APPENDIX 4

OWENGLEN RIVER HYDROMETRIC STATION 32004
INFORMATION & FLOW DATA

2014 SURFACE WATER QUALITY RESULTS

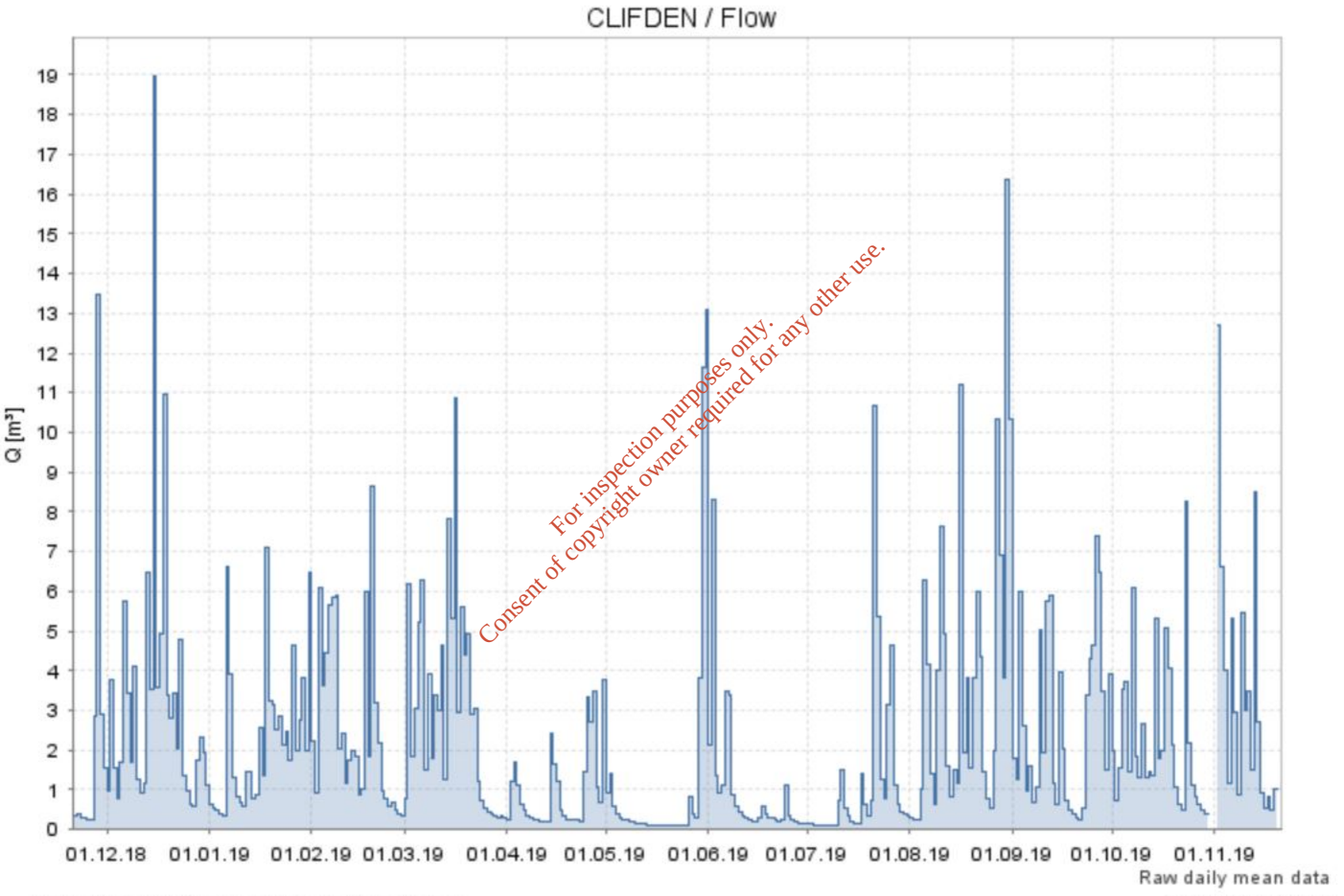
EPA SURFACE WATER MAPPING &
Q-INDEX HISTORICAL DATA

WFD CATCHMENT MAPPING & DATA

CLIFDEN (OWENGLIN)

Station number	32004
Station name	CLIFDEN
Station status	Active
Waterbody	OWENGLIN
Owner	Galway County Council
Easting	67686.00
Northing	250463.00
Data Provider	Environmental Protection Agency
River Basin District	Western RBD
Catchment size	32.30 km^2
LTA rainfall 1961-1990 (mm/yr)	1849
Available data	Water Level and Flow
Gauge datum	16.663
Gauge datum unit	m OD Malin (OSGM02)
Estimated 95%tile Flow (m^3/s)	0.156 m^3/s
Estimated 50%tile Flow (m^3/s)	
Description	
External Link	

3 months | Year | All

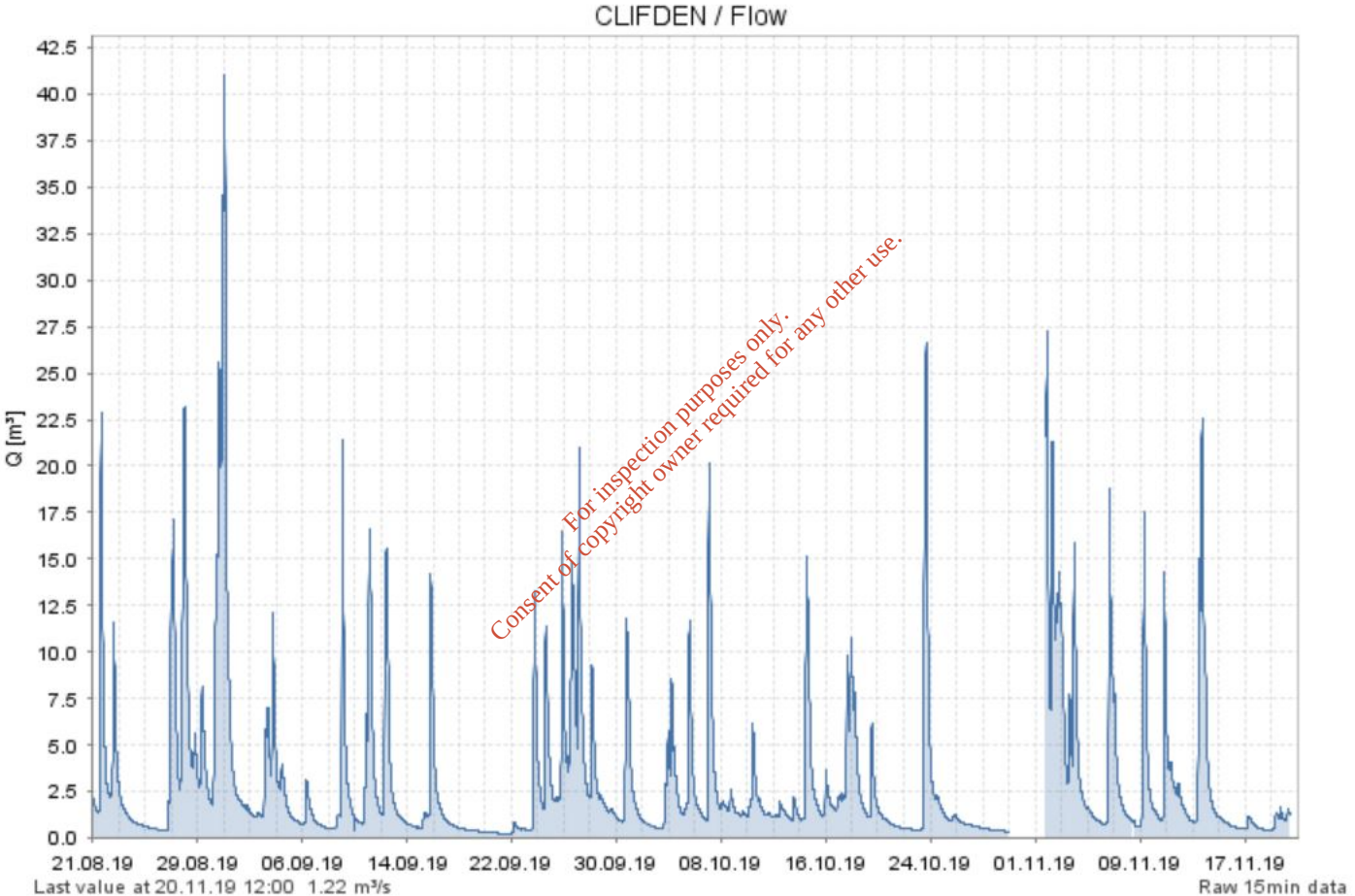


Responsible: Environmental Protection Agency

20.11.2019 15:05

KISTERS

3 months Year All



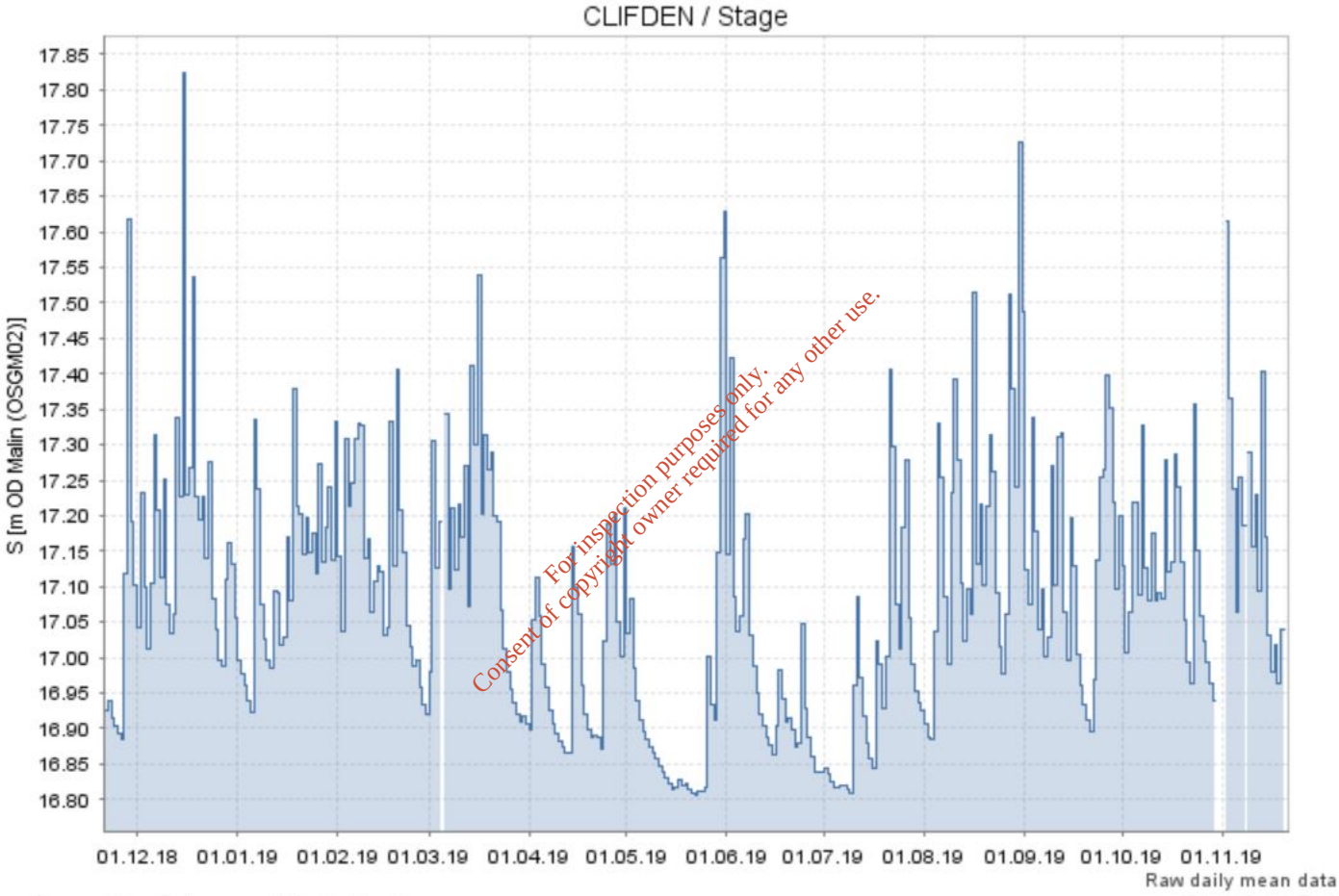


Table 5. Results of Laboratory Analyses on Surface Water Samples (SW1, SW2 SW3) taken at Tullyvogheen, Clifden, County Galway

Parameter	Units	Statutory Limits			WA-SW1-01 (UPGRADIENT)	WA-SW2-01 (DOWNGRADIENT)	WA-SW3-01 (DOWNGRADIENT)
		S.I. No. 294, European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations, 1989 MACs	*S.I. No. 278, European Communities Environmental Objectives (Drinking Water) (No. 2) Regulations, 2007* Parametric Values	*S.I. No. 272, European Communities Environmental Objectives (Surface Water) Regulations, 2009* Threshold Values			
Physico-Chemical Parameters							
pH	-	-	-	*6..0<pH<9..0*	8.6	8.3	8.3
Electrical cond. (EC)	µS/cm	-	*2500*	-	270	280	250
Dissolved oxygen (DO)	%	-	-	*80*	11.2	11	11.1
Redox potential	mV			-	150	150	160
Standard Chemistry							
Total suspended solids	mg/l	*50*	-	-	17	8	1
Total hardness (as $CaCO_3$)	mg/l	-	*200*	-	55	50	38
Total alkalinity (as $CaCO_3$)	mg/l	-	-	-	40	57	45
Ammon. Nitrogen (as N)	mg/l	-	-	*0.09*	**0.09**	**2.3**	**1.5**
Ammonium	mg/l	-	*0.3*	-	0.11	**2.90**	**1.90**
Nitrate NO_3	mg/l	-	-	-	0.78	0.96	0.5
Nitrite NO_2	mg/l	-	-	-	<0.020	<0.020	<0.020
Chloride Cl^-	mg/l	-	*250*	-	66	63	60
Sulphate SO_4	mg/l	-	*250*	-	15	12	10
Sulphide S^{2-}	mg/l	-	-	-	<0.050	<0.050	<0.050
MR-Phosphate as P	mg/l	-	-	*0.025*	**0.084**	**0.077**	**0.077**
Total Cyanide	mg/l	-	-	*10*	<0.050	<0.050	<0.050
Major Cations							
Potassium K	mg/l	-	-	-	<0.50	2.5	1.9
Sodium Na	mg/l	-	-	-	39	37	32
Potassium K/Sodium Na Ratio		-	-	-	0.00	0.07	0.06
Calcium Ca	mg/l	-	-	-	9.6	12	9.3
Magnesium Mg	mg/l	-	-	-	4.2	5.4	4.5
Heavy Metals							
Antimony	µg/l	-	-	-	<1.0	<1.0	<1.0
Arsenic	µg/l	-	-	*25*	<1.0	<1.0	<1.0
Boron	µg/l	-	*1000*	-	580	530	440
Cadmium Cd	µg/l	-	*5*	-	<0.080	<0.080	<0.080
Chromium Cr	µg/l	-	-	-	<1.0	<1.0	<1.0
Copper	µg/l	-	-	*30*	1.1	1.1	<1.0
Iron Fe	µg/l	-	*200*	-	**300**	**810**	**460**
Lead Pb	µg/l	-	-	*7.2*	1.6	<1.0	<1.0
Nickel Ni	µg/l	-	-	*20*	<1.0	<1.0	<1.0
Manganese Mn	µg/l	-	*50*	-	**65**	**94**	**52**
Mercury Hg	µg/l	-	-	-	<0.50	<0.50	<0.50
Selenium	µg/l	*10*	-	-	<1.0	<1.0	<1.0
Zinc Zn	µg/l	-	-	-	9.4	6.7	6.6
Oxygen Demand/Organic Carbon							
BOD	mg/l	-	-	*1.3*	<1	<1	<1
COD	mg/l	-	-	*40*	30	20	15
Microbiology							
Total coliforms (i.e. Confirmed)	CFU/100ml	*0*	*0*	-	**57**	**41**	**34**
Faecal coliforms (E. coli)	CFU/100ml	*0*	*0*	-	**5**	**3**	**9**

Note:

450 Values are shaded yellow and in RED bold where SI No. 294 of 1989 MACs, SI No. 278 of 2007 Parametric Values, or S.I. No. 272 Surface Water Reg. Threshold Levels, Wastewater Discharge Licence Reg. No. D0513-01 Interim Emission Limit Values/2016 Emission Lim

< = Less than

'-' signifies analysis not carried out on sample or no SI No. 294 of 1989 MACs, SI No. 278 of 2007 Parametric Values, or

Results

Year	2018
QValueScore	4-5
QValueStatus	High
WFDWISECODE	IEMRRS32O030200
WBWFDWISECODE	IE_WE_32O030200
LocalAuthority	GALWAY COUNTY COUNCIL
EPAStationTypeWFD	Operational
Typeofwatermonitored	River Water
RiverBasinDistrict	Western
SegCd	32_4254
Media	WATER
DataSource	FCT
Easting	67625.1
Northing	250460

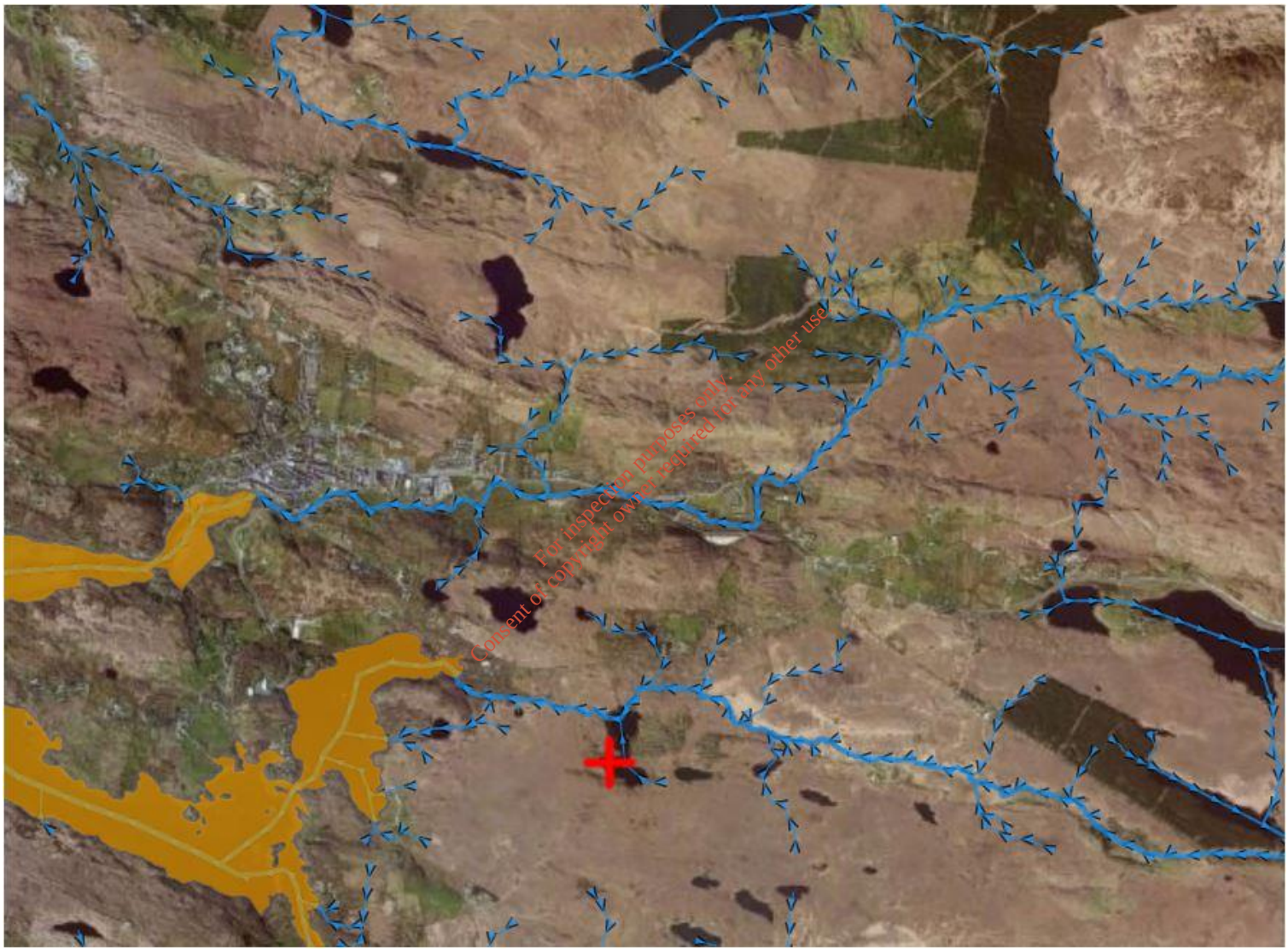
EXPORT

Results

StationName	CLIFDEN
StationNumber	32004
Waterbody	OWENGLIN
StationStatus	Active
StationType	Recorder
Classification	Climate Change Study
DataAvailable	Water Level and Flow
URL	Link to More Information
CATCH_km2	32.3
Pmm_a61_90	1849
Ptile50m3s	0.915
DWFm3s	0.045
Ptile95m3s	0.079
Comment	
RiverBasinDistrict	WESTERN RBD
BDS	Galway County Council
HydroTeam	Castlebar
Catchment	Owenglin-Dawros-Culin-Traheen-Coastal

Results

Comment	
RiverBasinDistrict	WESTERN RBD
BDS	Galway County Council
HydroTeam	Castlebar
Catchment	Owenglin-Dawros-Culin-Traheen-Coastal
County	Galway
Easting	67686
Northing	250463
IGR	L670504
Latitude	53.48776807
Longitude	-9.99415168
Type	River
StartDate	1950-06-11T23:00:00Z
EndDate	1899-12-28T00:00:00Z
HydroArea	32
LocalAuthority	Local Authority
SegmentCode	32_4254



Results

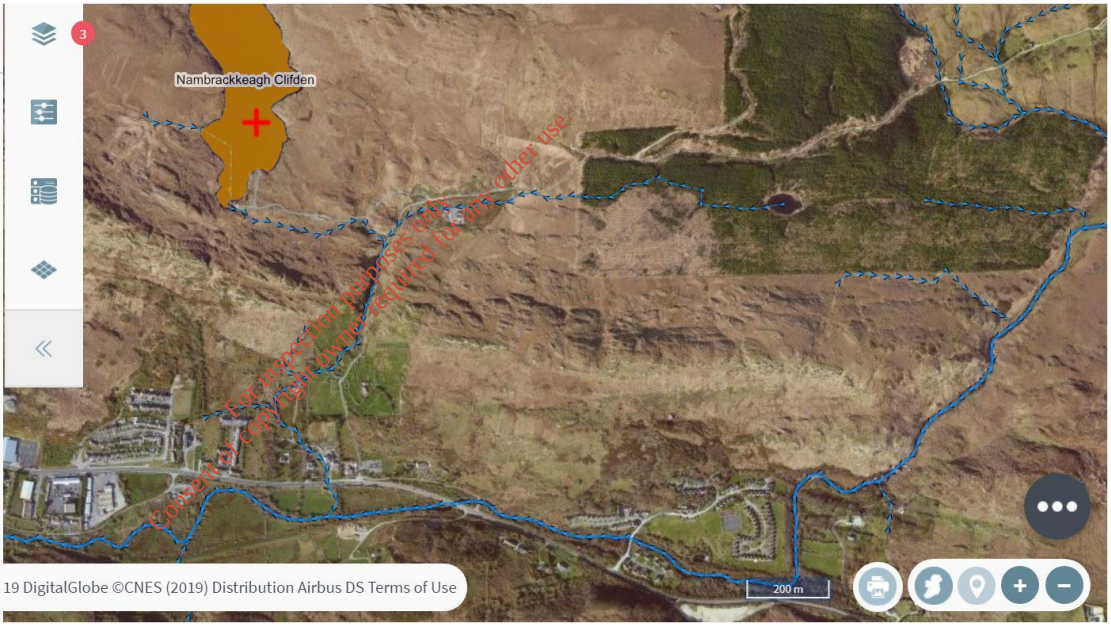
Keep Previous Results

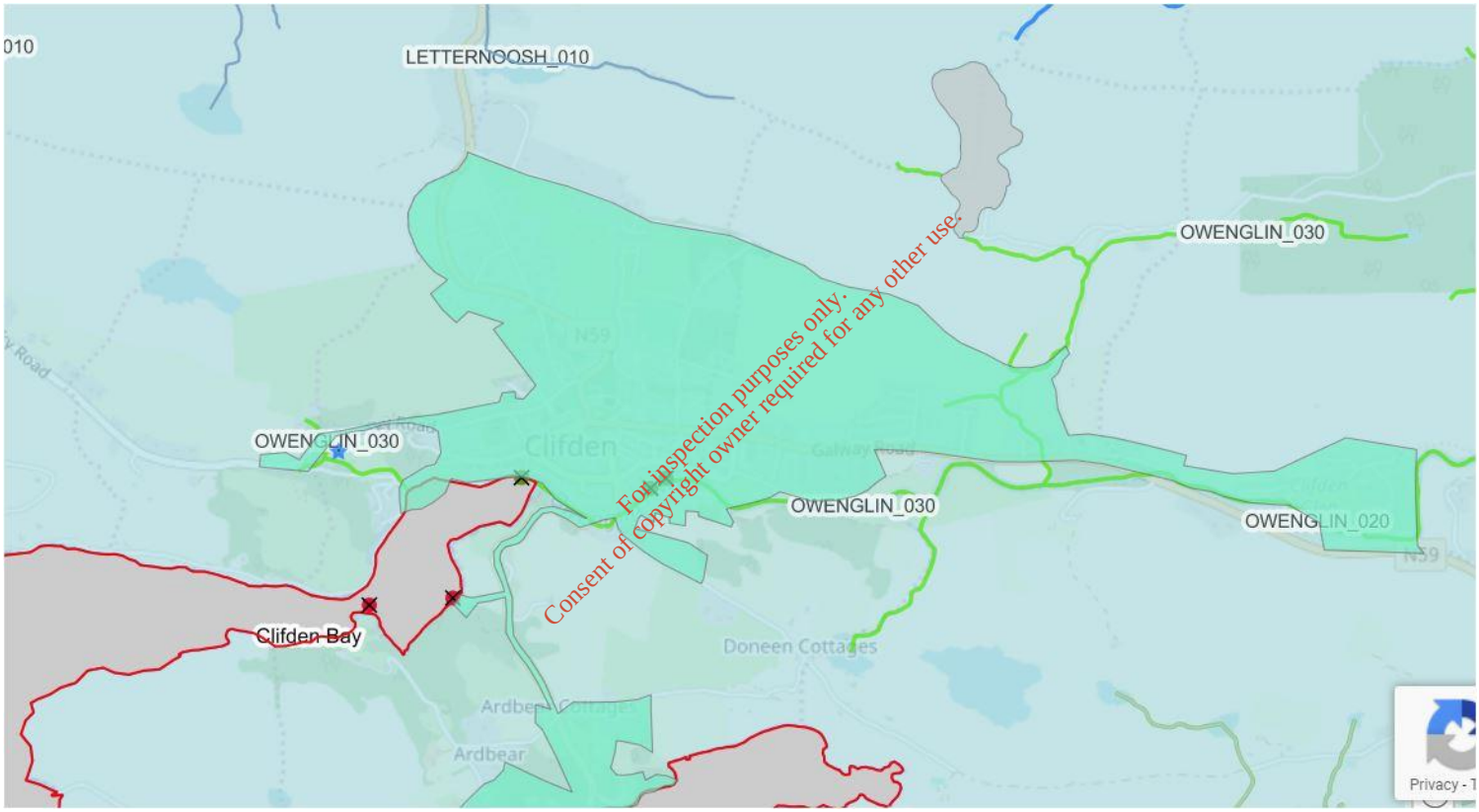
Lake Waterbodies Risk

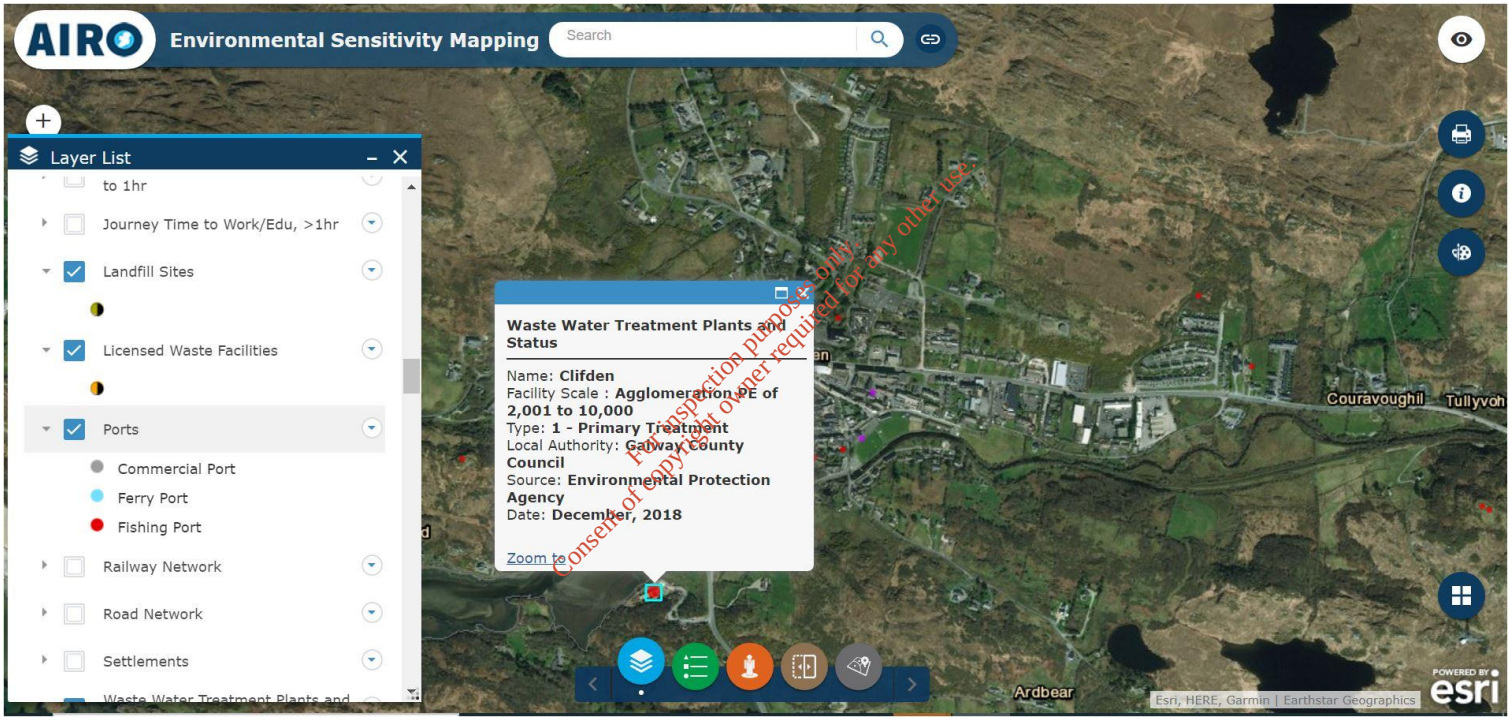
IE_WE_32_422

Code	IE_WE_32_422
Name	Nambrackkeagh Clifden
Projection	Review

EXPORT







APPENDIX 5

TABLE A5.1. RESULTS OF VOLATILE ORGANIC COMPOUND LABORATORY ANALYSIS ON SURFACE WATER SAMPLES TAKEN FROM SW1-SW7 AT TULLYVOGHEEN HISTORIC LANDFILL, TULLYVOGHEEN, CLIFDEN, COUNTY GALWAY ON 30TH SEPTEMBER, 2019

TABLE A5.2. RESULTS OF SEMI-VOLATILE ORGANIC COMPOUND LABORATORY ANALYSIS ON SURFACE WATER SAMPLES TAKEN FROM SW1-SW7 AT TULLYVOGHEEN HISTORIC LANDFILL, TULLYVOGHEEN, CLIFDEN, COUNTY GALWAY ON 30TH SEPTEMBER, 2019

TABLE A5.3. RESULTS OF ORGANO-PHOSPHORUS PESTICIDE LABORATORY ANALYSIS ON SURFACE WATER SAMPLES TAKEN FROM SW1-SW7 AT TULLYVOGHEEN HISTORIC LANDFILL, TULLYVOGHEEN, CLIFDEN, COUNTY GALWAY ON 30TH SEPTEMBER, 2019

TABLE A5.4. RESULTS OF ORGANOCHLORINE PESTICIDES AND ACID HERBICIDES LABORATORY ANALYSIS ON SURFACE WATER SAMPLES TAKEN FROM SW1-SW7 AT TULLYVOGHEEN HISTORIC LANDFILL, CLIFDEN, CO. GALWAY ON 30TH SEPTEMBER, 2019

TABLE A5.5. MAJOR ION BALANCE ON SURFACE WATER SAMPLES (SW1-SW7) TAKEN FROM ADJACENT STREAM AT TULLYVOGHEEN HISTORIC LANDFILL, CLIFDEN, COUNTY GALWAY.

Table A5.1. Results of Volatile Organic Compound laboratory analysis on Surface Water Samples taken from SW1-SW7 at Tullyvogheen Historic Landfill, Tullyvogheen, Clifden, County Galway on 30th September, 2019

Parameters	Units	Standards		Guidelines		Analytical Results						
		Dutch Criteria Level TV	Dutch Criteria Level IV	EPA Guideline Values - From Interim Report on 'Towards Setting Guideline Values for the Protection of Groundwater in Ireland' INTERIM GUIDELINE VALUES	EC Environmental Objectives (Groundwater Regulations) Statutory Instrument No. 9, 2010 THRESHOLD VALUES	WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
Dichlorodifluoromethane	mg/l	-	-	-	-	< 0.001	<0.001	<0.001	< 0.001	<0.001	<0.001	<0.001
Chloromethane	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl Chloride	mg/l	0.00001	0.00500	-	0.000375	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane	mg/l	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	mg/l	-	-	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	mg/l	0.00001	0.02000	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	mg/l	0.00001	0.01000	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	mg/l	0.00700	0.90000	0.03	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-butyl methyl ether	mg/l	-	9.20000	0.03	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	mg/l	0.00001	0.02000	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromochloromethane	mg/l	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	mg/l	0.00700	0.40000	0.003	0.00225	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1,1-Trichloroethane	mg/l	0.00001	0.30000	0.5	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Benzene	mg/l	0.00020	0.03000	0.001	0.00075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromomethane	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	mg/l	-	-	-		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	mg/l	0.02400	0.50000	0.07		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloromethane	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloromethane	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tribromomethane	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	mg/l	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
trans-1,3-Dichloropropene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	mg/l	0.00001	0.13000	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Toluene	mg/l	0.00700	1.00000	0.01	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichloropropane	mg/l	-	-	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Dibromochloromethane	mg/l	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,2-Dibromoethane	mg/l	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	mg/l	0.0000100	0.04000	0.002	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1,2-Tetrachloroethane	mg/l	-	-	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chlorobenzene	mg/l	0.0070000	0.18000	0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	mg/l	0.0040000	0.15000	0.01	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
p/m-Xylene	mg/l	0.00020	0.07000	0.01	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Styrene	mg/l	0.00600	0.30000	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
o-Xylene	mg/l	0.00020	0.07000	0.01	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichloropropane	mg/l	-	-	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Isopropylbenzene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromobenzene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Chlorotoluene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Propylbenzene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4-Chlorotoluene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trimethylbenzene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4-Isopropyltoluene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	mg/l	0.00300	0.05000	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	mg/l	0.00300	0.05000	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
sec-Butylbenzene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butylbenzene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	mg/l	0.00300	0.05000	0.003	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene	mg/l	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane	mg/l	-	-	-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2,4-Trichlorobenzene	mg/l	0.00001	0.01000	0.0004	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichlorobenzene	mg/l	0.00001	0.01000	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Hexachlorobutadiene	mg/l	-	-	0.0001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

553 — Values are underlined wherever Dutch-TV is exceeded

553 — Values are shaded yellow and in bold wherever Dutch-IV, EPA Interim Guideline Values or SI 9, 2010 Threshold Values are exceeded

\- — '-' = No Dutch TV or IV, EPA Interim Guideline Values or SI 9, 2010 Threshold Values available

Table A5.2. Results of Semi-volatile Organic Compound laboratory analysis on Surface Water Samples taken from SW1-SW7 at Tullyvogheen Historic Landfill, Tullyvogheen, Clifden, County Galway on 30th September, 2019

Parameters	Units	Standards		Guidelines		Analytical Results						
		Dutch Criteria Level TV	Dutch Criteria Level IV	EPA Guideline Values - From Interim Report on 'Towards Setting Guideline Values for the Protection of Groundwater in Ireland' INTERIM GUIDELINE VALUES	EC Environmental Objectives (Groundwater Regulations) Statutory Instrument No. 9, 2010. THRESHOLD VALUES	WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
Phenol	mg/l	0.20000	2.00000	0.00050	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methyl-4,6-Dinitrophenol	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Chlorophenol	mg/l	0.00030	0.10000	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dichlorophenol	mg/l	0.00020	0.03000	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dimethylphenol	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chloro-3-methylphenol	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4,6-Trichlorophenol	mg/l	0.00001	0.01000	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4,5-Trichlorophenol	mg/l	0.00001	0.01000	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pentachlorophenol	mg/l	0.00004	0.00300	0.00200	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methylphenol	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Methylphenol	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Nitrophenol	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Nitrophenol	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene	mg/l	0.00300	0.05000	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,4-Dichlorobenzene	mg/l	0.00300	0.05000	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichlorobenzene	mg/l	0.00300	0.05000	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2,4-Trichlorobenzene	mg/l	0.00001	0.01000	0.00040	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Nitrobenzene	mg/l	-	-	0.01000	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Azobenzene	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachlorobenzene	mg/l	0.00000009	0.00050	0.00003	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Acenaphthylene	mg/l	-	-	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Acenaphthene	mg/l	-	-	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Fluorene	mg/l	-	-	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pyrene	mg/l	-	-	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo(b)fluoranthrene	mg/l	-	-	0.00050	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Naphthalene	mg/l	0.00001	0.07000	0.00100	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Anthracene	mg/l	0.000007	0.00500	10.00000	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Phenanthrene	mg/l	0.000003	0.00500	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Fluoranthrene	mg/l	0.000003	0.00100	0.00100	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo(a)anthracene	mg/l	0.0000001	0.00050	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chrysene	mg/l	0.0000030	0.00020	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo(a)pyrene	mg/l	0.0000005	0.00005	0.00001	0.000000075	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo(ghi)perylene	mg/l	0.0000003	0.00005	0.00005	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo(k)fluoranthrene	mg/l	0.0000004	0.00005	0.00005	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Indeno(1,2,3-cd)pyrene	mg/l	0.0000004	0.00005	0.00005	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibenzo(a,h)anthracene	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Chloronaphthalene	mg/l	-	0.006	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methylnaphthalene	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Carbazole	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Isophorone	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibenzofuran	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dimethyl phthalate	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Diethyl phthalate	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Di-n-butylphthalate	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Di-n-octylphthalate	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-ethylhexyl)phthalate	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Butylbenzylphthalate	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chloroaniline	mg/l	-	0.030	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Nitroanaline	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3-Nitroaniline	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Nitroaniline	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Nitrosodimethylamine	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dinitrotoluene	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,6-Dinitrotoluene	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-chloroethyl)ether	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-Chloroisopropyl)Ether	mg/l					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Bromophenylphenylether	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chlorophenylphenylether	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachloroethane	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachlorobutadiene	mg/l	-	-	0.00010	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexchlorocyclopentadiene	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-chloroethoxy)methane	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-nitrosodi-n-propylamine	mg/l	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Notes:

553 — Values are underlined wherever Dutch-TV is exceeded

553 — Values are shaded yellow and in bold wherever Dutch-IV, EPA Interim Guideline Values or SI 9, 2010 Threshold Values are exceeded

\- — '-' = No Dutch TV or IV, EPA Interim Guideline Values or SI 9, 2010 Threshold Values available

Table A5.3. Results of Organo-phosphorus Pesticide laboratory analysis on Surface Water Samples taken from SW1-SW7 at Tullyvogheen Historic Landfill, Tullyvogheen, Clifden, County Galway on 30th September, 2019

Parameters	Units	SI 81, 1988 Water Quality (Human Consumption)	WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
ORGANOPHOSPHOROUS PESTICIDES									
Azinphos-ethyl	µg/l	0.0001							
Azinphos-Methyl	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Carbophenothion	µg/l	0.0001	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorfenvinphos	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Chlorpyriphos	µg/l	0.0001	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Demeton-S	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Diazinon	µg/l	0.0001	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlobenil	µg/l	1.0001	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorvos	µg/l	0.0001	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethoate	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Disulphoton	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Fenthion	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Parathion	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Phorate	µg/l	0.0001	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

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Notes:

Values are underlined wherever Dutch-TV is exceeded

Values are shaded yellow and in bold wherever Dutch-IV, SI No. 81 of 1988 MACs, SI No. 439 of 2000 Parametric Values or EPA Guideline Values are exceeded

-' signifies analysis not carried out on sample or no Dutch Criteria or EPA Guideline Value is available.

Table A5.4. Results of Organochlorine Pesticides laboratory analysis on Surface Water Samples taken from SW1-SW7 at Tullyvogheen Historic Landfill, Clifden, Co. Galway on 30th September, 2019

Parameters	Units	SI 81, 1988 Water Quality (Human Consumption)	Dutch Criteria Level TV	Dutch Criteria Level IV	WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
CHLORINATED PESTICIDES											
Chlordane-Alpha	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trifluralin	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Hexachlorobenzene	µg/l	0.1	-	-	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
alpha-HCH(Lindane)	µg/l	0.1	0.000033	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
beta-HCH(Lindane)	µg/l	0.1	0.000008	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
gamma-HCH(Lindane)	µg/l	0.1	0.000009	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
TOTAL HCH Compounds (sum of 3)			0.05	1	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**
Chlorothalonil	µg/l	0.1	-	-	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Heptachlor	µg/l	0.1	0.000005	0.3	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Heptachlor Epoxide	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
o,p'-DDE	µg/l	0.1	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p,p'-DDE	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
p,p'-TDE(DDD)	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
o,p'-TDE (DDD)	µg/l	0.1	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o,p'-DDT	µg/l	0.1	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p,p'-DDT	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
TOTAL DDD	µg/l	-	0.000000004	0.01	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**
Endosulfan I	µg/l	0.1	0.0000002	5	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Aldrin	µg/l	0.1	0.000000009	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Endrin	µg/l	0.1	0.0000001	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dieldrin	µg/l	0.1	0.00000004	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
TOTAL DRINS	µg/l	-	-	0.1	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**	**< 0.20**
Endosulfan II	µg/l	0.1	0.0000002	5	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Endosulfan Sulphate	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Methoxychlor	µg/l	0.1	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Notes:

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-	-' signifies analysis not carried out on sample or no Dutch Criteria or EPA Guideline Value is available.

Table A5.5. Major Ion Balance on Surface Water Samples (SW1-SW7) taken from Adjacent Stream at Tullyvogheen Historic Landfill, Clifden, County Galway.

		Cations				Anions			Balance			
Sample	Elec. Cond. (μScm^{-1})	Ca^{2+} (meq L^{-1})	Mg^{2+} (meq L^{-1})	Na^{+} (meq L^{-1})	K^{+} (meq L^{-1})	Cl^{-} (meq L^{-1})	SO_4^{2-} (meq L^{-1})	HCO_3^{-} (meq L^{-1})	$\sum^{+}$ (meq L^{-1})	$\sum^{-}$ (meq L^{-1})	% Ion Balance Error	pH
WA-SW1-01	96	0.39	0.18	0.96	0.01	1.02	0.00	0.68	1.55	1.70	-4.71	5.97
WA-SW2-01	96	0.55	0.20	0.78	0.03	0.96	0.03	0.87	1.55	1.86	-8.87	6.66
WA-SW3-01	4	0.48	0.17	0.70	0.02	0.79	0.00	0.78	1.37	1.57	-6.57	6.53
WA-SW4-01	0	0.45	0.17	0.70	0.02	0.76	0.00	0.73	1.34	1.49	-5.19	6.81
WA-SW5-01	-	0.48	0.19	0.74	0.02	0.82	0.00	0.78	1.43	1.59	-5.53	6.54
WA-SW6-01	-	0.00	0.11	0.35	0.00	0.65	0.00	0.00	0.45	0.65	-17.57	6.60
WA-SW7-01	47	0.00	0.11	0.35	0.00	0.42	0.05	0.00	0.46	0.47	-1.27	6.37

APPENDIX 6

RAW VALIDATED LABORATORY ANALYSIS REPORTS FROM CHEMTEST LTD. FOR SURFACE WATER

RAW VALIDATED LABORATORY ANALYSIS REPORTS FROM CLS LABORATORIES FOR SURFACE WATER ANALYSIS

RAW VALIDATED REPORT FROM CITY ANALYSTS LTD. (FILTRATION CERTIFICATE)

Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	19-32999-1
Initial Date of Issue:	11-Oct-2019
Client	MULROY ENVIRONMENTAL
Client Address:	30 Lisroland View Knockbridge Dundalk County Louth Ireland
Contact(s):	Andrena Meegan Padriac Mulroy
Project	CLIFDEN
Quotation No.:	Q19-18317
Order No.:	
No. of Samples:	14
Turnaround (Wkdays):	5
Date Approved:	11-Oct-2019

Date Received:	02-Oct-2019
Date Instructed:	02-Oct-2019
Results Due:	08-Oct-2019

Approved By:

Details: Ken Scally, Technical Director

Chemtest
The right chemistry to deliver results

Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL		**Chemtest Job No.:**			19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317		**Chemtest Sample ID.:**			898779	898780	898781	898782	898783	898784	898785	898786
Order No.:		Client Sample Ref.:										FILTERED WATER
		Client Sample ID.:			WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01	WA-SW1-01
		Sample Type:			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled ($):			30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Potassium/Sodium Ratio	N	1415		N/A	1/42.3	1/18.4	1/20.0	1/19.3	1/21.8	1/17.0	1/20.8	
Chlorfenvinphos	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Propetamphos	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
pH	U	1010		N/A	8.5	8.4	8.4	8.4	8.3	8.5	8.5	
Electrical Conductivity	U	1020	µS/cm	1.0	120	160	150	140	150	75	71	
Suspended Solids At 105C	U	1030	mg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Dissolved Oxygen	N	1150	mg O2/l	0.50	8.6	8.5	8.4	8.5	8.6	8.7	8.7	
Redox Potential	N	1170	mV	N/A	250	240	240	240	240	240	250	
Alkalinity (Total)	U	1220	mg/l	10	21	200	190	190	190	180	180	
Chloride	U	1220	mg/l	1.0	36	34	28	27	29	23	15	
Nitrite	U	1220	mg/l	0.020	0.30	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
Nitrate	U	1220	mg/l	0.50	< 0.50	< 0.50	< 0.50	18	4.8	1.1	< 0.50	
Phosphate as P	U	1220	mg/l	0.050	0.16	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
Sulphate	U	1220	mg/l	1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	2.3	
Cyanide (Total)	U	1300	µg/l	50.0	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
Sulphide	U	1325	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
Calcium	U	1415	mg/l	5.0	7.9	11	9.7	9.1	9.6	< 5.0	< 5.0	
Potassium	U	1415	mg/l	0.50	0.52	0.98	0.80	0.83	0.78	< 0.50	< 0.50	
Magnesium	U	1415	mg/l	0.50	2.2	2.4	2.1	2.1	2.3	1.3	1.3	
Sodium	U	1415	mg/l	0.50	22	18	16	16	17	8.0	8.1	
Total Hardness as CaCO3	U	1270	mg/l	15	29	37	33	31	33	< 15	< 15	
Arsenic (Dissolved)	U	1450	µg/l	1.0	1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2
Boron (Dissolved)	U	1450	µg/l	20	790	760	710	650	750	760	790	54
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	16	8.6	6.9	6.6	5.4	6.1	4.9	6.8
Copper (Dissolved)	U	1450	µg/l	1.0	66	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1
Iron (Dissolved)	N	1450	µg/l	20	2100	2300	1500	1100	1100	530	490	1700
Mercury (Dissolved)	U	1450	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Manganese (Dissolved)	U	1450	µg/l	1.0	1200	210	110	41	29	14	14	160
Nickel (Dissolved)	U	1450	µg/l	1.0	2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Antimony (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	µg/l	1.0	21	3.8	1.3	< 1.0	< 1.0	< 1.0	< 1.0	1.3
Zinc (Dissolved)	U	1450	µg/l	1.0	100	14	11	26	< 1.0	< 1.0	< 1.0	21
Chromium (Trivalent)	N	1490	µg/l	20								< 20
Chromium (Hexavalent)	U	1490	µg/l	20								< 20
Dissolved Organic Carbon	U	1610	mg/l	2.0	29	21	18	18	14	9.3	9.9	
Total Organic Carbon	U	1610	mg/l	2.0	31	23	19	18	15	9.8	11	
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

Chemtest
The right chemistry to deliver results

Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL					**Chemtest Job No.:**	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317					**Chemtest Sample ID.:**	898779	898780	898781	898782	898783	898784	898785	898786
Order No.:					Client Sample Ref.:								FILTERED WATER
					Client Sample ID.:	WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01	WA-SW1-01
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled ($):	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Chloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vinyl Chloride	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromomethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Chloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trichlorofluoromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
cis 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromochloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trichloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	
1,1,1-Trichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloropropene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Benzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trichloroethene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Dibromomethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Bromodichloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
cis-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Toluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trans-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	
1,1,2-Trichloroethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Tetrachloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3-Dichloropropane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Dibromochloromethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	
1,2-Dibromoethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Chlorobenzene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Ethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
m & p-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
o-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Styrene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tribromomethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Isopropylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,3-Trichloropropane	N	1760	µg/l	50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	
N-Propylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

Chemtest
The right chemistry to deliver results

Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL					**Chemtest Job No.:**	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317					**Chemtest Sample ID.:**	898779	898780	898781	898782	898783	898784	898785	898786
Order No.:					Client Sample Ref.:								FILTERED WATER
					Client Sample ID.:	WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01	WA-SW1-01
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled ($):	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
2-Chlorotoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
4-Chlorotoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tert-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Sec-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3-Dichlorobenzene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
4-Isopropyltoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,4-Dichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
N-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Hexachlorobutadiene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
N-Nitrosodimethylamine	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Phenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Chlorophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,3-Dichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,4-Dichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,2-Dichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Hexachloroethane	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Methylphenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Nitrobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Isophorone	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Nitrophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4-Dimethylphenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4-Dichlorophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Naphthalene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Chloroaniline	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Hexachlorobutadiene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	

Chemtest
The right chemistry to deliver results

Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL		**Chemtest Job No.:**			19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317		**Chemtest Sample ID.:**			898779	898780	898781	898782	898783	898784	898785	898786
Order No.:		Client Sample Ref.:										FILTERED WATER
		Client Sample ID.:			WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01	WA-SW1-01
		Sample Type:			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled ($):			30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	

Chemtest
The right chemistry to deliver results

Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL		**Chemtest Job No.:**			19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317		**Chemtest Sample ID.:**			898779	898780	898781	898782	898783	898784	898785	898786
Order No.:		Client Sample Ref.:										FILTERED WATER
		Client Sample ID.:			WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01	WA-SW1-01
		Sample Type:			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled ($):			30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Demeton-O	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Phorate	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Demeton-S	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Disulfoton	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Fenthion	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Trichloronate	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Prothiofos	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Fensulphothion	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Sulprofos	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Azinphos-Methyl	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Coumaphos	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Dimethoate	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Parathion	N	1820	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Diazinon	N	1820	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Carbophenothion	N	1820	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Ethion	N	1820	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Chlorpynifos	N	1820	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Dichlorvos	N	1820	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Simazine	N	1830	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Atrazine	N	1830	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Alpha-HCH	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Gamma-HCH (Lindane)	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Beta-HCH	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Delta-HCH	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Heptachlor	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Aldrin	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Heptachlor Epoxide	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Gamma-Chlordane	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Alpha-Chlordane	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Endosulfan I	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
4,4-DDE	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
2,4'-DDE	N	1840	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Dieldrin	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Endrin	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
4,4-DDD	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
2,4'-DDD	N	1840	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Endosulfan II	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Endrin Aldehyde	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	

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Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL		**Chemtest Job No.:**	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317		**Chemtest Sample ID.:**	898779	898780	898781	898782	898783	898784	898785	898786
Order No.:		Client Sample Ref.:								FILTERED WATER
		Client Sample ID.:	WA-SW1-01	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01	WA-SW1-01
		Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled ($):	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019

Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
4,4-DDT	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
2,4'-DDT	N	1840	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2,3,6-Trichlorobenzoic Acid	N	1840	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Diflurenican	N	1840	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Dichlobenil	N	1840	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Endosulfan Sulphate	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Methoxychlor	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Endrin Ketone	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Dalapon	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Trifluralin	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Toxaphene	N	1840	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Alachlor	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Trifluralin	N	1840	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Chlorothalonil	N	1840	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2,4-D	N	1930	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Dichlorprop	N	1930	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
MCPA	N	1930	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
MCPB	N	1930	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Mecoprop	N	1930	µg/l	0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	
2,4,5-T	N	1930	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	

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Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL			**Chemtest Job No.:**		19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317			**Chemtest Sample ID.:**		898787	898788	898789	898790	898791	898792
Order No.:			Client Sample Ref.:		FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER
			Client Sample ID.:		WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled ($):		30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Potassium/Sodium Ratio	N	1415		N/A						
Chlorfenvinphos	N	1820	µg/l	0.20						
Propetamphos	N	1820	µg/l	0.20						
pH	U	1010		N/A						
Electrical Conductivity	U	1020	µS/cm	1.0						
Suspended Solids At 105C	U	1030	mg/l	5.0						
Dissolved Oxygen	N	1150	mg O2/l	0.50						
Redox Potential	N	1170	mV	N/A						
Alkalinity (Total)	U	1220	mg/l	10						
Chloride	U	1220	mg/l	1.0						
Nitrite	U	1220	mg/l	0.020						
Nitrate	U	1220	mg/l	0.50						
Phosphate as P	U	1220	mg/l	0.050						
Sulphate	U	1220	mg/l	1.0						
Cyanide (Total)	U	1300	µg/l	50.0						
Sulphide	U	1325	mg/l	0.050						
Calcium	U	1415	mg/l	5.0						
Potassium	U	1415	mg/l	0.50						
Magnesium	U	1415	mg/l	0.50						
Sodium	U	1415	mg/l	0.50						
Total Hardness as CaCO3	U	1270	mg/l	15						
Arsenic (Dissolved)	U	1450	µg/l	1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Boron (Dissolved)	U	1450	µg/l	20	42	23	21	21	< 20	< 20
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	5.6	2.4	2.0	2.3	1.9	< 1.0
Copper (Dissolved)	U	1450	µg/l	1.0	6.2	2.6	1.2	1.3	< 1.0	< 1.0
Iron (Dissolved)	N	1450	µg/l	20	2500	1600	1200	1000	470	520
Mercury (Dissolved)	U	1450	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Manganese (Dissolved)	U	1450	µg/l	1.0	200	120	60	65	30	31
Nickel (Dissolved)	U	1450	µg/l	1.0	2.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Lead (Dissolved)	U	1450	µg/l	1.0	1.8	1.2	< 1.0	< 1.0	< 1.0	< 1.0
Antimony (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	µg/l	1.0	2.2	1.4	< 1.0	< 1.0	< 1.0	1.0
Zinc (Dissolved)	U	1450	µg/l	1.0	84	16	20	14	17	19
Chromium (Trivalent)	N	1490	µg/l	20	< 20	< 20	< 20	< 20	< 20	< 20
Chromium (Hexavalent)	U	1490	µg/l	20	< 20	< 20	< 20	< 20	< 20	< 20
Dissolved Organic Carbon	U	1610	mg/l	2.0						
Total Organic Carbon	U	1610	mg/l	2.0						
Dichlorodifluoromethane	U	1760	µg/l	1.0						

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Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL		**Chemtest Job No.:**	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317		**Chemtest Sample ID.:**	898787	898788	898789	898790	898791	898792
Order No.:		Client Sample Ref.:	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER
		Client Sample ID.:	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
		Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled ($):	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Chloromethane	U	1760	µg/l	1.0						
Vinyl Chloride	N	1760	µg/l	1.0						
Bromomethane	U	1760	µg/l	5.0						
Chloroethane	U	1760	µg/l	2.0						
Trichlorofluoromethane	U	1760	µg/l	1.0						
1,1-Dichloroethene	U	1760	µg/l	1.0						
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0						
1,1-Dichloroethane	U	1760	µg/l	1.0						
cis 1,2-Dichloroethene	U	1760	µg/l	1.0						
Bromochloromethane	U	1760	µg/l	5.0						
Trichloromethane	U	1760	µg/l	1.0						
1,1,1-Trichloroethane	U	1760	µg/l	1.0						
Tetrachloromethane	U	1760	µg/l	1.0						
1,1-Dichloropropene	U	1760	µg/l	1.0						
Benzene	U	1760	µg/l	1.0						
1,2-Dichloroethane	U	1760	µg/l	2.0						
Trichloroethene	N	1760	µg/l	1.0						
1,2-Dichloropropane	U	1760	µg/l	1.0						
Dibromomethane	U	1760	µg/l	10						
Bromodichloromethane	U	1760	µg/l	5.0						
cis-1,3-Dichloropropene	N	1760	µg/l	10						
Toluene	U	1760	µg/l	1.0						
Trans-1,3-Dichloropropene	N	1760	µg/l	10						
1,1,2-Trichloroethane	U	1760	µg/l	10						
Tetrachloroethene	U	1760	µg/l	1.0						
1,3-Dichloropropane	U	1760	µg/l	2.0						
Dibromochloromethane	U	1760	µg/l	10						
1,2-Dibromoethane	U	1760	µg/l	5.0						
Chlorobenzene	N	1760	µg/l	1.0						
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0						
Ethylbenzene	U	1760	µg/l	1.0						
m & p-Xylene	U	1760	µg/l	1.0						
o-Xylene	U	1760	µg/l	1.0						
Styrene	U	1760	µg/l	1.0						
Tribromomethane	U	1760	µg/l	1.0						
Isopropylbenzene	U	1760	µg/l	1.0						
Bromobenzene	U	1760	µg/l	1.0						
1,2,3-Trichloropropane	N	1760	µg/l	50						
N-Propylbenzene	U	1760	µg/l	1.0						

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Project: CLIFDEN

Client: MULROY ENVIRONMENTAL		**Chemtest Job No.:**			19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317		**Chemtest Sample ID.:**			898787	898788	898789	898790	898791	898792
Order No.:		Client Sample Ref.:			FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER
		Client Sample ID.:			WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
		Sample Type:			WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled ($):			30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
2-Chlorotoluene	U	1760	µg/l	1.0						
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0						
4-Chlorotoluene	U	1760	µg/l	1.0						
Tert-Butylbenzene	U	1760	µg/l	1.0						
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0						
Sec-Butylbenzene	U	1760	µg/l	1.0						
1,3-Dichlorobenzene	N	1760	µg/l	1.0						
4-Isopropyltoluene	U	1760	µg/l	1.0						
1,4-Dichlorobenzene	U	1760	µg/l	1.0						
N-Butylbenzene	U	1760	µg/l	1.0						
1,2-Dichlorobenzene	U	1760	µg/l	1.0						
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50						
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0						
Hexachlorobutadiene	U	1760	µg/l	1.0						
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0						
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0						
N-Nitrosodimethylamine	N	1790	µg/l	0.50						
Phenol	N	1790	µg/l	0.50						
2-Chlorophenol	N	1790	µg/l	0.50						
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50						
1,3-Dichlorobenzene	N	1790	µg/l	0.50						
1,4-Dichlorobenzene	N	1790	µg/l	0.50						
1,2-Dichlorobenzene	N	1790	µg/l	0.50						
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50						
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50						
Hexachloroethane	N	1790	µg/l	0.50						
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50						
4-Methylphenol	N	1790	µg/l	0.50						
Nitrobenzene	N	1790	µg/l	0.50						
Isophorone	N	1790	µg/l	0.50						
2-Nitrophenol	N	1790	µg/l	0.50						
2,4-Dimethylphenol	N	1790	µg/l	0.50						
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50						
2,4-Dichlorophenol	N	1790	µg/l	0.50						
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50						
Naphthalene	N	1790	µg/l	0.50						
4-Chloroaniline	N	1790	µg/l	0.50						
Hexachlorobutadiene	N	1790	µg/l	0.50						
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50						

Chemtest
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Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL				**Chemtest Job No.:**	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317				**Chemtest Sample ID.:**	898787	898788	898789	898790	898791	898792
Order No.:				Client Sample Ref.:	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER
				Client Sample ID.:	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
				Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
				Date Sampled ($):	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
2-Methylnaphthalene	N	1790	µg/l	0.50						
Hexachlorocyclopentadiene	N	1790	µg/l	0.50						
2,4,6-Trichlorophenol	N	1790	µg/l	0.50						
2,4,5-Trichlorophenol	N	1790	µg/l	0.50						
2-Chloronaphthalene	N	1790	µg/l	0.50						
2-Nitroaniline	N	1790	µg/l	0.50						
Acenaphthylene	N	1790	µg/l	0.50						
Dimethylphthalate	N	1790	µg/l	0.50						
2,6-Dinitrotoluene	N	1790	µg/l	0.50						
Acenaphthene	N	1790	µg/l	0.50						
3-Nitroaniline	N	1790	µg/l	0.50						
Dibenzofuran	N	1790	µg/l	0.50						
4-Chlorophenylphenylether	N	1790	µg/l	0.50						
2,4-Dinitrotoluene	N	1790	µg/l	0.50						
Fluorene	N	1790	µg/l	0.50						
Diethyl Phthalate	N	1790	µg/l	0.50						
4-Nitroaniline	N	1790	µg/l	0.50						
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50						
Azobenzene	N	1790	µg/l	0.50						
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50						
Hexachlorobenzene	N	1790	µg/l	0.50						
Pentachlorophenol	N	1790	µg/l	0.50						
Phenanthrene	N	1790	µg/l	0.50						
Anthracene	N	1790	µg/l	0.50						
Carbazole	N	1790	µg/l	0.50						
Di-N-Butyl Phthalate	N	1790	µg/l	0.50						
Fluoranthene	N	1790	µg/l	0.50						
Pyrene	N	1790	µg/l	0.50						
Butylbenzyl Phthalate	N	1790	µg/l	0.50						
Benzo[a]anthracene	N	1790	µg/l	0.50						
Chrysene	N	1790	µg/l	0.50						
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50						
Di-N-Octyl Phthalate	N	1790	µg/l	0.50						
Benzo[b]fluoranthene	N	1790	µg/l	0.50						
Benzo[k]fluoranthene	N	1790	µg/l	0.50						
Benzo[a]pyrene	N	1790	µg/l	0.50						
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50						
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50						
Benzo[g,h,i]perylene	N	1790	µg/l	0.50						

Chemtest
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Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL				**Chemtest Job No.:**	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317				**Chemtest Sample ID.:**	898787	898788	898789	898790	898791	898792
Order No.:				Client Sample Ref.:	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER
				Client Sample ID.:	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
				Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
				Date Sampled ($):	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
4-Nitrophenol	N	1790	µg/l	0.50						
Demeton-O	N	1820	µg/l	0.20						
Phorate	N	1820	µg/l	0.20						
Demeton-S	N	1820	µg/l	0.20						
Disulfoton	N	1820	µg/l	0.20						
Fenthion	N	1820	µg/l	0.20						
Trichloronate	N	1820	µg/l	0.20						
Prothiofos	N	1820	µg/l	0.20						
Fensulphothion	N	1820	µg/l	0.20						
Sulprofos	N	1820	µg/l	0.20						
Azinphos-Methyl	N	1820	µg/l	0.20						
Coumaphos	N	1820	µg/l	0.20						
Dimethoate	N	1820	µg/l	0.20						
Parathion	N	1820	µg/l	0.20						
Diazinon	N	1820	µg/l	0.50						
Carbophenothion	N	1820	µg/l	0.50						
Ethion	N	1820	µg/l	0.50						
Chlorpynifos	N	1820	µg/l	0.50						
Dichlorvos	N	1820	µg/l	0.50						
Simazine	N	1830	µg/l	0.20						
Atrazine	N	1830	µg/l	0.20						
Alpha-HCH	N	1840	µg/l	0.20						
Gamma-HCH (Lindane)	N	1840	µg/l	0.20						
Beta-HCH	N	1840	µg/l	0.20						
Delta-HCH	N	1840	µg/l	0.20						
Heptachlor	N	1840	µg/l	0.20						
Aldrin	N	1840	µg/l	0.20						
Heptachlor Epoxide	N	1840	µg/l	0.20						
Gamma-Chlordane	N	1840	µg/l	0.20						
Alpha-Chlordane	N	1840	µg/l	0.20						
Endosulfan I	N	1840	µg/l	0.20						
4,4-DDE	N	1840	µg/l	0.20						
2,4'-DDE	N	1840	µg/l	1.0						
Dieldrin	N	1840	µg/l	0.20						
Endrin	N	1840	µg/l	0.20						
4,4-DDD	N	1840	µg/l	0.20						
2,4'-DDD	N	1840	µg/l	1.0						
Endosulfan II	N	1840	µg/l	0.20						
Endrin Aldehyde	N	1840	µg/l	0.20						

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Results - Water

Project: CLIFDEN

Client: MULROY ENVIRONMENTAL		**Chemtest Job No.:**	19-32999	19-32999	19-32999	19-32999	19-32999	19-32999
Quotation No.: Q19-18317		**Chemtest Sample ID.:**	898787	898788	898789	898790	898791	898792
Order No.:		Client Sample Ref.:	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER	FILTERED WATER
		Client Sample ID.:	WA-SW2-01	WA-SW3-01	WA-SW4-01	WA-SW5-01	WA-SW6-01	WA-SW7-01
		Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled ($):	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019	30-Sep-2019
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
4,4-DDT	N	1840	µg/l	0.20						
2,4'-DDT	N	1840	µg/l	1.0						
2,3,6-Trichlorobenzoic Acid	N	1840	µg/l	5.0						
Diflurenican	N	1840	µg/l	5.0						
Dichlobenil	N	1840	µg/l	2.0						
Endosulfan Sulphate	N	1840	µg/l	0.20						
Methoxychlor	N	1840	µg/l	0.20						
Endrin Ketone	N	1840	µg/l	0.20						
Dalapon	N	1840	µg/l	0.20						
Trifluralin	N	1840	µg/l	0.20						
Toxaphene	N	1840	µg/l	10						
Alachlor	N	1840	µg/l	0.20						
Trifluralin	N	1840	µg/l	0.20						
Chlorothalonil	N	1840	µg/l	0.50						
2,4-D	N	1930	µg/l	0.50						
Dichlorprop	N	1930	µg/l	0.010						
MCPA	N	1930	µg/l	0.50						
MCPB	N	1930	µg/l	0.50						
Mecoprop	N	1930	µg/l	0.40						
2,4,5-T	N	1930	µg/l	0.50						

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1150	Dissolved Oxygen	Dissolved Oxygen (DO)	Electrometric determination (on site preferred), using oxygen sensitive membrane electrode.
1170	Redox Potential	Redox Potential	Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1820	Organophosphorus (O-P) Pesticides in Waters by GC-MS	Organophosphorus pesticide representative suite including Parathion, Malathion etc, plus client specific determinands	Solvent extraction / GCMS detection
1830	Organonitrogen (O-N) Pesticides in Waters by GC-MS	Organonitrogen pesticide representative suite including Triazines etc, plus client specific determinands	Solvent extraction / GCMS detection
1840	Organochlorine (O-Cl) Pesticides in Waters by GC-MS	Organochlorine pesticide representative suite including DDT and its metabolites, 'drins' and HCH etc, plus client specific determinands	Solvent extraction / GCMS detection
1890	Acid Herbicides	Acid Herbicides	Solvent extraction / Derivitisation / GCMS detection
1930	Determination of Acid Herbicides in Water by GC-MS	Determinands: Dichlorprop, MCPA, MCPB, Mecoprop, 2,4-D, 2,4,5-T	Extraction with dichloromethane followed by methylation using diazomethane. Derivatized extracts are examined and quantified by GC-MS using multiple ion detection with 2,4-Dichlorophenoxy-d3 acetic acid as an internal standard.

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Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
$	This information has been supplied by the client and can affect the integrity of test data.

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Complete Laboratory Solutions
[Tel] 091 574355
[Fax] 091 574356
[Email] services@cls.ie
[web] www.cls.ie

CERTIFICATE OF ANALYSIS

Client : Padraic Mulroy
Mulroy Environmental
30 Lisroland View
Knockbridge
Dundalk CO Louth

Report No. : 400211
Date of Receipt : 30/09/2019
Start Date of Analysis : 30/09/2019
Date of Report : 09/10/2019
Order Number :
Sample taken by : Client

Lab No	Sample Description	Test	Ref.	Result	Units
990576	Clifden WA-SW1-01	T.V.C. @ 22 (Pour Plate)	I, R	620	cfu/ml
		T.V.C. @ 37 (Pour Plate)	I, R	130	cfu/ml
		BOD	I, R	<1	mg/l
		COD	I, R	87	mg/l
		Ammonia as NH3-N	I, R	0.032	mg/l
		Ammonium as NH4	I, R	0.041	mg/l
		Clostridium Perfringens in Water	I, R	0	cfu/100ml
		Total Coliforms (Filtration) (Environmental Waters)	I, R	80 Result obtained at 1 in 10 dilution	cfu/100ml
		Enterococci (Waters- Incubated at 37°C and 44 °C)	I, R	0	cfu/100ml
		Faecal Coliforms Filtration	I, R	20 Result obtained from a 1 in 10 dilution	cfu/100ml

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 108T

Approved by:

AnnMarie Nee
Environmental
Services Administrator

See below for test specifications and accreditation status.
This report only relates to items tested and shall not be reproduced but in full with the permission of CLS.
0cfu is reported in waters, this refers to 'not detected in volume tested'
It is recommended that water samples requiring microbiological analysis should be tested within 24 hours of sampling.

Complete Laboratory Solutions,
Ros Muc, Connemara,
Co. Galway

Complete Laboratory Solutions,
MedPharma Division,
Unit 3a, Small Business Park, Mervue, Galway

Symbol Reference - I:17025 accredited; S:Subcontracted; R:Analysis carried out in Ros Muc; M:Analysis carried out in MedPharma

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In-House Test	Specification	17025	GMP/FDA*	ISO**
T.V.C. @ 22 (Pour Plate)	CLS 95	Yes	No	Yes
T.V.C. @ 37 (Pour Plate)	CLS 95	Yes	No	Yes
BOD	CLS 12	Yes	No	Yes
COD	CLS 52	Yes	No	Yes
Ammonia as NH3-N	Konelab CLS 40	Yes	No	Yes
Ammonium as NH4	Konelab CLS 40	Yes	No	Yes
Clostridium Perfringens in Water	CLS 43	Yes	No	Yes
Total Coliforms (Filtration) (Environmental Waters)	CLS 16	Yes	No	Yes
Enterococci (Waters- Incubated at 37°C and 44 °C)	CLS 42	Yes	No	Yes
Faecal Coliforms Filtration	CLS 16 based on The Microbiology of Recreational and Environmental Waters 2000	Yes	No	Yes

*Analysis carried out in a GMP approved, FDA inspected facility (MedPharma site only).
**Laboratory Analysis, Sampling, Food Safety Monitoring and Analysts on Contract are all ISO 9001 certified.

Lab No	Sample ID	Sample Condition on Receipt	Sampling Date
990576	Clifden WA-SW1-01	Good condition	30/09/2019

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Co. Galway

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[web] www.cls.ie

CERTIFICATE OF ANALYSIS

Client : Padraic Mulroy
Mulroy Environmental
30 Lisroland View
Knockbridge
Dundalk CO Louth

Report No. : 400212
Date of Receipt : 30/09/2019
Start Date of Analysis : 30/09/2019
Date of Report : 10/10/2019
Order Number :
Sample taken by : Client

Lab No	Sample Description	Test	Ref.	Result	Units
990577	Clifden WA-SW2-01	T.V.C. @ 22 (Pour Plate)	I, R	870	cfu/ml
		T.V.C. @ 37 (Pour Plate)	I, R	160	cfu/ml
		BOD	I, R	<1	mg/l
		COD	I, R	59	mg/l
		Ammonia as NH3-N	I, R	0.977	mg/l
		Ammonium as NH4	I, R	1.26	mg/l
		Clostridium Perfringens in Water	I, R	0	cfu/100ml
		Total Coliforms (Filtration) (Environmental Waters)	I, R	90 Result obtained from 1 in 10 dilution	cfu/100ml
		Enterococci (Waters- Incubated at 37°C and 44 °C)	I, R	1	cfu/100ml
		Faecal Coliforms Filtration	I, R	20 Result obtained from a 1 in 10 dilution	cfu/100ml

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 108T

Approved by:

AnnMarie Nee
Environmental
Services Administrator

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In-House Test	Specification	17025	GMP/FDA*	ISO**
T.V.C. @ 22 (Pour Plate)	CLS 95	Yes	No	Yes
T.V.C. @ 37 (Pour Plate)	CLS 95	Yes	No	Yes
BOD	CLS 12	Yes	No	Yes
COD	CLS 52	Yes	No	Yes
Ammonia as NH3-N	Konelab CLS 40	Yes	No	Yes
Ammonium as NH4	Konelab CLS 40	Yes	No	Yes
Clostridium Perfringens in Water	CLS 43	Yes	No	Yes
Total Coliforms (Filtration) (Environmental Waters)	CLS 16	Yes	No	Yes
Enterococci (Waters- Incubated at 37°C and 44 °C)	CLS 42	Yes	No	Yes
Faecal Coliforms Filtration	CLS 16 based on The Microbiology of Recreational and Environmental Waters 2000	Yes	No	Yes

*Analysis carried out in a GMP approved, FDA inspected facility (MedPharma site only).
**Laboratory Analysis, Sampling, Food Safety Monitoring and Analysts on Contract are all ISO 9001 certified.

Lab No	Sample ID	Sample Condition on Receipt	Sampling Date
990577	Clifden WA-SW2-01	Good condition	30/09/2019

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Co. Galway

Complete Laboratory Solutions,
MedPharma Division,
Unit 3a, Small Business Park, Mervue, Galway

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CERTIFICATE OF ANALYSIS

Client : Padraic Mulroy
Mulroy Environmental
30 Lisroland View
Knockbridge
Dundalk CO Louth

Report No. : 400213
Date of Receipt : 30/09/2019
Start Date of Analysis : 30/09/2019
Date of Report : 10/10/2019
Order Number :
Sample taken by : Client

Lab No	Sample Description	Test	Ref.	Result	Units
990578	Clifden WA-SW3-01	T.V.C. @ 22 (Pour Plate)	I, R	410	cfu/ml
		T.V.C. @ 37 (Pour Plate)	I, R	70	cfu/ml
		BOD	I, R	<1	mg/l
		COD	I, R	47	mg/l
		Ammonia as NH3-N	I, R	0.639	mg/l
		Ammonium as NH4	I, R	0.824	mg/l
		Clostridium Perfringens in Water	I, R	0	cfu/100ml
		Total Coliforms (Filtration) (Environmental Waters)	I, R	70 Result obtained at 1 in 10 dilution	cfu/100ml
		Enterococci (Waters- Incubated at 37°C and 44 °C)	I, R	1	cfu/100ml
		Faecal Coliforms Filtration	I, R	10 Result obtained from a 1 in 10 dilution	cfu/100ml

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 108T

Approved by:

AnnMarie Nee
Environmental
Services Administrator

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In-House Test	Specification	17025	GMP/FDA*	ISO**
T.V.C. @ 22 (Pour Plate)	CLS 95	Yes	No	Yes
T.V.C. @ 37 (Pour Plate)	CLS 95	Yes	No	Yes
BOD	CLS 12	Yes	No	Yes
COD	CLS 52	Yes	No	Yes
Ammonia as NH3-N	Konelab CLS 40	Yes	No	Yes
Ammonium as NH4	Konelab CLS 40	Yes	No	Yes
Clostridium Perfringens in Water	CLS 43	Yes	No	Yes
Total Coliforms (Filtration) (Environmental Waters)	CLS 16	Yes	No	Yes
Enterococci (Waters- Incubated at 37°C and 44 °C)	CLS 42	Yes	No	Yes
Faecal Coliforms Filtration	CLS 16 based on The Microbiology of Recreational and Environmental Waters 2000	Yes	No	Yes

*Analysis carried out in a GMP approved, FDA inspected facility (MedPharma site only).
**Laboratory Analysis, Sampling, Food Safety Monitoring and Analysts on Contract are all ISO 9001 certified.

Lab No	Sample ID	Sample Condition on Receipt	Sampling Date
990578	Clifden WA-SW3-01	Good condition	30/09/2019

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Complete Laboratory Solutions,
MedPharma Division,
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CERTIFICATE OF ANALYSIS

Client : Padraic Mulroy
Mulroy Environmental
30 Lisroland View
Knockbridge
Dundalk CO Louth

Report No. : 400214
Date of Receipt : 30/09/2019
Start Date of Analysis : 30/09/2019
Date of Report : 10/10/2019
Order Number :
Sample taken by : Client

Lab No	Sample Description	Test	Ref.	Result	Units
990579	Clifden WA-SW4-01	T.V.C. @ 22 (Pour Plate)	I, R	1,400	cfu/ml
		T.V.C. @ 37 (Pour Plate)	I, R	350	cfu/ml
		BOD	I, R	<1	mg/l
		COD	I, R	42	mg/l
		Ammonia as NH3-N	I, R	0.324	mg/l
		Ammonium as NH4	I, R	0.418	mg/l
		Clostridium Perfringens in Water	I, R	1	cfu/100ml
		Total Coliforms (Filtration) (Environmental Waters)	I, R	1,230 est Result obtained from 1 in 10 dilution	cfu/100ml
		Enterococci (Waters- Incubated at 37°C and 44 °C)	I, R	13	cfu/100ml
		Faecal Coliforms Filtration	I, R	670 Result obtained from a 1 in 10 dilution	cfu/100ml

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 108T

Approved by:

Ann Marie Nee

AnnMarie Nee
Environmental
Services Administrator

See below for test specifications and accreditation status.
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0cfu is reported in waters, this refers to 'not detected in volume tested'
It is recommended that water samples requiring microbiological analysis should be tested within 24 hours of sampling.

Complete Laboratory Solutions,
Ros Muc, Connemara,
Co. Galway

Complete Laboratory Solutions,
MedPharma Division,
Unit 3a, Small Business Park, Mervue, Galway

Symbol Reference - I:17025 accredited; S:Subcontracted; R:Analysis carried out in Ros Muc; M:Analysis carried out in MedPharma

Complete Laboratory Solutions
[Tel] 091 574355
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In-House Test	Specification	17025	GMP/FDA*	ISO**
T.V.C. @ 22 (Pour Plate)	CLS 95	Yes	No	Yes
T.V.C. @ 37 (Pour Plate)	CLS 95	Yes	No	Yes
BOD	CLS 12	Yes	No	Yes
COD	CLS 52	Yes	No	Yes
Ammonia as NH3-N	Konelab CLS 40	Yes	No	Yes
Ammonium as NH4	Konelab CLS 40	Yes	No	Yes
Clostridium Perfringens in Water	CLS 43	Yes	No	Yes
Total Coliforms (Filtration) (Environmental Waters)	CLS 16	Yes	No	Yes
Enterococci (Waters- Incubated at 37°C and 44 °C)	CLS 42	Yes	No	Yes
Faecal Coliforms Filtration	CLS 16 based on The Microbiology of Recreational and Environmental Waters 2000	Yes	No	Yes

*Analysis carried out in a GMP approved, FDA inspected facility (MedPharma site only).
**Laboratory Analysis, Sampling, Food Safety Monitoring and Analysts on Contract are all ISO 9001 certified.

Lab No	Sample ID	Sample Condition on Receipt	Sampling Date
990579	Clifden WA-SW4-01	Good condition	30/09/2019

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CERTIFICATE OF ANALYSIS

Client : Padraic Mulroy
Mulroy Environmental
30 Lisroland View
Knockbridge
Dundalk CO Louth

Report No. : 400215
Date of Receipt : 30/09/2019
Start Date of Analysis : 30/09/2019
Date of Report : 10/10/2019
Order Number :
Sample taken by : Client

Lab No	Sample Description	Test	Ref.	Result	Units
990580	Clifden WA-SW5-01	T.V.C. @ 22 (Pour Plate)	I, R	3,100	cfu/ml
		T.V.C. @ 37 (Pour Plate)	I, R	230	cfu/ml
		BOD	I, R	<1	mg/l
		COD	I, R	39	mg/l
		Ammonia as NH3-N	I, R	0.145	mg/l
		Ammonium as NH4	I, R	0.187	mg/l
		Clostridium Perfringens in Water	I, R	4	cfu/100ml
		Total Coliforms (Filtration) (Environmental Waters)	I, R	1,000est Result obtained from 1 in 10 dilution	cfu/100ml
		Enterococci (Waters- Incubated at 37°C and 44 °C)	I, R	23	cfu/100ml
		Faecal Coliforms Filtration	I, R	540 Result obtained from a 1 in 10 dilution	cfu/100ml

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 108T

Approved by:

AnnMarie Nee
Environmental
Services Administrator

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In-House Test	Specification	17025	GMP/FDA*	ISO**
T.V.C. @ 22 (Pour Plate)	CLS 95	Yes	No	Yes
T.V.C. @ 37 (Pour Plate)	CLS 95	Yes	No	Yes
BOD	CLS 12	Yes	No	Yes
COD	CLS 52	Yes	No	Yes
Ammonia as NH3-N	Konelab CLS 40	Yes	No	Yes
Ammonium as NH4	Konelab CLS 40	Yes	No	Yes
Clostridium Perfringens in Water	CLS 43	Yes	No	Yes
Total Coliforms (Filtration) (Environmental Waters)	CLS 16	Yes	No	Yes
Enterococci (Waters- Incubated at 37°C and 44 °C)	CLS 42	Yes	No	Yes
Faecal Coliforms Filtration	CLS 16 based on The Microbiology of Recreational and Environmental Waters 2000	Yes	No	Yes

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Lab No	Sample ID	Sample Condition on Receipt	Sampling Date
990580	Clifden WA-SW5-01	Good condition	30/09/2019

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CERTIFICATE OF ANALYSIS

Client : Padraic Mulroy
Mulroy Environmental
30 Lisroland View
Knockbridge
Dundalk CO Louth

Report No. : 400216
Date of Receipt : 30/09/2019
Start Date of Analysis : 30/09/2019
Date of Report : 10/10/2019
Order Number :
Sample taken by : Client

Lab No	Sample Description	Test	Ref.	Result	Units
990581	Clifden WA-SW6-01	T.V.C. @ 22 (Pour Plate)	I, R	1,200	cfu/ml
		T.V.C. @ 37 (Pour Plate)	I, R	100	cfu/ml
		BOD	I, R	<1	mg/l
		COD	I, R	25	mg/l
		Ammonia as NH3-N	I, R	<0.005	mg/l
		Ammonium as NH4	I, R	<0.01	mg/l
		Clostridium Perfringens in Water	I, R	12	cfu/100ml
		Total Coliforms (Filtration) (Environmental Waters)	I, R	220 Result obtained from 1 in 10 dilution	cfu/100ml
		Enterococci (Waters- Incubated at 37°C and 44 °C)	I, R	33	cfu/100ml
		Faecal Coliforms Filtration	I, R	80 Result obtained from a 1 in 10 dilution	cfu/100ml

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 108T

Approved by:

Ann Marie Nee

AnnMarie Nee
Environmental
Services Administrator

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In-House Test	Specification	17025	GMP/FDA*	ISO**
T.V.C. @ 22 (Pour Plate)	CLS 95	Yes	No	Yes
T.V.C. @ 37 (Pour Plate)	CLS 95	Yes	No	Yes
BOD	CLS 12	Yes	No	Yes
COD	CLS 52	Yes	No	Yes
Ammonia as NH3-N	Konelab CLS 40	Yes	No	Yes
Ammonium as NH4	Konelab CLS 40	Yes	No	Yes
Clostridium Perfringens in Water	CLS 43	Yes	No	Yes
Total Coliforms (Filtration) (Environmental Waters)	CLS 16	Yes	No	Yes
Enterococci (Waters- Incubated at 37°C and 44 °C)	CLS 42	Yes	No	Yes
Faecal Coliforms Filtration	CLS 16 based on The Microbiology of Recreational and Environmental Waters 2000	Yes	No	Yes

*Analysis carried out in a GMP approved, FDA inspected facility (MedPharma site only).
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Lab No	Sample ID	Sample Condition on Receipt	Sampling Date
990581	Clifden WA-SW6-01	Good condition	30/09/2019

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Customer

Andrena Meegan

Mulroy Environmental
30 Lisroland View
Knockbridge
Dundalk
Louth

Certificate Of Analysis

Job Number: 19-63570
Issue Number: 1
Report Date: 11 October 2019

Site: Clifden
PO Number: Not Supplied
Date Samples Received: 01/10/2019

Please find attached the results for the samples received at our laboratory on 01/10/2019.

Should you have any queries regarding the report or require any further services, we would be happy to discuss your requirements. For additional information about the company please log-on to our website at the above address.

Thank you for choosing City Analysts Limited. We look forward to assisting you again.

Authorised By: Shane Reynolds
Laboratory Manager

Authorised Date: 11 October 2019

Notes:

Results relate only to the items tested.
Information on methods of analysis and performance characteristics is available on request.
Any opinions or interpretations indicated are outside the scope of our INAB accreditation.
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Certificate Of Analysis

Customer

Andrena Meegan

Mulroy Environmental
30 Lisroland View
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Dundalk
Louth

Report Reference: 19-63570

Report Version: 1

Site: Clifden

Sample Description: WA-SW1-01

Sample Type: Misc

Lab Reference Number: 462195

Date of Sampling: 01/10/2019

Date Sample Received: 01/10/2019

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/	11/10/2019	Miscellaneous Testing	Complete	N/A	-

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Note:
PV Value is the parametric value, taken from European Communities, (Drinking Water) Regulations, 2014. S.I. No. 122 of 2014 and relates only to drinking water samples.
For queries on results, please contact us within two weeks of the report date to ensure that we can accommodate your query as samples cannot be stored indefinitely.
NAC & ATC - No abnormal change and acceptable to customers.
TVC - Total viable count
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Customer

Andrena Meegan

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Report Reference: 19-63570

Report Version: 1

Site: Clifden

Sample Description: WA-SW2-01

Sample Type: Misc

Lab Reference Number: 462196

Date of Sampling: 01/10/2019

Date Sample Received: 01/10/2019

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/	11/10/2019	Miscellaneous Testing	Complete	N/A	-

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Note:
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Report Reference: 19-63570

Report Version: 1

Site: Clifden

Sample Description: WA-SW3-01

Sample Type: Misc

Lab Reference Number: 462197

Date of Sampling: 01/10/2019

Date Sample Received: 01/10/2019

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/	11/10/2019	Miscellaneous Testing	Complete	N/A	-

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Note:
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Report Reference: 19-63570

Report Version: 1

Site: Clifden

Sample Description: WA-SW4-01

Sample Type: Misc

Lab Reference Number: 462198

Date of Sampling: 01/10/2019

Date Sample Received: 01/10/2019

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/	11/10/2019	Miscellaneous Testing	Complete	N/A	-

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Note:
PV Value is the parametric value, taken from European Communities, (Drinking Water) Regulations, 2014. S.I. No. 122 of 2014 and relates only to drinking water samples.
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Dundalk
Louth

Report Reference: 19-63570

Report Version: 1

Site: Clifden

Sample Description: WA-SW5-01

Sample Type: Misc

Lab Reference Number: 462199

Date of Sampling: 01/10/2019

Date Sample Received: 01/10/2019

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/	11/10/2019	Miscellaneous Testing	Complete	N/A	-

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Note:
PV Value is the parametric value, taken from European Communities, (Drinking Water) Regulations, 2014. S.I. No. 122 of 2014 and relates only to drinking water samples.
For queries on results, please contact us within two weeks of the report date to ensure that we can accommodate your query as samples cannot be stored indefinitely.
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Report Reference: 19-63570

Report Version: 1

Site: Clifden

Sample Description: WA-SW6-01

Sample Type: Misc

Lab Reference Number: 462200

Date of Sampling: 01/10/2019

Date Sample Received: 01/10/2019

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/	11/10/2019	Miscellaneous Testing	Complete	N/A	-

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Note:
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Louth

Report Reference: 19-63570

Report Version: 1

Site: Clifden

Sample Description: WA-SW7-01

Sample Type: Misc

Lab Reference Number: 462201

Date of Sampling: 01/10/2019

Date Sample Received: 01/10/2019

Site / Method Ref.	Analysis Start Date	Parameter	Result	Units	PV Value (Drinking Water Only)
D/	11/10/2019	Miscellaneous Testing	Complete	N/A	-

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Note:
PV Value is the parametric value, taken from European Communities, (Drinking Water) Regulations, 2014. S.I. No. 122 of 2014 and relates only to drinking water samples.
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