Appendix G

Table G1: Summary of Soil and Sediment Laboratory Results (Land Use Comparison)

Table G2: Summary of Soil and Sediment Laboratory Results (Preliminary Waste Classification)

Table G3: Summary of Groundwater Laboratory Results

Table G4: Summary of Surface Water Laboratory Results

Table G5: Summary of Sediment Laboratory Results (Sediment Guideline Comparison)

Laboratory Reports

Envirolab Hydrocarbon Reference Library

Laboratory Chromatograms

Douglas PARTNERS

Table G1: Summary of Soil and Sediment Laboratory Results (Land Use Comparison)

				Metals																Priority PAH				Priority TRH									BTEX			
				Total Arsenic	Beryllium	Boron	Cadmium	Total Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury (inorganic)	Molybdenum	Nickel	Selenium (Total)	Silver	Zinc	Naphthalene b	Benzo(a)pyrene (B(a)P)	Benzo(a)pyrene TEQ (B(a)P TEQ)	Total PAH	TRH C6 - C10	TRH >C10-C16	TPH >C10-C16 (SG)	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	TPH >C16-C34 (SG)	F4 (>C34-C40)	TPH >C34-C40 (SG)	Benzene	Toluene	Ethylbenzene	Total Xylenes
			PQL	4	1	10	0.4	1	1	1	10	1	1	0.1	1	1	2	1	1	1	0.05	0.5	0.05	25	50	50	25	50	100	100	100	100	0.2	0.5	1	1
Sample ID	Depth	Strata	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
301	3 m	Clay	14/04/2025	**10**	<1	<10	<0.4	**12**	**6**	**9**	**32,000**	**9**	**150**	<0.1	<1	**5**	<2	<1	**47**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	NL / 215	NL / -	- / 2,500	- / -	- / 6,600	- / -	9 / 95	NL / 135	NL / 185	NL / 95
302	2 m	Clayey Sand	14/04/2025	**5**	<1	<10	<0.4	**8**	**4**	**9**	**18,000**	**9**	**130**	<0.1	<1	**5**	<2	<1	**35**	**5**	<0.05	<0.5	**4.5**	**430**	**240**	-	**370**	**230**	<100	-	<100	-	<0.2	**4**	**9**	**51**
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	630 / 215	NL / -	- / 1,700	- / -	- / 3,300	- / -	3 / 75	NL / 135	NL / 165	NL / 180
302	2.5 m	Clayey Sand	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
302	3 m	Clayey Sand	14/04/2025	**6**	<1	<10	<0.4	**31**	**9**	**19**	**28,000**	**10**	**350**	<0.1	<1	**15**	<2	<1	**47**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	630 / 215	NL / -	- / 1,700	- / -	- / 3,300	- / -	3 / 75	NL / 135	NL / 165	NL / 180
303	2 m	Fill / Sandy Clay	14/04/2025	<4	<1	<10	<0.4	**16**	**5**	**8**	**19,000**	**12**	**150**	<0.1	<1	**7**	<2	<1	**38**	**1.2**	<0.05	<0.5	**1.2**	**100**	**88**	-	**85**	**87**	<100	-	<100	-	<0.2	**0.6**	**3**	**15**
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	NL / 215	NL / -	- / 2,500	- / -	- / 6,600	- / -	9 / 95	NL / 135	NL / 185	NL / 95
303	3 m	Gravelly Clay	14/04/2025	**10**	<1	<10	<0.4	**9**	**7**	**9**	**26,000**	**10**	**210**	<0.1	<1	**7**	<2	<1	**34**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<0.1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	NL / 215	NL / -	- / 2,500	- / -	- / 6,600	- / -	9 / 95	NL / 135	NL / 185	NL / 95
304	3.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
304	4 m	Clayey Gravel	14/04/2025	<4	<1	<10	<0.4	**16**	**10**	**10**	**28,000**	**11**	**290**	<0.1	<1	**11**	<2	<1	**57**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	NL / 215	NL / -	- / 1,700	- / -	- / 3,300	- / -	3 / 75	NL / 135	NL / 165	NL / 180
D3/SBK	0 m	Clayey Gravel	14/04/2025	<4	<1	<10	<0.4	**12**	**5**	**15**	**12,000**	**12**	**120**	<0.1	<1	**6**	<2	<1	**49**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	310 / 215	NL / -	- / 2,500	- / -	- / 6,600	- / -	4 / 95	NL / 135	NL / 185	NL / 95
305	1.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
305	3 m	Clayey Gravel	14/04/2025	**9**	<1	<10	<0.4	**8**	**4**	**13**	**23,000**	**12**	**380**	<0.1	<1	**4**	<2	<1	**31**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<0.1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	630 / 215	NL / -	- / 1,700	- / -	- / 3,300	- / -	3 / 75	NL / 135	NL / 165	NL / 180
306	1.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
306	2.5 m	Clayey Gravel	14/04/2025	**6**	<1	<10	<0.4	**8**	**5**	**9**	**17,000**	**8**	**370**	<0.1	<1	**6**	<2	<1	**31**	**7**	<0.05	<0.5	**6.5**	**720**	**360**	-	**650**	**350**	<100	-	<100	-	<0.2	<0.5	**18**	**49**
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	630 / 215	NL / -	- / 1,700	- / -	- / 3,300	- / -	3 / 75	NL / 135	NL / 165	NL / 180
306	4 m	Gravelly Clay	14/04/2025	<4	<1	<10	<0.4	**16**	**4**	**10**	**13,000**	**10**	**130**	<0.1	**3**	**5**	<2	<1	**35**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	NL / 215	NL / -	- / 2,500	- / -	- / 6,600	- / -	20 / 95	NL / 135	NL / 185	NL / 95
SED1	0 - 0.1 m	Clayey Silt	15/04/2025	**9**	<1	<10	<0.4	**12**	**10**	**19**	**24,000**	**43**	**380**	<0.1	<1	**8**	<2	<1	**170**	<1	<0.05	<0.5	<0.05	<25	<50	-	<25	<50	<100	-	<100	-	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	- / -	250 / 215	NL / -	- / 1,700	- / -	- / 3,300	- / -	3 / 75	NL / 135	NL / 165	230 / 180
SED2	0 - 0.1 m	Clayey Silt	15/04/2025	**9**	<1	<10	<0.4	**14**	**12**	**33**	**33,000**	**47**	**490**	<0.1	<1	**11**	<2	<1	**270**	<1	**0.09**	<0.5	**0.2**	<25	<50	<50	<25	<50	**240**	<100	**310**	<100	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	NL / -	250 / 215	NL / -	- / 1,700	- / 1,700	- / 3,300	- / 3,300	3 / 75	NL / 135	NL / 165	230 / 180
SED3	0 - 0.1 m	Clayey Silt	15/04/2025	**11**	<1	<10	<0.4	**16**	**12**	**38**	**32,000**	**59**	**720**	<0.1	**1**	**11**	<2	<1	**190**	<1	**0.4**	<0.5	**3.5**	<25	<50	<50	<25	<50	<100	<100	**140**	<100	<0.2	<0.5	<1	<1
				3,000 / 160	500 / -	300,000 / -	900 / -	3,600 / 680	4,000 / -	240,000 / 310	- / -	1,500 / 1,800	60,000 / -	730 / -	- / -	6,000 / 310	10,000 / -	- / -	400,000 / 800	NL / 370	- / 1.4	40 / -	4,000 / -	- / -	- / 170	NL / -	250 / 215	NL / -	- / 1,700	- / 1,700	- / 3,300	- / 3,300	3 / 75	NL / 135	NL / 165	230 / 180

Lab result
HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Commercial/ industrial D

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-D (NEPC, 2013 or HEPA, 2020 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2020)
HSL (vapour intrusion)	HSL-D (NEPC, 2013)	ESL	Commercial and Industrial (NEPC, 2013)
DC	Direct contact HSL D Commercial/Industrial (CRC CARE, 2011)	ML	Commercial and Industrial (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2020)

Douglas Partners

Table G1: Summary of Soil and Sediment Laboratory Results (Land Use Comparison)

				Priority OCP									Priority OPP	PCB	Priority PFAS					Miscellaneous Inorganics				Additional PhysChem				
				DDT+DDE+DDD c	Aldrin + Dieldrin	Total Chlordane	Total Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Mirex	Chlorpyrifos	Total PCB	Total Positive PFAS	PFOA	PFOS + PFHxS	PFOS	PFHxS	pH 1:5 soil:water	Cation Exchange Capacity	Electrical Conductivity 1:5 soil:water	Total Organic Carbon	Moisture	Exchangeable Ca	Exchangeable K	Exchangeable Mg	Exchangeable Na
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.0001	0.0001	0.0001	0.0001		1	1	1	1000	0.1	0.1	0.1	0.1
Sample ID	Depth	Strata	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	cmol/kg	µs/cm	mg/kg	mg/kg	cmol/kg	cmol/kg	cmol/kg	cmol/kg
301	3 m	Clay	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**8.6**	-	**33**	-	**170,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
302	2 m	Clayey Sand	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**8.3**	-	**27**	-	**100,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
302	2.5 m	Clayey Sand	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	-	-	-	**61,000**	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
302	3 m	Clayey Sand	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**8.4**	-	**25**	-	**120,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
303	2 m	Fill / Sandy Clay	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**8.7**	**6.6**	**34**	-	**87,000**	**2.6**	<0.1	**3.3**	**0.6**
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
303	3 m	Gravelly Clay	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**7.6**	-	**23**	-	**110,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
304	3.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	-	-	-	**180,000**	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
304	4 m	Clayey Gravel	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**8.4**	-	**21**	-	**92,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
D3/SBK	0 m	Clayey Gravel	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**8.5**	-	**29**	-	**170,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
305	1.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**8.9**	-	**86**	-	**150,000**	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
305	3 m	Clayey Gravel	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**7.9**	-	**27**	-	**170,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
306	1.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	-	-	-	**84,000**	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
306	2.5 m	Clayey Gravel	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**8.6**	-	**19**	-	**100,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
306	4 m	Gravelly Clay	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	**8.4**	**10**	**20**	-	**120,000**	**4.9**	**0.2**	**5**	**0.2**
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SED1	0 - 0.1 m	Clayey Silt	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.012**	<0.0001	**0.011**	**0.01**	**0.0007**	**6.2**	**11**	**50**	**32,000**	**380,000**	**7.6**	**0.3**	**3.3**	<0.1
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SED2	0 - 0.1 m	Clayey Silt	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.014**	<0.0001	**0.013**	**0.012**	**0.001**	**5.9**	-	**71**	**53,000**	**510,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SED3	0 - 0.1 m	Clayey Silt	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.0029**	<0.0001	**0.0027**	**0.0025**	**0.0002**	**6.8**	-	**71**	**26,000**	**300,000**	-	-	-	-
				3,600 640	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	50 10	20 -	20 1	20 -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Lab result	
HIL/HSL value	EIL/ESL/EGV value

HIL/HSL exceedance   EIL/ESL exceedance   HIL/HSL and EIL/ESL exceedance   ML exceedance   ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report   **Blue** = DC exceedance   **Red** = EGV-indirect exceedance   HSL 0-<1 Exceedance

Bold = Lab detections   - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable   NL = Not limiting   NAD = No Asbestos detected

HIL = Health investigation level   HSL = Health screening level (excluding DC)   EIL = Ecological investigation level   ESL = Ecological screening level   EGV = Environmental Guideline Value   ML = Management Limit   DC = Direct Contact HSL

Notes:

a   QA/QC replicate of sample listed directly below the primary sample

b   Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c   EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Commercial/ industrial D

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-D (NEPC, 2013 or HEPA, 2020 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2020)
HSL (vapour intrusion)	HSL-D (NEPC, 2013)	ESL	Commercial and Industrial (NEPC, 2013)
DC	Direct contact HSL D Commercial/Industrial (CRC CARE, 2011)	ML	Commercial and Industrial (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2020)

Douglas PARTNERS

Table G1: Summary of Soil and Sediment Laboratory Results (Land Use Comparison)

				VOC																																																
				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-trichlorobenzene	1,2,3-trichloropropane	1,2,4-trichlorobenzene	1,2,4-trimethyl benzene	1,2-dibromo-3-chloropropane	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3,5-trimethyl benzene	1,3-dichlorobenzene	1,3-dichloropropane	1,4-dichlorobenzene	2,2-dichloropropane	2-chlorotoluene	4-chlorotoluene	4-isopropyl toluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	carbon tetrachloride	Monochlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Cyclohexane	dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	hexachlorobutadiene	Isopropylbenzene (cumene)	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene (vinylbenzene)	Tert-butyl benzene	tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	1,1,2-trichloroethylene	Trichlorofluoromethane	Vinyl Chloride
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	1	0.1	0.1	1	0.1	1	0.1	0.1	0.1	0.1	0.5	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.3
Sample ID	Depth	Strata	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
301	3 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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302	2 m	Clayey Sand	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**37**	<0.1	<0.1	<0.1	<0.1	<0.1	**11**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	**1.2**	<0.1	**5.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
302	2.5 m	Clayey Sand	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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302	3 m	Clayey Sand	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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303	2 m	Fill / Sandy Clay	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**11**	<0.1	<0.1	<0.1	<0.1	<0.1	**3.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	**0.4**	<0.1	**1.8**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
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303	3 m	Gravelly Clay	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
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304	3.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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304	4 m	Clayey Gravel	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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D3/SBK	0 m	Clayey Gravel	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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305	1.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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305	3 m	Clayey Gravel	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
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306	1.5 m	Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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306	2.5 m	Clayey Gravel	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**74**	<0.1	<0.1	<0.1	<0.1	<0.1	**20**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**2.3**	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	**3.4**	<0.1	**14**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
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306	4 m	Gravelly Clay	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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SED1	0 - 0.1 m	Clayey Silt	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SED2	0 - 0.1 m	Clayey Silt	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SED3	0 - 0.1 m	Clayey Silt	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<1	<0.1	<0.1	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<0.3
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Lab result
HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Commercial/ industrial D

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-D (NEPC, 2013 or HEPA, 2020 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2020)
HSL (vapour intrusion)	HSL-D (NEPC, 2013)	ESL	Commercial and Industrial (NEPC, 2013)
DC	Direct contact HSL D Commercial/Industrial (CRC CARE, 2011)	ML	Commercial and Industrial (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2020)

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Table G2: Summary of Soil and Sediment Laboratory Results (Preliminary Waste Classification)

			Metals															
			Total Arsenic	Beryllium	Boron	Cadmium	Total Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury (inorganic)	Molybdenum	Nickel	Selenium (Total)	Silver	Zinc
		PQL	4	1	10	0.4	1	1	1	10	1	1	0.1	1	1	2	1	1
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
301	3 m	14/04/2025	**10**	<1	<10	<0.4	**12**	**6**	**9**	**32,000**	**9**	**150**	<0.1	<1	**5**	<2	<1	**47**
302	2 m	14/04/2025	**5**	<1	<10	<0.4	**8**	**4**	**9**	**18,000**	**9**	**130**	<0.1	<1	**5**	<2	<1	**35**
302	2.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
302	3 m	14/04/2025	**6**	<1	<10	<0.4	**31**	**9**	**19**	**28,000**	**10**	**350**	<0.1	<1	**15**	<2	<1	**47**
303	2 m	14/04/2025	<4	<1	<10	<0.4	**16**	**5**	**8**	**19,000**	**12**	**150**	<0.1	<1	**7**	<2	<1	**38**
303	3 m	14/04/2025	**10**	<1	<10	<0.4	**9**	**7**	**9**	**26,000**	**10**	**210**	<0.1	<1	**7**	<2	<1	**34**
304	3.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
304	4 m	14/04/2025	<4	<1	<10	<0.4	**16**	**10**	**10**	**28,000**	**11**	**290**	<0.1	<1	**11**	<2	<1	**57**
D3/SBK	0 m	14/04/2025	<4	<1	<10	<0.4	**12**	**5**	**15**	**12,000**	**12**	**120**	<0.1	<1	**6**	<2	<1	**49**
305	1.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
305	3 m	14/04/2025	**9**	<1	<10	<0.4	**8**	**4**	**13**	**23,000**	**12**	**380**	<0.1	<1	**4**	<2	<1	**31**
306	1.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
306	2.5 m	14/04/2025	**6**	<1	<10	<0.4	**8**	**5**	**9**	**17,000**	**8**	**370**	<0.1	<1	**6**	<2	<1	**31**
306	4 m	14/04/2025	<4	<1	<10	<0.4	**16**	**4**	**10**	**13,000**	**10**	**130**	<0.1	**3**	**5**	<2	<1	**35**
SED1	0 - 0.1 m	15/04/2025	**9**	<1	<10	<0.4	**12**	**10**	**19**	**24,000**	**43**	**380**	<0.1	<1	**8**	<2	<1	**170**
SED2	0 - 0.1 m	15/04/2025	**9**	<1	<10	<0.4	**14**	**12**	**33**	**33,000**	**47**	**490**	<0.1	<1	**11**	<2	<1	**270**
SED3	0 - 0.1 m	15/04/2025	**11**	<1	<10	<0.4	**16**	**12**	**38**	**32,000**	**59**	**720**	<0.1	**1**	**11**	<2	<1	**190**
Summary Statistics																		
Min			4	1	10	0.4	8	4	8	12,000	8	120	0.1	1	4	2	1	31
Max			11	1	10	0.4	31	12	38	33,000	59	720	0.1	3	15	2	1	270
Mean			7	1	10	0.4	13	7	15	23,214	19	290	0.1	1	8	2	1	77
Standard Deviation			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95% UCL			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Classification Criteria [f]																		
CT1			100	20	-	20	100	-	-	-	100	-	4	100	40	20	100	-
SCC1			500	100	-	100	1,900	-	-	-	1,500	-	50	1000	1,050	50	180	-
TCLP1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT2			400	80	-	80	400	-	-	-	400	-	16	400	160	80	400	-
SCC2			2,000	400	-	400	7,600	-	-	-	6,000	-	200	4,000	4,200	200	720	-
TCLP2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			TRH		TPH	BTEX				PAH		OCP					OPP	PCB
			TRH C6 - C9	TRH C10-C36	TPH C10-C36 (SG)	Benzene	Toluene	Ethylbenzene	Total Xylenes	Benzo(a)pyrene (B(a)P)	Total PAH	Scheduled Chemical Waste (standard)	Chlordane	Total Endosulfan	Total Analysed OCP	Mirex	Total Analysed OPP	Total PCB
		PQL	25	50	50	0.2	0.5	1	1	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
301	3 m	14/04/2025	<25	<50	-	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
302	2 m	14/04/2025	**290**	**370**	-	<0.2	**4**	**9**	**51**	<0.05	**4.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
302	2.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
302	3 m	14/04/2025	<25	<50	-	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
303	2 m	14/04/2025	**64**	**120**	-	<0.2	**0.6**	**3**	**15**	<0.05	**1.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
303	3 m	14/04/2025	<25	<50	-	<0.2	<0.5	<0.1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
304	3.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
304	4 m	14/04/2025	<25	<50	-	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D3/SBK	0 m	14/04/2025	<25	<50	-	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
305	1.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
305	3 m	14/04/2025	<25	<50	-	<0.2	<0.5	<0.1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
306	1.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
306	2.5 m	14/04/2025	**530**	**560**	-	<0.2	<0.5	**18**	**49**	<0.05	**6.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
306	4 m	14/04/2025	<25	<50	-	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SED1	0 - 0.1 m	15/04/2025	<25	<50	-	<0.2	<0.5	<1	<1	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SED2	0 - 0.1 m	15/04/2025	<25	**250**	<50	<0.2	<0.5	<1	<1	**0.09**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SED3	0 - 0.1 m	15/04/2025	<25	<50	<50	<0.2	<0.5	<1	<1	**0.4**	**3.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Min			25	50	50	0.2	0.5	0.1	1	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max			530	560	50	0.2	4	18	51	0.4	6.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean			87	135	50	0.2	0.8	3	10	0.08	1.25	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Standard Deviation			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95% UCL			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT1			650	10,000	10,000	10	288	600	1000	0.8	200	<50	-	60	-	-	4	<50
SCC1			650	10,000	10,000	18	518	1,080	1,800	10	200	<50	-	108	-	-	7.5	<50
TCLP1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT2			2,600	40,000	40,000	40	1,152	2,400	4,000	3.2	800	<50	-	240	-	-	16	<50
SCC2			2,600	40,000	40,000	72	2,073	4,320	7,200	23	800	<50	-	432	-	-	30	<50
TCLP2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			VOC															PFAS			
			Tetrachloromethane (carbon tetrachloride / CT)	Monochlorobenzene	Trichloromethane (chloroform / TCM)	1,2-dichlorobenzene	1,4-dichlorobenzene	1,2-dichloroethane	1,1-Dichloroethene	Styrene (vinylbenzene)	1,1,1,2-tetrachloroethane	1,1,2,2-tetrachloroethane	tetrachloroethene (PCE)	1,1,1-trichloroethane	1,1,2-trichloroethane	Trichloroethene (TCE)	Chloroethene (vinyl chloride / VC)	PFOA	TCLP PFOA	PFOS + PFHxS	TCLP PFOS + PFHxS
		PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0001	0.00001	0.0001	0.00001
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L
301	3 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	-	<0.0001	-
302	2 m	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	-	-	-
302	2.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	-	<0.0001	-
302	3 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
303	2 m	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.0001	-	<0.0001	-
303	3 m	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	-	-	-
304	3.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	-	<0.0001	-
304	4 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3/SBK	0 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
305	1.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	-	<0.0001	-
305	3 m	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	-	-	-
306	1.5 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	-	<0.0001	-
306	2.5 m	14/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	-	-	-
306	4 m	14/04/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SED1	0 - 0.1 m	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.0001	-	**0.011**	-
SED2	0 - 0.1 m	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.0001	<0.00001	**0.013**	**0.00007**
SED3	0 - 0.1 m	15/04/2025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.0001	-	**0.0027**	-
Min			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0001	0.00001	0.0001	0.00007
Max			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0001	0.00001	0.013	0.00007
Mean			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0001	0.00001	0.003	0.00007
Standard Deviation			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95% UCL			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT1			10	2,000	120	86	150	10	14	60	200	26	14	600	24	10	4	-	-	-	-
SCC1			18	3,600	126	155	270	18	25	108	360	46.8	25.2	1,080	43.2	18	7.2	18	-	1.8	-
TCLP1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	0.05
CT2			40	8,000	480	344	600	40	56	240	800	104	56	2,400	96	40	16	-	-	-	-
SCC2			72	14,400	864	620	1,080	72	100	432	1,440	187.2	100.8	4,320	172.8	72	28.8	72	-	7.2	-
TCLP2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0.2

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance Asbestos detection

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Total chromium used as initial screen for chromium(VI).

c Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)

d Criteria for scheduled chemicals used as an initial screen

e Criteria for Chlorpyrifos used as initial screen

f NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste

PQL Practical quantitation limit

CT1 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste

SCC1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

TCLP1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

CT2 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste

SCC2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

TCLP2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

95% UCL 95% upper confidence limit of the mean concentration calculated using ProUCL v5.1 and the 95% Student's-t UCL method

Table G3: Summary of Groundwater Laboratory Results

Field ID	Unit	PQL	ANZECC 2000 SE Aust - Lowland River	ANZG (2018) Freshwater Slightly to Moderately Disturbed Systems DGVs	PFAS NEMP 2025 Freshwater 95%	PFAS NEMP 2025 Freshwater 99%	NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand	NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay	101	102	D1/GW	T1/GW	103	104	105	106	MW1	MW2	301	302	303	304	305	306
Date									28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025
Inorganics																								
pH (Lab)	-		6.5-8						6.9	7.1	6.8	-	6.8	6.9	6.9	6.9	6.8	7	6.8	6.9	6.8	6.8	6.8	7
Electrical Conductivity (Non Compensated)	µS/cm	1							350	510	320	-	320	480	570	900	740	440	510	620	740	620	610	980
Hardness (filtered)	mg/L	3							-	-	-	-	-	-	-	-	-	-	120	-	-	-	-	-
Chloride	mg/L	1							-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-
Sulphate	mg/L	1							-	-	-	-	-	-	-	-	-	-	47	-	-	-	-	-
Alkalinity (Hydroxide) as CaCO3	mg/L	5							-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
Alkalinity (Carbonate as CaCO3)	mg/L	5							-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
Alkalinity (total) as CaCO3	mg/L	5							-	-	-	-	-	-	-	-	-	-	210	-	-	-	-	-
Ammonia as N (filtered)	mg/L	0.005		0.9					-	-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-
Alkalinity (Bicarbonate as CaCO3)	mg/L	5							-	-	-	-	-	-	-	-	-	-	210	-	-	-	-	-
Ionic Balance	%								-	-	-	-	-	-	-	-	-	-	-13	-	-	-	-	-
Kjeldahl Nitrogen Total	mg/L	0.1							-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-
Nitrate (as N) (filtered)	mg/L	0.005							-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-
Nitrite (as N) (filtered)	mg/L	0.005							-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-
Organic Nitrogen as N	mg/L	0.2							-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-
Nitrogen (Total Oxidised)	mg/L	0.005	0.04[#5]						-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	-
Nitrogen (Total)	mg/L	0.1	0.5						-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Total Phosphorus (Organic Phosphate)	mg/L	0.05	0.05						-	-	-	-	-	-	-	-	-	-	0.82	-	-	-	-	-
Sodium (filtered)	mg/L	0.5							-	-	-	-	-	-	-	-	-	-	48	-	-	-	-	-
Total Dissolved Solids (Lab)	mg/L	5							-	-	-	-	-	-	-	-	-	-	360	-	-	-	-	-
Metals																								
Aluminium (filtered)	mg/L	0.01		0.055					<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic (filtered)	mg/L	0.001		0.013[#1]					<0.001	<0.001	<0.001	<0.001	<0.001	0.009	0.009	0.011	0.023	<0.001	0.001	0.016	0.02	0.011	0.023	0.005
Barium (filtered)	mg/L	0.001										0.03												
Beryllium (filtered)	mg/L	0.0005							<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Boron (filtered)	mg/L	0.02		0.94					0.03	<0.02	0.03	<0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	0.02	<0.02	<0.02	0.03
Cadmium (filtered)	mg/L	0.0001		0.0002					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium (filtered)	mg/L	0.5																	21					
Chromium (III+VI) (filtered)	mg/L	0.001		0.001[#2]					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt (filtered)	mg/L	0.001		0.0014					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001	0.003
Copper (filtered)	mg/L	0.001		0.0014					0.001	0.002	0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron (filtered)	mg/L	0.01							<0.01	<0.01	<0.01		<0.01	2.2	1	0.49	3.4	0.06	0.28	2.1	4.1	0.6	2.5	0.69
Lead (filtered)	mg/L	0.001		0.0034					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001
Magnesium (filtered)	mg/L	0.5																	16					
Manganese (filtered)	mg/L	0.001		1.9					0.13	0.017	0.22	0.23	0.21	1.1	0.82	0.45	4	0.091	0.23	2.6	3.8	0.51	2.8	2
Mercury (filtered)	mg/L	0.00005		0.00006					<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Molybdenum (filtered)	mg/L	0.001		0.034					<0.001	<0.001	<0.001		<0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	0.001	0.002	<0.001	0.001	0.001
Nickel (filtered)	mg/L	0.001		0.011					0.01	0.002	0.005	0.005	0.005	0.005	0.016	0.002	0.009	0.003	0.001	0.005	0.005	0.001	0.023	0.006
Potassium (filtered)	mg/L	0.5																	1					
Selenium (filtered)	mg/L	0.001		0.005					<0.001	0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silver (filtered)	mg/L	0.001		0.00005					<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium (filtered)	mg/L	0.01										<0.01												
Zinc (filtered)	mg/L	0.001		0.008					0.008	0.005	0.049	0.029	0.028	0.003	0.006	0.015	0.005	<0.001	0.002	0.004	0.006	0.002	0.01	0.002
TRH																								
C6-C10 Fraction (F1)	mg/L	0.01					6 | 6 | 7	NL | NL | NL	<0.01	<0.01	<0.01	<0.02	<0.01	0.12	0.6	<0.01	48	<0.01	<0.01	11	21	1	23	3.6
C6-C10 (F1 minus BTEX)	mg/L	0.01							<0.01	<0.01	<0.01	<0.02	<0.01	0.12	0.54	<0.01	18	<0.01	<0.01	5.2	10	0.86	11	1.8
>C10-C16 Fraction (F2)	mg/L	0.05					NL | NL | NL	NL | NL | NL	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.15	<0.05	3.5	<0.05	<0.05	1.1	2.2	0.24	2.2	2.8
>C10-C16 Fraction (F2 minus Naphthalene)	mg/L	0.05							<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.14	<0.05	3.1	<0.05	<0.05	0.97	1.8	0.21	1.8	2.5
>C16-C34 Fraction (F3)	mg/L	0.1							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>C34-C40 Fraction (F4)	mg/L	0.1							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>C10-C40 Fraction (Sum)	mg/L	0.05							<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.15	<0.05	3.6	<0.05	<0.05	1.1	2.2	0.24	2.2	2.8
C6-C9 Fraction	mg/L	0.01							<0.01	<0.01	<0.01	<0.02	<0.01	0.11	0.49	<0.01	42	<0.01	<0.01	8.3	19	0.93	21	3.3
C10-C14 Fraction	mg/L	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	<0.05	7.1	<0.05	<0.05	2.3	4.2	0.3	5.1	3.9
C15-C28 Fraction	mg/L	0.1							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.21	<0.1	<0.1	0.1	0.13	<0.1	<0.1	0.19
C29-C36 Fraction	mg/L	0.05							<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
C10-C36 Fraction (Sum)	mg/L	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	<0.05	7.4	<0.05	<0.05	2.4	4.4	0.3	5.1	4.1
TPH (Silica-Gel Cleanup)																								
C10-C14 Fraction (SG)	mg/L	0.05							-	-	-	-	-	-	0.06	-	1.8	-	-	0.65	1.5	0.1	2.1	1
C15-C28 Fraction (SG)	mg/L	0.1							-	-	-	-	-	-	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
C29-C36 Fraction (SG)	mg/L	0.1							-	-	-	-	-	-	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
>C10-C16 Fraction (SG)	mg/L	0.05							-	-	-	-	-	-	0.067	-	0.96	-	-	0.35	0.83	0.12	0.97	0.78
>C16-C34 Fraction (SG)	mg/L	0.1							-	-	-	-	-	-	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
>C34-C40 Fraction (SG)	mg/L	0.1							-	-	-	-	-	-	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
BTEX																								
Benzene	mg/L	0.00005		0.95			5 | 5 | 5	30 | 30 | 35	<0.001	<0.001	<0.001	<0.00005	<0.001	0.002	0.02	<0.001	11	<0.001	<0.001	1	3.8	0.11	2.2	0.14
Toluene	mg/L	0.0001		0.18			NL | NL | NL	NL | NL | NL	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	0.003	<0.001	5.1	<0.001	<0.001	1.4	1.7	0.004	0.16	0.008
Ethylbenzene	mg/L	0.00005		0.08			NL | NL | NL	NL | NL | NL	<0.001	<0.001	<0.001	<0.00005	<0.001	<0.001	0.015	<0.001	2.3	<0.001	<0.001	0.53	0.73	0.011	2.3	0.46
Xylene (m & p)	mg/L	0.00005		0.075[#3]			NL | NL | NL	NL | NL | NL	<0.002	<0.002	<0.002	<0.00005	<0.002	<0.002	0.023	<0.002	9.5	<0.002	<0.002	2.1	3.8	0.025	6.4	1.2
Xylene (o)	mg/L	0.00005		0.35			NL | NL | NL	NL | NL | NL	<0.001	<0.001	<0.001	<0.00005	<0.001	<0.001	<0.001	<0.001	2	<0.001	<0.001	0.75	1	0.002	0.6	0.014
Naphthalene (VOC)	mg/L	0.001		0.016			NL | NL | NL	NL | NL | NL	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.01	<0.001	0.46	<0.001	<0.001	0.11	0.32	0.022	0.43	0.31
Xylene Total	mg/L	0.002					NL | NL | NL	NL | NL | NL	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-
Total BTEX	mg/L	0.00005							-	-	-	<0.00005	-	-	-	-	-	-	-	-	-	-	-	-
PAH																								
2-methylnaphthalene	µg/L	0.1										<0.1												
3-methylcholanthrene	µg/L	0.1										<0.1												
7,12-dimethylbenz(a)anthracene	µg/L	0.1										<0.1												
Acenaphthene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	0.0001	0.0002	<0.0001	0.0002	0.0005
Acenaphthylene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Anthracene	mg/L	0.0001		0.00001					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Coronene	µg/L	0.1										<0.1												
Benzo(a)anthracene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(b+j+k)fluoranthene	mg/L	0.0002							<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(a) pyrene	mg/L	0.00005		0.0001					<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(b+j)fluoranthene	mg/L	0.0001										<0.0001												
Benzo(e)pyrene	µg/L	0.1										<0.1												
Benzo(g,h,i)perylene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(k)fluoranthene	mg/L	0.0001										<0.0001												
Chrysene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibenz(a,h)anthracene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluoranthene	mg/L	0.0001		0.001					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluorene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	<0.0001	0.0002	0.0007	<0.0001	0.0005	0.0011
Indeno(1,2,3-c,d)pyrene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Naphthalene	mg/L	0.00005		0.016					<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	0.0002	0.0005	<0.0001	0.43	<0.0001	<0.0001	0.096	0.24	0.016	0.31	0.24
Phenanthrene	mg/L	0.0001		0.0006					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	0.0001	0.0005	<0.0001	0.0003	0.0006
Perylene	µg/L	0.1										<0.1												
Pyrene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(a)pyrene TEQ calc (Zero)	mg/L	0.00005										<0.00005												
PAHs (Sum of total)	mg/L	0.00005										<0.00005												
PAHs (Sum of positives)	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	0.00054	0.0005	<0.0001	0.43	<0.0001	<0.0001	0.096	0.24	0.016	0.31	0.24

Table G3: Summary of Groundwater Laboratory Results

	Unit	PQL	ANZECC 2000 SE Aust - Lowland River	ANZG (2018) Freshwater Slightly to Moderately Disturbed Systems DGVs	PFAS NEMP 2025 Freshwater 95%	PFAS NEMP 2025 Freshwater 99%	NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand	NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay	101	102	D1/GW	T1/GW	103	104	105	106	MW1	MW2	301	302	303	304	305	306
Date									28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	28 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025	29 Apr 2025
VOCs																								
1,1,1,2-tetrachloroethane	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,1,1-trichloroethane	mg/L	0.0001		0.27					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,1,2,2-tetrachloroethane	mg/L	0.0001		0.4					<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,1,2-trichloroethane	mg/L	0.0001		6.5					<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,1-dichloroethane	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,1-dichloroethene	mg/L	0.0001		0.7					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,1-dichloropropene	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2,3-trichlorobenzene	mg/L	0.0001		0.003					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2,3-trichloropropane	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2,4-trichlorobenzene	mg/L	0.0001		0.085					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2,4-trimethylbenzene	mg/L	0.00005							<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	**0.0003**	**0.026**	<0.0001	**1.9**	**0.0002**	**0.0004**	**0.52**	**0.97**	**0.012**	**1.7**	**0.84**
1,2-dibromo-3-chloropropane	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2-dibromoethane	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2-dichlorobenzene	mg/L	0.0001		0.16					<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2-dichloroethane	mg/L	0.0001		1.9					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,2-Dichloroethene	µg/L	0.1										<0.10												
1,2-dichloropropane	mg/L	0.0001		0.9					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,3,5-trimethylbenzene	mg/L	0.00005							<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	**0.0001**	**0.0062**	<0.0001	**0.48**	<0.0001	**0.0002**	**0.16**	**0.28**	**0.005**	**0.41**	**0.21**
1,3-dichlorobenzene	mg/L	0.0001		0.26					<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,3-dichloropropane	mg/L	0.0001		1.1					<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
1,4-dichlorobenzene	mg/L	0.0001		0.06					<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
2,2-dichloropropane	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Trihalomethanes	mg/L	0.0001										<0.00010												
2-chlorotoluene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
4-chlorotoluene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Benzene	mg/L	0.0001		0.95					<0.0001	<0.0001	<0.0001		<0.0001	**0.0024**	**0.02**	<0.0001	**11**	<0.0001	<0.0001	**1**	**3.8**	**0.11**	**2.2**	**0.14**
Benzyl chloride	mg/L	0.0002										<0.0002												
Bromobenzene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Bromochloromethane	mg/L	0.0005							<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	<0.0005	<0.0005	<0.0050	<0.0050	<0.0005	<0.0050	<0.0050
Bromodichloromethane	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Bromoform	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.001	<0.0001	<0.0010	<0.0010
Bromomethane	mg/L	0.0005							<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	<0.02	<0.02	<0.002	<0.02	<0.02
Carbon tetrachloride	mg/L	0.00005		0.24					<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Chlorobenzene	mg/L	0.0001		0.055					<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Chlorodibromomethane	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Chloroethane	mg/L	0.0005							<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	<0.02	<0.02	<0.002	<0.02	<0.02
Chloroform	mg/L	0.0001		0.37					<0.0005	<0.0005	<0.0005	<0.00010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	<0.0005	<0.0005	<0.0050	<0.0050	<0.0005	<0.0050	<0.0050
Chloromethane	mg/L	0.002							<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	<0.02	<0.02	<0.002	<0.02	<0.02
cis-1,2-dichloroethene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
cis-1,3-dichloropropene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Cyclohexane	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	**0.013**	**0.034**	<0.0001	**0.71**	<0.0001	<0.0001	**0.17**	**0.54**	**0.1**	**0.49**	**0.12**
Dibromomethane	mg/L	0.0005							<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	<0.0005	<0.0005	<0.0050	<0.0050	<0.0005	<0.0050	<0.0050
Dichlorodifluoromethane	mg/L	0.0005							<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	<0.02	<0.02	<0.002	<0.02	<0.02
Dichloromethane	µg/L	1		4,000								<1.0												
Ethylbenzene	mg/L	0.0001		0.08					<0.0001	<0.0001	<0.0001		<0.0001	**0.0003**	**0.015**	<0.0001	**2.3**	<0.0001	**0.0004**	**0.53**	**0.73**	**0.011**	**2.3**	**0.46**
Hexachlorobutadiene	mg/L	0.00004							<0.0002	<0.0002	<0.0002	<0.00004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0020	<0.0002	<0.0002	<0.0020	<0.0020	<0.0002	<0.002	<0.0020
Isopropylbenzene	mg/L	0.0001		0.03					<0.0001	<0.0001	<0.0001		<0.0001	**0.0007**	**0.0044**	<0.0001	**0.078**	<0.0001	<0.0001	**0.029**	**0.066**	**0.0085**	**0.099**	**0.035**
MTBE	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
n-butylbenzene	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
n-propylbenzene	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	**0.001**	**0.014**	<0.0001	**0.22**	<0.0001	<0.0001	**0.092**	**0.18**	**0.022**	**0.29**	**0.062**
p-isopropyltoluene	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	**0.021**	<0.0001	<0.0001	**0.0098**	**0.016**	**0.0005**	**0.017**	**0.011**
sec-butylbenzene	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Styrene	mg/L	0.00005							<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Trichloroethene	mg/L	0.00005		0.33					<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
tert-butylbenzene	mg/L	0.0001							<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.00005		0.07					<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
trans-1,2-dichloroethene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
trans-1,3-dichloropropene	mg/L	0.0001							<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010	<0.0010
Toluene	mg/L	0.0001		0.18					<0.0001	<0.0001	<0.0001		<0.0001	**0.0004**	**0.0027**	<0.0001	**5.1**	<0.0001	**0.0008**	**1.4**	**1.7**	**0.0036**	**0.16**	**0.0081**
Trichlorobenzene (total)	mg/L	0.0001										<0.0001												
Trichlorofluoromethane	mg/L	0.0005							<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.02	<0.002	<0.002	<0.02	<0.02	<0.002	<0.02	<0.02
Xylene (m & p)	mg/L	0.0002		0.075#3					**0.0002**	<0.0002	<0.0002		<0.0002	**0.0011**	**0.023**	<0.0002	**9.5**	**0.00046**	**0.0015**	**2.1**	**3.8**	**0.025**	**6.4**	**1.2**
Xylene (o)	mg/L	0.0001		0.35					<0.0001	<0.0001	<0.0001		<0.0001	**0.0003**	<0.0001	<0.0001	**2**	<0.0001	**0.0005**	**0.75**	**1**	**0.0023**	**0.6**	**0.014**
Vinyl chloride	mg/L	0.0002		0.1					<0.0002	<0.0002	<0.0002	<0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0020	<0.0002	<0.0002	<0.0020	<0.0020	<0.0002	<0.0020	<0.0020
PFAS																								
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01										<0.01												
Perfluorobutane sulfonic acid (PFBS)	mg/L	0.000001							**0.000022**	**0.000015**	**0.000018**	**0.000013**	**0.00002**	**0.000012**	**0.000014**	**0.000009**	**0.000006**	**0.000004**	**0.000013**	**0.00002**	**0.000013**	**0.000019**	**0.000021**	**0.000022**
Perfluoropentane sulfonic acid (PFPeS)	mg/L	0.000001							**0.000014**	**0.000008**	**0.00001**	**0.000014**	**0.000011**	**0.000007**	**0.000008**	**0.000006**	**0.000004**	**0.000003**	**0.000009**	**0.000012**	**0.000008**	**0.00001**	**0.000012**	**0.000013**
Perfluorohexane sulfonic acid (PFHxS)	mg/L	0.000001							**0.00014**	**0.00006**	**0.00011**	**0.000097**	**0.00011**	**0.000068**	**0.00007**	**0.000053**	**0.000028**	**0.000025**	**0.000078**	**0.000098**	**0.000064**	**0.000082**	**0.00012**	**0.00012**
Perfluoroheptane sulfonic acid (PFHpS)	mg/L	0.000001							**0.000007**	**0.000003**	**0.000006**	**0.000007**	**0.000006**	**0.000004**	**0.000005**	**0.000006**	**0.000002**	**0.000001**	**0.000005**	**0.000006**	**0.000005**	**0.000006**	**0.000006**	**0.000007**
Perfluorooctane sulfonic acid (PFOS)	mg/L	0.000001			0.00013#4	0.00000023#4			**0.00033**	**0.00015**	**0.00025**	**0.00031**	**0.00029**	**0.00018**	**0.00016**	**0.00012**	**0.000087**	**0.000067**	**0.00019**	**0.00018**	**0.00019**	**0.00019**	**0.00026**	**0.00024**
Perfluorodecane sulfonic acid (PFDS)	mg/L	0.000002							<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
Perfluorobutanoic acid (PFBA)	mg/L	0.000002							**0.000026**	**0.00001**	<0.00001	**0.00001**	**0.00002**	**0.000009**	**0.00002**	<0.00002	<0.00002	**0.000006**	**0.00001**	<0.00001	<0.00001	**0.00002**	<0.00001	<0.00001
Perfluorohexanoic acid (PFHxA)	mg/L	0.000001							**0.0000099**	**0.000002**	**0.000003**	**0.000004**	**0.000004**	<0.000001	**0.000002**	**0.000009**	**0.000002**	<0.000001	**0.000002**	**0.000002**	**0.000002**	**0.000002**	**0.000001**	**0.000002**
Perfluoropentanoic acid (PFPeA)	mg/L	0.000002							**0.000003**	**0.000002**	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	**0.000004**	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
Perfluoroheptanoic acid (PFHpA)	mg/L	0.000001							**0.000007**	**0.000002**	**0.000005**	**0.000003**	**0.000004**	**0.000002**	**0.000003**	**0.000007**	**0.000004**	<0.000001	**0.000004**	**0.000002**	**0.000003**	**0.000003**	**0.000003**	**0.000004**
Perfluorooctanoic acid (PFOA)	mg/L	0.000001			0.22#4	0.019#4			**0.000024**	**0.000008**	**0.000015**	**0.000015**	**0.000016**	**0.000008**	**0.000011**	**0.000019**	**0.000007**	**0.000004**	**0.000019**	**0.000007**	**0.000013**	**0.000015**	**0.000014**	**0.000014**
Perfluorodecanoic acid (PFDA)	mg/L	0.000002							<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
Perfluorododecanoic acid (PFDoDA)	mg/L	0.000002							<0.000005	<0.000005	<0.000005	<0.000002	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Perfluorononanoic acid (PFNA)	mg/L	0.000001							**0.000004**	**0.000001**	**0.000003**	**0.000004**	**0.000003**	**0.000003**	**0.000006**	**0.000004**	**0.000003**	**0.000001**	**0.000007**	**0.000002**	**0.000007**	**0.00001**	**0.000005**	**0.000005**
Perfluorotetradecanoic acid (PFTeDA)	mg/L	0.000005							<0.00005	<0.00005	<0.00005	<0.000005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Perfluorotridecanoic acid (PFTrDA)	mg/L	0.000002							<0.00001	<0.00001	<0.00001	<0.000002	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Perfluoroundecanoic acid (PFUnDA)	mg/L	0.000002							<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/L	0.000001							<0.000001	<0.000001	<0.000001	<0.000005	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/L	0.000001							<0.000001	<0.000001	**0.000005**	<0.000005	<0.000001	<0.000001	**0.000001**	**0.000002**	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	**0.000001**	<0.000001	<0.000001
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/L	0.000002							<0.000002	<0.000002	<0.000002	<0.000005	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/L	0.000002							<0.000002	<0.000002	<0.000002	<0.000005	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
Perfluorooctane sulfonamide (FOSA)	mg/L	0.000002							<0.00001	<0.00001	<0.00001	<0.000002	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/L	0.000005							<0.00005	<0.00005	<0.00005	<0.000005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/L	0.000002							<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/L	0.000005							<0.00005	<0.00005	<0.00005	<0.000005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/L	0.000005							<0.0001	<0.0001	<0.0001	<0.000005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/L	0.000002							<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/L	0.000005							<0.0005	<0.0005	<0.0005	<0.000005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluohexadecanoic acid (PFHxDA)	µg/L	0.005										<0.005												
Sum of PFHxS and PFOS	mg/L	0.000001							**0.00047**	**0.00021**	**0.00036**	**0.000407**	**0.0004**	**0.00024**	**0.00023**	**0.00017**	**0.00012**	**0.000093**	**0.00026**	**0.00028**	**0.00025**	**0.00027**	**0.00038**	**0.00036**
Sum of PFAS	mg/L	0.000001							**0.00059**	**0.00027**	**0.00043**	**0.000477**	**0.00048**	**0.00029**	**0.0003**	**0.00024**	**0.00014**	**0.00011**	**0.00033**	**0.00033**	**0.0003**	**0.00036**	**0.00044**	**0.00043**
Sum of PFAS (WA DER List)	µg/L	0.002										**0.452**												
Sum of PFAS (PFOS + PFOA)	mg/L	0.000001							**0.00035**	**0.00016**	**0.00027**		**0.0003**	**0.00018**	**0.00018**	**0.00014**	**0.000094**	**0.000071**	**0.0002**	**0.00019**	**0.0002**	**0.0002**	**0.00028**	**0.00026**

Comments
#1 Adopted As(V) criteria (conservative)
#2 Adopted Cr(VI) criteria (conservative)
#3 Adopted Xylene (m) criteria (conservative)
#4 Refer to Table 8 in PFAS NEMP 2025 for comments and notes
#5 60ug/L for Qld rivers
#6 To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#7 To obtain F2 subtract napthalene from the >C10 - C16 fraction.

Environmental Standards
ANZG, August 2023, ANZG (2018) Freshwater Slightly to Moderately Disturbed Systems DGVs
HEPA, March 2025, PFAS NEMP 2025 Freshwater 95%
HEPA, March 2025, PFAS NEMP 2025 Freshwater 99%
DoE, 2000, ANZECC 2000 SE Aust - Lowland River
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay

Douglas Partners

Table G4: Summary of Surface Water Laboratory Results

	Unit	PQL	ANZECC 2000 SE Aust - Lowland River	ANZG (2018) Freshwater Slightly to Moderately Disturbed Systems DGVs	PFAS NEMP 2025 Freshwater 95%	PFAS NEMP 2025 Freshwater 99%	SW1	SW2	SW3
Field ID							SW1	SW2	SW3
Date							15 Apr 2025	15 Apr 2025	15 Apr 2025
Location							Up-Stream	Mid-Stream	Down-Stream
Inorganics									
pH (Lab)	-		6.5-8				**7.4**	**7.4**	**7.4**
Electrical Conductivity (Non Compensated)	µS/cm	1					**190**	**230**	**160**
Metals									
Arsenic	mg/L	0.001		0.013[#1]			**0.006**	**0.003**	**0.004**
Beryllium	mg/L	0.0005					<0.0005	<0.0005	<0.0005
Boron	mg/L	0.02		0.94			<0.02	<0.02	<0.02
Cadmium	mg/L	0.0001		0.0002			<0.0001	<0.0001	<0.0001
Chromium (III+VI)	mg/L	0.001		0.001[#2]			**0.002**	**0.001**	**0.002**
Cobalt	mg/L	0.001		0.0014			<0.001	<0.001	<0.001
Copper	mg/L	0.001		0.0014			**0.013**	**0.007**	**0.011**
Lead	mg/L	0.001		0.0034			**0.013**	**0.006**	**0.011**
Manganese	mg/L	0.005		1.9			**0.035**	**0.066**	**0.068**
Mercury	mg/L	0.00005		0.00006			<0.00005	<0.00005	<0.00005
Nickel	mg/L	0.001		0.011			**0.002**	**0.001**	**0.002**
Selenium	mg/L	0.001		0.005			<0.001	<0.001	<0.001
Zinc	mg/L	0.001		0.008			**0.088**	**0.048**	**0.068**
TRH									
C6-C10 Fraction (F1)	mg/L	0.01					<0.01	<0.01	<0.01
C6-C10 (F1 minus BTEX)	mg/L	0.01					<0.01	<0.01	<0.01
>C10-C16 Fraction (F2)	mg/L	0.05					<0.05	<0.05	<0.05
>C10-C16 Fraction (F2 minus Naphthalene)	mg/L	0.05					<0.05	<0.05	<0.05
>C16-C34 Fraction (F3)	mg/L	0.1					<0.1	<0.1	<0.1
>C34-C40 Fraction (F4)	mg/L	0.1					<0.1	<0.1	<0.1
>C10-C40 Fraction (Sum)	mg/L	0.05					<0.05	<0.05	<0.05
C6-C9 Fraction	mg/L	0.01					<0.01	<0.01	<0.01
C10-C14 Fraction	mg/L	0.05					<0.05	<0.05	<0.05
C15-C28 Fraction	mg/L	0.1					<0.1	<0.1	<0.1
C29-C36 Fraction	mg/L	0.1					<0.1	<0.1	<0.1
C10-C36 Fraction (Sum)	mg/L	0.05					<0.05	<0.05	<0.05
BTEX									
Benzene	mg/L	0.001		0.95			<0.001	<0.001	<0.001
Toluene	mg/L	0.001		0.18			<0.001	<0.001	<0.001
Ethylbenzene	mg/L	0.001		0.08			<0.001	<0.001	<0.001
Xylene (m & p)	mg/L	0.002		0.075[#3]			<0.002	<0.002	<0.002
Xylene (o)	mg/L	0.001		0.35			<0.001	<0.001	<0.001
Naphthalene (VOC)	mg/L	0.001		0.016			<0.001	<0.001	<0.001
PAH									
Acenaphthene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Acenaphthylene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Anthracene	mg/L	0.0001		0.00001			<0.0001	<0.0001	<0.0001
Benzo(a)anthracene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Benzo(b+j+k)fluoranthene	mg/L	0.0002					<0.0002	<0.0002	<0.0002
Benzo(a) pyrene	mg/L	0.0001		0.0001			<0.0001	<0.0001	<0.0001
Benzo(g,h,i)perylene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Chrysene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Dibenz(a,h)anthracene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Fluoranthene	mg/L	0.0001		0.001			<0.0001	<0.0001	<0.0001
Fluorene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
Naphthalene	mg/L	0.0001		0.016			<0.0001	<0.0001	<0.0001
Phenanthrene	mg/L	0.0001		0.0006			<0.0001	<0.0001	<0.0001
Pyrene	mg/L	0.0001					<0.0001	<0.0001	<0.0001
PAHs (Sum of positives)	mg/L	0.0001					<0.0001	<0.0001	<0.0001
VOCs									
1,1,1,2-tetrachloroethane	mg/L	0.001					<0.001	<0.001	<0.001
1,1,1-trichloroethane	mg/L	0.001		0.27			<0.001	<0.001	<0.001
1,1,2,2-tetrachloroethane	mg/L	0.001		0.4			<0.001	<0.001	<0.001
1,1,2-trichloroethane	mg/L	0.001		6.5			<0.001	<0.001	<0.001
1,1-dichloroethane	mg/L	0.001					<0.001	<0.001	<0.001
1,1-dichloroethene	mg/L	0.001		0.7			<0.001	<0.001	<0.001
1,1-dichloropropene	mg/L	0.001					<0.001	<0.001	<0.001
1,2,3-trichlorobenzene	mg/L	0.001		0.003			<0.001	<0.001	<0.001
1,2,3-trichloropropane	mg/L	0.001					<0.001	<0.001	<0.001
1,2,4-trichlorobenzene	mg/L	0.001		0.085			<0.001	<0.001	<0.001
1,2,4-trimethylbenzene	mg/L	0.001					<0.001	<0.001	<0.001
1,2-dibromo-3-chloropropane	mg/L	0.001					<0.001	<0.001	<0.001
1,2-dibromoethane	mg/L	0.001					<0.001	<0.001	<0.001
1,2-dichlorobenzene	mg/L	0.001		0.16			<0.001	<0.001	<0.001
1,2-dichloroethane	mg/L	0.001		1.9			<0.001	<0.001	<0.001
1,2-dichloropropane	mg/L	0.001		0.9			<0.001	<0.001	<0.001
1,3,5-trimethylbenzene	mg/L	0.001					<0.001	<0.001	<0.001
1,3-dichlorobenzene	mg/L	0.001		0.26			<0.001	<0.001	<0.001
1,3-dichloropropane	mg/L	0.001		1.1			<0.001	<0.001	<0.001
1,4-dichlorobenzene	mg/L	0.001		0.06			<0.001	<0.001	<0.001
2,2-dichloropropane	mg/L	0.001					<0.001	<0.001	<0.001
2-chlorotoluene	mg/L	0.001					<0.001	<0.001	<0.001
4-chlorotoluene	mg/L	0.001					<0.001	<0.001	<0.001
Bromobenzene	mg/L	0.001					<0.001	<0.001	<0.001
Bromochloromethane	mg/L	0.001					<0.001	<0.001	<0.001
Bromodichloromethane	mg/L	0.001					<0.001	<0.001	<0.001
Bromoform	mg/L	0.001					<0.001	<0.001	<0.001
Bromomethane	mg/L	0.01					<0.01	<0.01	<0.01
Carbon tetrachloride	mg/L	0.001		0.24			<0.001	<0.001	<0.001
Chlorobenzene	mg/L	0.001		0.055			<0.001	<0.001	<0.001
Chlorodibromomethane	mg/L	0.001					<0.001	<0.001	<0.001
Chloroethane	mg/L	0.01					<0.01	<0.01	<0.01
Chloroform	mg/L	0.001		0.37			<0.001	<0.001	<0.001
Chloromethane	mg/L	0.01					<0.01	<0.01	<0.01
cis-1,2-dichloroethene	mg/L	0.001					<0.001	<0.001	<0.001
cis-1,3-dichloropropene	mg/L	0.001					<0.001	<0.001	<0.001
Cyclohexane	mg/L	0.001					<0.001	<0.001	<0.001
Dibromomethane	mg/L	0.001					<0.001	<0.001	<0.001
Dichlorodifluoromethane	mg/L	0.01					<0.01	<0.01	<0.01
Hexachlorobutadiene	mg/L	0.001					<0.001	<0.001	<0.001
Isopropylbenzene	mg/L	0.001		0.03			<0.001	<0.001	<0.001
n-butylbenzene	mg/L	0.001					<0.001	<0.001	<0.001
n-propylbenzene	mg/L	0.001					<0.001	<0.001	<0.001
p-isopropyltoluene	mg/L	0.001					<0.001	<0.001	<0.001
sec-butylbenzene	mg/L	0.001					<0.001	<0.001	<0.001
Styrene	mg/L	0.001					<0.001	<0.001	<0.001
Trichloroethene	mg/L	0.001		0.33			<0.001	<0.001	<0.001
tert-butylbenzene	mg/L	0.001					<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.001		0.07			<0.001	<0.001	<0.001
trans-1,2-dichloroethene	mg/L	0.001					<0.001	<0.001	<0.001
trans-1,3-dichloropropene	mg/L	0.001					<0.001	<0.001	<0.001
Trichlorofluoromethane	mg/L	0.01					<0.01	<0.01	<0.01
Vinyl chloride	mg/L	0.01		0.1			<0.01	<0.01	<0.01
PFAS									
Perfluorobutane sulfonic acid (PFBS)	mg/L	0.000001					**0.000007**	**0.000006**	**0.000006**
Perfluoropentane sulfonic acid (PFPeS)	mg/L	0.000001					**0.000004**	**0.000003**	**0.000003**
Perfluorohexane sulfonic acid (PFHxS)	mg/L	0.000001					**0.000039**	**0.000029**	**0.000029**
Perfluoroheptane sulfonic acid (PFHpS)	mg/L	0.000001					**0.000002**	**0.000002**	**0.000002**
Perfluorooctane sulfonic acid (PFOS)	mg/L	0.000001			0.00013[#4]	**0.00000023[#4]**	**0.00008**	**0.000054**	**0.000058**
Perfluorodecane sulfonic acid (PFDS)	mg/L	0.000002					<0.000002	<0.000002	<0.000002
Perfluorobutanoic acid (PFBA)	mg/L	0.000002					<0.00002	<0.00002	<0.00002
Perfluorohexanoic acid (PFHxA)	mg/L	0.000001					**0.000012**	**0.00001**	**0.00001**
Perfluoropentanoic acid (PFPeA)	mg/L	0.000002					**0.00002**	**0.00001**	**0.00002**
Perfluoroheptanoic acid (PFHpA)	mg/L	0.000001					**0.000007**	**0.000005**	**0.000006**
Perfluorooctanoic acid (PFOA)	mg/L	0.000001			0.22[#4]	**0.019[#4]**	**0.000006**	**0.000005**	**0.000005**
Perfluorodecanoic acid (PFDA)	mg/L	0.000002					<0.000002	<0.000002	<0.000002
Perfluorododecanoic acid (PFDoDA)	mg/L	0.000005					<0.000005	<0.000005	<0.000005
Perfluorononanoic acid (PFNA)	mg/L	0.000001					**0.000002**	**0.000002**	**0.000002**
Perfluorotetradecanoic acid (PFTeDA)	mg/L	0.00005					<0.00005	<0.00005	<0.00005
Perfluorotridecanoic acid (PFTrDA)	mg/L	0.00001					<0.00001	<0.00001	<0.00001
Perfluoroundecanoic acid (PFUnDA)	mg/L	0.000002					<0.000002	<0.000002	<0.000002
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/L	0.000001					<0.000001	<0.000001	<0.000001
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/L	0.000001					<0.000001	<0.000001	<0.000001
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/L	0.000002					<0.000002	<0.000002	<0.000002
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/L	0.000002					<0.000002	<0.000002	<0.000002
Perfluorooctane sulfonamide (FOSA)	mg/L	0.00001					<0.00001	<0.00001	<0.00001
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/L	0.00005					<0.00005	<0.00005	<0.00005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/L	0.000002					<0.000002	<0.000002	<0.000002
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/L	0.00005					<0.00005	<0.00005	<0.00005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/L	0.0001					<0.0001	<0.0001	<0.0001
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/L	0.000002					<0.000002	<0.000002	<0.000002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/L	0.0005					<0.0005	<0.0005	<0.0005
Sum of PFHxS and PFOS	mg/L	0.000001					**0.00012**	**0.000083**	**0.000087**
Sum of PFAS	mg/L	0.000001					**0.00018**	**0.00013**	**0.00014**
Sum of PFAS (PFOS + PFOA)	mg/L	0.000001					**0.000087**	**0.000059**	**0.000063**

Comments
#1 Adopted As(V) criteria (conservative)
#2 Adopted Cr(VI) criteria (conservative)
#3 Adopted Xylene (m) criteria (conservative)
#4 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

Environmental Standards
ANZG, August 2023, ANZG (2018) Freshwater Slightly to Moderately Disturbed Systems DGVs
HEPA, March 2025, PFAS NEMP 2025 Freshwater 95%
HEPA, March 2025, PFAS NEMP 2025 Freshwater 99%
DoE, 2000, ANZECC 2000 SE Aust - Lowland River

Statistics
* A Non Detect Multiplier of 0.5 has been applied.

Table G5: Summary of Laboratory Results Against Sediment Criteria

					Organic		Metals									TRH	PAH	Organochlorine Pesticides								PCB
					Total Organic Carbon	Total Organic Carbon	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Silver	Zinc	C10-C36 Fraction (Sum)	PAHs (Sum of positives)	4,4-DDE	Chlordane (cis)	Chlordane (trans)	DDD	DDT	Dieldrin	Endrin	g-BHC (Lindane)	PCBs (Sum of total)
					mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PQL					100	-	4	0.4	1	1	1	0.1	1	1	1	50	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Toxicant DGV for Sediment Quality (ANZG 2018)							20	1.5	80	65	50	0.15	21	1	200	280	10	0.0014	0.0045	0.0045	0.0035	0.0012	0.0028	0.0027	0.0009	0.034
Toxicant DGV for Sediment Quality (ANZG 2018) GV-high							**70**	**10**	**370**	**270**	**220**	**1**	**52**	**4**	**410**	**550**	**50**	**0.007**	**0.009**	**0.009**	**0.009**	**0.005**	**0.007**	**0.06**	**0.0014**	**0.28**
Sediment results																										
Field ID	**Depth**	**Date**	**Location**	**Matrix Description**																						
SED1	**0 - 0.1**	**15 Apr 2025**	**Up-Stream**	**Clayey Silt**	**32,000**	**3.2**	**9**	<0.4	**12**	**19**	**43**	<0.1	**8**	<1	**170**	<50	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SED2	**0 - 0.1**	**15 Apr 2025**	**Mid-Stream**	**Clayey Silt**	**53,000**	**5.3**	**9**	<0.4	**14**	**33**	**47**	<0.1	**11**	<1	**270**	**250**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SED3	**0 - 0.1**	**15 Apr 2025**	**Down-Stream**	**Clayey Silt**	**26,000**	**2.6**	**11**	<0.4	**16**	**38**	**59**	<0.1	**11**	<1	**190**	<50	**3.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sediment results - normalised to 1% organic carbon as below																										
Field ID	**Depth**	**Date**	**Location**	**Matrix Description**																						
SED1	**0 - 0.1**	**15 Apr 2025**	**Up-Stream**	**Clayey Silt**	**32,000**	**3.2**	**9**	<0.4	**12**	**19**	**43**	<0.1	**8**	<1	**170**	<50	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SED2	**0 - 0.1**	**15 Apr 2025**	**Mid-Stream**	**Clayey Silt**	**53,000**	**5.3**	**9**	<0.4	**14**	**33**	**47**	<0.1	**11**	<1	**270**	**250**	**0.04**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SED3	**0 - 0.1**	**15 Apr 2025**	**Down-Stream**	**Clayey Silt**	**26,000**	**2.6**	**11**	<0.4	**16**	**38**	**59**	<0.1	**11**	<1	**190**	<50	**1.35**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Environmental Standards

ANZECC & ARMCANZ 2000, Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, Canberra., 2020, Toxicant DGV for Sediment Quality (ANZG 2018)

ANZECC & ARMCANZ 2000, Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, Canberra., 2020, Toxicant DGV for Sediment Quality (ANZG 2018) GV-high

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CERTIFICATE OF ANALYSIS 378428

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.00 - Gloucester**
Number of Samples	3 Water
Date samples received	16/04/2025
Date completed instructions received	16/04/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	28/04/2025
Date of Issue	28/04/2025

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Results Approved By
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Priya Samarawickrama, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water				
Our Reference		378428-1	378428-2	378428-3
Your Reference	UNITS	SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Date extracted	-	17/04/2025	17/04/2025	17/04/2025
Date analysed	-	22/04/2025	22/04/2025	22/04/2025
TRH C_6 - C_9	µg/L	<10	<10	<10
TRH C_6 - C_{10}	µg/L	<10	<10	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10
Benzene	µg/L	<1	<1	<1
Toluene	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2
o-xylene	µg/L	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1
Surrogate Dibromofluoromethane	%	93	93	95
Surrogate Toluene-d8	%	95	95	93
Surrogate 4-Bromofluorobenzene	%	107	108	108

svTRH (C10-C40) in Water				
Our Reference		378428-1	378428-2	378428-3
Your Reference	UNITS	SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Date extracted	-	17/04/2025	17/04/2025	17/04/2025
Date analysed	-	17/04/2025	17/04/2025	17/04/2025
TRH C_{10} - C_{14}	µg/L	<50	<50	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50
Surrogate o-Terphenyl	%	85	85	104

PAHs in Water				
Our Reference		378428-1	378428-2	378428-3
Your Reference	UNITS	SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Date extracted	-	17/04/2025	17/04/2025	17/04/2025
Date analysed	-	17/04/2025	17/04/2025	17/04/2025
Naphthalene	µg/L	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	87	93	86

All metals in water - total				
Our Reference		378428-1	378428-2	378428-3
Your Reference	UNITS	SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Date prepared	-	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	22/04/2025	22/04/2025	22/04/2025
Arsenic-Total	µg/L	6	3	4
Beryllium-Total	µg/L	<0.5	<0.5	<0.5
Boron-Total	µg/L	<20	<20	<20
Cadmium-Total	µg/L	<0.1	<0.1	<0.1
Chromium-Total	µg/L	2	1	2
Cobalt-Total	µg/L	<1	<1	<1
Copper-Total	µg/L	13	7	11
Lead-Total	µg/L	13	6	11
Manganese-Total	µg/L	35	66	68
Mercury-Total	µg/L	<0.05	<0.05	<0.05
Nickel-Total	µg/L	2	1	2
Selenium-Total	µg/L	<1	<1	<1
Zinc-Total	µg/L	88	48	68

Miscellaneous Inorganics				
Our Reference		378428-1	378428-2	378428-3
Your Reference	UNITS	SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Date prepared	-	16/04/2025	16/04/2025	16/04/2025
Date analysed	-	16/04/2025	16/04/2025	16/04/2025
pH	pH Units	7.4	7.4	7.4
Electrical Conductivity	µS/cm	190	230	160

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			17/04/2025	1	17/04/2025	23/04/2025		17/04/2025	[NT]
Date analysed	-			22/04/2025	1	22/04/2025	24/04/2025		22/04/2025	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	1	<10	<10	0	114	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	1	<10	<10	0	114	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	109	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	111	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	118	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	117	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	118	[NT]
Naphthalene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	112	1	93	100	7	92	[NT]
Surrogate Toluene-d8	%		Org-023	97	1	95	99	4	92	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	102	1	107	96	11	100	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			17/04/2025	[NT]	[NT]	[NT]	[NT]	17/04/2025	[NT]
Date analysed	-			17/04/2025	[NT]	[NT]	[NT]	[NT]	17/04/2025	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	137	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	133	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	137	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	133	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
Surrogate o-Terphenyl	%		Org-020	116	[NT]	[NT]	[NT]	[NT]	121	[NT]

QUALITY CONTROL: PAHs in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			17/04/2025	[NT]	[NT]	[NT]	[NT]	17/04/2025	[NT]
Date analysed	-			17/04/2025	[NT]	[NT]	[NT]	[NT]	17/04/2025	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	77	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	77	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	79	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	79	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	81	[NT]	[NT]	[NT]	[NT]	89	[NT]

QUALITY CONTROL: All metals in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date prepared	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	[NT]
Date analysed	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	[NT]
Arsenic-Total	µg/L	1	Metals-022	<1	2	3	4	29	103	[NT]
Beryllium-Total	µg/L	0.5	Metals-022	<0.5	2	<0.5	<0.5	0	90	[NT]
Boron-Total	µg/L	20	Metals-022	<20	2	<20	<20	0	86	[NT]
Cadmium-Total	µg/L	0.1	Metals-022	<0.1	2	<0.1	<0.1	0	101	[NT]
Chromium-Total	µg/L	1	Metals-022	<1	2	1	1	0	94	[NT]
Cobalt-Total	µg/L	1	Metals-022	<1	2	<1	<1	0	97	[NT]
Copper-Total	µg/L	1	Metals-022	<1	2	7	8	13	99	[NT]
Lead-Total	µg/L	1	Metals-022	<1	2	6	6	0	107	[NT]
Manganese-Total	µg/L	5	Metals-022	<5	2	66	69	4	92	[NT]
Mercury-Total	µg/L	0.05	Metals-021	<0.05	2	<0.05	[NT]		106	[NT]
Nickel-Total	µg/L	1	Metals-022	<1	2	1	2	67	97	[NT]
Selenium-Total	µg/L	1	Metals-022	<1	2	<1	<1	0	101	[NT]
Zinc-Total	µg/L	1	Metals-022	<1	2	48	49	2	96	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			16/04/2025	[NT]	[NT]	[NT]	[NT]	16/04/2025	[NT]
Date analysed	-			16/04/2025	[NT]	[NT]	[NT]	[NT]	16/04/2025	[NT]
pH	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	101	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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CERTIFICATE OF ANALYSIS 378428-A

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.00 - Gloucester**
Number of Samples	Additional analysis
Date samples received	16/04/2025
Date completed instructions received	28/04/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	05/05/2025
Date of Issue	05/05/2025

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Results Approved By
Dragana Tomas, Senior Chemist
Sean McAlary, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in water				
Our Reference	UNITS	378428-A-1	378428-A-2	378428-A-3
Your Reference		SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Date Extracted	-	17/04/2025	17/04/2025	17/04/2025
Date Analysed	-	05/05/2025	05/05/2025	05/05/2025
Dichlorodifluoromethane	µg/L	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1
Chloroform	µg/L	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Benzene	µg/L	<1	<1	<1
Dibromomethane	µg/L	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1
Toluene	µg/L	<1	<1	<1
1,3-dichloropropane	µg/L	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1

VOCs in water				
Our Reference	UNITS	378428-A-1	378428-A-2	378428-A-3
Your Reference		SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Bromoform	µg/L	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2
Styrene	µg/L	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1
o-xylene	µg/L	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1
Surrogate Dibromofluoromethane	%	98	98	100
Surrogate Toluene-d8	%	99	99	97
Surrogate 4-Bromofluorobenzene	%	97	98	98

PFAS in Water LOW LEVEL Extend				
Our Reference		378428-A-1	378428-A-2	378428-A-3
Your Reference	UNITS	SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Date prepared	-	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	01/05/2025	01/05/2025	01/05/2025
Perfluorobutanesulfonic acid	µg/L	0.007	0.006	0.006
Perfluoropentanesulfonic acid	µg/L	0.004	0.003	0.003
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.039	0.029	0.029
Perfluoroheptanesulfonic acid	µg/L	0.002	0.002	0.002
Perfluorooctanesulfonic acid PFOS	µg/L	0.080	0.054	0.058
Perfluorodecanesulfonic acid	µg/L	<0.002	<0.002	<0.002
Perfluorobutanoic acid	µg/L	<0.02	<0.02	<0.02
Perfluoropentanoic acid	µg/L	0.02	0.01	0.02
Perfluorohexanoic acid	µg/L	0.012	0.01	0.01
Perfluoroheptanoic acid	µg/L	0.007	0.005	0.006
Perfluorooctanoic acid PFOA	µg/L	0.006	0.005	0.005
Perfluorononanoic acid	µg/L	0.002	0.002	0.002
Perfluorodecanoic acid	µg/L	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	µg/L	<0.002	<0.002	<0.002
Perfluorododecanoic acid	µg/L	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	µg/L	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05	<0.05	<0.05
4:2 FTS	µg/L	<0.001	<0.001	<0.001
6:2 FTS	µg/L	<0.001	<0.001	<0.001
8:2 FTS	µg/L	<0.002	<0.002	<0.002
10:2 FTS	µg/L	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	µg/L	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	104	101	101
Surrogate $^{13}C_2$ *PFOA*	%	104	102	102
Extracted ISTD $^{13}C_3$ *PFBS*	%	66	59	61
Extracted ISTD $^{18}O_2$ *PFHxS*	%	138	141	137
Extracted ISTD $^{13}C_4$ *PFOS*	%	110	114	111
Extracted ISTD $^{13}C_4$ *PFBA*	%	22	22	25

PFAS in Water LOW LEVEL Extend				
Our Reference		378428-A-1	378428-A-2	378428-A-3
Your Reference	UNITS	SW1	SW2	SW3
Date Sampled		15/04/2025	15/04/2025	15/04/2025
Type of sample		Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	48	49	49
Extracted ISTD $^{13}C_2$ *PFHxA*	%	68	69	71
Extracted ISTD $^{13}C_4$ *PFHpA*	%	83	85	82
Extracted ISTD $^{13}C_4$ *PFOA*	%	113	118	115
Extracted ISTD $^{13}C_5$ *PFNA*	%	124	131	124
Extracted ISTD $^{13}C_2$ *PFDA*	%	161	161	159
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	154	156	154
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	131	138	134
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	170	168	163
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	131	139	140
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	#	#	#
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	#	#	#
Extracted ISTD $^{13}C_8$ *FOSA*	%	91	90	85
Extracted ISTD d_3 *N MeFOSA*	%	109	105	107
Extracted ISTD d_5 *N EtFOSA*	%	107	103	107
Extracted ISTD d_7 *N MeFOSE*	%	110	105	107
Extracted ISTD d_9 *N EtFOSE*	%	108	103	108
Extracted ISTD d_3 *N MeFOSAA*	%	#	184	186
Extracted ISTD d_5 *N EtFOSAA*	%	#	#	#
Total Positive PFHxS & PFOS	µg/L	0.12	0.083	0.087
Total Positive PFOA & PFOS	µg/L	0.087	0.059	0.063
Total Positive PFAS	µg/L	0.18	0.13	0.14

Method ID	Methodology Summary
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date Extracted	-			17/04/2025	1	17/04/2025	23/04/2025		17/04/2025	[NT]
Date Analysed	-			05/05/2025	1	05/05/2025	24/04/2025		05/05/2025	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	111	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	1	<1	<1	0	115	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	114	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	113	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	114	[NT]
Dibromomethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	113	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	117	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	115	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	120	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	118	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	122	[NT]
Bromoform	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	120	[NT]
Styrene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	121	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	108	1	98	100	2	90	[NT]
Surrogate Toluene-d8	%		Org-023	98	1	99	99	0	90	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	101	1	97	96	1	98	[NT]

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Date analysed	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluoropentanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	93	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	81	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorodecanesulfonic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	82	[NT]
Perfluorobutanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluoropentanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluorohexanoic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluoroheptanoic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorononanoic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	84	[NT]
Perfluorodecanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluoroundecanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorododecanoic acid	µg/L	0.005	Org-029	<0.005	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorotridecanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	138	[NT]
Perfluorotetradecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	88	[NT]
4:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	99	[NT]
6:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	100	[NT]
8:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	94	[NT]
10:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	89	[NT]
Perfluorooctane sulfonamide	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	108	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	124	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	108	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	111	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	99	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	110	[NT]
Surrogate $^{13}C_8$ PFOS	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	97	[NT]
Surrogate $^{13}C_2$ PFOA	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	65	[NT]	[NT]	[NT]	[NT]	65	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	76	[NT]	[NT]	[NT]	[NT]	83	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	87	[NT]	[NT]	[NT]	[NT]	87	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	76	[NT]	[NT]	[NT]	[NT]	80	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	78	[NT]	[NT]	[NT]	[NT]	81	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	86	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	94	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	90	[NT]	[NT]	[NT]	[NT]	89	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	84	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	61	[NT]	[NT]	[NT]	[NT]	63	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	169	[NT]	[NT]	[NT]	[NT]	171	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	122	[NT]	[NT]	[NT]	[NT]	129	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	173	[NT]	[NT]	[NT]	[NT]	182	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	87	[NT]	[NT]	[NT]	[NT]	80	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	111	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	126	[NT]	[NT]	[NT]	[NT]	131	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	157	[NT]	[NT]	[NT]	[NT]	153	[NT]

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions	
Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

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CERTIFICATE OF ANALYSIS 378586

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.02 Gloucester**
Number of Samples	17 Soil
Date samples received	17/04/2025
Date completed instructions received	17/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	29/04/2025
Date of Issue	28/04/2025
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***	

Results Approved By
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Priya Samarawickrama, Senior Chemist
Sean McAlary, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in soil - Low Level						
Our Reference	UNITS	378586-2	378586-5	378586-10	378586-13	378586-14
Your Reference		302	303	306	SED1	SED2
Depth		2.0	2.0	2.5	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date Analysed	-	24/04/2025	24/04/2025	24/04/2025	24/04/2025	24/04/2025
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<0.7	<0.7	<0.7	<0.7	<0.7
1,1-Dichloroethene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,2-Dichloroethene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,2-Dichloroethene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
2,2-Dichloropropane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-Trichloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloropropene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cyclohexane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-Dichloropropene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,3-Dichloropropene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-Trichloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	4	0.6	<0.5	<0.5	<0.5
1,3-Dichloropropane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dibromoethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-Tetrachloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1

VOCs in soil - Low Level						
Our Reference		378586-2	378586-5	378586-10	378586-13	378586-14
Your Reference	UNITS	302	303	306	SED1	SED2
Depth		2.0	2.0	2.5	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Ethylbenzene	mg/kg	9.0	2.6	18	<0.1	<0.1
Bromoform	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
m+p-Xylene	mg/kg	38	11	49	<0.2	<0.2
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-Tetrachloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
o-Xylene	mg/kg	14	3.9	0.1	<0.1	<0.1
1,2,3-Trichloropropane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Isopropylbenzene	mg/kg	1.2	0.4	3.4	<0.1	<0.1
Bromobenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
n-Propylbenzene	mg/kg	5.5	1.8	14	<0.1	<0.1
2-Chlorotoluene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
4-Chlorotoluene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-Trimethylbenzene	mg/kg	11	3.3	20	<0.1	<0.1
tert-Butylbenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-Trimethylbenzene	mg/kg	37	11	74	<0.1	<0.1
1,3-Dichlorobenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
sec-Butylbenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-Dichlorobenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
4-Isopropyltoluene	mg/kg	1.2	0.4	2.3	<0.1	<0.1
1,2-Dichlorobenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
n-Butylbenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-Trichlorobenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-Trichlorobenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate Dibromofluoromethane	%	93	96	90	96	96
Surrogate aaa-Trifluorotoluene	%	80	89	87	76	66
Surrogate Toluene-d_8	%	102	103	106	99	98
Surrogate 4-Bromofluorobenzene	%	101	102	103	98	98

VOCs in soil - Low Level		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date Extracted	-	22/04/2025
Date Analysed	-	24/04/2025
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<0.3
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<0.7
1,1-Dichloroethene	mg/kg	<0.1
trans-1,2-Dichloroethene	mg/kg	<0.1
1,1-Dichloroethane	mg/kg	<0.1
cis-1,2-Dichloroethene	mg/kg	<0.1
Bromochloromethane	mg/kg	<0.5
Chloroform	mg/kg	<0.1
2,2-Dichloropropane	mg/kg	<0.1
1,2-Dichloroethane	mg/kg	<0.1
1,1,1-Trichloroethane	mg/kg	<0.1
1,1-Dichloropropene	mg/kg	<0.1
Cyclohexane	mg/kg	<0.1
Carbon Tetrachloride	mg/kg	<0.1
Benzene	mg/kg	<0.2
Dibromomethane	mg/kg	<0.5
1,2-Dichloropropane	mg/kg	<0.1
Trichloroethene	mg/kg	<0.1
Bromodichloromethane	mg/kg	<0.1
trans-1,3-Dichloropropene	mg/kg	<0.1
cis-1,3-Dichloropropene	mg/kg	<0.1
1,1,2-Trichloroethane	mg/kg	<0.1
Toluene	mg/kg	<0.5
1,3-Dichloropropane	mg/kg	<0.1
Dibromochloromethane	mg/kg	<0.1
1,2-Dibromoethane	mg/kg	<0.1
Tetrachloroethene	mg/kg	<0.1
1,1,1,2-Tetrachloroethane	mg/kg	<0.1
Chlorobenzene	mg/kg	<0.1

VOCs in soil - Low Level		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Ethylbenzene	mg/kg	<0.1
Bromoform	mg/kg	<0.1
m+p-Xylene	mg/kg	<0.2
Styrene	mg/kg	<0.1
1,1,2,2-Tetrachloroethane	mg/kg	<0.1
o-Xylene	mg/kg	<0.1
1,2,3-Trichloropropane	mg/kg	<0.1
Isopropylbenzene	mg/kg	<0.1
Bromobenzene	mg/kg	<0.1
n-Propylbenzene	mg/kg	<0.1
2-Chlorotoluene	mg/kg	<0.1
4-Chlorotoluene	mg/kg	<0.1
1,3,5-Trimethylbenzene	mg/kg	<0.1
tert-Butylbenzene	mg/kg	<0.1
1,2,4-Trimethylbenzene	mg/kg	<0.1
1,3-Dichlorobenzene	mg/kg	<0.1
sec-Butylbenzene	mg/kg	<0.1
1,4-Dichlorobenzene	mg/kg	<0.1
4-Isopropyltoluene	mg/kg	<0.1
1,2-Dichlorobenzene	mg/kg	<0.1
n-Butylbenzene	mg/kg	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	<0.1
1,2,4-Trichlorobenzene	mg/kg	<0.1
Hexachlorobutadiene	mg/kg	<0.1
1,2,3-Trichlorobenzene	mg/kg	<0.1
Surrogate Dibromofluoromethane	%	97
Surrogate aaa-Trifluorotoluene	%	84
Surrogate Toluene-d_8	%	99
Surrogate 4-Bromofluorobenzene	%	98

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	24/04/2025	23/04/2025	24/04/2025	23/04/2025
TRH C_6 - C_9	mg/kg	<25	290	<25	64	<25
TRH C_6 - C_{10}	mg/kg	<25	430	<25	100	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	370	<25	85	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	4	<0.5	0.6	<0.5
Ethylbenzene	mg/kg	<1	9	<1	3	<1
m+p-xylene	mg/kg	<2	38	<2	11	<2
o-Xylene	mg/kg	<1	14	<1	4	<1
Naphthalene	mg/kg	<1	5	<1	1	<1
Total +ve Xylenes	mg/kg	<1	51	<1	15	<1
Surrogate aaa-Trifluorotoluene	%	81	80	86	89	89

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		378586-10	378586-11	378586-12	378586-13	378586-14
Your Reference	UNITS	306	306	D3/SBK	SED1	SED2
Depth		2.5	4.0	-	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	24/04/2025	23/04/2025	23/04/2025	24/04/2025	24/04/2025
TRH C_6 - C_9	mg/kg	530	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	720	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	650	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	18	<1	<1	<1	<1
m+p-xylene	mg/kg	49	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	7	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	49	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	87	92	106	76	66

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date extracted	-	22/04/2025
Date analysed	-	24/04/2025
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	84

svTRH (C10-C40) in Soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
TRH C_{10} - C_{14}	mg/kg	<50	370	<50	120	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	370	<50	120	<50
TRH >C_{10}-C_{16}	mg/kg	<50	240	<50	88	<50
TRH >C_{10}-C_{16} less Naphthalene (F2)	mg/kg	<50	230	<50	87	<50
TRH >C_{16}-C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34}-C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	240	<50	90	<50
Surrogate o-Terphenyl	%	100	106	96	98	95

svTRH (C10-C40) in Soil						
Our Reference		378586-10	378586-11	378586-12	378586-13	378586-14
Your Reference	UNITS	306	306	D3/SBK	SED1	SED2
Depth		2.5	4.0	-	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
TRH C_{10} - C_{14}	mg/kg	560	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	250
Total +ve TRH (C10-C36)	mg/kg	560	<50	<50	<50	250
TRH >C_{10}-C_{16}	mg/kg	360	<50	<50	<50	<50
TRH >C_{10}-C_{16} less Naphthalene (F2)	mg/kg	350	<50	<50	<50	<50
TRH >C_{16}-C_{34}	mg/kg	<100	<100	<100	<100	240
TRH >C_{34}-C_{40}	mg/kg	<100	<100	<100	<100	310
Total +ve TRH (>C10-C40)	mg/kg	360	<50	<50	<50	550
Surrogate o-Terphenyl	%	105	93	95	100	97

svTRH (C10-C40) in Soil		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date extracted	-	22/04/2025
Date analysed	-	23/04/2025
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	140
Total +ve TRH (>C10-C40)	mg/kg	140
Surrogate o-Terphenyl	%	95

PAHs in Soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Naphthalene	mg/kg	<0.1	4.5	<0.1	1.2	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	4.5	<0.05	1.2	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	102	102	102	104	103

PAHs in Soil						
Our Reference		378586-10	378586-11	378586-12	378586-13	378586-14
Your Reference	UNITS	306	306	D3/SBK	SED1	SED2
Depth		2.5	4.0	-	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Naphthalene	mg/kg	6.5	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.09
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	6.5	<0.05	<0.05	<0.05	0.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	98	100	100	108	118

PAHs in Soil		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date extracted	-	22/04/2025
Date analysed	-	23/04/2025
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	0.4
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	0.5
Pyrene	mg/kg	0.6
Benzo(a)anthracene	mg/kg	0.2
Chrysene	mg/kg	0.4
Benzo(b,j+k)fluoranthene	mg/kg	0.5
Benzo(a)pyrene	mg/kg	0.4
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2
Total +ve PAH's	mg/kg	3.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.6
Surrogate p-Terphenyl-d14	%	112

Organochlorine Pesticides in soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	129	130	127	128	126

Organochlorine Pesticides in soil						
Our Reference		378586-10	378586-11	378586-12	378586-13	378586-14
Your Reference	UNITS	306	306	D3/SBK	SED1	SED2
Depth		2.5	4.0	-	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	124	129	121	129	137

Organochlorine Pesticides in soil		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date extracted	-	22/04/2025
Date analysed	-	23/04/2025
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Mirex	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1
Surrogate 4-Chloro-3-NBTF	%	137

Organophosphorus Pesticides in Soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	129	130	127	128	126

Organophosphorus Pesticides in Soil						
Our Reference		378586-10	378586-11	378586-12	378586-13	378586-14
Your Reference	UNITS	306	306	D3/SBK	SED1	SED2
Depth		2.5	4.0	-	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	124	129	121	129	137

Organophosphorus Pesticides in Soil		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date extracted	-	22/04/2025
Date analysed	-	23/04/2025
Dichlorvos	mg/kg	<0.1
Mevinphos	mg/kg	<0.1
Phorate	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Disulfoton	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Parathion-Methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Fenthion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Methidathion	mg/kg	<0.1
Fenamiphos	mg/kg	<0.1
Ethion	mg/kg	<0.1
Phosalone	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Coumaphos	mg/kg	<0.1
Surrogate 4-Chloro-3-NBTF	%	137

PCBs in Soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	125	126	123	126	123

PCBs in Soil						
Our Reference		378586-10	378586-11	378586-12	378586-13	378586-14
Your Reference	UNITS	306	306	D3/SBK	SED1	SED2
Depth		2.5	4.0	-	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	121	123	122	128	134

PCBs in Soil		
Our Reference		378586-15
Your Reference	UNITS	SED3
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date extracted	-	22/04/2025
Date analysed	-	23/04/2025
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate 2-Fluorobiphenyl	%	130

Acid Extractable metals in soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Arsenic	mg/kg	10	5	6	<4	<4
Boron	mg/kg	<10	<10	<10	<10	<10
Beryllium	mg/kg	<1	<1	<1	<1	<1
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	8	31	16	16
Copper	mg/kg	9	9	19	8	10
Cobalt	mg/kg	6	4	9	5	10
Iron	mg/kg	32,000	18,000	28,000	19,000	28,000
Lead	mg/kg	9	9	10	12	11
Manganese	mg/kg	150	130	350	150	290
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	5	5	15	7	11
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Zinc	mg/kg	47	35	47	38	57

Acid Extractable metals in soil						
Our Reference		378586-10	378586-11	378586-12	378586-13	378586-14
Your Reference	UNITS	306	306	D3/SBK	SED1	SED2
Depth		2.5	4.0	-	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Arsenic	mg/kg	6	<4	<4	9	9
Boron	mg/kg	<10	<10	<10	<10	<10
Beryllium	mg/kg	<1	<1	<1	<1	<1
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	16	12	12	14
Copper	mg/kg	9	10	15	19	33
Cobalt	mg/kg	5	4	5	10	12
Iron	mg/kg	17,000	13,000	12,000	24,000	33,000
Lead	mg/kg	8	10	12	43	47
Manganese	mg/kg	370	130	120	380	490
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	3	<1	<1	<1
Nickel	mg/kg	6	5	6	8	11
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Zinc	mg/kg	31	35	49	170	270

Acid Extractable metals in soil			
Our Reference		378586-15	378586-18
Your Reference	UNITS	SED3	302 - [TRIPLICATE]
Depth		0-0.1	2.0
Date Sampled		15/04/2025	14/04/2025
Type of sample		Soil	Soil
Date prepared	-	22/04/2025	22/04/2025
Date analysed	-	22/04/2025	22/04/2025
Arsenic	mg/kg	11	6
Boron	mg/kg	<10	<10
Beryllium	mg/kg	<1	<1
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	16	9
Copper	mg/kg	38	10
Cobalt	mg/kg	12	5
Iron	mg/kg	32,000	20,000
Lead	mg/kg	59	11
Manganese	mg/kg	720	190
Mercury	mg/kg	<0.1	<0.1
Molybdenum	mg/kg	1	<1
Nickel	mg/kg	11	6
Selenium	mg/kg	<2	<2
Silver	mg/kg	<1	<1
Zinc	mg/kg	190	37

Moisture						
Our Reference		378586-1	378586-2	378586-3	378586-4	378586-5
Your Reference	UNITS	301	302	302	302	303
Depth		3.0	2.0	2.5	3.0	2.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Moisture	%	17	10	6.1	12	8.7

Moisture						
Our Reference		378586-6	378586-7	378586-8	378586-9	378586-10
Your Reference	UNITS	304	304	305	306	306
Depth		3.5	4.0	1.5	1.5	2.5
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Moisture	%	18	9.2	15	8.4	10

Moisture						
Our Reference		378586-11	378586-12	378586-13	378586-14	378586-15
Your Reference	UNITS	306	D3/SBK	SED1	SED2	SED3
Depth		4.0	-	0-0.1	0-0.1	0-0.1
Date Sampled		14/04/2025	14/04/2025	15/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	22/04/2025	22/04/2025	22/04/2025	22/04/2025	22/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Moisture	%	12	17	38	51	30

PFAS in Soils Extended						
Our Reference		378586-1	378586-3	378586-5	378586-6	378586-8
Your Reference	UNITS	301	302	303	304	305
Depth		3.0	2.5	2.0	3.5	1.5
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/04/2025	24/04/2025	24/04/2025	24/04/2025	24/04/2025
Date analysed	-	24/04/2025	24/04/2025	24/04/2025	24/04/2025	24/04/2025
Perfluorobutanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanesulfonic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	µg/kg	<5	<5	<5	<5	<5
4:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	98	98	103	104	97
Surrogate $^{13}C_2$ *PFOA*	%	101	104	98	97	96
Extracted ISTD $^{13}C_3$ *PFBS*	%	98	96	92	89	92
Extracted ISTD $^{18}O_2$ *PFHxS*	%	99	96	100	90	96
Extracted ISTD $^{13}C_4$ *PFOS*	%	96	101	97	94	97

PFAS in Soils Extended						
Our Reference		378586-1	378586-3	378586-5	378586-6	378586-8
Your Reference	UNITS	301	302	303	304	305
Depth		3.0	2.5	2.0	3.5	1.5
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	97	100	99	92	96
Extracted ISTD $^{13}C_3$ *PFPeA*	%	96	98	99	91	94
Extracted ISTD $^{13}C_2$ *PFHxA*	%	98	99	101	91	94
Extracted ISTD $^{13}C_4$ *PFHpA*	%	98	99	99	93	95
Extracted ISTD $^{13}C_4$ *PFOA*	%	100	101	102	96	99
Extracted ISTD $^{13}C_5$ *PFNA*	%	101	102	102	97	98
Extracted ISTD $^{13}C_2$ *PFDA*	%	98	103	101	97	99
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	103	101	103	96	100
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	108	106	106	104	100
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	120	117	123	111	109
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	103	105	108	98	101
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	100	99	103	88	96
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	102	100	107	98	112
Extracted ISTD $^{13}C_8$ *FOSA*	%	106	111	108	103	105
Extracted ISTD d_3 *N MeFOSA*	%	102	102	100	93	99
Extracted ISTD d_5 *N EtFOSA*	%	96	100	100	94	96
Extracted ISTD d_7 *N MeFOSE*	%	100	105	101	98	94
Extracted ISTD d_9 *N EtFOSE*	%	102	103	101	98	102
Extracted ISTD d_3 *N MeFOSAA*	%	97	102	99	94	96
Extracted ISTD d_5 *N EtFOSAA*	%	93	103	93	86	89
Total Positive PFHxS & PFOS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive PFOS & PFOA	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive PFAS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1

PFAS in Soils Extended					
Our Reference		378586-9	378586-13	378586-14	378586-15
Your Reference	UNITS	306	SED1	SED2	SED3
Depth		1.5	0-0.1	0-0.1	0-0.1
Date Sampled		14/04/2025	15/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	24/04/2025	24/04/2025	24/04/2025	24/04/2025
Date analysed	-	24/04/2025	24/04/2025	24/04/2025	24/04/2025
Perfluorobutanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<0.1	0.7	1	0.2
Perfluoroheptanesulfonic acid	µg/kg	<0.1	0.2	0.2	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	<0.1	10	12	2.5
Perfluorodecanesulfonic acid	µg/kg	<0.2	1	0.9	0.2
Perfluorobutanoic acid	µg/kg	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	µg/kg	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	µg/kg	<5	<5	<5	<5
4:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2
10:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	101	103	106	102
Surrogate $^{13}C_2$ *PFOA*	%	100	97	91	93
Extracted ISTD $^{13}C_3$ *PFBS*	%	100	79	78	85
Extracted ISTD $^{18}O_2$ *PFHxS*	%	98	86	82	86
Extracted ISTD $^{13}C_4$ *PFOS*	%	100	89	88	86

PFAS in Soils Extended					
Our Reference		378586-9	378586-13	378586-14	378586-15
Your Reference	UNITS	306	SED1	SED2	SED3
Depth		1.5	0-0.1	0-0.1	0-0.1
Date Sampled		14/04/2025	15/04/2025	15/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	99	79	78	84
Extracted ISTD $^{13}C_3$ *PFPeA*	%	99	86	83	83
Extracted ISTD $^{13}C_2$ *PFHxA*	%	99	86	83	85
Extracted ISTD $^{13}C_4$ *PFHpA*	%	100	86	81	85
Extracted ISTD $^{13}C_4$ *PFOA*	%	101	95	97	99
Extracted ISTD $^{13}C_5$ *PFNA*	%	104	95	91	95
Extracted ISTD $^{13}C_2$ *PFDA*	%	104	95	92	97
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	107	88	88	96
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	117	92	78	92
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	146	112	100	116
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	105	99	110	105
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	97	111	115	124
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	107	125	139	140
Extracted ISTD $^{13}C_8$ *FOSA*	%	110	84	76	83
Extracted ISTD d_3 *N MeFOSA*	%	102	78	67	78
Extracted ISTD d_5 *N EtFOSA*	%	99	80	70	80
Extracted ISTD d_7 *N MeFOSE*	%	103	86	69	83
Extracted ISTD d_9 *N EtFOSE*	%	102	91	89	93
Extracted ISTD d_3 *N MeFOSAA*	%	100	147	114	126
Extracted ISTD d_5 *N EtFOSAA*	%	101	93	92	106
Total Positive PFHxS & PFOS	µg/kg	<0.1	11	13	2.7
Total Positive PFOS & PFOA	µg/kg	<0.1	10	12	2.5
Total Positive PFAS	µg/kg	<0.1	12	14	2.9

Misc Inorg - Soil						
Our Reference		378586-1	378586-2	378586-4	378586-5	378586-7
Your Reference	UNITS	301	302	302	303	304
Depth		3.0	2.0	3.0	2.0	4.0
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
pH 1:5 soil:water	pH Units	8.6	8.3	8.4	8.7	8.4
Electrical Conductivity 1:5 soil:water	µS/cm	33	27	25	34	21

Misc Inorg - Soil						
Our Reference		378586-8	378586-10	378586-11	378586-12	378586-13
Your Reference	UNITS	305	306	306	D3/SBK	SED1
Depth		1.5	2.5	4.0	-	0-0.1
Date Sampled		14/04/2025	14/04/2025	14/04/2025	14/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
Date analysed	-	23/04/2025	23/04/2025	23/04/2025	23/04/2025	23/04/2025
pH 1:5 soil:water	pH Units	8.9	8.6	8.4	8.5	6.2
Electrical Conductivity 1:5 soil:water	µS/cm	86	19	20	29	50
Total Organic Carbon in soil/solids	mg/kg	[NA]	[NA]	[NA]	[NA]	32,000

Misc Inorg - Soil			
Our Reference		378586-14	378586-15
Your Reference	UNITS	SED2	SED3
Depth		0-0.1	0-0.1
Date Sampled		15/04/2025	15/04/2025
Type of sample		Soil	Soil
Date prepared	-	23/04/2025	23/04/2025
Date analysed	-	23/04/2025	23/04/2025
pH 1:5 soil:water	pH Units	5.9	6.8
Electrical Conductivity 1:5 soil:water	µS/cm	71	71
Total Organic Carbon in soil/solids	mg/kg	53,000	26,000

CEC				
Our Reference		378586-5	378586-11	378586-13
Your Reference	UNITS	303	306	SED1
Depth		2.0	4.0	0-0.1
Date Sampled		14/04/2025	14/04/2025	15/04/2025
Type of sample		Soil	Soil	Soil
Date prepared	-	28/04/2025	28/04/2025	28/04/2025
Date analysed	-	28/04/2025	28/04/2025	28/04/2025
Exchangeable Ca	meq/100g	2.6	4.9	7.6
Exchangeable K	meq/100g	<0.1	0.2	0.3
Exchangeable Mg	meq/100g	3.3	5.0	3.3
Exchangeable Na	meq/100g	0.6	0.2	<0.1
Cation Exchange Capacity	meq/100g	6.6	10	11

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
INORG-137	Total Carbon Nitrogen Sulfur by high temperature catalytic combustion with IR detection. Total Nitrogen may also be determine from TKN+NOx by calculation.
Metals-020	Determination of various metals by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in soil - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date Extracted	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date Analysed	-			23/04/2025	2	24/04/2025	24/04/2025		23/04/2025	23/04/2025
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	0.3	Org-023	<0.3	2	<0.3	<0.3	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	0.7	Org-023	<0.7	2	<0.7	<0.7	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
trans-1,2-Dichloroethene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,1-Dichloroethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	113	117
cis-1,2-Dichloroethene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Bromochloromethane	mg/kg	0.5	Org-023	<0.5	2	<0.5	<0.5	0	[NT]	[NT]
Chloroform	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	117	117
2,2-Dichloropropane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2-Dichloroethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	106	108
1,1,1-Trichloroethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	118	119
1,1-Dichloropropene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Cyclohexane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Carbon Tetrachloride	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	2	<0.2	0.8	120	109	111
Dibromomethane	mg/kg	0.5	Org-023	<0.5	2	<0.5	<0.5	0	[NT]	[NT]
1,2-Dichloropropane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Trichloroethene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	112	113
Bromodichloromethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	106	105
trans-1,3-Dichloropropene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
cis-1,3-Dichloropropene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,1,2-Trichloroethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	2	4	13	106	106	119
1,3-Dichloropropane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dibromochloromethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	98	97
1,2-Dibromoethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Tetrachloroethene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	113	113
1,1,1,2-Tetrachloroethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chlorobenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ethylbenzene	mg/kg	0.1	Org-023	<0.1	2	9.0	22	84	110	#
Bromoform	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
m+p-Xylene	mg/kg	0.2	Org-023	<0.2	2	38	110	97	108	#
Styrene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,1,2,2-Tetrachloroethane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
o-Xylene	mg/kg	0.1	Org-023	<0.1	2	14	36	88	111	#
1,2,3-Trichloropropane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Isopropylbenzene	mg/kg	0.1	Org-023	<0.1	2	1.2	2.6	74	[NT]	[NT]
Bromobenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
n-Propylbenzene	mg/kg	0.1	Org-023	<0.1	2	5.5	11	67	[NT]	[NT]
2-Chlorotoluene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
4-Chlorotoluene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,3,5-Trimethylbenzene	mg/kg	0.1	Org-023	<0.1	2	11	19	53	[NT]	[NT]
tert-Butylbenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2,4-Trimethylbenzene	mg/kg	0.1	Org-023	<0.1	2	37	69	60	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
sec-Butylbenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
4-Isopropyltoluene	mg/kg	0.1	Org-023	<0.1	2	1.2	2.0	50	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
n-Butylbenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2-Dibromo-3-chloropropane	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Hexachlorobutadiene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	95	2	93	91	2	99	97
Surrogate aaa-Trifluorotoluene	%		Org-023	92	2	80	77	4	114	105
Surrogate Toluene-d_8	%		Org-023	99	2	102	103	1	103	102
Surrogate 4-Bromofluorobenzene	%		Org-023	100	2	101	102	1	104	102

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date extracted	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date analysed	-			24/04/2025	2	24/04/2025	24/04/2025		23/04/2025	23/04/2025
TRH C_6 - C_9	mg/kg	25	Org-023	<25	2	290	500	53	108	#
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	2	430	750	54	108	#
Benzene	mg/kg	0.2	Org-023	<0.2	2	<0.2	0.8	120	109	111
Toluene	mg/kg	0.5	Org-023	<0.5	2	4	13	106	106	119
Ethylbenzene	mg/kg	1	Org-023	<1	2	9	22	84	110	#
m+p-xylene	mg/kg	2	Org-023	<2	2	38	110	97	108	#
o-Xylene	mg/kg	1	Org-023	<1	2	14	36	88	111	#
Naphthalene	mg/kg	1	Org-023	<1	2	5	7	33	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	92	2	80	77	4	114	105

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date extracted	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date analysed	-			22/04/2025	2	23/04/2025	23/04/2025		23/04/2025	23/04/2025
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	2	370	440	17	128	84
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	2	<100	<100	0	100	98
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	2	<100	<100	0	100	78
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	2	240	280	15	128	84
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	2	<100	<100	0	100	98
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	2	<100	<100	0	100	78
Surrogate o-Terphenyl	%		Org-020	101	2	106	105	1	128	120

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date extracted	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date analysed	-			23/04/2025	2	23/04/2025	23/04/2025		23/04/2025	23/04/2025
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	2	4.5	5.5	20	94	#
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	94	88
Fluorene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	86	84
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	88	88
Anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	88	86
Pyrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	80	78
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	80	78
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	2	<0.05	<0.05	0	94	86
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	99	2	102	101	1	96	140

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date extracted	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date analysed	-			23/04/2025	2	23/04/2025	23/04/2025		23/04/2025	23/04/2025
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	104	96
HCB	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	110	98
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	106	88
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	98	92
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	114	106
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	84	82
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	106	98
Endrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	104	98
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	84	82
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	100	94
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	137	2	130	126	3	125	117

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date extracted	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date analysed	-			23/04/2025	2	23/04/2025	23/04/2025		23/04/2025	23/04/2025
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	126	116
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	110	102
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	108	102
Malathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	130	120
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	108	104
Fenthion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	100	91
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	92	90
Phosalone	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	137	2	130	126	3	125	117

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date extracted	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date analysed	-			23/04/2025	2	23/04/2025	23/04/2025		23/04/2025	23/04/2025
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	2	<0.1	<0.1	0	84	80
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	129	2	126	124	2	105	101

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	378586-5
Date prepared	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Date analysed	-			22/04/2025	2	22/04/2025	22/04/2025		22/04/2025	22/04/2025
Arsenic	mg/kg	4	Metals-020	<4	2	5	7	33	118	98
Boron	mg/kg	10	Metals-020	<10	2	<10	<10	0	116	101
Beryllium	mg/kg	1	Metals-020	<1	2	<1	<1	0	113	101
Cadmium	mg/kg	0.4	Metals-020	<0.4	2	<0.4	<0.4	0	111	94
Chromium	mg/kg	1	Metals-020	<1	2	8	9	12	111	91
Copper	mg/kg	1	Metals-020	<1	2	9	10	11	109	97
Cobalt	mg/kg	1	Metals-020	<1	2	4	6	40	111	96
Iron	mg/kg	10	Metals-020	<10	2	18000	22000	20	105	#
Lead	mg/kg	1	Metals-020	<1	2	9	12	29	111	92
Manganese	mg/kg	1	Metals-020	<1	2	130	300	79	120	##
Mercury	mg/kg	0.1	Metals-021	<0.1	2	<0.1	<0.1	0	112	119
Molybdenum	mg/kg	1	Metals-020	<1	2	<1	<1	0	110	96
Nickel	mg/kg	1	Metals-020	<1	2	5	6	18	110	93
Selenium	mg/kg	2	Metals-020	<2	2	<2	<2	0	96	82
Silver	mg/kg	1	Metals-020	<1	2	<1	<1	0	86	88
Zinc	mg/kg	1	Metals-020	<1	2	35	38	8	109	81

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	378586-5
Date prepared	-			24/04/2025	3	24/04/2025	24/04/2025		24/04/2025	24/04/2025
Date analysed	-			24/04/2025	3	24/04/2025	24/04/2025		24/04/2025	24/04/2025
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	100	94
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	102	99
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	101	97
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	102	103
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	3	<0.1	0.2	67	99	100
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	3	<0.2	<0.2	0	106	101
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	3	<0.2	<0.2	0	98	98
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	3	<0.2	<0.2	0	105	106
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	101	102
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	97	99
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	100	98
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	102	99
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	3	<0.5	<0.5	0	102	102
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	3	<0.5	<0.5	0	105	104
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	3	<0.5	<0.5	0	101	95
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	3	<0.5	<0.5	0	80	82
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	3	<5	<5	0	85	84
4:2 FTS	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	90	94
6:2 FTS	µg/kg	0.1	Org-029	<0.1	3	<0.1	<0.1	0	111	106
8:2 FTS	µg/kg	0.2	Org-029	<0.2	3	<0.2	<0.2	0	96	91
10:2 FTS	µg/kg	0.2	Org-029	<0.2	3	<0.2	<0.2	0	96	98
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	3	<1	<1	0	94	102
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	3	<1	<1	0	105	107
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	3	<1	<1	0	104	101
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	3	<1	<1	0	110	102
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	3	<5	<5	0	109	108
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	3	<0.2	<0.2	0	107	103
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	3	<0.2	<0.2	0	103	99
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	102	3	98	101	3	100	100
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	101	3	104	99	5	102	99

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	378586-5
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	101	3	96	96	0	100	96
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	102	3	96	95	1	101	98
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	99	3	101	96	5	103	99
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	103	3	100	97	3	102	97
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	102	3	98	95	3	100	95
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	103	3	99	96	3	103	99
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	102	3	99	97	2	104	98
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	105	3	101	99	2	103	100
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	107	3	102	100	2	106	103
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	108	3	103	99	4	103	98
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	108	3	101	99	2	105	102
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	111	3	106	103	3	109	105
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	125	3	117	116	1	124	117
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	114	3	105	104	1	112	99
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	106	3	99	96	3	98	97
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	114	3	100	93	7	109	101
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	110	3	111	105	6	107	101
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	104	3	102	100	2	105	100
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	105	3	100	99	1	103	99
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	107	3	105	97	8	105	103

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	378586-5
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	104	3	103	98	5	105	104
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	112	3	102	102	0	102	100
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	95	3	103	93	10	100	97

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/04/2025	1	23/04/2025	23/04/2025		23/04/2025	[NT]
Date analysed	-			23/04/2025	1	23/04/2025	23/04/2025		23/04/2025	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	1	8.6	8.5	1	101	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	1	33	32	3	95	[NT]
Total Organic Carbon in soil/solids	mg/kg	100	INORG-137	<100	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	10	23/04/2025	23/04/2025		[NT]	[NT]
Date analysed	-			[NT]	10	23/04/2025	23/04/2025		[NT]	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	10	8.6	8.5	1	[NT]	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	[NT]	10	19	24	23	[NT]	[NT]

QUALITY CONTROL: CEC					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			28/04/2025	13	28/04/2025	28/04/2025		28/04/2025	[NT]
Date analysed	-			28/04/2025	13	28/04/2025	28/04/2025		28/04/2025	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	[NT]	13	7.6	6.5	16	88	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	[NT]	13	0.3	0.3	0	98	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	[NT]	13	3.3	2.8	16	95	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	[NT]	13	<0.1	<0.1	0	88	[NT]

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

VOC_S_LL:
Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 378586-5ms have caused interference.
vTRH & BTEXN in Soil NEPM - The RPD for duplicate results is accepted due to the non homogenous nature of sample 378586-2.
TRH_BTEX_S_V_NEPM:
Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 378586-5ms have caused interference.
vTRH & BTEXN in Soil NEPM - The RPD for duplicate results is accepted due to the non homogenous nature of sample 378586-2.

Acid Extractable Metals in Soil:
-The laboratory RPD acceptance criteria has been exceeded for 378586-2 for Mn. Therefore a triplicate result has been issued as laboratory sample number 378586-18.
-# Percent recovery is not applicable due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.
-## Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

MISC_INORG_DRY: pH/EC
Samples were out of the recommended holding time for this analysis.

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CERTIFICATE OF ANALYSIS 378586-A

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.02 Gloucester**
Number of Samples	Additional analysis 1 sample
Date samples received	17/04/2025
Date completed instructions received	08/05/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	15/05/2025
Date of Issue	15/05/2025

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Results Approved By
Sean McAlary, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

PFAS in TCLP Extended		
Our Reference		378586-A-14
Your Reference	UNITS	SED2
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Date prepared	-	12/05/2025
Date analysed	-	12/05/2025
pH of soil for fluid# determ.	pH units	5.6
pH of soil TCLP (after HCl)	pH units	1.9
Extraction fluid used		1
pH of final Leachate	pH units	4.9
Perfluorobutanesulfonic acid	µg/L	<0.01
Perfluoropentanesulfonic acid	µg/L	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01
Perfluoroheptanesulfonic acid	µg/L	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.07
Perfluorodecanesulfonic acid	µg/L	<0.02
Perfluorobutanoic acid	µg/L	<0.02
Perfluoropentanoic acid	µg/L	<0.02
Perfluorohexanoic acid	µg/L	<0.01
Perfluoroheptanoic acid	µg/L	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01
Perfluorononanoic acid	µg/L	<0.01
Perfluorodecanoic acid	µg/L	<0.02
Perfluoroundecanoic acid	µg/L	<0.02
Perfluorododecanoic acid	µg/L	<0.05
Perfluorotridecanoic acid	µg/L	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5
4:2 FTS	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.02
10:2 FTS	µg/L	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic aci	µg/L	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	97

PFAS in TCLP Extended		
Our Reference		378586-A-14
Your Reference	UNITS	SED2
Depth		0-0.1
Date Sampled		15/04/2025
Type of sample		Soil
Surrogate $^{13}C_2$ *PFOA*	%	100
Extracted ISTD $^{13}C_3$ *PFBS*	%	93
Extracted ISTD $^{18}O_2$ *PFHxS*	%	104
Extracted ISTD $^{13}C_4$ *PFOS*	%	106
Extracted ISTD $^{13}C_4$ *PFBA*	%	85
Extracted ISTD $^{13}C_3$ *PFPeA*	%	92
Extracted ISTD $^{13}C_2$ *PFHxA*	%	95
Extracted ISTD $^{13}C_4$ *PFHpA*	%	100
Extracted ISTD $^{13}C_4$ *PFOA*	%	95
Extracted ISTD $^{13}C_5$ *PFNA*	%	98
Extracted ISTD $^{13}C_2$ *PFDA*	%	102
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	100
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	96
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	79
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	64
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	89
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	101
Extracted ISTD $^{13}C_8$ *FOSA*	%	117
Extracted ISTD d_3 *N MeFOSA*	%	102
Extracted ISTD d_5 *N EtFOSA*	%	101
Extracted ISTD d_7 *N MeFOSE*	%	103
Extracted ISTD d_9 *N EtFOSE*	%	102
Extracted ISTD d_3 *N MeFOSAA*	%	99
Extracted ISTD d_5 *N EtFOSAA*	%	99
Total Positive PFHxS & PFOS	µg/L	0.07
Total Positive PFOS & PFOA	µg/L	0.07
Total Positive PFAS	µg/L	0.07

Method ID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439. Please note that the mass used may be scaled down from default based on sample mass available. Samples are stored at 2-6oC before and after leachate preparation.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in TCLP Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			12/05/2025	[NT]	[NT]	[NT]	[NT]	12/05/2025	[NT]
Date analysed	-			12/05/2025	[NT]	[NT]	[NT]	[NT]	12/05/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	91	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	91	[NT]
4:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	92	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	95	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	92	[NT]
10:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	104	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	113	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	98	[NT]
MePerfluorooctanesulf- amid oacetic aci	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	99	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	95	[NT]
Surrogate $^{13}C_8$ PFOS	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate $^{13}C_2$ PFOA	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: PFAS in TCLP Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_3$ PFBS	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{18}O_2$ PFHxS	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_4$ PFOS	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_4$ PFBA	%		Org-029	88	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD $^{13}C_3$ PFPeA	%		Org-029	90	[NT]	[NT]	[NT]	[NT]	87	[NT]
Extracted ISTD $^{13}C_2$ PFHxA	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_4$ PFHpA	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_4$ PFOA	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_5$ PFNA	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_2$ PFDA	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_2$ PFUnDA	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD $^{13}C_2$ PFDoDA	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{13}C_2$ PFTeDA	%		Org-029	80	[NT]	[NT]	[NT]	[NT]	84	[NT]
Extracted ISTD $^{13}C_2$ 4:2FTS	%		Org-029	68	[NT]	[NT]	[NT]	[NT]	64	[NT]
Extracted ISTD $^{13}C_2$ 6:2FTS	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	90	[NT]
Extracted ISTD $^{13}C_2$ 8:2FTS	%		Org-029	111	[NT]	[NT]	[NT]	[NT]	109	[NT]
Extracted ISTD $^{13}C_8$ FOSA	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	109	[NT]
Extracted ISTD d_3 N MeFOSA	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD d_5 N EtFOSA	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD d_7 N MeFOSE	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: PFAS in TCLP Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	101	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

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CERTIFICATE OF ANALYSIS 378586-B

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.02 Gloucester**
Number of Samples	Additional analysis
Date samples received	17/04/2025
Date completed instructions received	14/05/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	21/05/2025
Date of Issue	21/05/2025

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Results Approved By
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

svTRH (C10-C40) in Soil NEPM Silica gel			
Our Reference		378586-B-14	378586-B-15
Your Reference	UNITS	SED2	SED3
Depth		0-0.1	0-0.1
Date Sampled		15/04/2025	15/04/2025
Type of sample		Soil	Soil
Date extracted	-	15/05/2025	15/05/2025
Date analysed	-	21/05/2025	21/05/2025
TRH (Silica) C_{10} - C_{14}	mg/kg	<50	<50
TRH (Silica) C_{15} - C_{28}	mg/kg	<100	<100
TRH (Silica) C_{29} - C_{36}	mg/kg	<100	<100
TRH (Silica) >C_{10} -C_{16}	mg/kg	<50	<50
TRH (Silica) >C_{16} -C_{34}	mg/kg	<100	<100
TRH (Silica) >C_{34} -C_{40}	mg/kg	<100	<100
Surrogate 1-Chlorooctadecane	%	76	88

Method ID	Methodology Summary
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.

QUALITY CONTROL: svTRH (C10-C40) in Soil NEPM Silica gel						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			15/05/2025	14	15/05/2025	15/05/2025		15/05/2025	[NT]
Date analysed	-			21/05/2025	14	21/05/2025	21/05/2025		21/05/2025	[NT]
TRH (Silica) C_{10} - C_{14}	mg/kg	50	Org-020	<50	14	<50	<50	0	76	[NT]
TRH (Silica) C_{15} - C_{28}	mg/kg	100	Org-020	<100	14	<100	<100	0	80	[NT]
TRH (Silica) C_{29} - C_{36}	mg/kg	100	Org-020	<100	14	<100	<100	0	86	[NT]
TRH (Silica) >C_{10}-C_{16}	mg/kg	50	Org-020	<50	14	<50	<50	0	76	[NT]
TRH (Silica) >C_{16}-C_{34}	mg/kg	100	Org-020	<100	14	<100	<100	0	80	[NT]
TRH (Silica) >C_{34}-C_{40}	mg/kg	100	Org-020	<100	14	<100	<100	0	86	[NT]
Surrogate 1-Chlorooctadecane	%		Org-020	80	14	76	75	1	84	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil NEPM Silica gel						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	15	15/05/2025	15/05/2025		[NT]	[NT]
Date analysed	-			[NT]	15	21/05/2025	21/05/2025		[NT]	[NT]
TRH (Silica) C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	15	<50	<50	0	[NT]	[NT]
TRH (Silica) C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	15	<100	<100	0	[NT]	[NT]
TRH (Silica) C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	15	<100	<100	0	[NT]	[NT]
TRH (Silica) >C_{10}-C_{16}	mg/kg	50	Org-020	[NT]	15	<50	<50	0	[NT]	[NT]
TRH (Silica) >C_{16}-C_{34}	mg/kg	100	Org-020	[NT]	15	<100	<100	0	[NT]	[NT]
TRH (Silica) >C_{34}-C_{40}	mg/kg	100	Org-020	[NT]	15	<100	<100	0	[NT]	[NT]
Surrogate 1-Chlorooctadecane	%		Org-020	[NT]	15	88	89	1	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

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Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

Samples received in good order: Holding time exceedance

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
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CERTIFICATE OF ANALYSIS 378827

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.02 Gloucester**
Number of Samples	2 Soil
Date samples received	23/04/2025
Date completed instructions received	23/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	01/05/2025
Date of Issue	01/05/2025

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Jack Wallis, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in soil - Low Level			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date Extracted	-	24/04/2025	24/04/2025
Date Analysed	-	28/04/2025	28/04/2025
Dichlorodifluoromethane	mg/kg	<1	<1
Chloromethane	mg/kg	<1	<1
Vinyl Chloride	mg/kg	<0.3	<0.3
Bromomethane	mg/kg	<1	<1
Chloroethane	mg/kg	<1	<1
Trichlorofluoromethane	mg/kg	<0.7	<0.7
1,1-Dichloroethene	mg/kg	<0.1	<0.1
trans-1,2-Dichloroethene	mg/kg	<0.1	<0.1
1,1-Dichloroethane	mg/kg	<0.1	<0.1
cis-1,2-Dichloroethene	mg/kg	<0.1	<0.1
Bromochloromethane	mg/kg	<0.5	<0.5
Chloroform	mg/kg	<0.1	<0.1
2,2-Dichloropropane	mg/kg	<0.1	<0.1
1,2-Dichloroethane	mg/kg	<0.1	<0.1
1,1,1-Trichloroethane	mg/kg	<0.1	<0.1
1,1-Dichloropropene	mg/kg	<0.1	<0.1
Cyclohexane	mg/kg	<0.1	<0.1
Carbon Tetrachloride	mg/kg	<0.1	<0.1
Benzene	mg/kg	<0.2	<0.2
Dibromomethane	mg/kg	<0.5	<0.5
1,2-Dichloropropane	mg/kg	<0.1	<0.1
Trichloroethene	mg/kg	<0.1	<0.1
Bromodichloromethane	mg/kg	<0.1	<0.1
trans-1,3-Dichloropropene	mg/kg	<0.1	<0.1
cis-1,3-Dichloropropene	mg/kg	<0.1	<0.1
1,1,2-Trichloroethane	mg/kg	<0.1	<0.1
Toluene	mg/kg	<0.5	<0.5
1,3-Dichloropropane	mg/kg	<0.1	<0.1
Dibromochloromethane	mg/kg	<0.1	<0.1
1,2-Dibromoethane	mg/kg	<0.1	<0.1
Tetrachloroethene	mg/kg	<0.1	<0.1
1,1,1,2-Tetrachloroethane	mg/kg	<0.1	<0.1
Chlorobenzene	mg/kg	<0.1	<0.1

VOCs in soil - Low Level			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Ethylbenzene	mg/kg	<0.1	<0.1
Bromoform	mg/kg	<0.1	<0.1
m+p-Xylene	mg/kg	<0.2	<0.2
Styrene	mg/kg	<0.1	<0.1
1,1,2,2-Tetrachloroethane	mg/kg	<0.1	<0.1
o-Xylene	mg/kg	<0.1	<0.1
1,2,3-Trichloropropane	mg/kg	<0.1	<0.1
Isopropylbenzene	mg/kg	<0.1	<0.1
Bromobenzene	mg/kg	<0.1	<0.1
n-Propylbenzene	mg/kg	<0.1	<0.1
2-Chlorotoluene	mg/kg	<0.1	<0.1
4-Chlorotoluene	mg/kg	<0.1	<0.1
1,3,5-Trimethylbenzene	mg/kg	<0.1	<0.1
tert-Butylbenzene	mg/kg	<0.1	<0.1
1,2,4-Trimethylbenzene	mg/kg	<0.1	<0.1
1,3-Dichlorobenzene	mg/kg	<0.1	<0.1
sec-Butylbenzene	mg/kg	<0.1	<0.1
1,4-Dichlorobenzene	mg/kg	<0.1	<0.1
4-Isopropyltoluene	mg/kg	<0.1	<0.1
1,2-Dichlorobenzene	mg/kg	<0.1	<0.1
n-Butylbenzene	mg/kg	<0.1	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	<0.1	<0.1
1,2,4-Trichlorobenzene	mg/kg	<0.1	<0.1
Hexachlorobutadiene	mg/kg	<0.1	<0.1
1,2,3-Trichlorobenzene	mg/kg	<0.1	<0.1
Surrogate Dibromofluoromethane	%	93	93
Surrogate aaa-Trifluorotoluene	%	101	96
Surrogate Toluene-d_8	%	100	100
Surrogate 4-Bromofluorobenzene	%	90	90

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date extracted	-	24/04/2025	24/04/2025
Date analysed	-	28/04/2025	28/04/2025
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	101	96

svTRH (C10-C40) in Soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date extracted	-	24/04/2025	24/04/2025
Date analysed	-	26/04/2025	26/04/2025
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
TRH >C_{10}-C_{16}	mg/kg	<50	<50
TRH >C_{10}-C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16}-C_{34}	mg/kg	<100	<100
TRH >C_{34}-C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	80	82

PAHs in Soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date extracted	-	24/04/2025	24/04/2025
Date analysed	-	24/04/2025	24/04/2025
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	79	70

Organochlorine Pesticides in soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date extracted	-	24/04/2025	24/04/2025
Date analysed	-	24/04/2025	24/04/2025
alpha-BHC	mg/kg	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	92	88

Organophosphorus Pesticides in Soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date extracted	-	24/04/2025	24/04/2025
Date analysed	-	24/04/2025	24/04/2025
Dichlorvos	mg/kg	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	92	88

PCBs in Soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date extracted	-	24/04/2025	24/04/2025
Date analysed	-	24/04/2025	24/04/2025
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	80	81

Acid Extractable metals in soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date prepared	-	24/04/2025	24/04/2025
Date analysed	-	30/04/2025	30/04/2025
Arsenic	mg/kg	10	9
Boron	mg/kg	<10	<10
Beryllium	mg/kg	<1	<1
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	9	8
Copper	mg/kg	9	13
Cobalt	mg/kg	7	4
Iron	mg/kg	26,000	23,000
Lead	mg/kg	10	12
Manganese	mg/kg	210	380
Mercury	mg/kg	<0.1	<0.1
Molybdenum	mg/kg	<1	<1
Nickel	mg/kg	7	4
Selenium	mg/kg	<2	<2
Silver	mg/kg	<1	<1
Zinc	mg/kg	34	31

Moisture			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date prepared	-	24/04/2025	24/04/2025
Date analysed	-	28/04/2025	28/04/2025
Moisture	%	11	17

Misc Inorg - Soil			
Our Reference		378827-1	378827-2
Your Reference	UNITS	303	305
Depth		3.0	3.0
Date Sampled		14/04/2025	14/04/2025
Type of sample		Soil	Soil
Date prepared	-	28/04/2025	28/04/2025
Date analysed	-	28/04/2025	28/04/2025
pH 1:5 soil:water	pH Units	7.6	7.9
Electrical Conductivity 1:5 soil:water	µS/cm	23	27

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: VOCs in soil - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date Extracted	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date Analysed	-			28/04/2025	[NT]	[NT]	[NT]	[NT]	28/04/2025	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	0.3	Org-023	<0.3	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	0.7	Org-023	<0.7	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-Dichloroethene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	113	[NT]
cis-1,2-Dichloroethene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromochloromethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroform	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
2,2-Dichloropropane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dichloroethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
1,1,1-Trichloroethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
1,1-Dichloropropene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbon Tetrachloride	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	109	[NT]
Dibromomethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dichloropropane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichloroethene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Bromodichloromethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
trans-1,3-Dichloropropene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-Dichloropropene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-Trichloroethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	110	[NT]
1,3-Dichloropropane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromochloromethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
1,2-Dibromoethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
1,1,1,2-Tetrachloroethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorobenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Bromoform	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-Xylene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	109	[NT]
Styrene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-Tetrachloroethane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in soil - Low Level					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
o-Xylene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	119	[NT]
1,2,3-Trichloropropane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Isopropylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromobenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-Propylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-Chlorotoluene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-Chlorotoluene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-Trimethylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-Butylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-Trimethylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-Butylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-Isopropyltoluene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-Butylbenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dibromo-3-chloropropane	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	0.1	Org-023	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	95	[NT]	[NT]	[NT]	[NT]	94	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	106	[NT]	[NT]	[NT]	[NT]	106	[NT]
Surrogate Toluene-d_8	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	96	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	92	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date analysed	-			28/04/2025	[NT]	[NT]	[NT]	[NT]	28/04/2025	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	110	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	109	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	110	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	109	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	119	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	106	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date analysed	-			26/04/2025	[NT]	[NT]	[NT]	[NT]	26/04/2025	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	86	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date analysed	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	74	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	83	[NT]	[NT]	[NT]	[NT]	79	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date analysed	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	68	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	68	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	99	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date analysed	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Fenthion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	70	[NT]
Phosalone	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	99	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date analysed	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	65	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	89	[NT]	[NT]	[NT]	[NT]	93	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			24/04/2025	[NT]	[NT]	[NT]	[NT]	24/04/2025	[NT]
Date analysed	-			30/04/2025	[NT]	[NT]	[NT]	[NT]	30/04/2025	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	104	[NT]
Boron	mg/kg	10	Metals-020	<10	[NT]	[NT]	[NT]	[NT]	102	[NT]
Beryllium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	95	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Cobalt	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Iron	mg/kg	10	Metals-020	<10	[NT]	[NT]	[NT]	[NT]	104	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Manganese	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Molybdenum	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Selenium	mg/kg	2	Metals-020	<2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Silver	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			28/04/2025	1	28/04/2025	28/04/2025		28/04/2025	[NT]
Date analysed	-			28/04/2025	1	28/04/2025	28/04/2025		28/04/2025	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	1	7.6	7.6	0	100	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	1	23	22	4	94	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

MISC_INORG_DRY: pH/EC
Samples were out of the recommended holding time for this analysis.

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CERTIFICATE OF ANALYSIS 379259

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer, Sarah Krebs
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.02 - Gloucester**
Number of Samples	18 Water
Date samples received	30/04/2025
Date completed instructions received	30/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	07/05/2025
Date of Issue	07/05/2025

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Amanda Chui, LC/Air Toxics Supervisor
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Loren Bardwell, Development Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in Water - Low Level						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date Extracted	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
Date Analysed	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
MTBE	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane	µg/L	<2	<2	<2	<2	<2
Chloromethane	µg/L	<2	<2	<2	<2	<2
Vinyl Chloride	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	µg/L	<2	<2	<2	<2	<2
Chloroethane	µg/L	<2	<2	<2	<2	<2
Trichlorofluoromethane	µg/L	<2	<2	<2	<2	<2
1,1-Dichloroethene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Trans-1,2-dichloroethene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Cis-1,2-dichloroethene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
2,2-dichloropropane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Cyclohexane	µg/L	<0.1	<0.1	<0.1	13	34
1,1-dichloropropene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzene	µg/L	<0.1	<0.1	<0.1	2.4	20
Dibromomethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloropropane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,3-dichloropropene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	µg/L	<0.1	<0.1	<0.1	0.4	2.7
1,3-dichloropropane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloromethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromoethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

VOCs in Water - Low Level						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Ethylbenzene	µg/L	<0.1	<0.1	<0.1	0.3	15
Bromoform	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
m+p-xylene	µg/L	0.20	<0.2	<0.2	1.1	23
Styrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
o-xylene	µg/L	<0.1	<0.1	<0.1	0.3	<0.1
1,2,3-trichloropropane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Isopropylbenzene	µg/L	<0.1	<0.1	<0.1	0.7	4.4
Bromobenzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
n-propyl benzene	µg/L	<0.1	<0.1	<0.1	1	14
2-chlorotoluene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethyl benzene	µg/L	<0.1	<0.1	<0.1	0.1	6.2
Tert-butyl benzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethyl benzene	µg/L	<0.1	<0.1	<0.1	0.3	26
1,3-dichlorobenzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Sec-butyl benzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4-isopropyl toluene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
n-butyl benzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-trichlorobenzene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate Dibromofluoromethane	%	113	102	116	102	92
Surrogate toluene-d8	%	102	97	102	100	101
Surrogate 4-BFB	%	86	96	99	99	99

VOCs in Water - Low Level						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date Extracted	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
Date Analysed	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
MTBE	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Dichlorodifluoromethane	µg/L	<2	<20	<2	<2	<20
Chloromethane	µg/L	<2	<20	<2	<2	<20
Vinyl Chloride	µg/L	<0.2	<2.0	<0.2	<0.2	<2.0
Bromomethane	µg/L	<2	<20	<2	<2	<20
Chloroethane	µg/L	<2	<20	<2	<2	<20
Trichlorofluoromethane	µg/L	<2	<20	<2	<2	<20
1,1-Dichloroethene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Trans-1,2-dichloroethene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,1-dichloroethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Cis-1,2-dichloroethene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Bromochloromethane	µg/L	<0.5	<5.0	<0.5	<0.5	<5.0
Chloroform	µg/L	<0.5	<5.0	<0.5	<0.5	<5.0
2,2-dichloropropane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,2-dichloroethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,1,1-trichloroethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Cyclohexane	µg/L	<0.1	710	<0.1	<0.1	170
1,1-dichloropropene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Carbon tetrachloride	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Benzene	µg/L	<0.1	11,000	<0.1	<0.1	1,000
Dibromomethane	µg/L	<0.5	<5.0	<0.5	<0.5	<5.0
1,2-dichloropropane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Trichloroethene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Bromodichloromethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
trans-1,3-dichloropropene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
cis-1,3-dichloropropene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,1,2-trichloroethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Toluene	µg/L	<0.1	5,100	<0.1	0.8	1,400
1,3-dichloropropane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Dibromochloromethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,2-dibromoethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Tetrachloroethene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,1,1,2-tetrachloroethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Chlorobenzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0

VOCs in Water - Low Level						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Ethylbenzene	µg/L	<0.1	2,300	<0.1	0.4	530
Bromoform	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
m+p-xylene	µg/L	<0.2	9,500	0.46	1.5	2,100
Styrene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,1,2,2-tetrachloroethane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
o-xylene	µg/L	<0.1	2,000	<0.1	0.5	750
1,2,3-trichloropropane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Isopropylbenzene	µg/L	<0.1	78	<0.1	<0.1	29
Bromobenzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
n-propyl benzene	µg/L	<0.1	220	<0.1	<0.1	92
2-chlorotoluene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
4-chlorotoluene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,3,5-trimethyl benzene	µg/L	<0.1	480	<0.1	0.2	160
Tert-butyl benzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,2,4-trimethyl benzene	µg/L	<0.1	1,900	0.2	0.4	520
1,3-dichlorobenzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Sec-butyl benzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,4-dichlorobenzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
4-isopropyl toluene	µg/L	<0.1	21	<0.1	<0.1	9.8
1,2-dichlorobenzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
n-butyl benzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,2-dibromo-3-chloropropane	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
1,2,4-trichlorobenzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Hexachlorobutadiene	µg/L	<0.2	<2.0	<0.2	<0.2	<2.0
1,2,3-trichlorobenzene	µg/L	<0.1	<1.0	<0.1	<0.1	<1.0
Surrogate Dibromofluoromethane	%	112	89	116	113	95
Surrogate toluene-d8	%	101	104	104	102	102
Surrogate 4-BFB	%	98	87	87	86	86

VOCs in Water - Low Level						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date Extracted	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
Date Analysed	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
MTBE	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Dichlorodifluoromethane	µg/L	<20	<2	<20	<20	<2
Chloromethane	µg/L	<20	<2	<20	<20	<2
Vinyl Chloride	µg/L	<2.0	<0.2	<2.0	<2.0	<0.2
Bromomethane	µg/L	<20	<2	<20	<20	<2
Chloroethane	µg/L	<20	<2	<20	<20	<2
Trichlorofluoromethane	µg/L	<20	<2	<20	<20	<2
1,1-Dichloroethene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Trans-1,2-dichloroethene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,1-dichloroethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Cis-1,2-dichloroethene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Bromochloromethane	µg/L	<5.0	<0.5	<5.0	<5.0	<0.5
Chloroform	µg/L	<5.0	<0.5	<5.0	<5.0	<0.5
2,2-dichloropropane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,2-dichloroethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,1,1-trichloroethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Cyclohexane	µg/L	540	100	490	120	<0.1
1,1-dichloropropene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Carbon tetrachloride	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Benzene	µg/L	3,800	110	2,200	140	<0.1
Dibromomethane	µg/L	<5.0	<0.5	<5.0	<5.0	<0.5
1,2-dichloropropane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Trichloroethene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Bromodichloromethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
trans-1,3-dichloropropene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
cis-1,3-dichloropropene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,1,2-trichloroethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Toluene	µg/L	1,700	3.6	160	8.1	<0.1
1,3-dichloropropane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Dibromochloromethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,2-dibromoethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Tetrachloroethene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,1,1,2-tetrachloroethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Chlorobenzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1

VOCs in Water - Low Level						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Ethylbenzene	µg/L	730	11	2,300	460	<0.1
Bromoform	µg/L	<1	<0.1	<1.0	<1.0	<0.1
m+p-xylene	µg/L	3,800	25	6,400	1,200	<0.2
Styrene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,1,2,2-tetrachloroethane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
o-xylene	µg/L	1,000	2.3	600	14	<0.1
1,2,3-trichloropropane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Isopropylbenzene	µg/L	66	8.5	99	35	<0.1
Bromobenzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
n-propyl benzene	µg/L	180	22	290	62	<0.1
2-chlorotoluene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
4-chlorotoluene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,3,5-trimethyl benzene	µg/L	280	5.0	410	210	<0.1
Tert-butyl benzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,2,4-trimethyl benzene	µg/L	970	12	1,700	840	<0.1
1,3-dichlorobenzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Sec-butyl benzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,4-dichlorobenzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
4-isopropyl toluene	µg/L	16	0.5	17	11	<0.1
1,2-dichlorobenzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
n-butyl benzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,2-dibromo-3-chloropropane	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
1,2,4-trichlorobenzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Hexachlorobutadiene	µg/L	<2.0	<0.2	<2	<2.0	<0.2
1,2,3-trichlorobenzene	µg/L	<1.0	<0.1	<1.0	<1.0	<0.1
Surrogate Dibromofluoromethane	%	92	103	94	102	111
Surrogate toluene-d8	%	103	98	106	111	101
Surrogate 4-BFB	%	86	86	86	95	92

VOCs in Water - Low Level		
Our Reference		379259-16
Your Reference	UNITS	R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Date Extracted	-	02/05/2025
Date Analysed	-	05/05/2025
MTBE	µg/L	<0.1
Dichlorodifluoromethane	µg/L	<2
Chloromethane	µg/L	<2
Vinyl Chloride	µg/L	<0.2
Bromomethane	µg/L	<2
Chloroethane	µg/L	<2
Trichlorofluoromethane	µg/L	<2
1,1-Dichloroethene	µg/L	<0.1
Trans-1,2-dichloroethene	µg/L	<0.1
1,1-dichloroethane	µg/L	<0.1
Cis-1,2-dichloroethene	µg/L	<0.1
Bromochloromethane	µg/L	<0.5
Chloroform	µg/L	<0.5
2,2-dichloropropane	µg/L	<0.1
1,2-dichloroethane	µg/L	<0.1
1,1,1-trichloroethane	µg/L	<0.1
Cyclohexane	µg/L	0.1
1,1-dichloropropene	µg/L	<0.1
Carbon tetrachloride	µg/L	<0.1
Benzene	µg/L	<0.1
Dibromomethane	µg/L	<0.5
1,2-dichloropropane	µg/L	<0.1
Trichloroethene	µg/L	<0.1
Bromodichloromethane	µg/L	<0.1
trans-1,3-dichloropropene	µg/L	<0.1
cis-1,3-dichloropropene	µg/L	<0.1
1,1,2-trichloroethane	µg/L	<0.1
Toluene	µg/L	<0.1
1,3-dichloropropane	µg/L	<0.1
Dibromochloromethane	µg/L	<0.1
1,2-dibromoethane	µg/L	<0.1
Tetrachloroethene	µg/L	<0.1
1,1,1,2-tetrachloroethane	µg/L	<0.1
Chlorobenzene	µg/L	<0.1

VOCs in Water - Low Level		
Our Reference		379259-16
Your Reference	UNITS	R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Ethylbenzene	µg/L	<0.1
Bromoform	µg/L	<0.1
m+p-xylene	µg/L	<0.2
Styrene	µg/L	<0.1
1,1,2,2-tetrachloroethane	µg/L	<0.1
o-xylene	µg/L	<0.1
1,2,3-trichloropropane	µg/L	<0.1
Isopropylbenzene	µg/L	<0.1
Bromobenzene	µg/L	<0.1
n-propyl benzene	µg/L	<0.1
2-chlorotoluene	µg/L	<0.1
4-chlorotoluene	µg/L	<0.1
1,3,5-trimethyl benzene	µg/L	<0.1
Tert-butyl benzene	µg/L	<0.1
1,2,4-trimethyl benzene	µg/L	<0.1
1,3-dichlorobenzene	µg/L	<0.1
Sec-butyl benzene	µg/L	<0.1
1,4-dichlorobenzene	µg/L	<0.1
4-isopropyl toluene	µg/L	<0.1
1,2-dichlorobenzene	µg/L	<0.1
n-butyl benzene	µg/L	<0.1
1,2-dibromo-3-chloropropane	µg/L	<0.1
1,2,4-trichlorobenzene	µg/L	<0.1
Hexachlorobutadiene	µg/L	<0.2
1,2,3-trichlorobenzene	µg/L	<0.1
Surrogate Dibromofluoromethane	%	112
Surrogate toluene-d8	%	103
Surrogate 4-BFB	%	94

vTRH(C6-C10)/BTEXN in Water						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	05/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
Date analysed	-	06/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
TRH C_6 - C_9	µg/L	<10	<10	<10	110	490
TRH C_6 - C_{10}	µg/L	<10	<10	<10	120	600
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	120	540
Benzene	µg/L	<1	<1	<1	2	20
Toluene	µg/L	<1	<1	<1	<1	3
Ethylbenzene	µg/L	<1	<1	<1	<1	15
m+p-xylene	µg/L	<2	<2	<2	<2	23
o-xylene	µg/L	<1	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1	10
Surrogate Dibromofluoromethane	%	113	102	116	102	92
Surrogate Toluene-d8	%	102	97	102	100	101
Surrogate 4-Bromofluorobenzene	%	86	96	99	99	99

vTRH(C6-C10)/BTEXN in Water						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	02/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	05/05/2025	06/05/2025	06/05/2025	06/05/2025	06/05/2025
TRH C_6 - C_9	µg/L	<10	42,000	<10	<10	8,300
TRH C_6 - C_{10}	µg/L	<10	48,000	<10	<10	11,000
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	18,000	<10	<10	5,200
Benzene	µg/L	<1	11,000	<1	<1	1,000
Toluene	µg/L	<1	5,100	<1	<1	1,400
Ethylbenzene	µg/L	<1	2,300	<1	<1	530
m+p-xylene	µg/L	<2	9,500	<2	<2	2,100
o-xylene	µg/L	<1	2,000	<1	<1	750
Naphthalene	µg/L	<1	460	<1	<1	110
Surrogate Dibromofluoromethane	%	112	89	116	113	95
Surrogate Toluene-d8	%	101	104	104	102	102
Surrogate 4-Bromofluorobenzene	%	98	87	87	86	86

vTRH(C6-C10)/BTEXN in Water						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	05/05/2025	02/05/2025	05/05/2025	06/05/2025	06/05/2025
Date analysed	-	06/05/2025	05/05/2025	06/05/2025	07/05/2025	07/05/2025
TRH C_6 - C_9	µg/L	19,000	930	21,000	3,300	<10
TRH C_6 - C_{10}	µg/L	21,000	1,000	23,000	3,600	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	10,000	860	11,000	1,800	<10
Benzene	µg/L	3,800	110	2,200	140	<1
Toluene	µg/L	1,700	4	160	8	<1
Ethylbenzene	µg/L	730	11	2,300	460	<1
m+p-xylene	µg/L	3,800	25	6,400	1,200	<2
o-xylene	µg/L	1,000	2	600	14	<1
Naphthalene	µg/L	320	22	430	310	<1
Surrogate Dibromofluoromethane	%	92	103	94	102	111
Surrogate Toluene-d8	%	103	98	106	111	101
Surrogate 4-Bromofluorobenzene	%	86	86	86	95	92

vTRH(C6-C10)/BTEXN in Water				
Our Reference		379259-16	379259-17	379259-18
Your Reference	UNITS	R1/GW	TB1/GW	TS1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water
Date extracted	-	06/05/2025	06/05/2025	05/05/2025
Date analysed	-	07/05/2025	07/05/2025	06/05/2025
TRH C_6 - C_9	µg/L	<10	<10	[NA]
TRH C_6 - C_{10}	µg/L	<10	<10	[NA]
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	[NA]
Benzene	µg/L	<1	<1	115%
Toluene	µg/L	<1	<1	117%
Ethylbenzene	µg/L	<1	<1	104%
m+p-xylene	µg/L	<2	<2	107%
o-xylene	µg/L	<1	<1	108%
Naphthalene	µg/L	<1	<1	[NA]
Surrogate Dibromofluoromethane	%	112	110	103
Surrogate Toluene-d8	%	103	101	102
Surrogate 4-Bromofluorobenzene	%	94	92	91

svTRH (C10-C40) in Water						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
TRH C_{10} - C_{14}	µg/L	<50	<50	<50	<50	200
TRH C_{15} - C_{28}	µg/L	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50	<50	200
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50	<50	150
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50	<50	140
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50	<50	150
Surrogate o-Terphenyl	%	100	96	99	109	108

svTRH (C10-C40) in Water						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
TRH C_{10} - C_{14}	µg/L	<50	7,100	<50	<50	2,300
TRH C_{15} - C_{28}	µg/L	<100	210	<100	<100	100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	7,400	<50	<50	2,400
TRH >C_{10} - C_{16}	µg/L	<50	3,500	<50	<50	1,100
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	3,100	<50	<50	970
TRH >C_{16} - C_{34}	µg/L	<100	120	<100	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	3,600	<50	<50	1,100
Surrogate o-Terphenyl	%	102	102	105	106	106

svTRH (C10-C40) in Water						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
TRH C_{10} - C_{14}	µg/L	4,200	300	5,100	3,900	<50
TRH C_{15} - C_{28}	µg/L	130	<100	<100	190	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	4,400	300	5,100	4,100	<50
TRH >C_{10} - C_{16}	µg/L	2,200	240	2,200	2,800	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	1,800	210	1,800	2,500	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	2,200	240	2,200	2,800	<50
Surrogate o-Terphenyl	%	99	98	95	98	100

svTRH (C10-C40) in Water		
Our Reference		379259-16
Your Reference	UNITS	R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Date extracted	-	01/05/2025
Date analysed	-	02/05/2025
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	<50
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	<50
Surrogate o-Terphenyl	%	99

PAHs in Water						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
Naphthalene	µg/L	<0.1	<0.1	<0.1	0.2	0.5
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	0.3	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1	<0.1	0.54	0.50
Surrogate p-Terphenyl-d14	%	118	117	123	116	114

PAHs in Water						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
Naphthalene	µg/L	<0.1	430	<0.1	<0.1	96
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	0.3	<0.1	<0.1	0.1
Fluorene	µg/L	<0.1	0.6	<0.1	<0.1	0.2
Phenanthrene	µg/L	<0.1	0.3	<0.1	<0.1	0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	430	<0.1	<0.1	96
Surrogate p-Terphenyl-d14	%	123	117	123	124	120

PAHs in Water						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	02/05/2025	02/05/2025	02/05/2025	02/05/2025	02/05/2025
Naphthalene	µg/L	240	16	310	240	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	0.2	<0.1	0.2	0.5	<0.1
Fluorene	µg/L	0.7	<0.1	0.5	1.1	<0.1
Phenanthrene	µg/L	0.5	<0.1	0.3	0.6	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	µg/L	240	16	310	240	<0.1
Surrogate p-Terphenyl-d14	%	121	126	115	115	120

PAHs in Water		
Our Reference		379259-16
Your Reference	UNITS	R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Date extracted	-	01/05/2025
Date analysed	-	02/05/2025
Naphthalene	µg/L	<0.1
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5
Total +ve PAH's	µg/L	<0.1
Surrogate p-Terphenyl-d14	%	120

All metals in water-dissolved						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Silver-Dissolved	µg/L	<1	<1	<1	<1	<1
Aluminium-Dissolved	µg/L	<10	<10	<10	<10	<10
Arsenic-Dissolved	µg/L	<1	<1	<1	9	9
Beryllium-Dissolved	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Boron-Dissolved	µg/L	30	<20	30	<20	<20
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Cobalt-Dissolved	µg/L	<1	<1	<1	<1	<1
Copper-Dissolved	µg/L	1	2	1	<1	<1
Iron-Dissolved	µg/L	<10	<10	<10	2,200	1,000
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Manganese-Dissolved	µg/L	130	17	210	1,100	820
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum-Dissolved	µg/L	<1	<1	<1	2	<1
Nickel-Dissolved	µg/L	10	2	5	5	16
Selenium-Dissolved	µg/L	<1	1	<1	<1	<1
Zinc-Dissolved	µg/L	8	5	28	3	6

All metals in water-dissolved						
Our Reference	UNITS	379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference		106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Silver-Dissolved	µg/L	<1	<1	<1	<1	<1
Aluminium-Dissolved	µg/L	<10	<10	<10	<10	<10
Arsenic-Dissolved	µg/L	11	23	<1	1	16
Beryllium-Dissolved	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Boron-Dissolved	µg/L	<20	<20	<20	30	<20
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Cobalt-Dissolved	µg/L	<1	1	<1	<1	<1
Copper-Dissolved	µg/L	<1	<1	1	1	<1
Iron-Dissolved	µg/L	490	3,400	60	280	2,100
Lead-Dissolved	µg/L	<1	3	<1	<1	<1
Manganese-Dissolved	µg/L	450	4,000	91	230	2,600
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum-Dissolved	µg/L	<1	1	<1	<1	1
Nickel-Dissolved	µg/L	2	9	3	1	5
Selenium-Dissolved	µg/L	<1	<1	<1	<1	<1
Zinc-Dissolved	µg/L	15	5	<1	2	4

All metals in water-dissolved						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Date analysed	-	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Silver-Dissolved	µg/L	<1	<1	<1	<1	<1
Aluminium-Dissolved	µg/L	<10	<10	<10	<10	<10
Arsenic-Dissolved	µg/L	20	11	23	5	<1
Beryllium-Dissolved	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Boron-Dissolved	µg/L	20	<20	<20	30	30
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Cobalt-Dissolved	µg/L	1	1	1	3	<1
Copper-Dissolved	µg/L	<1	<1	<1	<1	1
Iron-Dissolved	µg/L	4,100	600	2,500	690	<10
Lead-Dissolved	µg/L	1	<1	2	<1	<1
Manganese-Dissolved	µg/L	3,800	510	2,800	2,000	220
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum-Dissolved	µg/L	2	<1	1	1	<1
Nickel-Dissolved	µg/L	5	1	23	6	5
Selenium-Dissolved	µg/L	<1	<1	<1	<1	<1
Zinc-Dissolved	µg/L	6	2	10	2	49

All metals in water-dissolved		
Our Reference		379259-16
Your Reference	UNITS	R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Date prepared	-	01/05/2025
Date analysed	-	01/05/2025
Silver-Dissolved	µg/L	<1
Aluminium-Dissolved	µg/L	<10
Arsenic-Dissolved	µg/L	<1
Beryllium-Dissolved	µg/L	<0.5
Boron-Dissolved	µg/L	<20
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Cobalt-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Iron-Dissolved	µg/L	<10
Lead-Dissolved	µg/L	<1
Manganese-Dissolved	µg/L	<5
Mercury-Dissolved	µg/L	<0.05
Molybdenum-Dissolved	µg/L	<1
Nickel-Dissolved	µg/L	<1
Selenium-Dissolved	µg/L	<1
Zinc-Dissolved	µg/L	<1

PFAS in Water LOW LEVEL Extend						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Perfluorobutanesulfonic acid	µg/L	0.022	0.015	0.020	0.012	0.014
Perfluoropentanesulfonic acid	µg/L	0.014	0.008	0.011	0.007	0.008
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.14	0.060	0.11	0.068	0.070
Perfluoroheptanesulfonic acid	µg/L	0.007	0.003	0.006	0.004	0.005
Perfluorooctanesulfonic acid PFOS	µg/L	0.33	0.15	0.29	0.18	0.16
Perfluorodecanesulfonic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	µg/L	0.026	0.01	0.02	0.009	0.02
Perfluoropentanoic acid	µg/L	0.003	0.002	<0.002	<0.002	<0.002
Perfluorohexanoic acid	µg/L	0.0099	0.002	0.004	<0.001	0.002
Perfluoroheptanoic acid	µg/L	0.007	0.002	0.004	0.002	0.003
Perfluorooctanoic acid PFOA	µg/L	0.024	0.008	0.016	0.008	0.011
Perfluorononanoic acid	µg/L	0.004	0.001	0.003	0.003	0.006
Perfluorodecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
6:2 FTS	µg/L	<0.001	<0.001	<0.001	<0.001	0.001
8:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
10:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	113	107	107	102	107
Surrogate $^{13}C_2$ *PFOA*	%	111	108	110	114	110
Extracted ISTD $^{13}C_3$ *PFBS*	%	57	54	51	62	55
Extracted ISTD $^{18}O_2$ *PFHxS*	%	115	122	121	121	107
Extracted ISTD $^{13}C_4$ *PFOS*	%	125	141	130	143	128
Extracted ISTD $^{13}C_4$ *PFBA*	%	32	38	42	42	42

PFAS in Water LOW LEVEL Extend						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	48	53	52	58	59
Extracted ISTD $^{13}C_2$ *PFHxA*	%	73	78	74	79	75
Extracted ISTD $^{13}C_4$ *PFHpA*	%	103	105	101	107	101
Extracted ISTD $^{13}C_4$ *PFOA*	%	136	145	135	141	133
Extracted ISTD $^{13}C_5$ *PFNA*	%	137	150	136	149	143
Extracted ISTD $^{13}C_2$ *PFDA*	%	167	175	172	168	157
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	156	163	155	155	145
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	171	181	175	171	161
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	130	156	136	126	119
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	99	102	104	104	104
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	#	#	#	#	180
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	#	#	#	#	#
Extracted ISTD $^{13}C_8$ *FOSA*	%	106	64	104	105	100
Extracted ISTD d_3 *N MeFOSA*	%	96	98	99	97	96
Extracted ISTD d_5 *N EtFOSA*	%	92	93	95	94	93
Extracted ISTD d_7 *N MeFOSE*	%	96	98	96	93	98
Extracted ISTD d_9 *N EtFOSE*	%	96	95	97	94	93
Extracted ISTD d_3 *N MeFOSAA*	%	#	136	#	#	#
Extracted ISTD d_5 *N EtFOSAA*	%	#	#	#	#	#
Total Positive PFHxS & PFOS	µg/L	0.47	0.21	0.40	0.24	0.23
Total Positive PFOA & PFOS	µg/L	0.35	0.16	0.30	0.18	0.18
Total Positive PFAS	µg/L	0.59	0.27	0.48	0.29	0.30

PFAS in Water LOW LEVEL Extend						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Date analysed	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Perfluorobutanesulfonic acid	µg/L	0.009	0.006	0.004	0.013	0.020
Perfluoropentanesulfonic acid	µg/L	0.006	0.004	0.003	0.009	0.012
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.053	0.028	0.025	0.078	0.098
Perfluoroheptanesulfonic acid	µg/L	0.006	0.002	0.001	0.005	0.006
Perfluorooctanesulfonic acid PFOS	µg/L	0.12	0.087	0.067	0.19	0.18
Perfluorodecanesulfonic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	µg/L	<0.02	<0.02	0.006	0.01	<0.01
Perfluoropentanoic acid	µg/L	0.004	<0.002	<0.002	<0.002	<0.002
Perfluorohexanoic acid	µg/L	0.009	0.002	<0.001	0.002	0.002
Perfluoroheptanoic acid	µg/L	0.007	0.004	<0.001	0.004	0.002
Perfluorooctanoic acid PFOA	µg/L	0.019	0.007	0.004	0.019	0.007
Perfluorononanoic acid	µg/L	0.004	0.003	0.001	0.007	0.002
Perfluorodecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
6:2 FTS	µg/L	0.002	<0.001	<0.001	<0.001	<0.001
8:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
10:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	113	109	109	115	111
Surrogate $^{13}C_2$ *PFOA*	%	109	110	110	115	108
Extracted ISTD $^{13}C_3$ *PFBS*	%	49	56	54	54	54
Extracted ISTD $^{18}O_2$ *PFHxS*	%	145	150	147	153	160
Extracted ISTD $^{13}C_4$ *PFOS*	%	114	117	123	109	127
Extracted ISTD $^{13}C_4$ *PFBA*	%	29	#	58	45	33

PFAS in Water LOW LEVEL Extend						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	44	46	62	53	52
Extracted ISTD $^{13}C_2$ *PFHxA*	%	63	71	77	70	74
Extracted ISTD $^{13}C_4$ *PFHpA*	%	86	93	101	92	99
Extracted ISTD $^{13}C_4$ *PFOA*	%	117	121	132	124	134
Extracted ISTD $^{13}C_5$ *PFNA*	%	132	134	140	127	143
Extracted ISTD $^{13}C_2$ *PFDA*	%	159	156	151	139	166
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	148	147	133	106	154
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	151	142	123	78	142
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	104	108	84	30	76
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	80	105	101	98	96
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	165	186	170	170	184
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	#	#	#	163	#
Extracted ISTD $^{13}C_8$ *FOSA*	%	77	68	77	77	95
Extracted ISTD d_3 *N MeFOSA*	%	95	91	96	99	95
Extracted ISTD d_5 *N EtFOSA*	%	91	88	91	95	94
Extracted ISTD d_7 *N MeFOSE*	%	98	94	95	108	105
Extracted ISTD d_9 *N EtFOSE*	%	94	94	93	95	96
Extracted ISTD d_3 *N MeFOSAA*	%	197	192	179	139	#
Extracted ISTD d_5 *N EtFOSAA*	%	#	191	195	130	#
Total Positive PFHxS & PFOS	µg/L	0.17	0.12	0.093	0.26	0.28
Total Positive PFOA & PFOS	µg/L	0.14	0.094	0.071	0.20	0.19
Total Positive PFAS	µg/L	0.24	0.14	0.11	0.33	0.33

PFAS in Water LOW LEVEL Extend						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Date analysed	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Perfluorobutanesulfonic acid	µg/L	0.013	0.019	0.021	0.022	0.018
Perfluoropentanesulfonic acid	µg/L	0.008	0.010	0.012	0.013	0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.064	0.082	0.12	0.12	0.11
Perfluoroheptanesulfonic acid	µg/L	0.005	0.006	0.006	0.007	0.006
Perfluorooctanesulfonic acid PFOS	µg/L	0.19	0.19	0.26	0.24	0.25
Perfluorodecanesulfonic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	µg/L	<0.01	0.02	<0.01	<0.01	<0.01
Perfluoropentanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexanoic acid	µg/L	0.002	0.002	0.001	0.002	0.003
Perfluoroheptanoic acid	µg/L	0.003	0.003	0.003	0.004	0.005
Perfluorooctanoic acid PFOA	µg/L	0.013	0.015	0.014	0.014	0.015
Perfluorononanoic acid	µg/L	0.007	0.01	0.005	0.005	0.003
Perfluorodecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
6:2 FTS	µg/L	<0.001	0.001	<0.001	<0.001	0.005
8:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
10:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	104	108	109	110	104
Surrogate $^{13}C_2$ *PFOA*	%	110	110	112	109	115
Extracted ISTD $^{13}C_3$ *PFBS*	%	52	47	53	50	48
Extracted ISTD $^{18}O_2$ *PFHxS*	%	156	154	172	174	173
Extracted ISTD $^{13}C_4$ *PFOS*	%	123	121	123	123	129
Extracted ISTD $^{13}C_4$ *PFBA*	%	27	40	33	22	39

PFAS in Water LOW LEVEL Extend						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_3$ PFPeA	%	52	53	51	46	47
Extracted ISTD $^{13}C_2$ PFHxA	%	70	71	74	70	68
Extracted ISTD $^{13}C_4$ PFHpA	%	97	94	98	94	91
Extracted ISTD $^{13}C_4$ PFOA	%	128	128	133	135	132
Extracted ISTD $^{13}C_5$ PFNA	%	134	138	142	137	131
Extracted ISTD $^{13}C_2$ PFDA	%	157	160	177	170	175
Extracted ISTD $^{13}C_2$ PFUnDA	%	139	145	156	153	160
Extracted ISTD $^{13}C_2$ PFDoDA	%	145	136	142	146	163
Extracted ISTD $^{13}C_2$ PFTeDA	%	121	69	92	106	125
Extracted ISTD $^{13}C_2$ 4:2FTS	%	96	91	96	97	88
Extracted ISTD $^{13}C_2$ 6:2FTS	%	184	187	182	182	203
Extracted ISTD $^{13}C_2$ 8:2FTS	%	#	#	#	#	#
Extracted ISTD $^{13}C_8$ FOSA	%	84	77	92	84	100
Extracted ISTD d_3 N MeFOSA	%	96	94	93	97	98
Extracted ISTD d_5 N EtFOSA	%	94	92	90	94	95
Extracted ISTD d_7 N MeFOSE	%	102	97	97	97	97
Extracted ISTD d_9 N EtFOSE	%	97	91	92	95	97
Extracted ISTD d_3 N MeFOSAA	%	197	178	#	#	#
Extracted ISTD d_5 N EtFOSAA	%	#	#	#	#	#
Total Positive PFHxS & PFOS	µg/L	0.25	0.27	0.38	0.36	0.36
Total Positive PFOA & PFOS	µg/L	0.20	0.20	0.28	0.26	0.27
Total Positive PFAS	µg/L	0.30	0.36	0.44	0.43	0.43

PFAS in Water LOW LEVEL Extend		
Our Reference		379259-16
Your Reference	UNITS	R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Date prepared	-	06/05/2025
Date analysed	-	06/05/2025
Perfluorobutanesulfonic acid	µg/L	<0.001
Perfluoropentanesulfonic acid	µg/L	<0.001
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.001
Perfluoroheptanesulfonic acid	µg/L	<0.001
Perfluorooctanesulfonic acid PFOS	µg/L	<0.001
Perfluorodecanesulfonic acid	µg/L	<0.002
Perfluorobutanoic acid	µg/L	<0.002
Perfluoropentanoic acid	µg/L	<0.002
Perfluorohexanoic acid	µg/L	<0.001
Perfluoroheptanoic acid	µg/L	<0.001
Perfluorooctanoic acid PFOA	µg/L	<0.001
Perfluorononanoic acid	µg/L	<0.001
Perfluorodecanoic acid	µg/L	<0.002
Perfluoroundecanoic acid	µg/L	<0.002
Perfluorododecanoic acid	µg/L	<0.005
Perfluorotridecanoic acid	µg/L	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05
4:2 FTS	µg/L	<0.001
6:2 FTS	µg/L	<0.001
8:2 FTS	µg/L	<0.002
10:2 FTS	µg/L	<0.002
Perfluorooctane sulfonamide	µg/L	<0.01
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002
Surrogate $^{13}C_8$ PFOS	%	108
Surrogate $^{13}C_2$ PFOA	%	110
Extracted ISTD $^{13}C_3$ PFBS	%	54
Extracted ISTD $^{18}O_2$ PFHxS	%	168
Extracted ISTD $^{13}C_4$ PFOS	%	131
Extracted ISTD $^{13}C_4$ PFBA	%	88

PFAS in Water LOW LEVEL Extend		
Our Reference		379259-16
Your Reference	UNITS	R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	65
Extracted ISTD $^{13}C_2$ *PFHxA*	%	77
Extracted ISTD $^{13}C_4$ *PFHpA*	%	103
Extracted ISTD $^{13}C_4$ *PFOA*	%	137
Extracted ISTD $^{13}C_5$ *PFNA*	%	148
Extracted ISTD $^{13}C_2$ *PFDA*	%	168
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	158
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	179
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	74
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	98
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	151
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	#
Extracted ISTD $^{13}C_8$ *FOSA*	%	100
Extracted ISTD d_3 *N MeFOSA*	%	97
Extracted ISTD d_5 *N EtFOSA*	%	93
Extracted ISTD d_7 *N MeFOSE*	%	97
Extracted ISTD d_9 *N EtFOSE*	%	95
Extracted ISTD d_3 *N MeFOSAA*	%	#
Extracted ISTD d_5 *N EtFOSAA*	%	#
Total Positive PFHxS & PFOS	µg/L	<0.001
Total Positive PFOA & PFOS	µg/L	<0.001
Total Positive PFAS	µg/L	<0.001

Ion Balance		
Our Reference		379259-9
Your Reference	UNITS	301
Date Sampled		29/04/2025
Type of sample		Water
Date prepared	-	01/05/2025
Date analysed	-	01/05/2025
Calcium - Dissolved	mg/L	21
Potassium - Dissolved	mg/L	1
Sodium - Dissolved	mg/L	48
Magnesium - Dissolved	mg/L	16
Hardness (calc) equivalent $CaCO_3$	mg/L	120
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	210
Carbonate Alkalinity as $CaCO_3$	mg/L	<5
Total Alkalinity as $CaCO_3$	mg/L	210
Sulphate, SO4	mg/L	47
Chloride, Cl	mg/L	22
Ionic Balance	%	-13

Miscellaneous Inorganics						
Our Reference		379259-1	379259-2	379259-3	379259-4	379259-5
Your Reference	UNITS	101	102	103	104	105
Date Sampled		28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	30/04/2025	30/04/2025	30/04/2025	30/04/2025	30/04/2025
Date analysed	-	30/04/2025	30/04/2025	30/04/2025	30/04/2025	30/04/2025
pH	pH Units	6.9	7.1	6.8	6.9	6.9
Electrical Conductivity	µS/cm	350	510	320	480	570

Miscellaneous Inorganics						
Our Reference		379259-6	379259-7	379259-8	379259-9	379259-10
Your Reference	UNITS	106	MW1	MW2	301	302
Date Sampled		28/04/2025	28/04/2025	28/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	01/05/2025	30/04/2025	30/04/2025	30/04/2025	30/04/2025
Date analysed	-	01/05/2025	30/04/2025	30/04/2025	30/04/2025	30/04/2025
pH	pH Units	6.9	6.8	7.0	6.8	6.9
Electrical Conductivity	µS/cm	900	740	440	510	620
Total Dissolved Solids (grav)	mg/L	[NA]	[NA]	[NA]	360	[NA]
Ammonia as N in water	mg/L	[NA]	[NA]	[NA]	0.04	[NA]
Nitrate as N in water	mg/L	[NA]	[NA]	[NA]	0.30	[NA]
Nitrite as N in water	mg/L	[NA]	[NA]	[NA]	<0.005	[NA]
NOx as N in water	mg/L	[NA]	[NA]	[NA]	0.31	[NA]
Organic Nitrogen as N	mg/L	[NA]	[NA]	[NA]	0.7	[NA]
Total Nitrogen in water	mg/L	[NA]	[NA]	[NA]	1.0	[NA]
TKN in water	mg/L	[NA]	[NA]	[NA]	0.7	[NA]

Miscellaneous Inorganics						
Our Reference		379259-11	379259-12	379259-13	379259-14	379259-15
Your Reference	UNITS	303	304	305	306	D1/GW
Date Sampled		29/04/2025	29/04/2025	29/04/2025	29/04/2025	28/04/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	30/04/2025	30/04/2025	30/04/2025	30/04/2025	30/04/2025
Date analysed	-	30/04/2025	30/04/2025	30/04/2025	30/04/2025	30/04/2025
pH	pH Units	6.8	6.8	6.8	7.0	6.8
Electrical Conductivity	µS/cm	740	620	610	980	320

Miscellaneous Inorganics		
Our Reference	UNITS	379259-16
Your Reference		R1/GW
Date Sampled		29/04/2025
Type of sample		Water
Date prepared	-	30/04/2025
Date analysed	-	30/04/2025
pH	pH Units	7.3
Electrical Conductivity	µS/cm	3

Metals in Waters - Acid extractable		
Our Reference		379259-9
Your Reference	UNITS	301
Date Sampled		29/04/2025
Type of sample		Water
Date prepared	-	01/05/2025
Date analysed	-	01/05/2025
Phosphorus - Total	mg/L	0.82

Method ID	Methodology Summary
Ext-054	Analysed by MPL Envirolab
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-018	Total Dissolved Solids - determined gravimetrically. The solids are dried at 180+/-10°C. NOTE: Where the EC of the sample is <100µS/cm, the TDS will typically be below 70mg/L (as the sample is very likely to be at least drinking water quality). Therefore to ensure data quality for TDS, the TDS is typically calculated as per the equation below:- TDS = EC * 0.6
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 15% ie total anions = total cations +/-15%.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Metals-020	Determination of various metals by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Metals-021	Determination of Mercury by Cold Vapour AAS.

Method ID	Methodology Summary
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in Water - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date Extracted	-			02/05/2025	2	02/05/2025	05/05/2025		02/05/2025	[NT]
Date Analysed	-			05/05/2025	2	05/05/2025	06/05/2025		05/05/2025	[NT]
MTBE	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dichlorodifluoromethane	µg/L	2	Ext-054	<2	2	<2	<2	0	[NT]	[NT]
Chloromethane	µg/L	2	Ext-054	<2	2	<2	<2	0	[NT]	[NT]
Vinyl Chloride	µg/L	0.2	Ext-054	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Bromomethane	µg/L	2	Ext-054	<2	2	<2	<2	0	[NT]	[NT]
Chloroethane	µg/L	2	Ext-054	<2	2	<2	<2	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	2	Ext-054	<2	2	<2	<2	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	111	[NT]
Cis-1,2-dichloroethene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Bromochloromethane	µg/L	0.5	Ext-054	<0.5	2	<0.5	<0.5	0	[NT]	[NT]
Chloroform	µg/L	0.5	Ext-054	<0.5	2	<0.5	<0.5	0	105	[NT]
2,2-dichloropropane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	103	[NT]
1,1,1-trichloroethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	106	[NT]
Cyclohexane	µg/L	0.1	Org-023	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,1-dichloropropene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Benzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	103	[NT]
Dibromomethane	µg/L	0.5	Ext-054	<0.5	2	<0.5	<0.5	0	[NT]	[NT]
1,2-dichloropropane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Trichloroethene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	103	[NT]
Bromodichloromethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	104	[NT]
trans-1,3-dichloropropene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Toluene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	105	[NT]
1,3-dichloropropane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dibromochloromethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	102	[NT]
1,2-dibromoethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Tetrachloroethene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	101	[NT]
1,1,1,2-tetrachloroethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chlorobenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ethylbenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	99	[NT]
Bromoform	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
m+p-xylene	µg/L	0.2	Ext-054	<0.2	2	<0.2	<0.2	0	103	[NT]
Styrene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in Water - Low Level					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
1,1,2,2-tetrachloroethane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
o-xylene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	102	[NT]
1,2,3-trichloropropane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Isopropylbenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Bromobenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
n-propyl benzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
2-chlorotoluene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
4-chlorotoluene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
n-butyl benzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	0.2	Ext-054	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	0.1	Ext-054	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Ext-054	112	2	102	116	13	104	[NT]
Surrogate toluene-d8	%		Ext-054	103	2	97	104	7	105	[NT]
Surrogate 4-BFB	%		Ext-054	100	2	96	86	11	102	[NT]

QUALITY CONTROL: VOCs in Water - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date Extracted	-			[NT]	4	02/05/2025	05/05/2025		[NT]	[NT]
Date Analysed	-			[NT]	4	05/05/2025	06/05/2025		[NT]	[NT]
MTBE	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Dichlorodifluoromethane	µg/L	2	Ext-054	[NT]	4	<2	<2	0	[NT]	[NT]
Chloromethane	µg/L	2	Ext-054	[NT]	4	<2	<2	0	[NT]	[NT]
Vinyl Chloride	µg/L	0.2	Ext-054	[NT]	4	<0.2	<0.2	0	[NT]	[NT]
Bromomethane	µg/L	2	Ext-054	[NT]	4	<2	<2	0	[NT]	[NT]
Chloroethane	µg/L	2	Ext-054	[NT]	4	<2	<2	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	2	Ext-054	[NT]	4	<2	<2	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Cis-1,2-dichloroethene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Bromochloromethane	µg/L	0.5	Ext-054	[NT]	4	<0.5	<0.5	0	[NT]	[NT]
Chloroform	µg/L	0.5	Ext-054	[NT]	4	<0.5	<0.5	0	[NT]	[NT]
2,2-dichloropropane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,1,1-trichloroethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Cyclohexane	µg/L	0.1	Org-023	[NT]	4	13	17	27	[NT]	[NT]
1,1-dichloropropene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Benzene	µg/L	0.1	Ext-054	[NT]	4	2.4	3.0	22	[NT]	[NT]
Dibromomethane	µg/L	0.5	Ext-054	[NT]	4	<0.5	<0.5	0	[NT]	[NT]
1,2-dichloropropane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Trichloroethene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Bromodichloromethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
trans-1,3-dichloropropene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Toluene	µg/L	0.1	Ext-054	[NT]	4	0.4	0.4	0	[NT]	[NT]
1,3-dichloropropane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Dibromochloromethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,2-dibromoethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Tetrachloroethene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,1,1,2-tetrachloroethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Chlorobenzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Ethylbenzene	µg/L	0.1	Ext-054	[NT]	4	0.3	0.2	40	[NT]	[NT]
Bromoform	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
m+p-xylene	µg/L	0.2	Ext-054	[NT]	4	1.1	1.1	0	[NT]	[NT]
Styrene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]

Client Reference: 228674.02 - Gloucester

QUALITY CONTROL: VOCs in Water - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
o-xylene	µg/L	0.1	Ext-054	[NT]	4	0.3	0.3	0	[NT]	[NT]
1,2,3-trichloropropane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Isopropylbenzene	µg/L	0.1	Ext-054	[NT]	4	0.7	0.7	0	[NT]	[NT]
Bromobenzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
n-propyl benzene	µg/L	0.1	Ext-054	[NT]	4	1	1.0	0	[NT]	[NT]
2-chlorotoluene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
4-chlorotoluene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	0.1	Ext-054	[NT]	4	0.1	0.1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	0.1	Ext-054	[NT]	4	0.3	0.3	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
n-butyl benzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	0.2	Ext-054	[NT]	4	<0.2	<0.2	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	0.1	Ext-054	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Ext-054	[NT]	4	102	105	3	[NT]	[NT]
Surrogate toluene-d8	%		Ext-054	[NT]	4	100	104	4	[NT]	[NT]
Surrogate 4-BFB	%		Ext-054	[NT]	4	99	86	14	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date extracted	-			05/05/2025	2	02/05/2025	05/05/2025		02/05/2025	[NT]
Date analysed	-			06/05/2025	2	05/05/2025	06/05/2025		05/05/2025	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	2	<10	<10	0	103	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	2	<10	<10	0	103	[NT]
Benzene	µg/L	1	Org-023	<1	2	<1	<1	0	103	[NT]
Toluene	µg/L	1	Org-023	<1	2	<1	<1	0	105	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	2	<1	<1	0	99	[NT]
m+p-xylene	µg/L	2	Org-023	<2	2	<2	<2	0	103	[NT]
o-xylene	µg/L	1	Org-023	<1	2	<1	<1	0	102	[NT]
Naphthalene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	112	2	102	116	13	104	[NT]
Surrogate Toluene-d8	%		Org-023	103	2	97	104	7	105	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	100	2	96	86	11	102	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	4	02/05/2025	05/05/2025		[NT]	[NT]
Date analysed	-			[NT]	4	05/05/2025	06/05/2025		[NT]	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	[NT]	4	110	130	17	[NT]	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	[NT]	4	120	140	15	[NT]	[NT]
Benzene	µg/L	1	Org-023	[NT]	4	2	3	40	[NT]	[NT]
Toluene	µg/L	1	Org-023	[NT]	4	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	[NT]	4	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	[NT]	4	<2	<2	0	[NT]	[NT]
o-xylene	µg/L	1	Org-023	[NT]	4	<1	<1	0	[NT]	[NT]
Naphthalene	µg/L	1	Org-023	[NT]	4	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	[NT]	4	102	105	3	[NT]	[NT]
Surrogate Toluene-d8	%		Org-023	[NT]	4	100	104	4	[NT]	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	[NT]	4	99	86	14	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date extracted	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Date analysed	-			02/05/2025	[NT]	[NT]	[NT]	[NT]	02/05/2025	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
Surrogate o-Terphenyl	%		Org-020	96	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W6	[NT]
Date extracted	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Date analysed	-			02/05/2025	[NT]	[NT]	[NT]	[NT]	02/05/2025	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	116	[NT]	[NT]	[NT]	[NT]	133	[NT]

QUALITY CONTROL: All metals in water-dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W7	379259-2
Date prepared	-			01/05/2025	1	01/05/2025	01/05/2025		01/05/2025	01/05/2025
Date analysed	-			01/05/2025	1	01/05/2025	01/05/2025		01/05/2025	01/05/2025
Silver-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	98	74
Aluminium-Dissolved	µg/L	10	Metals-022	<10	1	<10	<10	0	83	91
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	94	103
Beryllium-Dissolved	µg/L	0.5	Metals-022	<0.5	1	<0.5	<0.5	0	90	111
Boron-Dissolved	µg/L	20	Metals-022	<20	1	30	20	40	86	106
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	91	100
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	94	102
Cobalt-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	95	106
Copper-Dissolved	µg/L	1	Metals-022	<1	1	1	1	0	95	102
Iron-Dissolved	µg/L	10	Metals-022	<10	1	<10	<10	0	93	89
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	91	99
Manganese-Dissolved	µg/L	5	Metals-022	<5	1	130	140	7	90	112
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	[NT]		99	[NT]
Molybdenum-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	91	89
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	10	10	0	94	105
Selenium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	92	104
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	8	8	0	92	112

QUALITY CONTROL: All metals in water-dissolved					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	379259-3
Date prepared	-			[NT]	2	01/05/2025	01/05/2025		[NT]	01/05/2025
Date analysed	-			[NT]	2	01/05/2025	01/05/2025		[NT]	01/05/2025
Silver-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	[NT]		[NT]	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	[NT]	2	<10	[NT]		[NT]	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	[NT]		[NT]	[NT]
Beryllium-Dissolved	µg/L	0.5	Metals-022	[NT]	2	<0.5	[NT]		[NT]	[NT]
Boron-Dissolved	µg/L	20	Metals-022	[NT]	2	<20	[NT]		[NT]	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	[NT]	2	<0.1	[NT]		[NT]	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	[NT]		[NT]	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	[NT]		[NT]	[NT]
Copper-Dissolved	µg/L	1	Metals-022	[NT]	2	2	[NT]		[NT]	[NT]
Iron-Dissolved	µg/L	10	Metals-022	[NT]	2	<10	[NT]		[NT]	[NT]
Lead-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	[NT]		[NT]	[NT]
Manganese-Dissolved	µg/L	5	Metals-022	[NT]	2	17	[NT]		[NT]	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	[NT]	2	<0.05	<0.05	0	[NT]	92
Molybdenum-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	[NT]		[NT]	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	[NT]	2	2	[NT]		[NT]	[NT]
Selenium-Dissolved	µg/L	1	Metals-022	[NT]	2	1	[NT]		[NT]	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	[NT]	2	5	[NT]		[NT]	[NT]

QUALITY CONTROL: All metals in water-dissolved					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	10	01/05/2025	01/05/2025		[NT]	[NT]
Date analysed	-			[NT]	10	01/05/2025	01/05/2025		[NT]	[NT]
Silver-Dissolved	µg/L	1	Metals-022	[NT]	10	<1	[NT]		[NT]	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	[NT]	10	<10	[NT]		[NT]	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	[NT]	10	16	[NT]		[NT]	[NT]
Beryllium-Dissolved	µg/L	0.5	Metals-022	[NT]	10	<0.5	[NT]		[NT]	[NT]
Boron-Dissolved	µg/L	20	Metals-022	[NT]	10	<20	[NT]		[NT]	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	[NT]	10	<0.1	[NT]		[NT]	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	[NT]	10	<1	[NT]		[NT]	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	[NT]	10	<1	[NT]		[NT]	[NT]
Copper-Dissolved	µg/L	1	Metals-022	[NT]	10	<1	[NT]		[NT]	[NT]
Iron-Dissolved	µg/L	10	Metals-022	[NT]	10	2100	[NT]		[NT]	[NT]
Lead-Dissolved	µg/L	1	Metals-022	[NT]	10	<1	[NT]		[NT]	[NT]
Manganese-Dissolved	µg/L	5	Metals-022	[NT]	10	2600	[NT]		[NT]	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	[NT]	10	<0.05	<0.05	0	[NT]	[NT]
Molybdenum-Dissolved	µg/L	1	Metals-022	[NT]	10	1	[NT]		[NT]	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	[NT]	10	5	[NT]		[NT]	[NT]
Selenium-Dissolved	µg/L	1	Metals-022	[NT]	10	<1	[NT]		[NT]	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	[NT]	10	4	[NT]		[NT]	[NT]

QUALITY CONTROL: All metals in water-dissolved					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	01/05/2025	01/05/2025		[NT]	[NT]
Date analysed	-			[NT]	11	01/05/2025	01/05/2025		[NT]	[NT]
Silver-Dissolved	µg/L	1	Metals-022	[NT]	11	<1	<1	0	[NT]	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	[NT]	11	<10	<10	0	[NT]	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	[NT]	11	20	21	5	[NT]	[NT]
Beryllium-Dissolved	µg/L	0.5	Metals-022	[NT]	11	<0.5	<0.5	0	[NT]	[NT]
Boron-Dissolved	µg/L	20	Metals-022	[NT]	11	20	20	0	[NT]	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	[NT]	11	<1	<1	0	[NT]	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	[NT]	11	1	<1	0	[NT]	[NT]
Copper-Dissolved	µg/L	1	Metals-022	[NT]	11	<1	<1	0	[NT]	[NT]
Iron-Dissolved	µg/L	10	Metals-022	[NT]	11	4100	4300	5	[NT]	[NT]
Lead-Dissolved	µg/L	1	Metals-022	[NT]	11	1	1	0	[NT]	[NT]
Manganese-Dissolved	µg/L	5	Metals-022	[NT]	11	3800	3700	3	[NT]	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	[NT]	11	<0.05	[NT]		[NT]	[NT]
Molybdenum-Dissolved	µg/L	1	Metals-022	[NT]	11	2	2	0	[NT]	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	[NT]	11	5	5	0	[NT]	[NT]
Selenium-Dissolved	µg/L	1	Metals-022	[NT]	11	<1	<1	0	[NT]	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	[NT]	11	6	7	15	[NT]	[NT]

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	379259-2
Date prepared	-			06/05/2025	1	05/05/2025	05/05/2025		06/05/2025	05/05/2025
Date analysed	-			06/05/2025	1	05/05/2025	05/05/2025		06/05/2025	05/05/2025
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	<0.001	1	0.022	0.023	4	112	133
Perfluoropentanesulfonic acid	µg/L	0.001	Org-029	<0.001	1	0.014	0.014	0	76	73
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	<0.001	1	0.14	0.14	0	95	94
Perfluoroheptanesulfonic acid	µg/L	0.001	Org-029	<0.001	1	0.007	0.007	0	85	85
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	1	0.33	0.31	6	104	87
Perfluorodecanesulfonic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	108	114
Perfluorobutanoic acid	µg/L	0.002	Org-029	<0.002	1	0.026	0.027	4	114	132
Perfluoropentanoic acid	µg/L	0.002	Org-029	<0.002	1	0.003	0.004	29	95	102
Perfluorohexanoic acid	µg/L	0.001	Org-029	<0.001	1	0.0099	0.01	1	97	95
Perfluoroheptanoic acid	µg/L	0.001	Org-029	<0.001	1	0.007	0.007	0	106	120
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	1	0.024	0.023	4	103	108
Perfluorononanoic acid	µg/L	0.001	Org-029	<0.001	1	0.004	0.004	0	67	65
Perfluorodecanoic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	96	103
Perfluoroundecanoic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	100	98
Perfluorododecanoic acid	µg/L	0.005	Org-029	<0.005	1	<0.005	<0.005	0	96	94
Perfluorotridecanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	121	104
Perfluorotetradecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	105	102
4:2 FTS	µg/L	0.001	Org-029	<0.001	1	<0.001	<0.001	0	108	114
6:2 FTS	µg/L	0.001	Org-029	<0.001	1	<0.001	<0.001	0	114	112
8:2 FTS	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	113	99
10:2 FTS	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	95	82
Perfluorooctane sulfonamide	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	122	118
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	104	113
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	131	129
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	78	64
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	101	116
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	100	88
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	88	79
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	109	1	113	106	6	108	113
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	110	1	111	115	4	107	115

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	379259-2
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	50	1	57	55	4	50	57
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	123	1	115	115	0	122	126
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	100	1	125	130	4	101	139
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	78	1	32	32	0	76	38
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	65	1	48	47	2	63	53
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	70	1	73	74	1	70	78
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	90	1	103	97	6	87	107
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	108	1	136	132	3	107	139
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	120	1	137	133	3	117	150
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	124	1	167	159	5	128	180
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	120	1	156	147	6	125	165
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	132	1	171	153	11	139	196
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	105	1	130	100	26	96	177
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	87	1	99	95	4	89	112
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	118	1	#	#		119	#
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	129	1	#	#		145	#
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	83	1	106	105	1	78	65
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	94	1	96	100	4	93	95
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	91	1	92	97	5	91	90
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	97	1	96	101	5	96	99

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	379259-2
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	91	1	96	96	0	88	93
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	115	1	#	#		132	137
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	141	1	#	#		188	#

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	06/05/2025	06/05/2025		[NT]	[NT]
Date analysed	-			[NT]	11	06/05/2025	06/05/2025		[NT]	[NT]
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	[NT]	11	0.013	0.012	8	[NT]	[NT]
Perfluoropentanesulfonic acid	µg/L	0.001	Org-029	[NT]	11	0.008	0.007	13	[NT]	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	[NT]	11	0.064	0.058	10	[NT]	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.001	Org-029	[NT]	11	0.005	0.004	22	[NT]	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	[NT]	11	0.19	0.17	11	[NT]	[NT]
Perfluorodecanesulfonic acid	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
Perfluorobutanoic acid	µg/L	0.002	Org-029	[NT]	11	<0.01	<0.01	0	[NT]	[NT]
Perfluoropentanoic acid	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
Perfluorohexanoic acid	µg/L	0.001	Org-029	[NT]	11	0.002	0.002	0	[NT]	[NT]
Perfluoroheptanoic acid	µg/L	0.001	Org-029	[NT]	11	0.003	0.003	0	[NT]	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	[NT]	11	0.013	0.012	8	[NT]	[NT]
Perfluorononanoic acid	µg/L	0.001	Org-029	[NT]	11	0.007	0.006	15	[NT]	[NT]
Perfluorodecanoic acid	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
Perfluoroundecanoic acid	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
Perfluorododecanoic acid	µg/L	0.005	Org-029	[NT]	11	<0.005	<0.005	0	[NT]	[NT]
Perfluorotridecanoic acid	µg/L	0.01	Org-029	[NT]	11	<0.01	<0.01	0	[NT]	[NT]
Perfluorotetradecanoic acid	µg/L	0.05	Org-029	[NT]	11	<0.05	<0.05	0	[NT]	[NT]
4:2 FTS	µg/L	0.001	Org-029	[NT]	11	<0.001	<0.001	0	[NT]	[NT]
6:2 FTS	µg/L	0.001	Org-029	[NT]	11	<0.001	<0.001	0	[NT]	[NT]
8:2 FTS	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
10:2 FTS	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
Perfluorooctane sulfonamide	µg/L	0.01	Org-029	[NT]	11	<0.01	<0.01	0	[NT]	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	[NT]	11	<0.05	<0.05	0	[NT]	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	[NT]	11	<0.05	<0.05	0	[NT]	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	[NT]	11	<0.5	<0.5	0	[NT]	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	[NT]	11	<0.002	<0.002	0	[NT]	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	[NT]	11	104	109	5	[NT]	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	[NT]	11	110	113	3	[NT]	[NT]

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	[NT]	11	52	54	4	[NT]	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	[NT]	11	156	172	10	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	[NT]	11	123	126	2	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	[NT]	11	27	29	7	[NT]	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	[NT]	11	52	51	2	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	[NT]	11	70	74	6	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	[NT]	11	97	101	4	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	[NT]	11	128	132	3	[NT]	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	[NT]	11	134	142	6	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	[NT]	11	157	167	6	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	[NT]	11	139	150	8	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	[NT]	11	145	149	3	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	[NT]	11	121	121	0	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	[NT]	11	96	107	11	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	[NT]	11	184	194	5	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	[NT]	11	#	#		[NT]	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	[NT]	11	84	88	5	[NT]	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	[NT]	11	96	96	0	[NT]	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	[NT]	11	94	92	2	[NT]	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	[NT]	11	102	105	3	[NT]	[NT]

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	[NT]	11	97	95	2	[NT]	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	[NT]	11	197	#		[NT]	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	[NT]	11	#	#		[NT]	[NT]

QUALITY CONTROL: Ion Balance					Duplicate					Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Date analysed	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	97	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	92	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	97	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	97	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			30/04/2025	1	30/04/2025	30/04/2025		30/04/2025	[NT]
Date analysed	-			30/04/2025	1	30/04/2025	30/04/2025		30/04/2025	[NT]
pH	pH Units		Inorg-001	[NT]	1	6.9	6.8	1	[NT]	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	<1	1	350	350	0	99	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	<5	[NT]	[NT]	[NT]	[NT]	88	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	[NT]	[NT]	[NT]	[NT]	100	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	100	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	102	[NT]
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	100	[NT]
Organic Nitrogen as N	mg/L	0.2	Inorg-055/062/127	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
TKN in water	mg/L	0.1	Inorg-062	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	30/04/2025	30/04/2025		[NT]	[NT]
Date analysed	-			[NT]	11	30/04/2025	30/04/2025		[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	11	6.8	6.8	0	[NT]	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	[NT]	11	740	740	0	[NT]	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Date analysed	-			01/05/2025	[NT]	[NT]	[NT]	[NT]	01/05/2025	[NT]
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	110	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle. Note: there is a possibility some elements may be underestimated.

VOC_W_LL:
The PQL for sample/s 379259-7,10,11,13,14 has been raised due to the high concentration of analytes in the samples, resulting in the samples requiring a dilution.

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

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CERTIFICATE OF ANALYSIS 379259-A

Client Details

Client	Douglas Partners Newcastle
Attention	Joshua Kramer
Address	Box 324 Hunter Region Mail Centre, Newcastle, NSW, 2310

Sample Details

Your Reference	**228674.02 - Gloucester**
Number of Samples	Additional analysis
Date samples received	30/04/2025
Date completed instructions received	12/05/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/05/2025
Date of Issue	19/05/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Jack Wallis, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

svTRH (C10-C40) in Water NEPM Silica gel						
Our Reference		379259-A-5	379259-A-7	379259-A-10	379259-A-11	379259-A-12
Your Reference	UNITS	105	MW1	302	303	304
Date Sampled		28/04/2025	28/04/2025	29/04/2025	29/04/2025	29/04/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	16/05/2025	16/05/2025	16/05/2025	16/05/2025	16/05/2025
Date analysed	-	17/05/2025	17/05/2025	17/05/2025	17/05/2025	17/05/2025
TRH (Silica) C_{10} - C_{14}	µg/L	60	1,800	650	1,500	100
TRH (Silica) C_{15} - C_{28}	µg/L	<100	<100	<100	<100	<100
TRH (Silica) C_{29} - C_{36}	µg/L	<100	<100	<100	<100	<100
TRH (Silica) >C_{10} - C_{16}	µg/L	67	960	350	830	120
TRH (Silica) >C_{16} - C_{34}	µg/L	<100	<100	<100	<100	<100
TRH (Silica) >C_{34} - C_{40}	µg/L	<100	<100	<100	<100	<100
Surrogate 1-Chlorooctadecane	%	86	77	89	102	81

svTRH (C10-C40) in Water NEPM Silica gel			
Our Reference		379259-A-13	379259-A-14
Your Reference	UNITS	305	306
Date Sampled		29/04/2025	29/04/2025
Type of sample		Water	Water
Date extracted	-	16/05/2025	16/05/2025
Date analysed	-	17/05/2025	17/05/2025
TRH (Silica) C_{10} - C_{14}	µg/L	2,100	1,000
TRH (Silica) C_{15} - C_{28}	µg/L	<100	<100
TRH (Silica) C_{29} - C_{36}	µg/L	<100	<100
TRH (Silica) >C_{10} - C_{16}	µg/L	970	780
TRH (Silica) >C_{16} - C_{34}	µg/L	<100	<100
TRH (Silica) >C_{34} - C_{40}	µg/L	<100	<100
Surrogate 1-Chlorooctadecane	%	95	77

Method ID	Methodology Summary
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.

QUALITY CONTROL: svTRH (C10-C40) in Water NEPM Silica gel					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/05/2025	[NT]	[NT]	[NT]	[NT]	16/05/2025	[NT]
Date analysed	-			17/05/2025	[NT]	[NT]	[NT]	[NT]	17/05/2025	[NT]
TRH (Silica) C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH (Silica) C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH (Silica) C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH (Silica) >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH (Silica) >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH (Silica) >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
Surrogate 1-Chlorooctadecane	%		Org-020	100	[NT]	[NT]	[NT]	[NT]	116	[NT]

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Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

Samples were out of the recommended holding time for this analysis.

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Hydrocarbon Reference Library

Envirolab Services Pty Ltd

Background

Petroleum hydrocarbons are made up of a large number of compounds that are originally derived from crude oil, as well as other sources of petroleum such as natural gas, coal, and peat. Petroleum hydrocarbons consist of three major groups of compounds (paraffins, olefins and aromatics).

Paraffins are alkanes (single bonded) and are one of the major constituents of crude oil. Examples are kerosene, gasoline and diesel.

Olefins are alkenes (double bonded). An example is Ethylene (extracted from natural gas).

Aromatics contain one or more 6 carbon rings with 3 of the carbons containing double bonds. Mono-nuclear (1 ring) examples are Benzene, Toluene, Ethyl benzene, Xylene (BTEX). Polynuclear (multiple rings) examples include Naphthalene, Pyrene (PAHs).

Products are produced by a combination of several individual hydrocarbon compounds all of which have slightly different vaporization and boiling temperatures. Due to the large number of constituents that make up petroleum products, samples are measured as Total Petroleum Hydrocarbons (TPH) and are analysed by capillary column gas chromatography.

A small amount of the sample extract is injected into a gas chromatograph. Once injected, the product is heated and vaporized and carried into a capillary column by a flow of inert gas. As the temperature of the column increases, the compounds begin to move through the column. The more volatile and lower boiling compounds will move first. A flame ionization detector (FID) connected to the end of the column detects the components of the product as they elute from the column. The time that it takes for individual components to go through the column depends on the temperature, length of column, column characteristics, and the character of the compound itself.

Hydrocarbon Reference Chromatograms

The resulting chromatogram (hydrocarbon report) gives a “fingerprint” of the contamination in the sample. This hydrocarbon report can then be compared to the Envirolab Hydrocarbon Reference Library, to help to qualitatively identify the source of the contamination. Chromatograms may differ slightly depending on the source of the product and the effects of weathering.

The bottom (horizontal) scale indicates the time in minutes. These retention times may differ slightly, but the overall “fingerprint” will usually be comparable to the reference hydrocarbon report.

The vertical scale indicates the response from the detector, and this scale will vary depending on the concentration of the sample.

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Petoleum Products

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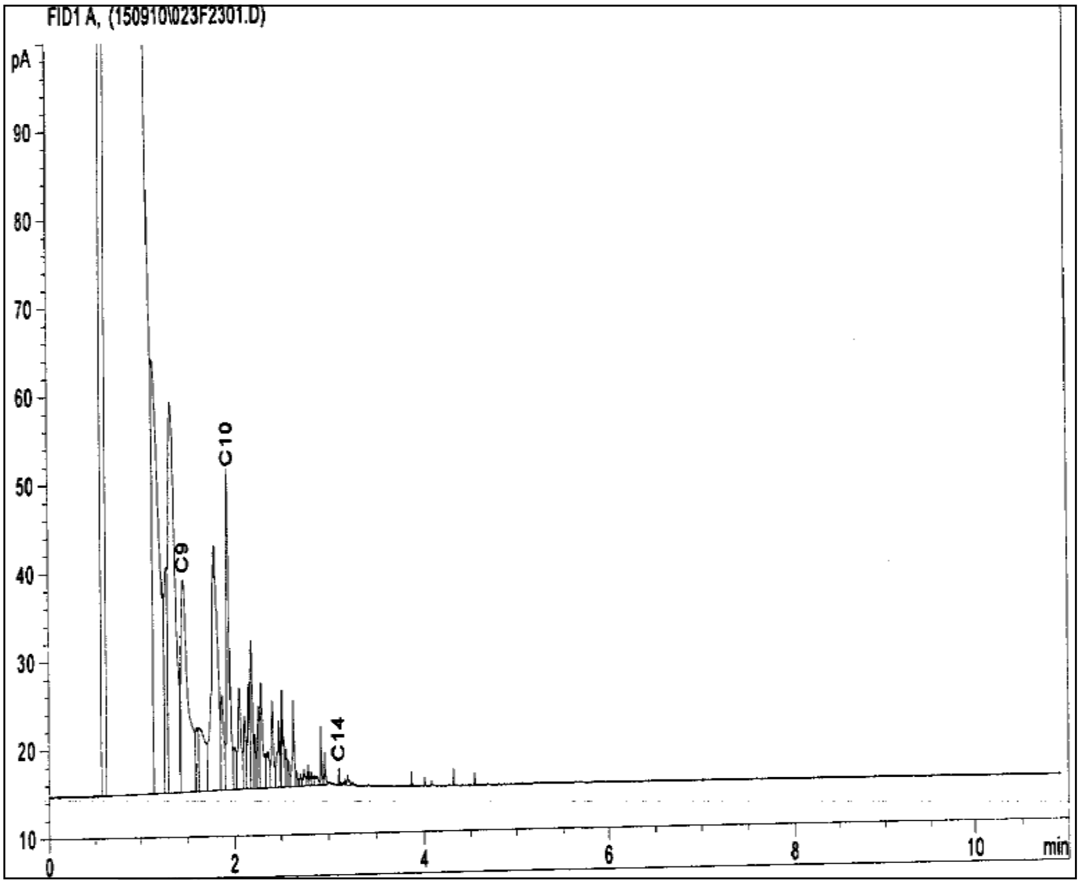
HYDROCARBON REFERENCE LIBRARY

UNLEADED PETROL unweathered

Response



Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

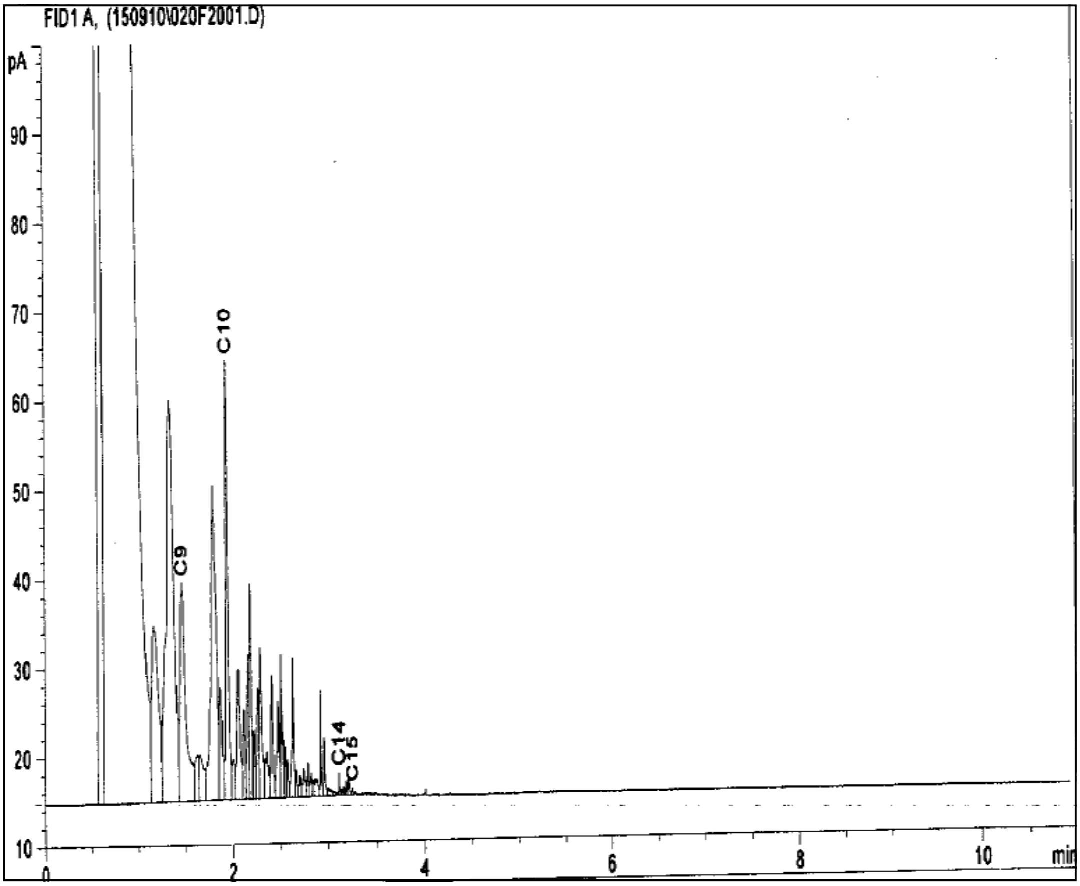
These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

UNLEADED PETROL 25% Weathered

Response



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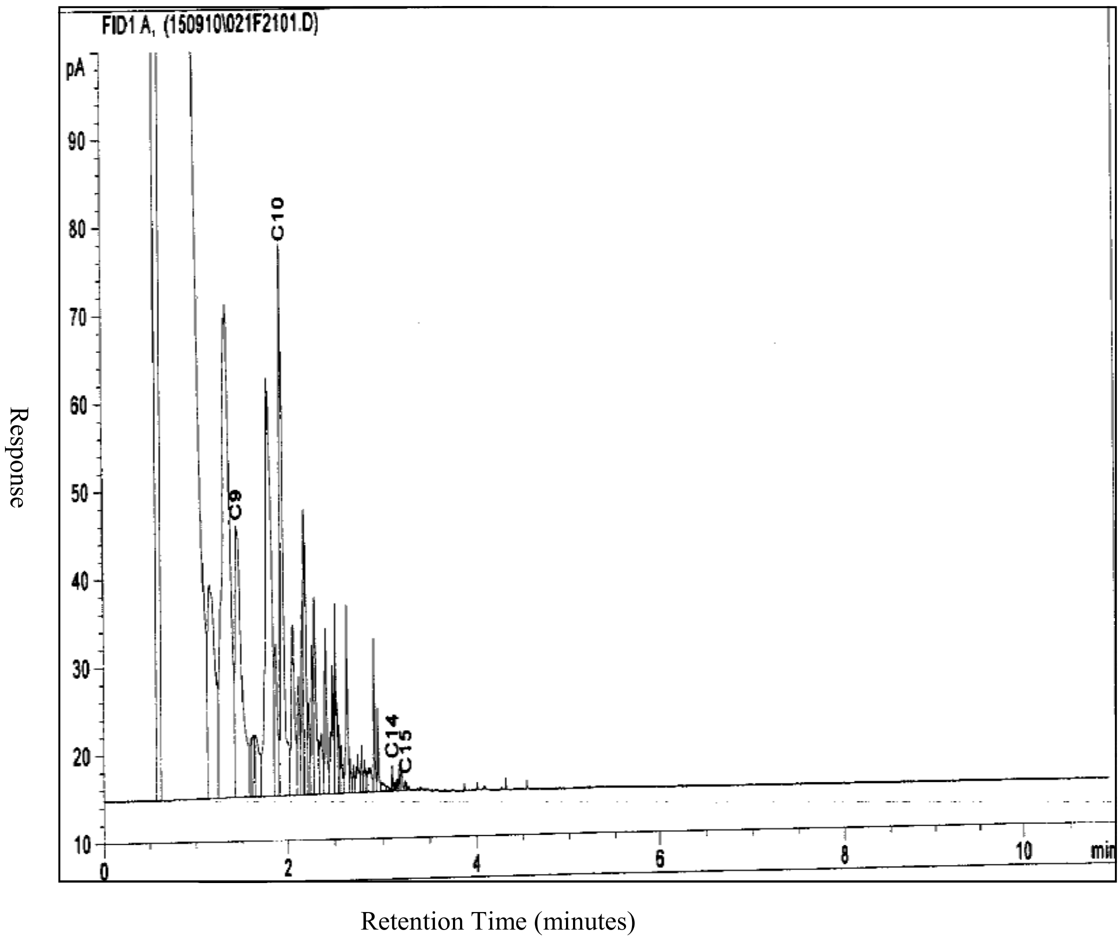
HYDROCARBON REFERENCE LIBRARY

UNLEADED PETROL 50% Weathered



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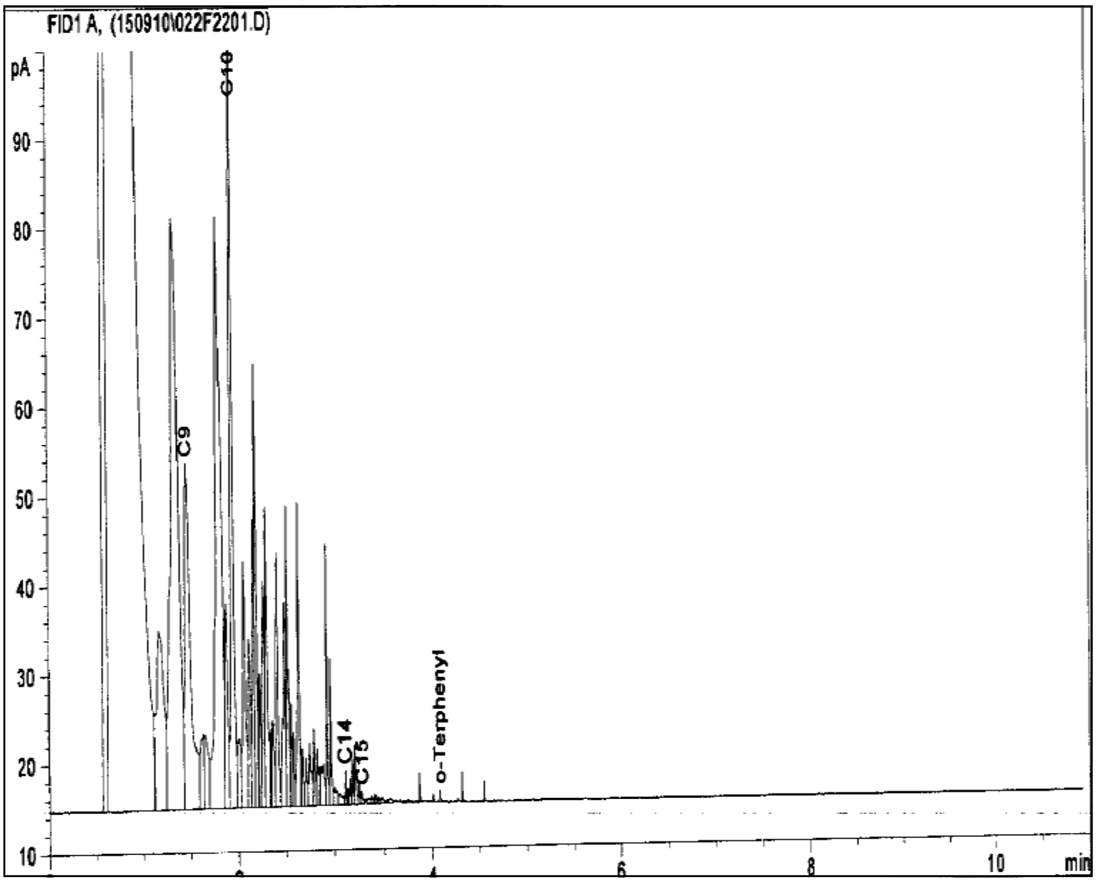
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

UNLEADED PETROL 75% Weathered

Response



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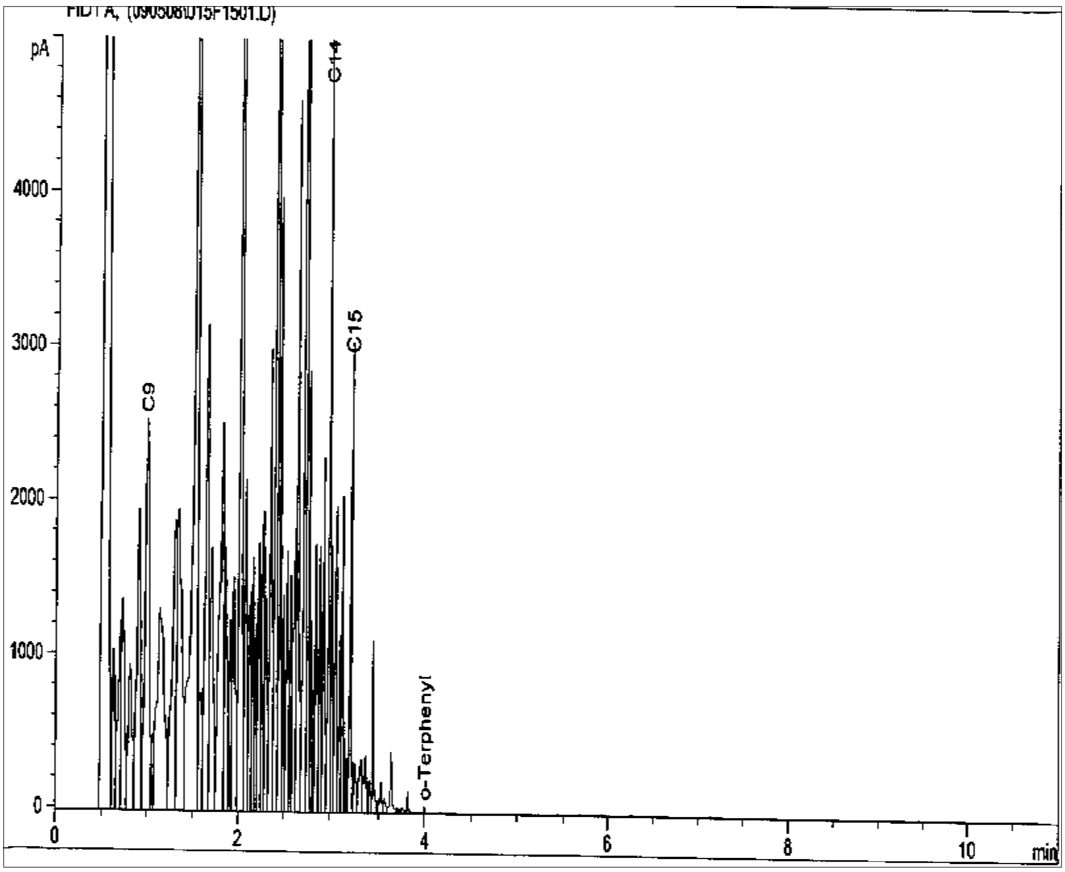
HYDROCARBON REFERENCE LIBRARY

JET FUEL

Response



Retention Time (minutes)

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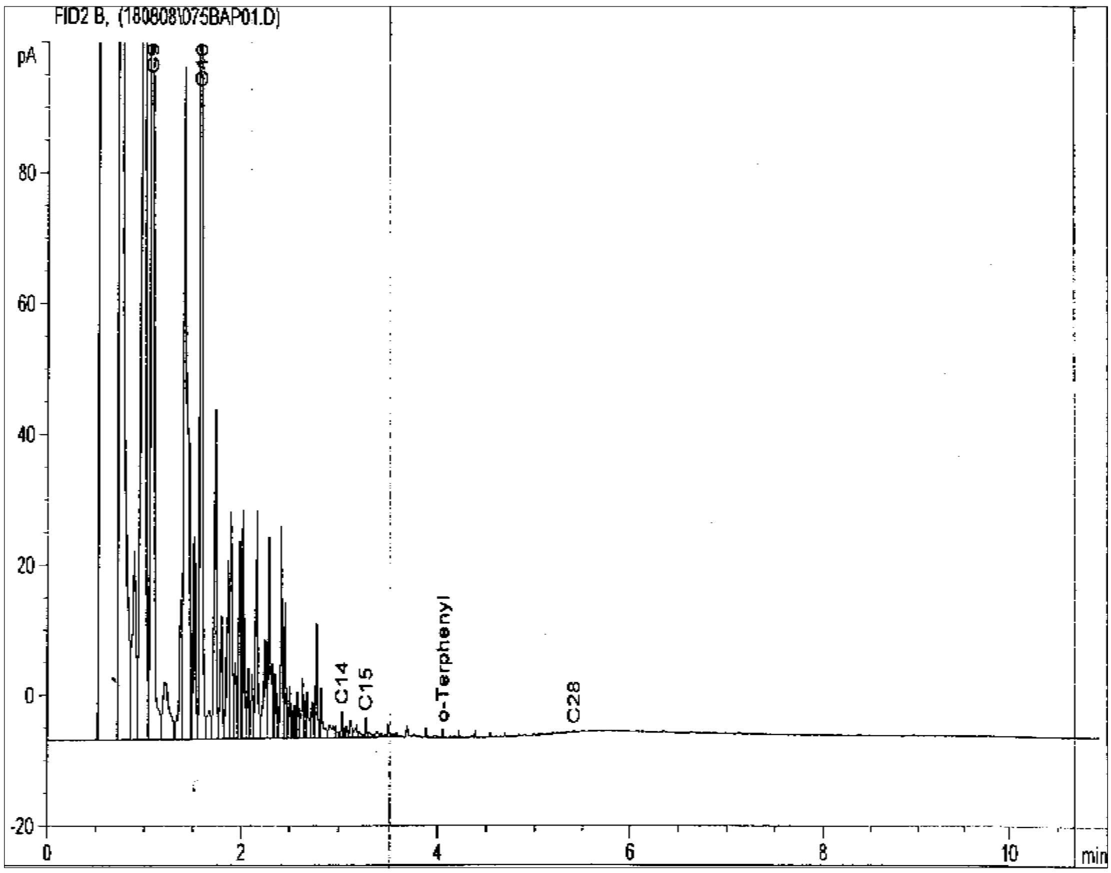
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

2 STROKE FUEL

Response



Retention Time (minutes)

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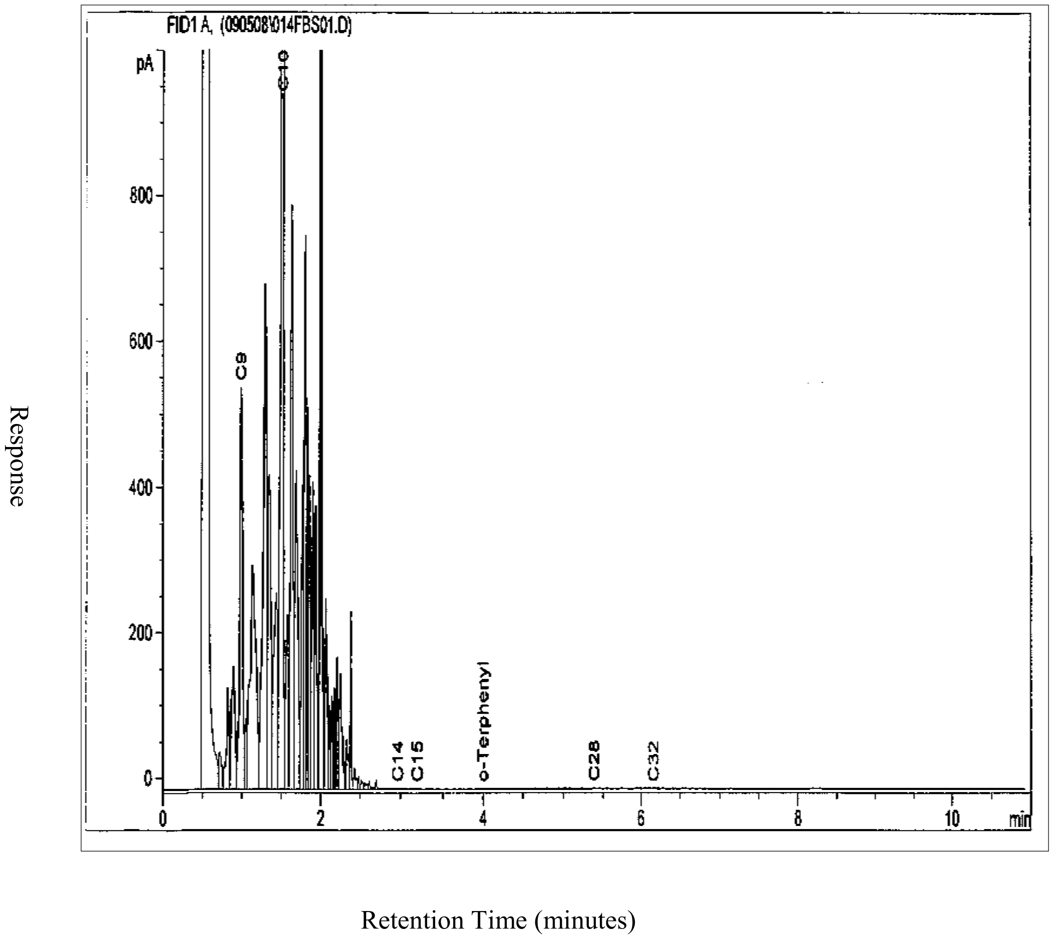
HYDROCARBON REFERENCE LIBRARY

WHITE SPIRIT (Paraffin derived solvent)



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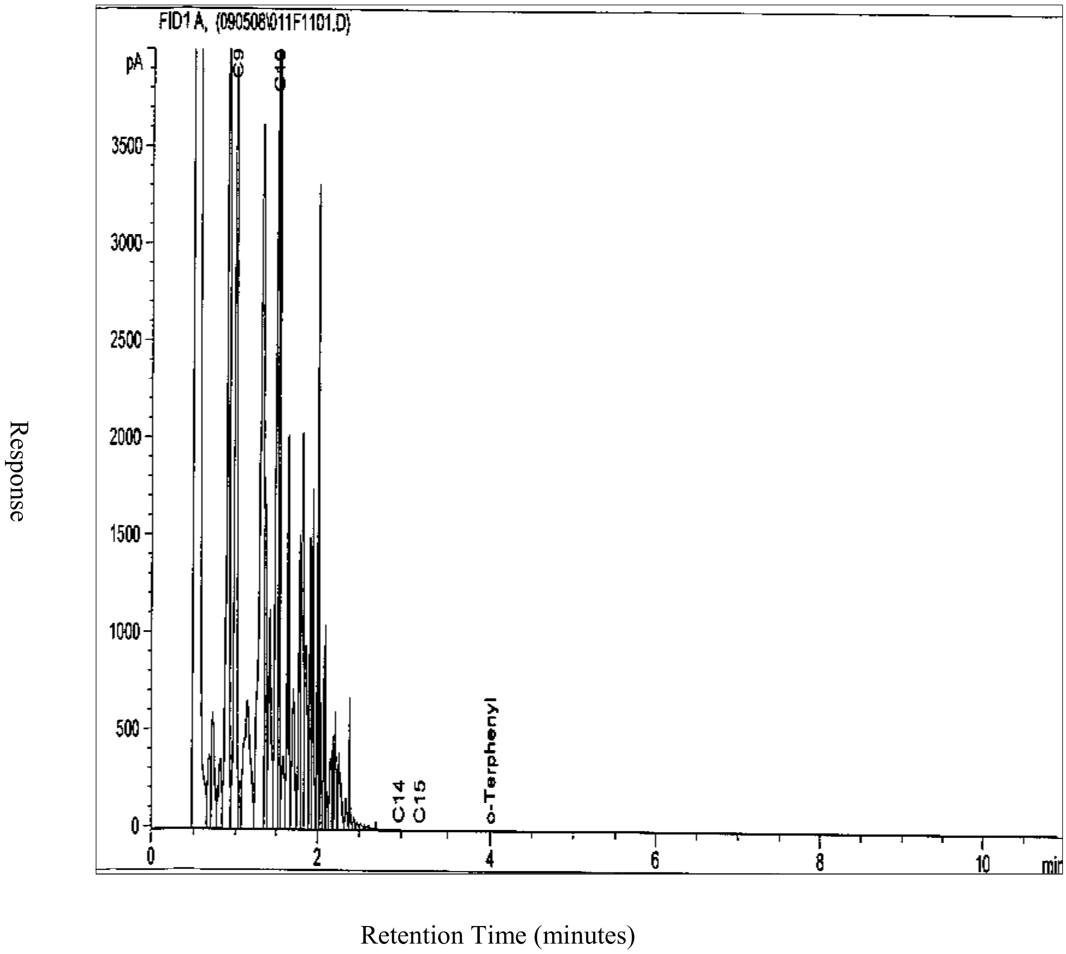
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

TURPENTINE



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The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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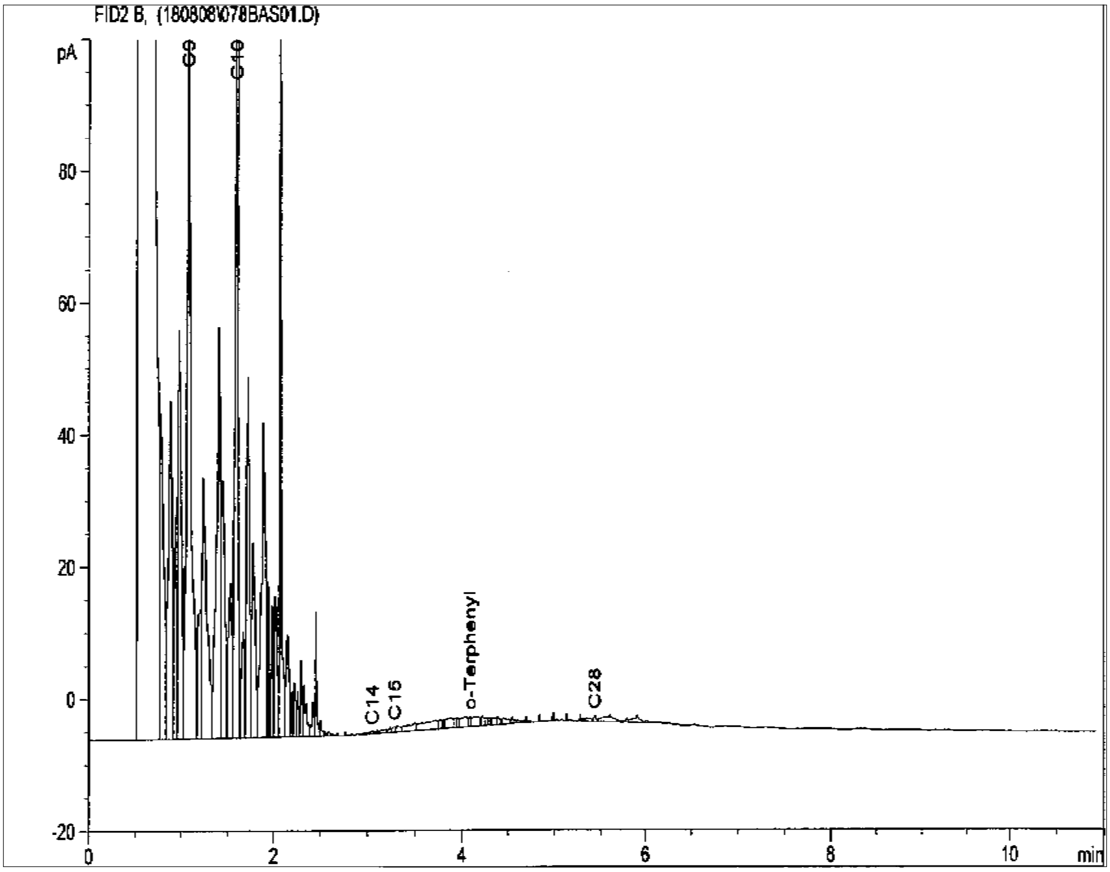
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

WD 40

Response



Retention Time (minutes)

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The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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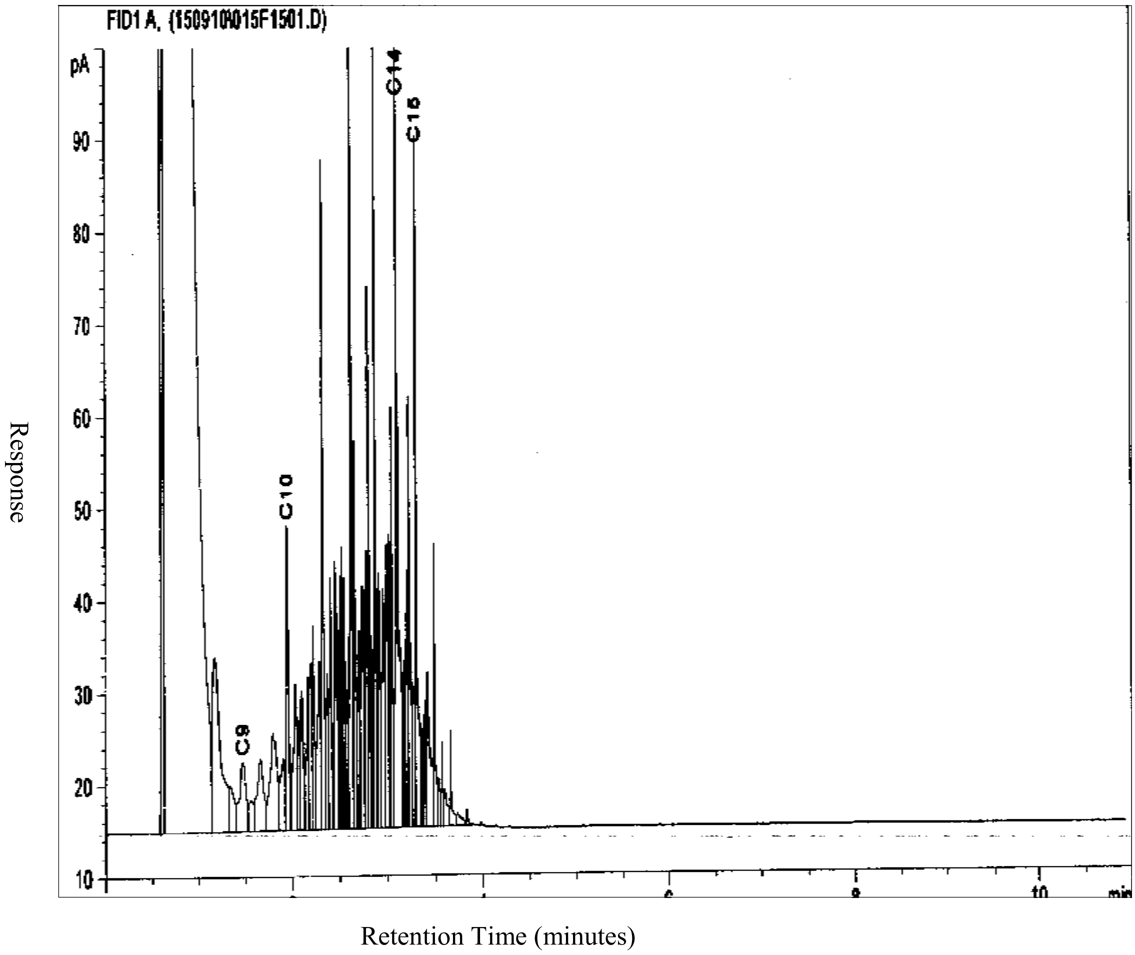
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

KEROSENE Unweathered



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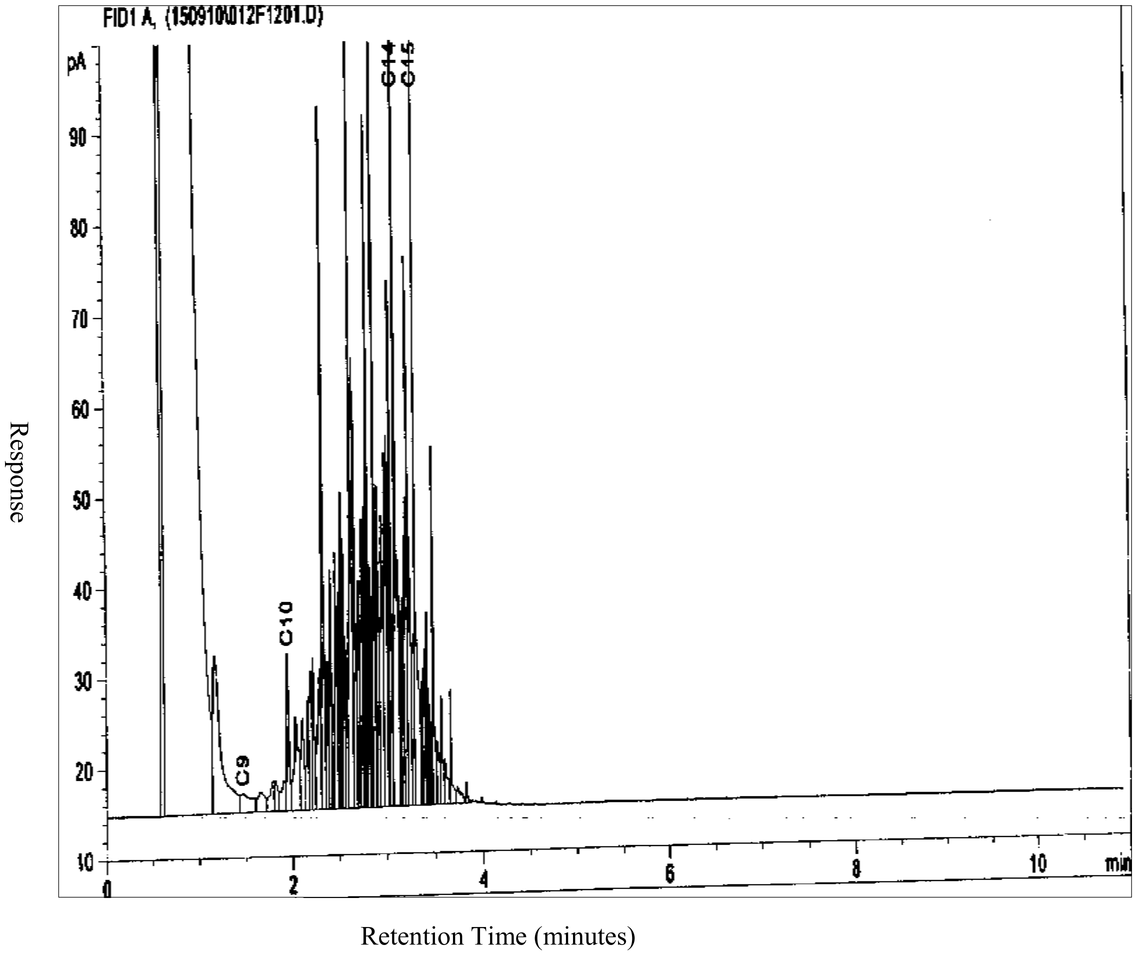
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

KEROSENE 25% weathered



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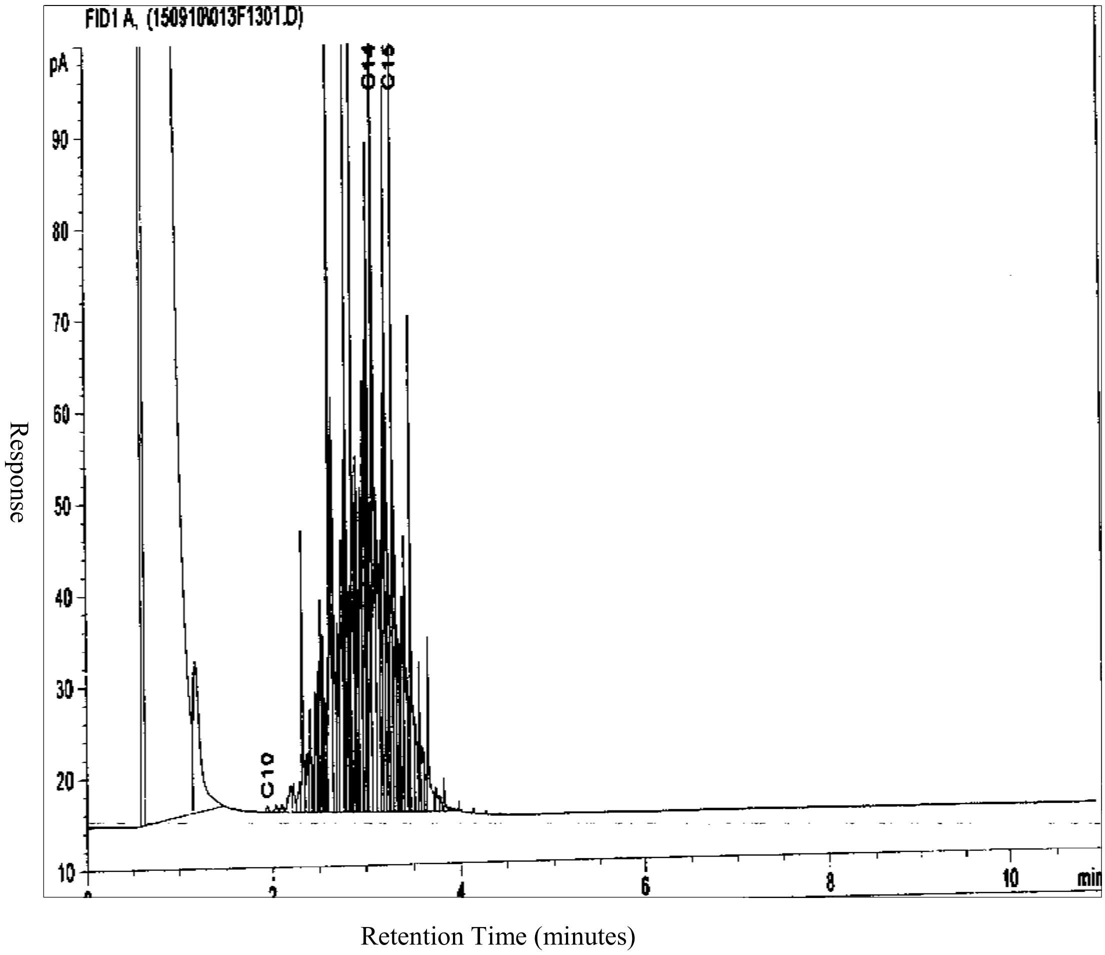
HYDROCARBON REFERENCE LIBRARY

KEROSENE 50% weathered



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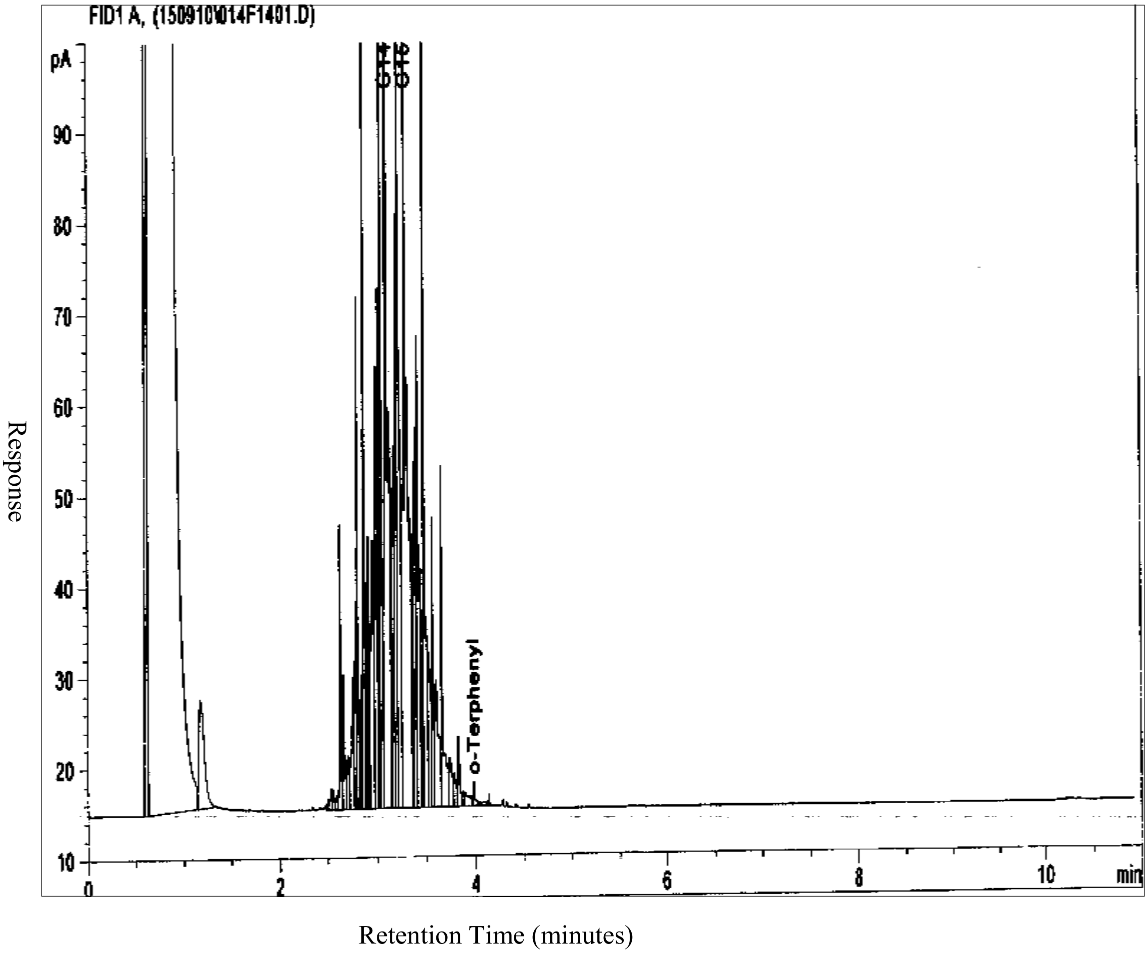
HYDROCARBON REFERENCE LIBRARY

KEROSENE 75% weathered



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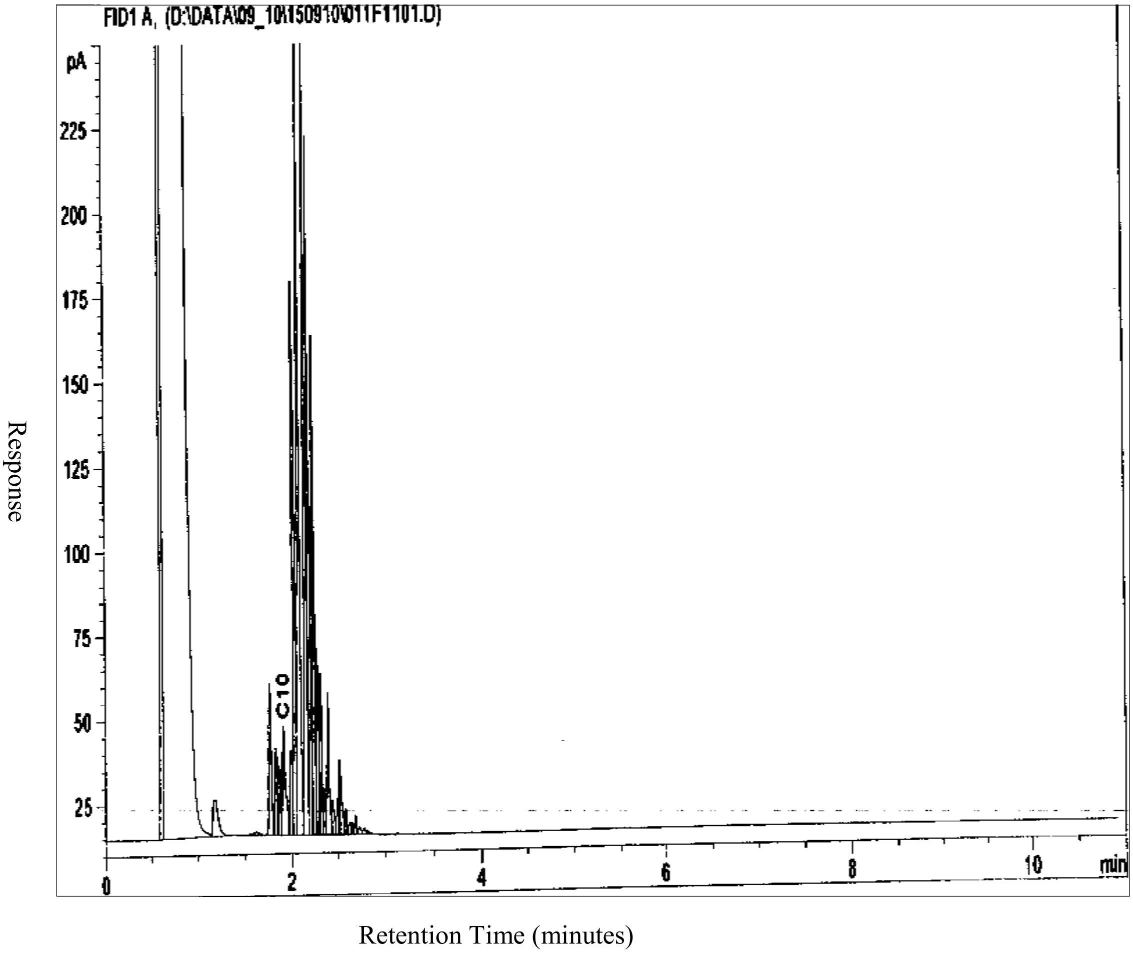
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT unweathered



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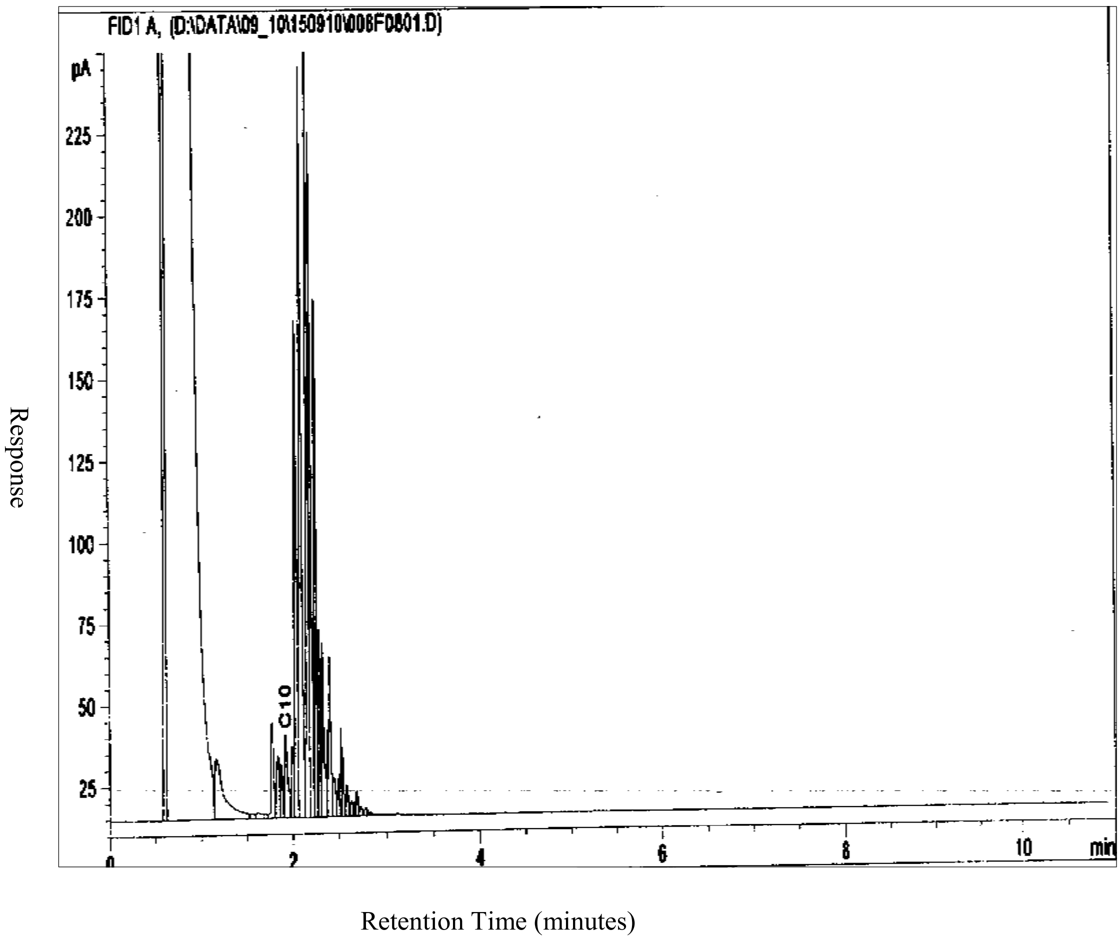
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT 25% weathered



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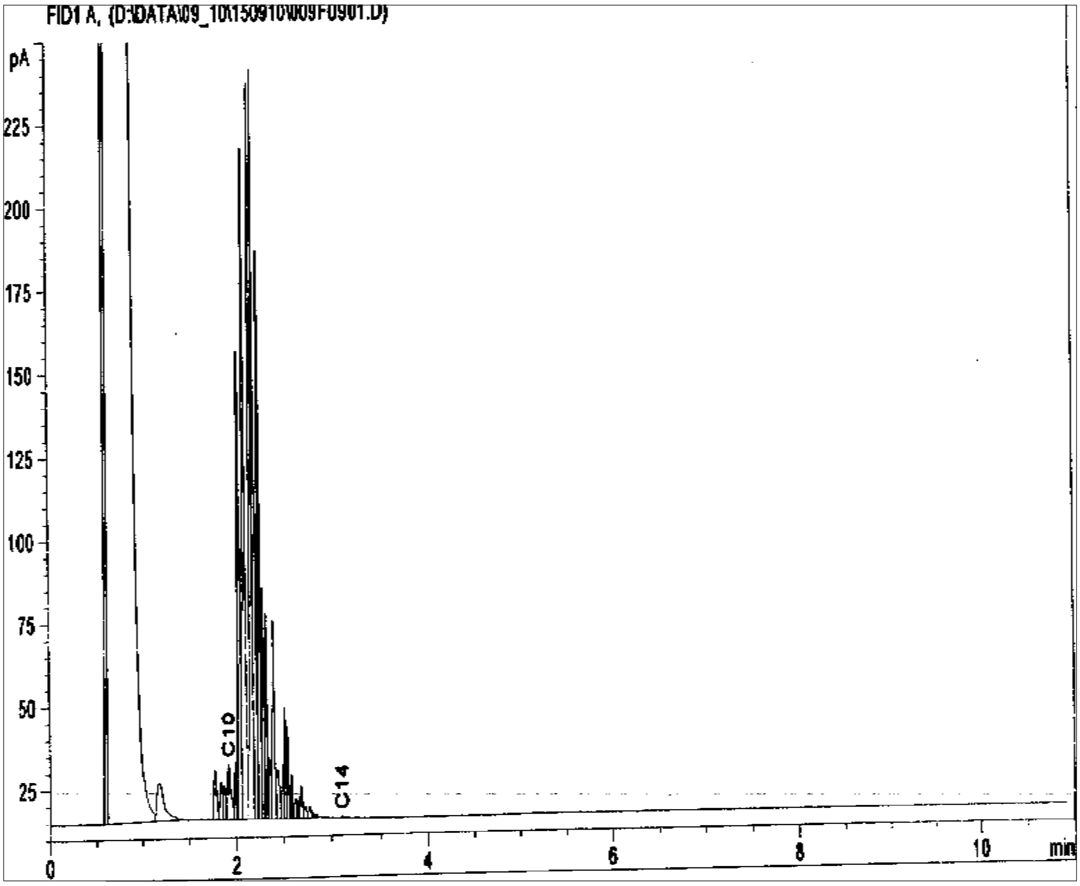
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT 50% weathered



Response

Retention Time (minutes)

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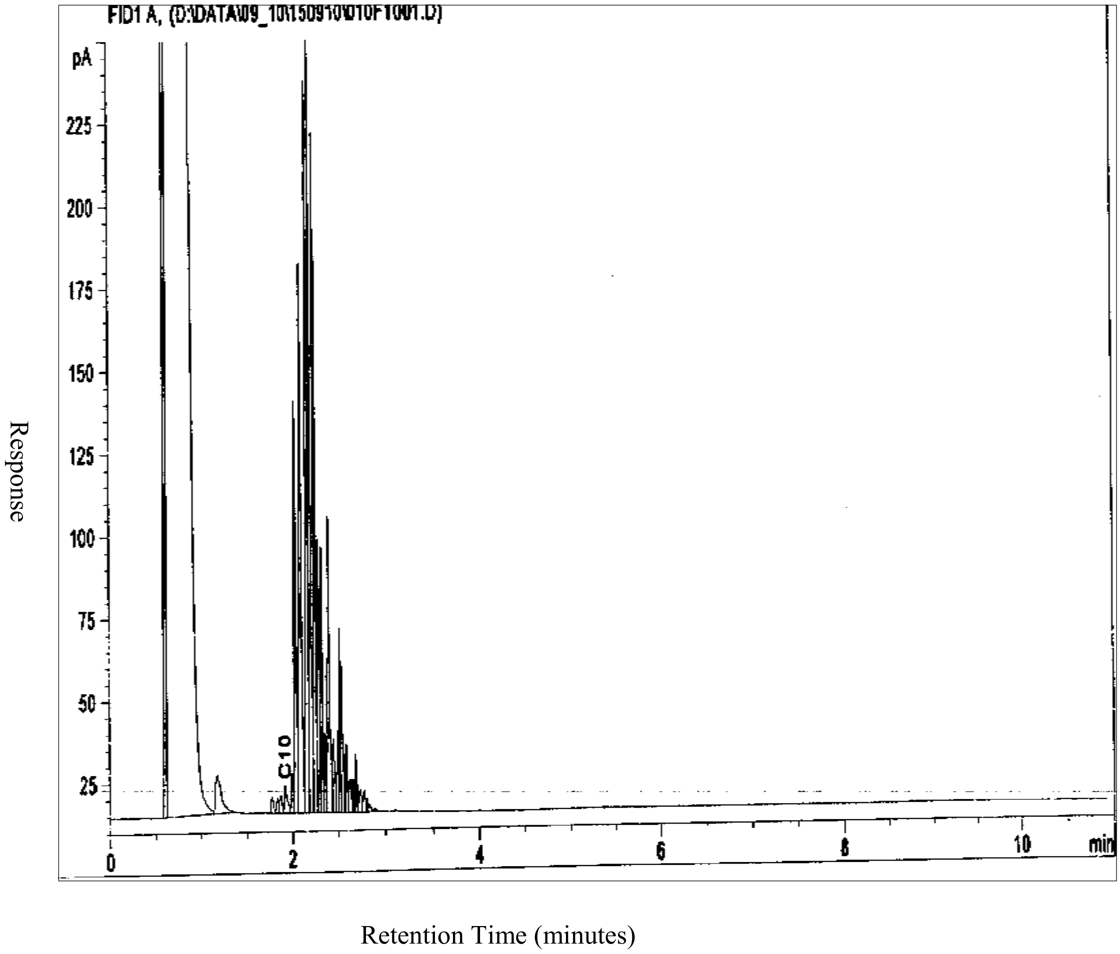
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT 75% weathered



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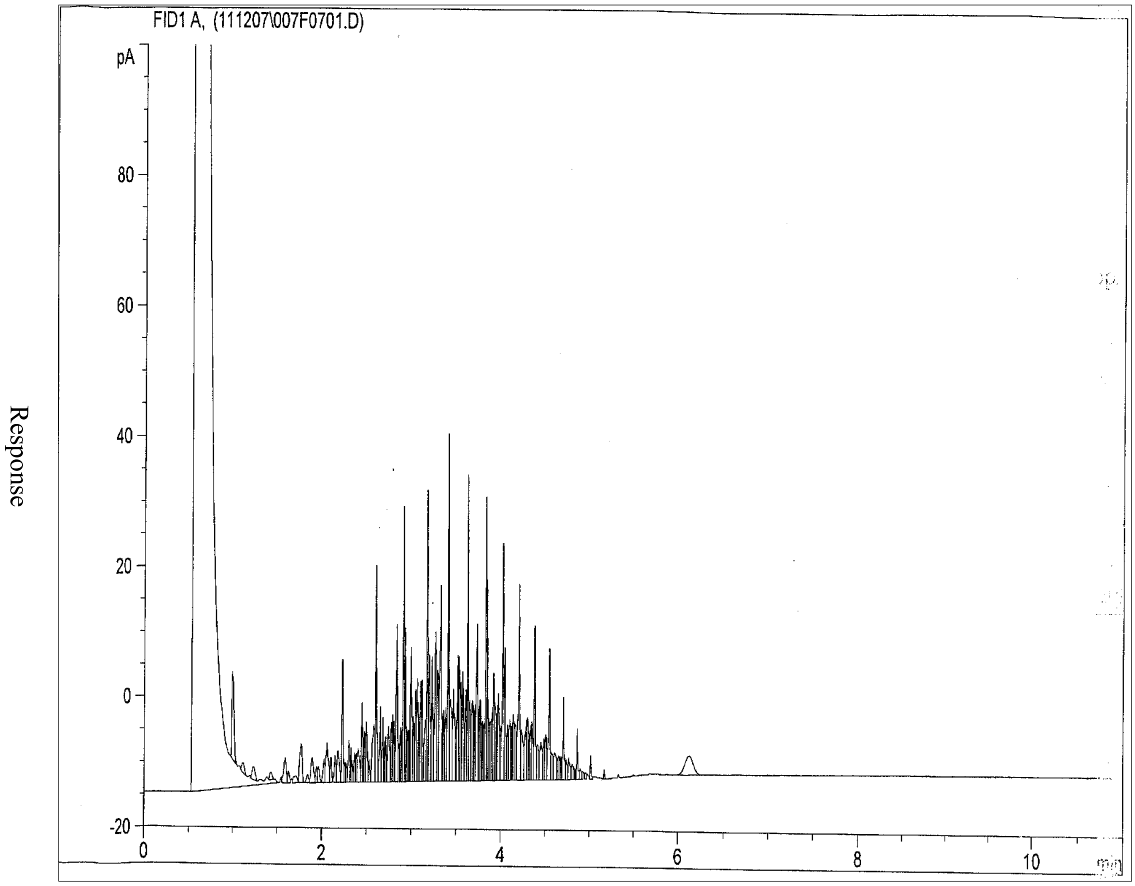
HYDROCARBON REFERENCE LIBRARY

UNWEATHERED DIESEL



Retention Time (minutes)

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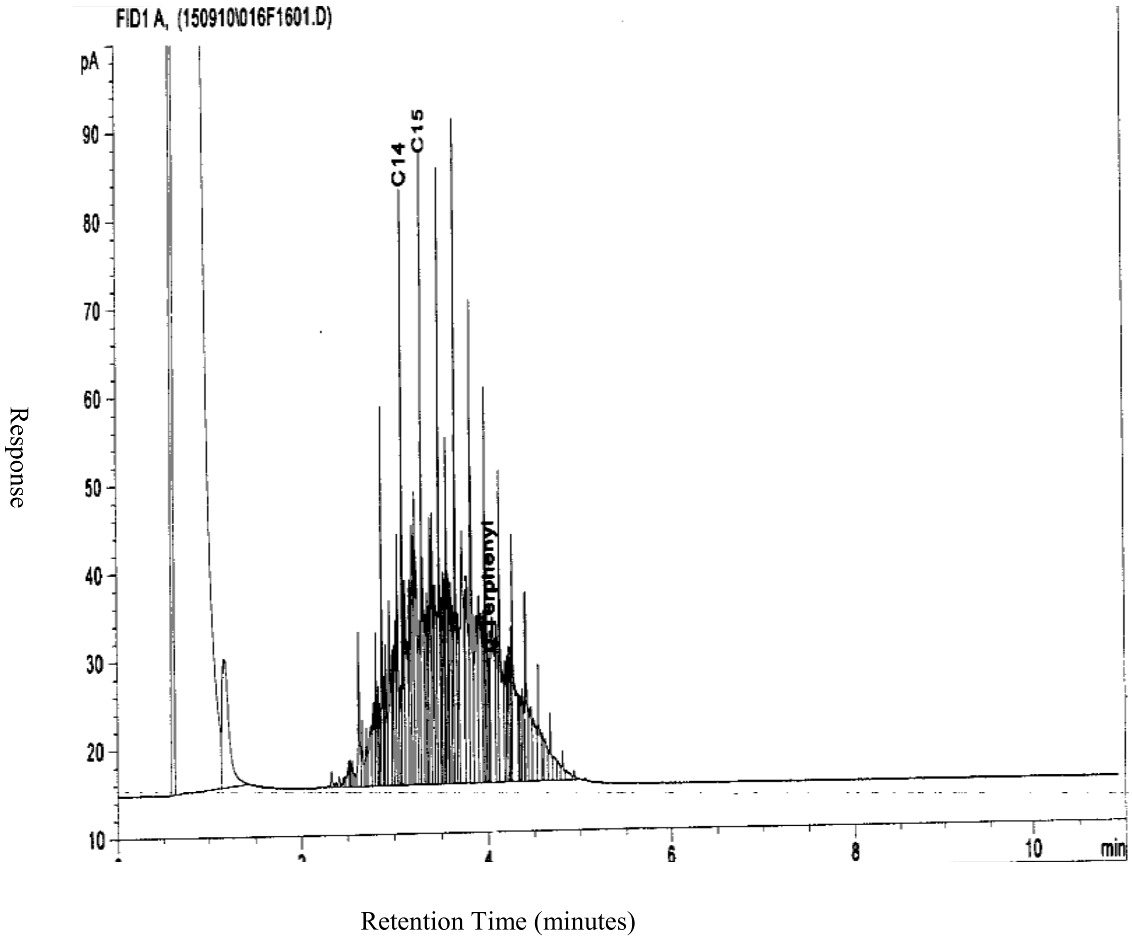
HYDROCARBON REFERENCE LIBRARY

25% WEATHERED DIESEL



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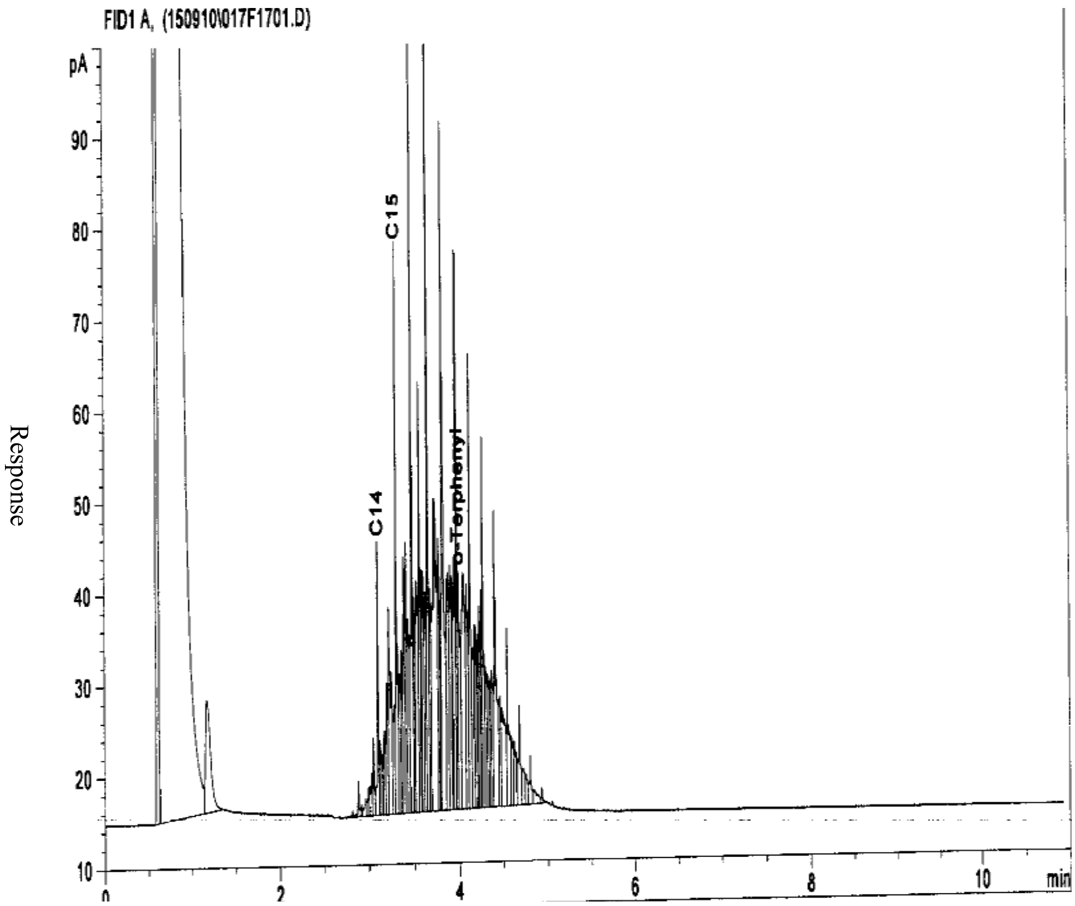
HYDROCARBON REFERENCE LIBRARY

50% WEATHERED DIESEL



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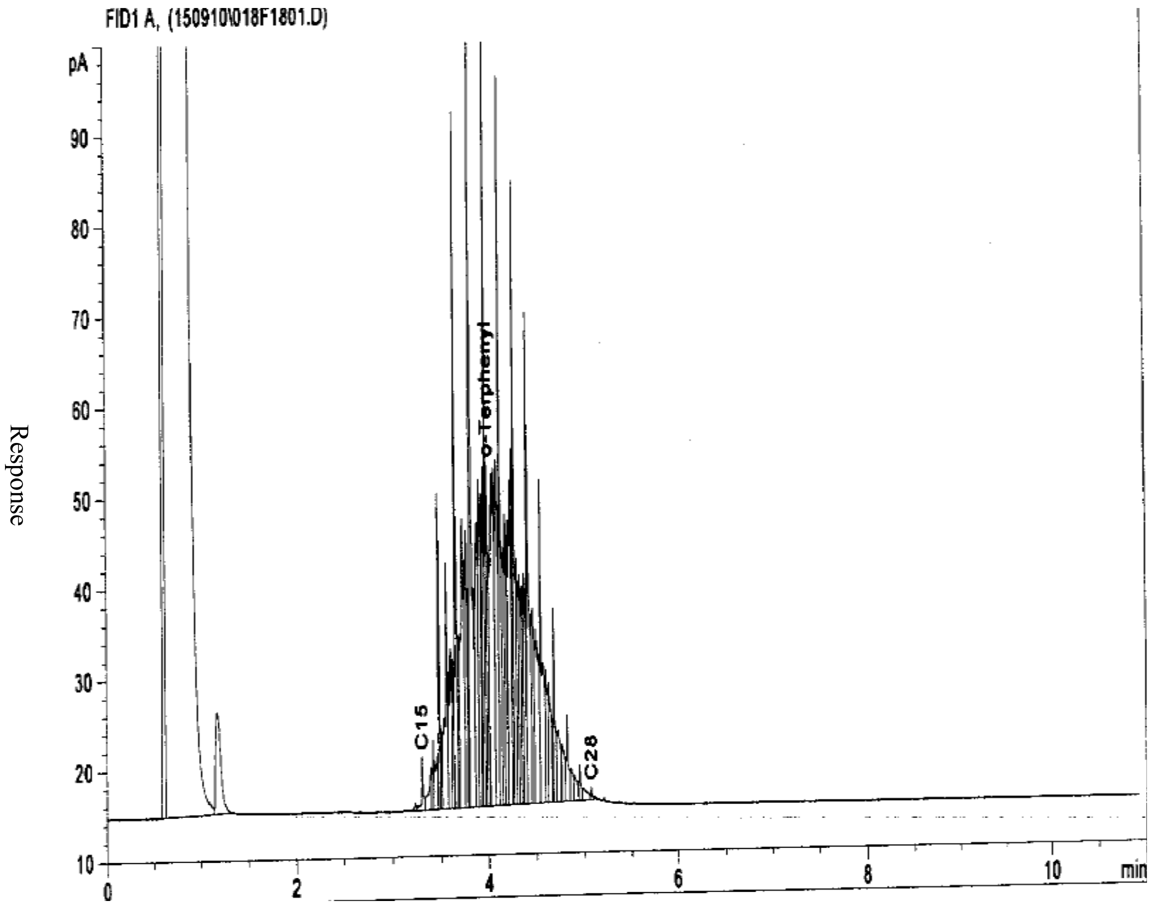
HYDROCARBON REFERENCE LIBRARY

75% WEATHERED DIESEL



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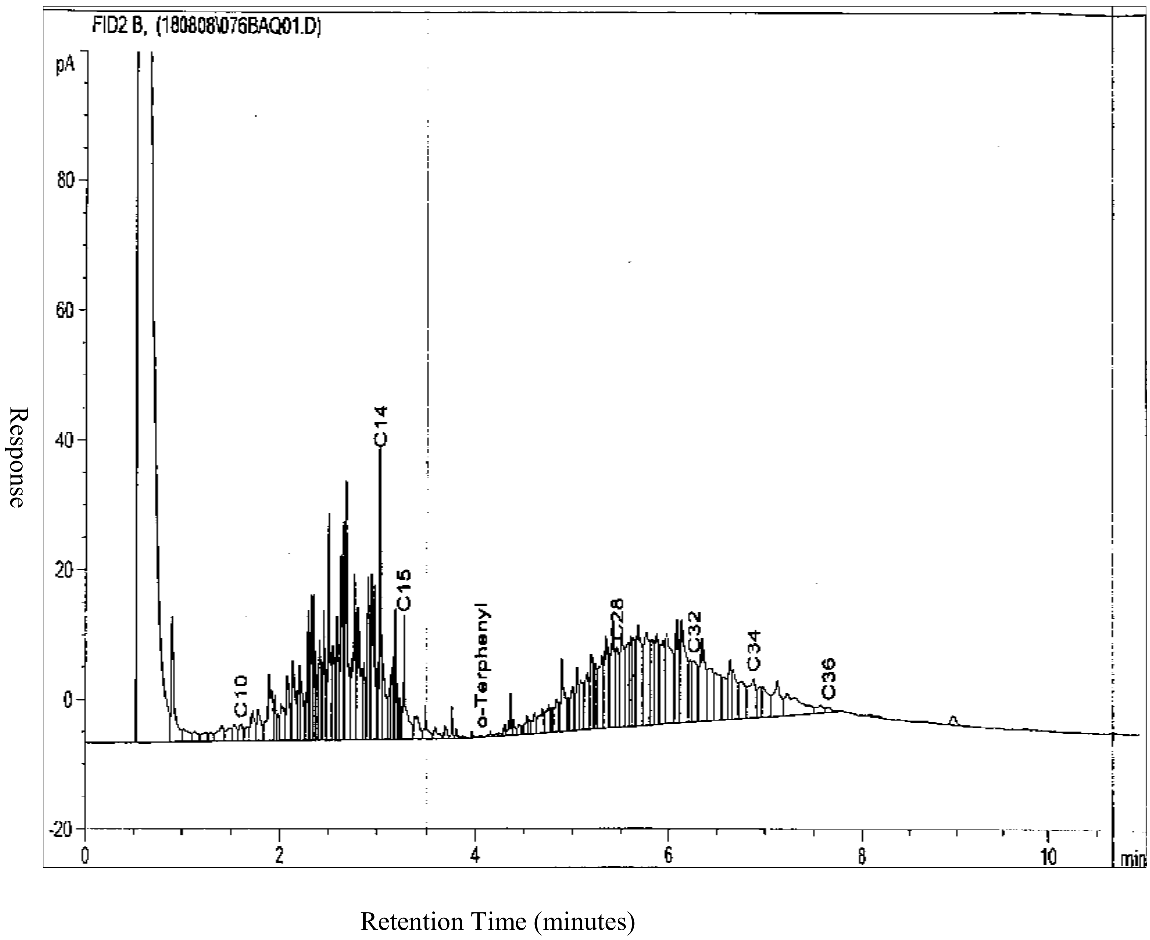
HYDROCARBON REFERENCE LIBRARY

SYNTHETIC 2 STROKE FUEL



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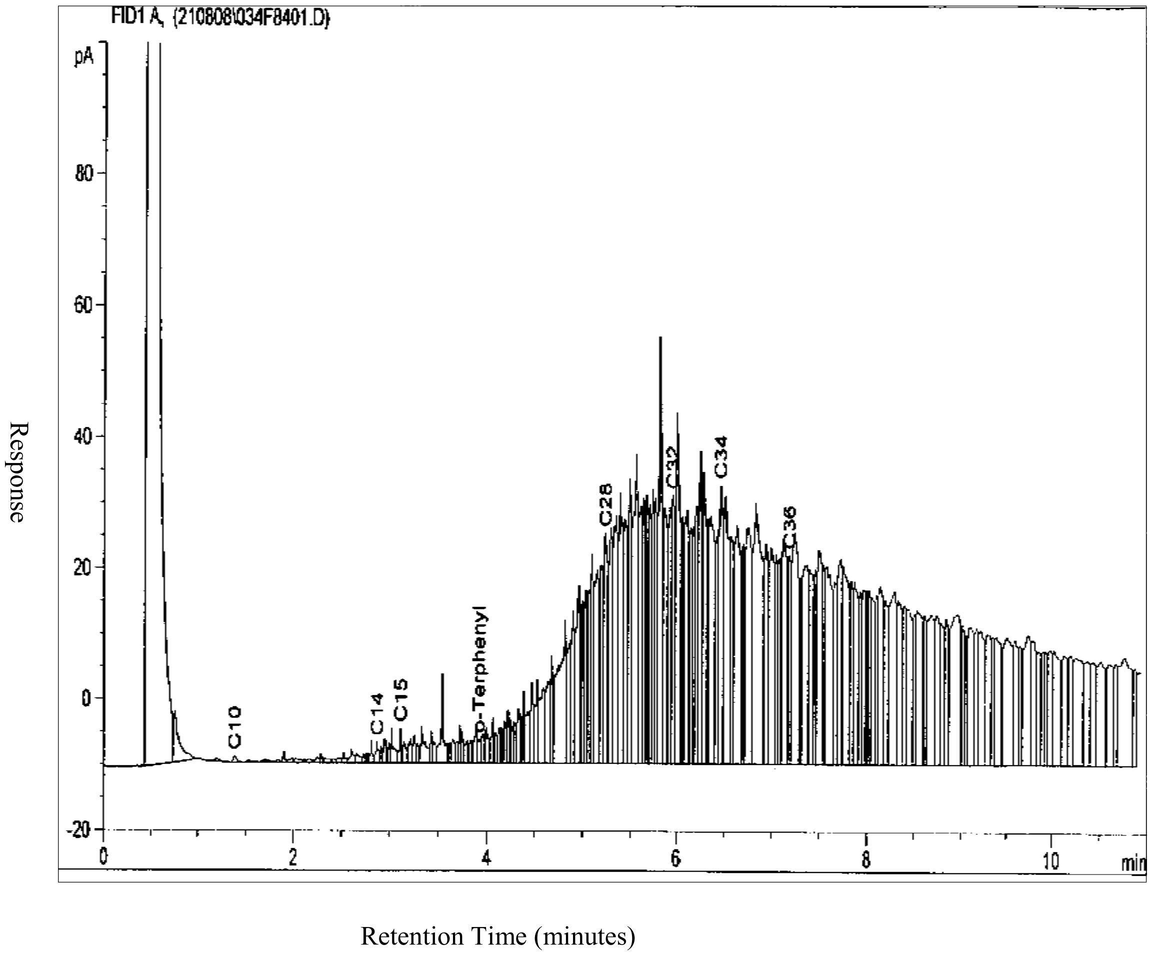
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

ASPHALT (no coal tar)



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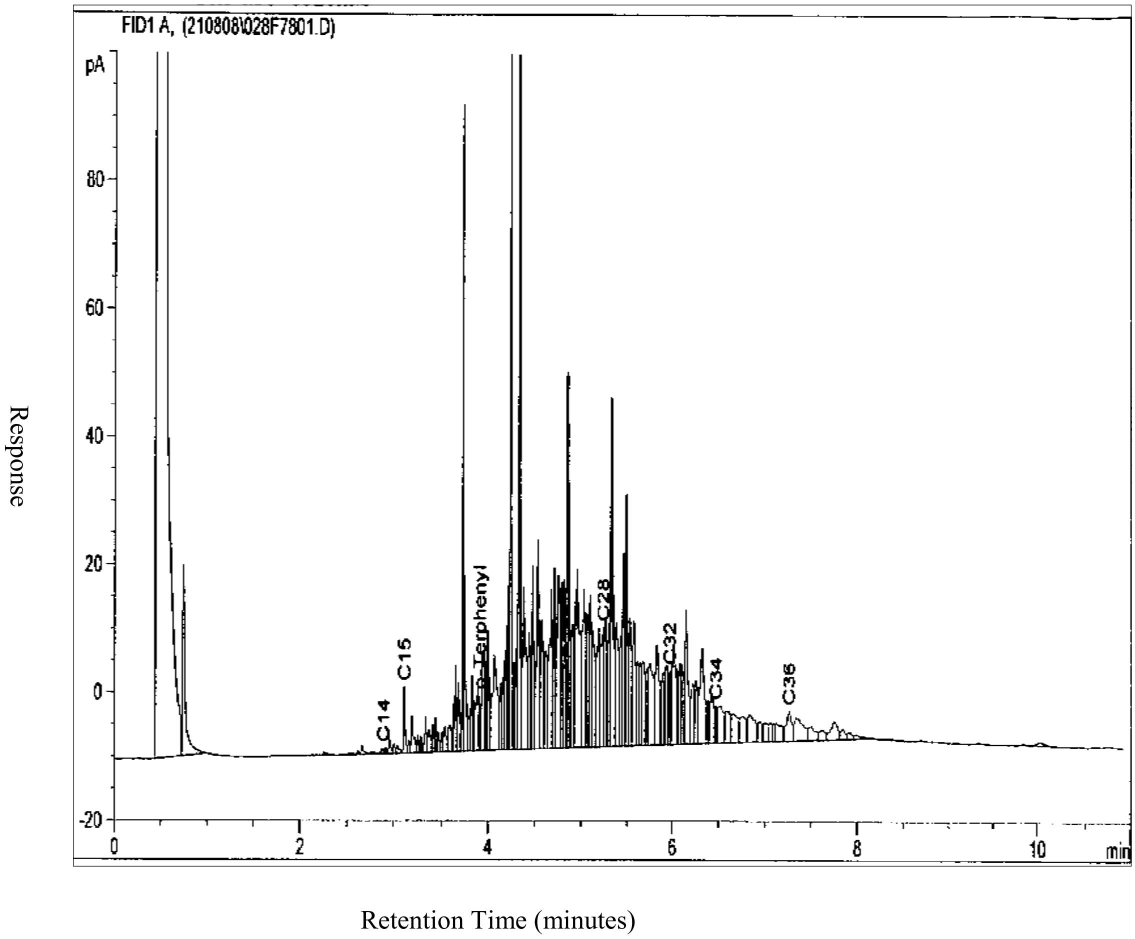
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

ASPHALT (with coal tar)



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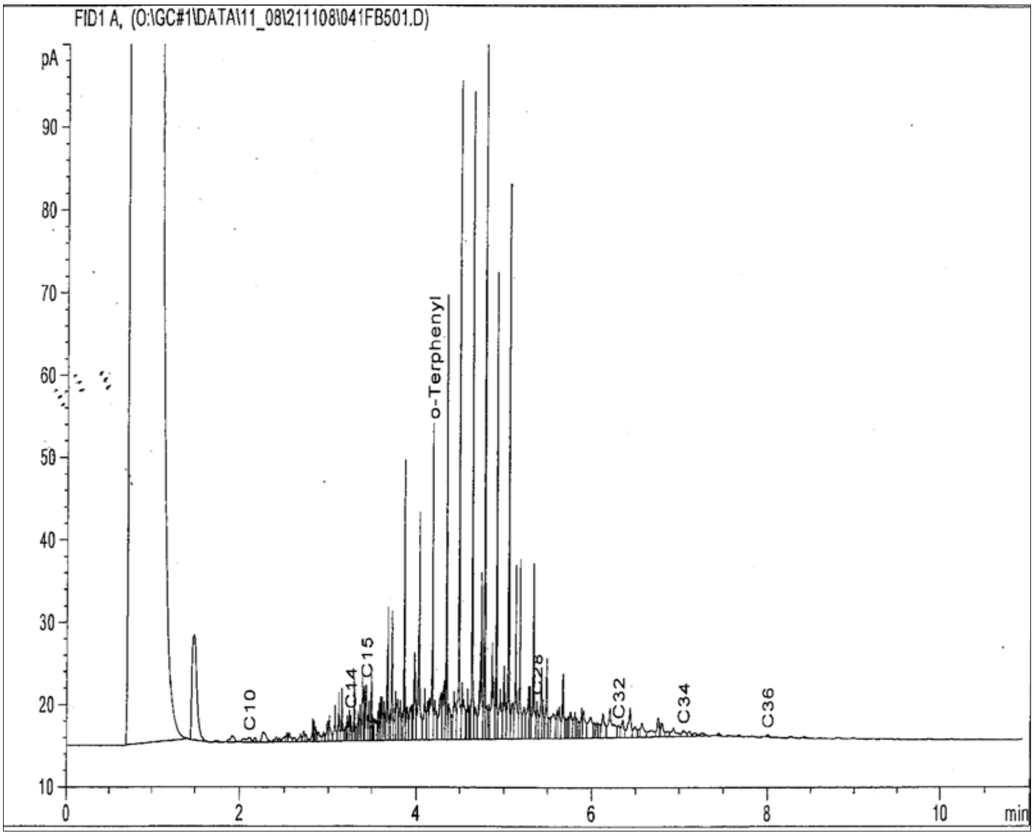
HYDROCARBON REFERENCE LIBRARY

COAL

Response



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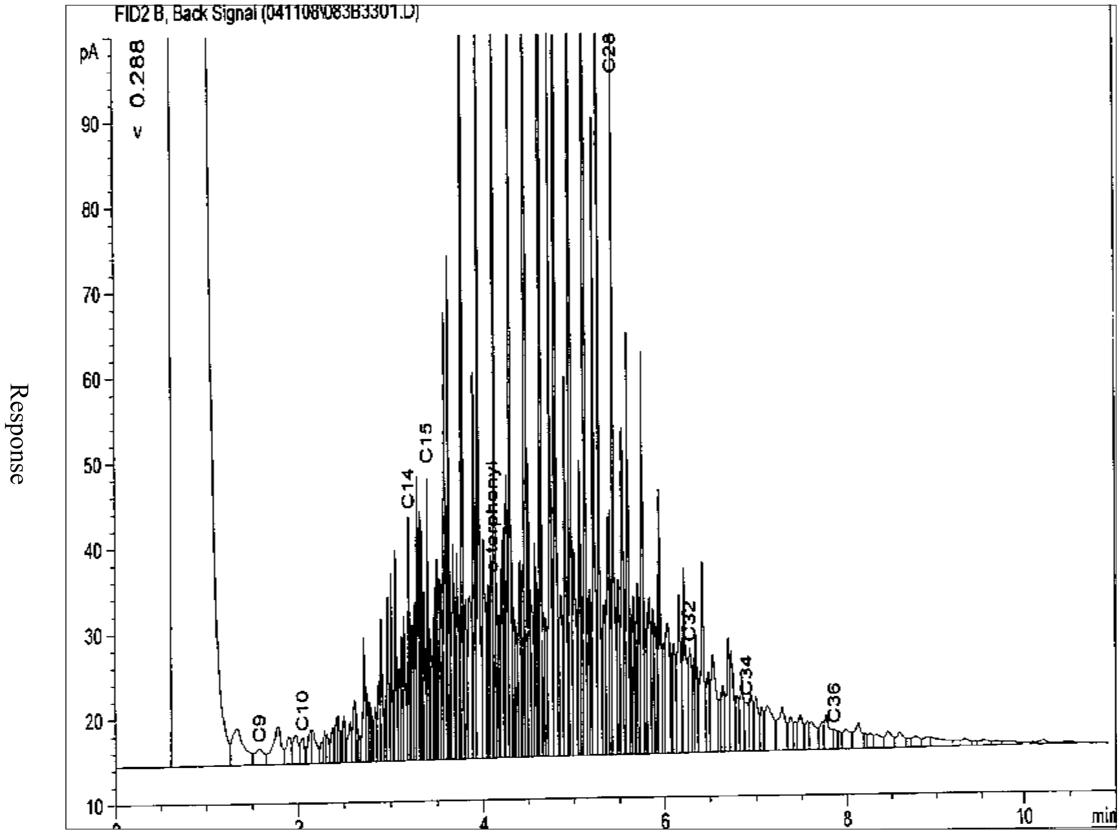
HYDROCARBON REFERENCE LIBRARY

WEATHERED COAL



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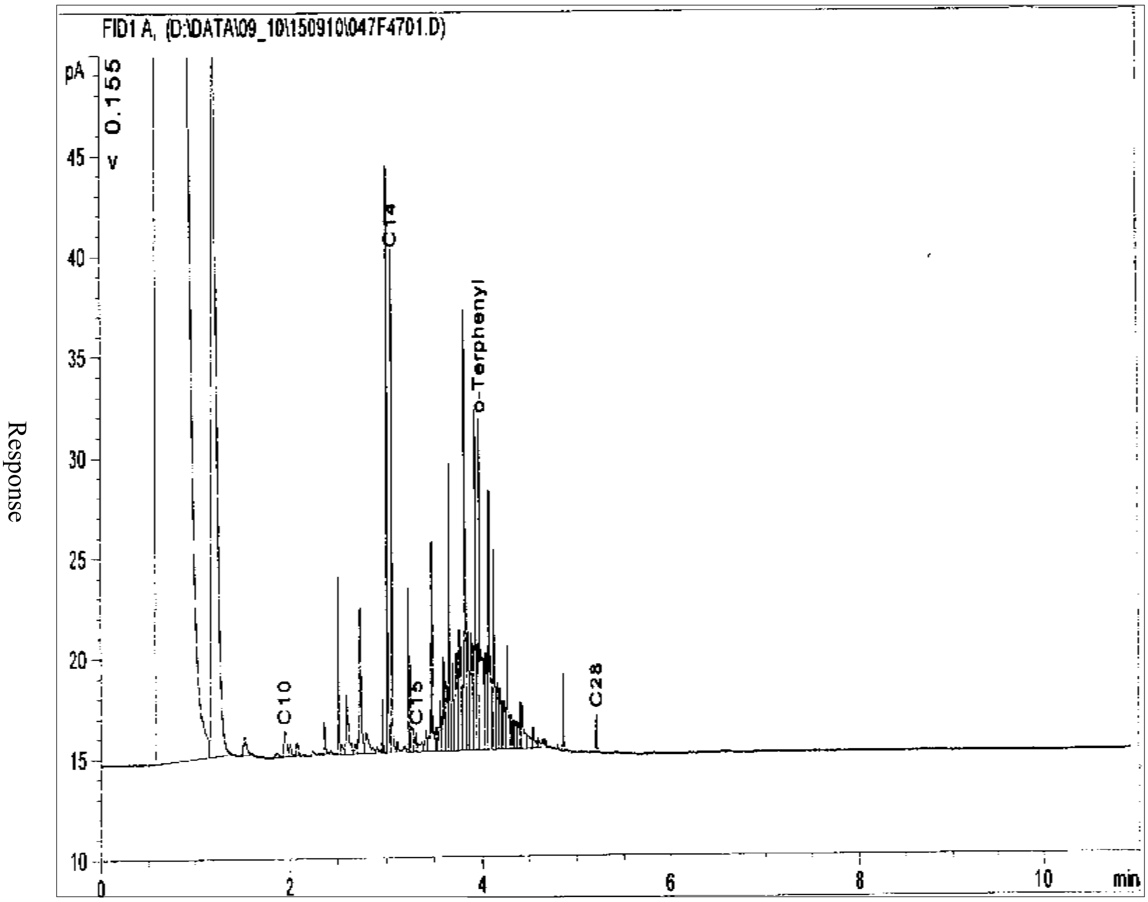
HYDROCARBON REFERENCE LIBRARY

COAL SHALE



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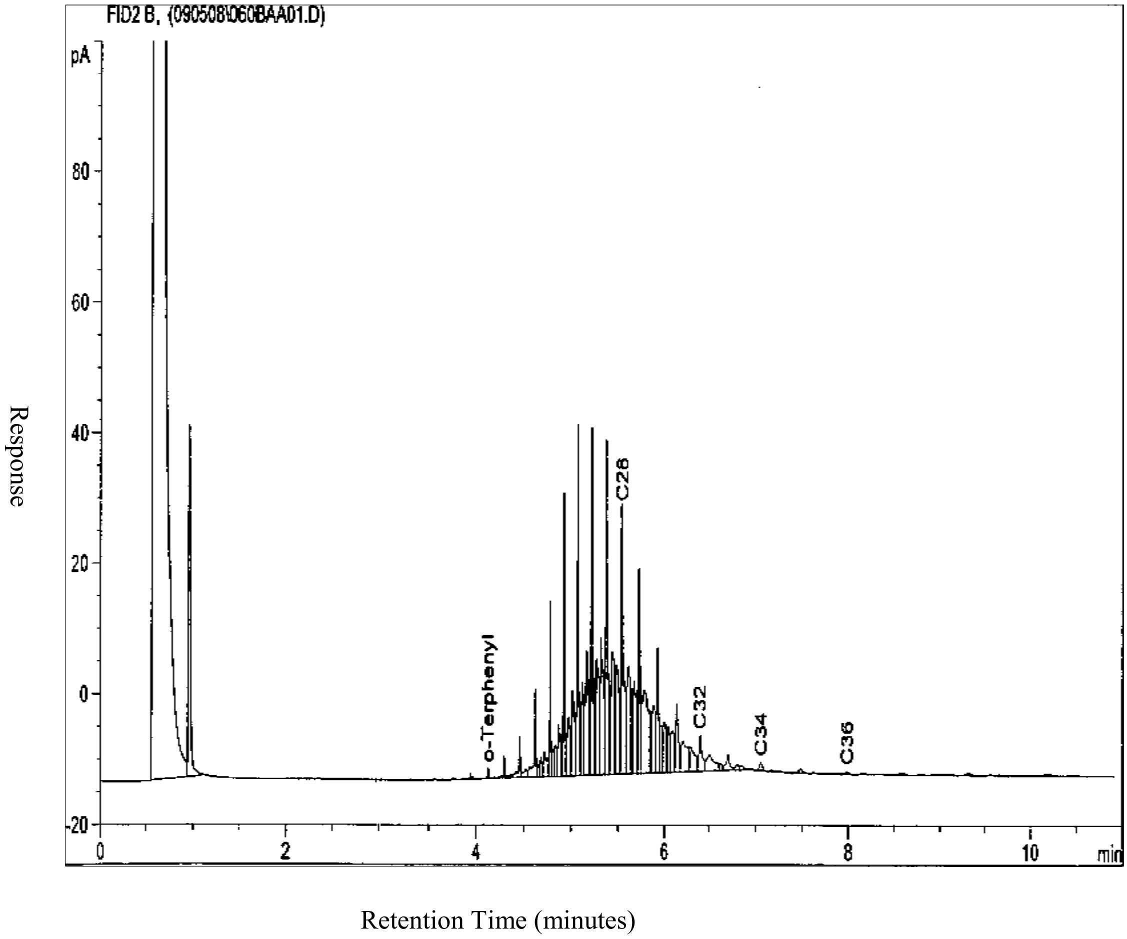
HYDROCARBON REFERENCE LIBRARY

WHITE PETROLEUM JELLY (VASELINE)



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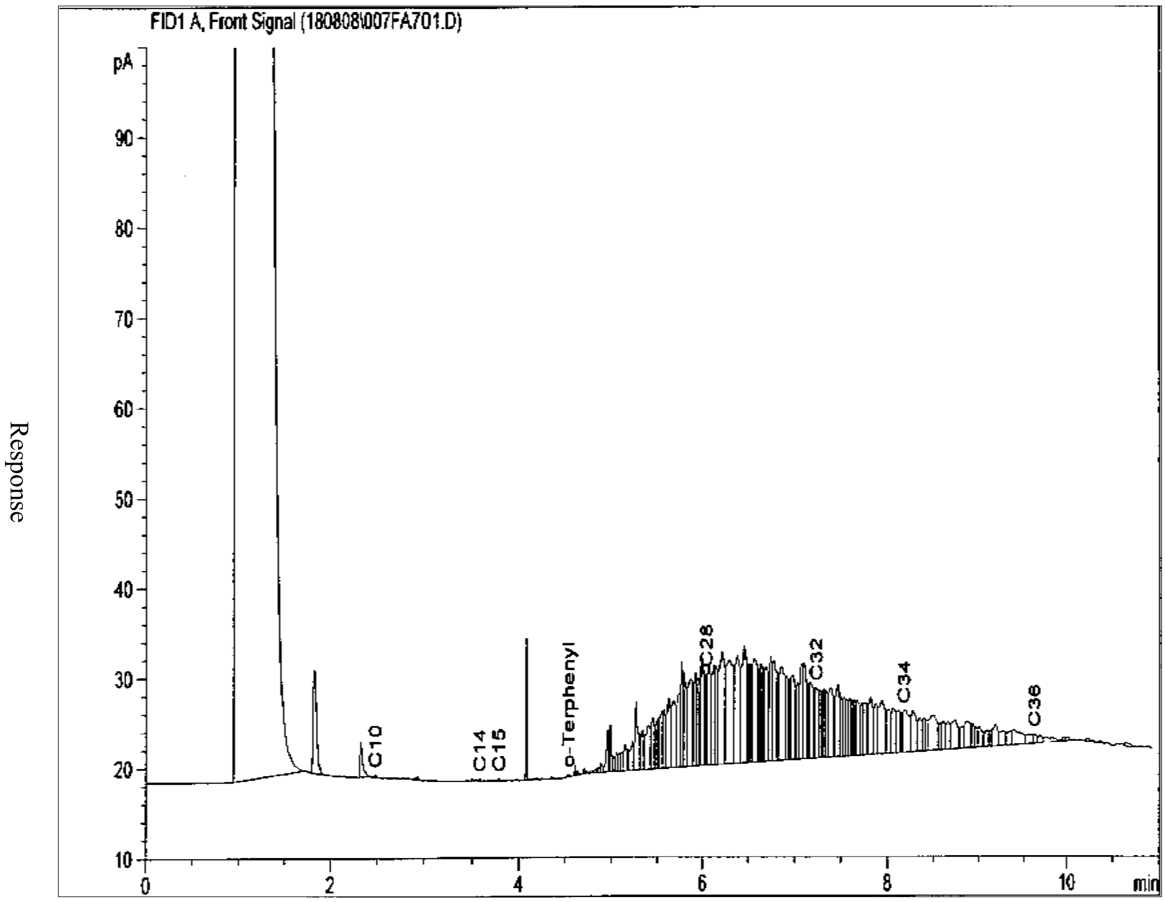
HYDROCARBON REFERENCE LIBRARY

GREASE



Retention Time (minutes)

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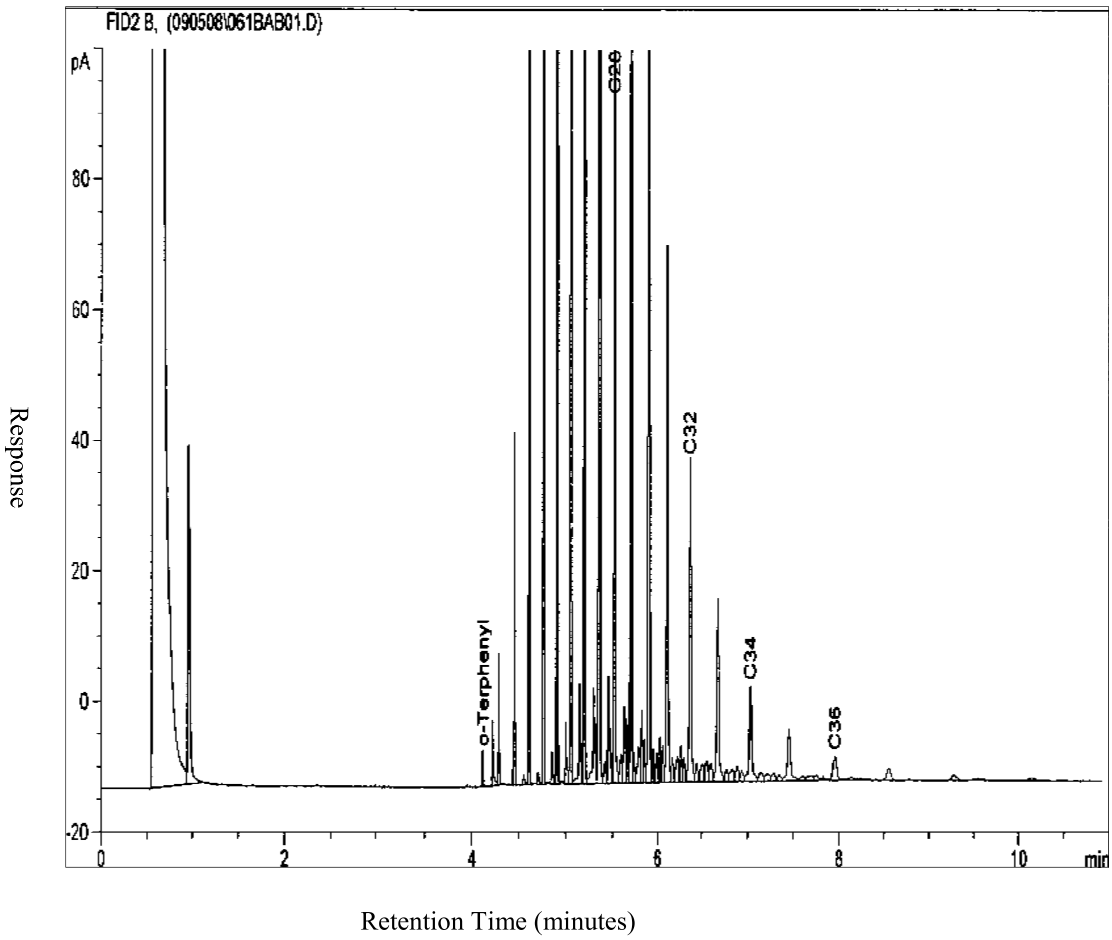
HYDROCARBON REFERENCE LIBRARY

CANDLE WAX



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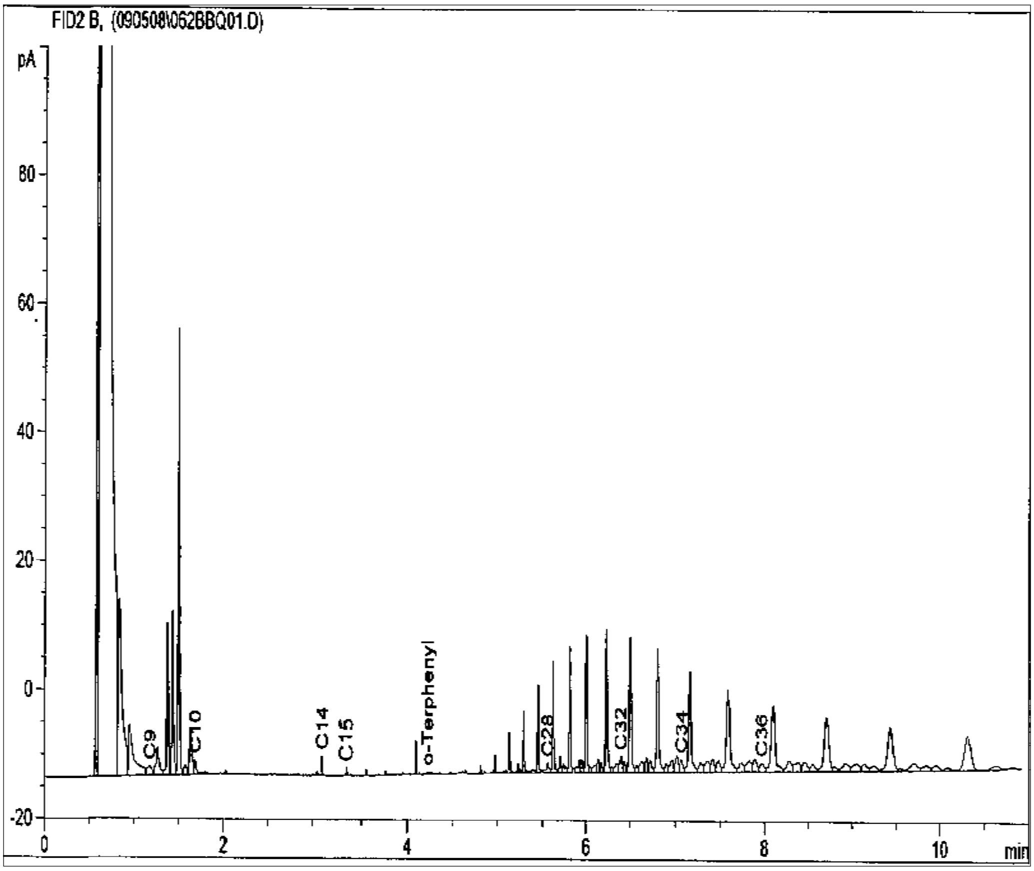
HYDROCARBON REFERENCE LIBRARY

PARAFFIN WAX

Response



Retention Time (minutes)

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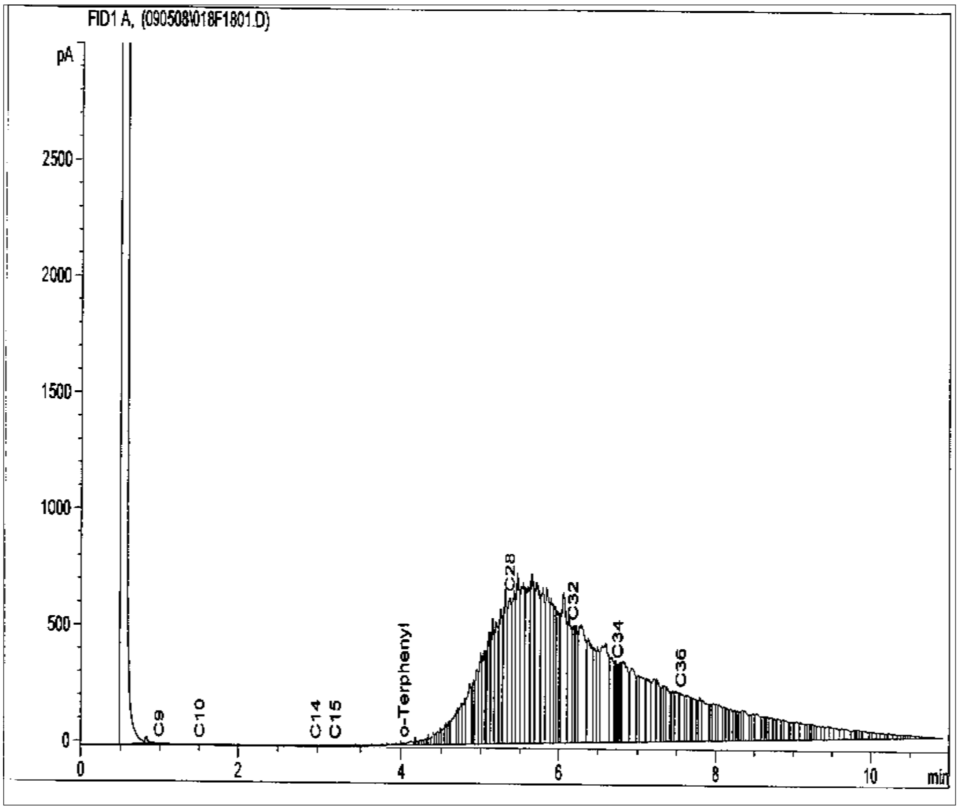
HYDROCARBON REFERENCE LIBRARY

ENGINE OIL

Response



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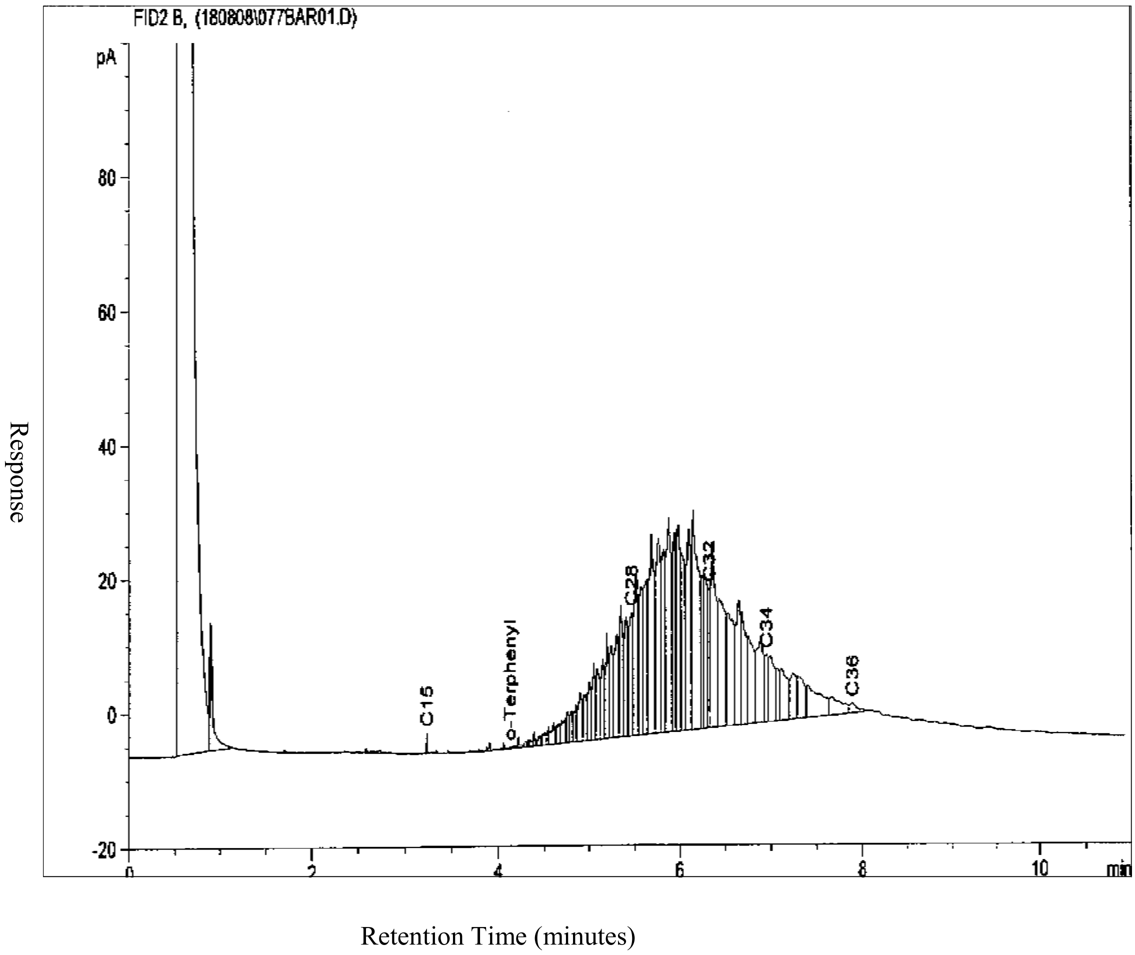
HYDROCARBON REFERENCE LIBRARY

OUTBOARD GEAR OIL



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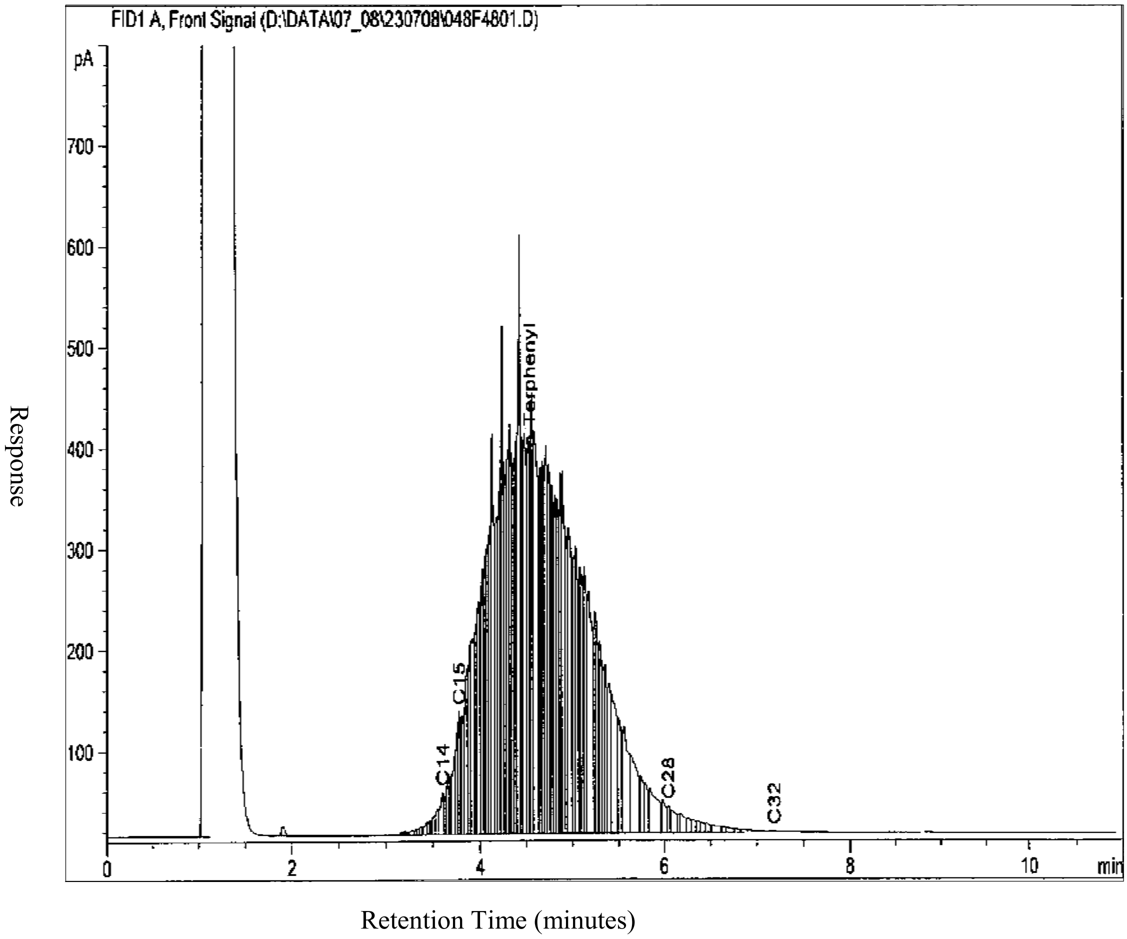
HYDROCARBON REFERENCE LIBRARY

TRANSFORMER OIL



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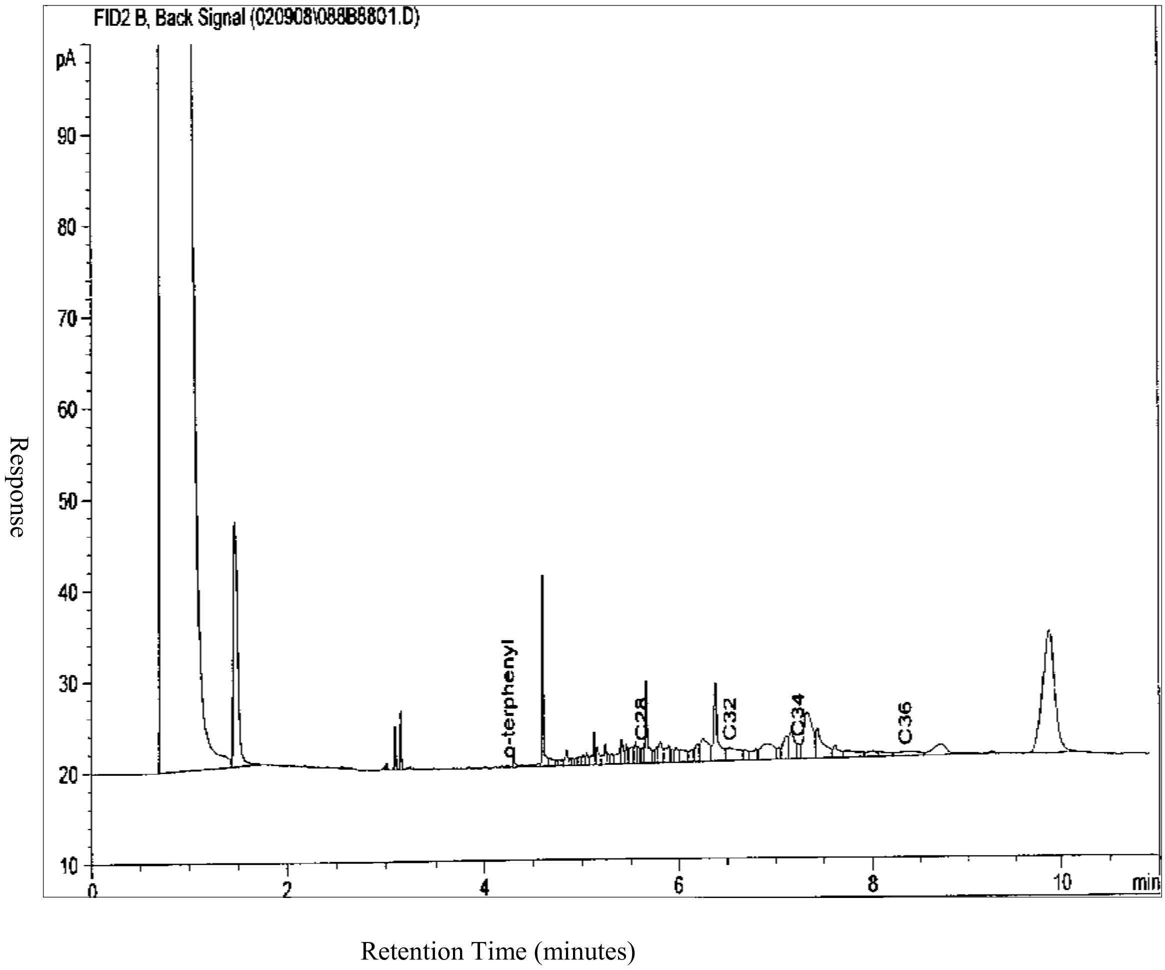
HYDROCARBON REFERENCE LIBRARY

CAMELLIA OIL



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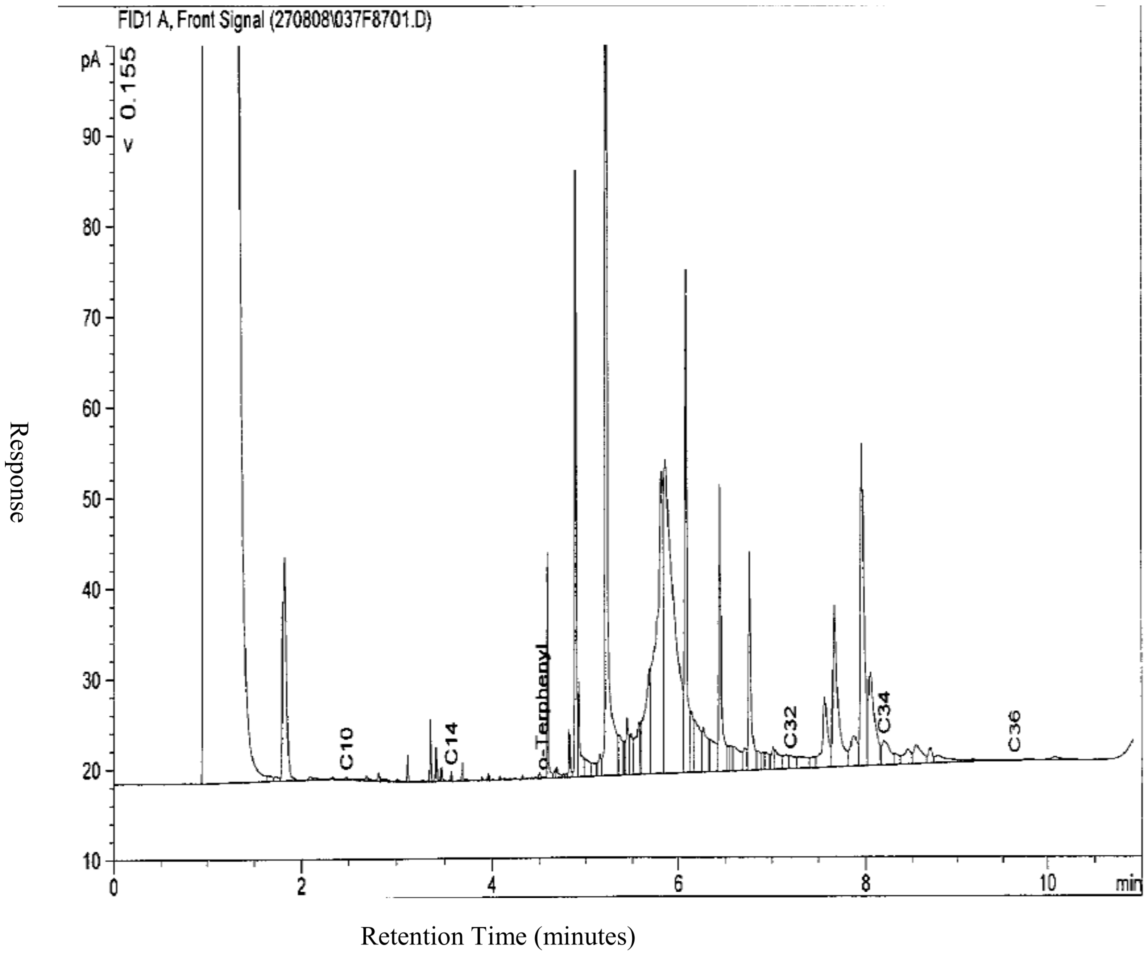
HYDROCARBON REFERENCE LIBRARY

CASTOR OIL



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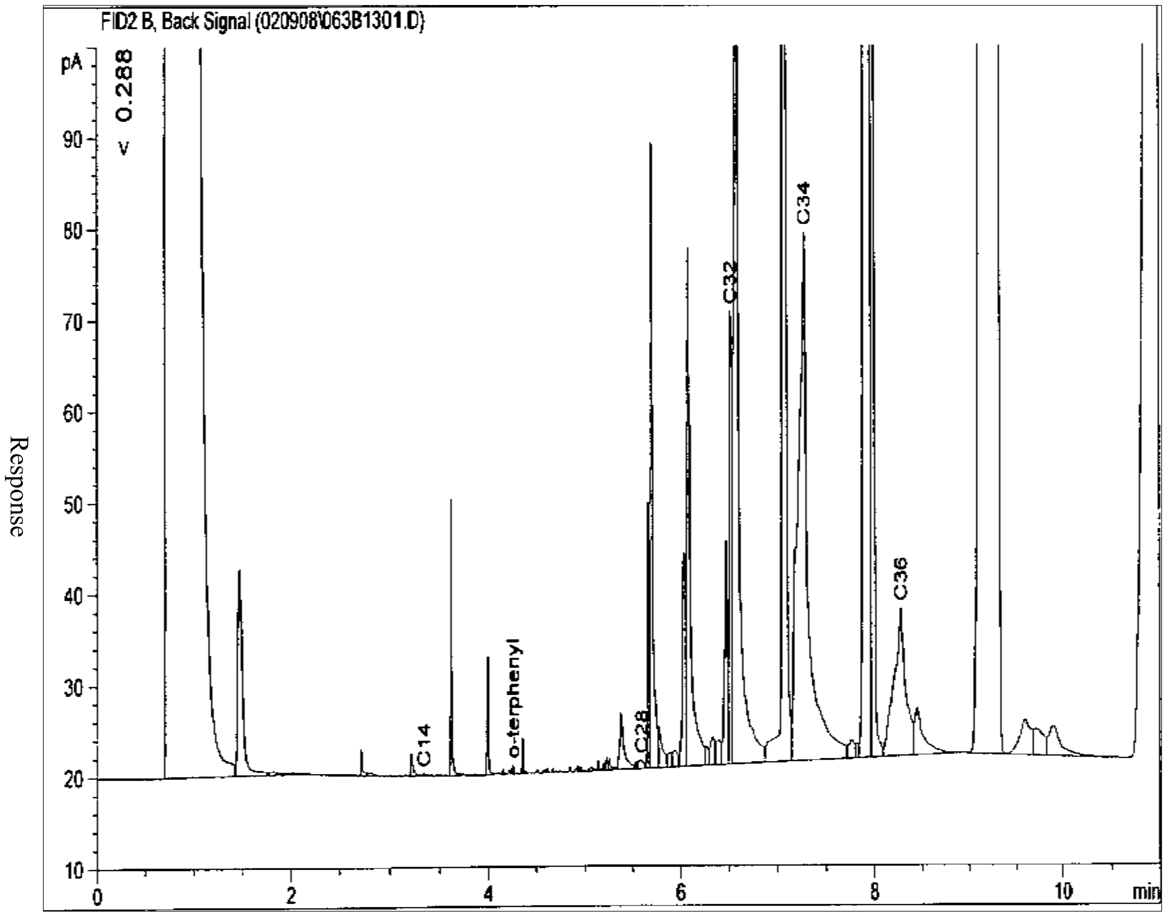
HYDROCARBON REFERENCE LIBRARY

COCONUT OIL



Retention Time (minutes)

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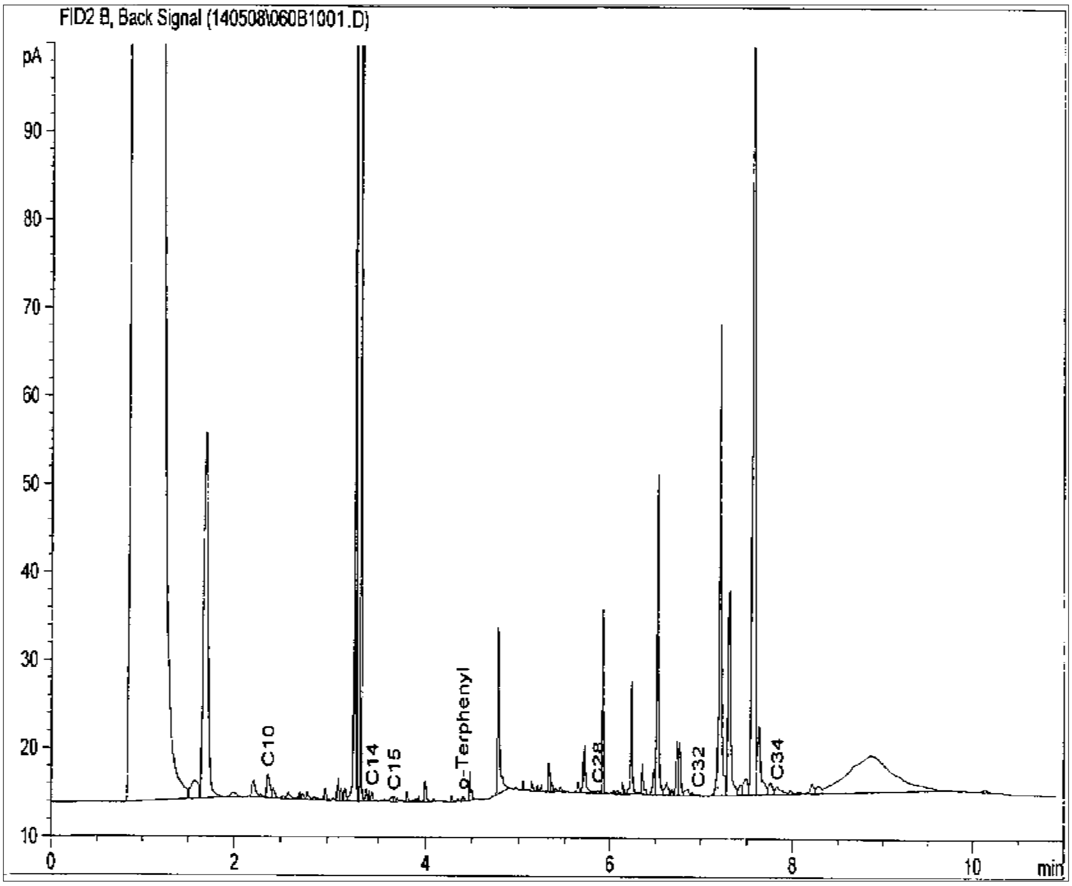
HYDROCARBON REFERENCE LIBRARY

CORN OIL

Response



Retention Time (minutes)

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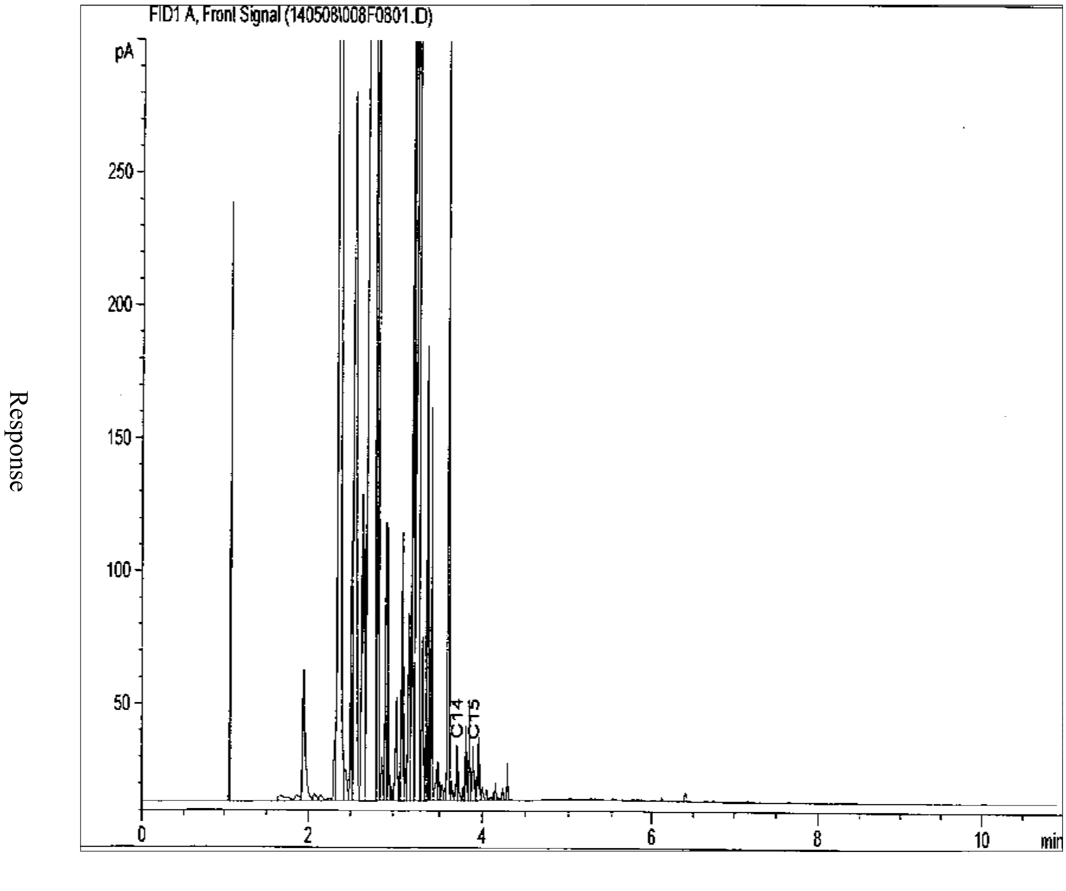
HYDROCARBON REFERENCE LIBRARY

EUCALYPTUS OIL



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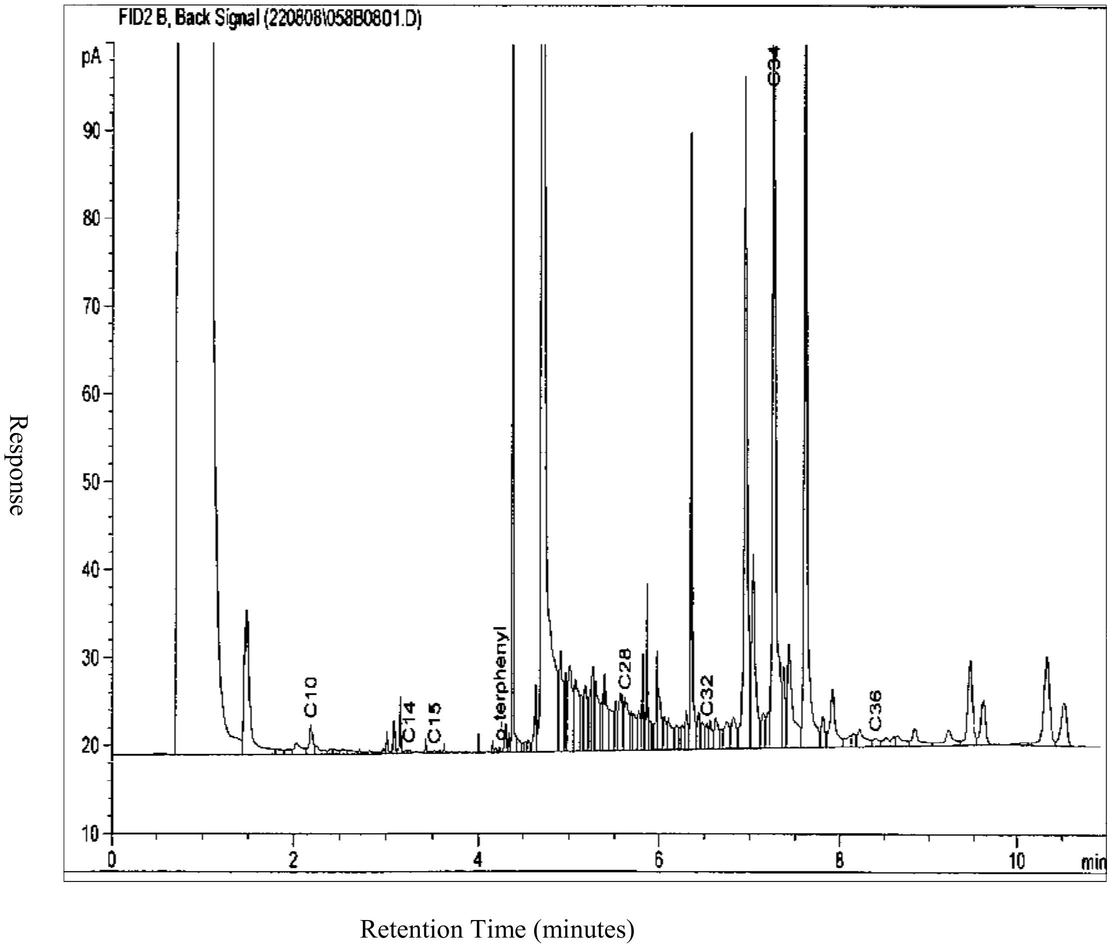
HYDROCARBON REFERENCE LIBRARY

LINSEED OIL



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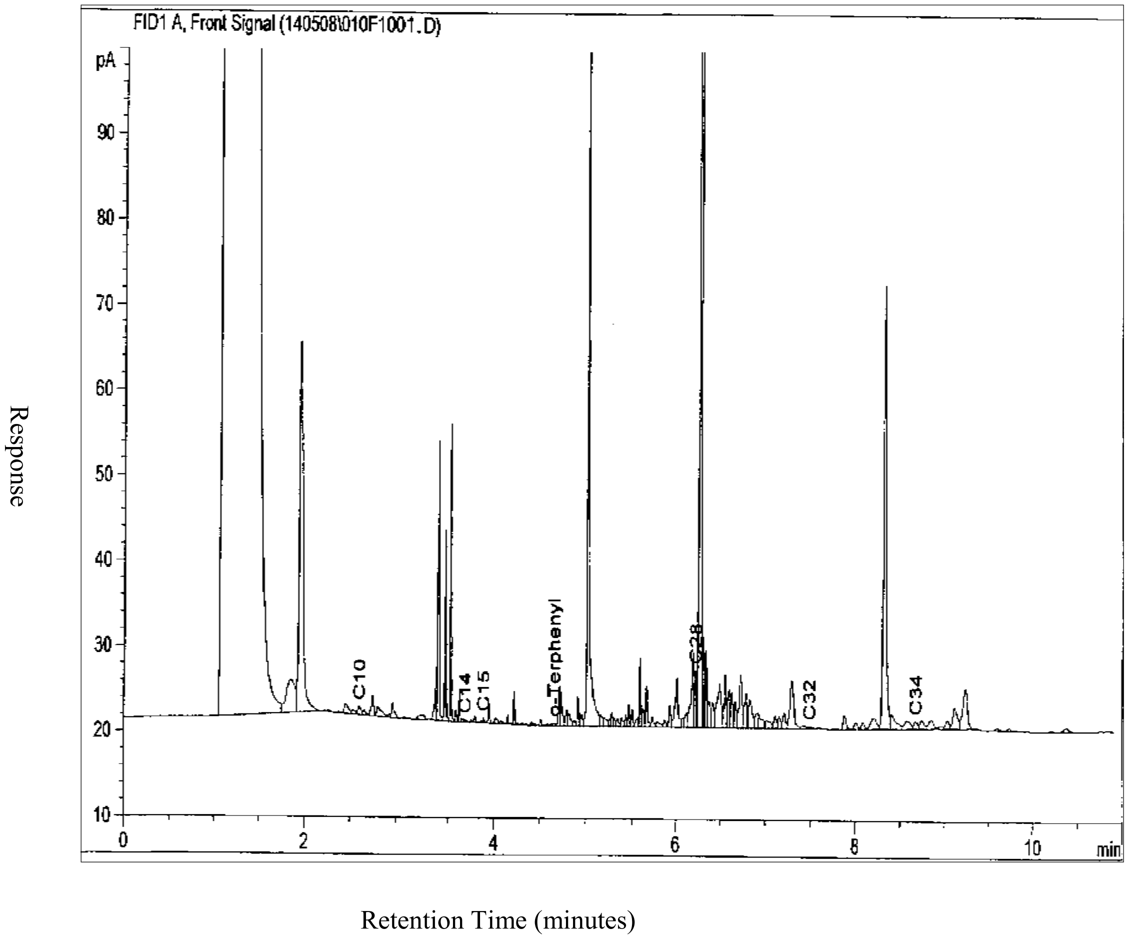
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

OLIVE OIL



The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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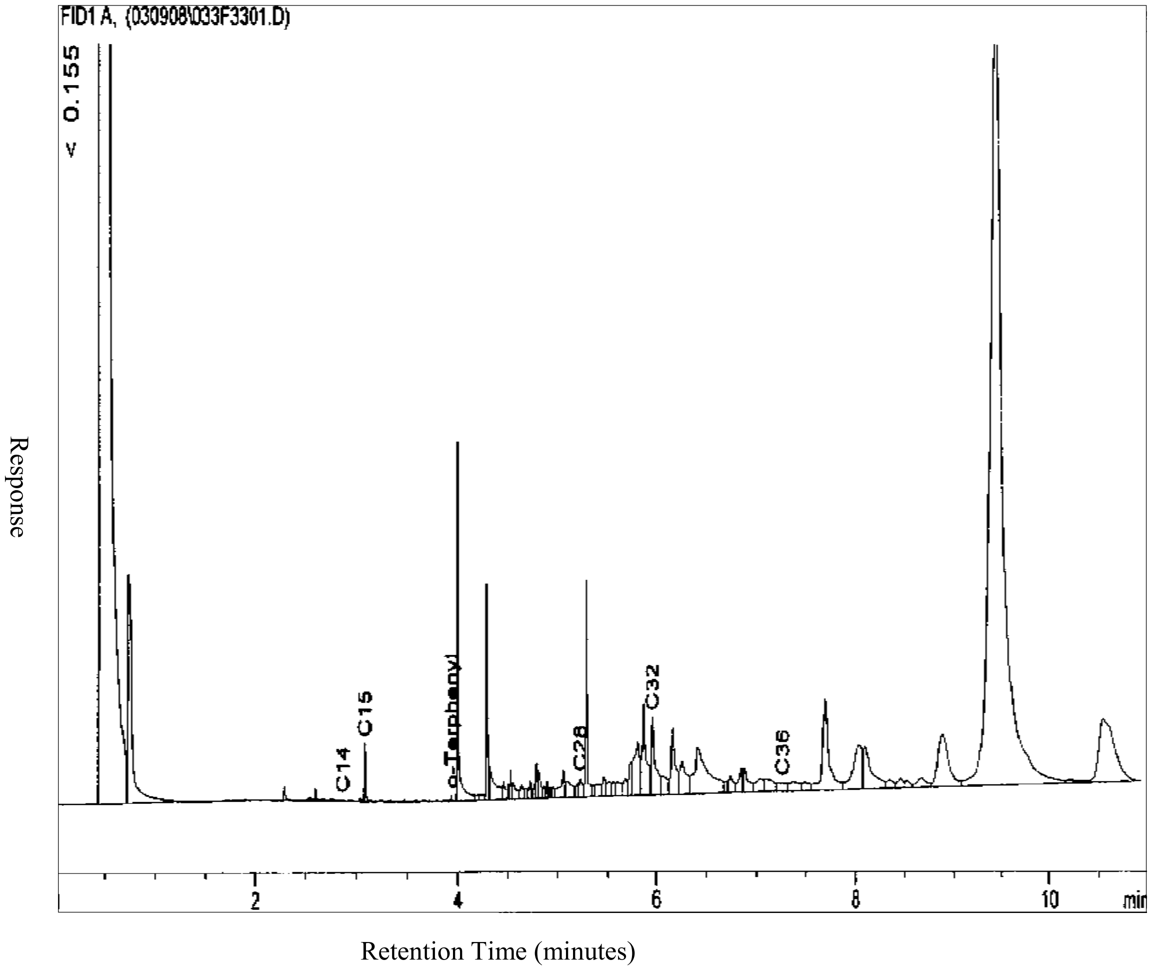
HYDROCARBON REFERENCE LIBRARY

PALM OIL



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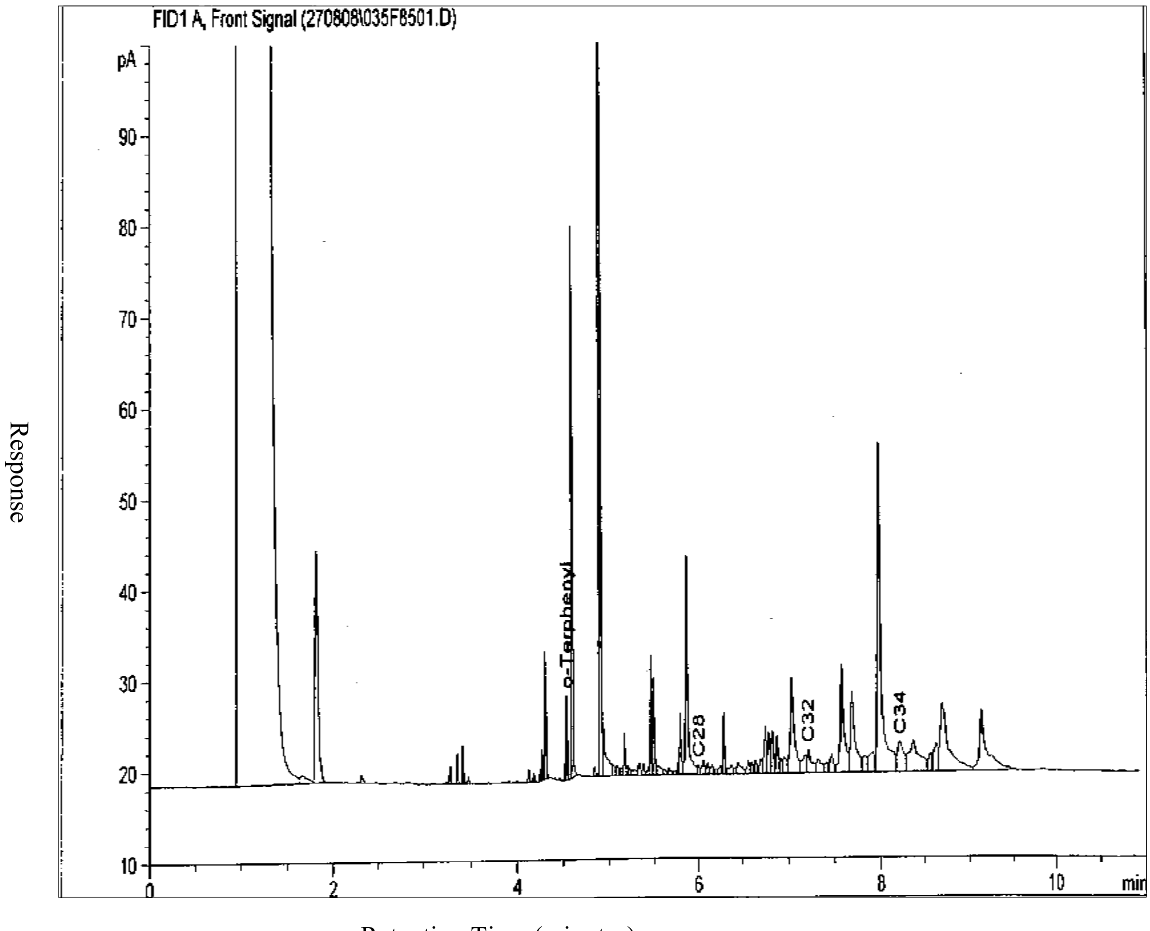
HYDROCARBON REFERENCE LIBRARY

RICE BRAN OIL



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The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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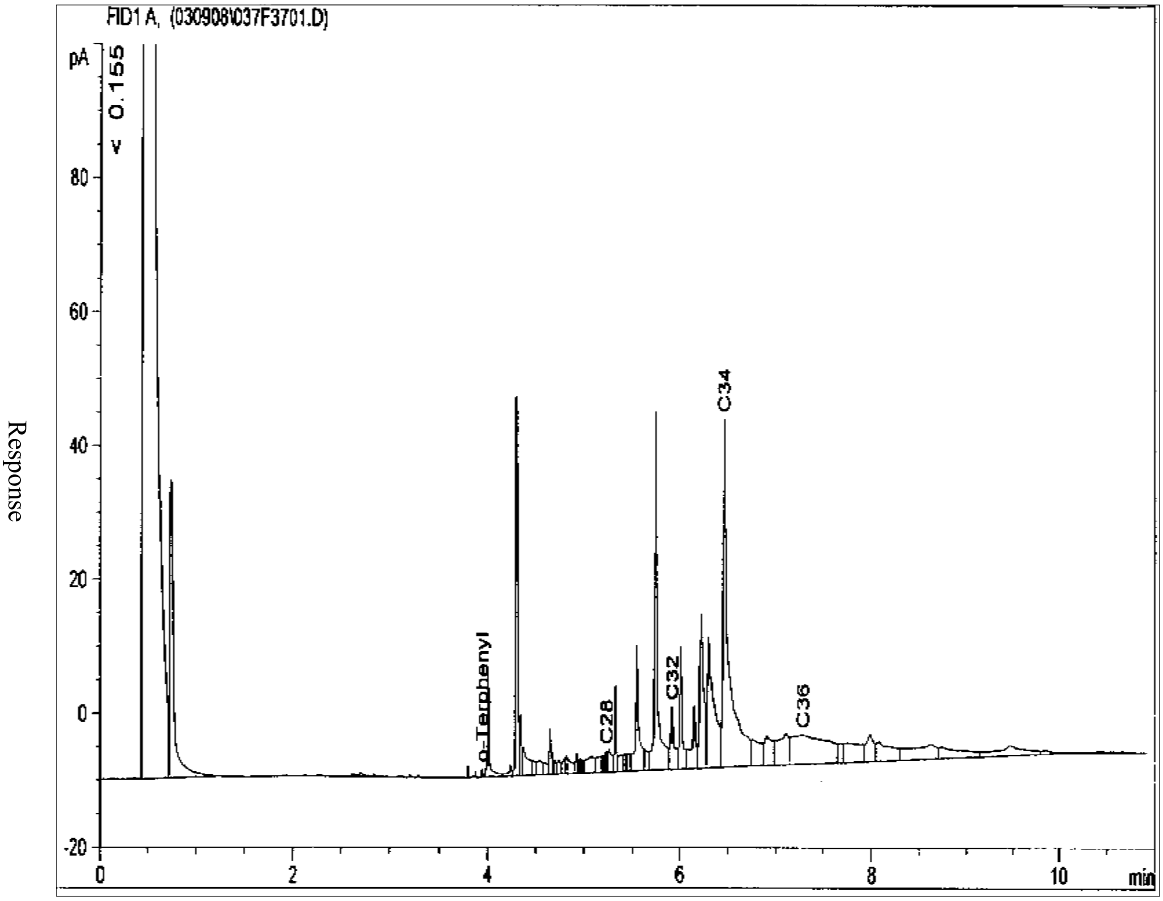
HYDROCARBON REFERENCE LIBRARY

SESAME OIL



Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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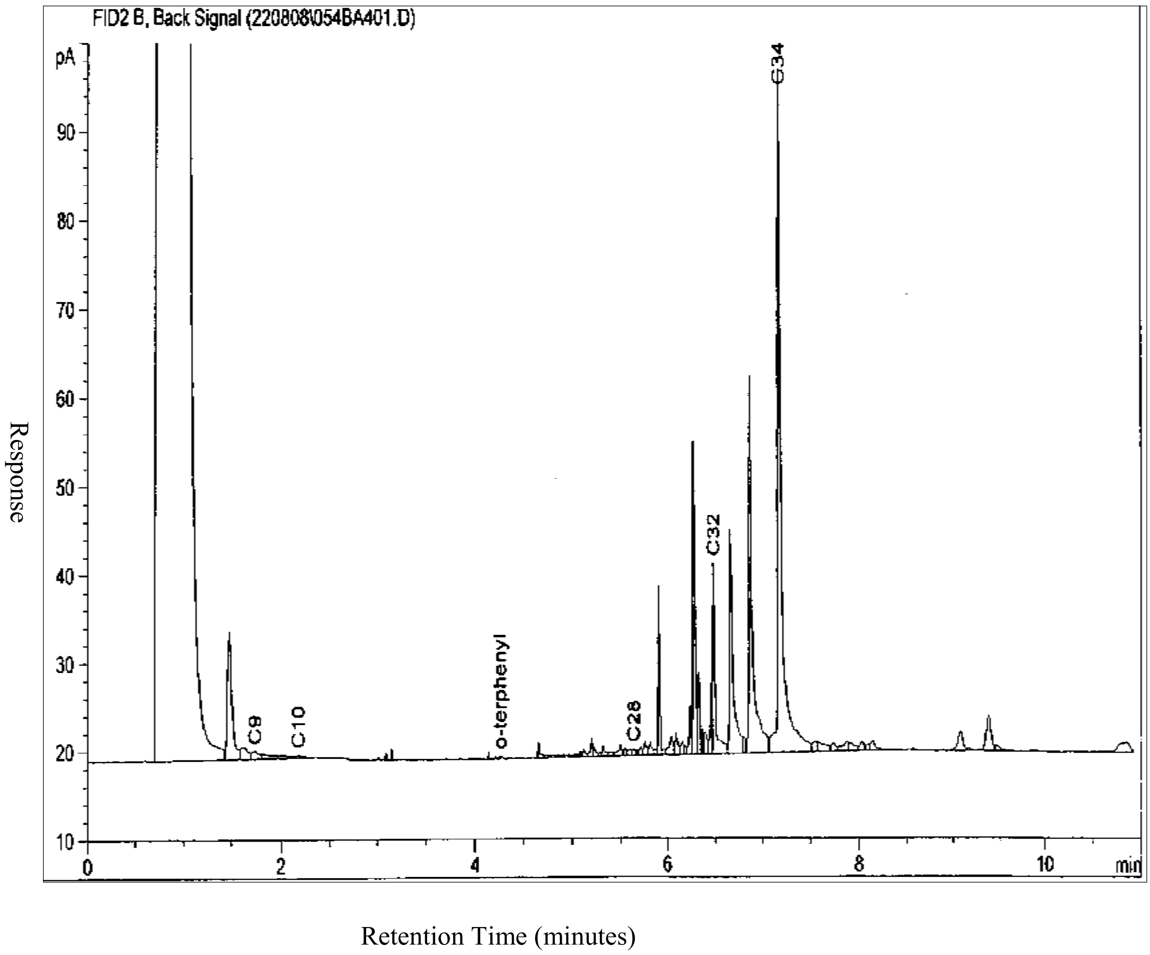
HYDROCARBON REFERENCE LIBRARY

SOYA BEAN OIL



The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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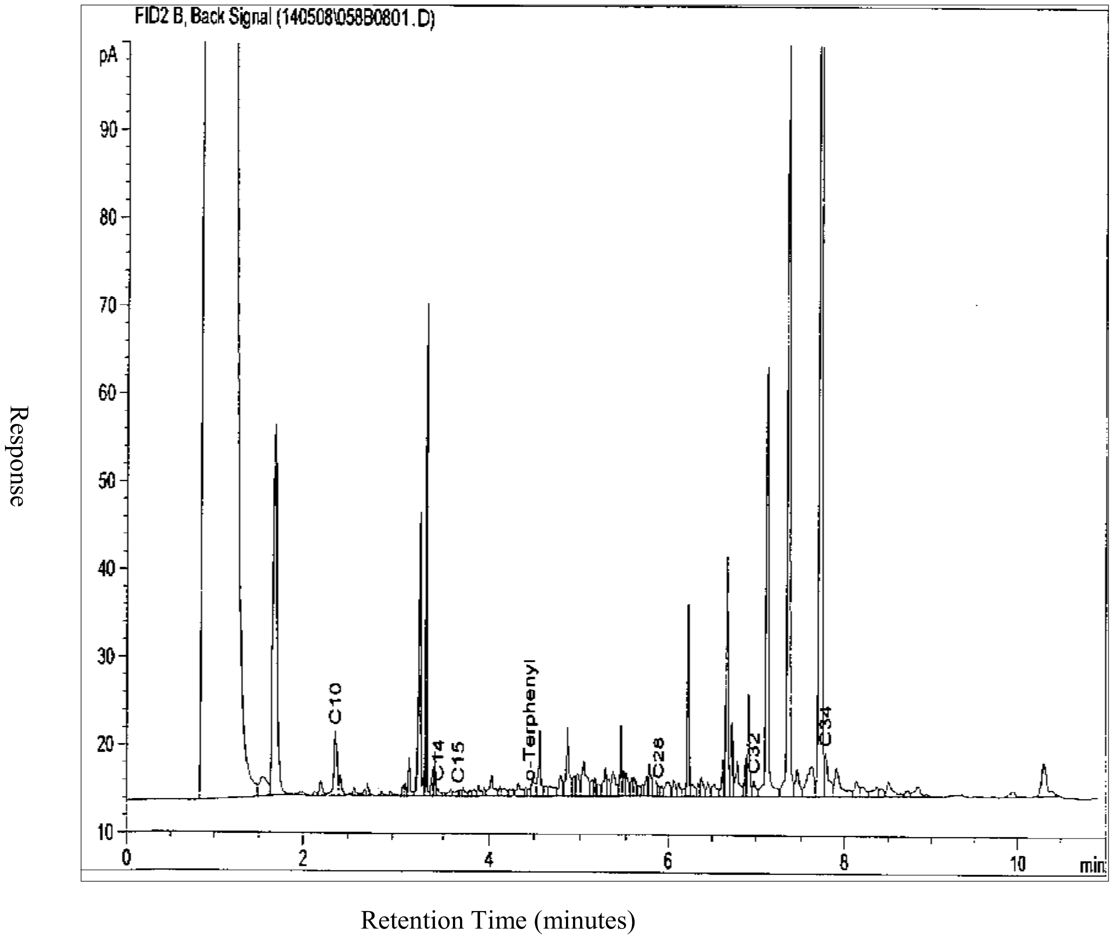
HYDROCARBON REFERENCE LIBRARY

VEGETABLE OIL



The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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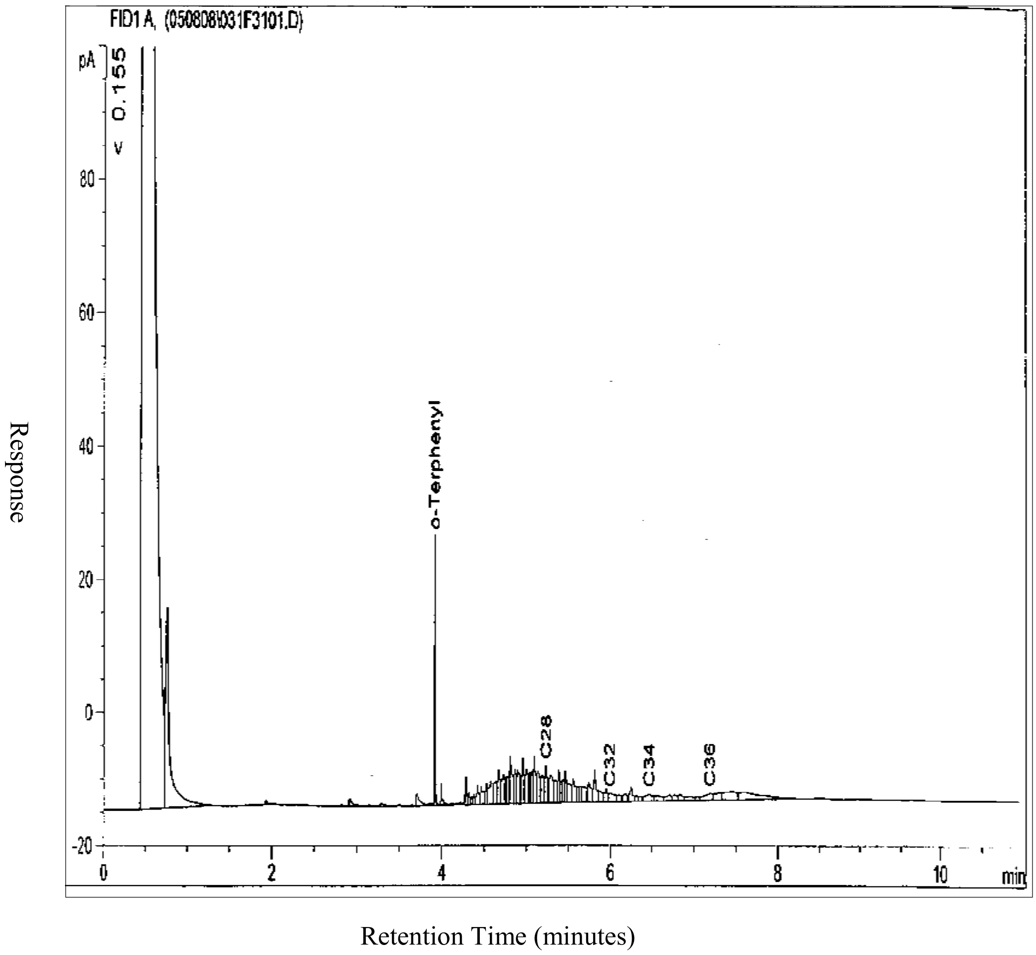
HYDROCARBON REFERENCE LIBRARY

CARDBOARD



Retention Time (minutes)

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The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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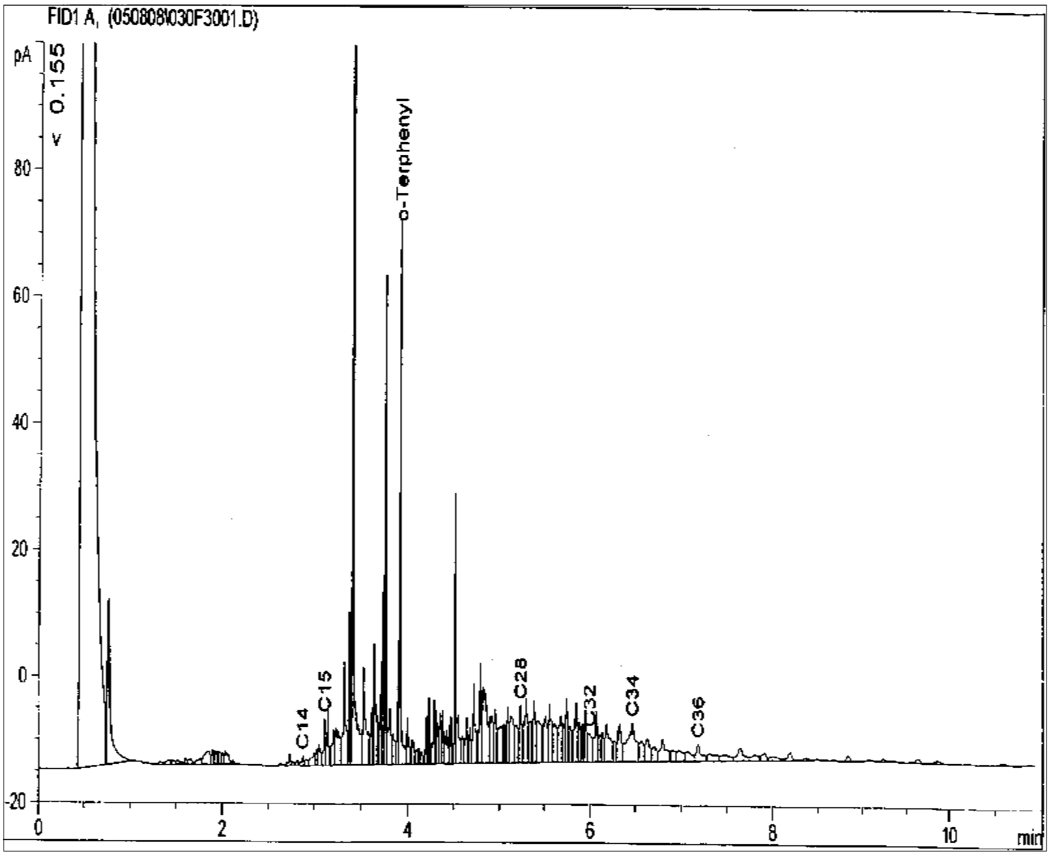
HYDROCARBON REFERENCE LIBRARY

GLOSSY MAGAZINE PAPER

Response



Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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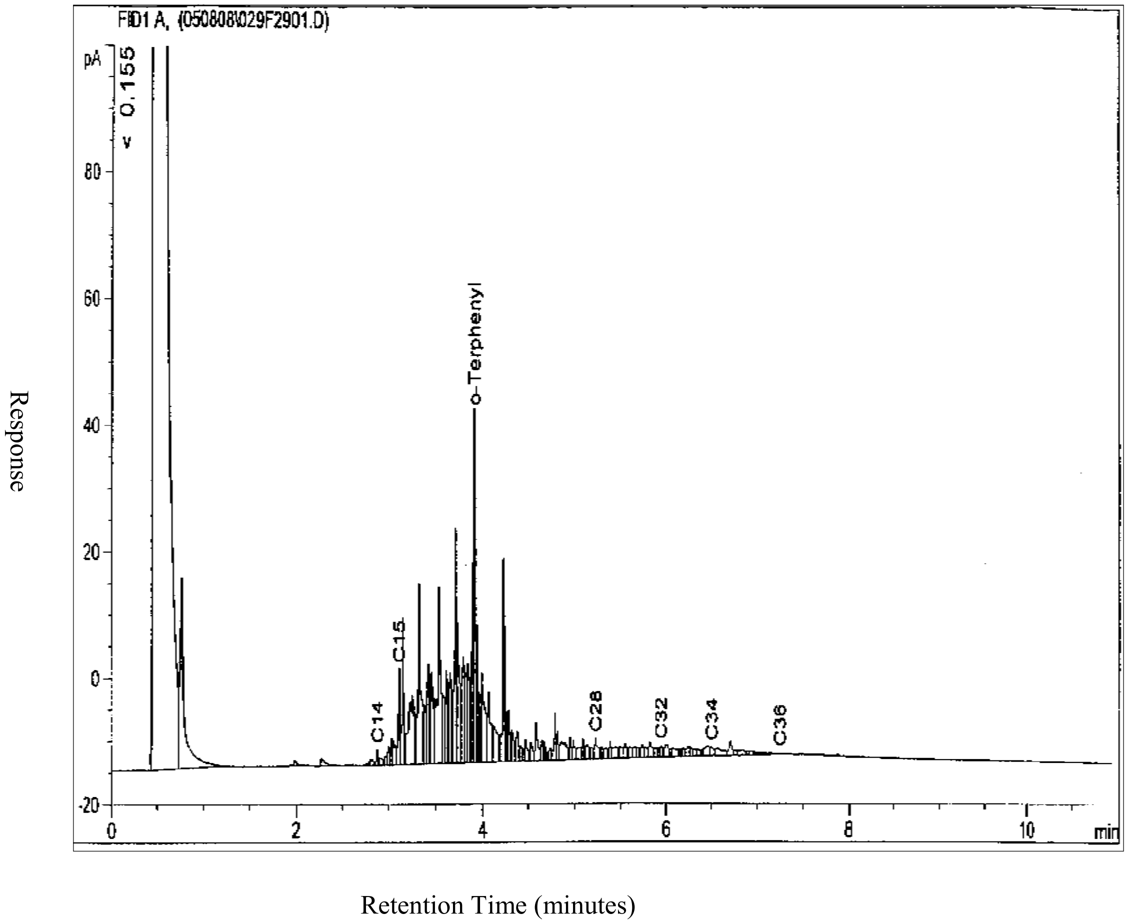
HYDROCARBON REFERENCE LIBRARY

Envirolab

NEWSPAPER



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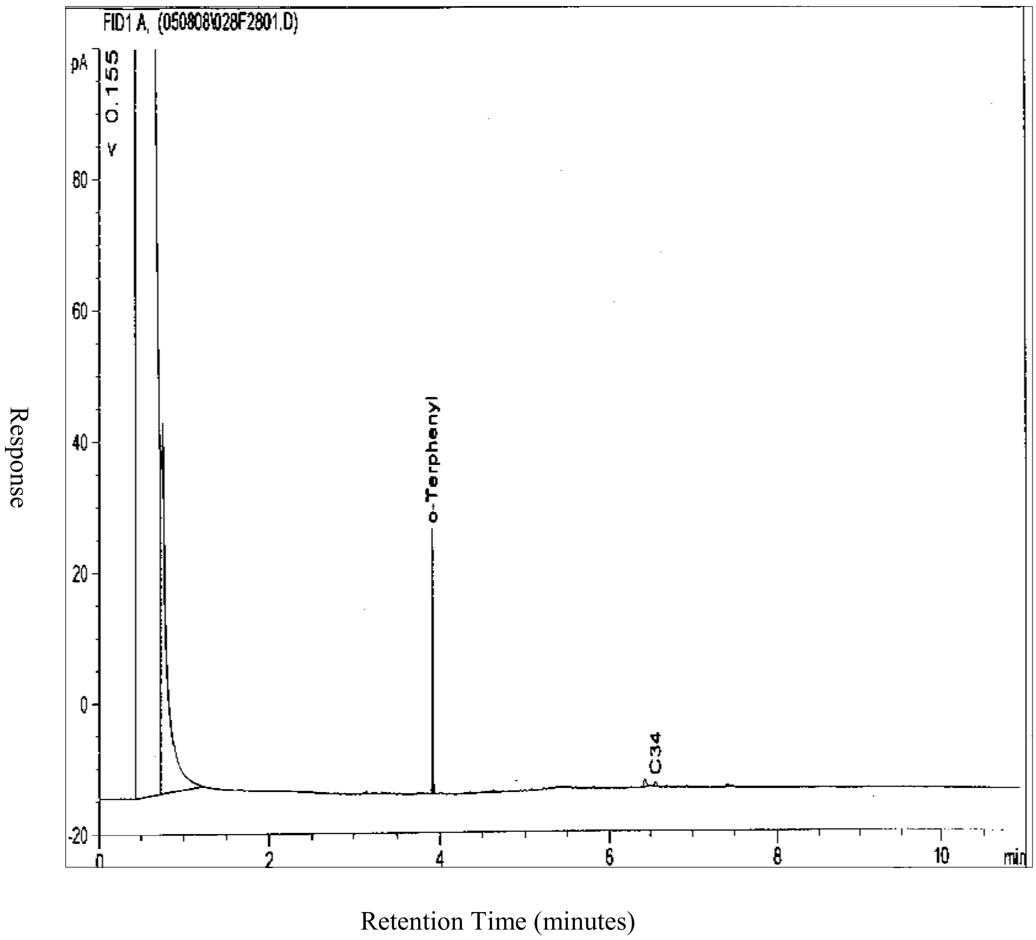
HYDROCARBON REFERENCE LIBRARY

PRINTER/COPIER PAPER



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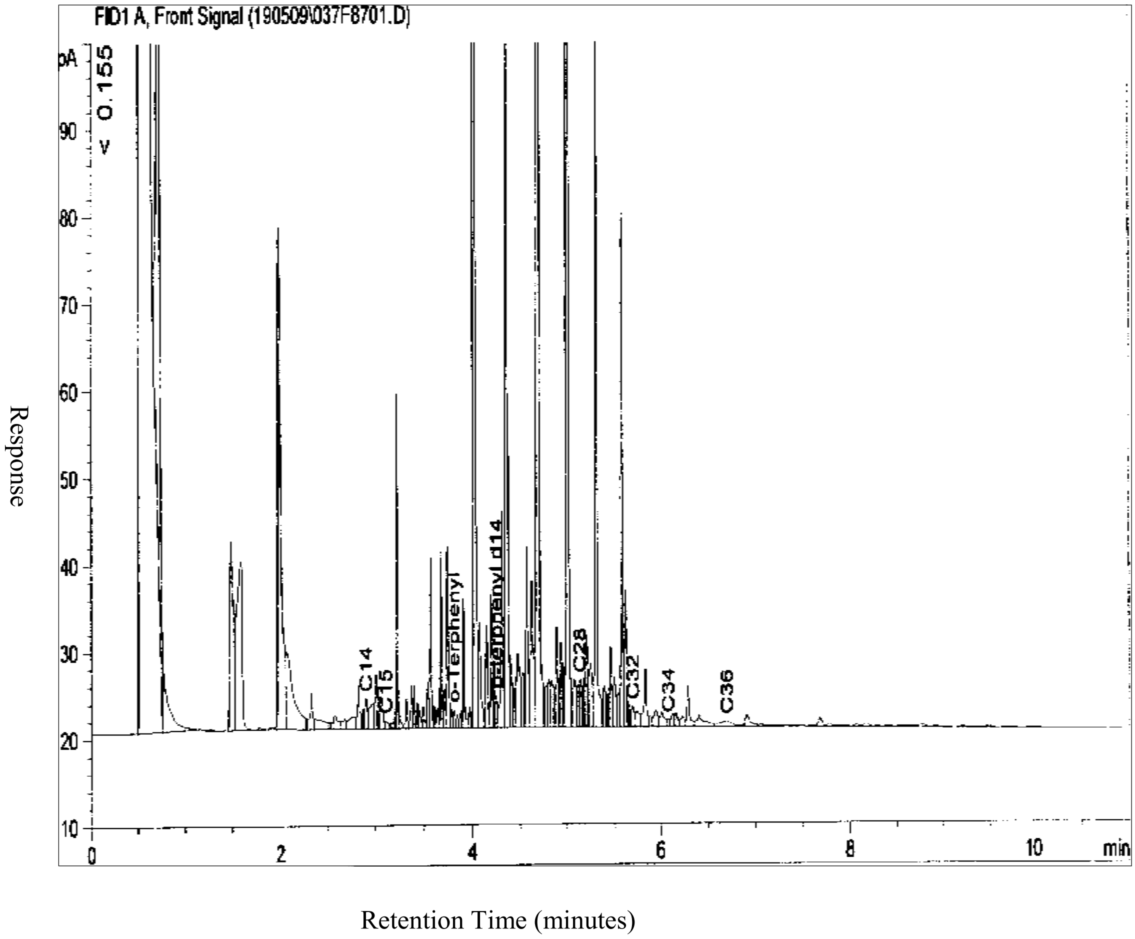
HYDROCARBON REFERENCE LIBRARY

DILUTED DECONTAMINATION SOAP



The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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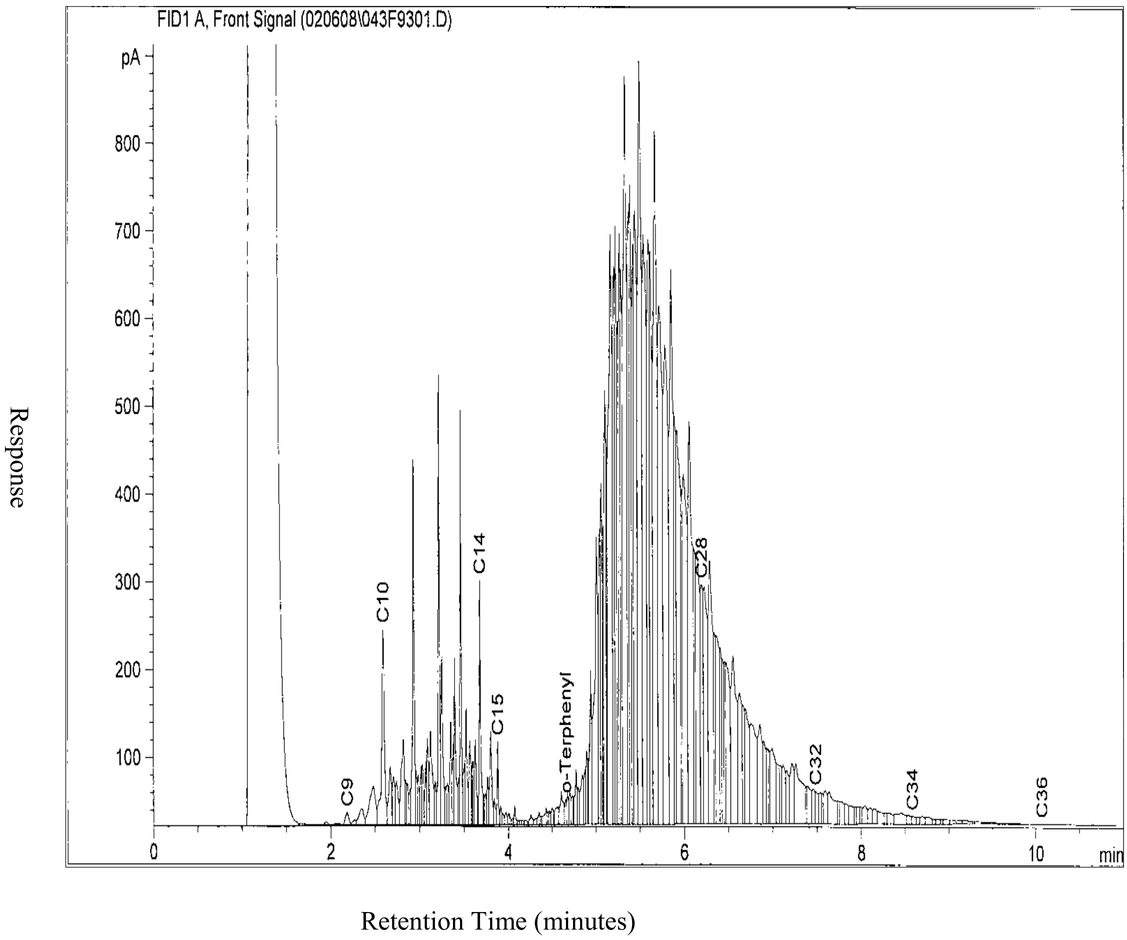
HYDROCARBON REFERENCE LIBRARY

DEFOAMER



The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

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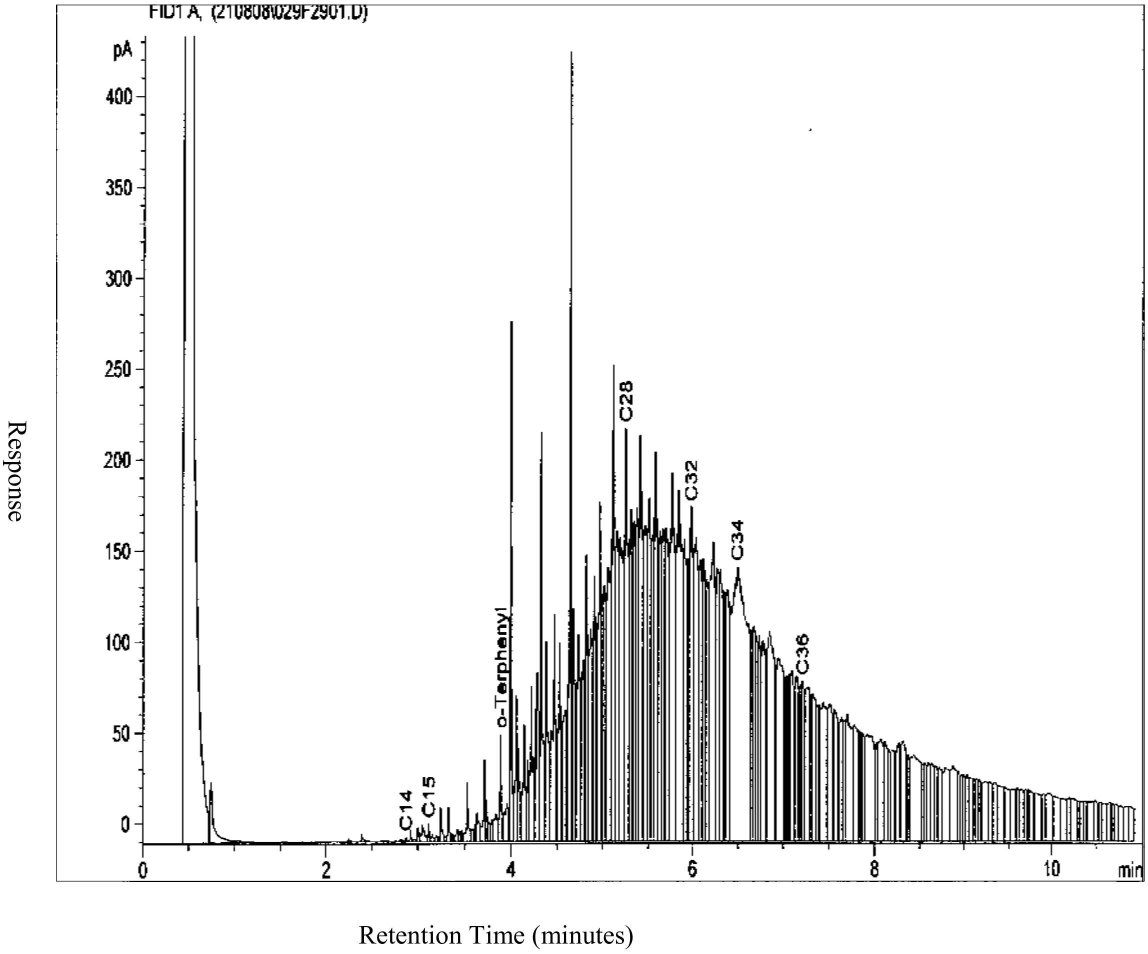
HYDROCARBON REFERENCE LIBRARY

TYRE



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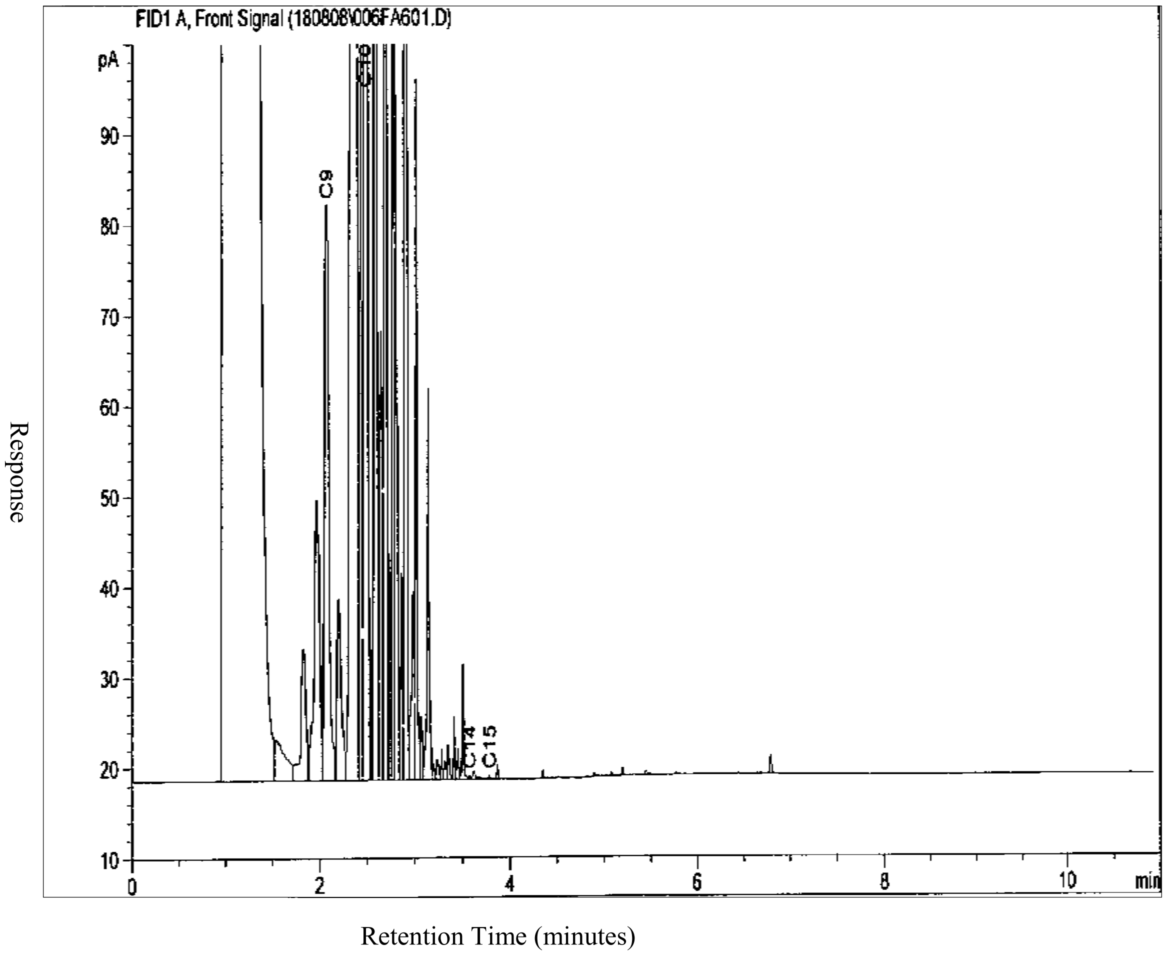
HYDROCARBON REFERENCE LIBRARY

WOOD STAIN



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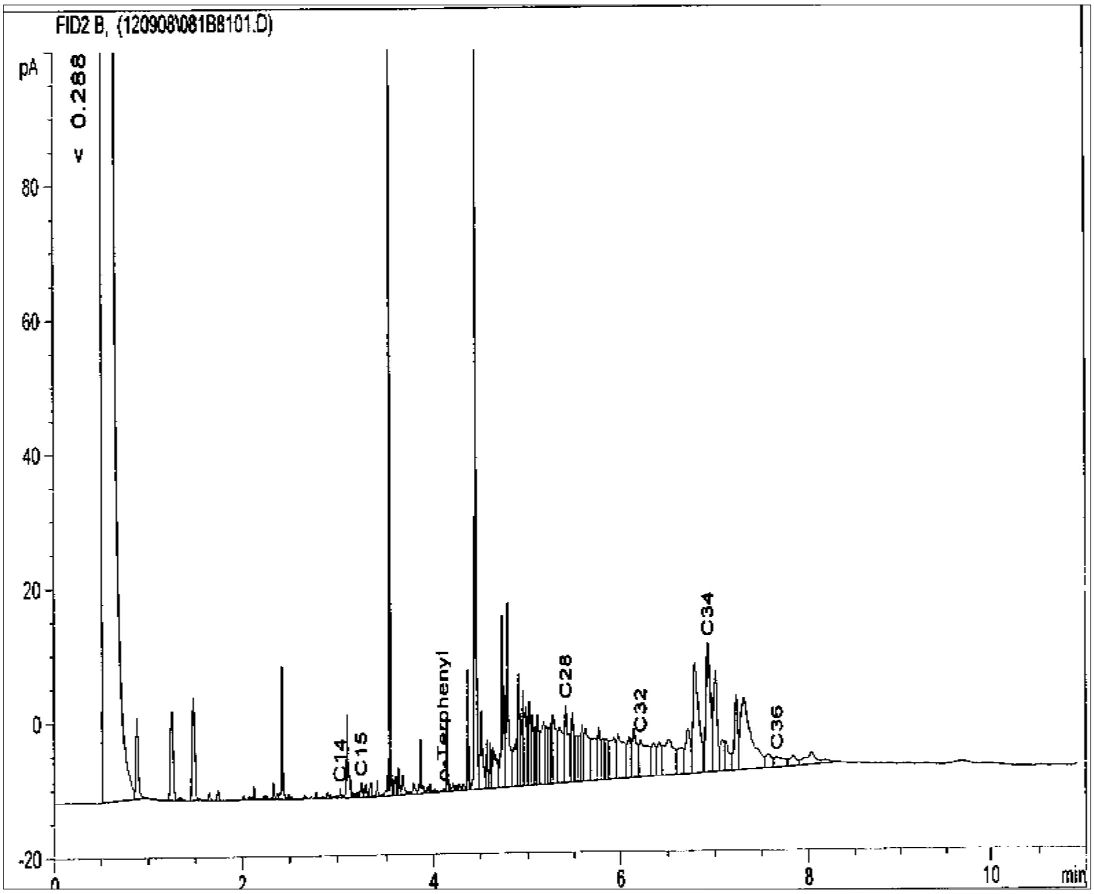
HYDROCARBON REFERENCE LIBRARY

EUCALYPTUS WOOD CHIP

Response



Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

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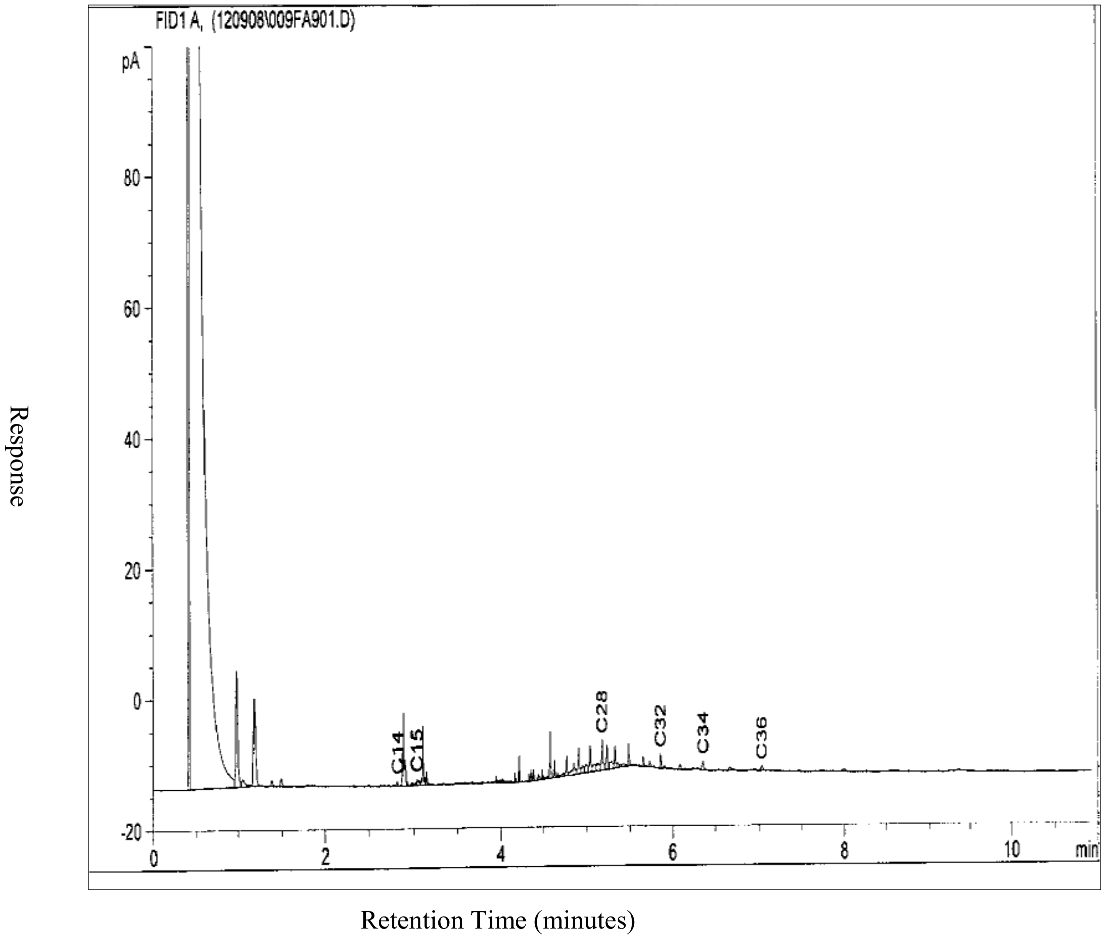
HYDROCARBON REFERENCE LIBRARY

EUCALYPTUS WOOD CHIP WITH SILICA GEL CLEANUP



The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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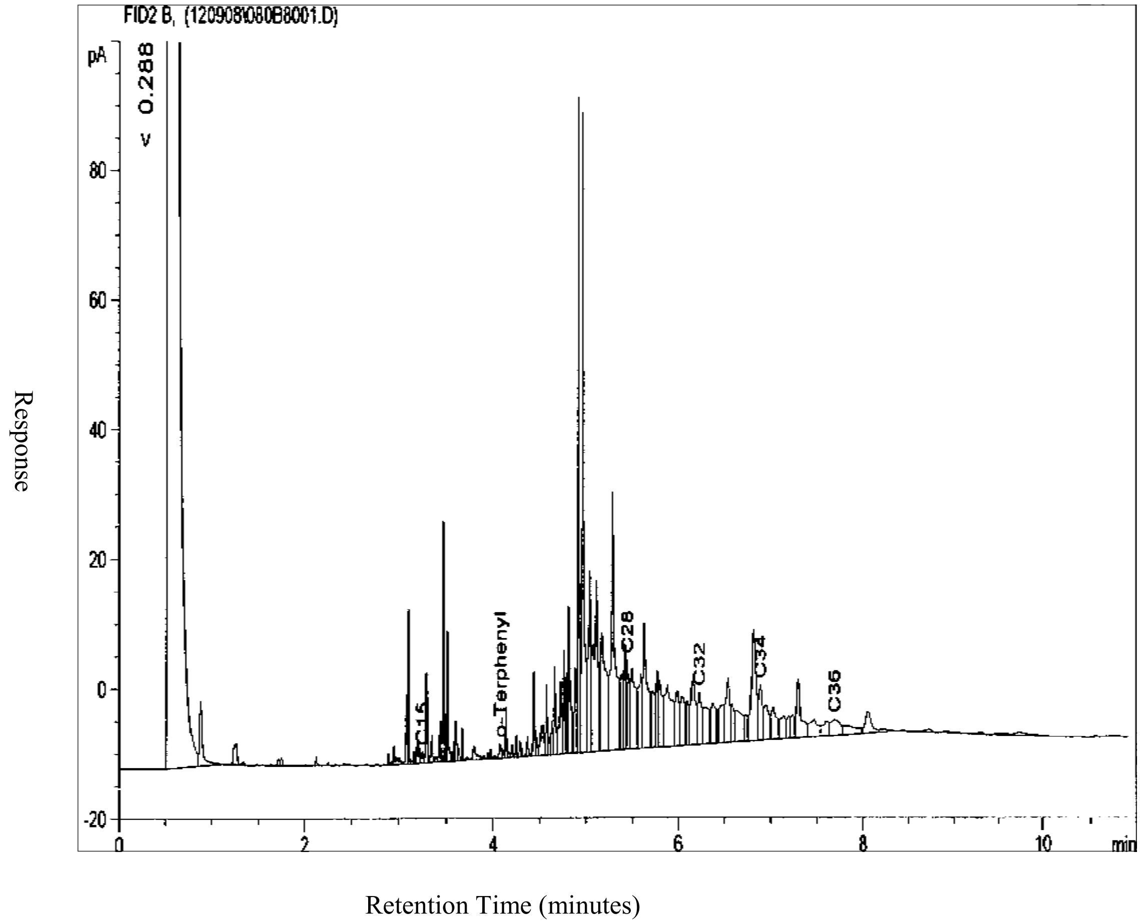
HYDROCARBON REFERENCE LIBRARY

PREMIUM BLEND COMPOST



The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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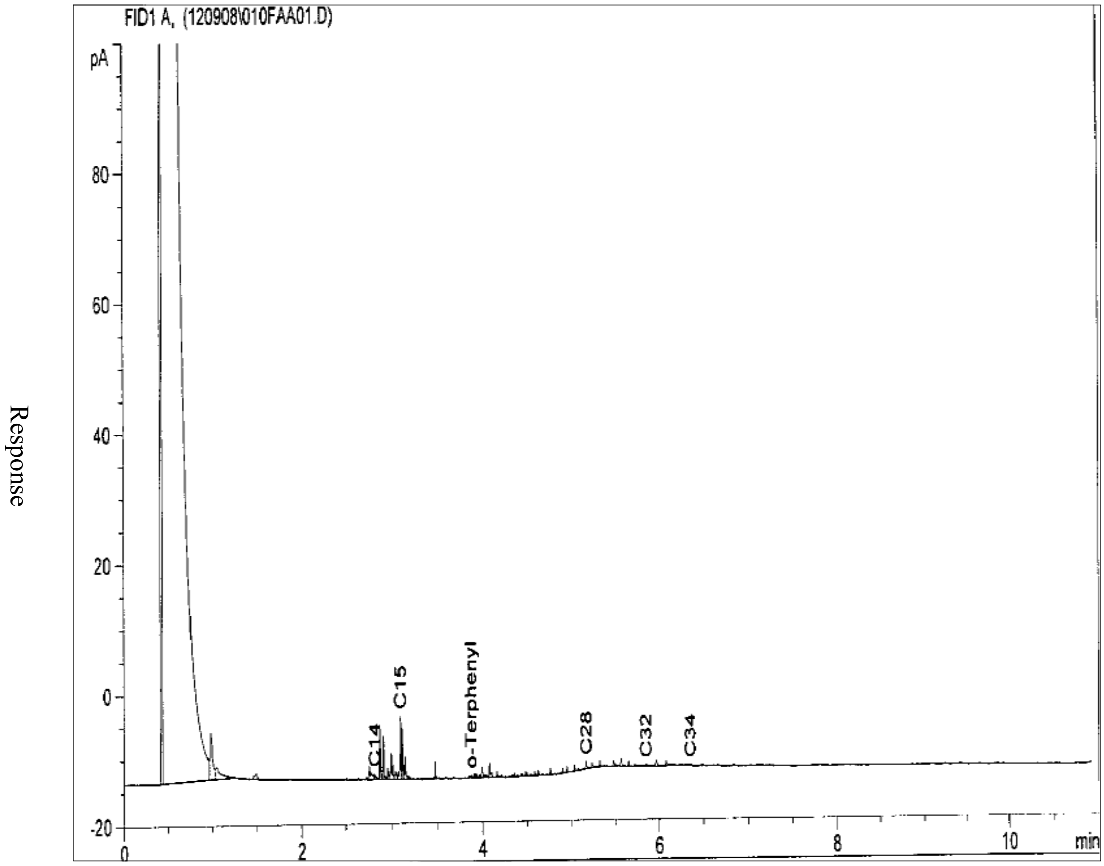
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

PREMIUM BLEND COMPOST WITH SILICA GEL CLEANUP



Retention Time (minutes)

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The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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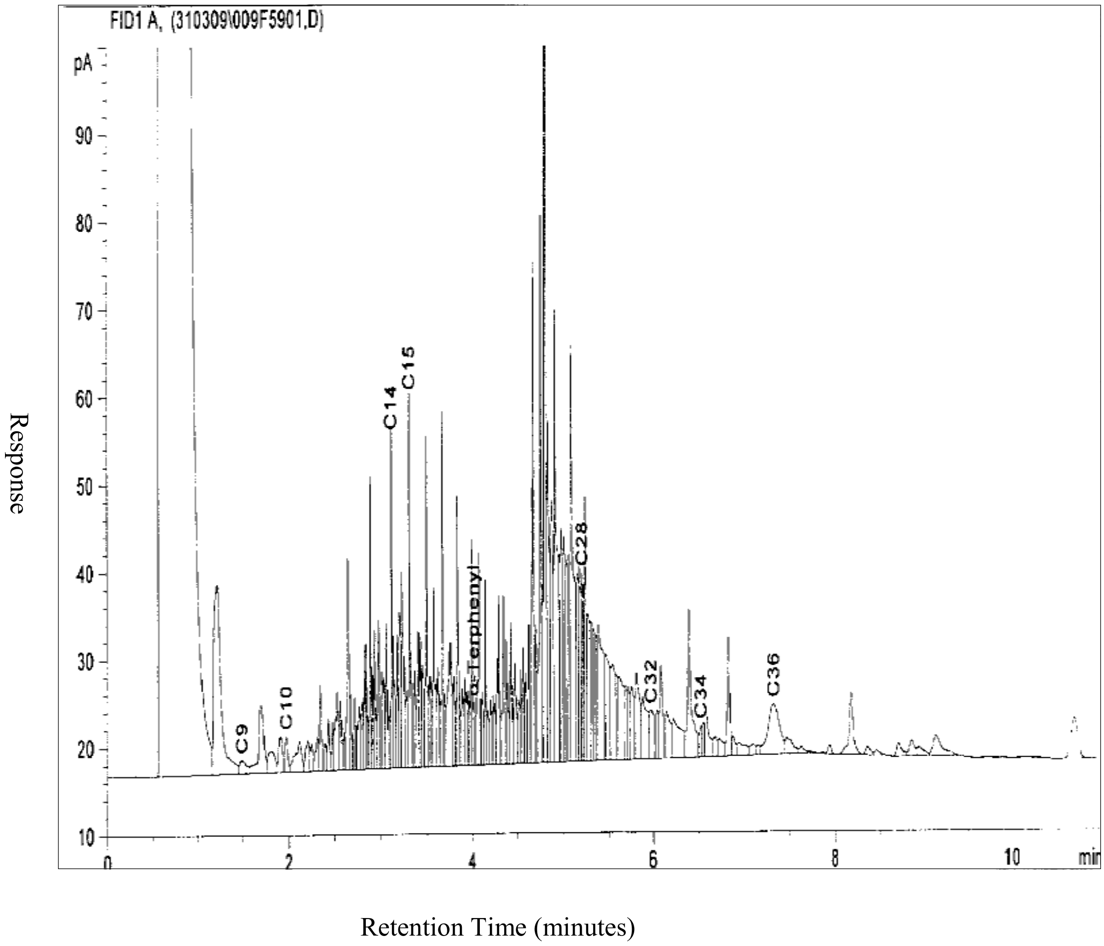
HYDROCARBON REFERENCE LIBRARY

WOOD CHIPS SPIKED WITH DIESEL



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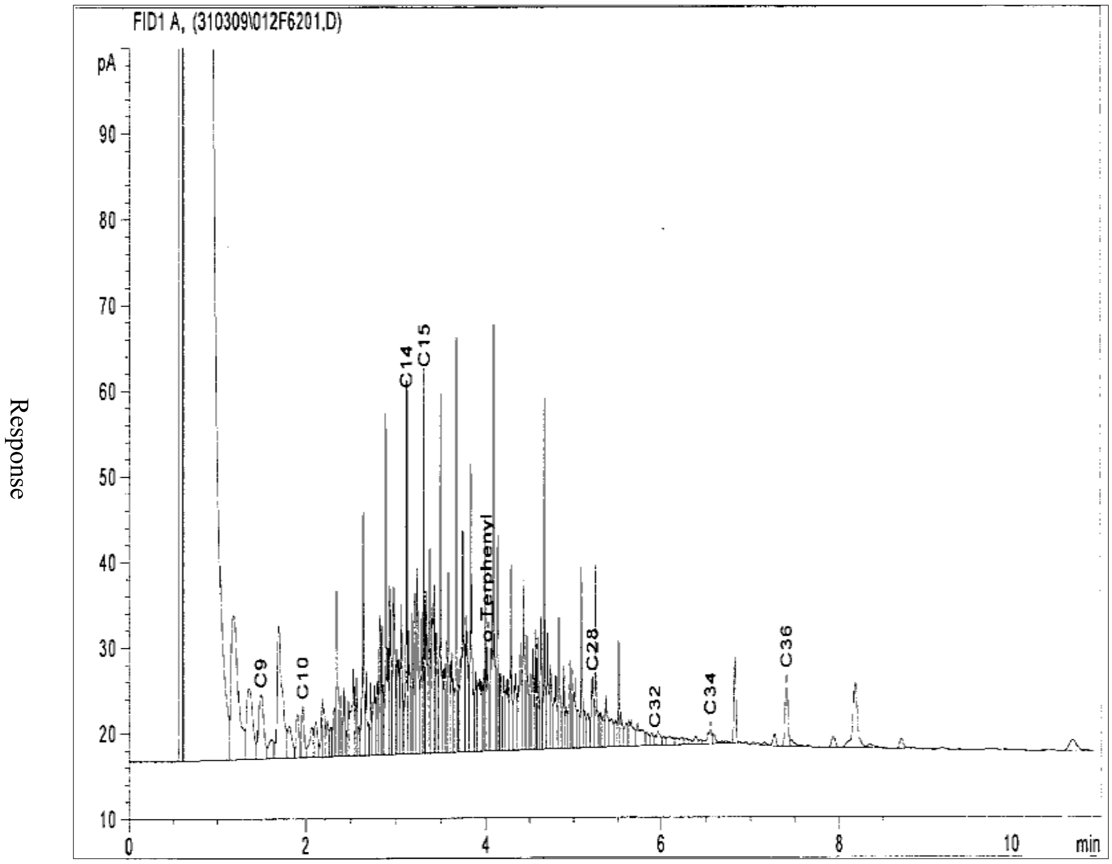
HYDROCARBON REFERENCE LIBRARY

WOOD CHIPS SPIKED WITH DIESEL WITH SILICA GEL CLEANUP



Retention Time (minutes)

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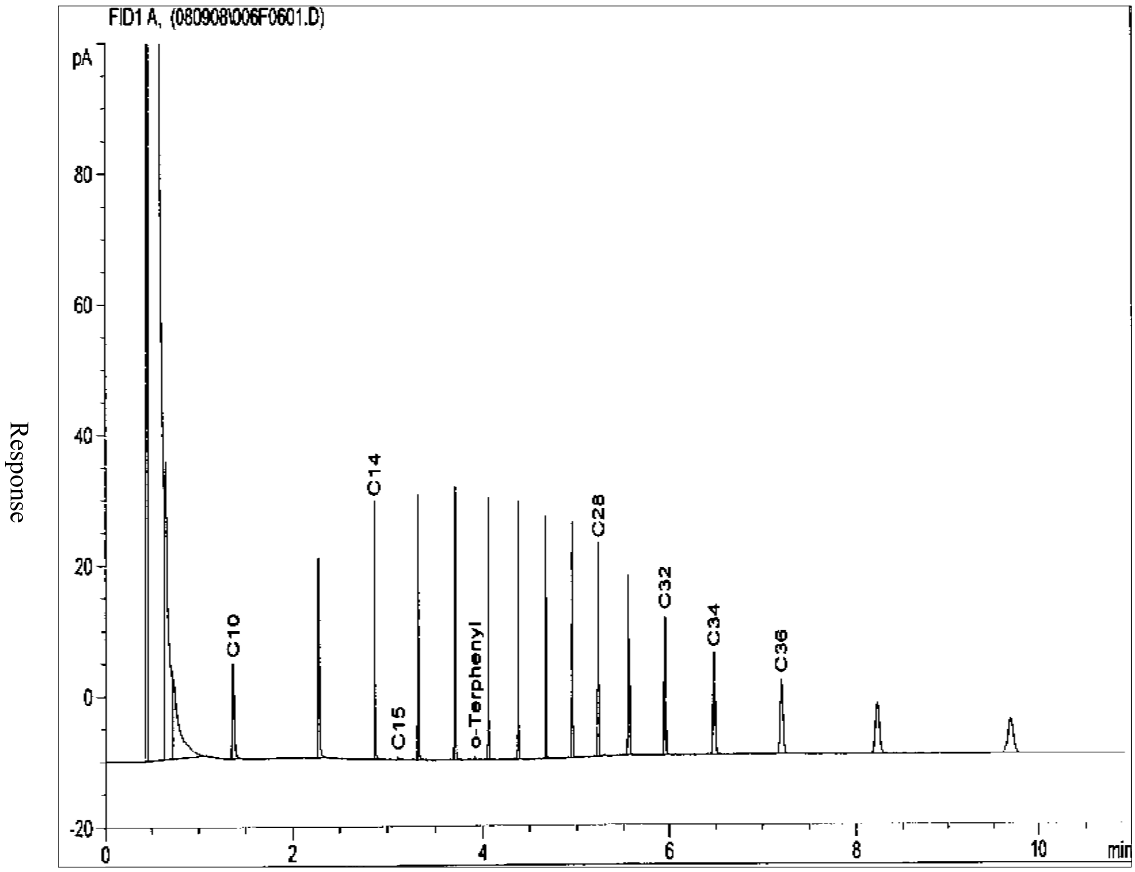
HYDROCARBON REFERENCE LIBRARY

FLORIDA - ALKANE MIXTURE



Retention Time (minutes)

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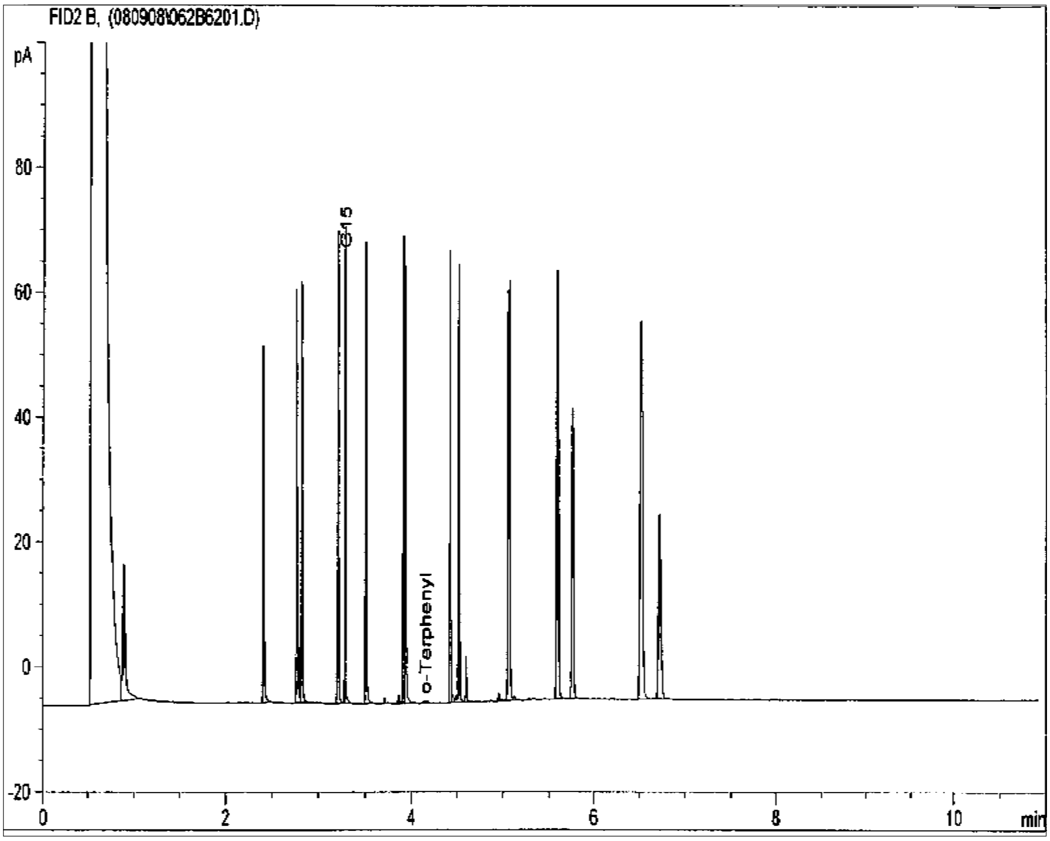
HYDROCARBON REFERENCE LIBRARY

PAH MIXTURE

Response



Retention Time (minutes)

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The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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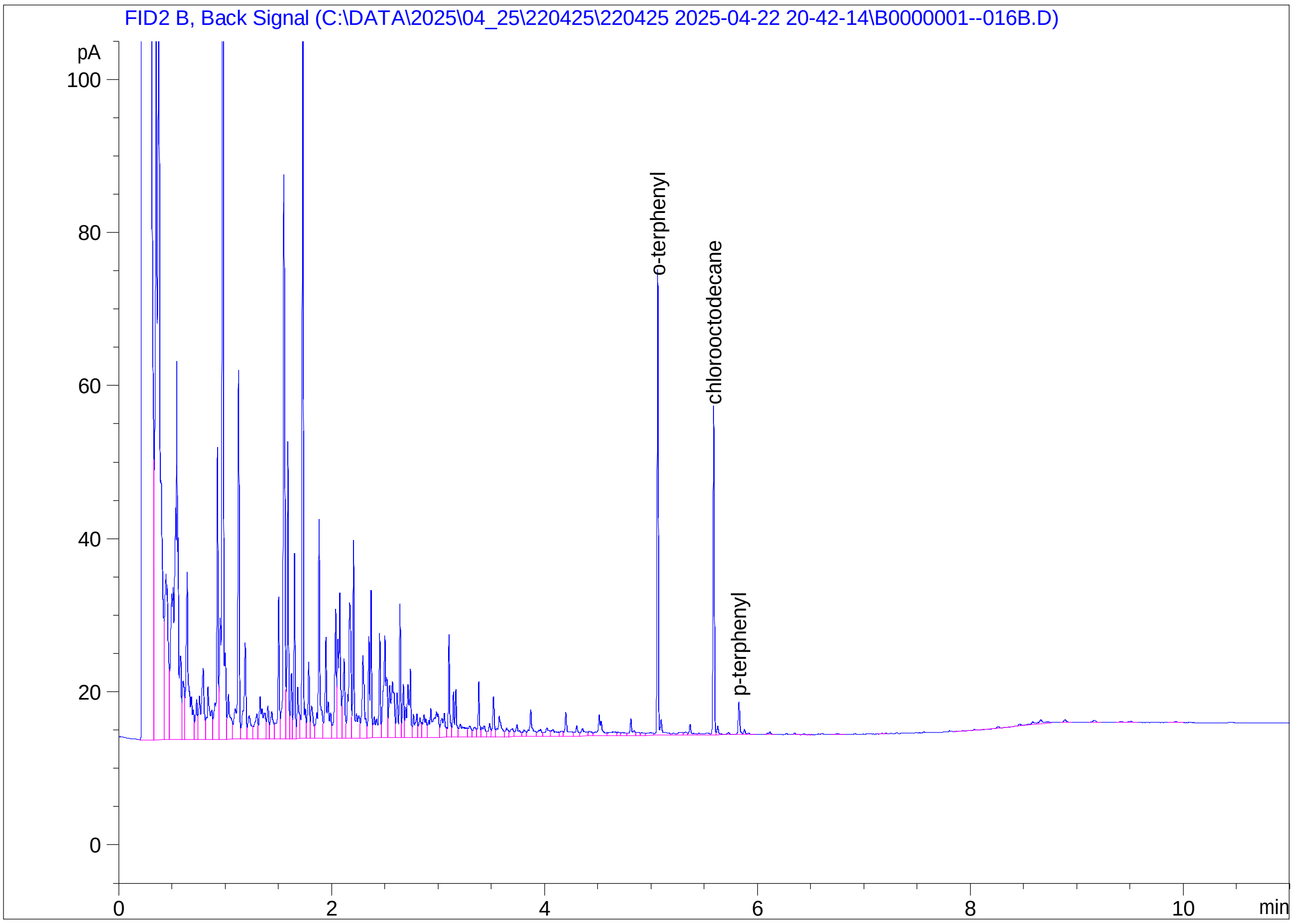
===

Acq. Operator	: SYSTEM	Seq. Line :	16
Sample Operator	: SYSTEM		
Acq. Instrument	: GC6	Location :	91 (B)
Injection Date	: 23-Apr-25 12:39:20 AM	Inj :	1
		Inj Volume :	1 µl

Acq. Method : C:\DATA\2025\04_25\220425\220425 2025-04-22 20-42-14\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\220425-B PROCESSING.M
Last changed : 23-Apr-25 10:01:22 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



===

External Standard Report

===

Sorted By : Signal
Calib. Data Modified : 23-Apr-25 9:47:16 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.062	VB	50.88356	2.08905e-1	10.62984		o-terphenyl
5.588	VV	35.57320	2.66947e-1	9.49616		chlorooctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.825	VV	4.22960	2.25453e-1	9.53575e-1		p-terphenyl

Totals : 21.07957

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Summed Peaks Report

===

Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.215	3.547	734.02358	166.0648
NEPM >C10-C16	1.805	4.227	466.62008	105.5677
TRH C15-C28	3.547	7.220	72.82061	17.5932
NEPM >C16-C34	4.227	8.295	35.88042	8.6686
TRH C29-C36	7.220	8.615	2.38715	0.6168
NEPM >C34-C40	8.295	9.470	4.80520	1.2415

Totals : 299.7525

1 Warnings or Errors :

Warning : Reference compound(s) not found

===

Final Summed Peaks Report

===

Signal 1: FID2 B, Back Signal

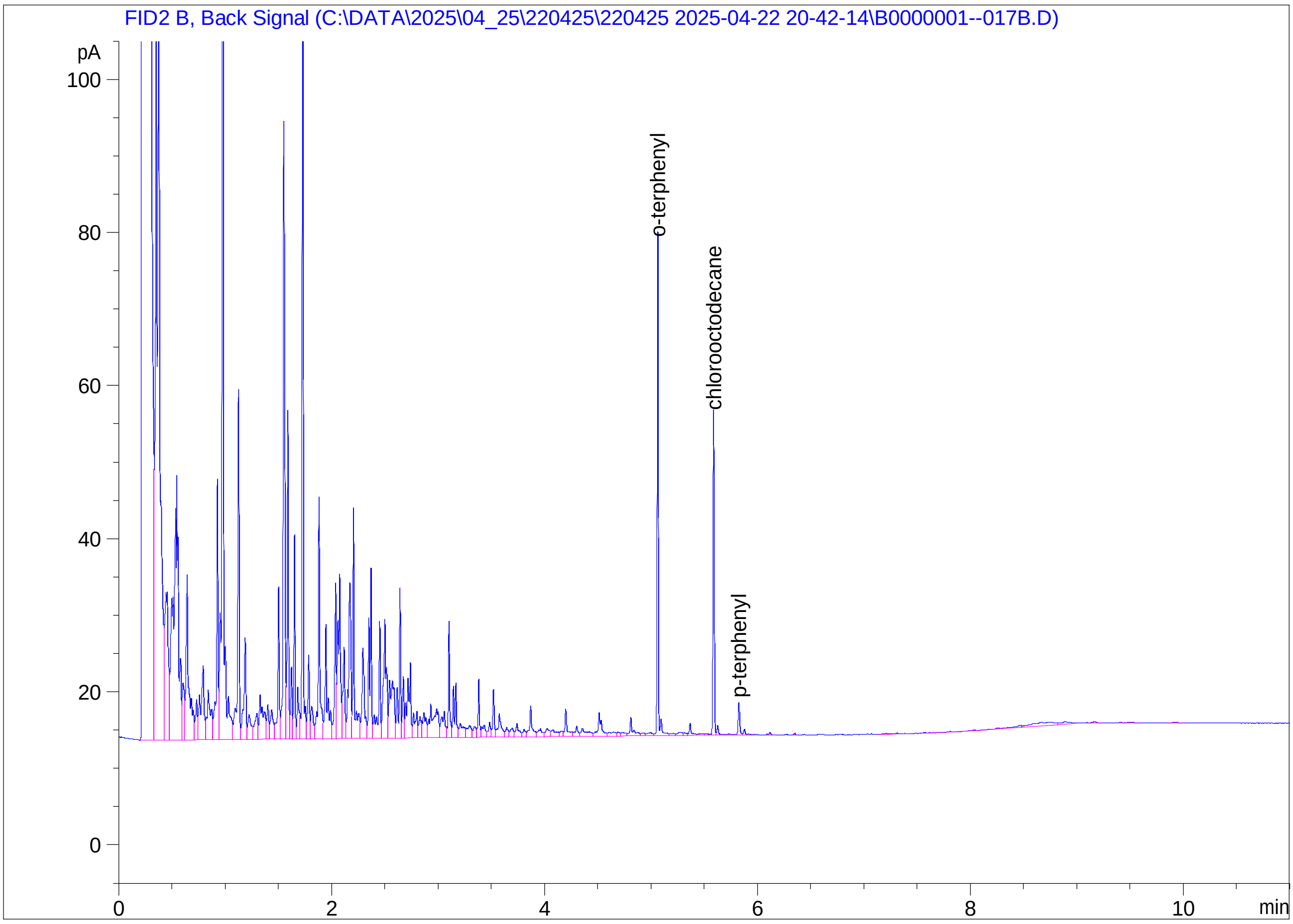
Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	734.02358	166.0648
NEPM >C10-C16	466.62008	105.5677
TRH C15-C28	72.82061	17.5932
NEPM >C16-C34	35.88042	8.6686
TRH C29-C36	2.38715	0.6168
NEPM >C34-C40	4.80520	1.2415
o-terphenyl	50.88356	10.6298
chlorooctodecan	35.57320	9.4962
p-terphenyl	4.22960	0.9536

Totals : 320.8321

*** End of Report ***

===

Acq. Operator : SYSTEM Seq. Line : 17
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 92 (B)
Injection Date : 23-Apr-25 12:55:01 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\220425\220425 2025-04-22 20-42-14\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\220425-B PROCESSING.M
Last changed : 23-Apr-25 10:01:22 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 23-Apr-25 9:47:16 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.063	VB	50.29430	2.08905e-1	10.50674		o-terphenyl
5.588	VV	35.41756	2.66947e-1	9.45461		chlorooctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.825	VV	4.23339	2.25453e-1	9.54429e-1		p-terphenyl

Totals : 20.91578

===

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Summed Peaks Report

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Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.215	3.547	811.30571	183.5490
NEPM >C10-C16	1.805	4.227	519.38413	117.5049
TRH C15-C28	3.547	7.220	76.89476	18.5775
NEPM >C16-C34	4.227	8.295	38.17703	9.2235
TRH C29-C36	7.220	8.615	2.95509	0.7635
NEPM >C34-C40	8.295	9.470	10.22003	2.6405

Totals : 332.2589

1 Warnings or Errors :

Warning : Reference compound(s) not found

===

Final Summed Peaks Report

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Signal 1: FID2 B, Back Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	811.30571	183.5490
NEPM >C10-C16	519.38413	117.5049
TRH C15-C28	76.89476	18.5775
NEPM >C16-C34	38.17703	9.2235
TRH C29-C36	2.95509	0.7635
NEPM >C34-C40	10.22003	2.6405
o-terphenyl	50.29430	10.5067
chlorooctodecan	35.41756	9.4546
p-terphenyl	4.23339	0.9544

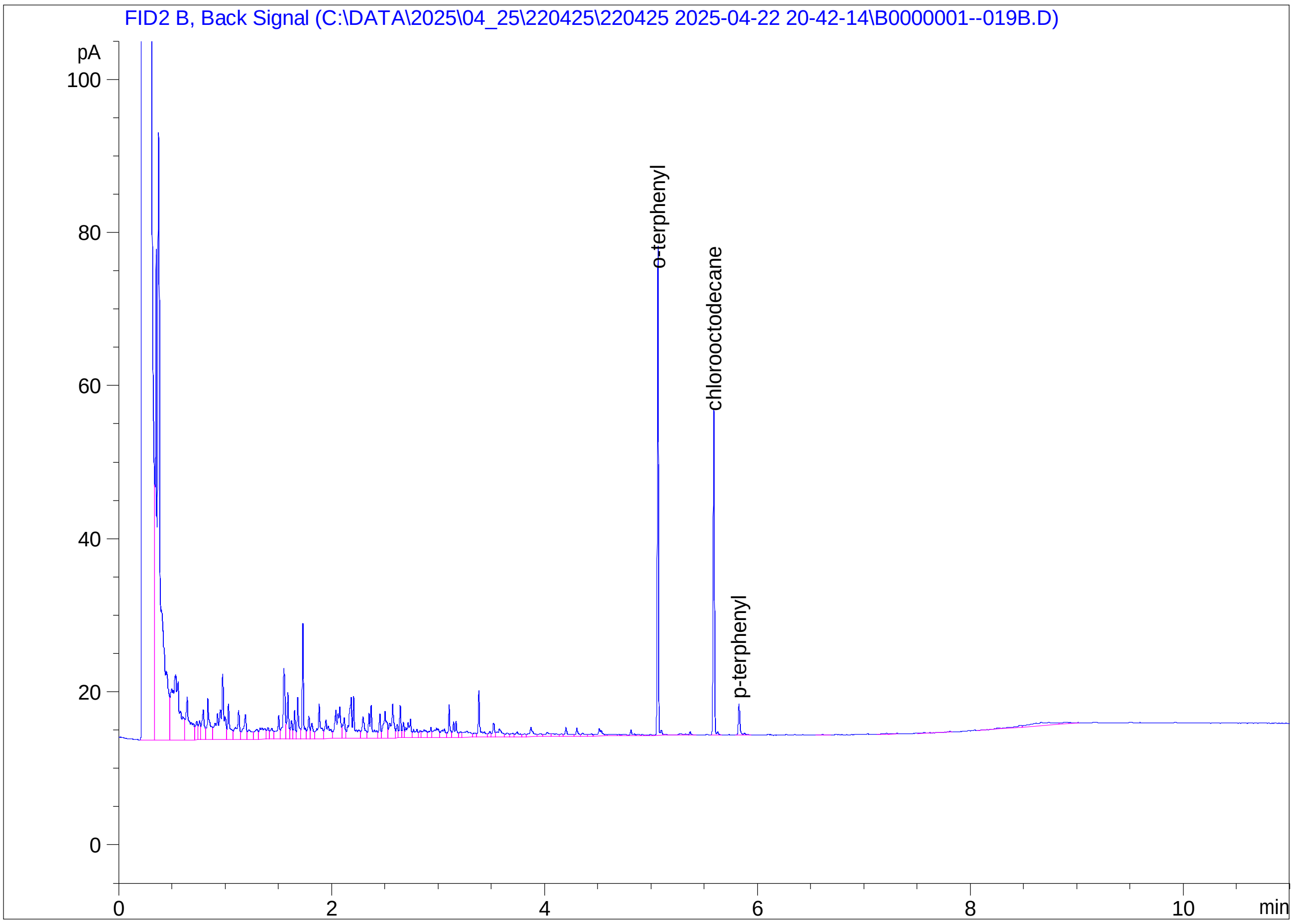
Totals : 353.1747

*** End of Report ***

Data File C:\DATA\2025\04_25\220425\220425 2025-04-22 20-42-14\B0000001--019B.D
Sample Name: s378586-5

===

Acq. Operator : SYSTEM Seq. Line : 19
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 94 (B)
Injection Date : 23-Apr-25 1:26:28 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\220425\220425 2025-04-22 20-42-14\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\220425-B PROCESSING.M
Last changed : 23-Apr-25 10:01:22 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



===

External Standard Report

===

Sorted By : Signal
Calib. Data Modified : 23-Apr-25 9:47:16 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.064	VV	47.12786	2.08905e-1	9.84525		o-terphenyl
5.589	VB	35.75568	2.66947e-1	9.54487		chlorooctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.826	BV	4.02541	2.25453e-1	9.07540e-1		p-terphenyl

Totals : 20.29766

===

===
Summed Peaks Report
===

Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.215	3.547	213.52421	48.3075
NEPM >C10-C16	1.805	4.227	159.78790	36.1503
TRH C15-C28	3.547	7.220	30.16440	7.2876
NEPM >C16-C34	4.227	8.295	13.52610	3.2679
TRH C29-C36	7.220	8.615	2.26217	0.5845
NEPM >C34-C40	8.295	9.470	9.15396	2.3650

Totals : 97.9627

1 Warnings or Errors :

Warning : Reference compound(s) not found

===
Final Summed Peaks Report
===

Signal 1: FID2 B, Back Signal

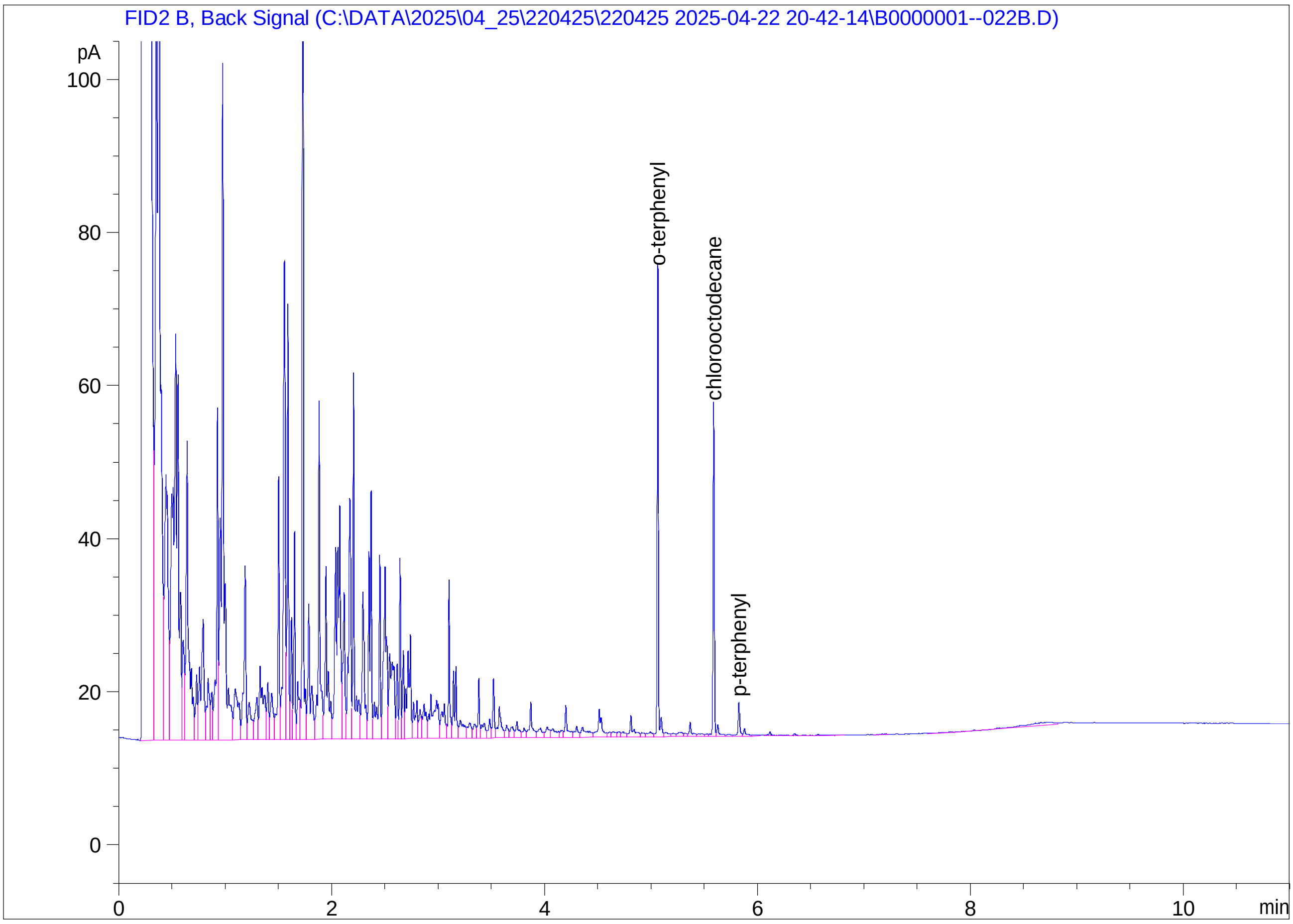
Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	213.52421	48.3075
NEPM >C10-C16	159.78790	36.1503
TRH C15-C28	30.16440	7.2876
NEPM >C16-C34	13.52610	3.2679
TRH C29-C36	2.26217	0.5845
NEPM >C34-C40	9.15396	2.3650
o-terphenyl	47.12786	9.8453
chlorooctodecan	35.75568	9.5449
p-terphenyl	4.02541	0.9075

Totals : 118.2604

*** End of Report ***

===

Acq. Operator : SYSTEM Seq. Line : 22
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 97 (B)
Injection Date : 23-Apr-25 2:13:32 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\220425\220425 2025-04-22 20-42-14\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\220425-B PROCESSING.M
Last changed : 23-Apr-25 10:01:22 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



===
External Standard Report
===

Sorted By : Signal
Calib. Data Modified : 23-Apr-25 9:47:16 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.063	VV	50.22300	2.08905e-1	10.49184		o-terphenyl
5.588	VV	36.04562	2.66947e-1	9.62227		chlorooctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.825	VV	4.82908	2.25453e-1	1.08873		p-terphenyl

Totals : 21.20284

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===
Summed Peaks Report
===

Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.215	3.547	1130.57211	255.7795
NEPM >C10-C16	1.805	4.227	733.80703	166.0158
TRH C15-C28	3.547	7.220	104.03182	25.1338
NEPM >C16-C34	4.227	8.295	54.40491	13.1441
TRH C29-C36	7.220	8.615	9.20167e-1	0.2377
NEPM >C34-C40	8.295	9.470	7.77098	2.0077

Totals : 462.3186

1 Warnings or Errors :

Warning : Reference compound(s) not found

===
Final Summed Peaks Report
===

Signal 1: FID2 B, Back Signal

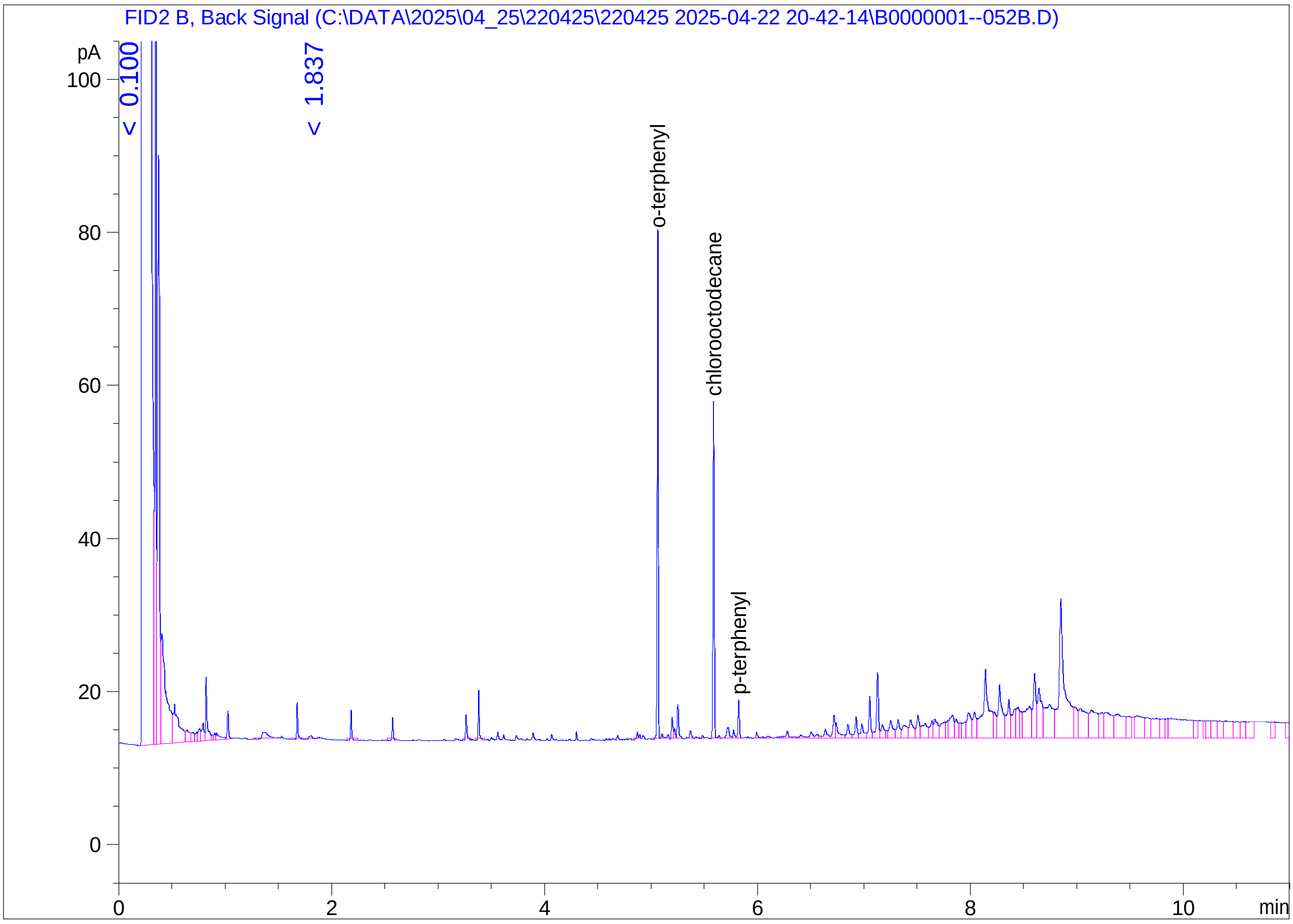
Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1130.57211	255.7795
NEPM >C10-C16	733.80703	166.0158
TRH C15-C28	104.03182	25.1338
NEPM >C16-C34	54.40491	13.1441
TRH C29-C36	9.20167e-1	0.2377
NEPM >C34-C40	7.77098	2.0077
o-terphenyl	50.22300	10.4918
chlorooctodecan	36.04562	9.6223
p-terphenyl	4.82908	1.0887

Totals : 483.5214

*** End of Report ***

===

```
Acq. Operator   : SYSTEM                        Seq. Line :  52
Sample Operator : SYSTEM
Acq. Instrument : GC6                            Location :   127  (B)
Injection Date  : 23-Apr-25 10:04:13 AM               Inj :   1
                                               Inj Volume : 1 µl
Acq. Method     : C:\DATA\2025\04_25\220425\220425 2025-04-22 20-42-14\NEPM JPW H2 V7 50C
                  start.M
Last changed    : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\220425-B PROCESSING.M
Last changed    : 23-Apr-25 10:01:22 AM by SYSTEM
                  (modified after loading) (Current integration events modified)
Method Info     : FAST TPH WITH 15M HP5 COLUMNS
```



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External Standard Report

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```
Sorted By            :      Signal
Calib. Data Modified :      23-Apr-25 9:47:16 AM
Multiplier           :      1.0000
Dilution             :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID2 B, Back Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.063	HH	46.31807	2.08905e-1	9.67608		o-terphenyl
5.587	HH	36.22847	2.66947e-1	9.67108		chlorooctodecane
5.824	HH	4.23665	2.25453e-1	9.55165e-1		p-terphenyl

Totals : 20.30233

Summed Peaks Report

Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.215	3.547	13.54192	3.0637
NEPM >C10-C16	1.805	4.227	8.11554	1.8361
TRH C15-C28	3.547	7.220	71.32781	17.2326
NEPM >C16-C34	4.227	8.295	232.77121	56.2368
TRH C29-C36	7.220	8.615	233.61989	60.3585
NEPM >C34-C40	8.295	9.470	285.06401	73.6497

Totals : 212.3774

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID2 B, Back Signal

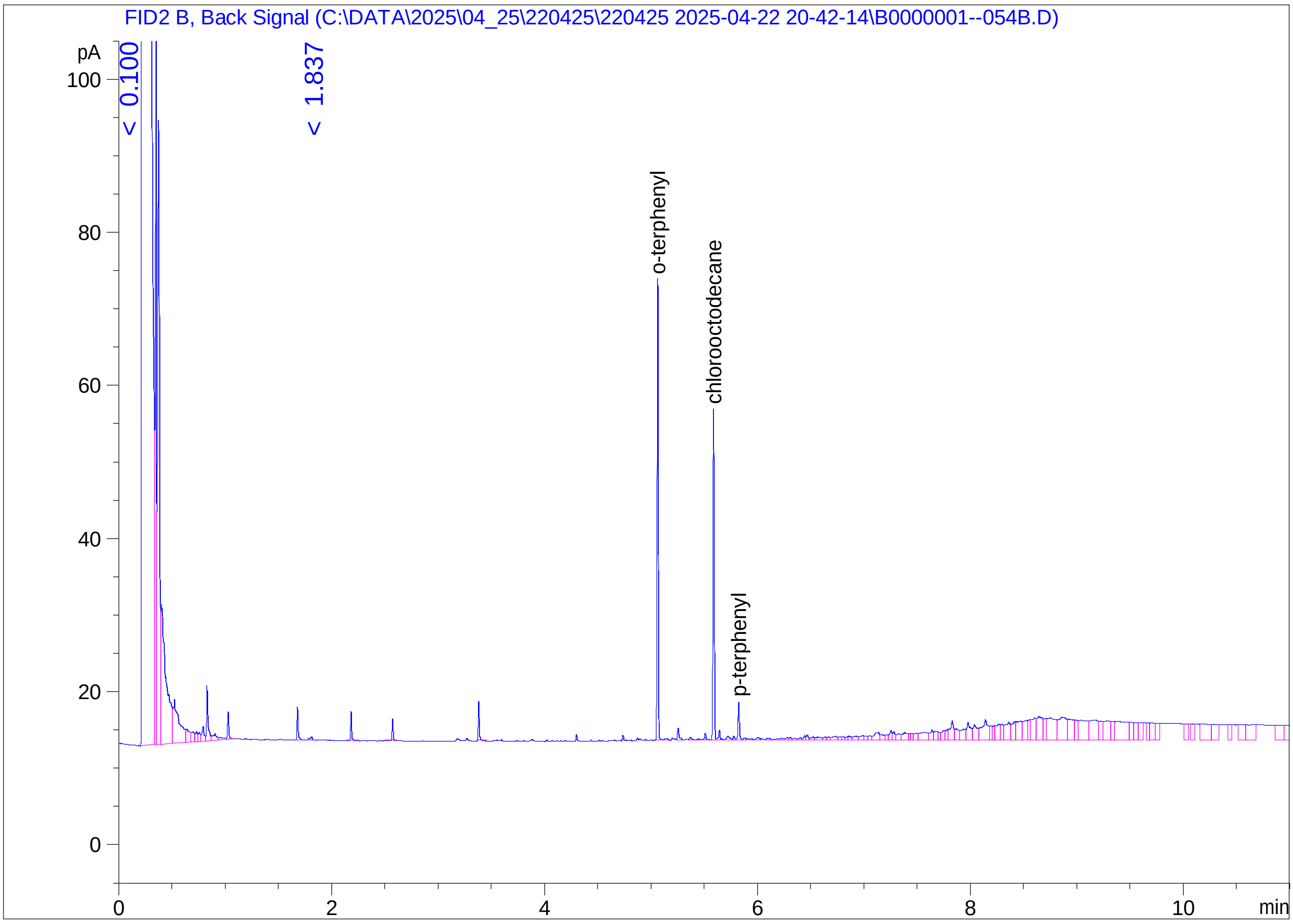
Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	13.54192	3.0637
NEPM >C10-C16	8.11554	1.8361
TRH C15-C28	71.32781	17.2326
NEPM >C16-C34	232.77121	56.2368
TRH C29-C36	233.61989	60.3585
NEPM >C34-C40	285.06401	73.6497
o-terphenyl	46.31807	9.6761
chlorooctodecan	36.22847	9.6711
p-terphenyl	4.23665	0.9552

Totals : 232.6797

*** End of Report ***

===

Acq. Operator : SYSTEM Seq. Line : 54
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 129 (B)
Injection Date : 23-Apr-25 10:35:35 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\220425\220425 2025-04-22 20-42-14\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\220425-B PROCESSING.M
Last changed : 23-Apr-25 11:00:22 AM by SYSTEM
(modified after loading) (Current integration events modified)
Method Info : FAST TPH WITH 15M HP5 COLUMNS



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 23-Apr-25 9:47:16 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.062	HH	45.42610	2.08905e-1	9.48975		o-terphenyl
5.587	HH	35.24263	2.66947e-1	9.40791		chlorooctodecane
5.823	HH	4.28735	2.25453e-1	9.66596e-1		p-terphenyl

Totals : 19.86425

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Summed Peaks Report
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Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.215	3.547	10.28787	2.3275
NEPM >C10-C16	1.805	4.227	7.13550	1.6143
TRH C15-C28	3.547	7.220	34.12949	8.2456
NEPM >C16-C34	4.227	8.295	118.92232	28.7313
TRH C29-C36	7.220	8.615	128.40932	33.1761
NEPM >C34-C40	8.295	9.470	178.38743	46.0885

Totals : 120.1833

1 Warnings or Errors :

Warning : Reference compound(s) not found

===
Final Summed Peaks Report
===

Signal 1: FID2 B, Back Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	10.28787	2.3275
NEPM >C10-C16	7.13550	1.6143
TRH C15-C28	34.12949	8.2456
NEPM >C16-C34	118.92232	28.7313
TRH C29-C36	128.40932	33.1761
NEPM >C34-C40	178.38743	46.0885
o-terphenyl	45.42610	9.4897
chlorooctodecan	35.24263	9.4079
p-terphenyl	4.28735	0.9666

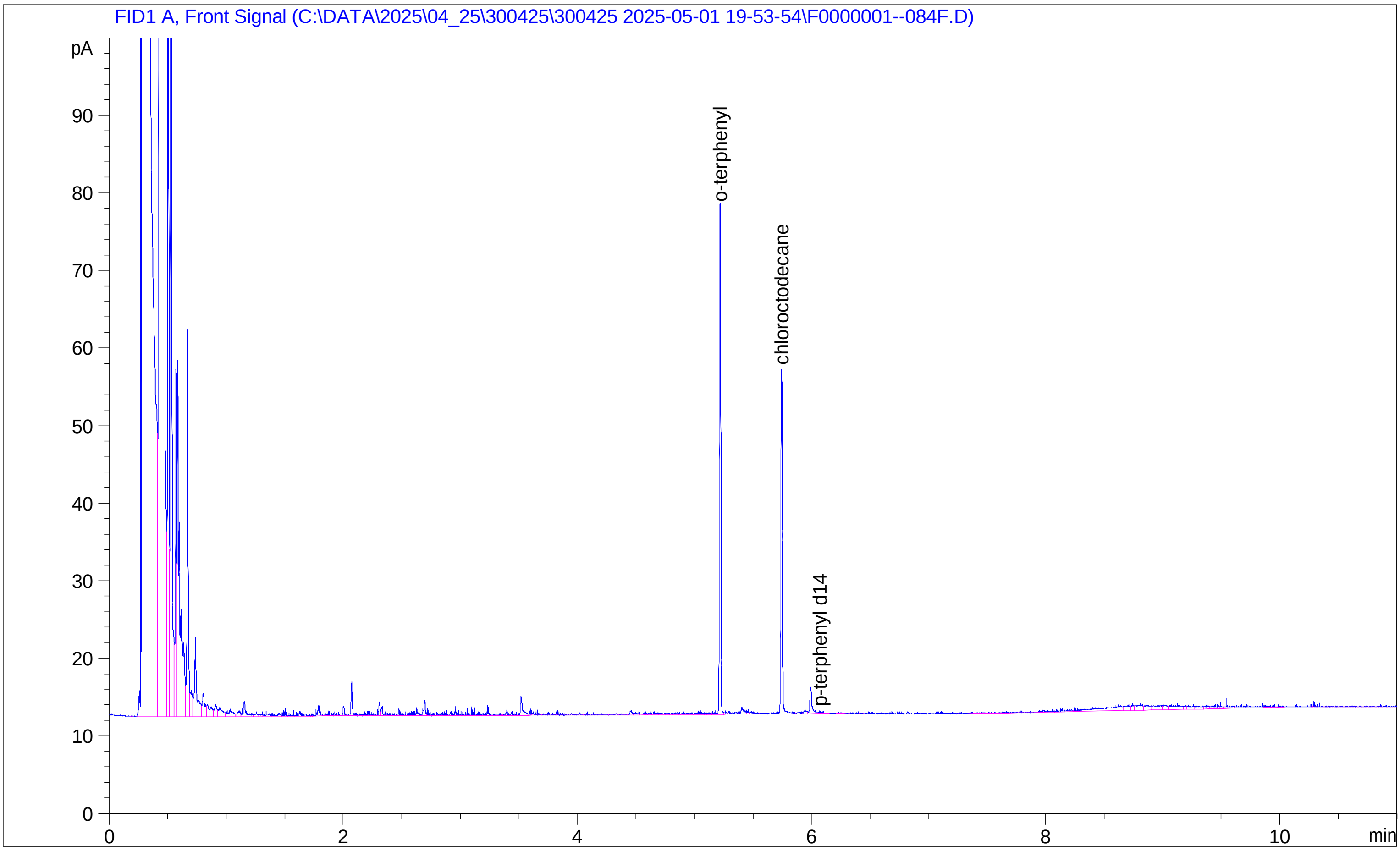
Totals : 140.0476

*** End of Report ***

Data File C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\F0000001--084F.D
Sample Name: w379259-4

===

Acq. Operator : SYSTEM Seq. Line : 84
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 29 (F)
Injection Date : 02-May-25 3:45:38 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed : 01-May-25 10:23:27 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



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External Standard Report

===

Sorted By : Signal
Calib. Data Modified : 01-May-25 10:03:03 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.217	VV	45.30250	2.40185e-1	10.88096		o-terphenyl
5.742	VV I	37.17241	3.05415e-1	11.35301		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.069	VB I	3.69033e-1	2.69794e-1	9.95631e-2		p-terphenyl d14

Totals : 22.33354

===

===
Summed Peaks Report
===

Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	28.53758	7.4809
NEPM >C10-C16	1.935	4.375	26.98514	7.0739
TRH C15-C28	3.680	7.400	22.47567	6.1224
NEPM >C16-C34	4.375	8.485	25.72609	7.0078
TRH C29-C36	7.400	8.820	18.29812	5.0426
NEPM >C34-C40	8.485	9.870	30.62522	8.4397

Totals : 41.1674

===
Final Summed Peaks Report
===

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	28.53758	7.4809
NEPM >C10-C16	26.98514	7.0739
TRH C15-C28	22.47567	6.1224
NEPM >C16-C34	25.72609	7.0078
TRH C29-C36	18.29812	5.0426
NEPM >C34-C40	30.62522	8.4397
o-terphenyl	45.30250	10.8810
chloroctodecane	37.17241	11.3530
p-terphenyl d14	3.69033e-1	0.0996

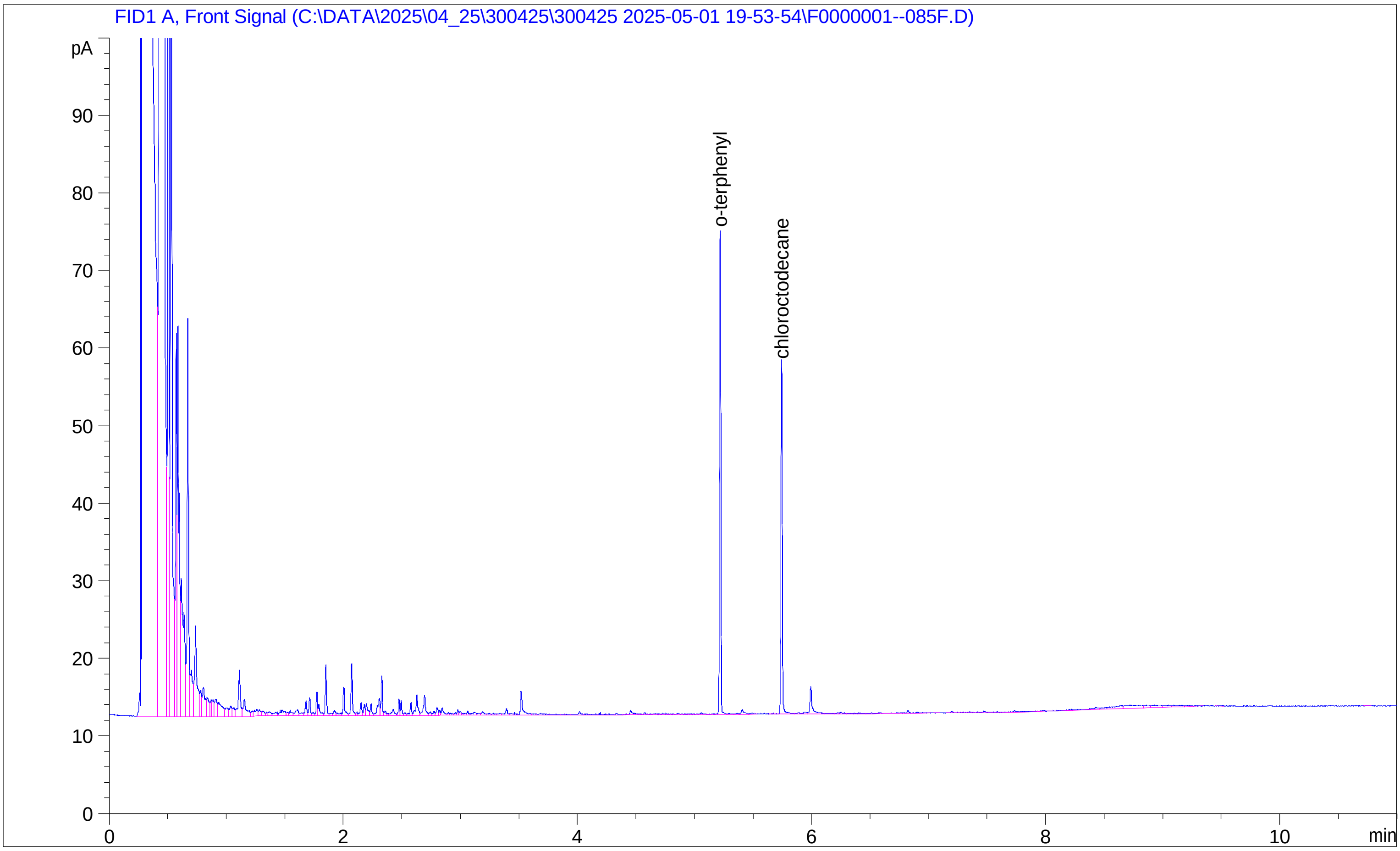
Totals : 63.5009

*** End of Report ***

Data File C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\F0000001--085F.D
Sample Name: w379259-5

===

```
Acq. Operator   : SYSTEM                          Seq. Line :  85
Sample Operator : SYSTEM
Acq. Instrument : GC6                              Location :   30  (F)
Injection Date  : 02-May-25 4:02:24 AM                  Inj :   1
                                                 Inj Volume : 1 µl
Acq. Method     : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C
                  start.M
Last changed    : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed    : 01-May-25 10:23:27 AM by SYSTEM
Method Info     : FAST TPH WITH 15M HP5 COLUMNS
```



===

External Standard Report

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```
Sorted By             :      Signal
Calib. Data Modified  :      01-May-25 10:03:03 AM
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.217	VV	45.08495	2.40185e-1	10.82871		o-terphenyl
5.742	VV I	36.94207	3.05415e-1	11.28266		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.043		-	-	-		p-terphenyl d14

Totals : 22.11137

1 Warnings or Errors :

Warning : ISTD compound(s) not found

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Summed Peaks Report

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Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	78.60130	20.6047
NEPM >C10-C16	1.935	4.375	58.94835	15.4528
TRH C15-C28	3.680	7.400	18.29237	4.9829
NEPM >C16-C34	4.375	8.485	18.44459	5.0243
TRH C29-C36	7.400	8.820	10.52465	2.9004
NEPM >C34-C40	8.485	9.870	12.37130	3.4093

Totals : 52.3744

===

Final Summed Peaks Report

===

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	78.60130	20.6047
NEPM >C10-C16	58.94835	15.4528
TRH C15-C28	18.29237	4.9829
NEPM >C16-C34	18.44459	5.0243
TRH C29-C36	10.52465	2.9004
NEPM >C34-C40	12.37130	3.4093
o-terphenyl	45.08495	10.8287
chloroctodecane	36.94207	11.2827
p-terphenyl d14	0.00000	0.0000

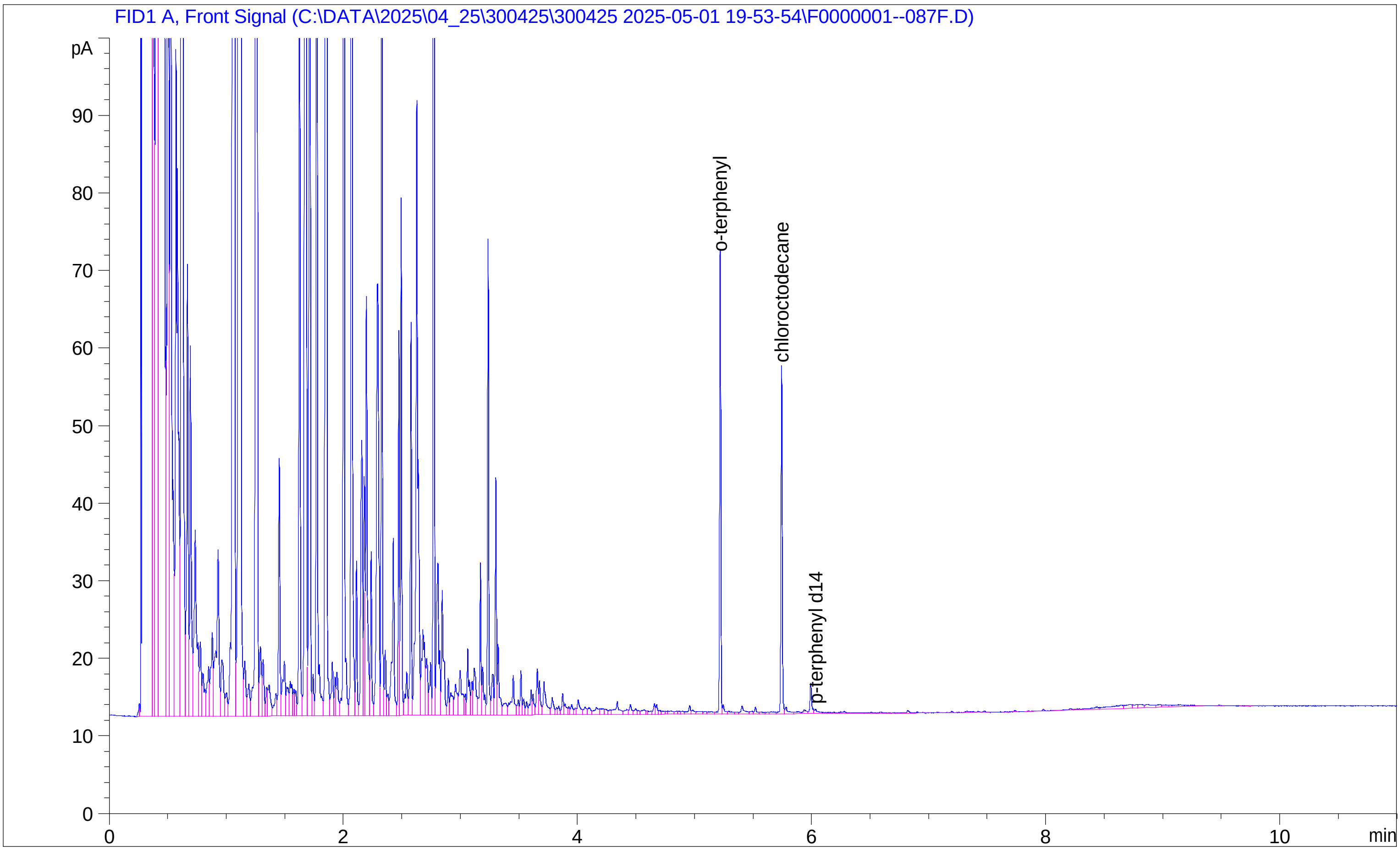
Totals : 74.4858

*** End of Report ***

Data File C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\F0000001--087F.D
Sample Name: w379259-7

===

Acq. Operator : SYSTEM Seq. Line : 87
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 32 (F)
Injection Date : 02-May-25 4:35:52 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed : 01-May-25 10:23:27 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



===

External Standard Report

===

Sorted By : Signal
Calib. Data Modified : 01-May-25 10:03:03 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.218	VV	42.55953	2.40185e-1	10.22215		o-terphenyl
5.742	VV I	35.18096	3.05415e-1	10.74479		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.033	VB I	1.75185	2.69794e-1	4.72640e-1		p-terphenyl d14

Totals : 21.43958

===

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Summed Peaks Report

===

Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	2800.15724	734.0388
NEPM >C10-C16	1.935	4.375	1381.12809	362.0517
TRH C15-C28	3.680	7.400	79.94298	21.7765
NEPM >C16-C34	4.375	8.485	45.14710	12.2981
TRH C29-C36	7.400	8.820	11.45847	3.1577
NEPM >C34-C40	8.485	9.870	14.19087	3.9107

Totals : 1137.2336

===

Final Summed Peaks Report

===

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	2800.15724	734.0388
NEPM >C10-C16	1381.12809	362.0517
TRH C15-C28	79.94298	21.7765
NEPM >C16-C34	45.14710	12.2981
TRH C29-C36	11.45847	3.1577
NEPM >C34-C40	14.19087	3.9107
o-terphenyl	42.55953	10.2221
chloroctodecane	35.18096	10.7448
p-terphenyl d14	1.75185	0.4726

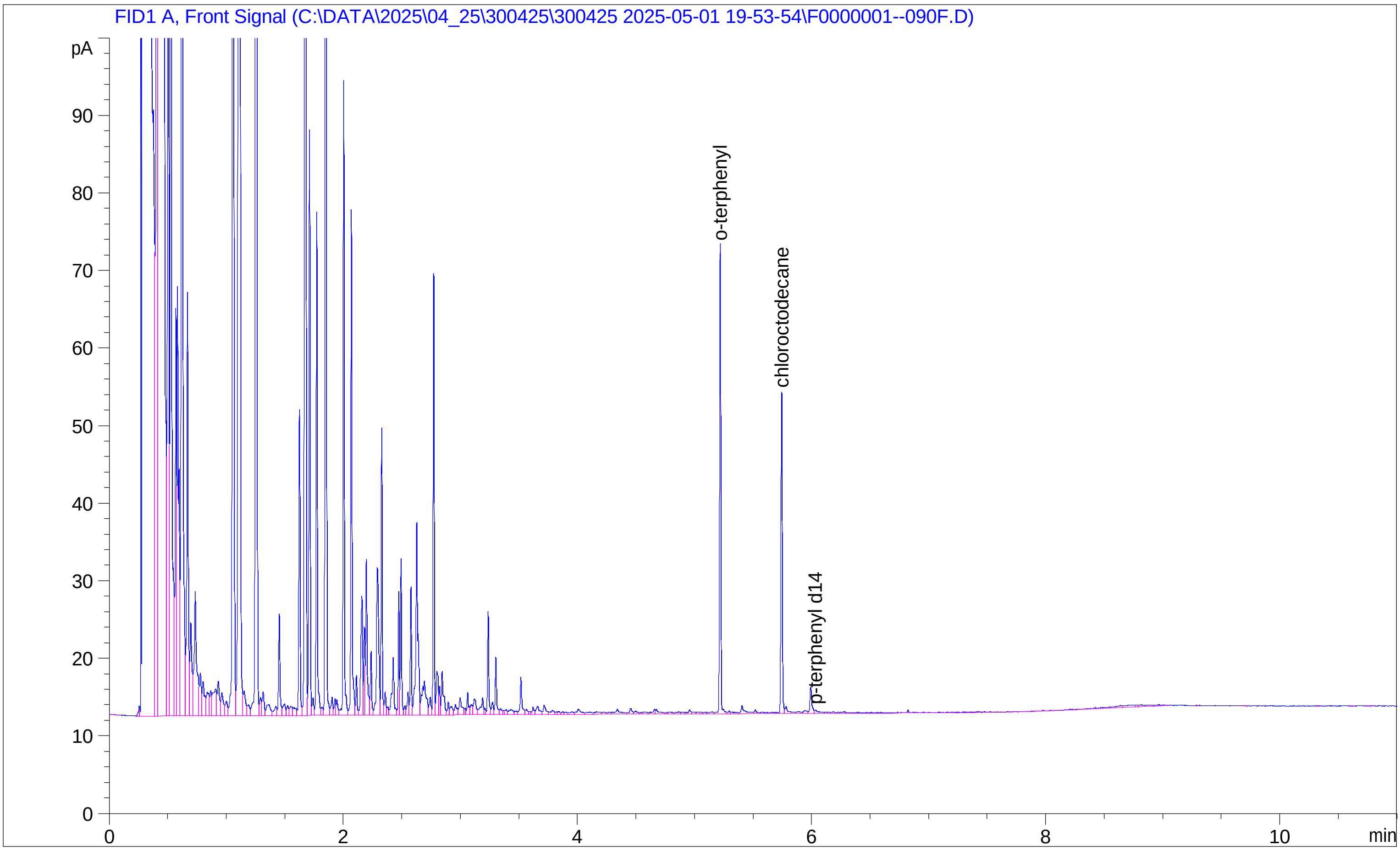
Totals : 1158.6732

*** End of Report ***

Data File C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\F0000001--090F.D
Sample Name: w379259-10

===

```
Acq. Operator   : SYSTEM                          Seq. Line :  90
Sample Operator : SYSTEM
Acq. Instrument : GC6                              Location :   35  (F)
Injection Date  : 02-May-25 5:26:07 AM                  Inj :   1
                                                 Inj Volume : 1 µl
Acq. Method     : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C
                  start.M
Last changed    : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed    : 01-May-25 10:23:27 AM by SYSTEM
Method Info     : FAST TPH WITH 15M HP5 COLUMNS
```



===

External Standard Report

===

```
Sorted By            :      Signal
Calib. Data Modified :      01-May-25 10:03:03 AM
Multiplier           :      1.0000
Dilution             :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.218	VV	44.10347	2.40185e-1	10.59298		o-terphenyl
5.742	VV I	34.93805	3.05415e-1	10.67060		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.031	VV I	1.47167	2.69794e-1	3.97048e-1		p-terphenyl d14

Totals : 21.66062

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Summed Peaks Report

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Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	923.79803	242.1663
NEPM >C10-C16	1.935	4.375	429.43252	112.5723
TRH C15-C28	3.680	7.400	39.96131	10.8855
NEPM >C16-C34	4.375	8.485	28.11003	7.6572
TRH C29-C36	7.400	8.820	6.32850	1.7440
NEPM >C34-C40	8.485	9.870	6.84094	1.8852

Totals : 376.9105

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Final Summed Peaks Report

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Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	923.79803	242.1663
NEPM >C10-C16	429.43252	112.5723
TRH C15-C28	39.96131	10.8855
NEPM >C16-C34	28.11003	7.6572
TRH C29-C36	6.32850	1.7440
NEPM >C34-C40	6.84094	1.8852
o-terphenyl	44.10347	10.5930
chloroctodecane	34.93805	10.6706
p-terphenyl d14	1.47167	0.3970

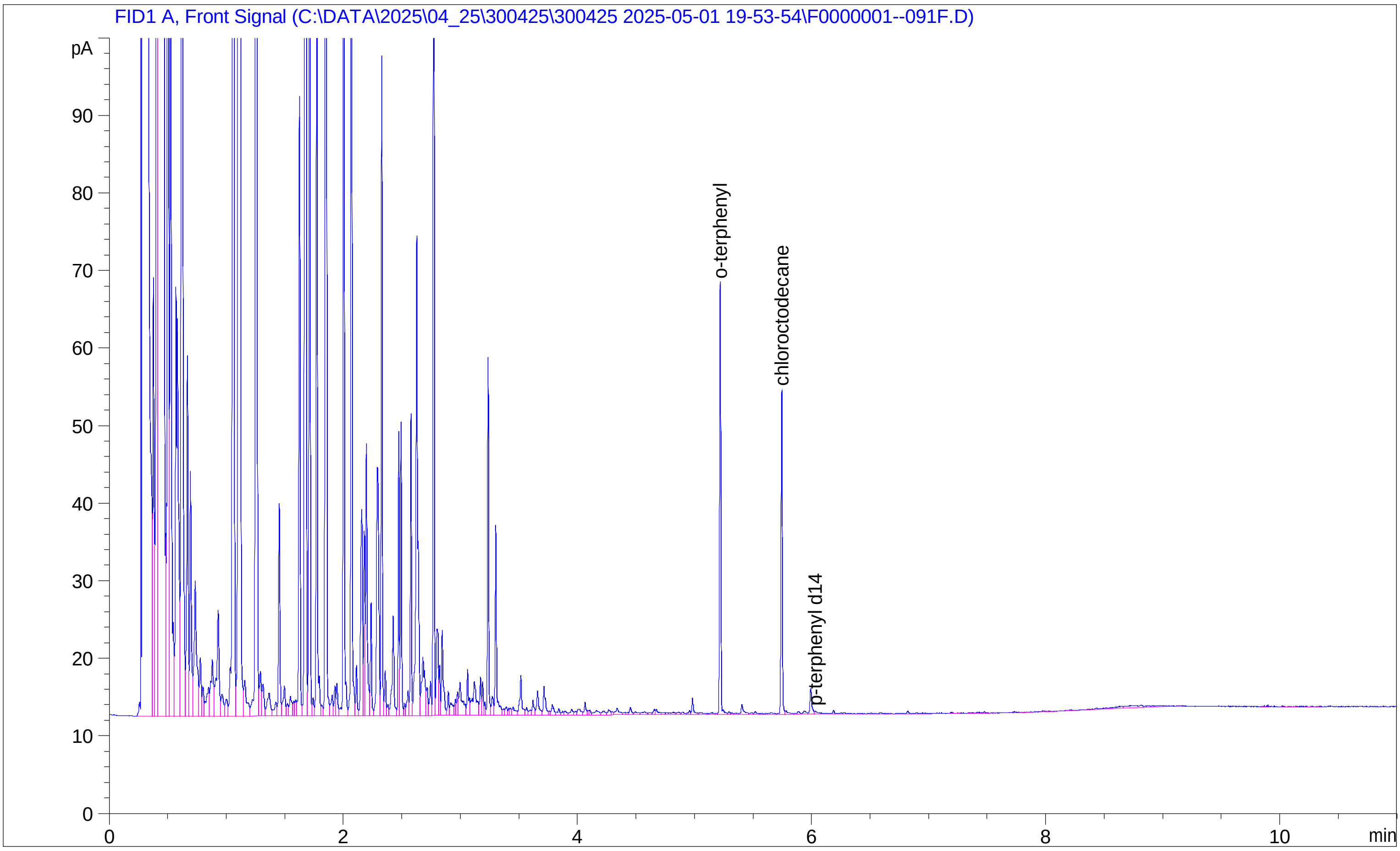
Totals : 398.5711

*** End of Report ***

Data File C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\F0000001--091F.D
Sample Name: w379259-11

===

Acq. Operator : SYSTEM   Seq. Line : 91
Sample Operator : SYSTEM
Acq. Instrument : GC6   Location : 36 (F)
Injection Date : 02-May-25 5:42:48 AM   Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed : 01-May-25 10:23:27 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 01-May-25 10:03:03 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.217	VV	41.05961	2.40185e-1	9.86189		o-terphenyl
5.743	VV I	32.81358	3.05415e-1	10.02176		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.029	VB I	1.25477	2.69794e-1	3.38531e-1		p-terphenyl d14

Totals : 20.22217

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Summed Peaks Report

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Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	1697.84764	445.0772
NEPM >C10-C16	1.935	4.375	868.35553	227.6325
TRH C15-C28	3.680	7.400	51.74687	14.0959
NEPM >C16-C34	4.375	8.485	31.60852	8.6102
TRH C29-C36	7.400	8.820	6.65626	1.8343
NEPM >C34-C40	8.485	9.870	5.99750	1.6528

Totals : 698.9029

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Final Summed Peaks Report

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Signal 1: FID1 A, Front Signal

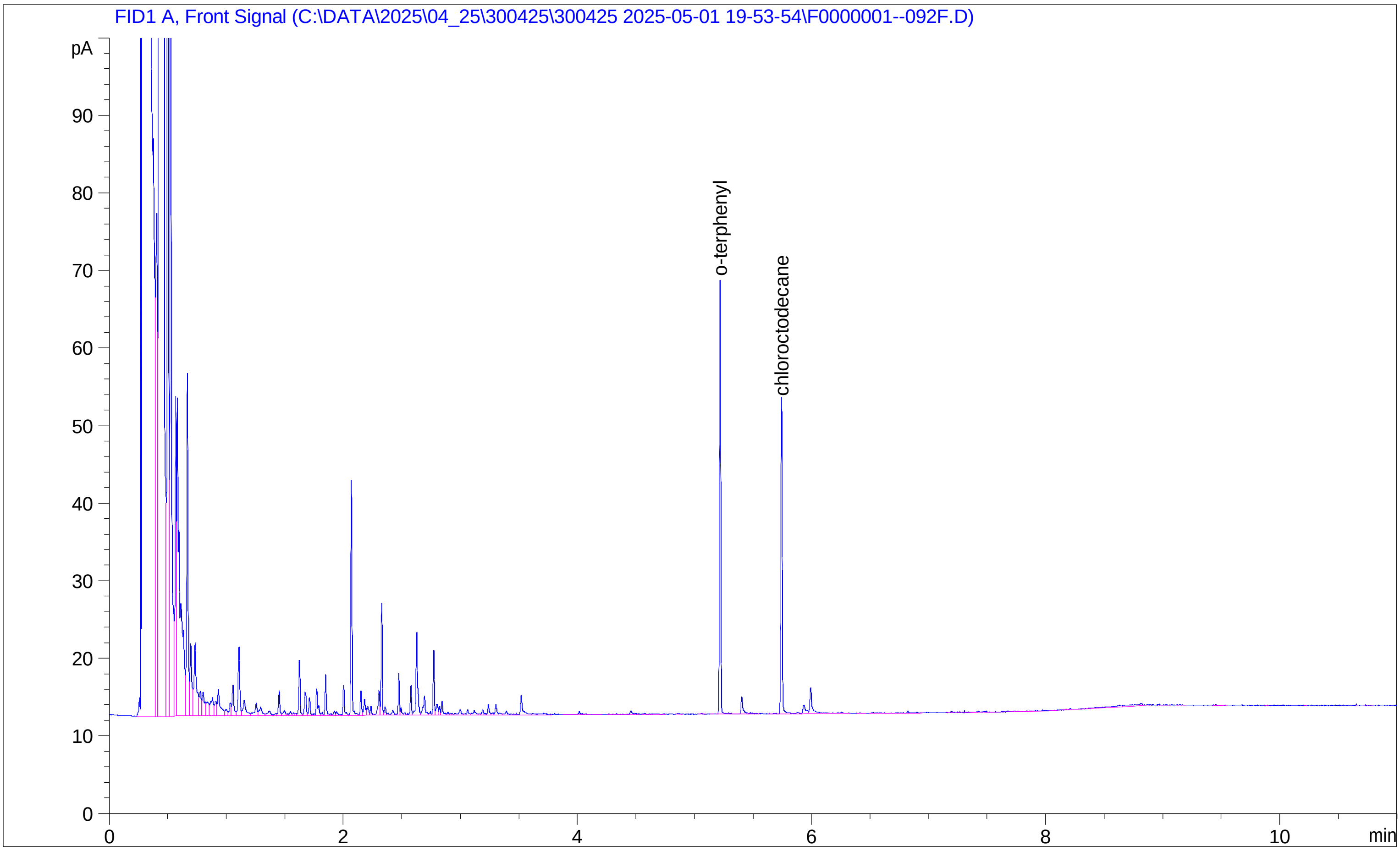
Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1697.84764	445.0772
NEPM >C10-C16	868.35553	227.6325
TRH C15-C28	51.74687	14.0959
NEPM >C16-C34	31.60852	8.6102
TRH C29-C36	6.65626	1.8343
NEPM >C34-C40	5.99750	1.6528
o-terphenyl	41.05961	9.8619
chloroctodecane	32.81358	10.0218
p-terphenyl d14	1.25477	0.3385

Totals : 719.1250

*** End of Report ***

===

Acq. Operator : SYSTEM Seq. Line : 92
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 37 (F)
Injection Date : 02-May-25 5:59:39 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed : 01-May-25 10:23:27 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 01-May-25 10:03:03 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.217	BV	40.91691	2.40185e-1	9.82761		o-terphenyl
5.742	VB I	33.47277	3.05415e-1	10.22308		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.043		-	-	-		p-terphenyl d14

Totals : 20.05070

1 Warnings or Errors :

Warning : ISTD compound(s) not found

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	118.95777	31.1838
NEPM >C10-C16	1.935	4.375	93.96140	24.6312
TRH C15-C28	3.680	7.400	15.47953	4.2166
NEPM >C16-C34	4.375	8.485	15.52436	4.2289
TRH C29-C36	7.400	8.820	4.86741	1.3414
NEPM >C34-C40	8.485	9.870	3.51441	0.9685

Totals : 66.5704

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	118.95777	31.1838
NEPM >C10-C16	93.96140	24.6312
TRH C15-C28	15.47953	4.2166
NEPM >C16-C34	15.52436	4.2289
TRH C29-C36	4.86741	1.3414
NEPM >C34-C40	3.51441	0.9685
o-terphenyl	40.91691	9.8276
chloroctodecane	33.47277	10.2231
p-terphenyl d14	0.00000	0.0000

Totals : 86.6211

*** End of Report ***

Data File C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\F0000001--093F.D
Sample Name: w379259-13

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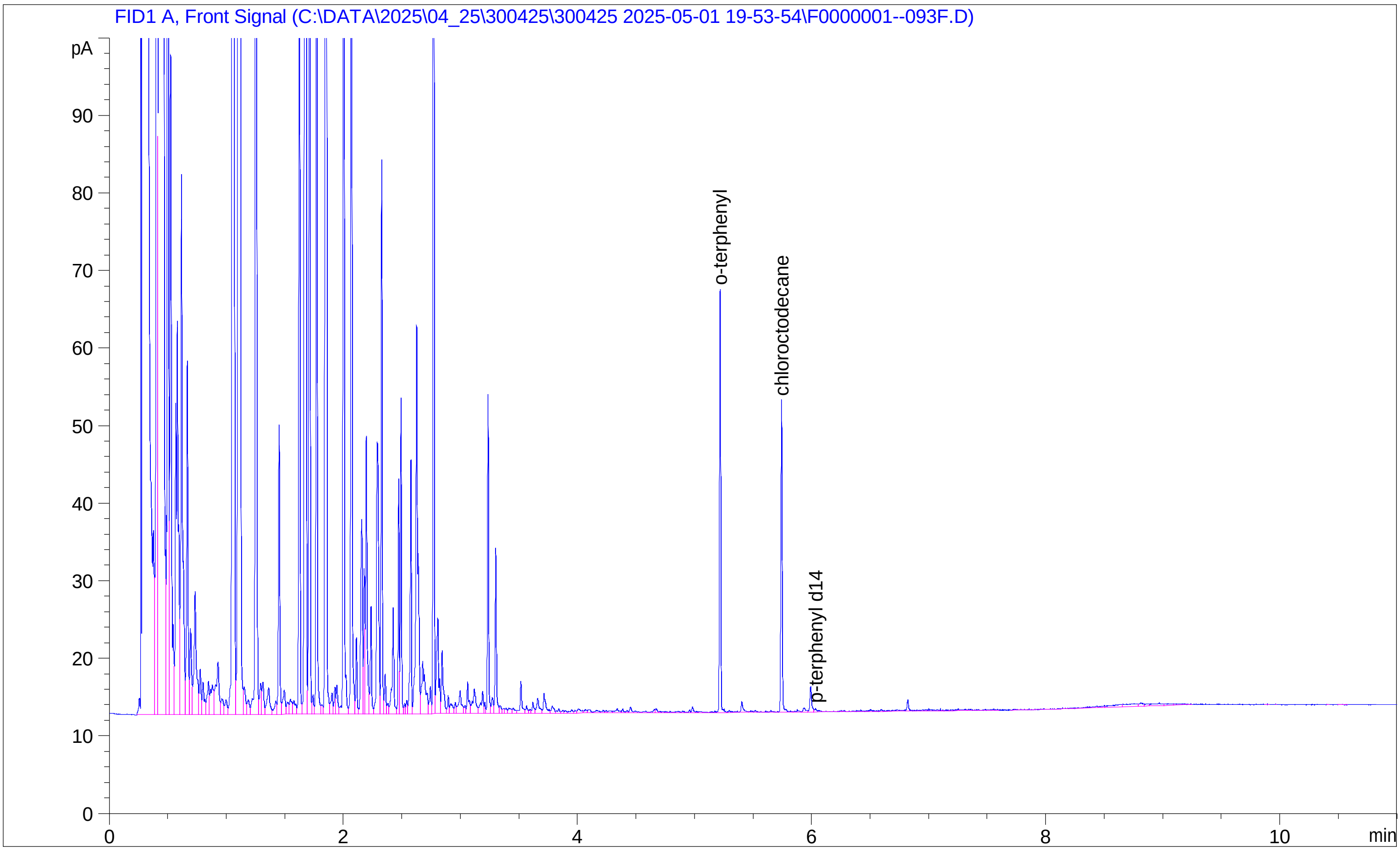
Acq. Operator : SYSTEM   Seq. Line : 93
Sample Operator : SYSTEM
Acq. Instrument : GC6   Location : 38 (F)
Injection Date : 02-May-25 6:16:21 AM   Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed : 01-May-25 10:23:27 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 01-May-25 10:03:03 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.217	VV	39.74485	2.40185e-1	9.54610		o-terphenyl
5.742	VV I	32.31124	3.05415e-1	9.86833		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.032	VV I	8.07654e-1	2.69794e-1	2.17901e-1		p-terphenyl d14

Totals : 19.63234

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Summed Peaks Report
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Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	2024.54713	530.7188
NEPM >C10-C16	1.935	4.375	884.83292	231.9519
TRH C15-C28	3.680	7.400	36.27990	9.8827
NEPM >C16-C34	4.375	8.485	25.44079	6.9301
TRH C29-C36	7.400	8.820	9.27805	2.5569
NEPM >C34-C40	8.485	9.870	9.87100	2.7203

Totals : 784.7606

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Final Summed Peaks Report
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Signal 1: FID1 A, Front Signal

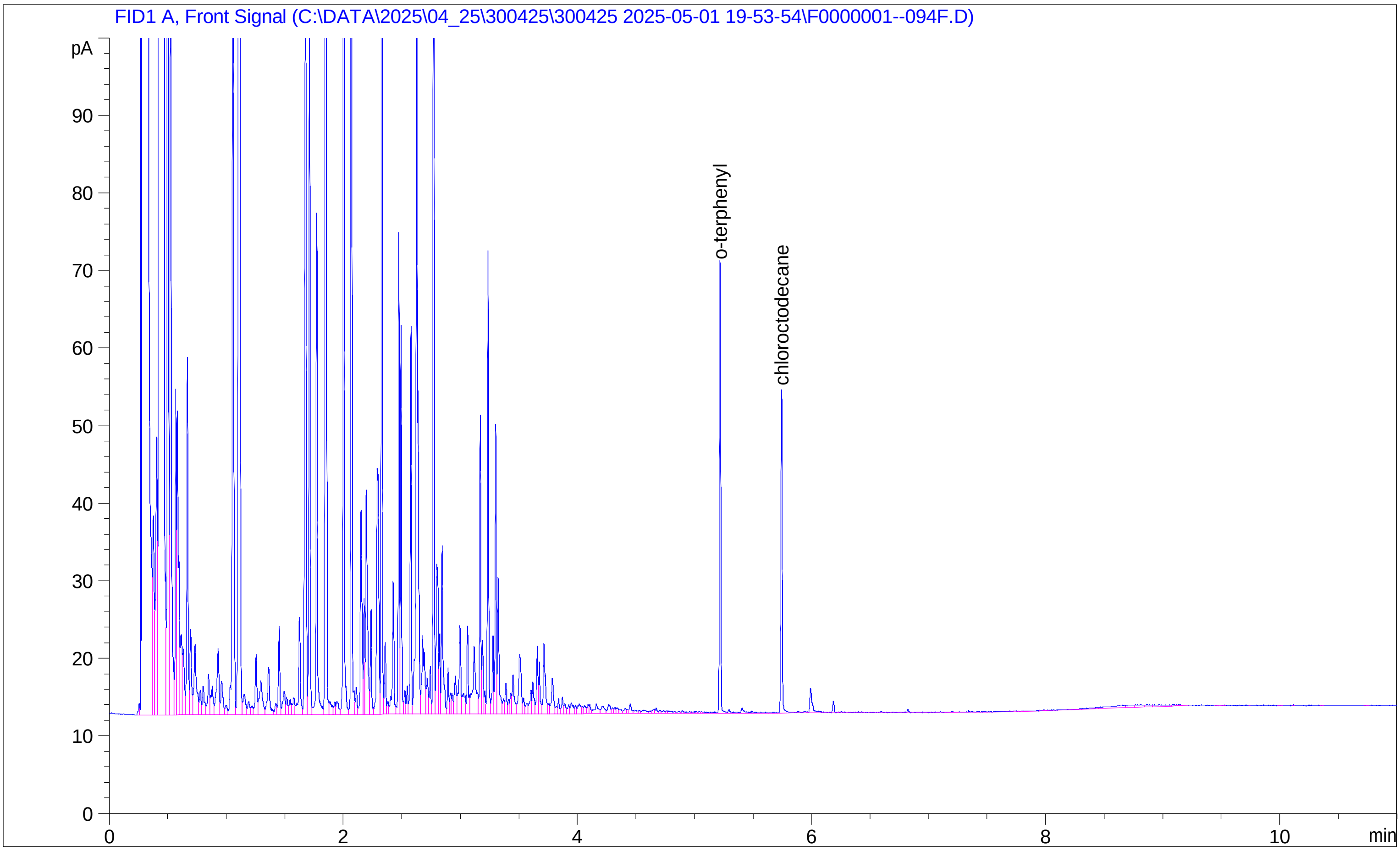
Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	2024.54713	530.7188
NEPM >C10-C16	884.83292	231.9519
TRH C15-C28	36.27990	9.8827
NEPM >C16-C34	25.44079	6.9301
TRH C29-C36	9.27805	2.5569
NEPM >C34-C40	9.87100	2.7203
o-terphenyl	39.74485	9.5461
chloroctodecane	32.31124	9.8683
p-terphenyl d14	8.07654e-1	0.2179

Totals : 804.3929

*** End of Report ***

===

Acq. Operator : SYSTEM Seq. Line : 94
Sample Operator : SYSTEM
Acq. Instrument : GC6 Location : 39 (F)
Injection Date : 02-May-25 6:33:02 AM Inj : 1
Inj Volume : 1 µl
Acq. Method : C:\DATA\2025\04_25\300425\300425 2025-05-01 19-53-54\NEPM JPW H2 V7 50C start.M
Last changed : 18-Mar-25 2:22:46 PM by SYSTEM
Analysis Method : C:\00 METHODS\2025\04_25\300425-F PROCESSING.M
Last changed : 01-May-25 10:23:27 AM by SYSTEM
Method Info : FAST TPH WITH 15M HP5 COLUMNS



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External Standard Report

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Sorted By : Signal
Calib. Data Modified : 01-May-25 10:03:03 AM
Multiplier : 1.0000
Dilution : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type		Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
5.217	VV		40.95660	2.40185e-1	9.83715		o-terphenyl
5.742	VV	I	33.49773	3.05415e-1	10.23071		chloroctodecane

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
6.043		-	-	-		p-terphenyl d14

Totals : 20.06785

1 Warnings or Errors :

Warning : ISTD compound(s) not found

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Summed Peaks Report

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Signal 1: FID1 A, Front Signal

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.340	3.680	1547.30032	405.6124
NEPM >C10-C16	1.935	4.375	1105.57023	289.8164
TRH C15-C28	3.680	7.400	73.68582	20.0721
NEPM >C16-C34	4.375	8.485	30.14406	8.2113
TRH C29-C36	7.400	8.820	9.11824	2.5128
NEPM >C34-C40	8.485	9.870	9.88678	2.7246

Totals : 728.9496

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Final Summed Peaks Report

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Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1547.30032	405.6124
NEPM >C10-C16	1105.57023	289.8164
TRH C15-C28	73.68582	20.0721
NEPM >C16-C34	30.14406	8.2113
TRH C29-C36	9.11824	2.5128
NEPM >C34-C40	9.88678	2.7246
o-terphenyl	40.95660	9.8371
chloroctodecane	33.49773	10.2307
p-terphenyl d14	0.00000	0.0000

Totals : 749.0174

*** End of Report ***

Appendix H

Data Quality Report (QA/QC)

Chain of Custody (Field and Despatch)

Sample Receipts

1. Field and laboratory data quality assurance and quality control

The field and laboratory data quality assurance and quality control (QA/QC) procedures and results are summarised in the following Table 1. Reference should be made to the field work methodology and the laboratory results / certificates of analysis for further details. The relative percentage difference (RPD) results, along with the other field QC samples are included in the summary results tables below.

Table 1: Field and laboratory quality control

Item	Evaluation / acceptance criteria	Compliance
Analytical laboratories used	NATA accreditation	C
Holding times	Various based on type of analysis	PC
Intra-laboratory replicates	10% of primary samples (soil); 5% of primary samples (groundwater); <30% RPD	C
Inter-laboratory replicates	5% of primary samples (groundwater); <30% RPD	PC
Trip spikes	1 per sampling event; 60-140% recovery	PC
Trip blanks	1 per sampling event; <PQL	PC
Rinsates	1 per sampling event; <PQL	PC
Laboratory / reagent blanks	1 per batch; <PQL	C
Laboratory duplicate	1 per lab batch; as laboratory certificate	C
Matrix spikes	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	PC
Surrogate spikes	All organics analysis; 70-130% recovery (inorganics); 60-140% recovery (organics)	PC
Control samples	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	PC
Standard operating procedures (SOP)	Adopting SOP for all aspects of the sampling field work	C

Notes:
C = compliance; PC = partial compliance; NC = non-compliance

Refer to Section 1.6 for additional laboratory comments regarding anomalies with laboratory QA.

1.1 Holding Times

All laboratory testing was conducted within the recommended holding times except for the testing of total petroleum hydrocarbons (TPH) within groundwater samples which slightly exceeded the recommended holding times. Holding time for TPH analysis was exceeded as samples were initially tested for TRH then TPH if TRH was above detection limits, therefore the results of TPH analysis may be underestimated.

1.2 Intra-laboratory and Inter-laboratory Replicate Analysis

The RPD results were all within the acceptable range, with the exception of those indicated in Tables 2 and 3. The exceedances are not, however, considered to be of concern given that:

- The actual differences in the concentrations of the replicate pairs where RPD exceedances occurred were typically low;
- The replicate pairs were collected from fill soils which by its nature are heterogeneous;
- Replicates, rather than homogenised duplicates, were used to minimise risk of volatile loss, hence greater analytical variability between replicate pairs can be expected;
- Most of the recorded concentrations were relatively close to the PQL;
- The majority of RPD results from a replicate pair were within the acceptable limits; and
- All other QA/QC parameters met the data quality indicators.

In summary, the QC data is determined to be of sufficient quality to be considered acceptable for the assessment.

Table 2: Intra-laboratory Replicate Results (Soil)

		Lab Report Number	378586	378586	RPD
		Field ID	304	D3/SBK	
		Date	14 Apr 2025	14 Apr 2025	
		Matrix Type	Soil	Soil	
	Unit	PQL			
Inorganics					
pH 1:5 soil:water	-		**8.4**	**8.5**	1
Electrical Conductivity (Non Compensated)	µS/cm	1	**21**	**29**	**32**
Metals					
Arsenic	mg/kg	4	<4	<4	0
Beryllium	mg/kg	1	<1	<1	0
Boron	mg/kg	10	<10	<10	0
Cadmium	mg/kg	0.4	<0.4	<0.4	0
Chromium (III+VI)	mg/kg	1	**16**	**12**	29
Cobalt	mg/kg	1	**10**	**5**	**67**
Copper	mg/kg	1	**10**	**15**	**40**
Iron	mg/kg	10	**28,000**	**12,000**	**80**
Lead	mg/kg	1	**11**	**12**	9
Manganese	mg/kg	1	**290**	**120**	**83**
Mercury	mg/kg	0.1	<0.1	<0.1	0
Molybdenum	mg/kg	1	<1	<1	0
Nickel	mg/kg	1	**11**	**6**	**59**
Selenium	mg/kg	2	<2	<2	0
Silver	mg/kg	1	<1	<1	0
Zinc	mg/kg	1	**57**	**49**	15
TRH					
C6-C10 Fraction (F1)	mg/kg	25	<25	<25	0
C6-C10 (F1 minus BTEX)	mg/kg	25	<25	<25	0
>C10-C16 Fraction (F2)	mg/kg	50	<50	<50	0
>C10-C16 Fraction (F2 minus Naphthalene)	mg/kg	50	<50	<50	0
>C16-C34 Fraction (F3)	mg/kg	100	<100	<100	0
>C34-C40 Fraction (F4)	mg/kg	100	<100	<100	0
>C10-C40 Fraction (Sum)	mg/kg	50	<50	<50	0
C6-C9 Fraction	mg/kg	25	<25	<25	0
C10-C14 Fraction	mg/kg	50	<50	<50	0
C15-C28 Fraction	mg/kg	100	<100	<100	0
C29-C36 Fraction	mg/kg	100	<100	<100	0
C10-C36 Fraction (Sum)	mg/kg	50	<50	<50	0
BTEX					
Benzene	mg/kg	0.2	<0.2	<0.2	0
Toluene	mg/kg	0.5	<0.5	<0.5	0
Ethylbenzene	mg/kg	1	<1	<1	0
Xylene (m & p)	mg/kg	2	<2	<2	0
Xylene (o)	mg/kg	1	<1	<1	0
Naphthalene (VOC)	mg/kg	1	<1	<1	0
Xylene Total	mg/kg	1	<1	<1	0
PAH					
Acenaphthene	mg/kg	0.1	<0.1	<0.1	0
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	0
Anthracene	mg/kg	0.1	<0.1	<0.1	0
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0
Benzo(b+j+k)fluoranthene	mg/kg	0.2	<0.2	<0.2	0
Benzo(a) pyrene	mg/kg	0.05	<0.05	<0.05	0
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1	<0.1	0
Chrysene	mg/kg	0.1	<0.1	<0.1	0
Dibenz(a,h)anthracene	mg/kg	0.1	<0.1	<0.1	0
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0
Fluorene	mg/kg	0.1	<0.1	<0.1	0
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1	<0.1	0
Naphthalene	mg/kg	0.1	<0.1	<0.1	0
Phenanthrene	mg/kg	0.1	<0.1	<0.1	0
Pyrene	mg/kg	0.1	<0.1	<0.1	0
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5	<0.5	<0.5	0
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5	<0.5	<0.5	0
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0.5	<0.5	<0.5	0
PAHs (Sum of positives)	mg/kg	0.05	<0.05	<0.05	0
Organochlorine Pesticides					
4,4-DDE	mg/kg	0.1	<0.1	<0.1	0
a-BHC	mg/kg	0.1	<0.1	<0.1	0
Aldrin	mg/kg	0.1	<0.1	<0.1	0
Aldrin + Dieldrin	mg/kg	0.1	<0.1	<0.1	0
b-BHC	mg/kg	0.1	<0.1	<0.1	0
Chlordane (cis)	mg/kg	0.1	<0.1	<0.1	0
Chlordane (trans)	mg/kg	0.1	<0.1	<0.1	0
d-BHC	mg/kg	0.1	<0.1	<0.1	0
DDD	mg/kg	0.1	<0.1	<0.1	0
DDT	mg/kg	0.1	<0.1	<0.1	0
DDT+DDE+DDD	mg/kg	0.1	<0.1	<0.1	0
Dieldrin	mg/kg	0.1	<0.1	<0.1	0
Endosulfan I	mg/kg	0.1	<0.1	<0.1	0
Endosulfan II	mg/kg	0.1	<0.1	<0.1	0
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	0
Endrin	mg/kg	0.1	<0.1	<0.1	0
Endrin aldehyde	mg/kg	0.1	<0.1	<0.1	0
g-BHC (Lindane)	mg/kg	0.1	<0.1	<0.1	0
Heptachlor	mg/kg	0.1	<0.1	<0.1	0
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	0
Hexachlorobenzene	mg/kg	0.1	<0.1	<0.1	0
Methoxychlor	mg/kg	0.1	<0.1	<0.1	0
Mirex	mg/kg	0.1	<0.1	<0.1	0
Organophosphorous Pesticides					
Azinophos methyl	mg/kg	0.1	<0.1	<0.1	0
Bromophos-ethyl	mg/kg	0.1	<0.1	<0.1	0
Chlorpyrifos	mg/kg	0.1	<0.1	<0.1	0
Chlorpyrifos-methyl	mg/kg	0.1	<0.1	<0.1	0
Coumaphos	mg/kg	0.1	<0.1	<0.1	0
Diazinon	mg/kg	0.1	<0.1	<0.1	0
Dichlorvos	mg/kg	0.1	<0.1	<0.1	0
Dimethoate	mg/kg	0.1	<0.1	<0.1	0
Disulfoton	mg/kg	0.1	<0.1	<0.1	0
Ethion	mg/kg	0.1	<0.1	<0.1	0
Fenamiphos	mg/kg	0.1	<0.1	<0.1	0
Fenitrothion	mg/kg	0.1	<0.1	<0.1	0
Fenthion	mg/kg	0.1	<0.1	<0.1	0
Malathion	mg/kg	0.1	<0.1	<0.1	0
Methidathion	mg/kg	0.1	<0.1	<0.1	0
Methyl parathion	mg/kg	0.1	<0.1	<0.1	0
Mevinphos (Phosdrin)	mg/kg	0.1	<0.1	<0.1	0
Parathion	mg/kg	0.1	<0.1	<0.1	0
Phorate	mg/kg	0.1	<0.1	<0.1	0
Ronnel	mg/kg	0.1	<0.1	<0.1	0
Phosalone	mg/kg	0.1	<0.1	<0.1	0
PCBs					
Arochlor 1016	mg/kg	0.1	<0.1	<0.1	0
Arochlor 1221	mg/kg	0.1	<0.1	<0.1	0
Arochlor 1232	mg/kg	0.1	<0.1	<0.1	0
Arochlor 1242	mg/kg	0.1	<0.1	<0.1	0
Arochlor 1248	mg/kg	0.1	<0.1	<0.1	0
Arochlor 1254	mg/kg	0.1	<0.1	<0.1	0
Arochlor 1260	mg/kg	0.1	<0.1	<0.1	0
PCBs (Sum of total)	mg/kg	0.1	<0.1	<0.1	0

Table 3: Intra-laboratory and Inter-laboratory Replicate Results (Water)

		Field ID	103	D1/GW		103	T1/GW	
		Date	28 Apr 2025	28 Apr 2025		28 Apr 2025	28 Apr 2025	
		Matrix Type	Water	Water		Water	Water	
		Lab Report Number	379259	379259	RPD	379259	ES2512330	RPD
	Unit	PQL						
Inorganics								
pH (Lab)	-		**6.8**	**6.8**	0	**6.8**	-	-
Electrical Conductivity (Non Compensated)	µS/cm	1	**320**	**320**	0	**320**	-	-
Metals								
Aluminium (filtered)	mg/L	0.01	<0.01	<0.01	0	<0.01	-	-
Arsenic (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Barium (filtered)	mg/L	0.001	-	-	-	-	**0.03**	-
Beryllium (filtered)	mg/L	0.0005	<0.0005	<0.0005	0	<0.0005	<0.001	0
Boron (filtered)	mg/L	0.02	**0.03**	**0.03**	0	**0.03**	<0.05	0
Cadmium (filtered)	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Chromium (III+VI) (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Cobalt (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Copper (filtered)	mg/L	0.001	**0.001**	**0.001**	0	**0.001**	**0.001**	0
Iron (filtered)	mg/L	0.01	<0.01	<0.01	0	<0.01	-	-
Lead (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Manganese (filtered)	mg/L	0.001	**0.21**	**0.22**	5	**0.21**	**0.23**	9
Mercury (filtered)	mg/L	0.00005	<0.00005	<0.00005	0	<0.00005	<0.0001	0
Molybdenum (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	-	-
Nickel (filtered)	mg/L	0.001	**0.005**	**0.005**	0	**0.005**	**0.005**	0
Selenium (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.01	0
Silver (filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	-	-
Vanadium (filtered)	mg/L	0.01	-	-	-	-	<0.01	-
Zinc (filtered)	mg/L	0.001	**0.028**	**0.049**	**55**	**0.028**	**0.029**	4
TRH								
C6-C10 Fraction (F1)	mg/L	0.01	<0.01	<0.01	0	<0.01	<0.02	0
C6-C10 (F1 minus BTEX)	mg/L	0.01	<0.01	<0.01	0	<0.01	<0.02	0
>C10-C16 Fraction (F2)	mg/L	0.05	<0.05	<0.05	0	<0.05	<0.1	0
>C10-C16 Fraction (F2 minus Naphthalene)	mg/L	0.05	<0.05	<0.05	0	<0.05	<0.1	0
>C16-C34 Fraction (F3)	mg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0
>C34-C40 Fraction (F4)	mg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0
>C10-C40 Fraction (Sum)	mg/L	0.05	<0.05	<0.05	0	<0.05	<0.1	0
C6-C9 Fraction	mg/L	0.01	<0.01	<0.01	0	<0.01	<0.02	0
C10-C14 Fraction	mg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0
C15-C28 Fraction	mg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0
C29-C36 Fraction	mg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0
C10-C36 Fraction (Sum)	mg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0
BTEX								
Benzene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
Toluene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0005	0
Ethylbenzene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
Xylene (m & p)	mg/L	0.00005	<0.0002	<0.0002	0	<0.0002	<0.00005	0
Xylene (o)	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
Naphthalene (VOC)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.005	0
Xylene Total	mg/L	0.002	-	-	-	-	<0.002	-
Total BTEX	mg/L	0.00005	-	-	-	-	<0.00005	-
PAH								
2-methylnaphthalene	µg/L	0.1	-	-	-	-	<0.1	-
3-methylcholanthrene	µg/L	0.1	-	-	-	-	<0.1	-
7,12-dimethylbenz(a)anthracene	µg/L	0.1	-	-	-	-	<0.1	-
Acenaphthene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Acenaphthylene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Anthracene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Coronene	µg/L	0.1	-	-	-	-	<0.1	-
Benzo(a)anthracene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Benzo(b+j+k)fluoranthene	mg/L	0.0002	<0.0002	<0.0002	0	<0.0002	-	-
Benzo(a) pyrene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
Benzo(b+j)fluoranthene	mg/L	0.0001	-	-	-	-	<0.0001	-
Benzo(e)pyrene	µg/L	0.1	-	-	-	-	<0.1	-
Benzo(g,h,i)perylene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Benzo(k)fluoranthene	mg/L	0.0001	-	-	-	-	<0.0001	-
Chrysene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Dibenz(a,h)anthracene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Fluoranthene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Fluorene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Indeno(1,2,3-c,d)pyrene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Naphthalene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
Phenanthrene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Perylene	µg/L	0.1	-	-	-	-	<0.1	-
Pyrene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Benzo(a)pyrene TEQ calc (Zero)	mg/L	0.00005	-	-	-	-	<0.00005	-
PAHs (Sum of total)	mg/L	0.00005	-	-	-	-	<0.00005	-
PAHs (Sum of positives)	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-

Table 4: Intra-laboratory and Inter-laboratory Replicate Results (Water) (Continued)

		Field ID	103	D1/GW		103	T1/GW	
		Date	28 Apr 2025	28 Apr 2025		28 Apr 2025	28 Apr 2025	
		Matrix Type	Water	Water		Water	Water	
		Lab Report Number	379259	379259	RPD	379259	ES2512330	RPD
	Unit	PQL						
VOCs								
1,1,1,2-tetrachloroethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
1,1,1-trichloroethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,1,2,2-tetrachloroethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
1,1,2-trichloroethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
1,1-dichloroethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,1-dichloroethene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,1-dichloropropene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
1,2,3-trichlorobenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,2,3-trichloropropane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
1,2,4-trichlorobenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,2,4-trimethylbenzene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
1,2-dibromo-3-chloropropane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
1,2-dibromoethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,2-dichlorobenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
1,2-dichloroethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,2-Dichloroethene	µg/L	0.1	-	-	-	-	<0.10	-
1,2-dichloropropane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
1,3,5-trimethylbenzene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
1,3-dichlorobenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
1,3-dichloropropane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
1,4-dichlorobenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
2,2-dichloropropane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
Trihalomethanes	mg/L	0.0001	-	-	-	-	<0.00010	-
2-chlorotoluene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
4-chlorotoluene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Benzyl chloride	mg/L	0.0002	-	-	-	-	<0.0002	-
Bromobenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
Bromochloromethane	mg/L	0.0005	<0.0005	<0.0005	0	<0.0005	<0.0005	0
Bromodichloromethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
Bromoform	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
Bromomethane	mg/L	0.0005	<0.002	<0.002	0	<0.002	<0.0005	0
Carbon tetrachloride	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
Chlorobenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
Chlorodibromomethane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.00010	0
Chloroethane	mg/L	0.0005	<0.002	<0.002	0	<0.002	<0.0005	0
Chloroform	mg/L	0.0001	<0.0005	<0.0005	0	<0.0005	<0.00010	0
Chloromethane	mg/L	0.002	<0.002	<0.002	0	<0.002	-	-
cis-1,2-dichloroethene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
cis-1,3-dichloropropene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Cyclohexane	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
Dibromomethane	mg/L	0.0005	<0.0005	<0.0005	0	<0.0005	-	-
Dichlorodifluoromethane	mg/L	0.0005	<0.002	<0.002	0	<0.002	<0.0005	0
Dichloromethane	µg/L	1	-	-	-	-	<1.0	-
Hexachlorobutadiene	mg/L	0.00004	<0.0002	<0.0002	0	<0.0002	<0.00004	0
Isopropylbenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
MTBE	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
n-butylbenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
n-propylbenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
p-isopropyltoluene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
sec-butylbenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
Styrene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
Trichloroethene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
tert-butylbenzene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	-	-
Tetrachloroethene	mg/L	0.00005	<0.0001	<0.0001	0	<0.0001	<0.00005	0
trans-1,2-dichloroethene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
trans-1,3-dichloropropene	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
Trichlorobenzene (total)	mg/L	0.0001	-	-	-	-	<0.0001	-
Trichlorofluoromethane	mg/L	0.0005	<0.002	<0.002	0	<0.002	<0.0005	0
Vinyl chloride	mg/L	0.0002	<0.0002	<0.0002	0	<0.0002	<0.0003	0
PFAS								
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	-	-	-	-	<0.01	-
Perfluorobutane sulfonic acid (PFBS)	mg/L	0.000001	**0.00002**	**0.000018**	11	**0.00002**	**0.000013**	42
Perfluoropentane sulfonic acid (PFPeS)	mg/L	0.000001	**0.000011**	**0.00001**	10	**0.000011**	**0.000014**	24
Perfluorohexane sulfonic acid (PFHxS)	mg/L	0.000001	**0.00011**	**0.00011**	0	**0.00011**	**0.000097**	13
Perfluoroheptane sulfonic acid (PFHpS)	mg/L	0.000001	**0.000006**	**0.000006**	0	**0.000006**	**0.000007**	15
Perfluorooctane sulfonic acid (PFOS)	mg/L	0.000001	**0.00029**	**0.00025**	15	**0.00029**	**0.00031**	7
Perfluorodecane sulfonic acid (PFDS)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000002	0
Perfluorobutanoic acid (PFBA)	mg/L	0.000002	**0.00002**	<0.00001	**67**	**0.00002**	**0.00001**	**67**
Perfluorohexanoic acid (PFHxA)	mg/L	0.000001	**0.000004**	**0.000003**	29	**0.000004**	**0.000004**	0
Perfluoropentanoic acid (PFPeA)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000002	0
Perfluoroheptanoic acid (PFHpA)	mg/L	0.000001	**0.000004**	**0.000005**	22	**0.000004**	**0.000003**	29
Perfluorooctanoic acid (PFOA)	mg/L	0.000001	**0.000016**	**0.000015**	6	**0.000016**	**0.000015**	6
Perfluorodecanoic acid (PFDA)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000002	0
Perfluorododecanoic acid (PFDoDA)	mg/L	0.000002	<0.000005	<0.000005	0	<0.000005	<0.000002	0
Perfluorononanoic acid (PFNA)	mg/L	0.000001	**0.000003**	**0.000003**	0	**0.000003**	**0.000004**	29
Perfluorotetradecanoic acid (PFTeDA)	mg/L	0.000005	<0.00005	<0.00005	0	<0.00005	<0.000005	0
Perfluorotridecanoic acid (PFTrDA)	mg/L	0.000002	<0.00001	<0.00001	0	<0.00001	<0.000002	0
Perfluoroundecanoic acid (PFUnDA)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000002	0
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/L	0.000001	<0.000001	<0.000001	0	<0.000001	<0.000005	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/L	0.000001	<0.000001	**0.000005**	**133**	<0.000001	<0.000005	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000005	0
Perfluorooctane sulfonamide (FOSA)	mg/L	0.000002	<0.00001	<0.00001	0	<0.00001	<0.000002	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/L	0.000005	<0.00005	<0.00005	0	<0.00005	<0.000005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000002	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/L	0.000005	<0.00005	<0.00005	0	<0.00005	<0.000005	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/L	0.000005	<0.0001	<0.0001	0	<0.0001	<0.000005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/L	0.000002	<0.000002	<0.000002	0	<0.000002	<0.000002	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/L	0.000005	<0.0005	<0.0005	0	<0.0005	<0.000005	0
Perfuolohexadecanoic acid (PFHxDA)	µg/L	0.005	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/L	0.000001	**0.0004**	**0.00036**	11	**0.0004**	**0.000407**	2
Sum of PFAS	mg/L	0.000001	**0.00048**	**0.00043**	11	**0.00048**	**0.000477**	1
Sum of PFAS (WA DER List)	µg/L	0.002	-	-	-	-	**0.452**	-
Sum of PFAS (PFOS + PFOA)	mg/L	0.000001	**0.0003**	**0.00027**	11	**0.0003**	-	-

1.3 Trip (Field) Blank

The purpose of a trip blank is to assess the potential for transfer of contaminants into samples to have occurred between the time of collection and analysis of the sample by the laboratory. Laboratory prepared field blanks were taken out to the field unopened, subjected to the same preservation methods as the field samples, then analysed for the purposes of determining whether transfer of contaminants into the blank sample had occurred prior to reaching the laboratory. The results of the laboratory analysis for the field blanks are shown in Table 5.

Table 5: Trip Blank Results (water – µg/L)

Sample ID (Matrix)	Date	Benzene	Toluene	Ethylbenzene	M + P Xylene	O Xylene	Naphthalene	C6-C9 TRH	C6-C10 TRH	C6-C10 (F1) TRH
TB1/GW	29.04.25	<1	<1	<1	<2	<1	<1	<10	<10	<10

The concentrations of the analytes were all below laboratory detection limits indicating that significant cross contamination had not occurred during the course of the round trip from the site to the laboratory.

1.4 Trip Spike

The purpose of a trip spike is to assess the potential for loss of volatile analytes to have occurred between the time of collection and analysis of the sample by the laboratory.

The generally acceptance limit for trip spikes is 60-140% in difference compared to the control or standard.

The results of the laboratory analysis for the water trip spikes are shown in Table 6.

Table 6: Trip Spike Results (% Recovery)

Sample ID	Matrix	Date	Benzene	Toluene	Ethylbenzene	M + P Xylene	O Xylene
TS1/GW	Water	29.04.25	115	117	104	107	108

Results indicate that the percentage loss for BTEX during field work was within the acceptance limits and therefore appropriate preservation techniques were employed.

1.5 Rinsate

The results of equipment rinsate samples are provided in Table 7.

Table 7: Rinsate Results

	Unit	PQL	
		Lab Report Number	379259
		Field ID	R1/GW
		Date	29 Apr 2025
		Matrix Type	Water
Inorganics			
pH (Lab)	-		7.3
Electrical Conductivity (Non Compensated)	µS/cm	1	3
Metals			
Aluminium (filtered)	mg/L	0.01	<0.01
Arsenic (filtered)	mg/L	0.001	<0.001
Beryllium (filtered)	mg/L	0.0005	<0.0005
Boron (filtered)	mg/L	0.02	<0.02
Cadmium (filtered)	mg/L	0.0001	<0.0001
Chromium (III+VI) (filtered)	mg/L	0.001	<0.001
Cobalt (filtered)	mg/L	0.001	<0.001
Copper (filtered)	mg/L	0.001	<0.001
Iron (filtered)	mg/L	0.01	<0.01
Lead (filtered)	mg/L	0.001	<0.001
Manganese (filtered)	mg/L	0.005	<0.005
Mercury (filtered)	mg/L	0.00005	<0.00005
Molybdenum (filtered)	mg/L	0.001	<0.001
Nickel (filtered)	mg/L	0.001	<0.001
Selenium (filtered)	mg/L	0.001	<0.001
Silver (filtered)	mg/L	0.001	<0.001
Zinc (filtered)	mg/L	0.001	<0.001
TRH			
C6-C10 Fraction (F1)	mg/L	0.01	<0.01
C6-C10 (F1 minus BTEX)	mg/L	0.01	<0.01
>C10-C16 Fraction (F2)	mg/L	0.05	<0.05
>C10-C16 Fraction (F2 minus Naphthalene)	mg/L	0.05	<0.05
>C16-C34 Fraction (F3)	mg/L	0.1	<0.1
>C34-C40 Fraction (F4)	mg/L	0.1	<0.1
>C10-C40 Fraction (Sum)	mg/L	0.05	<0.05
C6-C9 Fraction	mg/L	0.01	<0.01
C10-C14 Fraction	mg/L	0.05	<0.05
C15-C28 Fraction	mg/L	0.1	<0.1
C29-C36 Fraction	mg/L	0.1	<0.1
C10-C36 Fraction (Sum)	mg/L	0.05	<0.05
BTEX			
Benzene	mg/L	0.0001	<0.0001
Toluene	mg/L	0.0001	<0.0001
Ethylbenzene	mg/L	0.0001	<0.0001
Xylene (m & p)	mg/L	0.0002	<0.0002
Xylene (o)	mg/L	0.0001	<0.0001
Naphthalene (VOC)	mg/L	0.001	<0.001
PAH			
Acenaphthene	mg/L	0.0001	<0.0001
Acenaphthylene	mg/L	0.0001	<0.0001
Anthracene	mg/L	0.0001	<0.0001
Benzo(a)anthracene	mg/L	0.0001	<0.0001
Benzo(b+j+k)fluoranthene	mg/L	0.0002	<0.0002
Benzo(a) pyrene	mg/L	0.0001	<0.0001
Benzo(g,h,i)perylene	mg/L	0.0001	<0.0001
Chrysene	mg/L	0.0001	<0.0001
Dibenz(a,h)anthracene	mg/L	0.0001	<0.0001
Fluoranthene	mg/L	0.0001	<0.0001
Fluorene	mg/L	0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene	mg/L	0.0001	<0.0001
Naphthalene	mg/L	0.0001	<0.0001
Phenanthrene	mg/L	0.0001	<0.0001
Pyrene	mg/L	0.0001	<0.0001
PAHs (Sum of positives)	mg/L	0.0001	<0.0001

	Unit	PQL	
		Lab Report Number	379259
		Field ID	R1/GW
		Date	29 Apr 2025
		Matrix Type	Water
VOCs			
1,1,1,2-tetrachloroethane	mg/L	0.0001	<0.0001
1,1,1-trichloroethane	mg/L	0.0001	<0.0001
1,1,2,2-tetrachloroethane	mg/L	0.0001	<0.0001
1,1,2-trichloroethane	mg/L	0.0001	<0.0001
1,1-dichloroethane	mg/L	0.0001	<0.0001
1,1-dichloroethene	mg/L	0.0001	<0.0001
1,1-dichloropropene	mg/L	0.0001	<0.0001
1,2,3-trichlorobenzene	mg/L	0.0001	<0.0001
1,2,3-trichloropropane	mg/L	0.0001	<0.0001
1,2,4-trichlorobenzene	mg/L	0.0001	<0.0001
1,2,4-trimethylbenzene	mg/L	0.0001	<0.0001
1,2-dibromo-3-chloropropane	mg/L	0.0001	<0.0001
1,2-dibromoethane	mg/L	0.0001	<0.0001
1,2-dichlorobenzene	mg/L	0.0001	<0.0001
1,2-dichloroethane	mg/L	0.0001	<0.0001
1,2-dichloropropane	mg/L	0.0001	<0.0001
1,3,5-trimethylbenzene	mg/L	0.0001	<0.0001
1,3-dichlorobenzene	mg/L	0.0001	<0.0001
1,3-dichloropropane	mg/L	0.0001	<0.0001
1,4-dichlorobenzene	mg/L	0.0001	<0.0001
2,2-dichloropropane	mg/L	0.0001	<0.0001
2-chlorotoluene	mg/L	0.0001	<0.0001
4-chlorotoluene	mg/L	0.0001	<0.0001
Bromobenzene	mg/L	0.0001	<0.0001
Bromochloromethane	mg/L	0.0005	<0.0005
Bromodichloromethane	mg/L	0.0001	<0.0001
Bromoform	mg/L	0.0001	<0.0001
Bromomethane	mg/L	0.002	<0.002
Carbon tetrachloride	mg/L	0.0001	<0.0001
Chlorobenzene	mg/L	0.0001	<0.0001
Chlorodibromomethane	mg/L	0.0001	<0.0001
Chloroethane	mg/L	0.002	<0.002
Chloroform	mg/L	0.0005	<0.0005
Chloromethane	mg/L	0.002	<0.002
cis-1,2-dichloroethene	mg/L	0.0001	<0.0001
cis-1,3-dichloropropene	mg/L	0.0001	<0.0001
Cyclohexane	mg/L	0.0001	**0.0001**
Dibromomethane	mg/L	0.0005	<0.0005
Dichlorodifluoromethane	mg/L	0.002	<0.002
Hexachlorobutadiene	mg/L	0.0002	<0.0002
Isopropylbenzene	mg/L	0.0001	<0.0001
MTBE	mg/L	0.0001	<0.0001
n-butylbenzene	mg/L	0.0001	<0.0001
n-propylbenzene	mg/L	0.0001	<0.0001
p-isopropyltoluene	mg/L	0.0001	<0.0001
sec-butylbenzene	mg/L	0.0001	<0.0001
Styrene	mg/L	0.0001	<0.0001
Trichloroethene	mg/L	0.0001	<0.0001
tert-butylbenzene	mg/L	0.0001	<0.0001
Tetrachloroethene	mg/L	0.0001	<0.0001
trans-1,2-dichloroethene	mg/L	0.0001	<0.0001
trans-1,3-dichloropropene	mg/L	0.0001	<0.0001
Trichlorofluoromethane	mg/L	0.002	<0.002
Vinyl chloride	mg/L	0.0002	<0.0002
PFAS			
Perfluorobutane sulfonic acid (PFBS)	mg/L	0.000001	<0.000001
Perfluoropentane sulfonic acid (PFPeS)	mg/L	0.000001	<0.000001
Perfluorohexane sulfonic acid (PFHxS)	mg/L	0.000001	<0.000001
Perfluoroheptane sulfonic acid (PFHpS)	mg/L	0.000001	<0.000001
Perfluorooctane sulfonic acid (PFOS)	mg/L	0.000001	<0.000001
Perfluorodecane sulfonic acid (PFDS)	mg/L	0.000002	<0.000002
Perfluorobutanoic acid (PFBA)	mg/L	0.000002	<0.000002
Perfluorohexanoic acid (PFHxA)	mg/L	0.000001	<0.000001
Perfluoropentanoic acid (PFPeA)	mg/L	0.000002	<0.000002
Perfluoroheptanoic acid (PFHpA)	mg/L	0.000001	<0.000001
Perfluorooctanoic acid (PFOA)	mg/L	0.000001	<0.000001
Perfluorodecanoic acid (PFDA)	mg/L	0.000002	<0.000002
Perfluorododecanoic acid (PFDoDA)	mg/L	0.000005	<0.000005
Perfluorononanoic acid (PFNA)	mg/L	0.000001	<0.000001
Perfluorotetradecanoic acid (PFTeDA)	mg/L	0.00005	<0.00005
Perfluorotridecanoic acid (PFTrDA)	mg/L	0.00001	<0.00001
Perfluoroundecanoic acid (PFUnDA)	mg/L	0.000002	<0.000002
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/L	0.000001	<0.000001
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/L	0.000001	<0.000001
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/L	0.000002	<0.000002
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/L	0.000002	<0.000002
Perfluorooctane sulfonamide (FOSA)	mg/L	0.00001	<0.00001
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/L	0.00005	<0.00005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/L	0.000002	<0.000002
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/L	0.00005	<0.00005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/L	0.0001	<0.0001
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/L	0.000002	<0.000002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/L	0.0005	<0.0005
Sum of PFHxS and PFOS	mg/L	0.000001	<0.000001
Sum of PFAS	mg/L	0.000001	<0.000001
Sum of PFAS (PFOS + PFOA)	mg/L	0.000001	<0.000001

1.6 Additional Laboratory Comments

A summary of pertinent comments related to QA made in the laboratory reports are summarised in Table 7.

Table 7: Summary of Laboratory QA Comments

Laboratory Report	Media	Laboratory Comment	Discussion
378428-A	Water (Surface Water)	For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).	Generally low PFAS concentrations were identified within surface water samples. The raising of the PQL is considered acceptable.
378586	Soil / Sediment	VOC_S_LL / TRH_BTEX_S_V_NEPM: # The percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 378586-5ms have caused interference. vTRH & BTEX in Soil NEPM – The RPD for duplicate results is accepted due to the non-homogenous nature of sample 378586-2.	Hydrocarbon impacts were observed in the sample provided to the laboratory which may have caused interference with the laboratory equipment. The QA comment is not considered to be significant.
		Acid Extractable Metals in Soil: -The laboratory RPD acceptance criteria has been exceeded for 378586-2 for Mn. Therefore a triplicate result has been issued as laboratory sample number 378586-18. -# Percent recovery is not applicable due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS. -## Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.	Spike recover for sample 378586-5 were not able to be reported due to high concentrations in the sample. Concentrations of metals were found to be below the adopted criteria, therefore this not considered to be significant.
		MISC_INORG_DRY: pH/EC: Samples were out of the recommended holding time for this analysis.	Sampling was undertaken over several days which prevented direct despatch to the laboratory. The holding time exceedance is considered to be minor.
378586-B	Soil	TPH Silica Gel Cleanup: Holding time exceedance.	Sampling was undertaken over several days which prevented direct despatch to the laboratory. Samples were also tested for TRH prior to testing TPH silica gel cleanup. The holding time exceedance is considered to be minor.
378827	Soil	MISC_INORG_DRY: pH/EC: Samples were out of the recommended holding time for this analysis.	Sampling was undertaken over several days which prevented direct despatch to the laboratory. The holding time exceedance is considered to be minor.
379259	Water (Groundwater)	Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle. Note: there is a possibility some elements may be underestimated.	Filtered / preserved bottles were provided to the laboratory for analysis of dissolved metals. One sample was also tested for extra analytes including total phosphorus. As the metal results were generally analysed from the filtered bottles, the QA exceedance is not considered to be significant.
		VOC_W_LL: The PQL for sample/s 379259-7,10,11,13,14 has been raised due to the high concentration of analytes in the samples, resulting in the samples requiring a dilution.	Hydrocarbon impacts were observed in the samples tested causing to high concentrations of volatiles. The laboratory comment therefore not considered to be significant.
		For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).	The PQL has been raised for some samples. As PFAS was detected at concentrations above the adopted criteria for most samples, the raising of the PQL is not considered to be significant.
379259-A	Water (Groundwater)	TPH Silica Gel Cleanup: Holding time exceedance.	Sampling was undertaken over several days which prevented direct despatch to the laboratory. Samples were also tested for TRH prior to testing TPH silica gel cleanup. The holding time exceedance is considered to be minor.

Overall, the number of anomalies noted by the laboratory are relatively small compared to the number of samples analysed. The QC data is determined to be of sufficient quality to be considered acceptable for the assessment.

2. Data Quality Indicators

The reliability of field procedures and analytical results was assessed against the following data quality indicators (DQI) as outlined in NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013):

- Completeness: a measure of the amount of usable data from a data collection activity;
- Comparability: the confidence (qualitative) that data may be considered to be equivalent for each sampling and analytical event;
- Representativeness: the confidence (qualitative) of data representativeness of media present on-site;
- Precision: a measure of variability or reproducibility of data; and
- Accuracy: a measure of closeness of the data to the 'true' value.

The results of the assessment are summarised in Table 2.

Table 8: Data quality indicators

Data quality indicator	Method(s) of achievement
Completeness	Systematic and selected target locations sampled.
	Preparation of borehole logs, sample location plan and chain of custody records.
	Preparation of field groundwater sampling sheets.
	Laboratory sample receipt information received confirming receipt of samples intact and appropriateness of the chain of custody.
	Samples analysed for contaminants of potential concern (CoPC) identified in the conceptual site model (CSM).
	Completion of chain of custody documentation.
	NATA accredited laboratory results certificates provided by the laboratory.
	Satisfactory frequency and results for field and laboratory quality control (QC) samples as discussed in Section 1.
Comparability	Using appropriate techniques for sample recovery, storage and transportation, which were the same for the duration of the project.
	Experienced sampler(s) used.
	Use of NATA registered laboratories, with test methods the same or similar between laboratories.
	Satisfactory results for field and laboratory QC samples.
Representativeness	Target media sampled.
	Sample numbers recovered and analysed are considered to be representative of the target media and complying with DQO.
	Samples were extracted and analysed within holding times.
	Samples were analysed in accordance with the chain of custody.
Precision	Field staff followed standard operating procedures.
	Acceptable RPD between original samples and replicates.
	Satisfactory results for all other field and laboratory QC samples.
Accuracy	Field staff followed standard operating procedures.
	Satisfactory results for all field and laboratory QC samples.

Based on the above, it is considered that the DQI have generally been complied with.

3. Conclusion

Based on the results of the field QA and field and laboratory QC, and evaluation against the DQI it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.

4. Reference

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY FIELD SHEET

Project No: 228674.02		**Client Project Name:** GLOUCESTER, 17 Denison St, Supplementary DSI	
Client: DPHI		**Location:** 17 Denison Street, Gloucester	
Project Manager: Josh Kramer		**DP Lab Received** By:	Date:

Do samples contain 'potential' HBM? Yes ☐ No ☑ (If YES, then handle, transport and store in accordance with FPM HAZID)

Field									**DP Lab**	**For Despatch to**			**Notes**
Sample ID	Depth (m)	Duplicate Sample	Sample Type	Container Type	PFAS ~~ASS~~ Samples	Sampling			Storage Locn *	Lab 1 [A] Envirolab	Lab 2 [B]	Lab 3 [C]	
			S - soil W - water	G - glass P - plastic		By	Date	Time		Date	Date	Date	
302	3.5		S	G,P		SBK	14/4/25	08.00	Fridge				
301	0-0.03												
	0.2												
	0.5				✓								
	1.0												
	1.5												
	2.0				✓								
	2.5												
	3.0				✓					16/4/25			
	3.5												
	4.0												
306	0.25				✓								
	0.5	D2/SBK											
	1.0												
	1.5				✓					16/4/25			
	2.0												
	2.5							15:00					

*** Default storage: glass containers in fridge, plastic containers shelved, ASS in freezer, water samples in fridge**

A Provide name of Lab 1　　B Provide name of Lab 2　　C Provide name of Lab 3

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY FIELD SHEET

Project No:	**228674.02**	**Client Project Name:**	**GLOUCESTER, 17 Denison St, Supplementary DSI**
Client:	**DPHI**	**Location:**	**17 Denison Street, Gloucester**
Project Manager:	**Josh Kramer**	**DP Lab Received**	By: Date:

Do samples contain 'potential' HBM? Yes ☐ No ☑ (If YES, then handle, transport and store in accordance with FPM HAZID)

Field									**DP Lab**	**For Despatch to**			**Notes**
Sample ID	Depth (m)	Duplicate Sample	Sample Type S - soil W - water	Container Type G - glass P - plastic	PFAS ~~ASS~~ Samples	Sampling By	Sampling Date	Sampling Time	Storage Locn *	Lab 1 [A] Envirolab Date	Lab 2 [B] Date	Lab 3 [C] Date	
306	3.0		S	G, P		SBJK	14/4/25	08:00	Esky+ice				
	3.5												
	4.0									16/4/25			
305	0.25												
	0.5												
	1.0												
	1.5				✓					16/4/25			
	2.0												
	2.5												
	3.0									16/4/25			
	3.5												
	4.0												
304	0.1				✓								
	0.5												
	1.0												
	1.5				✓								
	2.0							15:00					

* **Default storage: glass containers in fridge, plastic containers shelved, ASS in freezer, water samples in fridge**

A Provide name of Lab 1 B Provide name of Lab 2 C Provide name of Lab 3

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY FIELD SHEET

Project No: 228674.02		**Client Project Name:** GLOUCESTER, 17 Denison St, Supplementary DSI	
Client: DPHI		**Location:** 17 Denison Street, Gloucester	
Project Manager: Josh Kramer		**DP Lab Received**	By: Date:
Do samples contain 'potential' HBM? Yes ☐ No ☑ (If YES, then handle, transport and store in accordance with FPM HAZID)			

Field									**DP Lab**	**For Despatch to**			**Notes**
Sample ID	Depth (m)	Duplicate Sample	Sample Type	Container Type	PFAS ~~ASS~~ Samples	Sampling			Storage Locn *	Lab 1 [A] Envirolab	Lab 2 [B]	Lab 3 [C]	
			S - soil W - water	G - glass P - plastic		By	Date	Time		Date	Date	Date	
304	2.5		S	G, P	✓	SBIC	14/4/25	08:00	Eskys				
	3.0												
	3.5				✓					16/4/25			
	4.0	DB/SBK						15:00		16/4/25			
							15/4/25	06:30					
SW3			W							15/4/25			
SED 3	0-0.1		S							16/4/25			
SW1			W							15/4/25			
SED1	0-0.1		S							16/4/25			
SW2			W							15/4/25			
SED2	0-0.1		S					10:00		16/4/25			

* **Default storage:** **glass containers in fridge,** **plastic containers shelved,** **ASS in freezer,** **water samples in fridge**

A Provide name of Lab 1 B Provide name of Lab 2 C Provide name of Lab 3

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY FIELD SHEET

Project No:	**228674.02**	**Client Project Name:**	**GLOUCESTER, 17 Denison St, Supplementary DSI**		
Client:	**DPHI**	**Location:**	**17 Denison Street, Gloucester**		
Project Manager:	**Josh Kramer**	**DP Lab Received**	By:	Date:	

Do samples contain 'potential' HBM? Yes ☐ No ☑ (If YES, then handle, transport and store in accordance with FPM HAZID)

Field									**DP Lab**	**For Despatch to**			**Notes**
Sample ID	Depth (m)	Duplicate Sample	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	PFAS ~~ASS~~ Samples	Sampling By	Sampling Date	Sampling Time	Storage Locn *	Envirolab Lab 1 [A] Date	Lab 2 [B] Date	Lab 3 [C] Date	
303	0.1		S	G, P	✓	SBK	14/4/25	8:45	08:00				
	0.3				✓								
	0.8												
	1.5												
	2.0				✓					16/4/25			
	2.5												
	3.0									16/4/25			
	3.5												
	4.0												
302	0-0.01		S	G, P		SBK	14/4/25	9:45					
	0.1				✓								
	0.5												
	1.0	DVSBK			✓								
	1.5												
	2.0									16/4/25			
	2.5				✓					16/4/25			
	3.0								15:00	16/4/25			

*** Default storage: glass containers in fridge, plastic containers shelved, ASS in freezer, water samples in fridge**

A Provide name of Lab 1 B Provide name of Lab 2 C Provide name of Lab 3

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY FIELD SHEET

Project No: 228674.02		**Client Project Name:** GLOUCESTER, 17 Denison St, Supplementary DSI	
Client: DPHI		**Location:** 17 Denison Street, Gloucester	
Project Manager: Josh Kramer		**DP Lab Received**	By: Date:
Do samples contain 'potential' HBM? Yes ☐ No ☐ (If YES, then handle, transport and store in accordance with FPM HAZID)			

Field									DP Lab	For Despatch to			Notes
Sample ID	Depth (m)	Duplicate Sample	Sample Type S - soil W - water	Container Type G - glass P - plastic	ASS Samples	Sampling By	Sampling Date	Sampling Time	Storage Locn *	Lab 1 [A] Envirolab Date	Lab 2 [B] Date	Lab 3 [C] Date	
										29/4/25			
102	~~D1/GW T1/GW~~		W	G, P		SBK	28/4/25	10:30	Esky				
103	D1/GW T1/GW												
106													
105													
MW1													
104													
MW2													
101								17:00					
303			W	G, P			29/4/25	6:30					
R1/GW													
302													
301													
306													
305													
304													
TS1/GW													
TB1/GW								12:30					

TNT 980243062536-8

* Default storage: glass containers in fridge, plastic containers shelved, ASS in freezer, water samples in fridge

A Provide name of Lab 1 B Provide name of Lab 2 C Provide name of Lab 3

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No: 228674.02	**Suburb:** Gloucester			**To:**	Envirolab Services
Project Manager: Joshua Kramer	**Order Number:** NC233671	**Sampler:**	SBK		12 Ashley St, Chatswood NSW 2067
Email: Joshua.Kramer@douglaspartners.com.au				**Attn:**	Sample Receipt
Turnaround time: ☐ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day					(02) 9910 6200 samplereceipt@envirolab.con
Prior Storage: ☐ Fridge ☐ Freezer ☐ Esky ☐ Shelf	**Do samples contain 'potential' HBM?** ☐ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)				

Lab ID	Sample ID: Location / Other ID	Sample ID: Depth From	Sample ID: Depth To	Date Sampled	Sample Type (S - soil, W - water, M - Material)	Container Type (G - glass, P - plastic)	Analytes: Metals (13) - Total	TRH	BTEX	PAH (low level)	pH, EC							Notes/ Preservation/ Additional Requirements
1	SW1			15/04/25	W	G, P	×	×	×	×	×							**Combo 3 (CW003_T)**
2	SW2			15/04/25	W	G, P	×	×	×	×	×							**Combo 3 (CW003_T)**
3	SW3			15/04/25	W	G, P	×	×	×	×	×							**Combo 3 (CW003_T)**

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 378428
Date Received: 16/04/25
Time Received: 1130
Received By: DC
Temp: Cool/Ambient
Cooling: Ice/Icepack DC
Security: Intact/Broken/None

Metals to analyse: As, Be, B, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Se, Zn	**LAB RECEIPT**
Number of samples in container: / **Transported to laboratory by:** courier	**Lab Ref. No:** 378428
Send results to: Douglas Partners Pty Ltd	**Received by:** Danni C
Address: 15 Callistemon Close, Warabrook NSW 2 / **Phone:** (02) 4960 9600	**Date & Time:** 16/04/25 1130
Relinquished by: SBK / **Date:** 15/04/2025 / **Signed:** [signature]	**Signed:** DC

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No: 228674.02	**Suburb:** Gloucester			**To:**	Envirolab Services
Project Manager: Joshua Kramer	**Order Number:** NC233671	**Sampler:**	SBK		12 Ashley St, Chatswood NSW 2067
Email: Joshua.Kramer@douglaspartners.com.au				**Attn:**	Sample Receipt
Turnaround time: ☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day					(02) 9910 6200 samplereceipt@envirolab.cor
Prior Storage: ☐ Fridge ☐ Freezer ☑ Esky ☐ Shelf	**Do samples contain 'potential' HBM?** ☑ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)				

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type (S - soil, W - water, M - Material)	Container Type (G - glass, P - plastic)	Analytes: Metals (13) - Total	TRH	BTEX	PAH (low level)	pH, EC	VOC	PFAS - Low Level Extended suite					Notes/ Preservation/ Additional Requirements
1	SW1			15/04/25	W	G, P	×	×	×	×	×	×	×					**Combo 3 (CW003_T)**
2	SW2			15/04/25	W	G, P	×	×	×	×	×	×	×					**Combo 3 (CW003_T)**
3	SW3			15/04/25	W	G, P	×	×	×	×	×	×	×					**Combo 3 (CW003_T)**
												Updated AB						

Metals to analyse: As, Be, B, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Se, Zn		**LAB RECEIPT**
Number of samples in container:	**Transported to laboratory by:** courier	**Lab Ref. No:** 378428-A
Send results to: Douglas Partners Pty Ltd		**Received by:** A.B.
Address: 15 Callistemon Close, Warabrook NSW 2	**Phone:** (02) 4960 9600	**Date & Time:** 28/4/25 1336
Relinquished by: SBK	**Date:** 15/04/2025 **Signed:**	**Signed:** AB

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200   fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer

Sample Login Details	
Your reference	228674.00 - Gloucester
Envirolab Reference	378428
Date Sample Received	16/04/2025
Date Instructions Received	16/04/2024
Date Results Expected to be Reported	28/04/2025

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	3 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	6
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200   fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	All metals in water - total	pH	Electrical Conductivity
SW1	✓	✓	✓	✓	✓	✓
SW2	✓	✓	✓	✓	✓	✓
SW3	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Anna Bui

From: Joshua Kramer <joshua.kramer@douglaspartners.com.au>
Sent: Thursday, 8 May 2025 1:29 PM
To: Nick Sarlamis; Sarah Krebs; Envirolab Sydney Sample Receipt
Subject: RE: Results for Registration 378586 228674.02 Gloucester

Thanks Nick yep standard TAT is fine.

Cheers

Joshua Kramer | Environmental Engineer

02 4960 9600 +61 400 390 451 Joshua.Kramer@douglaspartners.com.au

www.douglaspartners.com.au 15 Callistemon Close, Warabrook
NSW 2304 | Awabakal Country
PO Box 324, Hunter Region Mail Centre, NSW 2310

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From: Nick Sarlamis <NSarlamis@envirolab.com.au>
Sent: Thursday, May 8, 2025 1:21 PM
To: Joshua Kramer <joshua.kramer@douglaspartners.com.au>; Sarah Krebs <Sarah.Krebs@douglaspartners.com.au>; Envirolab Sydney Sample Receipt <Samplereceipt@envirolab.com.au>
Subject: RE: Results for Registration 378586 228674.02 Gloucester

ELS REF: 378586-A
TAT: STANDARD
DUE: 15/5/25
AB.

Hi Joshua, I will have that sorted. Assuming std T/A ok?

Kind Regards,

Nick Sarlamis | Assistant Operations Manager | Envirolab Services

Great Science. Great Service.

12 Ashley Street Chatswood NSW 2067
T 612 9910 6200
E NSarlamis@envirolab.com.au | W www.envirolab.com.au

Follow us on: LinkedIn | Facebook | Twitter

Samples will be analysed per our T&C's.

From: Joshua Kramer <joshua.kramer@douglaspartners.com.au>
Sent: Thursday, 8 May 2025 1:06 PM
To: Nick Sarlamis <NSarlamis@envirolab.com.au>; Sarah Krebs <Sarah.Krebs@douglaspartners.com.au>; Envirolab Sydney Sample Receipt <Samplereceipt@envirolab.com.au>
Subject: RE: Results for Registration 378586 228674.02 Gloucester

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Nick

14

Thanks for sending these through. Could we please get TCLP done for PFAS for sample SED2/0-0.1m (Envirolab ID 378586-414)

Any issues please let me know.

Thanks

Joshua Kramer | Environmental Engineer

02 4960 9600 +61 400 390 451 Joshua.Kramer@douglaspartners.com.au

www.douglaspartners.com.au 15 Callistemon Close, Warabrook
NSW 2304 | Awabakal Country
PO Box 324, Hunter Region Mail Centre, NSW 2310

Douglas PARTNERS | GROUNDED EXPERTISE

From: Nick Sarlamis <NSarlamis@envirolab.com.au>
Sent: Monday, April 28, 2025 6:58 PM
To: ESdat_AU+douglaspartners@ESdatLabSync.net; Joshua Kramer <joshua.kramer@douglaspartners.com.au>; Sarah Krebs <sarah.krebs@douglaspartners.com.au>
Subject: Results for Registration 378586 228674.02 Gloucester [Filed 29 Apr 2025 16:54]

Please refer to attached for:
a copy of the Certificate of Analysis
a copy of the COC/paperwork received from you
ESDAT Extracts
an Excel or .csv file containing the results

Please note that a hard copy will not be posted.

Enquiries should be made directly to:
customerservice@envirolab.com.au

To view information on uncertainty guidelines click here

How did we do? Send Feedback

Kind Regards,

Nick Sarlamis | Assistant Operations Manager | Envirolab Services

Great Science. Great Service.

12 Ashley Street Chatswood NSW 2067
T 612 9910 6200
E NSarlamis@envirolab.com.au | W www.envirolab.com.au

Anna Bui

From: Joshua Kramer <Joshua.Kramer@douglaspartners.com.au>
Sent: Tuesday, 13 May 2025 8:56 PM
To: Envirolab Sydney Sample Receipt
Subject: TPH Silica gel cleanup - 228674.02 Gloucester

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hey guys

Can we also get some TPH silica-gel cleanup conducted on two sediment samples for the Gloucester project. Hopefully the last lot of testing needed for this one. See table below.

	Lab Report	Sample ID	Envirolab ID
14	378586	SED2	378586-14
15	378586	SED3	378586-15

Please use previous PO NC233580 for this one. Appreciate the help with this.

Thanks

Joshua Kramer | Environmental Engineer

02 4960 9600 +61 400 390 451 Joshua.Kramer@douglaspartners.com.au

www.douglaspartners.com.au 15 Callistemon Close, Warabrook
NSW 2304 | Awabakal Country
PO Box 324, Hunter Region Mail Centre, NSW 2310

Douglas PARTNERS | GROUNDED EXPERTISE

ELS REF: 378586-B
TAT: STANDARD
DUE: 21/5/25
AB

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No: 228674.02	**Suburb:** Gloucester			**To:**	Envirolab Services
Project Manager: Joshua Kramer	**Order Number:** NC233580	**Sampler:**	SBK		12 Ashley St, Chatswood NSW 2067
Email: Joshua.Kramer/Sarah.Krebs@douglaspartners.com.au				**Attn:**	Sample Receipt
Turnaround time: ☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day					(02) 9910 6200 samplereceipt@envirolab.cor
Prior Storage: ☑ Fridge ☐ Freezer ☐ Esky ☐ Shelf	**Do samples contain 'potential' HBM?** ☑ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)				

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type (S - soil, W - water, M - Material)	Container Type (G - glass, P - plastic)	Metals (16)	TRH, BTEX, PAH	OCP,OPP, PCB	PFAS (extended suite)	VOC (low level)	pH, EC	CEC	Total organic carbon				Notes/ Preservation/ Additional Requirements
1	301	3.0	-	14/04/25	S	G,P	×	×	×	×		×						Combo 6
2	302	2.0	-	14/04/25	S	G	×	×	×		×	×						Combo 6
3	302	2.5	-	14/04/25	S	P				×								
4	302	3.0	-	14/04/25	S	G	×	×	×			×						Combo 6
5	303	2.0	-	14/04/25	S	G,P	×	×	×	×	×	×	×					Combo 6
NR	303	3.0	-	14/04/25	S	G	×	×	×		×	×						Combo 6
6	304	3.5	-	14/04/25	S	P				×								
7	304	4.0	-	14/04/25	S	G	×	×	×			×						Combo 6
8	305	1.5	-	14/04/25	S	P				×		×						
NR	305	3.0	-	14/04/25	S	G	×	×	×		×	×						Combo 6
9	306	1.5	-	14/04/25	S	P				×								
10	306	2.5	-	14/04/25	S	G	×	×	×		×	×						Combo 6
11	306	4.0	-	14/04/25	S	G	×	×	×			×	×					Combo 6
12	D3/SBK	-	-	14/04/25	S	G	×	×	×			×						Combo 6

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 378586
Date Received: 17/04/25
Time Received: 1020
Received By: DL
Temp: Cool/Ambient
Cooling: Ice/Icepack 6°C
Security: Intact/Broken/None

Metals to analyse: As, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Zn	**LAB RECEIPT**
Number of samples in container: 17 **Transported to laboratory by:** courier	**Lab Ref. No:** 378586
Send results to: Douglas Partners Pty Ltd	**Received by:** Danni L
Address: 15 Callistemon Close, Warabrook NSW 2 **Phone:** (02) 4960 9600	**Date & Time:** 17/04/25 1020
Relinquished by: SBK **Date:** 16/04/2025 **Signed:** [signature]	**Signed:** DL

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No: 228674.02	**Suburb:** Gloucester		**To:** Envirolab Services
Project Manager: Joshua Kramer			**Dispatch date:** 16/04/2025

Lab ID	Sample ID			Date Sampled	Sample Type	Container Type	Analytes											Notes/ Preservation/ Additional Requirements
	Location / Other ID	Depth From	Depth To		S - soil W - water M - Material	G - glass P - plastic	Metals (16)	TRH, BTEX, PAH	OCP,OPP, PCB	PFAS (extended suite)	VOC (low level)	pH, EC	CEC	Total organic carbon				
13	SED1	0	0.1	15/04/25	S	G,P	×	×	×	×	×	×	×	×				
14	SED2	0	0.1	15/04/25	S	G,P	×	×	×	×	×	×		×				
15	SED3	0	0.1	15/04/25	S	G,P	×	×	×	×	×	×		×				
16	302/3.0																	
17	304/3.0																	

xtra Sample dup

#378586
17/04/25
DLA

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No: 228674.02	**Suburb:** Gloucester			**To:**	Envirolab Services
Project Manager: Joshua Kramer	**Order Number:** NC233580	**Sampler:**	SBK		12 Ashley St, Chatswood NSW 2067
Email: Joshua.Kramer/Sarah.Krebs@douglaspartners.com.au				**Attn:**	Sample Receipt
Turnaround time: ☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day					(02) 9910 6200 samplereceipt@envirolab.cor
Prior Storage: ☑ Fridge ☐ Freezer ☐ Esky ☐ Shelf	**Do samples contain 'potential' HBM?** ☑ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)				

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type (S - soil, W - water, M - Material)	Container Type (G - glass, P - plastic)	Metals (16)	TRH, BTEX, PAH	OCP,OPP, PCB	PFAS (extended suite)	VOC (low level)	pH, EC	CEC	Total organic carbon				Notes/ Preservation/ Additional Requirements
	301	3.0	-	14/04/25	S	G,P	×	×	×	×		×						Combo 6
	302	2.0	-	14/04/25	S	G	×	×	×		×	×						Combo 6
	302	2.5	-	14/04/25	S	P				×								
	302	3.0	-	14/04/25	S	G	×	×	×			×						Combo 6
	303	2.0	-	14/04/25	S	G,P	×	×	×	×	×	×	×					Combo 6
1	[redacted]	[redacted]	-	14/04/25	S	G	×	×	×		×	×						Combo 6
	304	3.5	-	14/04/25	S	P				×								
	304	4.0	-	14/04/25	S	G	×	×	×			×						Combo 6
	305	1.5	-	14/04/25	S	P				×		×						
2	[redacted]	[redacted]	-	14/04/25	S	G	×	×	×		×	×						Combo 6
	306	1.5	-	14/04/25	S	P				×								
	306	2.5	-	14/04/25	S	G	×	×	×		×	×						Combo 6
	306	4.0	-	14/04/25	S	G	×	×	×			×	×					Combo 6
	D3/SBK	-	-	14/04/25	S	G	×	×	×			×						Combo 6

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 378827
Date Received: 23/04/25
Time Received: 1050
Received By: DL
Temp: Cool/Ambient
Cooling: Ice/Icepack 8°C
Security: Intact/Broken/None

Metals to analyse: As, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Zn			**LAB RECEIPT**
Number of samples in container: 17	**Transported to laboratory by:** courier		**Lab Ref. No:** 378827
Send results to: Douglas Partners Pty Ltd			**Received by:** Danni L
Address: 15 Callistemon Close, Warabrook NSW 2	**Phone:** (02) 4960 9600		**Date & Time:** 23/04/25 1050
Relinquished by: SBK	**Date:** 16/04/2025	**Signed:**	**Signed:** DL

Joshua Kramer

From: Nam Dinh <NDinh@envirolab.com.au>
Sent: Thursday, 17 April 2025 4:48 PM
To: Joshua Kramer
Cc: Sarah Krebs
Subject: Re: 228674.02 Gloucester

Hi Joshua, no worries will proceed with the samples we have.

Kind Regards,

Nam Dinh | Customer Service | Envirolab Services

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12 Ashley Street Chatswood NSW 2067
T 612 9910 6200
E NDinh@envirolab.com.au | **W** www.envirolab.com.au

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Samples will be analysed per our T&C's.

From: Joshua Kramer <joshua.kramer@douglaspartners.com.au>
Sent: Thursday, 17 April 2025 4:44 PM
To: Nam Dinh <NDinh@envirolab.com.au>
Cc: Sarah Krebs <Sarah.Krebs@douglaspartners.com.au>
Subject: RE: 228674.02 Gloucester

Hey Nam

Thanks for letting me know. I think there's been a mix up and we have sent the wrong samples. I have found 303/3.0 and 305/3.0 and I will send through next week. Happy for you to process the samples you have and for these to be done under a new report number. Please put 302/3.8 and 304/3.0 on hold for now.

Really sorry for the mix up.

Thanks

Joshua Kramer | Environmental Engineer

02 4960 9600 +61 400 390 451 Joshua.Kramer@douglaspartners.com.au

www.douglaspartners.com.au 15 Callistemon Close, Warabrook
NSW 2304 | Awabakal Country
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#378827
23/04/25
DL

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CHAIN OF CUSTODY DESPATCH SHEET

Project No:	228674.02	**Suburb:**	Gloucester	**To:**	Envirolab Services
Project Manager:	Joshua Kramer	**Order Number:**	NC233580 **Sampler:** SBK		12 Ashley St, Chatswood NSW 2067
Email:	Joshua.Kramer/Sarah.Krebs@douglaspartners.com.au			**Attn:**	Sample Receipt
Turnaround time:	☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day				(02) 9910 6200 samplereceipt@envirolab.cor

Prior Storage: ☑ Fridge ☐ Freezer ☐ Esky ☐ Shelf **Do samples contain 'potential' HBM?** ☑ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type (S - soil, W - water, M - Material)	Container Type (G - glass, P - plastic)	Analytes: TPH Silica-Gel Cleanup										Notes/ Preservation/ Additional Requirements
4	104	-	-	28/04/25	W	G,P	×										
5	105	-	-	28/04/25	W	G,P	×										
10	302	-	-	29/04/25	W	G,P	×										
11	303	-	-	29/04/25	W	G,P	×										
12	304	-	-	29/04/25	W	G,P	×										
13	305	-	-	29/04/25	W	G,P	×										
14	306	-	-	29/04/25	W	G,P	×										
7	MW1	-	-	29/04/25	W	G,P	×										

Metals to analyse: Al, As, Be, Bo, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Zn

Number of samples in container: **Transported to laboratory by:** TNT courier

Send results to: Douglas Partners Pty Ltd

Address: 15 Callistemon Close, Warabrook NSW 23 **Phone:** (02) 4960 9600

Relinquished by: SBK **Date:** **Signed:**

LAB RECEIPT

Lab Ref. No: 379259-A

Received by: A [signature]

Date & Time: 12/5/25 1232

Signed: [signature]

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	228674.02	**Suburb:**	Gloucester	**To:**	Envirolab Services
Project Manager:	Joshua Kramer	**Order Number:**	NC233580 **Sampler:** SBK		12 Ashley St, Chatswood NSW 2067
Email:	Joshua.Kramer/Sarah.Krebs@douglaspartners.com.au			**Attn:**	Sample Receipt
Turnaround time:	☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day				(02) 9910 6200 samplereceipt@envirolab.cor
Prior Storage:	☑ Fridge ☐ Freezer ☐ Esky ☐ Shelf	**Do samples contain 'potential' HBM?**	☑ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)		

Lab ID	Sample ID: Location / Other ID	Sample ID: Depth From	Sample ID: Depth To	Date Sampled	Sample Type (S - soil, W - water, M - Material)	Container Type (G - glass, P - plastic)	Analytes: pH, EC	Dissolved Metals (17)	TRH, BTEX	PAH (low level)	VOC (low level)	PFAS - extended suite (low level)	Ionic Balance	Nutrient Suite	Total Dissolved Solids		Trip Spike/Trip Blank	Notes/ Preservation/ Additional Requirements
1	101	-	-	28/4/25	W	G,P	×	×	×	×	×	×						Combo 3 + extra
2	102	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
3	103	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
4	104	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
5	105	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
6	106	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
7	MW1	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
8	MW2	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
9	301	-	-	29/4/25	W	G,P	×	×	×	×	×	×	×	×	×			Combo 3 + extra
10	302	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
11	303	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
12	304	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
13	305	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra
14	306	-	-		W	G,P	×	×	×	×	×	×						Combo 3 + extra

ENVIROLAB GROUP

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 379259

Date Received: 30/4/25

Time Received: 1050

Received By: CW

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

Metals to analyse: Al, As, Be, Bo, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Zn			**LAB RECEIPT**
Number of samples in container:	**Transported to laboratory by:** TNT courier		**Lab Ref. No:**
Send results to: Douglas Partners Pty Ltd			**Received by:** O.Williams
Address: 15 Callistemon Close, Warabrook NSW 23	**Phone:** (02) 4960 9600		**Date & Tim** 30/4/25 1050
Relinquished by: SBK	**Date:** 29/4/25	**Signed:** [signature]	**Signed:** [signature]

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	228674.02	**Suburb:**	Gloucester	**To:**	Envirolab Services
Project Manager:	Joshua Kramer			**Dispatch date:**	0/01/1900

Lab ID	Sample ID			Date Sampled	Sample Type	Container Type	Analytes											Notes/ Preservation/ Additional Requirements
	Location / Other ID	Depth From	Depth To		S - soil W - water M - Material	G - glass P - plastic	pH, EC	Dissolved Metals (17)	TRH, BTEX	PAH (low level)	VOC (low level)	PFAS - extended suite (low level)	Ionic Balance	Nutrient Suite	Total Dissolved Solids		Trip Spike/Trip Blank	
15	D1/GW			28/4/25	W	G, P	x	x	x	x	x	x						Combo 3 + extra
16	R1/GW			29/4/25	↓	↓	x	x	x	x	x	x						Combo 3 + extra
17	TB1/GW			↓	↓	↓											X	
18	TS1/GW			↓	↓	↓											X	
																		Note samples
																		may have high
																		TRH
~~19~~ S10	T1/GW			28/4/25	W	G, P												forward to ALS

379239
30/4/25
AW.

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
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SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer

Sample Login Details	
Your reference	228674.00 - Gloucester
Envirolab Reference	378428-A
Date Sample Received	16/04/2025
Date Instructions Received	28/04/2024
Date Results Expected to be Reported	05/05/2025

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	Additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	6
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

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Sample ID	VOCs in water	PFAS in Water LOW LEVEL Extend
SW1	✓	✓
SW2	✓	✓
SW3	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer

Sample Login Details	
Your reference	228674.02 Gloucester
Envirolab Reference	378586-A
Date Sample Received	17/04/2025
Date Instructions Received	08/05/2025
Date Results Expected to be Reported	15/05/2025

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	Additional analysis 1 sample
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

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Sample ID	PFAS in TCLP Extended	On Hold
301-3.0		✓
302-2.0		✓
302-2.5		✓
302-3.0		✓
303-2.0		✓
304-3.5		✓
304-4.0		✓
305-1.5		✓
306-1.5		✓
306-2.5		✓
306-4.0		✓
D3/SBK		✓
SED1-0-0.1		✓
SED2-0-0.1	✓	
SED3-0-0.1		✓
302-3.8		✓
304-3.0		✓
302 - [TRIPLICATE]-2.0		✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer

Sample Login Details	
Your reference	228674.02 Gloucester
Envirolab Reference	378586-B
Date Sample Received	17/04/2025
Date Instructions Received	14/05/2025
Date Results Expected to be Reported	21/05/2025

Sample Condition	
Samples received in appropriate condition for analysis	Holding time exceedance
No. of Samples Provided	Additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Please contact the laboratory within 24 hours if you wish to cancel the aforementioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

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Sample ID	svTRH (C10-C40) in Soil NEPM Silica gel	svTRH (C10-C40) in Soil Pre Clean Up	On Hold
301-3.0			✓
302-2.0			✓
302-2.5			✓
302-3.0			✓
303-2.0			✓
304-3.5			✓
304-4.0			✓
305-1.5			✓
306-1.5			✓
306-2.5			✓
306-4.0			✓
D3/SBK			✓
SED1-0-0.1			✓
SED2-0-0.1	✓	✓	
SED3-0-0.1	✓	✓	
302-3.8			✓
304-3.0			✓
302 - [TRIPLICATE]-2.0			✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer

Sample Login Details	
Your reference	228674.02 Gloucester
Envirolab Reference	378586
Date Sample Received	17/04/2025
Date Instructions Received	17/04/2025
Date Results Expected to be Reported	29/04/2025

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	17 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

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Sample ID	VOCs in soil - Low Level	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	PFAS in Soils Extended	Misc Inorg - Soil	CEC	On Hold
301-3.0		✓	✓	✓	✓	✓	✓	✓	✓	✓		
302-2.0	✓	✓	✓	✓	✓	✓	✓	✓		✓		
302-2.5									✓			
302-3.0		✓	✓	✓	✓	✓	✓	✓		✓		
303-2.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
304-3.5									✓			
304-4.0		✓	✓	✓	✓	✓	✓	✓		✓		
305-1.5									✓	✓		
306-1.5									✓			
306-2.5	✓	✓	✓	✓	✓	✓	✓	✓		✓		
306-4.0		✓	✓	✓	✓	✓	✓	✓		✓	✓	
D3/SBK		✓	✓	✓	✓	✓	✓	✓		✓		
SED1-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
SED2-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SED3-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
302-3.8												✓
304-3.0												✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer

Sample Login Details	
Your reference	228674.02 Gloucester
Envirolab Reference	378827
Date Sample Received	23/04/2025
Date Instructions Received	23/04/2025
Date Results Expected to be Reported	01/05/2025

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

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Sample ID	VOCs in soil - Low Level	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Misc Inorg - Soil
303-3.0	✓	✓	✓	✓	✓	✓	✓	✓	✓
305-3.0	✓	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer

Sample Login Details	
Your reference	228674.02 - Gloucester
Envirolab Reference	379259-A
Date Sample Received	30/04/2025
Date Instructions Received	12/05/2025
Date Results Expected to be Reported	19/05/2025

Sample Condition	
Samples received in appropriate condition for analysis	Holding time exceedance
No. of Samples Provided	Additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Please contact the laboratory within 24 hours if you wish to cancel the aformentioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

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Sample ID	svTRH (C10-C40) in Water NEPM Silica gel	svTRH (C10-C40) in Water Pre Clean Up	On Hold
101			✓
102			✓
103			✓
104	✓	✓	
105	✓	✓	
106			✓
MW1	✓	✓	
MW2			✓
301			✓
302	✓	✓	
303	✓	✓	
304	✓	✓	
305	✓	✓	
306	✓	✓	
D1/GW			✓
R1/GW			✓
TB1/GW			✓
TS1/GW			✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Newcastle
Attention	Joshua Kramer, Sarah Krebs

Sample Login Details	
Your reference	228674.02 - Gloucester
Envirolab Reference	379259
Date Sample Received	30/04/2025
Date Instructions Received	30/04/2025
Date Results Expected to be Reported	07/05/2025

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	18 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

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Sample ID	VOCs in Water - Low Level	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	All metals in water-dissolved	PFAS in Water LOW LEVEL Extend	Calcium - Dissolved	Potassium - Dissolved	Sodium - Dissolved	Magnesium - Dissolved	Hardness (calc) equivalent CaCO3	Hydroxide Alkalinity (OH-) as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Total Alkalinity as CaCO3	Sulphate, SO4	Chloride, Cl	Ionic Balance	pH	Electrical Conductivity	Total Dissolved Solids(grav)	Ammonia as N in water	Nitrate as N in water	Nitrite as N in water	NOx as N in water	Organic Nitrogen as N	Total Nitrogen in water	TKN in water	Metals in Waters -Acid extractable
101	✓	✓	✓	✓	✓	✓													✓	✓									
102	✓	✓	✓	✓	✓	✓													✓	✓									
103	✓	✓	✓	✓	✓	✓													✓	✓									
104	✓	✓	✓	✓	✓	✓													✓	✓									
105	✓	✓	✓	✓	✓	✓													✓	✓									
106	✓	✓	✓	✓	✓	✓													✓	✓									
MW1	✓	✓	✓	✓	✓	✓													✓	✓									
MW2	✓	✓	✓	✓	✓	✓													✓	✓									
301	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
302	✓	✓	✓	✓	✓	✓													✓	✓									
303	✓	✓	✓	✓	✓	✓													✓	✓									
304	✓	✓	✓	✓	✓	✓													✓	✓									
305	✓	✓	✓	✓	✓	✓													✓	✓									
306	✓	✓	✓	✓	✓	✓													✓	✓									
D1/GW	✓	✓	✓	✓	✓	✓													✓	✓									
R1/GW	✓	✓	✓	✓	✓	✓													✓	✓									
TB1/GW		✓																											
TS1/GW		✓																											

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

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Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt. Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.