



Mr C. Edwards
Smulders Projects UK Limited,
Hadrian Road,
Wallsend,
Tyne and Wear
NE28 6 HL

CEFAS Laboratory
Pakefield Road
Lowestoft
Suffolk
NR33 0HT

CHEMISTRY CERTIFICATE OF ANALYSIS

Report Number: XCHEM20G
Date Samples Received: 27/11/20
Laboratory Sample Number: See below
Sample Description: Sediment samples
Sample Storage Conditions: Frozen

Test Results

Polycyclic Aromatic Hydrocarbons (PAHs) and Total Hydrocarbons Content (THC)

Method SOP: 1597, 1598, 1599 and 2235

Unit: PAHs in µg/kg dry weight (dw); THC in mg/kg dry weight (dw)

Laboratory Sample Number	Sample Description	THC (mg/kg dw)	Acenaphthylene (µg/kg dw)	Acenaphthene (µg/kg dw)	Anthracene (µg/kg dw)	Benz[a]anthracene (µg/kg dw)	Benzo[a]pyrene (µg/kg dw)	Benzo[e]pyrene (µg/kg dw)	Benzo[b]fluoranthene (µg/kg dw)	Benzo[g,h,i]Perylene (µg/kg dw)
20/254914	Sample 1	2400	25.7	205	262	568	631	492	603	499
20/254915	Sample 2	2920	30.5	262	378	747	825	658	955	632
20/254916	Sample 3	2350	31.7	227	309	690	777	617	923	580
20/254917	Sample 4	2860	30.1	229	317	670	747	589	737	548



Laboratory Sample Number	Sample Description	Benzo[k] fluoranthene (µg/kg dw)	Chrysene (µg/kg dw)	Dibenz[a,h] anthracene (µg/kg dw)	Fluoranthene (µg/kg dw)	Fluorene (µg/kg dw)	Indeno [1,2,3-cd]pyrene (µg/kg dw)	Naphthalene (µg/kg dw)	Perylene (µg/kg dw)
20/254914	Sample 1	269	420	118	1270	308	457	931	130
20/254915	Sample 2	368	560	154	1720	417	588	1220	179
20/254916	Sample 3	377	501	145	1630	347	584	946	187
20/254917	Sample 4	345	491	134	1550	348	530	1060	203

Laboratory Sample Number	Sample Description	Phenanthrene (µg/kg dw)	Pyrene (µg/kg dw)	Methyl Naphthalenes (µg/kg dw) *	Dimethyl Naphthalenes (µg/kg dw)	Trimethyl Naphthalenes (µg/kg dw)	Methyl Phenanthrenes/ Anthracenes (µg/kg dw)
20/254914	Sample 1	1310	984	2630	4910	7700	2330
20/254915	Sample 2	1730	1280	3490	5800	9150	2910
20/254916	Sample 3	1410	1220	2520	4390	6690	2270
20/254917	Sample 4	1530	1200	3300	5880	8950	2750

Metals.

Method SOP: 2037, 2043 and 2161

Unit: in mg/kg (dry weight), total solids in %

Laboratory Sample Number	Sample Description	Total Solids (%)	Arsenic (mg/kg dw)	Cadmium (mg/kg dw)	Chromium (mg/kg dw)	Copper (mg/kg dw)	Mercury (mg/kg dw)	Nickel (mg/kg dw)	Lead (mg/kg dw)	Zinc (mg/kg dw)
20/254914	Sample 1	49.9	18.1	1.18	49.4	37.7	0.256	30.8	152	394
20/254915	Sample 2	36.2	23.2	1.60	63.8	40.8	0.310	36.3	171	466
20/254916	Sample 3	41.8	19.4	2.26	57.9	43.5	0.324	36.6	255	691
20/254917	Sample 4	47.5	23.5	1.35	49.8	74.9	0.312	33.5	197	544




Organotins.

Method SOP: 3085 and 3086

Unit: in mg/kg (dry weight),

Laboratory Sample Number	Sample Description	DBT* (mg/kg dw)	TBT* (mg/kg dw)
20/254914	Sample 1	0.00764	0.0279
20/254915	Sample 2	0.0104	0.0240
20/254916	Sample 3	0.0129	0.0279
20/254917	Sample 4	0.0114	0.0404

Departure from testing conditions	n/a
Comments Results marked with an asterisk fall outside the scope of accreditation	The results provided this report only relate to the sample(s) tested.
Report authorised by: Dr Lee Warford	Signature: 
Position: Metals Technical Manager	Date: 28/01/2021

Authorised Signatories: Jon Barber, Philippe Bersuder, Clare Hynes, Lee Warford