SORR has partnered with several reputable laboratories to ensure the accuracy and reliability of its environmental assessments and remediation efforts.

Among these are

Chemlabs WA, which provides advanced chemical analysis services, ensuring that SORR's testing methods meet stringent quality standards.

Microanalysis specialises in detailed analytical testing, enabling SORR to accurately evaluate contaminants in various environmental samples.

University of Newcastle offers cutting-edge research capabilities and expertise, enhancing SORR's initiatives in water remediation and environmental sustainability. Together, these labs play a crucial role in supporting SORR's mission to deliver effective solutions for pollution control and environmental preservation.Organic Compounds

Compound Identification	Relative Abundance (%)	Compound's Sponge (g/kg)	Possible Sources
E-10 Pentadecenol	8.55	17.69	Fatty alcohols produced by hydrogenating fatty methyl esters
E-9 Octadecen-1-ol	2.02	10.05	Fatty alcohols produced by hydrogenating fatty methyl esters
E-14-Pentadecenol, octadecanoic acid, methyl ester, hexadecenoic acid, methyl ester, and linoleic acid ethyl ester (mixture)	3.03	21.92	Mixture used in various industries, especially for cosmetics and skincare formulations
Hexadecanoic acid, methyl ester	1.46	7.29	Fatty methyl esters
Linoleic acid, methyl ester	0.79	8.91	Fatty methyl ester
Docosanoic acid, 1,2,3-propanetriyl ester	1.21	6.82	Triglyceride

Compound Identification	Relative Abundance (%)	Compound's Sponge (g/kg)	Possible Sources
Oleic acid, 3-(octadecyloxy) propyl ester	0.96	41.69	Used in pharmaceuticals and as an emulsifying or solubilizing agent in aerosol products
Tetradecanoic acid	0.56	1.70	Antioxidants and surfactants
Octadecanoic acid, 3-octadecyloxy propyl ester	0.94	5.30	Acid amide in coatings
9,17-Octadecadienal	1.02	5.36	Unsaturated aldehyde used in perfumes
Cyclotetracosane	0.12	2.55	Wax esters, polymer structures
Hexahydrofarnesol	0.66	4.92	Additive for perfumes and plastics
Ethyl linoleate	2.26	46.15	Natural product used in chemicals and plastics
Sulfurous acid, octadecyl 2-propyl ester	0.24%	1.20 g/Kg	Acid mine drainage?
4-Trifluoroacetoxydecane	0.59%	2.93 g/Kg	Fluoropolymer coatings, products that resist heat, oil, stains, grease, and water
Cyclododecane	0.45%	2.24 g/Kg	Wall paintings, plaster, ceramics, paper, textiles, metals. Precursor to the polymer Nylon 12

Compound Identification	Relative Abundance (%)	Compound's Sponge (g/kg)	Possible Sources
Heptadec-yne, 1-chloro-	17.76%	88.49 g/Kg	Chlorinated hydrocarbon (CHC), used to form building blocks for other chemical products like pharmaceuticals, plastics, and solvents
Ethyl iso-allocholate	9.26%	46.16 g/Kg	Natural product found in *Streptomyces parvulus*
1H-Benzotriazole	0.36%	1.79 g/Kg	Anti-scaling agent, cleaning agent, corrosion inhibitor, anti-scaling agents, functional fluids, lubricants, lubricant additives, plating agents, surface treating agents
2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-11b-2a-methanocyclopenta[a]cycloprop a[e]cyclodecen-6-yl ester	7.06%	35.17 g/Kg	Macrocyclic lactones, products of or chemical derivatives of microorganisms belonging to *Streptomyces*

Organic Compounds

Compound Identification	Retention time (Mins)	Relative abundance (%)
Dichloroacetaldehyde	2.242	2.06
4-Trifluoroacetoxytetradecane	19.711	0.66
Cyclododecane	19.874	0.45
E-10-Pentadecenol	21.428	1.94
E-2-Octadecadecen-1-ol	21.603	1.10
Hexadecanoic acid, methyl ester	22.045	3.79
6-Heptadecyn-1-chloro	22.539	2.12
7-Heptadecyn-1-chloro	23.326	1.93
Heptadecanoic acid, 16-methyl-, methyl ester	23.326	1.34
7-Heptadecyn-1-chloro	23.402	1.34
Ethyl iso-allocholate	24.371	3.08
Linoleic acid ethyl ester	24.994	0.82
Octadecane, 3-ethyl-5-(2-ethylbutyl)-	25.416	12.22
Docosahexaenoic acid, 1,2,3-propanetriyl ester	25.931	1.82
5H-Cyclopropa[3,4]benz[1,2-e]azulen-5-one, 4,9,9a-tris(acetoxyloxyl)-3-[(acetoxyl)methyl]-1,1a,1b,4,4a,7a,7b,8,9,9a-decahydro-4a,7b-dihydroxy-1,1,6,8-tetramethyl-	26.194	14.80
2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-	26.978	30.34
1H-2,8a-methanocyclopenta[c]cyclopropa[e]cyclodecen-6-yl ester, [1aR-1aα,2α,5β,5aβ,6β,8aα,9α,10aα]	27.805	21.25
Methyl glycocholate, 3TMS derivative	27.805	21.25
Octasiloxane, 1,1,3,3,5,5,7,7,9,9,11,11,13,13,15,15-hexadecamethyl	28.668	N/A

Metals and Elements

Element	Method	Units	Concentration
Antimony	METALS-600	mg/kg	<10
Arsenic	METALS-600	mg/kg	<4.0
Cadmium	METALS-600	mg/kg	<0.8
Chromium	METALS-600	mg/kg	<3.0
Cobalt	METALS-600	mg/kg	<1.0
Copper	METALS-600	mg/kg	<3.0
Iron	METALS-600	mg/kg	<100
Lead	METALS-600	mg/kg	<2.0
Manganese	METALS-600	mg/kg	<10
Mercury	METALS-600	mg/kg	<0.10
Nickel	METALS-600	mg/kg	<2.0
Tin	METALS-600	mg/kg	<3.0
Zinc	METALS-600	mg/kg	<10

PFAS Elements

Compound	CAS Number	LOR (µg/L)	Method Blank (MB) Result	Spike Concentration (µg/L)	Spike Recovery (%)	Acceptance Limits (%)
Perfluorobutanoic Acid (PFBA)	375-22-4	0.05	<0.05	0.05	108	73 - 129
Perfluoropentanoic Acid (PFPeA)	2706-90-3	0.01	<0.01	0.05	98	72 - 129
Perfluorohexanoic Acid (PFHxA)	307-24-4	0.01	<0.01	0.05	100	72 - 129
Perfluoroheptanoic Acid (PFHpA)	375-85-9	0.01	<0.01	0.05	94	72 - 130
Perfluorooctanoic Acid (PFOA)	335-67-1	0.01	<0.01	0.05	98	71 - 133

Compound	CAS Number	LOR (µg/L)	Method Blank (MB) Result	Spike Concentration (µg/L)	Spike Recovery (%)	Acceptance Limits (%)
Perfluorononanoic Acid (PFNA)	375-95-1	0.01	<0.01	0.05	105	69 - 133
Perfluorodecanoic Acid (PFDA)	335-76-2	0.01	<0.01	0.05	101	71 - 129
Perfluoroundecanoic Acid (PFUnDA)	2058-94-8	0.01	<0.01	0.05	93	69 - 129
Perfluorododecanoic Acid (PFDoDA)	307-55-1	0.01	<0.01	0.05	98	71 - 130
Perfluorotridecanoic Acid (PFTriDA)	72629-94-8	0.01	<0.01	0.05	103	71 - 127
Perfluorotetradecanoic Acid (PFTeDA)	376-06-7	0.01	<0.01	0.05	96	71 - 131

Compound	CAS Number	LOR (µg/L)	Method Blank (MB) Result	Spike Concentration (µg/L)	Spike Recovery (%)	Acceptance Limits (%)
Perfluorohexadecanoic Acid (PFHxDA)	67905-19-5	0.01	<0.01	0.05	103	71 - 129
Perfluorooctadecanoic Acid (PFOcDA)	16517-11-6	0.05	<0.05	0.05	96	72 - 130
Perfluoropropane Sulfonic Acid (PFPrS)	4234-11-9	0.01	<0.01	0.05	98	50 - 150
Perfluorobutane Sulfonic Acid (PFBS)	375-73-5	0.01	<0.01	0.05	103	71 - 127
Perfluoropentane Sulfonic Acid (PFPeS)	2706-91-4	0.01	<0.01	0.05	103	71 - 127