after separation on silica gel and calculation of ²³⁸ U from measured values	CZ_SOP_D06_07_364 (ČSN 75 7614)	Water ⁹¹ , extracts ⁹²
7.9 ²	Determination of tritium volume activity by liquid scintillation counting method (LSC)	CZ_SOP_D06_07_365 (ČSN EN ISO 9698)	Water ⁹¹ , extracts ⁹²
7.10 ²	Determination of polonium 210 after its concentration by sorption on ZnS(Ag) by the measurement of emitted scintillations	ČSN 75 7626	Water ⁹¹ , extracts ⁹²
7.11 ²	Determination of polonium 210 after total decomposition and after its concentration by sorption on ZnS(Ag) by the measurement of emitted scintillations	CZ_SOP_D06_07_366 (ČSN 75 7626)	Soils, sludge, sediments, filters
7.12 ²	Non-destructive determination of radionuclides ²⁵⁾ by high resolution gamma-spectrometry and calculation of the mass activity index I (ACI) from the measured volumetric activities of individual radionuclides	CZ_SOP_D06_07_367 (ČSN EN ISO 10703, SÚJB Recommendation “Measurement and evaluation of natural radionuclides in building materials”, DR-RO-5.2 (Rev. 0.0), Prague 2017	Solid samples with granularity up to 4 mm, food, water ⁹¹ , liquid samples ⁸¹
7.13 ²	Determination of gross alpha mass activity by direct measurement of the sample by means of alpha radiation analyser	CZ_SOP_D06_07_368 (ČSN 75 7611, ISO 9696)	Solid samples ⁸⁵ pulverized for grain size below 100 µm, liquid samples ⁸¹ with boiling point above 100 °C

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
7.14 ²	Determination of gross beta mass activity by direct measurement of the sample by means of beta radiation analyser	CZ_SOP_D06_07_369 (ČSN 75 7612, ČSN EN ISO 9697)	Solid samples ⁸⁵ pulverized for grain size below 100 µm, liquid samples ⁸¹ with boiling point above 100 °C
7.15 ²	Determination of lead 210 after its sorption on ZnS-colloid by beta radiation analyzer	CZ_SOP_D06_07_370 (ČSN 75 7627)	Water ⁹¹ , extracts ⁹² (with low content of suspended solids or filtrated through 0.45 µm filter)
7.16 ²	Determination of gross alpha activity by co-precipitation method by measurement of filtrated precipitate by means of proportional detector	CZ_SOP_D06_07_371 (ČSN 75 7610)	Water ⁹¹ , extracts ⁹²
7.17 ²	Calculation of Indicative Dose (ID) ⁶⁶ from the measured values of volume activities of individual radionuclides	CZ_SOP_D06_07_372 (SÚJB Recommendation „Measurement and assessment of the content of natural radionuclides in drinking water from public sources and bottled water”, DR-RO-5.1 (Rev. 0.0), Prague 2017, Council Directive 2013/51 / EURATOM of 22. 10. 2013)	Water ⁹¹
7.18 ²	Determination of strontium 90 by proportional detector after separation	CZ_SOP_D06_07_373 (ASTM D5811-00)	Water ⁹¹
7.19 ²	Determination of strontium 90 by proportional detector after separation	CZ_SOP_D06_07_373 (ASTM D5811-00, ASTM C1507-20)	Soils, sludge, sediments
7.20 ²	Determination of strontium 90 by proportional detector after separation	CZ_SOP_D06_07_373 (ASTM D5811-00, ASTM C1507-20)	Biological materials ⁷⁷ , food, feed ⁸³
7.21 ²	Determination of carbon 14 by liquid scintillation method after separation	CZ_SOP_D06_07_374 (ČSN EN ISO 13162, ČSN EN 16640 US EPA 520/5-84-006)	Water ⁹¹ , soils, sludge, sediments, bioindicators ⁷⁶ , food
7.22 ²	Determination of total volume alpha and beta activities by liquid scintillation counting method (LSC)	CZ_SOP_D06_07_375 (ČSN EN ISO 11704, ASTM D7283-17)	Non salted water
7.23 ²	Determination of radium 226 and 228 by liquid scintillation measurement method (LSC)	CZ_SOP_D06_07_376 (ČSN EN ISO 22908)	Water ⁹¹
8	Tribology		
8.1 ¹¹	Determination of kinematic viscosity by viscometer and viscosity index by calculation	CZ_SOP_D06_05_400 (ČSN EN ISO 3104, ČSN ISO 2909, ASTM D7279, ASTM D7042)	Liquid fuels, lubricating oils
8.2 ¹¹	Determination of flash point - Pensky-Martens closed cup method by flash point analyser	CZ_SOP_D06_05_401 (ČSN EN ISO 2719, ASTM D93)	Diesel, light fuel oils

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
8.3 ¹¹	Determination of liquid cleanliness code by particle counter	CZ_SOP_D06_05_402 (User Manual for Lase Net Fines-C use and maintenance, ČSN ISO 4406)	Liquid fuels, lubricating oils
8.4 ¹¹	Determination of base number by potentiometric titration	CZ_SOP_D06_05_403 (ČSN ISO 3771)	Lubricating oils, additives to lubricants
8.5 ¹¹	Determination of neutralization number by potentiometric titration	CZ_SOP_D06_05_404 (ČSN ISO 6619)	Lubricating oils, additives to lubricants
8.6 ¹¹	Determination of water content by coulometric method	CZ_SOP_D06_05_405 (ASTM D6304)	Liquid fuels, lubricating oils
8.7 ¹¹	Determination of flash point and burning point in open cup according to Cleveland by flash point analyser	CZ_SOP_D06_05_406 (ASTM D92)	Liquid fuels, lubricating oils
8.8 ¹¹	Determination of Cold Filter Plugging Point (CFPP) by the method of gradual cooling	CZ_SOP_D06_05_407 (ČSN EN 116, ASTM D6371)	Diesel, light fuel oils
9	General Food Chemistry		
9.1 ¹	Determination of organic acids ⁶⁸ content by capillary isotachopheresis method	CZ_SOP_D06_04_450 (Recman - Laboratory technique – Application sheets No. 35, 39, 70)	Food, feed ⁸³
9.2 ¹	Gravimetric determination of fat	CZ_SOP_D06_04_451 (ČSN ISO 1443, ČSN ISO 1444, ČSN 46 7092-7)	Food, feed ⁸³
9.3 ¹	Gravimetric determination of dry matter and calculation of moisture from measured value	CZ_SOP_D06_04_452 (Journal of AOAC International vol 88, No1,2005; Journal of AOAC International vol 86, No6, 2003)	Food, feed ⁸³ , dietary supplements
9.4 ¹	Determination of nitrate and nitrite by capillary isotachopheresis	CZ_SOP_D06_04_453 (ITP: Application sheet No. 33 VILLA LABECO s.r.o.)	Food, feed ⁸³
9.5 ¹	Determination of phosphates by capillary isotachopheresis	CZ_SOP_D06_04_454 (ITP: Application sheet No. 35 VILLA LABECO s.r.o.)	Food, feed ⁸³
9.6 ¹	Gravimetric determination of water extract content	ČSN 58 0113, Article 38	Coffee
9.7 ¹	Determination of acid value and acidity by titration	CZ_SOP_D06_04_456 (ČSN EN ISO 660)	Animal and vegetable fats and oils
9.8 ¹	Determination of polyols ⁷⁵ by ion chromatographic method with EC detection	CZ_SOP_D06_04_457 (ČSN EN 15086, DIONEX Technical Note 20)	Food, feed ⁸³ , dietary supplements
9.9 ¹	Gravimetric determination of ash	CZ_SOP_D06_04_458 (ČSN 56 0116-4)	Food, feed ⁸³
9.10 ¹	Determination of crude fibre by oxidation hydrolysis method	CZ_SOP_D06_04_459 (ČSN ISO 5498, ČSN EN ISO 6865)	Feed ⁸³
9.11 ¹	Determination of pH by potentiometry	CZ_SOP_D06_04_460 (ČSN ISO 2917, ČSN ISO 1842)	Food, feed ⁸³
9.12 ¹	Determination of sand by gravimetry	CZ_SOP_D06_04_461 (ČSN 56 0246-12)	Food, feed ⁸³

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
9.13 ¹	Determination of relative density of liquids by pycnometer	CZ_SOP_D06_04_462 (ČSN EN 1131)	Low viscosity liquids
9.14 ¹	Titrimetric determination of acidity	CZ_SOP_D06_04_463 (ČSN ISO 750, ČSN 56 0116, ČSN 57 0530, ČSN EN 12147, ČSN 56 0246-13)	Fruit juices, fruit and vegetable products, mayonnaise, water-soluble food, dairy products, bakery products
9.15 ¹	Determination of moisture content – distillation method	CZ_SOP_D06_04_464 (ČSN ISO 939)	Spices, mixed condiments
9.16 ¹	Determination of dietary fibre enzymatically by commercial set Megazyme	CZ_SOP_D06_04_465 (AOAC Method 985.29)	Food, dietary supplements
9.17 ¹	Determination of starch content by polarimetry	CZ_SOP_D06_04_466 (ČSN 46 7092-21)	Cereals, baking products, cereal feeds ⁸³
9.18 ¹	Determination of chloride by coulometric titration	CZ_SOP_D06_04_467 (O.K. SERVIS company Chloride Analyser manual)	Food, feed ⁸³ , dietary supplements
9.19 ¹	Determination of reducing sugars and total sugars after iodometric inversion and calculation of non-reducing sugars from measured values	CZ_SOP_D06_04_468 (ČSN 56 0146)	Food, feed ⁸³ , dietary supplements
9.20 ¹	Determination of alkalinity of water-soluble ash by titration	ČSN ISO 1578	Tea
9.21 ¹	Gravimetric determination of total ash	ČSN ISO 1575	Tea
9.22 ¹	Gravimetric determination of water-soluble and water-insoluble ash	ČSN ISO 1576	Tea
9.23 ¹	Gravimetric determination of acid-insoluble ash	ČSN ISO 1577	Tea
9.24 ¹	Gravimetric determination of water extract	ČSN ISO 9768	Tea
9.25 ¹	Gravimetric determination of looses in mass at 103°C	ČSN ISO 1573	Tea
9.26 ¹	Determination of total nitrogen by Dumas method by analyser and protein calculation from measured values	CZ_SOP_D06_04_475 (ČSN EN ISO 14891, ČSN EN ISO 16634-1, ČSN EN ISO 16634-2)	Food, feed ⁸³ , dietary supplements
9.27 ¹	Volumetric determination of volatile oils (essential oils) by distillation with steam	ČSN EN ISO 6571	Spices, spicing agents, herbs
9.28 ¹	Determination of the weight of consumer packaging of food and animal feeding stuff products by gravimetry	CZ_SOP_D06_04_477 (ČSN 560305, ČSN 570146-3, ČSN 580170-3)	Food, feed ⁸³ , dietary supplements
9.29 ¹	Determination of the meat content in meat products and products containing meat by calculation from measured values ⁶³	CZ_SOP_D06_04_478 (Commission Directive No. 2001/101/EC, Commission Regulation No. 2004/2002/EC, Commission Regulation No. 2429/86/EEC, Decree 330/2009 Coll.)	Meat products
9.30 ¹	Determination of carbohydrates and energy values by calculation from measured values ⁶⁴	CZ_SOP_D06_04_479 (Regulation (EU) 1169/2011, Decree 330/2009 Coll.)	Food, raw materials for production of food, dietary supplements

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
9.31 ¹	Determination of non-protein content substances by calculation ⁶⁵	ČSN 46 7092-24	Feed ⁸³
9.32 ¹	Determination of 4-hydroxyproline by spectrophotometry and calculation of collagen from measured values	CZ_SOP_D06_04_481 (ISO 3496)	Meat products
9.33 ¹	Determination of fat content by NMR method	CZ_SOP_D06_04_482 (Journal of AOAC International vol 88, No. 1, 2005, Journal of AOAC International vol 86, No. 6, 2003)	Selected food ⁹⁵ and raw materials for production of food, feed ⁸³ , dietary supplements
9.34 ¹	Volumetric determination of peroxide value	CZ_SOP_D06_04_483 (ČSN EN ISO 3960)	Fats and vegetable oils
9.35 ¹	Determination of water activity by capacitive sensor method	ČSN ISO 21807	Food, raw materials for production of food, dietary supplements
9.36 ¹	Determination of net muscle protein by calculation from the content of collagen and protein	CZ_SOP_D06_04_485 (Decree No. 69/2016 Coll.)	Meat, meat products
9.37 ¹	Identification of synthetic dyes ⁵⁷ by thin-layer chromatography method	CZ_SOP_D06_04_486 (Dáviděk J., Laboratory Manual of Food Analysis, 1981)	Food
9.38 ¹	Determination of piperine content by spectrophotometry	ČSN ISO 5564	Black pepper and white pepper, whole or ground
9.39 ¹	Determination of starch in meat products by titration	CZ_SOP_D06_04_488 (BS 4401 Part 12:1979 Determination of Starch Content of Meat Products)	Meat products
9.40 ¹	Determination of total sulphur dioxide after distillation by titration	CZ_SOP_D06_04_489 (Prof. Ing. J. Dáviděk, DrSc. et al.: Laboratory Manual of Food Analysis, SNTL 1981)	Food and raw materials for food production, dietary supplements
9.41 ¹	Determination of total sulphur dioxide after distillation by ITP	CZ_SOP_D06_04_489 (Prof. Ing. J. Dáviděk, DrSc. et al.: Laboratory Manual of Food Analysis, SNTL 1981, Application sheet No. 33 Villa Labeco)	Food and raw materials for food production, dietary supplements
9.42 ¹⁰	Sensory testing – description test	CZ_SOP_D06_04_490 (ČSN ISO 6658, ČSN EN ISO 8589, ČSN EN ISO 13299, ČSN ISO 13300-1,2)	Food, cosmetics, packaging materials for food, consumer goods
9.43 ¹⁰	Sensory testing – comparison to standard	CZ_SOP_D06_04_491 (ČSN ISO 6658, ČSN ISO EN 8589, ČSN EN ISO 13299, ČSN ISO 13300-1,2)	Food, cosmetics, packaging materials for food, consumer goods
9.44 ¹⁰	Assessment of characteristics of food	CZ_SOP_D06_04_492 (ČSN EN ISO 8589, ČSN EN ISO 13299, ČSN ISO 13300-1,2)	Food
9.45 ¹	Determination of density by density meter	CZ_SOP_D06_04_493 (ČSN 57 0530)	Milk and milk products

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Subject of the test
9.46 ¹	Determination of sugars ⁶⁹ by ion chromatography method with EC detection	CZ_SOP_D06_04_494 (ČSN EN 12630)	Food, feed ⁸³ , dietary supplements
9.47 ¹	Determination of ethanol after distillation by gravimetry	CZ_SOP_D06_04_495 (ČSN 56 0186-5, ČSN 56 0210, ČSN 56 0216)	Alcoholic beverages

Annex:

Flexible scope of accreditation

Ordinal numbers of tests
1.1 - 1.12; 1.15 - 1.18; 1.41; 1.44; 1.48; 1.51; 1.67 - 1.68, 1.70; 1.84; 1.91; 1.113 - 1.116; 1.128; 1.131 - 1.132; 1.138; 1.140; 1.146; 1.151 - 1.152; 1.157; 1.159; 1.163 - 1.165; 1.178; 1.181
2.1 - 2.14; 2.16 - 2.34; 2.38 - 2.41; 2.43 - 2.46; 2.51 - 2.55; 2.57 - 2.86; 2.88 - 2.91
3.1-3.22; 3.24 - 3.36
6.1-6.11
7.3; 7.12; 7.17
9.1; 9.8, 9.37; 9.46

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed. The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.

Sampling:

Ordinal number ¹	Sampling procedure name	Sampling procedure identification ²	Subject of sampling
1 ^{1,2,4,5,6,7,8,9}	Sampling of grab sample of surface water manually	CZ_SOP_D06_01_V01 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-4, ČSN EN ISO 5667-6, ČSN EN ISO 5667-14)	Surface water
2 ^{1,2,3,4,5,6,7,8,9}	Sampling of grab sample of waste water manually	CZ_SOP_D06_01_V02 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-10, ČSN EN ISO 5667-14,)	Waste water ⁸⁴
3 ^{1,2,3,4,5,6,7,8,9,12}	Sampling of drinking water and hot drinking water manually	CZ_SOP_D06_01_V03 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-5, ČSN EN ISO 5667-14, ČSN EN ISO 5667-21, ČSN EN ISO 19458, Decree 252/2004 Coll., Decree of SÚJB No. 307/2002 Coll.)	Drinking water, hot water

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Sampling procedure name	Sampling procedure identification ²	Subject of sampling
4 ^{1,2,3,4,5,6,7,8,9}	Sampling of mixed sample of waste water manually and using an automatic sampler	CZ_SOP_D06_01_V04 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-10, ČSN EN ISO 5667-14)	Waste water ⁸⁴
5 ^{1,2,3,4,5,7,8,9}	Sampling of treated water manually	CZ_SOP_D06_01_V05 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-5, ČSN ISO 5667-7, ČSN EN ISO 5667-14)	Treated water ⁹⁰
6 ^{1,2,3,4,5,6,7,8,9}	Sampling of water from artificial bathing site manually	CZ_SOP_D06_01_V06 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-4, ČSN ISO 5667-5, ČSN EN ISO 5667-6, ČSN EN ISO 5667-14, ČSN EN ISO 19458, ČSN EN 15288-2, Decree No. 238/2011 Coll.)	Pool water and filling water of artificial bathing sites
7 ^{1,2,3,4,5,6,7,8,9}	Sampling of grab sample of ground water manually and using pumps	CZ_SOP_D06_01_V07 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-11, ČSN EN ISO 5667-14)	Ground water from boreholes and wells
8 ^{1,2,4,5,6,7,8,9}	Sampling of surface swab manually	CZ_SOP_D06_01_V08 (ČSN 56 0100:1994, ČSN EN ISO 18593, Decree No. 289/2007 Coll., ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-14)	Contaminated surfaces
9 ^{1,2,4,5,6,7,8,9}	Sampling of sludge from sewage and treatment plants manually	CZ_SOP_D06_01_V09 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-13, ČSN EN ISO 5667-14, ČSN EN ISO 5667-15, ČSN EN ISO 19458)	Sludge from water treatment plants, sludge dumps
10 ^{1,2,3,4,5,6,7,8,9}	Sampling of bottom sediments manually	CZ_SOP_D06_01_V10 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-12, ČSN EN ISO 5667-14, ČSN EN ISO 5667-15, ČSN ISO 5667-17)	Bottom sediments from streams and reservoirs
11 ^{1,2,3,4,5,6,7,8,9}	Sampling of soils manually	CZ_SOP_D06_01_V11 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-13, ČSN EN ISO 5667-14,	Soils

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Ordinal number ¹	Sampling procedure name	Sampling procedure identification ²	Subject of sampling
		ČSN EN ISO 5667-15, TNI CEN/TR 15310-1, TNI CEN/TR 15310-2, TNI CEN/TR 15310-3, TNI CEN/TR 15310-4, TNI CEN/TR 15310-5, ČSN 015110, ČSN 015111, ČSN EN 14899, ČSN EN ISO 19458)	
12 ^{1,2,3,4,5,6,7,8,9}	Sampling of waste manually	CZ_SOP_D06_01_V12 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN EN ISO 5667-13, ČSN EN ISO 5667-14, ČSN EN ISO 5667-15, TNI CEN/TR 15310-1, TNI CEN/TR 15310-2, TNI CEN/TR 15310-3, TNI CEN/TR 15310-4, TNI CEN/TR 15310-5, ČSN 015110, ČSN 015111, ČSN 015112, ČSN EN 14899, ČSN EN ISO 19458, ČSN EN ISO 3170, Methodological Guide of ME for Waste Sampling 2008, 101s)	Waste
13 ^{1,2,4,5,6,7}	Air sampling by personal pump	CZ_SOP_D06_01_V13 (ČSN EN 481, ČSN EN 482, ČSN EN 689+AC, GR No. 361/2007 Coll.)	Working environment ⁸⁷
14	Reserved		
15 ^{1,2,7}	Gas sampling for the determination of ammonia	CZ_SOP_D06_01_V15 (ČSN 834728)	Gases ⁸⁶
16 ¹	Stationary air sampling for the determination of the number of asbestos and mineral fibers	CZ_SOP_D06_01_V16 (ISO 14966, chap. 5; VDI 3492, chap. 5 and 6, ČSN EN ISO 16000-7; ČSN EN 482, GR No. 361/2007, Coll. Annex No. 3)	Outdoor and indoor air, working environment ⁸⁷
17 ¹	Sampling for the asbestos determination	CZ_SOP_D06_01_V17 (VDI 3866, part 1)	Building materials ⁸² , materials for building ⁸⁹ ,

**Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022**

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

Used abbreviations

AHEM	Acta hygienica, epidemiologica et microbiologica
AITM	Airbus methods
BDE	Brominated diethylethers
BFR	Brominated flame retardants
ACI	Activity Concentration Index
CFA	Continuous Flow Analyser
CFPP	Cold Filter Plugging Point
ČL	Czech Pharmacopoeia
DIN	Deutscher Institut fuer Normung
DM 06/09/94 GU n° 288 10/12/1994 All. 1 Met. B.	Decree of 06/09/1994 (Decreto Ministeriale 6 settembre 1994), published in Bulletin No. 288 10/12/1994
EC	Electrochemical detection
ECD	Electron Capture Detector
FID	Flame Ionization Detector
FLD	Fluorescence Detector
GR	Government Regulation
HRGC/HRMS	High Resolution Gas Chromatography/High Resolution Mass Spectrometry
I	Mass activity index
ID	Indicative dose
IP	International Petroleum test method
IR	Infrared Region Detector
ISE	Ion Selective Electrode
ISO	International Organization for Standardisation
ITP	Isotachopheresis
LDN	Labor Diagnostika Nord GmbH & Co.KG
LSC	Liquid Scintillation Counting method for the determination of alpha- or beta- radiation emittingradionuclides
MS	Mass Detector
MUFA	Monounsaturated Fatty Acids
NEN	Nederlands Normalisatie-Institut
NIOSH	National Institute for Occupation Safety and Health
NIOSH ¹⁾	Methods used for CZ_SOP_D06_03_153 - NIOSH 1400, NIOSH 1450, NIOSH 1457, NIOSH 1500, NIOSH 1501, NIOSH 1003, NIOSH 1005, NIOSH 1007, NIOSH 1022, NIOSH 1602, NIOSH 1609
PBB	Polybrominated biphenyls
PhEur	European Pharmacopoeia
PDA	Photo-Diode-Array detector
PUFA	Polyunsaturated Fatty Acids
RI	Refractometric Detector
SAFA	Saturated Fatty Acids
SEM/EDS	Scanning Electron Microscope / Energy Dispersive Spectrometer
SFS	The Finish Standard Association

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

SM	Standard Methods – Standard US methods for the analysis of drinking and waste water prepared and issued by American Public Health Association, American Water Works Association and Water Environmental Federation, 21 st edition
SOP	Standard operating procedure
SPIMFAB	SPI MILJOSANERINGSFOND AB – method of Swedish Petroleum Institute
SPMD	Semi-Permeable Membrane Device
SS	Svensk Standard – Swedish standard
STN	Slovak Technical Standard
SÚJB	State Office for Nuclear Safety
Suma Ca+Mg	Water hardness
TCD	Thermal Conductivity Detector
TEQ	Toxic Equivalent
TFA	Trans Fatty Acids
TNV	Branch Technical Standard of Water Management
USBSC	Empirical formula for permeability of mixed materials, coefficient of permeability was extracted from gmbh analysis
US EPA	U.S. Environmental Protection Agency
USP	US Pharmacopoeia
UV	Ultraviolet Detector

Explanatory notes:

- ¹ Asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises. Superscript at the test ordinal number identifies the workplace carrying out the test.
- ² If the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes).
- ³ **Volatile organic compounds** – 1.1.1.2-Tetrachloroethane, 1.1.1-Trichloroethane, 1.1.2.2-Tetrachloroethane, 1.1.2-Trichloroethane, 1.1-Dichloroethane, 1.1-Dichloroethene, 1.1-Dichloropropene, 1.2.3.5-Tetramethylbenzene, 1.2.3-Trichlorobenzene, 1.2.3-Trichloropropane, 1.2.3-Trimethylbenzene, 1.2.4.5-Tetramethylbenzene, 1.2.4-Trichlorobenzene, 1.2.4-Trimethylbenzene, 1.2.5-Trimethylbenzene, 1.2-Dibromo-3-chloropropane, 1.2-Dibromoethane, 1.2-Diethylbenzene, 1.2-Dichlorobenzene, 1.2-Dichloroethane, 1.2-Dichloropropane, 1.3.5-Trichlorobenzene, 1.3.5-Trimethylbenzene, 1.3-Diethylbenzene, 1.3-Dichlorobenzene, 1.3-Dichloropropane, 1.4-Diethylbenzene, 1.4-Dichlorobenzene, 1.4-Dioxane, 1-Ethyl-2-Methylbenzene, 1-Ethyl-2-Methylbenzene, 1-Ethyl-3-Methylbenzene, 1-Ethyl-4-Methylbenzene, 2-butanone (methyl isobutyl ketone-MEK), 2.2-Dichloropropane, 2-Chlorotoluene, 4-Chlorotoluene, Acetone, Aliphates >C5-C8, Aliphates >C8-C10, Benzene, Bromobenzene, Bromodichloromethane, Bromochloromethane, Bromomethane, Bromoform, cis-1.2-Dichloroethene, cis-1.3-Dichloropropene, Cyclohexane, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Dichloromethane, Diisopropyl ether, Ethanol, Ethylbenzene, Ethyl tert-Butyl Ether (ETBE), Hexachlorobutadiene, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, Indane, Isobutanol, Isobutyl Acetate, Isopropylbenzene, Methyl ethyl ketone, Methyl isobutyl ketone, Methyl tert-Butyl Ether (MTBE), m-Xylene, Naphthalene, n-Butanol, n-Butyl Acetate, n-Butylbenzene, n-Hexane, n-Propylbenzene, o-Xylene, p-Isopropyltoluene, p-Xylene, sec-Butanol, sec-Butyl Acetate, sec-Butylbenzene, Styrene, TAEE, TBA, tert-Amyl Methyl Ether, tert-Butanol, tert-Butyl Acetate, tert-Butylbenzene, Tetraethyl lead, Tetrahydrofuran, Tetrahydrothiophene, Tetrachloroethene, Tetrachloromethane, Toluene, total VOC, trans-1.2-Dichloroethene, trans-1.3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride, Aliphates >C5-C6, Aliphates >C6-C8, Aromatics C6-C7, Aromatics >C7-C8, Aromatics >C8-C10, Aromatics >C5-C9, Aromatics >C9-C10, Fraction >C5-C10, Sums calculation according to CZ_SOP_D06_03_J02
- ⁴ **Volatile organic compounds** – 1.1-Dichloroethene, 1.2-Dichloroethane, 1.4-Dioxane, Benzene, Dichloromethane, Ethylbenzene, fraction of hydrocarbons C5(C6)-C12, Chloroform, cis-1.2-Dichloroethene, m-Xylene, Naphthalene, o-Xylene, p-Xylene, Styrene, Tetrachloroethene, Tetrachloromethane, Toluene, trans-1.2-Dichloroethene, Trichloroethene, Vinyl chloride, Aliphates >C5-C6, Aliphates >C6-C8, Aromatics C6-C7, Aromatics >C7-C8, Aromatics >C8-C10, Aromatics >C5-C9, Aromatics >C9-C10, Fraction >C5-C10, Sums calculation according to CZ_SOP_D06_03_J0
- ⁵ **Organic contaminants** – aliphates >C5-C8, aliphates >C8-C10, benzene, toluene, ethylbenzene, o-xylene, m-xylene, p-xylene, MTBE (methyl-terc-buthylether), 1,2-dichloroethane, 1,2-dibromomethane, aliphates >C10-C12, aliphates >C12-C16, aliphates >C16-C35, 1-ethyl-3-methylbenzene, 1-ethyl-4-methylbenzene, 1-ethyl-2-methylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, 1,3-diethylbenzene, 1,4-diethylbenzene, 1,2-diethylbenzene, 1,2,4,5-tetramethylbenzene, naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, biphenyl, 2+1-ethylnaphthalene, 1,7-dimethylnaphthalene, 2,6-dimethylnaphthalene, 1,4+2,3-dimethylnaphthalene, acenaphthylene, 1,8-dimethylnaphthalene, acenaphthene, 2,3,5-trimethylnaphthalene, fluorine, phenanthrene, anthracene, 2-methylanthracene, 1-methylanthracene, 2-methylphenanthrene, 1-methylphenanthrene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene, benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(a)-pyrene, indeno-(1,2,3,c,d)-pyrene, dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, methylpyrenes/ methylfluoranthenes, methylchrysenes/ methylbenzo-[a]-anthracenes, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,2,4-trichlorobenzene, 1,3,5-trichlorobenzene, 1,2,3,4-tetrachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,2,3,5-tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, PCB 28, PCB 52, PCB 101, PCB 118, PCB 153, PCB 138, PCB 180, sums calculation according to CZ_SOP_D06_03_J02
- ⁶ **Phenols, chlorinated phenols and cresols** – 2-chlorophenol, 3-chlorophenol, 4-chlorophenol, 2,6-dichlorophenol, 2,4+2,5-dichlorophenol, 3,5-dichlorophenol, 2,3-dichlorophenol, 3,4-dichlorophenol, 2,4,6-trichlorophenol, 2,3,6-trichlorophenol, 2,3,5-trichlorophenol, 2,4,5-trichlorophenol, 2,3,4-

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- trichlorophenol, 3,4,5- trichlorophenol, 2,3,5,6-tetrachlorophenol, 2,3,4,6- tetrachlorophenol, 2,3,4,5- tetrachlorophenol, pentachlorophenol, 4-chloro-2-methylphenol, 2-chloro-6-methylphenol, phenol, o-cresol, m-cresol, p-cresol, 2,3-dimethylphenol, 2,4-dimethylphenol, 2,5-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 3,4-dimethylphenol, 1- naphthol, 2- naphthol, sums calculation according to CZ_SOP_D06_03_J02
- Phthalates** – dimethylphthalate, diethylphthalate, di-n-propylphthalate, di-n-buthylphthalate, diisobuthylphthalate, dipentylphthalate, di-n-octylphthalate, bis-(2-ethylhexyl)-phthalate (DEHP), buthylbenzylphthalate, dicyclohexyl phthalate, di-iso-nonylphthalate, di-iso-decylphthalate, sums calculation according to CZ_SOP_D06_03_J02
- Sugars** – glucose, fructose, lactose, maltose, sucrose
- Semi-volatile organic compounds** – acenaphthene, acenaphthylene, anthracene, benzo-(a)-anthracene, benzo-(a)-pyrene, benzo-(a)-fluoranthene, benzo-(b)- fluoranthene, benzo(e)pyrene, benzo-(g,h,i)-perylene, benzo-(k)-fluoranthene, biphenyl, dibenzo-(a,h)-anthracene, diphenyl ether, phenanthrene, fluoranthene, fluorene, chrysene, indenopyrene, naphthalene, pyrene, perylene, hexachlorobutadiene, hexachloroethane, aldrin, o,p'-DDD, o,p'-DDE, o,p'-DDT, p,p'-DDD, p,p'-DDE, p,p'-DDT, dieldrin, α -endosulphane, β -endosulphane, endrin, telodrin, isodrin, heptachlor, cis-heptachloroepoxide, trans-heptachloroepoxide, α - HCH, β -HCH, γ -HCH, δ -HCH, alachlor, methoxychlor, pentachlorobenzene, hexachlorobenzene, 1,2,3,4-tetrachlorobenzene, 1,2,3,5-tetrachlorobenzene, 1,2,4,5-tetrachlorobenzene, trifluralin, PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, PCB 194, dichlobenil, ϵ -HCH, octachlorostyrene, di- n-buthylphthalate, bis(2-ethylhexyl) phthalate (DEHP), endosulfan-sulphate, mirex, cis-chlordane, trans-chlordane, oxychlordane, cis-nonachlor, trans- nonachlor, PBB 153, pentachlorotoluene, benzylalcohol, acetophenone, 6-caprolactam, izoforon, aniline, diphenylamine, 4-chloroaniline, benzdine, 4-bromophenylphenyl ether, carbazol, biphenyl, 2-chloronaphthalene, 1-chloronaphthalene, 2-methylnaphthalene, 4-chlorophenylphenyl ether, dibenzofuran, bis(2-chlorethyl)ether, bis(2- chlorethoxy)methan, bis(2-chlorisopropyl)ether (all isomers), phenol, 2-methylphenol, 3-methylphenol, 3- & 4-methylphenol, 4-methylphenol, 2,4- dimethylphenol, 4-chlor-3-methylphenol, hexachlorocyclopentadiene, nitrobenzene, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, 2-nitroaniline, 3-nitroaniline, 4,2-nitroaniline, N-nitrosodimethylamine, N-nitrosodi-n-propylamine, dinoseb, dimethylphthalate, diethylphthalate, butylbenzylphthalate, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, sums calculation according to CZ_SOP_D06_03_J02
- Polycyclic aromatic hydrocarbons** – naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(a)-pyrene, dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, indeno-(1,2,3,c,d)- pyrene, coronene, sums calculation according to CZ_SOP_D06_03_J02
- Polychlorinated biphenyls** - PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, sums calculation according to CZ_SOP_D06_03_J02
- Organochlorine pesticides and other halogenated substances** – 1,2,3,4-tetrachlorobenzene, 1,2,3,5-tetrachlorobenzene, 1,2,4,5-tetrachlorobenzene, 2,4'-DDD (TDE), 2,4'-DDE, 2,4'-DDT, 4,4'- DDD (TDE), 4,4'-DDE, 4,4'-DDT, alachlor, aldrin, bis(2-ethylhexyl)phthalate (DEHP), cis-heptachloroepoxide, cis-chlordan, cis-nonachlor, dieldrin, dichlobenil, dicofol, endosulfan-sulfate, endrin, endrin aldehyde, endrin ketone, heptachlor, hexabromobiphenyl (PBB 153), hexachlorobenzene, hexachlorobutadiene, hexachloroethane, isodrin, methoxychlor, mirex, octachlorostyrene, oxychlordane, pentachloroaniline, pentachlorobenzene, quintozone, telodrin (isobenzan), tetradiphone toxafen, trans-heptachloroepoxide, trans-chlordan, trans-nonachlor, trifluralin, α -endosulphan, α -HCH, β -endosulphan, β -HCH, γ -HCH (Lindan), δ -HCH, ϵ -HCH, sums calculation according to CZ_SOP_D06_03_J02
- PCDD/PCDF** - 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8-HpCDF, OCDF, TEQ parameters calculation according to CZ_SOP_D06_06_J03
- PCB** - PCB101, PCB105, PCB114, PCB118, PCB123, PCB126, PCB138, PCB153, PCB156, PCB157, PCB167, PCB169, PCB170, PCB180, PCB189, PCB209, PCB28, PCB52, PCB77, PCB81, PCB37, sums and TEQ parameters calculation according to CZ_SOP_D06_06_J03
- BFR** - tri-BDE28, tetra-BDE-47, tetra-BDE-66, tetra-BDE-77, penta-BDE-85, penta-BDE-99, penta-BDE-100, hexa-BDE-138, hexa-BDE-153, hexa-BDE-154, hepta-BDE-183, octa-BDE-203, deca-BDE-209, PBB3, PBB15, PBB18, PBB52, PBB101, PBB153, PBB180, PBB194, PBB206, PBB209 and sums calculation according to CZ_SOP_D06_06_J03
- Alkylphenols, alkylphenoethoxylates** - 4-nonylphenol (mixture of isomers), 4-n-nonylphenol, 4-nonylphenol monoethoxylate (mixture of isomers), 4-nonylphenol diethoxylate (mixture of isomers), 4-nonylphenol triethoxylate (mixture of isomers), 4-n-octylphenol, 4-tert-octylphenol, 4-tert-octylphenol monoethoxylate, 4-tert-octylphenol diethoxylate, 4-tert-octylphenol triethoxylate, bisphenol A, sums calculation according to CZ_SOP_D06_03_J02
- Acid herbicides and drug residues** – 2,4,5-T, 2,4,5-TP, 2,4-D, 2,4-DB, 2,4-DP (isomers), 4-CPP, acifluorfen, bentazone, bromoxynil, dicamba, diclofop, dinoseb, DNOC, fluroxypyr, ioxynil, MCPA, MCPB, MCPP (isomers), propoxycarbazone-sodium, triclopyr, triclosan, sums calculation according to CZ_SOP_D06_03_J02
- Fatty acids** – butyric, caproic, caprylic, caprinic, undecanoic, lauric, tridecanoic, myristic, pentadecanoic, palmitic, heptadecanoic, stearic, arachidic, heneicosanoic, behenic, tricosanoic, lignoceric, myristoleic, cis-10-pentadecenoic, palmitoleic, cis-10-heptadecenoic, elaidic, oleic, cis-11-eicosenoic, erucic, nervonic, linolelaidic, linoleic, γ -linolenic, linolenic, cis-11,14-eicosadienoic, cis-8,11,14-eicosatrienoic, cis-11,14,17-eicosatrienoic, arachidonic, cis-13,16- docosadienoic, cis-5,8,11,14,17-eicosapentaenoic, cis-4,7,10,13,16,19-docosahexaenoic, elaidic
- Volatile organic compounds** – 1.1.1.2-Tetrachloroethane, 1.1.1-Trichloroethane, 1.1.2.2-Tetrachloroethane, 1.1.2-Trichloroethane, 1.1-Dichloroethane, 1.1-Dichloropropylene, 1.2.3-Trichlorobenzene, 1.2.3-Trichloropropane, 1.2.3-Trimethylbenzene, 1.2.4.5-Tetramethylbenzene, 1.2.4-Trichlorobenzene, 1.2.4-Trimethylbenzene, 1.2-Dibromo-3-chloropropane, 1.2-Dibromoethane, 1.2-Dichlorobenzene, 1.2-Dichloroethane, 1.2-Dichloropropane, 1.3.5-Trichlorobenzene, 1.3.5-Trimethylbenzene, 1.3- Dichlorobenzene, 1.3-Dichloropropane, 1.4- Dichlorobenzene, 1.4-Dioxane, 1-Chloronaphthalene, 2.2-Dichloropropane, 2-Butanol, 2-Butanone, 2-Butoxyethyl Acetate, 2-Ethylhexanol, 2-Ethyltoluene, 2-Chlorotoluene, 2-Methylhexane, 2-Methyl-1-Butanol, 2-Propanol, 3-Ethyltoluene, 3-Carene, 4-Ethyltoluene, 4-Phenylcyclohexene, 4-Chlorotoluene, 4-Isopropyltoluene, Acetone, alpha- Pinene, alpha-Terpinene, Benzene, beta-Pinene, Bromobenzene, Bromodichloromethane, Bromochloromethane, Bromomethane, Bromoform, cis-1.2- Dichlorethene, cis-1.3-Dichloropropene, Cyclohexane, Cyclohexanone, Diacetone Alcohol, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Dichloromethane, Ethanol, Ethyl Acetate, Ethyl tert-Butyl Ether (ETBE), Ethylbenzene, Hexachlorobutadiene, Hexanal, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, Isobutyl Acetate, Isobutanol, Isocetane, Isopropylbenzene, Limonene, Methanol, Methyl tert-Butyl Ether, Methylcyclohexane, Methylcyclopentane, Methyl iso-butyl Ketone, Methylmercaptan, Dimethylmercaptan, m-Xylene, Naphthalene, n-Butanol, n-Butyl Acetate, n-Butylbenzene, n-Decane, n-Dodecane, n-Heptane, n-Hexadecane, n-Hexane, n-Nonane, n-Octane, n-Pentane, n-Propanol, n-Propylbenzene, n-Tetradecane, n-Tridecane, n-Undecane, o-Xylene, p-Xylene, Petroleum Hydrocarbons, sec-Butylbenzene, Styrene, tert-Butyl Acetate, tert-Butylbenzene, Tetrahydrofuran, Tetrachloroethene, Tetrachloromethane, Toluene, trans-1.2- Dichloroethene, trans-1.3-Dichloropropylene, Trichloroethene, Trichlorofluoromethane, Vinyl Acetate, Vinyl Chloride, Sums calculation according to CZ_SOP_D06_03_J02

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- ²⁰ **Volatile organic compounds** – 1.1.1-Trichloroethane, 1.1.2.2-Tetrachloroethane, 1.1.2-Trichloro-1.2.2-Trifluoroethane, 1.1.2-Trichloroethane, 1.1-Dichloroethane, 1.1-Dichloroethene, 1.2.3-Trichlorobenzene, 1.2.4-Trichlorobenzene, 1.2.4-Trimethylbenzene, 1.2-Dichloro-1.1.2.2-Tetrafluoroethane, 1.2-Dichlorobenzene, 1.2-Dichloroethane, 1.2-Dichloropropane, 1.3.5-Trichlorobenzene, 1.3.5-Trimethylbenzene, 1.3-Butadiene, 1.3-Dichlorobenzene, 1.4-Dichlorobenzene, 1.4-Dioxane, 2-Butanone, 2-Hexanone, 2-Propanol, 4-Ethyltoluene, Acetone, Acrylonitrile, Benzene, Bromomethane, cis-1.2-Dichloroethene, Cyclohexane, Dichloromethane, Ethanol, Ethylbenzene, Hexachlorobutadiene, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, Isooctane, Isopropylbenzene, Methylcyclohexane, Methyl Isobutyl Ketone, m-Xylene, naphthalene, n-Heptane, n-Hexane, n-Propylbenzene, o-Xylene, p-Xylene, Carbon disulfide, Styrene, Tetrahydrofuran, Tetrachloroethene, Tetrachloromethane, Toluene, trans-1.2-Dichloroethene, trans-1,3-dichloropropene, Trichloroethene, Trichlorofluoromethane, vinyl acetate, vinyl chloride, Sums calculation according to CZ_SOP_D06_03_J02
- ²¹ **Aniline and aniline derivatives** – p-chloroaniline
- ²² **Vitamin D** – vitamin D2 and vitamin D3
- ²³ **Substitute sweeteners** – aspartame, acesulfame-K, saccharine, neohesperidine DC
- ²⁴ **Preservatives** – sorbic acid, benzoic acid
- ²⁵ **Radionuclides** – Radionuclides emitting gamma rays in the energy interval 46.5 – 1.836 keV – Natural Radionuclides ⁴⁰K, ²¹⁰Pb, ²²²Rn(²²⁶Ra), ²²⁶Ra(²²⁷Ac), ²²⁴Ra, ²²⁶Ra, ²²⁸Ra(²³²Th), ²²⁷Th(²²⁷Ac), ²²⁸Th, ²³⁰Th, ²³⁴Th(²³⁸U), ²³⁵Pa, ²³⁵U; Artificial Radionuclides ⁷Be, ⁵⁴Mn, ⁵⁷Co, ⁶⁰Co, ⁶⁵Zn, ⁸⁸Y, ^{99m}Tc, ¹⁰⁹Cd, ¹³¹I, ¹³³Ba, ¹³⁴Cs, ¹³⁷Cs, ¹⁵²Eu, ¹⁹²Ir, ²⁴¹Am
- ²⁶ **Glycols** – 1,2-propanediol, monopropylenglycol (as C), ethylenglycol, ethylenglycol (as C), 1,3-butanediol, diethylenglycol, diethylenglycol (as C), triethylenglycol, triethylenglycol (as C)
- ²⁷ **Semi volatile organic compounds** – naphthalene, acenaphthylene, acenaphthene, fluorine, phenanthrene, anthracene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene, benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(a)-pyrene, dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, indeno-(1,2,3,c,d)-pyrene, PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, 2,4-DDD, 2,4-DDE, 2,4-DDT, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, aldrin, alpha-endosulfan, beta-endosulfan, dieldrin, heptachlor, heptachlor epoxide-cis, heptachlor epoxide-trans, hexachlorobenzene, (HCB), hexachlorobutadiene, HCH alpha, HCH beta, HCH gamma, hexachloroethane, isodrine, pentachlorobenzene, telodrin sums calculation according to CZ_SOP_D06_03_J02
- ²⁸ **Alkylphenols, alkylphenoethoxylates** – 4-nonylphenol (mixture of isomers), 4-nonylphenol monoethoxylate (mixture of isomers), 4-nonylphenol diethoxylate (mixture of isomers), 4-nonylphenol triethoxylate (mixture of isomers), 4-tert-octylphenol, 4-tert-octylphenol monoethoxylate, 4-tert-octylphenol diethoxylate, 4-tert-octylphenol triethoxylate, sums calculation according to CZ_SOP_D06_03_J02
- ²⁹ **Acid herbicides, drug residues and other pollutants** – 2,3,6-trichlorobenzoic acid, 2,4,5-T, 2,4,5-TP, 2,4-D, 2,4-DB, 2,4-DP, 2,4-DP (isomers), 3,5,6-trichloro-2-pyridinol, 4-CP, acifluorfen, aminopyralid, benazolin, bentazone, Bromo dichloroacetic acid, Bromo chloroacetic acid, bromoxynil, caffeine, clopyralid, dibromo acetic acid, dibromo chloroacetic acid, dichloroacetic acid, dicamba, dichloroprop-P, diclofenac, diclofop, dinoseb, dinoterb, DNOC, fluroxypyr, ibuprofen, ioxynil, MCPA, MCPB, MCPP, MCPP (isomers), mecoprop-P, metribuzin-desamino, metribuzin-desamino diketo, monobromoacetic acid, monochloroacetic acid, paraxanthine, picloram, propoxycarbazone-sodium, salicylic acid, tribromo acetic acid, trichloroacetic acid, triclopyr, triclosan, sums calculation according to CZ_SOP_D06_03_J02
- ³⁰ **Pesticides, pesticide metabolites, drug residues and other pollutants** – 1,2,4-triazol, 1-(3,4-dichlorophenyl) urea (DCPU), 17-alpha-ethinylestradiol, 17-beta-estradiol, 1H-benzotriazol, 1-methyl-1H-benzotriazol, 2-aminobenzothiazol, 2-amino-4-methoxy-6-methyl-1,3,5-triazine, 2-amino-N-(isopropyl)benzamide, 2-chloro-2,6-diethylacetanilide, 2-hydroxybenzothiazol, 2-hydroxycarbamazepine, 2-isopropyl-6-methyl-4-pyrimidinol, 2-methylbenzothiazol, 2-methylmercaptobenzothiazol, 2-methylsulfonfyl-4-trifluoromethyl benzoic acid, 3,4-dichloroaniline (DCA), 3,5,6-trichloro-2-pyridinol, 3-chloro-4-methylaniline, 3-hydroxycarbamazepine, 5-methyl-1H-benzotriazol, 6-chloronicotinic acid, 6-chloroquinoxalin-2,3-diol, acesulfam K, acetamiprid, acetochlor, acetochlor ESA, acetochlor OA, acibenzolar-S-methyl, acionifen, acrinathrin, acrylamid, alachlor, alachlor ESA, alachlor OA, aldicarb, aldicarb sulfone, aldicarb sulfoxide, aldoxycarb, allethrin, anastrozole ametrine, amidithion, amidosulfuron, amitraz, anilazin, asulam, atraton, atrazine, atrazin-2-hydroxy, atrazin-desethyl, atrazin-desethyl-desisopropyl, atrazin-desisopropyl, atenolol, azacanzole, azathioprin, azinfos-ethyl, azinfos-methyl, azoxystrobin, azoxystrobin isoprazam, azoxystrobin o-demethyl, BAM (2,6-dichlorobenzamide), BDMC, benalaxyl, bendiocarb, benfuracarb, bentazone, bentazone methyl, beta-cyfluthrin, bezafibrat, bifenox, bifenthrin, bitertanol, boscalid, brodifacoum, bromacil, bromadiolol, bromofos-ethyl, bromoxynil, buprofezin, buprenorfin, butorfanol, cadusafos, ciprofloxacin, citalopram, clofentezin, coumafos, cyanazine, cyfenothrin, cyflufenamid, cyclamate, cyclobenzaprin, cyclofosamid, cymoxanil, cypermethrin, cyprazin, cyprodinil, cyproconazole, cyromazin, DEET, deltamethrin, demedifam, desmetyrn, diazepam, diazinon, diethofencarb, difenacoum, difenoconazole, difenoxuron, diflubenzuron, diflufenican, dichlofenthiol, dichloromid, dichlorvos, diclofenac, dicrotophos, diquat, dimefuron, dimethachlor, dimethachlor CGA 369873, dimethachlor CGA 373464, dimethachlor ESA, dimethachlor OA, dimethenamid, dimethenamid ESA, dimethenamid OA, dimethenamid-P, dimethylaminosulfanilid, dimethoate, dimetomorph, dioxystrobin, diuron, diuron desmethyl (DCPMU), enalapril, epoxiconazole, EPTC, estriol, estron, ethiofencarb, ethion, ethofumesate, ethoprophos, ethoxazol, famoxadon, famphur, fenamiphos, fenamiphos sulfon, fenamiphos sulfoxide, fenarimol, fenhexamide, fenmedifam, fenothiocarb, fenothrin, fenoxaprop, fenoxycarb, fenprothrin, fenpropidin, fenpropimorf, fensulfothion, fenuron, fipronil, fipronil sulfon, florasulam, floxetin, fluazifop, fluazifop-butyl, fluazifop-butyl (isomers), fluazifop-P, fluazifop-p-butyl, fluzazinam, fludioxonil, flufenacet, flufenacet ESA, flufenacet OA, fluometuron, fluopicolid, fluopyram, fluquinconazole, flusilazol, flutamid, flutolanil, fonofos, foramsulfuron, phorate, phosalone, phosphamidon, phosmet, phosmet-oxon, phosthiolate, furalaxyl, furathiocarb, furosemid, gabapentin, gemfibrozil, guanylurea, haloxyfop, haloxyfop-2-ethoxyethyl, haloxyfop-p-methyl, hexaconazole, hexazinon, hexythiazox, hydrochlorothiazid, chlormephenicol, chlordaniliprol, chlorbromuron, chlorfenvinphos, chloridazon, chloridazon-desphenyl, chloridazon-methyl desphenyl, chlormequate, chlorotoluron, chloroxuron, chlorpropham, chlorpyrifos, chlorpyrifos-methyl, chlorosulfuron, chlorotoluron-desmethyl, ifosfamide, imazalil, imazamethabenz-methyl, imazamox, imazapyr, imazethapyr, imidacloprid, imidacloprid olefin, imidacloprid urea, indomethacin, indoxacarb, iodosulfuron methyl, iohexol, iomeprol, iopamidol, iopromid, iprodion, iprovalicarb, irgarol, isofetamid, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, isoprazam, isoxaflutol, isoxaflutol diketonitril, capecitabin, carbamazepin, carbamazepin 10,11-epoxide, carbamazepin 10,11-dihydro-10-hydroxy, carbamazepin 10,11-dihydroxy, carbaryl, carbendazim, carbetamid, carbofuran, carbofuran (sum), carbofuran-3-hydroxy, carboxin, carfentrazone-ethyl, ketoprofen, clodinafop, clodinafop propargil, clomazon, clomeprop, clothianidin, caffeine, cresoxim-methyl, crimidin, amidotrizoic acid, clofibrac acid, lambda-cyhalothrin, lenacil, lincomycine, linuron, loperamid, malafoxon, malathion, mandipropamid, MCPA, MCPP, mefenpyr-diethyl, mepentrifluconazole, mevarbam, mepiquate metsulfuron-methyl, mesosulfuron-methyl, mesotrion, metantril, metaflumizone metalaxyl, metalaxyl (isomery), metamitron, metazachlor, metazachlor ESA, metazachlor metabolite 479M09, metazachlor metabolite 479M11, metazachlor OA, metformin, methabenzthiazuron, methaldehyde, methamidophos, methidathion, methiocarb, methiocarb sulfon, methiocarb sulfoxide, methomyl, methomyl oxim, methoprolol, methoprotrothin methoxyfenozid, metconazole, metobromuron, metolachlor, metolachlor (isomers), metolachlor (S), metolachlor CGA 368208, metolachlor ESA, metolachlor NOA 413173, metolachlor OA, metoxuron, metrafenone, metribuzin, metribuzin-desamino, metribuzin-desamino diketo, metribuzin-diketo, metrodinazol, molinate, monocrotophos, monolinuron, monuron, myclobutanil, mycophenolate

Appendix is an integral part of
Certificate of Accreditation No: 73/2022 of 14/02/2022

Entity accredited according to ČSN EN ISO/IEC 17025:2018:

ALS Czech Republic, s.r.o.
Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- mofetil, napropamid, naphthalame, naproxen, neburon, nicosulfuron, N,N-Dimethylsulfamid, norflurazon, nuarimol, omethoate, oxadiazon, oxadixyl, oxamyl, oxyfluorfen, oxazepam, paclobutrazol, paclitaxel, paracetamol (acetaminofen), paraquate, paraoxon-ethyl, paraoxon-methyl, parathion-ethyl, pencycuron, pendimethalin, penconazole, permethrin, pethoxamide, pethoxamide ESApicloram, picoxystrobin, pirimiphos-ethyl, pirimiphos-methyl, pirimicarb, piroxicam, p-isopropylaniline, pretilachlor, primisulfuron-methyl, prodiamin, profam, profenophos, prochloraz, promecarb, prometon, prometryn, propachlor, propachlor ESA, propachlor OA, propamocarb, propanil, propanolol, propaquizafop, propazine, propazine-2-hydroxy, propiconazole, propoxur, propoxycarbazone-sodium, propylene thiourea, propylamide, prosulfocarb, prothioconazole, pyraclostrobin, pyribenzoxim, pyridaben, pyridate, pyrifenoxy, pyrimethanil, pyriproxyfen, quinalphos, quinclorac, quinmerac, quinoxifen, quizalofop, quizalofop-p-ethyl, rimsulfuron, saccharine, salbutamol, sebuthylazine, secbumeton, sedaxan, sertralin, sethoxydim, siduron, simazine, simazine-2-hydroxy, simazine-desethyl, simetryn, sotalol, spinosad (spinosyn A + spinosyn D), spiroxamin, sulfamethoxazol, sulfosulfuron, tau-fluvalinate, tebufenpyrad, tebuconazole, tebuthiuron, teflubenzuron, tefluthrin, terbumeton, terbumeton-desethyl, terbutalin, terbuthylazine, terbuthylazine-desethyl, terbuthylazine-desethyl-2-hydroxy, terbuthylazine-hydroxy, terbutryn, tetraconazole tetramethrin, thebain, thiabendazol, thiachlorid, thiametoxam, thiazafuror, thidiazuron, thifensulfuron-methyl, thiobencarb, thiofanate-methyl, tolcapophos-methyl, tramadol, triadimefon, triadimenol, tri-allate, triasulfuron, triazophos, tribenuron-methyl, tricyclazol, trietazin, trifloxystrobin, trifloxysulfuron sodium, triflumizol, triflururon, triflurosulfuron-methyl, triforin, trimethoprim, trinexapak-ethyl, triticonazole, tritosulfuron, valsartan, warfarin, zolpidem, zoxamide, sums calculation according to CZ_SOP_D06_03_J02
- ³¹ **Pesticides by MS detection** - 2,6-dichloroaniline, azinphos-methyl, bromophos-ethyl, bromocyclen, butralin, captan, carbophenothion, chlordecon, chlorfenvinphos, chlorpyrifos, chlorpyrifos-methyl, cypermethrin (isomers), demeton-S-methyl, diazinon, dichlorvos, dimethoate, dimethypin, ethion, fenitrothion, fenthion, malathion, parathion-ethyl, parathion-methyl, phorat, phosmet, pirimfos-ethyl, prothiofos, teflutrin, sums calculation according to CZ_SOP_D06_03_J02
- ³² **Pesticides and their metabolites by MS detection** – amitrole, AMPA, glufosinate, glufosinate ammonium, glyphosate, sums calculation according to CZ_SOP_D06_03_J02
- ³³ **Complexing substances** - EDTA, PDTA and NTA
- ³⁴ **Halogen compounds** - chloroalkanes C10-C13, C14-C17
- ³⁵ **SAFA, MUFA, PUFA, TFA, Omega 3, Omega 6 – SAFA** - butyric (C4:0), caproic (C6:0), caprylic (C8:0), capric (C10:0), undecanoic (C11:0), lauric (C12:0), tridecanoic (C13:0), miristic (C14:0), pentadecanoic (C15:0), palmitic (C16:0), heptadecanoic (C17:0), stearic (C18:0), arachidic (C20:0), heneicosanoic (C21:0), behenic (C22:0), tricosanoic (C23:0), lignoceric (C24:0), **MUFA** - myristoleic (C14:1), cis-10-pentadecenoic (C15:1), palmitoleic (C16:1), cis-10-heptadecenoic (C17:1), oleic (C18:1n9c), cis-11-eicosenic (C20:1), erudic (C22:1n9), nervonic (C24:1), **PUFA** - linoleic (C18:2n6c), linoleic (C18:3n6), y-linoleic (C18:3n3), cis-11,14-eicosadienoic (C20:2), cis-8,11,14-eikosatrienoic (C20:3n6), cis-11,14,17-eikosatrienoic (C20:3n3), arachidonic (C20:4n6), cis-13,16-docosadienoic (C22:2), cis-5,8,11,14,18-eikosapentaenoic (C20:5n3), cis-4,7,10,13,16,19-docosahexaenoic (C22:6n3), **TFA** - elaidic (C18:1n9t), linoleic (C18:2n6t), C18:3 trans isomery, **Omega 3** - linoleic (C18:3n3), cis-11,14,17-eikosatrienoic (C20:3n3), cis-5,8,11,14,18- eicosapentaenoic (C20:5n3), cis-4,7,10,13,16,19-docosahexaenoic (C22:6n3), **Omega 6** - lineic (C18:2n6c), y-linoleic (C18:3n6), cis-8,11,14-eikosatrienoic (C20:3n6), arachidonic (C20:4n6), cis-11,14,eicosadienoic (C20:2), cis-13,16-docosadienoic (C22:2)
- ³⁶ **Derivates of polycyclic aromatic hydrocarbons** – acridine, 9,10-anthracenequinone, benz[a]anthracene-7,12-dione, benzo[h]quinoline, 1,5-dinitronaphthalene, 9H-fluoren-9-one, 2-fluorencarboxaldehyde, 1-naphthalenecarboxaldehyde, 5,12-naphthacenedione, 1-nitronaphthalene, 5-nitroacenaphthene, 9-nitroanthracene, nitropyrene, nitrofluoranthene, 6-nitrobenzo(a)pyrene, 2-nitrofluorene, 9,10-phenanthrenequinone, phenanthridine
- ³⁷ **Organic acids** – formic acid, acetic acid, caproic acid, butyric acid, isobutyric acid, lactic acid, propionic acid, valeric acid, isovaleric acid
- ³⁸ **Gases** – methane, ethane, ethylene, acetylene
- ³⁹ **Polychlorinated biphenyls** - PCB28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, PCB194, sums calculation according to CZ_SOP_D06_03_J02
- ⁴⁰ **Phenols and cresols** – phenol, o-cresol, m-cresol, p-cresol, 2,3-dimethylphenol, 2,4-dimethylphenol, 2,5-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 3,4-dimethylphenol, sums calculation according to CZ_SOP_D06_03_J02
- ⁴¹ **Elements** - Ag, Al, As, Au, B, Ba, Be, Bi, Br, Ca, Cd, Ce, Co, Cr, Cr(VI), Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hg, Ho, I, In, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nd, Ni, P, Pb, Pd, Pr, Pt, Rb, Ru, S, Sb, Se, Si, Sm, Sn, Sr, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr
- ⁴² **Elements** - Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cr(VI), Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Ho, In, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pd, Pr, Pt, Rb, Rh, Ru, Sb, Se, Si, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr
- ⁴³ **Elements** - Ag, Al, As, Ba, Be, Bi, Br (water extractable), Ca, Cd, Co, Cr, Cs, Cu, Fe, I (water extractable, total), K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Pd, Pt, Rb, Rh, Sb, Se, Si, Sn, Sr, Te, Th, Ti, Tl, U, V, Zn, Zr
- ⁴⁴ **Elements** - Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Pd, Pt, Rb, Rh, Sb, Se, Si, Sn, Sr, Te, Th, Ti, Tl, U, V, Zn, Zr
- ⁴⁵ **Elements** - Ag, Al, As, Au, Ba, Be, Bi, Br (water extractable), Ca, Cd, Co, Cr, Cr(VI), Cu, Fe, I (water extractable), K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Pd, Pt, Rb, Rh, Sb, Se, Si, Sn, Sr, Te, Th, Ti, U, V, Zn, Zr
- ⁴⁶ **Pesticides and their metabolites by MS detection** – AMPA, glyphosate
- ⁴⁷ **Elements** - Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cr(VI), Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Se, Si, Sn, Sr, Te, Ti, Tl, V, Zn, Zr
- ⁴⁸ **CO₂ forms** - carbonates, bicarbonates, free CO₂, total CO₂, aggressive CO₂
- ⁴⁹ **Elements** - Ag, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, Pb and Zn
- ⁵⁰ **Elements** - Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Se, Sb, Si, Sr, Sn, Te, Th, Ti, Tl, U, V, W, Zn and Zr
- ⁵¹ **Calculation of forms of elements** – sum of Na + K, ionic form Cr and Fe (Cr³⁺, Fe³⁺), compounds Na₂O, P₂O₅, SiO₃ and SiO₂, according to CZ_SOP_D06_02_J06
- ⁵² **Calculation of forms of elements** - ion form Cr³⁺, compound PO₄³⁻, according to CZ_SOP_D06_02_J06
- ⁵³ **Calculation of forms of elements** – compound NaCl according to CZ_SOP_D06_02_J06
- ⁵⁴ **Polycyclic aromatic hydrocarbons** – naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)-pyrene, benzo(e)-pyrene, benzo(j)-fluoranthene, benzo(c)-phenanthrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene, indeno(1,2,3,c,d)pyrene, phenanthrene-1-methyl, 2-methyl-phenanthrene, 3-methyl phenanthrene, 4-methyl-phenanthrene, 9-methyl phenanthrene sums calculation according to CZ_SOP_D06_06_J03
- ⁵⁵ **Chlorinated phenols** – 2-amino-4-chlorophenol

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Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- Drug residues** – anastrozole, atenolol, azathioprine, beclomethasone dipropionate, capecitabine, cyclosporin, cyproteron acetate, diazepam, fluticasone propionate, loperamide hydrochloride, medroxyprogesterone acetate, megestrol acetate, methotrexate, methylprednisolone acetate, metronidazole, mometasone furoate, mycophenolate mofetil, paclitaxel, sotalol hydrochloride, tacrolimus, thebain, tramadol hydrochloride, triamcinolone acetonide, valsartan, zolpidem tartrate
- Synthetic dyes** – **E102** (Tartrazine), **E104** (Quinoline yellow), **E110** (Yellow SY), **E122** (Azorubin), **E123** (Amaranth), **E124** (Ponceau 4R), **E127** (Erythrosin), **E128** (Red 2G), **E129** (Allura Red AC), **E131** (Patent Blue V), **E132** (Indigotine), **E133** (Brilliant Blue), **E142** (Green S), **E151** (Black BN)
- Perfluorinated compounds** – Perfluorobutanoic acid (PFBA), Perfluoropentanoic acid (PFPeA), Perfluorohexanoic acid (PFHxA), Perfluoroheptanoic acid (PFHpA), Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA), Perfluorodecanoic acid (PFDA), Perfluoroundecanoic acid (PFUnDA), Perfluorododecanoic acid (PFDoDA), Perfluorotridecanoic acid (PFTrDA), Perfluorotetradecanoic acid (PFTeDA), Perfluorohexadecanoic acid (PFHxDA), Perfluorooctadecanoic acid (PFOxDA), Perfluorobutane sulfonic acid (PFBS), Perfluoropentane sulfonic acid (PFPeS), Perfluorohexane sulfonic acid (PFHxS), Perfluoroheptane sulfonic acid (PFHpS), Perfluorooctane sulfonic acid (PFOS), Perfluorononane sulfonic acid (PFNS), Perfluorodecane sulfonic acid (PFDS), Perfluorododecane sulfonic acid (PFDoDS), 4:2 Fluorotelomer sulfonate (4:2 FTS), 6:2 Fluorotelomer sulfonic acid (6:2 FTS), 8: Fluorotelomer sulfonic acid (8:2 FTS), 10:2 Fluorotelomer sulfonate (10:2 FTS), Perfluorooctane sulfonamide (FOSA), N-Methyl perfluorooctane sulfonamide (MeFOSA), N-Ethyl perfluorooctane sulfonamide (EtFOSA), Perfluorooctane sulfonamidoacetic acid (FOSAA), N-methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA), N-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA), 7H-perfluoroheptanoic acid (HPFHxA), Perfluoro-3,7-dimethyloctanoic acid (P37DMOA), N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE), N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE), PFCS Total Oxidizable Precursors (TOP) (M4), Hexabromocyclododecane (HBCD), Tertabromobisphenol-A (TBBPA), perfluoro-4-methoxybutanoic acid (PFMBA), perfluoro-3-methoxypropanoic acid (PFMPA), 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS), 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS), 4,8-dioxa-3H-perfluorononanoic acid (DONA), 4,8-dioxa-3H-perfluorononanoic acid (ADONA), sodium 4,8-dioxa-3H-perfluorononanoate (NaDONA), perfluorotridentric acid sulfonic acid (PFTTrDS), perfluoroundecane sulfonic acid (PFUnDS)
- Volatile organic compounds** – Benzene, Toluene, Ethylbenzene, m-Xylene, p-Xylene, Styrene, o-Xylene, Methanol, Ethanol, Acetone, Benzene, Ethyl Acetate, Isobutanol, n-Butanol, 2-Butanol, Isobutyl Acetate, Butyl Acetate, tert-Butyl Acetate
- Elements** – Ag, Al, As, Au, B, Ba, Be, Bi, Br (water extractable) Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hg, Ho, I (water extractable) In, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, Os, P, Pb, Pd, Pr, Pt, Rb, Rh, Ru, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr
- Drug residues** – 17-alpha-ethinyloestradiol, 17-beta-estradiol, 2-hydroxycarbamazepine, 3-hydroxycarbamazepine, 4-hydroxydiclofenac, 6-monooetylmorphine (6-MAM), alprazolam, amphetamine, amoxicillin, anastrozole, atenolol, atorvastatin, azathioprin, azithromycin, benzoyllecgonin, benzylpenicillin, bezafibrat, bromazepam, buprenorphine, buprenorphine glucuronid, butorphanol, ciprofloxacin, clindamycin, cyclobenzaprin, cyclophosphamide, cyclosporin, cyproteron acetate, citalopram, diazepam, diclofenac, doxycycline, EDDP (methadone metabolite), ephedrine, enalapril, erythromycin, estriol, estron, fenofenadine, fentanyl, floxetin, flumequine, flutamide, fluticasone propionate, furosemid, galantamin, gemfibrozil, glimepirid, heroin, hydrochlorothiazid, hydromorfon, chloramphenicol, chlorthalidoxid, chlorthalidoxin, ibuprofen, ifosfamid, indometacin, iohexol, iomeprol, iopamidol, iopromid, capecitabine, carbamazepine, carbamazepine 10,11-dihydro-10-hydroxy, carbamazepine 10,11-dihydroxy, carbamazepine-10,11- epoxide, carprofen, ketamine, ketoprofen, clarithromycin, clonazepam, cloxacillin, codeine, caffeine, cocaethylene, cocaine, colchicin, clofibrac acid, nalidixic acid, oxolinic acid, pipemidic acid, lincomycin, lomefloxacin, loperamid, LSD, LSD hydroxy, MBDB (N-metyl-1-(1,3-benzodioxol-5-yl)-2-butamin), MDA (3,4-methylenedioxyamphetamine), MDEA (3,4-methylenedioxy-N-ethylamphetamine), MDMA (3,4-metylenedioxy-methylamphetamine), medroxyprogesteron acetate, megestrol acetate, meloxicam, metadon, metacycline metamphetamine, metformin, methotrexat, metoprolol, metronidazol, midazolam, morphine, mycophenolate mofetil, naproxen, nimesulid, nor buprenorphin, nor buprenorphin glucuronid, norfloxacin, ofloxacin, omeprazol, ormetoprim, ornidazol, oxazepam, oxcarbazepine, oxytetracycline, paclitaxel, paracetamol (acetaminofen), piroxicam, procaine peniciline G, propranolol, roxitromycin salbutamol, sarafloxacin, sertraline, sotalol, sulfadiazin, sulfachlorpyridazine, sulfamerazine, sulfamethazine, sulfamethizol, sulfamethoxazol, sulfamethoxypyridazine, sulfamonomethoxin, sulfathiazol, terbutalin, tetracyclin, tetrazepam, THC (delta-9-tetrahydrocannabinol), THC glucuronide, THC hydroxy, THCA-A (delta9-tetrahydrocannabinol-2-carboxyl), THC-COOH (11-nor-9-carboxy-THC), thebain, tramadol, triamcionolon acetoniid, trimethoprim, valsartan, vancomycin, venlafaxine, warfarin, zolpidem
- Organic Acids** – acetic acid, propionic acid, isobutyric acid, butyric acid, isovaleric acid, valeric acid, isocaproic acid, caproic acid, heptanoic acid
- Meat content calculation** – calculated from the results of the determination of ash according to CZ_SOP_D06_04_458, protein according to CZ_SOP_D06_04_475, moisture according to CZ_SOP_D06_04_452, fat according to CZ_SOP_D06_04_482, hydroxyproline according to CZ_SOP_D06_04_481
- Determination of carbohydrates and energy value** – calculated from the results of the determination of ash according to CZ_SOP_D06_04_458, protein according to CZ_SOP_D06_04_475, moisture according to CZ_SOP_D06_04_452, fat according to CZ_SOP_D06_04_482, dietary fibre according to CZ_SOP_D06_04_465
- Determination of non-protein content substances** – calculated from the results of the determination of moisture according to CZ_SOP_D06_04_452, total nitrogen according to CZ_SOP_D06_04_475, fat according to CZ_SOP_D06_04_482, ash according to CZ_SOP_D06_04_458, crude fibre according to CZ_SOP_D06_04_465
- Calculation of indicative dose (ID)** – calculated from the results of determination of Radium 226 (CSN 75 7626), Uranium (CSN 75 7614), Tritium (ISO 9698), Polonium 210 (CSN 75 7626), radionuclides determined using high resolution gamma ray spectrometry (CZ_SOP_D06_07_367), Lead 210 (CZ_SOP_D06_07_370), Strontium 90 (CZ_SOP_D06_07_373) and Carbon 14 (CZ_SOP_D06_07_374)
- Surface waters** – flowing watercourses, stagnant water – lakes, reservoirs, ponds, and seawater
- Organic acids** – propionic acid, citric acid, lactic acid, acetic acid, tartaric acid, malic acid
- Sugars** – glucose, fructose, lactose, maltose, sucrose, galactose and the sum of sugars by calculation
- Pesticides, their metabolites and drug residues – matrices: sediments, sludges, soil, rocks** – 1-(3,4-Dichlorophenyl) urea (DCPU), 2-Chloro-2,6-diethylacetanilide, 2-amino-N-(isopropyl)benzamide, 6-chloronicotinic acid, acetamidiprid, acetochlor, acetochlor ESA, acetochlor OA, aclonifen, alachlor, alachlor ESA, alachlor OA, aldicarb, aldicarb sulfone, aldicarb sulfoxide, ametryn, amidosulfuron, asulam, atraton, atrazine, atrazine-2-hydroxy, atrazine-desethyl, atrazine-desisopropyl, azacanazole, azinphos-methyl, azoxystrobin, azoxystrobin-o-demethyl, BAM, BDMC, benalaxyl, bentazon methyl, bifenoxy, bitertanol, boscalid, bromacil, bromophos-ethyl, buprofezin, carbaryl, cadusafos, carbendazim, carbofuran, carbofuran-3-hydroxy, carboxin, clodinafop, clodinafop propargyl, clofentezine, clomazone, clomeprop, clocypirid, clothianidin, coumaphos, crimidine, cyanazine, cybutryne (irgarol), cyflufenamid, cymoxanil, cyproconazole, cyprodinil, desmetryn, diazinon, diclotophos, difenacoum, difenoconazole, difenoxuron, diflubenzuron, diflufenican, dichlofenthion, dichlorimid, dichlorvos, dimefuron, dimethachlor, dimethachlor ESA, dimethachlor OA, dimethenamid, dimethoate, dimethomorph, dimethylaminosulfanilide, dimoxystrobin, diuron, diuron desmethyl (DCPMU), epoxiconazole, EPTC, ethion, etofumesate, etoprophos,

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Na Harfě 336/9, 190 00 Praha 9 - Vysočany

- etoxazole, famoxadone, famphur, fenamiphos, fenarimol, fenhexamid, fenothiocarb, fenoxaprop, fenoxycarb, fenpropidin, fenpropimorph, fensulfotion, fenuron, fipronil, fipronil sulfone, florasulam, fluazifop, fluazifop-p-butyl, fludioxonil, flufenacet, fluometuron, fluopicolide, fluopyram, fluquinconazole, flusilazole, flutolanil, fonofos, foramsulfuron, fosthiate, furalaxyl, haloxyfop, haloxyfop-2-ethoxyethyl, haloxyfop-p-methyl, hexaconazole, hexazinone, hexythiazox, chlorbromuron, chlorfenviphos, chloridazon, chloridazon-desphenyl, chloridazon-methyl desphenyl, chlorotoluron, chlorotoluron-desmethyl, chloroxuron, chlorpropham, chlorpyrifos, chlorpyrifos-methyl, chloresulfuron, imazalil, imazamethabenz-methyl, imazamox, imazapyr, imazethapyr, imidacloprid, imidacloprid olefin, imidacloprid urea, indoxacarb, iprodione, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, kresoxim-methyl, lenacil, linuron, malaoxon, malathion, mandipropamid, mecarbam, mephenpyr-diethyl, mesosulfuron-methyl, metalaxyl, metamitron, metazachlor, metazachlor ESA, metazachlor OA, metconazole, methabenzthiazuron, methamidophos, methidathion, methiocarb, methiocarb-sulfone, methiocarb-sulfoxide, methomyl, methomyl-oxime, methoxyfenozide, metobromuron, metolachlor (isomers), metolachlor ESA, metolachlor OA, metoxuron, metrafenone, metribuzin, metribuzin-desamino, metsulfuron-methyl, molinate, monocrotophos, monolinuron, monuron, myclobutanil, napropamide, naptalam, neburon, nicosulfuron, norflurazon, nuarimol, omethoate, oxadiazon, oxadixyl, oxamyl, oxyfluorfen, paclobutrazol, paraoxon-ethyl, paraoxon-methyl, parathion-ethyl, penconazole, pencycuron, pendimethalin, pethoxamid, phorate, phosalone, phosmet, phosmet-oxon, phosphamidon, picoxystrobin, pirimicarb, pirimiphos-ethyl, pirimiphos-methyl, primisulfuron-methyl, proflumuron, proflumuron, profenofos, prochloraz, prometon, prometryn, propachlor, propachlor ESA, propachlor OA, propamocarb, propanil, propaquizafop, propazine, propham, propiconazole, propoxur, propyzamide, prosulfocarb, pyraclostrobin, pyribenzoxim, pyridaben, pyrimethanil, pyriproxifen, quinalphos, quinclorac, quinmerac, quinoxifen, quizalofop, quizalofop-p-ethyl, rimsulfuron, sebuthylazine, sedaxane, sethoxydim, siduron, simazine, simazine-2-hydroxy, simetryn, spiroxamine, tebuconazole, tebufenpyrad, tebuthiuron, teflubenzuron, terbuthylazine, terbuthylazine-desethyl, terbuthylazine-desethyl-2-hydroxy, terbuthylazine-hydroxy, terbutryn, thiacloprid, thiamethoxam, thiazafururon, thidiazuron, thiobencarb, tolclofos-methyl, triadimefon, triadimenol, tri-allate, triasulfuron, triazophos, tribenuron-methyl, trietazine, trifloxystrobin, trifloxysulfuron-sodium, triflumizole, triflumuron, triflusaluron-methyl, triticonazole, tritosulfuron, zoxamide, sums calculation according to CZ_SOP_D06_03_J02
- ⁷¹ **Pesticides, their metabolites and drug residues – matrices: building materials, materials for building - 1-(3,4-Dichlorophenyl) urea (DCPU), 2-Chloro-2,6-diethylacetanilide, 6-chloronicotinic acid, acetamiprid, acetochlor, acetonifen, alachlor, aldicarb, ametryn, amidosulfuron, asulam, atraton, atrazine, atrazine- 2-hydroxy, atrazine-desethyl, atrazine-desisopropyl, azaconazole, azinphos-methyl, azoxystrobin, azoxystrobin-o-demethyl, BAM, benalaxyl, bentazone methyl, bifenox, biteranol, boscalid, bromacil, bromophos-ethyl, buprofezin, cadusafos, carbendazim, carbofuran, carboxin, clofentezine, clomazone, clomeprop, clothianidin, coumaphos, crimidine, cyanazine, cybutryne (irgarol), cyflufenamid, cyproconazole, cyprodinil, desmetryn, diazinon, dicrotophos, difenacoum, difenconazole, difenoxuron, diflubenzuron, diflufenican, dichlofenthiol, dichlorimid, dimethion, dimethion, dimethion, dimethoate, dimethomorph, dimethylaminosulfanilide, dimoxystrobin, diuron, diuron desmethyl (DCPMU), epoxiconazole, EPTC, ethion, ethofumesate, ethoprophos, etoxazole, famphur, fenamiphos, fenarimol, fenhexamid, fenothiocarb, fenoxycarb, fenpropidin, fenpropimorph, fensulfotion, fenuron, fipronil, fipronil sulfone, florasulam, fluazifop, fluazifop-p-butyl, fludioxonil, flufenacet, fluometuron, fluopicolide, fluopyram, fluquinconazole, flusilazole, flutolanil, fonofos, foramsulfuron, furalaxyl, haloxyfop, haloxyfop-2-ethoxyethyl, haloxyfop-p-methyl, hexaconazole, hexazinone, hexythiazox, chlorbromuron, chlorfenviphos, chloridazon, chloridazon-desphenyl, chloridazon-methyl desphenyl, chlorotoluron, chlorotoluron-desmethyl, chloroxuron, chlorpropham, chlorpyrifos, chlorpyrifos-methyl, chloresulfuron, imazalil, imazamethabenz-methyl, imazamox, imazapyr, imazethapyr, imidacloprid, imidacloprid olefin, imidacloprid urea, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, lenacil, linuron, malathion, mandipropamid, mecarbam, mesosulfuron-methyl, metalaxyl, metamitron, metazachlor, metconazole, methabenzthiazuron, methidathion, methomyl, methomyl-oxime, methoxyfenozide, metobromuron, metolachlor (isomers), metoxuron, metrafenone, metribuzin, metribuzin-desamino, molinate, monolinuron, monuron, myclobutanil, napropamide, naptalam, neburon, nicosulfuron, norflurazon, nuarimol, oxadiazon, oxadixyl, oxyfluorfen, paclobutrazol, paraoxon-ethyl, parathion-ethyl, penconazole, pencycuron, pendimethalin, pethoxamid, phorate, phosalone, phosphamidon, picoxystrobin, pirimicarb, pirimiphos-ethyl, pirimiphos-methyl, proflumuron, proflumuron, profenofos, prochloraz, prometon, prometryn, propachlor, propamocarb, propanil, propaquizafop, propazine, propham, propiconazole, propyzamide, prosulfocarb, pyraclostrobin, pyrimethanil, pyriproxifen, quinalphos, quinclorac, quinmerac, quinoxifen, quizalofop-p-ethyl, sebuthylazine, sedaxane, sethoxydim, siduron, simazine, simazine-2-hydroxy, simetryn, spiroxamine, tebuconazole, tebufenpyrad, tebuthiuron, teflubenzuron, terbuthylazine, terbuthylazine-desethyl, terbuthylazine-desethyl-2-hydroxy, terbuthylazine-hydroxy, terbutryn, thiacloprid, thiamethoxam, thiazafururon, thidiazuron, thiobencarb, tolclofos-methyl, triadimefon, triadimenol, tri-allate, triasulfuron, triazophos, tribenuron-methyl, trietazine, trifloxystrobin, trifloxysulfuron-sodium, triflumizole, triflumuron, triflusaluron-methyl, triticonazole, tritosulfuron, zoxamide, sums calculation according to CZ_SOP_D06_03_J02**
- ⁷² **Pesticides, their metabolites and drug residues – 6-chloronicotinic acid, acetamiprid, acetochlor, aldicarb, aldicarb sulfone, aldicarb sulfoxide, amitraz, azoxystrobin, bifenthrin, boscalid, cadusafos, carbaryl, carbofuran, carbofuran-3-hydroxy, chlormequat, chlorpyrifos, clomazone, clothianidin, cyhalothrin (isomers), cypermethrin (isomers), cyproconazole, deltamethrin (isomers), diazinon, dichlorvos, dicrotophos, dimethoate, dimoxystrobin, diquat, epoxiconazole, fenoxycarb, fipronil, fipronil sulfone, imidacloprid, imidacloprid olefin, imidacloprid urea, indoxacarb, isoproturon, isoproturon-desmethyl, isoproturon-monodesmethyl, kresoxim-methyl, malaoxon, malathion, mepiquat, metazachlor, metconazole, methidathion, methiocarb, methiocarb sulfone, methiocarb sulfoxide, methomyl, methomyl-oxime, paraquat, permethrin (isomers), pethoxamid, phosalone, phosmet, phosmet-oxon, phosphamidon, pirimicarb, prochloraz, propoxur, pyrimethanil, tau-fluvalinate, tebuconazole, thiacloprid, thiamethoxam, sums calculation according to CZ_SOP_D06_03_J02**
- ⁷³ **Perfluorinated compounds – Perfluorobutanoic acid (PFBA), Perfluoropentanoic acid (PFPeA), Perfluorohexanoic acid (PFHxA), Perfluoroheptanoic acid (PFHpA), Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA), Perfluorodecanoic acid (PFDA), Perfluoroundecanoic acid (PFUnDA), Perfluorododecanoic acid (PFDoDA), Perfluorotridecanoic acid (PFTTrDA), Perfluorotetradecanoic acid (PFTTeDA), Perfluorohexadecanoic acid (PFHxDA), Perfluorooctadecanoic acid (PFODaDA), Perfluorobutane sulfonic acid (PFBS), Perfluoropentane sulfonic acid (PFPeS), Perfluorohexane sulfonic acid (PFHxS), Perfluoroheptane sulfonic acid (PFHpS), Perfluorooctane sulfonic acid (PFOS), Perfluorononane sulfonic acid (PFNS), Perfluorodecane sulfonic acid (PFDS), Perfluorododecane sulfonic acid (PFDoDS), 4:2 Fluorotelomer sulfonate (4:2 FTS), 6:2 Fluorotelomer sulfonate (6:2 FTS), 8:2 Fluorotelomer sulfonate (8:2 FTS), 10:2 Fluorotelomer sulfonate (10:2 FTS), Perfluorooctane sulfonamide (FOSA), N-Methyl perfluorooctane sulfonamide (MeFOSA), N-Ethyl perfluorooctane sulfonamide (EtFOSA), Perfluorooctane sulfonamidoacetic acid (FOSAA), N-methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA), N-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA), 7H-perfluoroheptanoic acid (HPFHxA), Perfluoro-3,7-dimethyloctanoic acid (P37DMOA), N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE), N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE), Hexabromocyclododecane (HBCD), Tertabromobisphenol-A (TBBP-A)**
- ⁷⁴ **Polycyclic aromatic hydrocarbons – naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo-(a)-anthracene, chrysene, benzo-(b)-fluoranthene, benzo-(k)-fluoranthene, benzo-(j)-fluoranthene, benzo-(a)-pyrene, dibenzo-(a,c)-anthracene@dibenzo-(a,h)-anthracene, benzo-(g,h,i)-perylene, indeno-(1,2,3,c,d)-pyrene, coronene, trifenylene@chrysene, calculation of sums according to CZ_SOP_D06_03_J02**
- ⁷⁵ **Polyols - Xylitol, Sorbitol, Mannitol, Isomalt, Lactitol, Maltitol**

Appendix C4

